PLANNING BOARD
PORTSMOUTH, NEW HAMPSHIRE

EILEEN DONDERO FOLEY COUNCIL CHAMBERS
CITY HALL, MUNICIPAL COMPLEX, 1 JUNKINS AVENUE

7:00 PM Public Hearings begin **June 18, 2025**

AGENDA

REGULAR MEETING 7:00pm

I. APPROVAL OF MINUTES

A. Approval of the May 15, 2025 meeting minutes.

II. PUBLIC HEARINGS – NEW BUSINESS

The Board's action in these matters has been deemed to be quasi-judicial in nature. If any person believes any member of the Board has a conflict of interest, that issue should be raised at this point or it will be deemed waived.

A. The request of **Sea Level LLC (Owner),** for property located at **185-187 Wentworth House Road** requesting a Wetland Conditional Use Permit in accordance with Section 10.1017.50 for the required remediation of PCBs by the EPA and associated impacts within a tidal wetland and previously disturbed wetland buffer including removal of sediment from existing salt marsh. The project proposes to add 6" of sand with the addition of planting saltmarsh bulrush plugs and salt tolerant grass mix and adding boulder armoring and stone riprap for bank stability. Additional proposed impacts to the buffer include the removal of 0.5 cubic yards of soil in two different buffer locations with one of these areas proposed to be covered with a geotextile liner and 5,000 s.f. concrete cap. Said property is located on Assessor Map 201 Lot 12 and lies within the Single Residence B (SRB) and Waterfront Business (WB) Districts. (LU-25-2)

B. The request of **Jesse Warren Anderson (Owner),** for property located at **224 Cate Street** requesting an after-the-fact Wetland Conditional Use Permit for restoration work within the City's 100' wetland buffer for unauthorized removal of vegetation within the vegetated no-cut buffer and removal of the groundcover on portions of the property that were within the protected wetland buffer without a permit. Said property is located on Assessor Map 173 Lot 3 and lies within the General Residence A (GRA) District. (LU-25-26)

C. The request of **Strawbery Banke Inc. (Owner),** for property located at **65 Washington Street** requesting an amended Site Plan approval for drainage and stormwater improvements. Said property is located on Assessor Map 104 Lot 7 and lies within the Mixed Residential Office (MRO) and Historic Districts. (LU-25-63)

D. The request of **SLF Realty Group LLC (Owner),** for property located at **400 Spaulding Turnpike** requesting an amended Site Plan approval to change the temporary access path to a permanent access path. Said property is located on Assessor Map 238 Lot 2 and lies within the Gateway Corridor (G1) District. (LU-25-50)

E. The request of **SLF Realty Group LLC (Owner),** for property located at **400 Spaulding Turnpike** requesting an after-the-fact Wetland Conditional Use Permit for permanent wetland buffer impacts that were not included in the original wetland conditional use permit for this project. The new request is an increase in wetland buffer impacts from 1,644 square feet to 3,685 square feet. Said property is located on Assessor Map 238 Lot 2 and lies within the Gateway Corridor (G1) District. (LU-25-50)

F. **REQUEST TO POSTPONE** The request of **GIRI Portsmouth 505 Inc. (Owner),** for property located at **505 US Route 1 Bypass** requesting an amended Site Plan approval, and a Conditional Use Permit for Electric Vehicle fueling space B to install 4 EV fueling stations for 8 charging spaces. Said property is located on Assessor Map 234 Lot 5 and lies within the Gateway Corridor (G1) District. **REQUEST TO POSTPONE** (LU-25-66)

G. **REQUEST TO POSTPONE** The request of **GIRI Portsmouth 505 Inc. (Owner),** for property located at **505 US Route 1 Bypass requesting** a Wetland Conditional Use Permit in accordance with Section 10.1017.50. The project includes 1,434 square feet of impacts within the wetland buffer including 303 square feet of temporary impacts, 173 square feet of permanent impacts in the wetland buffer and 958 square feet conversion from pavement into grassed areas within the wetland buffer area. Said property is located on Assessor Map 234 Lot 5 and lies within the Gateway Corridor (G1) District. **REQUEST TO POSTPONE** (LU-25-66)

H. The request of **Brora LLC (Owner),** for property located at **0 Dunlin Way** requesting Design Review for the construction of three (3), six (6) story multifamily residential buildings consisting of approximately 270 dwelling units with associate site improvements. Said property is located on Assessor Map 213 Lot 12 and lies within the Office Research (OR) District and Gateway Neighborhood Overlay District (GNOD). (LUPD-25-6)

III. DESIGN REVIEW APPLICATION

A. **0 Dunlin Way** (*See Above)*

IV. CITY COUNCIL REFERRALS

A. Petition to Layout a New Public Highway – Coakley Road Extension

V. OTHER BUSINESS

A. 1035 Lafayette Rd – Requesting 1-Year extensions to the Site Plan Review, and Development Site, Density Bonus and Off-Street Parking Conditional Use approvals that were granted on August 15, 2024. (LU-24-92)

B. 806 US RT 1 Bypass – Requesting 1-Year extensions to the Site Plan, which was granted a second extension on June 20, 2024, and the amended Site Plan approval granted on the same date. (LU-22-81)

C. Chairman updates and discussion items

D. Board discussion of Regulatory Amendments & other matters

VI. 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_hOuHiBUWShSs0Vvpw2Us8Q

PLANNING BOARD
PORTSMOUTH, NEW HAMPSHIRE

EILEEN DONDERO FOLEY COUNCIL CHAMBERS
CITY HALL, MUNICIPAL COMPLEX, 1 JUNKINS AVENUE

7:00 PM Public Hearings begin **May 15, 2025**

MEMBERS PRESENT:	Rick Chellman, Chairman; Beth Moreau, City Councilor; Members Paul Giuliano, Andrew Samonas**,** William Bowen, Ryann Wolf, and Alternate Frank Perier
ALSO PRESENT:	Peter Stith, Planning Department Manager
MEMBERS ABSENT:	Anthony Coviello**,** Vice-Chair; Karen Conard, City Manager; Joseph Almeida, Facilities Manager

Chair Chellman called the meeting to order at 7:00 p.m. Alternate Frank Perier took a voting seat for the evening.

I. APPROVAL OF MINUTES

A. Approval of the **April 17, 2025** meeting minutes.

*Mr. Giuliano moved to **approve** the April 17 minutes as presented, seconded by Mr. Samonas. The motion **passed** with all in favor.*

II. DETERMINATIONS OF COMPLETENESS

SUBDIVISION REVIEW

A. The request of **The City of Portsmouth (Owner),** for property located at **100 Foundry Place.** The project is the subdivision of an existing parcel into five new parcels, with the existing structures to remain as currently existing, and no new construction proposed at this time.

*Mr. Giuliano moved to accept the subdivision review as complete. Mr. Bowen seconded. The motion **passed** with all in favor, with Councilor Moreau abstained.*

III. PUBLIC HEARINGS -- OLD BUSINESS

A. The request of **Aviation Avenue Group (Owner), Kane Management Group LLC (Applicant),** for property located at **100 New Hampshire Avenue** requesting Amended Site Plan approval to modify a prior condition of approval. Said property is

located on Assessor Map 308 Lot 1 and lies within the Pease Industrial (PI) District. (LU-22-210)

SPEAKING TO THE PETITION

[Video timestamp 6:43] Attorney John Bosen was present on behalf of the applicant, with Neil Hansen of Tighe and Bond. Attorney Bosen said the truck entrances were put in place because there was a different user at the time that had a higher traffic count. He said the property now had two users that would generate less traffic, noting that Georgia Pacific would manufacture goods in Newington and transport them to the site where they would be stored. He explained how it would be a more efficient route, with less traffic coming into the Tradeport. He noted that the Board had a letter from the Pease Development Authority (PDA) in support of the request.

[Timestamp 8:45] Mr. Bowen asked if the intent was to build out the other portion of the lot over time. Attorney Bosen said it was not. City Council Representative Moreau noted that it was supposed to be a furniture delivery stop spot. Attorney Bosen agreed and said the traffic count would have been a lot higher. Chair Chellman aside what the difference would be in the number of trucks. Mr. Hansen said it would about half as many at a total of 34 fewer truck trips per day.

Chair Chellman opened the public hearing.

SPEAKING TO, FOR, OR AGAINST THE PETITION

No one spoke, and Chair Chellman closed the public hearing.

DECISION OF THE BOARD

*Mr. Giuliano moved that the Board recommend approval of the request to remove the condition to the Pease Development Authority. Mr. Samonas seconded. The motion **passed** with all in favor.*

B. The request of **909 West End LLC (Owner),** for property located at **909 Islington St** requesting a Conditional Use Permit in accordance with Section 10.1112.62 to allow 98 parking spaces where 103 are required. Said property is located on Assessor Map 172 Lot 7 and lies within the Character District 4-W (CD4-W) (LU-24-221)

SPEAKING TO THE PETITION

[Timestamp 11:15] Project engineer John Chagnon of Haley Ward was present on behalf of the applicant, with Meghan Boland of Chinburg Properties. Mr. Chagnon said they were requesting 98 parking spaces where 103 spaces were required and that they also wanted to provide shared parking on an adjacent parcel. He said removing one of the spaces on 99 Islington Street due to the change in use for a restaurant triggered the need. He said they did calculations for the peak hour demand under Portsmouth's shared use table and found that the shared use highest peak was 103 spaces required and that they were providing 98 spaces. He said they worked with the Technical Advisory Committee (TAC) to improve the lot and provide additional handicapped

spaces. He said they submitted the Conditional Use Permit (CUP) portion of the ordinance requirements and did a parking demand analysis that showed that they were 94 percent conforming. He said they used Shared Occupancy rate and ITT standards and that they were in proximity to residential areas within walking distance and the COAST bus stop. He said the shared parking between daytime and evening would make it an acceptable amount of parking uses. He said they would add bicycle racks. He said the parking spaces were adequate, given the nature of the West End's parking habits. He said the applicant also owned the Frank Jones property that had a similar mix of restaurant and office uses and that the gross parking requirements at that facility had less spaces than the current application and that the square footage per space was higher in the current application.

[Timestamp 15:16] Mr. Bowen asked if the former gas station at 921 Islington Street in front of the applicant's property would also be a restaurant. Mr. Chagnon said it was planned to convert it to a restaurant but that it was not the subject of the current application. Mr. Bowen said he was thinking about a parking issue if there was another restaurant in that area. He said one of the items on the submitted spreadsheet was Dow's Automotive Repair that showed a requirement of three spaces in the evening and eight spaces during the day. He said the data shown in the parking analysis was based on studies done in Texas and Tennessee about 15-20 years ago, and he asked why that data was submitted instead of the data from what currently existed. He also noted that probably half of the cars in the lot related to Dow's and that many people left their cars overnight. He said Loaded Question Brewing was also on the site and had significant evening activity. He said what the applicant submitted did not seem to conform to the City's recommendation. Mr. Chagnon said the parking demand was based on three things, one of which was Portsmouth's parking demand in the ordinance and quantified some square foot requirements based on the use. He said the spreadsheet had the use of the gross floor area and met the code in the ordinance. He said the required parking per gross floor area calculated to 2.1 and came to 3 rounded up. He said the ITE (Institute of Traffic Engineers) was the standard that they used for the ITE parking demand, which he further explained. He said Portsmouth also had a Shared Occupancy Rate table and that the project took the Portsmouth rates times of 8 to 5 and 6 to midnight and then took the highest ITE number within that band, which resulted in an occupancy rate of 103 during the daytime peak. He noted that Dow's had a fixed number of 10 spaces that they were allowed to use. It was further discussed. Chair Chellman said the Brewery Lane comparison was local data and had 2,500 square feet more as well as five more parking spaces, and he asked what the occupancy ratio was. Mr. Chagnon said Brewery Lane had one space per 350 square feet. Chair Chellman said he was a member of ITE and that their database had voluntarily-submitted information from engineers around the country, which was the reason Texas and Tennessee were included. He said things like parking and the context of an area were not that different geographically.

Chair Chellman opened the public hearing.

SPEAKING TO, FOR, OR AGAINST THE PETITION

No one spoke, and Chair Chellman closed the public hearing.

DECISION OF THE BOARD

1) *Mr. Giuliano moved that the Board find that the Conditional Use Permit Application meets the requirements set forth in Section 10.1112.14 of the Ordinance and adopt the findings of fact as presented. Mr. Samonas seconded. The motion **passed** by a vote of 6-1, with Mr. Bowen voting against.*

2) *Mr. Giuliano moved that the Board grant the Conditional Use Permit with the following **condition**:*

   2.1) *The parking covenant shall be recorded at the Rockingham County Registry of Deeds.*

*Mr. Samonas seconded. The motion **passed** by a vote of 6-1, with Mr. Bowen voting against.*

IV. PUBLIC HEARINGS – NEW BUSINESS

A. Lawrence Brewer and **Joshua Ydstie (Owners**), for property located at **253 Broad Street** requesting a Conditional Use Permit from Section 10.814 for the construction of a new single-family dwelling with an Attached Accessory Dwelling Unit. Said property is located on Assessor Map 131 Lot 16 and lies within the General Residence A (GRA) District. (LU-25-54)

SPEAKING TO THE PETITION

[Timestamp 29:19] Architectural designer Angela Campbell was present on behalf of the applicant. She said the owner submitted an application for an Accessory Dwelling Unit (ADU) in October 203 and was granted a 7-ft side yard setback to allow them to put in a second driveway. She said they wanted to add a two-car garage and an ADU on the lower level for the owner's aging mother. She said the footprint was currently 1,500 square feet and they wanted to add another 1,000 square feet to it. She said there was an existing curb cut for a driveway that they wanted to shift to align with the proposed garage, and there was an existing curb cut that they wanted to reuse and have as a new driveway just for the ADU.

[Timestamp 32:15] Councilor Moreau said the applicant was tearing down what was there and starting over, and she asked if it was the current footprint. Ms. Campbell said it was not and explained why. She said since the time when they submitted the plan, they received the CAD survey plan, so they had a slight shift in the footprint of 24 inches.

Chair Chellman opened the public hearing.

SPEAKING TO, FOR, OR AGAINST THE PETITION

Dan Indoe of 239 Broad Street said he lived next door to the applicant and that he wrote a letter in 2023 in support of the 7-ft variance. He said he was in support of the new structure because it would be a nice upgrade to the neighborhood. He said he also supported the double driveway.

No one else spoke and Chair Chellman closed the public hearing.

DECISION OF THE BOARD [Timestamp 35:43]

*1) Councilor Moreau moved that the Board find that the Conditional Use Permit Application meets the requirements set forth in Section 10.814.62 of the Ordinance and adopt the findings of fact as presented. Mr. Samonas seconded. The motion **passed** with all in favor.*

*2) Councilor Moreau moved that the Board grant the Conditional Use Permit with the following **conditions**:*

2.1) Documentation of the conditional use permit approval shall be recorded at the Rockingham County Registry of Deeds, together with an affidavit that either the principal dwelling unit or the accessory dwelling unit will be occupied by the owner of the dwelling as the owner's principal place of residence, as required by Section 10.814.22.

2.2) A certificate of use issued by the Planning Department is required to verify compliance with the standards of this Section, including the owner occupancy and principal residency requirements. Said certificate shall be issued by the Planning Department upon issuance of a certificate of occupancy by the Inspection Department. A certificate of use shall not be issued prior to recording of documentation as required by this Ordinance.

2.3) The certificate of use shall be renewed annually upon submission of such documentation as the Planning Department may require to verify continued compliance with the standards of this Section. Failure to comply with this requirement shall be deemed a violation of the ordinance and may be enforced as provided in Article 2.

*Mr. Samonas seconded. The motion **passed** with all in favor.*

Councilor Moreau said she appreciated that the applicant was fitting the project into the footprint of what would be the existing house and thought it met all the criteria.

B. The request of **Brian Lampert Revocable Trust (Owner), Lexie's Joint (Applicant)**, for property located at **218 Islington Street** requesting a Conditional Use Permit in accordance with Section 10.440, Use 19.50 for an outdoor dining and drinking area as an accessory use to a permitted principal use. Said property is located on Assessor Map 137 Lot 21 and lies within the Character District 4-L2 (CD4-L2) and Historic District. (LU-25-64)

SPEAKING TO THE PETITION

[Timestamp 37:18] Danielle Damsell, General Manager of Lexie's Joint, was present. She said the outdoor summer seating was proposed to be at the front and left of the lot. She said they would have four top tables that would add 16 seats to the restaurant and that they would work on getting a liquor license to extend to the outdoor seating.

[Timestamp 38:10] Mr. Samonas asked if the seating would be just under the overhang and not in front of the restaurant itself. Ms. Damsell agreed and said it would be completely blocked off and that temporary ropes would be added to seal off the area. Councilor Moreau noted that there was another unit and asked if Lexie's would have the use of that one. Ms. Damsell said they would stay within their unit and that the owner of the other unit was in favor of Lexie's having the outdoor seating in the summer.

SPEAKING TO, FOR, OR AGAINST THE PETITION

Chair Chellman noted that the Board received one letter in support of the project. No one spoke, and he closed the public hearing.

DECISION OF THE BOARD

1) *Mr. Giuliano moved that the Board find that the Conditional Use Permit application meets the criteria set forth in Section 10.243.20 and to adopt the findings of fact as presented. Mr. Samonas seconded. The motion **passed** with all in favor.*

2) *Mr. Giuliano moved that the Board approve the Conditional Use Permit as presented. Mr. Samonas seconded. The motion **passed** with all in favor.*

C. The request of **The City of Portsmouth (Owner),** for property located at **100 Foundry Place**. The project is the subdivision of an existing parcel into five new parcels, with the existing structures to remain as currently existing, and no new construction proposed at this time. Said property is located on Assessor Map 138 Lot 60 and lies within the Downtown Overlay and Municipal (M) Districts. (LU-25-65)

SPEAKING TO THE PETITION

[Timestamp 41:20] Project engineer John Chagnon was present on behalf of the applicant, along with Director of the Department of Public Works (DPW) Peter Rice, John Quellette of Pinchen Environmental, and DPW project manager Christine Sproviero. Mr. Chagnon explained why they were there to request approval for a 5-lot subdivision. He said Lot 1 was the Rock St parking lot; Lot 2 was Foundry Place; Lot 3 was the parking garage lot; and Lot 4 was the Rock St parking area that included an area of the Foundry Place. He said Lot 5 was leftover land bounded by a retaining wall and that the purpose was to separate areas that were part of the Foundry Place Garage lot, which had restrictions based on historical uses at the site. He said if excavation was ever proposed, it would have to go through a rigorous environmental process. He said it separated the lots that were not germane to that treatment, which he named. He said the retaining wall on Lot 5 would need to be repaired, which would be more difficult if there had to be a lot of reporting under that area of use restriction requirements from the New Hampshire Department of Environmental Services (NHDES).

[Timestamp 46:00] Mr. Bowen said the Board had many meetings regarding 361 Hanover Street, Lot 5, and the wall. He asked if there was any implication for the 361 Hanover Street property. Mr. Rice said there was no connection to the proposed development at that site. He said the

intent was to separate that from the use restrictions and repair the wall and that it would be easier for Public Works to do maintenance. Mr. Quellette said that, as part of the remedial action plan they did for the property before it was built, there was a requirement at the end to do an Activity and Use Restriction, so they were shrinking up as much as possible the area that restricted them from developing the property going forward. He said the contamination that was defined on the property from the past were Lots 2 and 3. He said if anything were done to the other lots, it would have to go through a rigorous process with the State. He said the Activity and Use Restriction that they would submit to the State would go in as a draft so that there could be feedback from the State. Mr. Rice agreed, and it was further discussed.

Chair Chellman opened the public hearing.

SPEAKING TO, FOR, OR AGAINST THE PETITION

Mr. Chagnon said the State needed a definite area and currently the only one was Tax Map 138, Lot 60. He said the acquirement of that land was a number of different parcels and that it would be difficult to say which parcel had which deed, so the plan defined Lots 2 and 3.

No one else spoke, and Chair Chellman closed the public hearing.

DECISION OF THE BOARD

1) *Mr. Samonas moved that the Board grant Preliminary and Final Subdivision Approval with the following **conditions**:*

   1.1) The subdivision plan, and any easement plans and deeds shall be recorded simultaneously at the Registry of Deeds by the City or as deemed appropriate by the Planning Department.

   1.2) Property monuments shall be set as required by the Department of Public Works prior to the filing of the plat.

   1.3) GIS data shall be provided to the Department of Public Works in the form as required by the City.

*Mr. Giuliano seconded. The motion **passed** with all in favor, with Councilor Moreau recused.*

V. PRELIMINARY CONCEPTUAL CONSULTATION

A. The request of **Service Credit Union (Owner),** for property located at **126 Lang Road** requesting Site Plan approval for construction of workforce housing in two 70-unit apartment buildings, a 30-unit workforce housing building, a 30-unit veteran housing building with possible daycare on the first floor and 35 market rate townhomes in 5 buildings with associate site improvements. Said property is located on Assessor Map 291 Lot 1-1 and lies within the Gateway Corridor (G1) District. (LUPD-25-7)

[Timestamp 51:37] Attorney John Bosen was present on behalf of the applicant and introduced Mike Mulhern of Service Credit Union that owned the parcel, Alex Finigan of the Preservation of Affordable Housing, project engineer Nicole Duquette, and architect Alan Tang of PROCON. Attorney Bosen said the program involved a master plan and proposed 170 workforce housing units that would also include veteran housing, a potential nonprofit daycare center, and 24 market rate townhomes to help subsidize the project's affordability. He said the intent was to use the low income tax credit and that the application was due by the end of September, so they proposed to break up the project into two applications. He said the first application was for the 270 workforce units and the parking that would need to be approved to meet the September deadline. He said the second application would be the phase for the rest of the project.

[Timestamp 54:35] Project engineer Nicole Duquette explained the history of the lot, which used to be Ralph's Trucking. She said Ralph's left in 2010 and the credit union was planned. She said there was a lot of wetland on the parcel and that about 10-1/2 acres of it could be used and the rest would remain as wetlands and some debris. She reviewed the master plan and said there would be two 70-unit buildings, (Buildings A and B), with a parking lot and other parking that would comprise the first application for the low income housing tax credit. She said the second application would be the 30-unit veteran housing with a potential daycare and an expanded parking lot, and to the north would be a potential workforce housing building of 30 units with parking to the north, and five 7-unit market rate townhouse buildings. She discussed the community space, green space, courtyard, concrete areas, and walking trails. She reviewed the stormwater and bioretention area and said there were some ledge on the site as well as some unsuitable material that would have to be moved. She said there was no water line in front of the site and that they would connect the Longmeadow Rd lines onto Lang Rd. She said they met the parking demand and would see if they needed less parking for the 140 units.

[Timestamp 1:07:08] Mr. Samonas asked if the front-facing 70 units would be hidden by the credit union building that was visible from Route One. Ms. Duquette said it would be visible but that the grades would go up toward Lafayette Rd and the building would sit farther down than the credit union lot. Mr. Samonas asked why the southern side of the 30 workforce housing units did not sit parallel to the veteran housing instead of toward Lang Rd. Ms. Duquette said it was a bioretention area owned by the City as an easement and that they also had to stay out of the buffer. She said the intent was to have the parking lot built in Phase 1 so that it could be expanded in Phase 2 without the expense of tearing it up. Mr. Samonas asked if there was a second egress plan in Phase 2. Ms. Duquette said there wasn't one currently. Mr. Samonas asked if the circular pavement area in Phase 2 would be able to egress toward the townhomes onto Lang Rd, noting that there would be a lot of traffic congestion. Ms. Duquette said it wasn't planned but would be no different than what the credit union had for their parking lot and that they would have the same amount of parking spaces. She said they could consider having a secondary access but might not able to slope it down enough to do it.

[Timestamp 1:13:17] Mr. Giuliano said the south unit for the veteran housing was good but the ones above it were facing the parking lot. Ms. Duquette said the intent was to have a sidewalk in the Phase 2 that would continue the road for the townhouses and possibly add a bit of a buffer to make it feel like a neighborhood road. Councilor Moreau said she was excited about the project because it included workforce housing and that she liked the idea of having the building

perpendicular so that one would not see just two giant buildings from the street. She suggested having shared parking with the credit union so that there would be less parking lots. She said she liked the idea of having trails through the buffer. She suggested that the applicant think about different aspects of the green space and the daycare and possibly a playground for the kids to make it family friendly. She said the COAST bus stop should be brought up in the application and that bike racks would be a good idea. Mr. Bowen suggested that the architectural style of the project look like "Portsmouth" and said it was asked at the community meeting that the architect consider State Street as an example. He said the head of COAST bus service would decide what the bus routes would be and would do what he could to accommodate the project. He said he was a veteran and was concerned about veteran housing but did not think there was a real need for it in Portsmouth, and he suggested that the applicant ensure that it was necessary instead of just doing it because they thought they should.

[Timestamp 1:22:32] Ms. Wolf asked if child care numbers were included in the parking space calculations. Ms. Duquette said the maximum enrollment for the daycare would be about 75 children but that they had not analyzed the parking yet. Ms. Wolf asked what ages the children would be. Mr. Mulhern said they were looking at another nonprofit to run the childcare center, so it would start with infants and would fall into the nonprofit's existing portfolio of childcare. Ms. Wolf asked if the applicant planned on having playground structures. Mr. Mulhern said they hoped to have a playground. Ms. Wolf asked how the townhouse residents would feel about having a childcare center next to them. Mr. Mulhern said the top priority was workforce housing and affordable childcare and that they would analyze the risk. In response to other questions from Ms. Wolf, Mr. Mulhern said the childcare center would be on the first floor and that the second and third floors would be veteran housing. He said Service Credit Union would be responsible for security for the childcare center. It was further discussed. Mr. Perier asked how far the existing debris extended into the wetlands and how it would be removed. Ms. Duquette said it would be discussed with the Conservation Commission.

[Timestamp 1:31:45] Chair Chellman asked if there was an environmental reason for the delineation between Phase 1 and Phase 2 or if it encompassed the first two buildings. Ms. Duquette said the first application would not require a CUP for encroachment into the wetland buffer but the second application would. Chair Chellman asked if the 30-unit building by itself would. Ms. Duquette said it would not but that the driveway onto Lang Road would. Chair Chellman said he saw some design opportunities that the applicant could think about. He asked why the 30-unit building couldn't be brought down by wrapping another building to have a bigger central area with more common space. He said the current plan had a wasted triangular space and a building that fronted on parking with two sides. He said the buildings could be shifted around and that there was an opportunity for more usable space and more parking efficiency. It was further discussed. He said it was important that workforce housing provide dignity to its residents and that there was a tension between creating an economical design and something people would be proud to live there. He said the applicant had done a lot but thought he could do a bit more. Mr. Samonas said there was a short turn for people coming from Lang Road and asked if a stop bar could be put at the exit of the small turnaround. He said delivery and emergency vehicles would have to have access all the way across the Longmeadow Road entrance to the Lang Road corner. Ms. Duquette said they would discuss it with the City Traffic Engineer. She said a stop bar on Lang Road might cause people to look back instead of just

looking left and right. Mr. Samonas said Beechstone Apartments had four egress points and the applicant just had one. Ms. Duquette said a second driveway on the lot would require a variance. Mr. Samonas asked about trash pickup. Ms. Duquette said there would be dumpsters in the south lot and a striped area for UPS vehicles, U-hauls, etc. Mr. Bowen asked where Amazon deliveries would go. Ms. Duquette said each building would have its own package room.

VI. DESIGN REVIEW APPLICATION ACCEPTANCE

A. The request of **Brora LLC (Owner),** for property located at **0 Dunlin Way** requesting Design Review application for acceptance for the construction of three (3) six (6) story multifamily residential buildings consisting of approximately 270 dwelling units with associate site improvements. Said property is located on Assessor Map 213 Lot 12 and lies within the Office Research (OR) District and Gateway Neighborhood Overlay District (GNOD). (LUPD-25-6)

[Timestamp 1:40:45] Neil Hansen of Tighe and Bond and Kimery Poldrack of the Kane Company were present. Mr. Hansen said they wanted to return in June for a design review meeting. He noted that they submitted some updated site plans and detailed engineering plans.

[Timestamp 1:42:16] Chair Chellman asked what the parking numbers were and if they conformed to the CUP. Mr. Hansen said they were at 301 spaces and required 271. He said the plan had parking under Building C, and along the reconstructed frontage, there were 36 spaces that were not part of the count but would be utilized by site visitors. A possible parking deck was discussed. Mr. Hansen said they had parking under Building C but that a parking structure was not feasible for the project. Mr. Samonas asked if the parking arrangement could be done differently so that more recreational and green space could be added so that there wasn't a giant site of pavement. Mr. Hansen said 301 parking spaces for 274 units was already tight. He said they were utilizing the 20 percent public transit reduction, so they were lower than what would be required. He said the design would be refined further after more feedback. Chair Chellman suggested coordinating a site walk with the Conservation Commission, and it was further discussed. Mr. Hansen said they were trying to keep as big of a buffer as they could. Councilor Moreau recommended that the applicant discuss the project with the Dunlin Way residents. The barrier to Osprey Landing was discussed. Mr. Bowen asked what the traffic flow would be. Mr. Hansen said they would do a full traffic study. He said exiting through Dunlin Way would put someone into the Osprey Landing neighborhood, so it was not the most efficient way to leave the site. Mr. Bowen asked if Dunlin Way would be open or if the barrier would remain in place. Mr. Hansen said it would be up to the approval of TAC, the Fire Department, the Planning Board, and so on. Chair Chellman asked if it was a maximization of the site as far as density. Mr. Hansen said land-wise it was as much as they could fit in and that the parking was the limiting factor. Mr. Bowen asked if the applicant intended to do anything to differentiate the buildings architecturally from the other planned developments in Portsmouth to make the site more interesting. Mr. Hansen said their architect would speak to the design. Ms. Wolf said children might run through the parking lot and asked if there was anything to avoid that. It was further discussed, and Mr. Hansen said they would research it more when they got into the landscape design. Chair Chellman asked if there were amenities within the buildings. Ms. Poldrack said the first floor of Building B would have space for amenities like a possible gym and other things

normally in a multi-family project. She said they might do a play area on other nearby properties that they owned and that the applicant would also look into traffic calming. Chair Chellman asked if there would be a master plan at some point. Ms. Poldrack said they might do one in the future. Chair Chellman said it would be useful if the applicant shared broader ideas.

*Councilor Moreau moved that the Board accept the application for Design Review and schedule a public hearing at the June 18, 2025 Planning Board meeting. Mr. Samonas seconded. The motion **passed** with all in favor.*

VII. CITY COUNCIL REFERRALS

A. Islington and State Street Easements

[Timestamp 2:00:51] Mr. Stith said the easements were drainage ones in coordination with the work being done on Islington Street and that the work to secure easements across properties and connecting to State Street had been done.

*Mr. Giuliano moved that the Board recommend that the City Council accept the drainage easements on 547/549 State Street and 72, 86, and 96 Islington Street. Councilor Moreau seconded. The motion **passed** with all in favor.*

VIII. OTHER BUSINESS

A. Chairman Updates and Discussion Items

[Timestamp 2:02:33] Chair Chellman said he would let the Board know when the workshop discussion about the Master Plan would take place. He said the contract was signed. Mr. Stith said the City was having five weekly meetings with the consultants. He referenced two recent projects that had two driveways because of the large lots and said that the zoning ordinance had a section about driveways that met the standards for general access ways and driveway designs and stated that there could only be one driveway per lot. Chair Chellman said the Board would come up with a way to fix that, and it was further discussed.

B. Board Discussion of Regulatory Amendments & Other Matters

See above.

IX. ADJOURNMENT

The meeting adjourned at 9:05 p.m.

Submitted,

Joann Breault
Planning Board Meeting Minutes Taker

Findings of Fact | Wetland Conditional Use Permit
City of Portsmouth Planning Board

Date: June 18, 2025
Property Address: 185-187 Wentworth Road
Application #: LU-25-2
Decision: □ Approve □ Deny □ Approve with Conditions

Findings of Fact:

Per RSA 676:3, I: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of all conditions necessary to obtain final approval.

In order to grant Wetland Conditional Use permit approval the Planning Board shall find the application satisfies criteria set forth in the Section 10.1017.50 (Criteria for Approval) of the Zoning Ordinance.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	**Finding** **(Meets Criteria for Approval)**	**Supporting Information**
1	*1. The land is reasonably suited to the use activity or alteration.*	**Meets** **Does Not Meet**	A majority of this work is proposed for previously disturbed areas that need remediation done to remove contaminants from the wetland system. The existing salt marsh is not a suitable site for excavation work but the necessity of removing the PCBs and the associated replanting of the marsh should create a better outcome for the health of the wetland resource in this location if it can be properly maintained.
2	2. *There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.*	**Meets** **Does Not Meet**	This is EPA-mandated remediation work that must occur to reduce existing PCB levels on site. It cannot occur anywhere else outside of the buffer.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
3	*3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.*	**Meets** **Does Not Meet**	This proposal aims to remove existing toxins from the wetland and buffer system that currently exist and bring in clean topsoil and seed for the growth of the marsh. While the temporary impacts may be harmful, the outcome will create a healthier environment for all. To minimize impacts from construction, significant erosion controls are needed as part of this project.
4	*4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.*	**Meets** **Does Not Meet**	This remediation project only proposes the removal of vegetation to the extent necessary to remove the impacted soil and cap.
5	*5. The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.*	**Meets** **Does Not Meet**	This proposal appears to be the most efficient way to clean up the PCB contaminants currently in the soils of this wetland and buffer resource. Without remediation, this site will continue to be adversely impacted from the contaminants. The applicant should ensure that any contaminated soils are properly covered if left on site at any time during the project period or afterwards.
6	*6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.*	**Meets** **Does Not Meet**	While riprap is proposed for the bank immediately above the HOTL, the area between the bank and the proposed concrete cap will be loamed and hydroseeded as well as planted with a variety of trees and shrubs. The applicant should ensure that a wetland buffer seed mix is used through the 100' wetland buffer for seeding, not just wildlife-compatible mix.
7	**<u>Other Board Findings:</u>**		

May 20, 2025
File No. 2021-075

Peter Stith
Planning Manager
Planning & Sustainability Department
Rick Chellman, Chair
Portsmouth Planning Board
1 Junkins Ave, 3rd Floor
Portsmouth, NH 03801

Subject: 185-187 Wentworth Road, Portsmouth, NH
Wetlands Conditional Use Permit Application (WCUPA) LU-25-2
Marina Restoration Project

Dear Sirs:

On behalf of the Project Applicant/our client Sea Level LLC, Aries Engineering LLC is submitting this letter in hard copy and electronic copy for the subject project. The electronic copy will be uploaded to the portsmouthnh.portal.opengov.com. This letter is intended to supplement the CUPA, and consists of the following:

- Cover Letter to the Planning & Sustainability Department and Planning Board;
- Completed Wetlands CUPA Checklist, required since March 2025 for CUPA applications brought before the Planning Board;
- An Addendum, which identifies specific items in the CUPA originally submitted January 8, and supplemented through January 30, 2025, that have necessarily been modified to respond to a) a March 14, 2025 decision letter by the Conservation Commission, containing four (4) Stipulations; and b) a verbal request made by the Portsmouth Planning Board Technical Advisory Committee (TAC) at its May 6, 2025 meeting, to confirm that the location of the existing 15 inch diameter drainage pipe which traverses the property and discharges into the wetlands area, will not be covered by the proposed concrete cap. Each of these four Stipulations are specifically addressed below in narrative text and/or the attached Addendum with revised Engineering Sheets provided as needed. The location of the pipeline has been identified on revised Engineering Sheet 5 also attached, based on field geophysical investigation conducted by Aries/GPRS on May 15, 2025.

1. **Stipulation No. 1**. Applicant shall receive all necessary permissions from NHDOT and the contributing abutting landowners as applicable prior to plugging or abandoning any of the existing 15" drainage pipe. Further, please provide a drainage plan and calculation analysis for the rerouting of flow entering this pipe. This shall occur prior to Planning Board approval and may need review from TAC. Any proposed ground disturbance within a jurisdictional wetland or wetland buffer due to future rerouting or removal of the existing pipe shall require a separate wetland conditional use permit from the City.

   Applicant Response: This Stipulation will no longer apply because our team proposes to modify its design concept so that the existing drainage pipe will not be plugged or otherwise modified. Originally, our team was concerned that discharge flow and velocity from the pipe would negatively affect the proposed wetland grass plantings. However, a field review of the pipe inlet's relatively small surface service area and monitoring of the pipe's discharges after each significant March and April rainfall events have persuaded the Applicant that a negligible effect will result from this pipe on the area of future wetland grass plantings. March and April represent two of the five months sequentially with the highest average annual levels of precipitation, according to weather-and-climate.com.

2. **Stipulation No. 2**. All areas to be loamed and seeded shall receive a wetland buffer conservation seed mix or equivalent.

   Applicant Response: the CUPA has been modified to reflect this, see Addendum.

3. **Stipulation No. 3.** In accordance with Section 10.1018.40 of the Zoning Ordinance, applicant shall permanently install wetland boundary markers, which may be purchased through the City of Portsmouth Planning & Sustainability Department. Markers are to be placed along the edge of the gravel parking area near the restoration area at 50-foot intervals and must be installed prior to the start of any

construction.

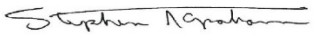
Applicant Response: These markers shall be installed upon completion of the proposed work, and the Addendum reflects this.

4. **Stipulation No. 4**. Applicant shall clearly delineate on the site plan and provide a detailed description of the proposed grassed swale. This should include dimensions, materials, depth, etc.

   Applicant Response: Revised Engineering Sheet 5, attached to Addendum, reflects this stipulation.

Please let us know if you have any questions.

Sincerely,
Aries Engineering, LLC



Stephen J. Graham, P.E.
Director of Engineering

Cc: Jay Johonnett, PE, Aries
Tom Reis, Sea Level LLC
Rick Kowalski, PG, Aries
Drew Olehowski, Haley & Ward
Sam Hayden, Haley & Ward

Attachments: Wetlands CUPA Checklist
CUPA Addendum
Haley and Ward Memorandum, April 29, 2025
Revised Engineering Sheet 5 & New Engineering Sheet 5A
Revised WPA Appendix J, Coastal Resource Worksheet, Part 4, Operations Monitoring and Maintenance Plan (OMMP), Attachment CC
Revised WPA Addendum S, Site Calculations
ConCom Letter, March 14, 2025
TAC Letter, May 8, 2025

City of Portsmouth, New Hampshire

Wetland Conditional Use Permit Application Checklist

This wetland conditional use permit application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Conservation Commission and Planning Board review. The checklist is required to be uploaded as part of your wetland conditional use permit application to ensure a full and complete application is submitted to the Planning and Sustainability Department and to the online portal. A pre-application conference with a member of the Planning and Sustainability Department is encouraged as additional project information may be required depending on the size and scope of the project. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all wetland conditional use permit requirements. Please refer to Article 10 of the City of Portsmouth Zoning Ordinance for full details.

Applicant Responsibilities: Applicable fees are due upon application submittal to the Planning Board (no fees are required for Conservation Commission submission). The application will be reviewed by Planning and Sustainability Department staff to determine completeness. Incomplete applications which do not provide required information for the evaluation of the proposed site development shall not be provided review by the Conservation Commission or Planning Board.

Name of Applicant: Sea Level, LLC Date Submitted: May 21, 2025

Application # (in City's online permitting): LU-25-2

Site Address: 185-187 Wentworth Rd, Portsmouth, NH Map: 201 Lot: 12

☑	Required Items for Submittal	Item Location (e.g. Page or Plan Sheet/Note #)
✔	Complete application form submitted via the City's web-based permitting program	OnLine Application (OA), 1-30-25 Cupa, Pg 4-5
✔	All application documents, plans, supporting documentation, this checklist and other materials uploaded to the application form in OpenGov in digital **Portable Document Format (PDF)**. One hard copy of all plans and materials shall be submitted to the Planning and Sustainability Department by the published deadline.	1-30-25 Cupa, Pg 5-6

☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
✔	Basic property and wetland resource information. **(10.1017.21)**	OnLine Application (OA), 1-30-25 Cupa, Pg 4-5
✔	Additional information required for projects proposing greater than 250 square feet of permanent or temporary impacts. **(10.1017.22)**	1-30-25 Cupa, Pg. 5
✔	Demonstrate impacts as they relate to the criteria for approval set forth in Section 10.1017.50 (or Section 10.1017.60 in the case of utility installation in a right-of-way). **(10.1017.23)**	1-30-25 Cupa, Pg 5-6
✔	Balance impervious surface impacts with removal and/or wetland buffer enhancement plan. **(10.1017.24)**	See 1-30-25 Cupa, Pg. 6

☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
✔	Wetland buffer enhancement plan. **(10.1017.25)**	1-30-25 Cupa, Pg. 6
✔	Living shoreline strategy provided for tidal wetland and/or tidal buffer impacts. **(10.1017.26)**	1-30-25 Cupa, Pg 6-7
✔	Stormwater management must be in accordance with Best Management Practices including but not limited to: *1. New Hampshire Stormwater Manual, NHDES, current version.* *2. Best Management Practices to Control Non-point Source Pollution: A Guide for Citizens and City Officials, NHDES, January 2004.* **(10.1018.10)**	1-30-25 Cupa, Pg 7
✔	Vegetated Buffer Strip slope of greater than or equal to 10%. **(10.1018.22)**	1-30-25 Cupa, Pg 7
✔	Removal or cutting of vegetation, use of fertilizers, pesticides and herbicides. **(10.1018.23/10.1018.24/10.1018.25)**	1-30-25 Cupa, Pg 7-8
✔	All new pavement within a wetland buffer shall be porous pavement. **(10.1018.31)**	1-30-25 Cupa, Pg 8
✔	An application that proposes porous pavement in a wetland buffer shall include a pavement maintenance plan. **(10.1018.32)**	1-30-25 Cupa, Pg 8
✔	Permanent wetland boundary markers shall be shown on the plan submitted with an application for a conditional use permit and shall be installed during project construction. **(10.1018.40)**	5-20-25 Ltr, Pg 1
☑	**Requested Items for Submittal**	**Item Location (e.g. Page or Plan Sheet/Note #)**
✔	A narrative/letter addressed to the Conservation Commission Chair (if recommended to Planning Board then an additional narrative addressed to the Planning Board Chair at that time) describing the project and any proposed wetland and/or wetland buffer impacts. Please visit the WCUP instruction page for further application instructions.	1-30-25 Cupa, Pg 1
✔	If New Hampshire Department of Environmental Services (NHDES) Standard Dredge and Fill Permit is required for this work, please provide this permit application at the same time as your submission for a Wetland Conditional Use Permit.	1-30-25 Cupa, Pg 1

Applicant's Signature: _____ **Date:** _____

ADDENDUM TO CUPA

This Addendum to the CUPA submitted January 8, 2025 and revised and resubmitted January 30, 2025 identifies information which supersedes in the specified sections below, the existing text or drawings in the existing CUPA. Page numbers refer to the number of the page of the pdf document.

Pg 2 Cover Letter, Page 2, Section 1.0, Item 2 F: Deleted, the stormwater discharge pipe will no longer be plugged.

Pg 2 Cover Letter, Page 2, Section 3.0, 2nd bullet, AND Pg 11 Wetland Permit Application (WPA) Pg 1, Section 2.0, Project Description, Item 2c; AND Pg 118 WPA Appendix J, Coastal Resource Worksheet, Section 1, Second Paragraph. After first sentence, add:

"Also, 260 SF of the 770 SF level upland graded areas from 11 to 14.5 ft elevation will after 6-inch soil cap installation, be covered by up to 15 inches of revetment, which is an erosion control stone of 6-inch diameter."

Pg 62 WPA Appendix E, Engineering Project Plans, Drawings & Sheets: Sheet 5 is now replaced, and is attached to this document. It has been changed to address the 4 Stipulations of ConCom's March 14, 2025 Letter and include the location of the existing 15 in diameter drainage pipeline. New Sheet 5A is also attached, which presents a new cross section detail of a portion of Sheet 5's Section B-B'. Note that for any site plan information differing between Sheets 5 and 7, Sheet 5 information will prevail. Both Sheets 5 and 5A have been stamped by the Applicant's NH Professional Engineer.

Pg 139 WPA Appendix J, Coastal Resource Worksheet, Part 3, change the sentence fragment "tall fescue…and birdsfoot trefoil" to "wetlands seed mix".

Pg 140 WPA Appendix J, Coastal Resource Worksheet, Part 3, Item 1. Change "4-8" to "11" CY.

Pg 148 WPA Appendix J, Coastal Resource Worksheet, Part 4, Operations Monitoring and Maintenance Plan, Pg 2, 2nd paragraph, Lines 4-5, substitute "south to north" for "east to west". In Line 5, after "via sheet flow to", delete rest of paragraph, and add "a revetment erosion control area consisting of 15 inches of 6-inch diameter stone which interfaces with the riprap rock/stone layer". The rationale for this change is that the underground stormwater retainage system proposed in the CUPA is no longer feasible nor required, due to a) unsuitable soils having been found in its proposed location from an April 2025 soil boring exploration by a NH-licensed Septic System Evaluator from Haley and Ward, civil engineers; b) the impact which would occur from installation of the proposed underground stormwater retainage system to the existing storm drain pipe, whose location was field determined in the soil boring program; and c) upon further evaluation by Haley and Ward to address stormwater requirements, the proposed alternative stormwater management approach (revetment) to handle runoff from the proposed 5,000 square foot concrete pad is practical and compliant with regulations.

Pg 155 WPA Appendix J, Coastal Resource Worksheet, Part 4, Operations Monitoring and Maintenance Plan (OMMP), 2nd bullet, Stormwater Collection System, is deleted.

Pg 164 WPA Appendix J, Coastal Resource Worksheet, Part 4, Operations Monitoring and Maintenance Plan (OMMP), in the OMMP Inspection Form, Attachment CC, second item, delete " Level Spreader (N & W End of Concrete Cap) And,"

Pg 165 WPA Appendix J, Coastal Resource Worksheet, Part 4, Operations Monitoring and Maintenance Plan (OMMP), 1st bullet, delete “Stormwater Packaged System. A revised OMMP Inspection Form, Attachment CC, is attached which supersedes the existing form.

Pg 243 WPA Appendix O, Attachment A, Major and Minor Projects, Section I.VI Floodplain Wetlands, Line 5. Delete “ Sheet flow runoff from the concrete cap will be controlled by two feet of 2 inch stone installed around south and west perimeter edge with underdrain routed to packaged underground stormwater treatment system to treat and intercept runoff directed from this 2% sloped pad, see Sheets 4 and 5”; and delete Line 9 “ Note that a 15 inch storm drain pipe discharging into this blind cove from the state/city roadways east of and outside the project area, will be capped with a 5 ft concrete plug, once the origin of that pipe is terminated by others and approved by regulators.”

Pg 249 Appendix P, Envt WT 311.06, ConCom Comments. Comments have been received on this WPA as noted in the Cover Letter, on March 14, 2025 from ConCom, and on May 8, 2025 from TAC, both attached.

Pg 258 Appendix S, Calculations. A revised sheet is attached here which supersedes the existing page of calculations.

HALEY WARD

MEMO

To: Tom Reis, Sea Level LLC
Stephen Graham, Aries Engineering LLC

From: **Drew Olehowski, PE**

Re: **185-187 Wentworth Road | Wetlands Conditional Use Permit Application, Marina Restoration Project, Stormwater Management Supplement**

Date: **April 9, 2025**

Haley Ward, Inc. (Haley Ward) has been retained by Aries Engineering LLC (Aries Engineering) and Sea Level LLC (Sea Level) to provide engineering design and permitting services related to stormwater management for the proposed 185-187 Wentworth Road Marina Restoration project. This memorandum is to be considered a supplement to the Wetlands Conditional Use Permit Application currently undergoing review by the City of Portsmouth Planning Department.

Per the letter sent from Kate Homet, Environmental Planner, and Petr Stith, Planning Manager, Chair of Technical Advisory Committee, to Sea Level dated February 21, 2025, it was identified that the proposed development triggers Site Plan review per Section 1.2.1 of the City's Site Plan Regulations. This letter explains further that Site Plan review is required due to the proposed rerouting of an existing city-owned storm drain, and the installation of a concrete cap. The Applicant is requesting an exemption from Site Plan review by way of being classified as a "small impact" development. On February 25, 2025, a letter was sent from Aries Engineering to the individuals identified above demonstrating why the "small impact" designation is applicable to the proposed development. This memorandum serves to bolster the justification provided for item 1.2.2(c) (an increase in the lot's impervious surfaces by 500 or more feet,) as well as to comment on the necessity for the development to adhere to the City's Stormwater Management Ordinances, specifically Section 2.5.4.3(i) and Section 7.0 of the Site Plan Regulations, should the "small impact" exemption not be granted.

As described in more detail within the Wetlands Conditional Use Permit Application (WCUP,) the project generally consists of the environmental remediation of the property located at 185-187 Wentworth Road (the "Site"). Other than remediation-specific activities, changes/ improvements to the Site are limited to the conversion of an approximately 5,000 square foot gravel boat storage pad to a concrete "cap." This cap will continue to be used for boat storage.

120 MAIN STREET, SUITE 132, SACO, ME 04072 207.283.9151 | HALEYWARD.COM

As mentioned above, this "alteration" triggers the need for Site Plan review. Applicable stormwater management standards of the Site Plan Ordinance include Section 2.5.4.3(i) and Section 7.0. Should the City uphold the applicability of the Site Plan Ordinance, a waiver for these stormwater-related sections would be requested. In general, the goal of these standards is to prevent adverse stormwater runoff impacts related to new development; these impacts may include flooding on abutting properties, degradation of the water quality of downstream waterways, or impacts to natural resources/groundwater. The nature of the proposed development makes any of these outcomes unlikely, for the following reasons:

1. There will be no significant increase in stormwater runoff volumes leaving the property. Runoff volumes are directly related to the "cover types" found on the Site. Under existing conditions, the subject area is entirely compacted gravel, which mimics an impervious surface. Haley Ward performed a test pit in the gravel area in April 2025 and found the soils to be generally impermeable. A copy of this test pit log is attached. Under proposed conditions, this gravel area will be converted to concrete, which is also an impermeable cover type. There is no discernable difference between compacted gravel and concrete as related to runoff volumes, especially for small sites such as this.
2. There will be no significant alterations in existing stormwater runoff flow paths, or resultant changes in "Summation points." Under existing conditions, the gravel pad generally slopes from south to north, generally with slopes between 0-7 percent. After sheeting over this pad for approximately 60 feet, the terrain steepens to a 1:1 slope along the bank of a wetland/Sagamore Creek. Under proposed conditions, the gravel pad will be replaced with a concrete pad which has been designed to mimic existing conditions. The concrete pad will pitch from south to north, at a flatter grade of 3%. Runoff will be maintained as sheet flow along this pad before discharging to the wetland side slopes, which we are proposing to stabilize via rip rap armoring. Overall, the drainage scheme is improved via this armoring, and a flattening of the Site's slope. The only summation point is the wetland to the north of the Site, which will remain unaltered.
3. The proposed use of this Site will remain unchanged from the existing conditions.
4. No salt is currently used on the Site, which will continue under the proposed conditions.

Haley Ward has carried out an initial investigation into what would be needed to satisfy the City's stormwater ordinances, should they apply, and a waiver not be granted. Due to Site constraints that include wetlands, resource buffers, undisturbed areas, and capped contamination areas, stormwater treatment Best Management Practices (BMP) would be limited to surface features with a small footprint in combination with underground detention systems. This type of BMP would be unfavorable due to the following:

1. Flow performing as "sheet" flow into adjacent wetlands would be captured and channelized via a structural BMP. Channelization of flow is more likely to result in erosion of downstream areas. In this case, the downstream areas are wetlands that we do not want to negatively impact. As mentioned above, the soils in this area are generally low-permeability and discharge from the BMP via infiltration is not an option.

2. There is an existing city-owned storm drain pipe in the most efficient stormwater treatment location. The use of a BMP in this area would require the City to relocate/modify their storm drain.
3. Potential disturbance of underground contaminated areas through the use of the needed underground detention system.

If you have any further comments or questions, please contact our office.

Sincerely,
Haley Ward, Inc.

Drew Olehowski, P.E.
Project Manager

DJO/jok
Attachment

FORM F Rev. 07/11a

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
185 Wentworth Road 5010185.2025		Portsmouth NH

Exploration Symbol # TP1

☒ Test Pit ☐ Boring ☐ Probe

0 " Organic horizon thickness Ground surface elev. ______

______ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Depth	Texture	Consistency	Color	Redox Features
0	Sand Fill, many angular cobbles throughout.	granular/friable	2.5Y 5/6	None
	loamy sand Fill, many angular cobbles throughout.	granular/friable	10YR 4/3	None
10	loamy sand Fill, many angular cobbles throughout.	granular/friable	2.5Y 5/6	None
20	gravely coarse sand Fill, many angular cobbles throughout.	granular/friable	10YR 3/6	None
30				
40				
45	Silt loam Possible fill from historic dredging of adjacent Sagamore Creek. groundwater table at 65". top of Stormwater drainage pipe at 46"	massive, firming	2.5Y 3/2	None
60				

Soil Details by

S.E.	Soil Classification		Slope	Limiting Factor	
	N/A (Profile)	N/A (Condition)	0-2 (Percent)	______ " (Depth)	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

S.S.	Soil Series/Phase Name:		Hydrologic Soil Group
	N/A	☐ Hydric ☒ Non-hydric	C

Exploration Symbol # ______

☐ Test Pit ☐ Boring ☐ Probe

______ " Organic horizon thickness Ground surface elev. ______

______ " Depth of exploration or to refusal

Depth	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by S.E.: Soil Classification ______ Profile ______ Condition; Slope ______ Percent; Limiting Factor ______ " Depth ☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

S.S.: Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric; Hydrologic ______ Soil Group

Exploration Symbol # ______

☐ Test Pit ☐ Boring ☐ Probe

______ " Organic horizon thickness Ground surface elev. ______

______ " Depth of exploration or to refusal

Depth	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by S.E.: Soil Classification ______ Profile ______ Condition; Slope ______ Percent; Limiting Factor ______ " Depth ☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

S.S.: Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric; Hydrologic ______ Soil Group

Exploration Symbol # ______

☐ Test Pit ☐ Boring ☐ Probe

______ " Organic horizon thickness Ground surface elev. ______

______ " Depth of exploration or to refusal

Depth	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by S.E.: Soil Classification ______ Profile ______ Condition; Slope ______ Percent; Limiting Factor ______ " Depth ☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

S.S.: Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric; Hydrologic ______ Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

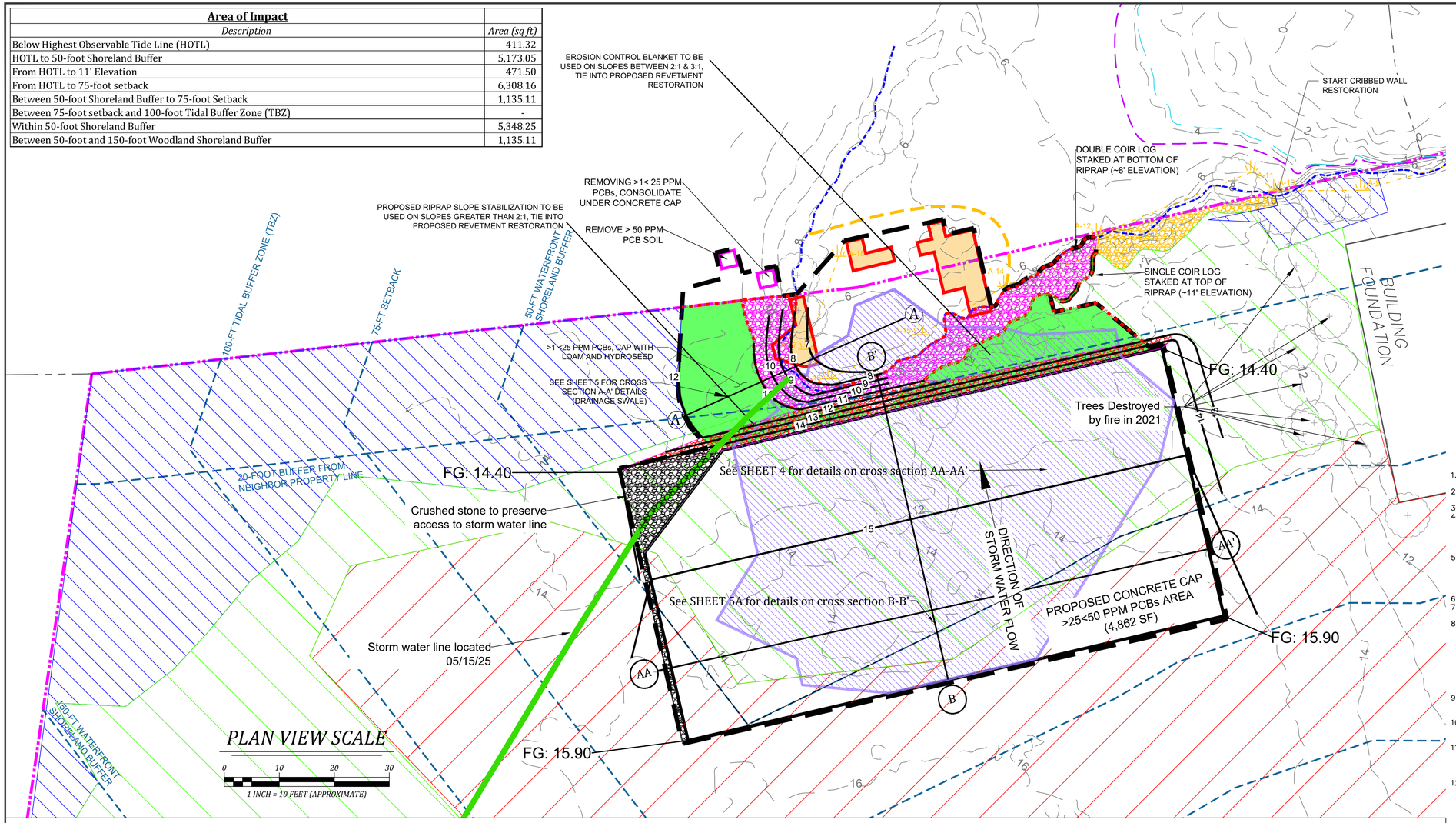
Signature: [signature]	Date: 4/4/2025
Name Printed: Sam Hayden PWS 321	Cert/Lic/Reg. #

Title: ☐ Licensed Site Evaluator ☐ Certified Soil Scientist ☐ Certified Geologist ☐ Professional Engineer

State of New Hampshire — Samuel Hayden — No. 321 — Certified Wetland Scientist — 4/4/25

affix professional seal

Area of Impact	
Description	*Area (sq ft)*
Below Highest Observable Tide Line (HOTL)	411.32
HOTL to 50-foot Shoreland Buffer	5,173.05
From HOTL to 11' Elevation	471.50
From HOTL to 75-foot setback	6,308.16
Between 50-foot Shoreland Buffer to 75-foot Setback	1,135.11
Between 75-foot setback and 100-foot Tidal Buffer Zone (TBZ)	-
Within 50-foot Shoreland Buffer	5,348.25
Between 50-foot and 150-foot Woodland Shoreland Buffer	1,135.11



LEGEND

EXISTING
- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- BUILDING FOUNDATION
- MEAN HIGH HIGH WATER (4.22 FT NAVD88)
- MEAN HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE BOUNDARY)
- WETLAND DELINEATION
- FORMER EXCAVATION AREA
- SHORELINE BUFFERS (LABELED IN SHEET)
- INTACT GRAVEL BOAT STORAGE AREA
- DEGRADED GRAVEL BOAT STORAGE AREA
- NATURAL WOODLAND AREA
- EXISTING RIPRAP
- TREE

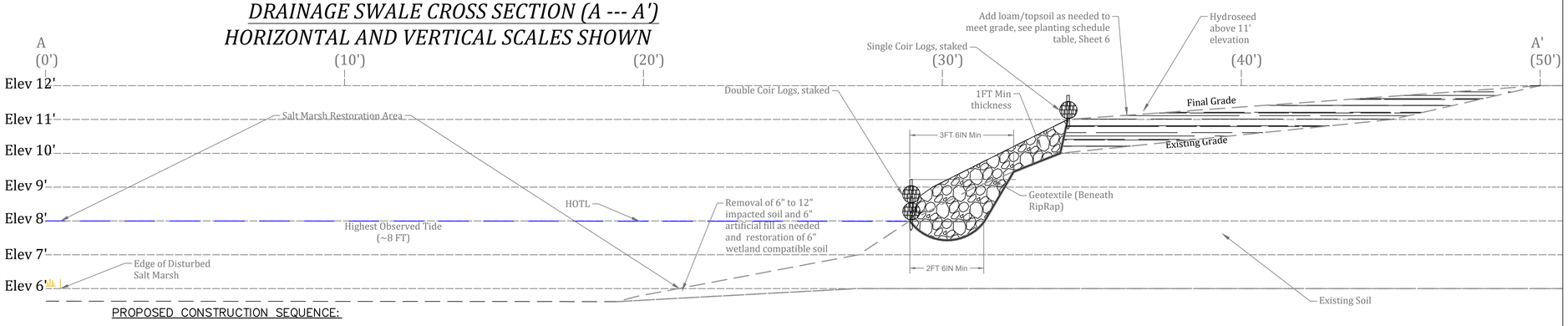
PROPOSED
- PROPOSED WORK LIMITS
- WETLAND REMEDIATION AREA >1<25 PPM PCBs, CONSOLIDATE UNDER CONCRETE CAP
- WETLAND RESTORATION AREA (175 SF)
- REMEDIATION AREA, SOIL REMOVAL >50 PPM PCBs
- SALT MARSH TO BE RESTORED IN 2016-2017 EXCAVATION (235 SF)
- FINAL ELEVATION CONTOUR (FT)
- CROSS SECTION
- UPLAND AREA REGRADE, ADD LOAM AND HYDROSEED RESTORATION (770 SF), PCBs >1<25 PPM
- MIXED STONE RIPRAP TO BE RESTORED
- REVETMENT, >15IN THICK STONE
- PROPOSED TURBIDITY SILT CURTAIN
- CONCRETE PAD DRAINAGE
- COIR LOGS STAKED

GENERAL PLAN NOTES:

1. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM 1983 (NAD83) NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM (NH ZONE 2800).
3. SURVEY UNITS: U.S. SURVEY FEET
4. BENCH MARK (BM) DATA: THE PRIMARY BM B–DOCK PAD SW LOCATED ON IN THE SW CORNER OF THE CONCRETE SLAB LEADING TO B–DOCK AT THE PORTSMOUTH MARINA. REFERENCE POSITION AND ELEVATION FOR THIS MONUMENT WERE OBTAINED VIA NGS OPUS BASED ON MULTIPLE LONG DURATION GNSS STATIC OBSERVATION SESSIONS.
5. SOUNDING DATA WERE OBTAINED ON JAN 28, 2017 BY SV ORION USING AN R2SONIC 2024 MULTIBEAM ECHOSOUNDER AND AN APPLANIX POSMV. DURING THIS SURVEY, AN RTK DGNSS BASE STATION WAS ESTABLISHED ON THE PRIMARY BM. FINAL POSITION AND ELEVATION DATA FOR THIS SURVEY WERE OBTAINED VIA POST–PROCESSING WITH POSPAC MMS. SOUNDING DATA ARE SHOWN AS NEGATIVE ELEVATION CONTOURS RELATIVE TO THE NAVD88 REFERENCE PLANE.
6. PHOTOGRAMTERIC TOPOGRAPHIC LIDAR BY NEAR VIEW, LLC 6/4/17 & 2/16/18
7. GENERAL SITE PLAN INFO IS BASED ON "CONDOMINIUM SITE PLAN FOR WITCH COVE MARINA CONDOMINIUMS" BY MSC CIVIL ENGINEERS AND LAND SURVEYORS, INC. DATED MAR 28, 2011.
8. WETLAND DELINEATION WAS DONE ON 8/7/2020 AND CHECKED IN 2022 BY SEEKAMP ENVIRONMENTAL CONSULTING, INC., PATRICK D. SEEKAMP NH CWS #128, TO THE STANDARDS OF "WETLANDS DELINEATION MANUAL" TECHNICAL REPORT Y–87–1 CORPS OF ENGINEERS, JANUARY, 1987 AND "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION," VERSION 2.0, U.S. ARMY CORPS OF ENGINEERS, JANUARY, 2012 AND SUBSEQUENT VERSIONS AND NH DES EN–WT 600 TIDAL RESOURCE DELINEATION METHODOLOGY. HOTL LIMITS ADJUSTED ACCORDING TO PRE–EXISTING LIMITS PRIOR TO INITIAL REMEDIATION WORK TO ALLOW FOR PRE–EXISTING TOE OF SLOPE LIMITS TO BE REESTABLISHED ON THE BANK.
9. WETLANDS DELINEATION SURVEY BY SUBSTRUCTURE, INC 08/10/2020 TRIMBLE R10 LOCATION POST PROCESSED KINEMATICS (PPK) UTILIZING TRIMBLE BUSINESS CENTER WITH BASE STATION CONTROL ON PRIMARY BM: B–DOCK–PAD–SW
10. THE INFORMATION DEPICTED ON THESE MAPS REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED, AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
11. ADDITIONAL SHORELINE AND FEDERAL CHANNEL LOCATIONS ARE BASED ON USACE DRAWING 'PORTSMOUTH HARBOR, BACK CHANNEL / SAGAMORE CREEK, DESIGN FILE: SAGHSP3.DGN, DRAWING CODE: SAG–2729" DATED AUG 7, 2013.
12. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) ZONE AE AND X AS DEPICTED ON MAP NUMBER 33015C0286F (SCALE 1"=500'), DATED JANUARY 29, 2021 FOR ROCKINGHAM COUNTY, NEW HAMPSHIRE.

GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
1 inch = 10 ft

DRAINAGE SWALE CROSS SECTION (A --- A')
HORIZONTAL AND VERTICAL SCALES SHOWN



PROPOSED CONSTRUCTION SEQUENCE:

1. INSTALL TREE PROTECTION AND EROSION CONTROL MEASURES (COIR LOGS) AT START OF HOTL WITHIN THE LIMIT OF WORK/DISTURBANCE (LOD).
2. CLEAR AND GRUB VEGETATION, EXCEPT TREES, IN THE LIMITS OF WORK, AS NEEDED; WOODY MATERIAL MAY BE CHIPPED / REUSED ON-SITE.
3. ONCE COMPLIANCE WITH TSCA REQUIREMENTS FOR REMOVAL OF CONTAMINANTS IS COMPLETE, BY REMOVING SIX (6) INCHES OF IMPACTED SEDIMENT, RESTORATION OF REMEDIATED SALT MARSH AREA OCCURS BY BACKFILLING WITH CLEAN MIXED SAND IN STAKED BURLAP BAGS TO A FINAL ELEVATION OF 6-FT TO MIMIC ADJACENT SALT MARSH ELEVATION AND THEN PLANTED ON 1-SQ. FT INTERVAL GRID WITH SALTMARSH BULRUSS (SCIRPUS ROBUSTUS). PLUG EXISTING 15-IN STORMWATER DISCHARGE PIPE WITH 5-FT CONCRETE, UPON REGULATORY APPROVAL.
4. PLACE GEOTEXTILE FROM ABOVE HOTL TO EXISTING ELEVATION 11-FT UNDER RIP RAP STONE AND ALSO UNDER REVETMENT STONE FROM 11 FEET TO NORTH EDGE OF CONCRETE CAP.
5. FROM THE HOTL, EMPLACE 4 TO 5-INCH DIAMETER ROUNDED STONE, AND RE-INSTALLED BOULDERS UP TO 4 FT DIAMETER, TO 11 FT ELEVATION TO PROVIDE EROSION CONTROL.
6. FILL ABOVE 11-FT MSL RIPRAP LINE AS NEEDED TO ACHIEVE 11 FT MSL, WITH 6 IN. OF CLEAN FILL TOPSOIL CAP WHERE INDICATED ON PLAN VIEW ABOVE.
7. INSTALL NEW CONCRETE PAD (5,000 SF) RUNOFF RELATIVELY FLAT SLOPE OF <2% DIRECTED TO NORTH.
8. INSTALL VEGETATION ACCORDING TO SHEET 6 (PLANTING PLAN).
9. ONCE AREA IS FULLY STABILIZED, REMOVE EROSION CONTROLS AND TREE PROTECTION.
10. DECONTAMINATE ALL EQUIPMENT AND HAND TOOLING AND VERIFY COMPLIANCE WITH TSCA 40 CFR 761.79(B)(3)(I), UNRESTRICTED USE USING WIPE SAMPLES AND SHOWING PCB LEVELS ARE LESS THAN 10 UG/100 CM2.
11. MINIMAL EROSION POTENTIAL EXISTS ABOVE ELEVATION 11 FT DUE TO RELATIVELY FLAT SLOPE (<4%) OR RUNOFF IS CONTROLLED WITH REVETMENT STONE AREA.

ARIES ENGINEERING
104 PLEASANT STREET
CONCORD, NH 03301
(603) 228-008
www.aries-eng.com

FINAL GRADING PLAN/SHORELINE STABILIZATION PLAN (WITH TIDAL SHORELINE STABILITY)

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	No.	Date	Revision Description
J. Drebaum	01	04/23/23	Revision
REVIEWED BY:	02	09/04/24	Revision
S. Graham	03	04/23/25	Proposed slope/elevation edits and Rip Rap Changes. Remove Treatment Proposal

Project #: 2021-075A
File:2021-075A(SS2)06-22

APRIL 24, 2023

SHEET 5

Jay P. Johonnett, P.E.

1 inch = 10 ft.

ARIES ENGINEERING
104 PLEASANT STREET
CONCORD, NH 03301
(603) 228-008
www.aries-eng.com

FINAL GRADING PLAN/SHORELINE STABILIZATION PLAN (WITH TIDAL SHORELINE STABILITY)

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	No.	Date	Revision Description
J. Drebaum	01	04/23/23	Revision
REVIEWED BY:	02	09/04/24	Revision
S. Graham	03	04/23/25	Proposed slope/elevation edits and Rip Rap Changes. Remove Treatment Proposal

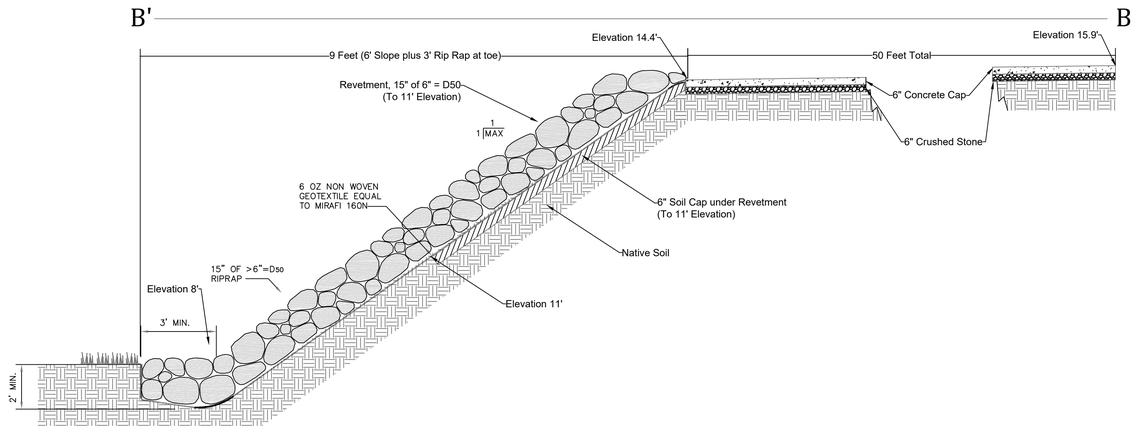
STATE OF NEW HAMPSHIRE - JAY P. JOHONNETT No. 14110 LICENSED PROFESSIONAL ENGINEER -

Jay P. Johonnett, P.E.

Project #: 2021-075A
File:2021-075A(SS2)06-22

APRIL 24, 2023

SHEET 5



RIP RAP AND REVETMENT SLOPE STABILIZATION DETAIL
NTS

ARIES ENGINEERING
104 PLEASANT STREET
CONCORD, NH 03301
(603) 228-008
www.aries-eng.com

FINAL GRADING PLAN/PAD GRADING DETAIL FOR RIPRAP AND REVETMENT

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	No.	Date	Revision Description
J. Drebaum			
REVIEWED BY:			
S. Graham			

Project #: 2021-075A
File:2021-075A(SS2)06-22

APRIL 23, 2025

SHEET 5A

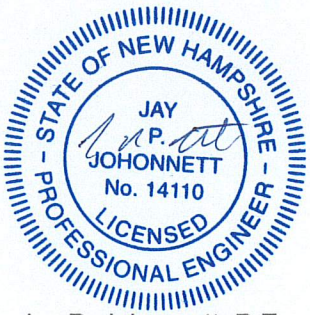
Jay P. Johonnett, P.E.

ARIES ENGINEERING
104 PLEASANT STREET
CONCORD, NH 03301
(603) 228-008
www.aries-eng.com

FINAL GRADING PLAN/PAD GRADING DETAIL FOR RIPRAP AND REVETMENT

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	No.	Date	Revision Description
J. Drebaum			
REVIEWED BY:			
S. Graham			



Jay P. Johonnett, P.E.

Project #: 2021-075A
File:2021-075A(SS2)06-22

APRIL 23, 2025

SHEET 5A

APPENDIX J, Part 4

ATTACHMENT CC

OPERATIONS MONITORING AND MAINTENANCE (OMM) PLAN

Inspection Checklist

Sea Level, LLC

185-187 Wentworth Rd, Portsmouth, NH

BMP / System	Minimum Inspection Frequency	Minimum Inspection Requirement	Maintenance Threshold	Inspection Completed? (yes/no)
Stabilized Construction Entrance	Quarterly	Inspect adjacent roadway for sediment tracking Inspect gravel stone for sediment accumulation	Sweep adjacent roadways as soon as sediment is tracked Top dress with additional stone when necessary to prevent tracking	
Concrete Cap (reinforced cement)	Quarterly	Inspect accumulated sediment level, rips, and tears; and concrete surfaces for spalling or cracks	Repair or replace damaged Sections of spreader or cap Remove and dispose of accumulated sediment once level reaches 1/3 of barrier height	
Gravel Base	Annually	Inspect gravel for ruts and depth	Replace gravel as necessary, regrade as necessary to maintain design grades, remove any accumulated gravel washed from roadway	
Litter/Trash Removal	Routinely	Inspect dumpsters, outdoor waste receptacles area, and yard areas.	Site will be free of litter/trash.	
Deicing Agents	**N/A**	**N/A**	Use agents approved by ConCom as the primary agent for roadway safety during winter.	

BMP / System	Minimum Inspection Frequency	Minimum Inspection Requirement	Maintenance Threshold	Inspection Completed? (yes/no)
Revetment	Annually	Check for sediment accumulation & clogging.	More than 12" sediment depth	
Grass Lined Drainage Swale, Final Cover Area (Low Occupancy)	Spring and Fall and after every 3" of rain or greater in a 24- hour period, as needed	Check for sediment buildup Check for damaged vegetation, re-seed as needed Inspect for erosion rills or channels .	Remove excess sediment and any trash/debris. Loss of vegetation > 10 % of Final Cover or Drainage Swale Loss of > 1 in of total 6 in Final Cover	
Annual Report	1 time per year	Submit Annual Report to EPA, Other agencies upon request	EPA Requirement	

Inspection Notes:

Inspector: _____

Date of Inspection: _____

Date of Repairs: _____

Repairs Verified By: _____

APPENDIX S Update 4/23/25

Portsmouth Marina

185-187 Wentworth House Road, Portsmouth, NH

Entity	SQFT		
Buildings	931.5		
	824.1		
	474.69		
	1136.6		
	4100		
	444.85		
	103.2		
	493.22		
	1001.19		
	182.5		
	95.16		
	4799.76		
Total	14586.77		

Entity	SQFT		
Pavement	2464.64	1189.32	
		1275.32	

Entity	SQFT		
Leachfield	6684.72		
Other Permeable Surfaces (Lawn etc)	14401.8899	5036.8111	
		2015.4271	
		2405.6524	
		3441.3926	
		1204.2673	
		298.3394	
Property Boundary Area as shown in CAD File	131660.4931		3.022497
Gravel, Intact Gravel, Degraded Gravel, Riprap, Current Rip Rap, Woodland, Buldings, Pavement, Permeable Areas	130603.4586		
Remaining SQFT = Water+ Saltmarsh areas	1057.0345		

Entity	SQFT		
Salt Marsh Restoration	236.12		
Future RipRap*	432.629		
Current RipRap	130.455		
Future Revetment	304.093		
Upland Area Regrade	773.34	409.77	
		363.57	
Wetland Restoration	175.2		
Proposed Concrete	5000		
Concrete Drainage	63.32		
Intact Gravel (Red Hatch)	35006.8907	29126.6909	
		5880.1998	
Degraded Gravel (Green Hatch)	14557.6824		
Gravel Drive (Black Dots)	31973		
Woodland Blue Hatch	10364.7816	4210.3537	
		213.739	
		5940.6889	
Area Outside of 50' Offset (Part of Concrete and Gravel)	1135.11		

Sheet 5 Calcs

Below HOTL	411.32
Hotl to 50' (Rip, Regrade, Cncrete, Drain, - Area Outside	5134.179
HOTL to 11' Elev (RipRap only)	432.629
HOTL to 75' Setback (Rip, Regrade, Cncrete, Drain)	6269.289
50' to 75' Setback (Part of Concrete and Drain)	1135.11
Within 50' Buffer (All above except 50-75 and Salt Marsh Restore	5309.379
Between 50 and 150	1135.11

Note: Tax map says property = 3.07 acres

*Proposed Rip Rap number lowered by Approximately 30 SF, replaced by part of Proposed Revetment SF

CITY OF PORTSMOUTH
Planning & Sustainability Department
1 Junkins Avenue
Portsmouth, New Hampshire 03801
(603) 610-7216

CONSERVATION COMMISSION

March 14, 2025

Sea Level LLC
P.O. Box 4094
Portsmouth, New Hampshire 03801

RE: WCUP request for property located at 187 Wentworth House Road, Portsmouth, NH (LU-25-2)

Dear Property Owner:

The Conservation Commission, at its regularly scheduled meeting of **Wednesday, March 12, 2025**, considered your application for a Wetland Conditional Use Permit for the required remediation of PCBs by the EPA and associated impacts within a tidal wetland and previously disturbed wetland buffer. The remediation will remove 175 s.f. of sediment from existing salt marsh down to a depth of 1 ft as well as an adjacent section of 235 s.f. of fill to be removed down to a depth of 6 in. To restore these excavated areas, this project proposes to add 6 in of sand in the first removal area with the addition of saltmarsh bulrush plugs. In the upper portion of the marsh area and above the HOTL, salt tolerant grass mix is proposed as well as boulder armoring and stone riprip for bank stability. Additional proposed impacts to the buffer include the removal of 0.5 cubic yards of soil in two different buffer locations down to 1 ft in depth, with one of these areas proposed to be covered with a geotextile liner and 5,000 s.f. concrete cap. All other areas impacted by PCBs in the wetland buffer will receive 6 in of clean topsoil and vegetation. Other buffer work includes the reuse of existing gravel for boat storage activities and the plugging of an existing storm drain. Said property is shown on Assessor Map 201 Lot 12 and lies within the Waterfront Business (WB) District. As a result of said consideration, the Commission voted to **recommend approval** of this application to the Planning Board with the following stipulations:.

1. Applicant shall receive all necessary permissions from NHDOT and the contributing abutting landowners as applicable prior to plugging or abandoning any of the existing 15" drainage pipe. Further, please provide a drainage plan and calculation analysis for the rerouting of flow entering this pipe. This shall occur prior to Planning Board approval and may need review from TAC.
Any proposed ground disturbance within a jurisdictional wetland or wetland buffer due to future rerouting or removal of the existing pipe shall require a separate wetland conditional use permit from the City.

2. All areas to be loamed and seeded shall receive a wetland buffer conservation seed mix or equivalent.

3. In accordance with Section 10.1018.40 of the Zoning Ordinance, applicant shall permanently install wetland boundary markers, which may be purchased through the City of Portsmouth Planning & Sustainability Department. Markers are to be placed along the edge of the gravel parking area near the restoration area at 50-foot intervals and must be installed

prior to the start of any construction.

4. Applicant shall clearly delineate on the site plan and provide a detailed description of the proposed grassed swale. This should include dimensions, materials, depth, etc.

This matter will be placed on the agenda for the Planning Board meeting scheduled for **Thursday, April 17, 2025.** One (1) hard copy of any revised plans and/or exhibits as well as an updated electronic file (in a PDF format) must be filed in the Planning & Sustainability Department and uploaded to the online permit system no later than Wednesday, March 26, 2025.

The minutes and audio recording of this meeting are available by contacting the Planning & Sustainability Department.

Very truly yours,

Samantha Collins, Chair
Conservation Commission

cc:

Jay Johonnett, Project Engineer, Aries Engineering
Steve Graham, Project Engineer, Aries Engineering

CITY OF PORTSMOUTH
Planning & Sustainability Department
1 Junkins Avenue
Portsmouth, New Hampshire 03801
(603) 610-7216

TECHNICAL ADVISORY COMMITTEE

May 8, 2025

Tom Reis
Sea Level LLC
P.O. Box 4094
Portsmouth, New Hampshire 03801

RE: Requesting exemption from Site Review approval for property located at 187 Wentworth House Rd, Portsmouth, NH (LU-25-2)

Dear Property Owner:

The Technical Advisory Committee, at its regularly scheduled meeting of Tuesday, May 6, 2025, considered your application for consideration that the proposed stormwater alterations and the installation of a concrete cap at the existing commercial site be exempted from requiring Site Review approval. Said property is shown on Assessor Map 201 Lot 12 and lies within the Waterfront Business (WB) District. As a result of said consideration, the Committee voted to **postpone** the application to the June meeting.

This matter will be placed on the agenda for the Technical Advisory Committee meeting scheduled for **Tuesday, June 3, 2025.** One (1) hard copy of any revised plans and supporting reports and exhibits as well as an updated electronic file (in a PDF format) must be filed in the Planning Department by **Wednesday, May 21, 2025.**

The minutes and audio recording of this meeting are available by contacting the Planning & Sustainability Department.

Very truly yours,

Peter Britz,
Planning and Sustainability Director

cc:

Jay Johonnett, Project Engineer, Aries Engineering
Steve Graham, Project Engineer, Aries Engineering

Summary of Underground Utility Locating

Prepared For: ARIES Engineering

Prepared By:
Daniel Pacheco
dan.pacheco@gprsinc.com
Project Manager-Boston
617.455.5121

May 18, 2025

May 18, 2025

ARIES Engineering
Attn: Stephen Graham
Email: sgraham@aries-eng.com
Site: 187 Wentworth Rd. Portsmouth, NH 03801

We appreciate the opportunity to provide this report for our work completed on May 15, 2025.

PURPOSE

The purpose of the project was to search for an underground storm drainage line within the project boundaries provided by the client. The scope of work consisted of a single location measuring approximately 175 linear feet. The client marked the end pipe outlet location prior to our scanning and our markings were then placed onto the surface using spray paint and flags.

EQUIPMENT

- **Underground Scanning GPR Antenna**. The antenna with frequencies ranging from 250 MHz-450 MHz is mounted in a stroller frame which rolls over the surface. The surface needs to be reasonably smooth and unobstructed to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the feasibility of GPR. The data is displayed on a screen and marked in the field in real time. The total depth achieved can be as much as 8' or more with this antenna but can vary widely depending on the types of materials being scanned through. Some soil types such as clay may limit maximum depths to 3' or less. As depth increases, targets must be larger in order to be detected, and non-metallic targets can be especially difficult to locate. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **Electromagnetic Pipe Locator**. The EM locator can passively detect the electromagnetic fields from live AC power or from radio signals travelling along some conductive utilities. It can also be used in conjunction with a transmitter to connect directly to accessible, metallic pipes or tracer wires. A current is sent through the pipe or tracer wire at a specific frequency and the resulting EM field can then be detected by the receiver. A utility's ability to be located depends on a variety of factors including access to the utility, conductivity, grounding, interference from other fields, and many others. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **Traceable Rodder**. The rodder has a copper wire encased in fiberglass. The line is pushed through accessible pipes before placing a current on the wire which is then traced from the surface. The maximum traceable depth is 10' depending on the soil conditions and the maximum distance is 300'. The line can be pushed through a pipe with direct access such as a sewer line at a cleanout or a storm drain catch basin. It may not be able to be pushed through deeper pipes within manholes and conduits will not be accessed by GPRS. The signal cannot be located through metallic pipes. For more information, please visit: Link
- **GPS**. This handheld GPS unit offers accuracy down to .39 inches; however, the accuracy will depend on the satellite environment and obstructions and should not be considered survey-grade. Features can be collected as points, lines, or areas and then exported into Google Earth or overlaid on a CAD drawing. For more information, please visit: Link

PROCESS

The process typically begins with using the EM pipe locator to locate pipes or utilities throughout the scan area. First, the transmitter is used to connect to and trace any visible risers, tracer wires, or accessible, conductive utilities if there is an exposed, metallic surface. The areas are then swept with the receiver to detect live power or radio frequency signals. Locations and depths are painted or flagged on the surface. Depths cannot always be provided depending on the location method and can be prone to error.

Initial GPR scans were then collected to evaluate the data and calibrate the equipment. Based on these findings, a scanning strategy is formed, typically consisting of scanning the entire area in a grid with 3–4-foot scan spacing to locate any potential utilities that were not found with the pipe locator. The GPR data is viewed in real time and anomalies in the data are located and marked on the surface along with their depths using spray paint, pin flags, etc.

LIMITATIONS

Please keep in mind that there are limitations to any subsurface investigation. The equipment may not achieve maximum effectiveness due to soil conditions, above ground obstructions, reinforced concrete, and a variety of other factors. No subsurface investigation or equipment can provide a complete image of what lies below. Our results should always be used in conjunction with as many methods as possible including consulting existing plans and drawings, exploratory excavation or potholing, visual inspection of above-ground features, and utilization of services such as One Call/811. Depths are dependent on the dielectric of the materials being scanned so depth accuracy can vary throughout a site. Relevant scan examples were saved and will be provided in this report.

FINDINGS

The subsurface conditions at the time of the scanning allowed for maximum GPR depth penetration of 6-7 feet in most areas. The drainage pipe was able to be located using either the GPR or EM pipe locator. The traceable rodder was used from both ends of the drainage pipe. The drainpipe starts on the South side of Wentworth Road and drains into Sagamore Creek. The following pages will provide a further explanation of the findings.

Prepared for: ARIES
Prepared By: DP
Date of Scanning: 5/15/25

Terms and Conditions

GPRS does not provide land survey or civil engineering data collection or documentation. This is provided as a reference map of the field markings and is not survey-grade.

LEGEND

	ELECTRIC		SANITARY
	WATER		STORM
	COMM		UNKNOWN
	GAS		

187 Wentworth Rd. Portsmouth, NH 03801

Prepared by:

GPRS

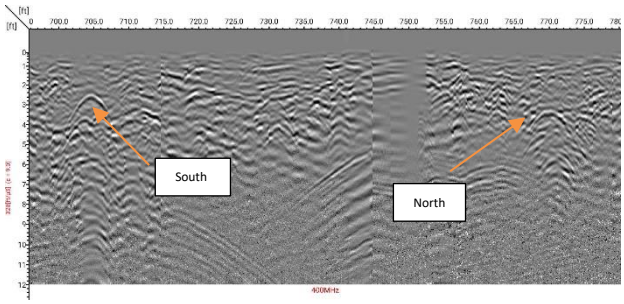
Inlet from Wentworth Rd.

Using Traceable Rodder at Inlet.

Wide-Shot of Inlet.

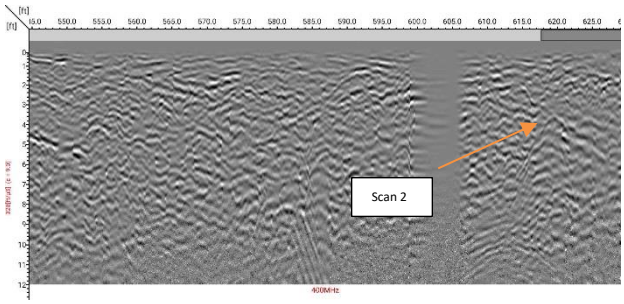
There were many obstructions, but the signal could still be traced and mapped.

GPR Scanning North side of Wentworth Rd.



Data shot South and North of Wentworth Rd.

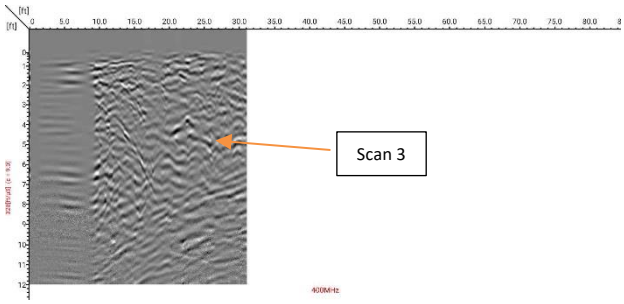
Scan 2.



Data shot from Scan 2.

GPR Data Screenshots and Photos	187 Wentworth Rd. Portsmouth, NH 03801	GPRS

Scan 3 Area.



Data shot from Scan 3 Area.

Same data set using Google Earth map from 2018. Little easier to see surrounding area compared to the 2025 map.

Outlet in Sagamore Creek.

GPR Data Screenshots and Photos	187 Wentworth Rd. Portsmouth, NH 03801	GPRS

CLOSING

GPRS, Inc. has been in business since 2001, specializing in underground storage tank location, concrete scanning, utility locating, and shallow void detection for projects throughout the United States. I encourage you to visit our website (www.gprsinc.com) and contact any of the numerous references listed.

GPRS appreciates the opportunity to offer our services, and we look forward to continuing to work with you on future projects. Please feel free to contact us for additional information or with any questions you may have regarding this report.

Signed,

Daniel Pacheco

Daniel Pacheco
Project Manager—Boston

Direct: 617.455.5121

dan.pacheco@gprsinc.com

www.gprsinc.com

Reviewed,

Sean Parker
Area Manager—Boston

Direct: 617.372.6695

sean.parker@gprsinc.com

www.gprsinc.com

Findings of Fact | Wetland Conditional Use Permit
City of Portsmouth Planning Board

Date: June 18, 2025
Property Address: 224 Cate Street
Application #: LU-25-26
Decision: □ Approve □ Deny □ Approve with Conditions

Findings of Fact:

Per RSA 676:3, I: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of all conditions necessary to obtain final approval.

In order to grant Wetland Conditional Use permit approval the Planning Board shall find the application satisfies criteria set forth in the Section 10.1017.50 (Criteria for Approval) of the Zoning Ordinance.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	**Finding** **(Meets Criteria for Approval)**	**Supporting Information**
1	*1. The land is reasonably suited to the use activity or alteration.*	**Meets** **Does Not Meet**	The removal of vegetation from the buffer on this property significantly increased the impact of pollution, sediment and nutrient runoff into the brook, especially with the steep embankment leading to the water's edge. The plan to establish shrubs and replace the two trees within the 40-ft no-cut vegetative buffer will significantly help to re-establish that part of the buffer and prevent further runoff and erosion.
2	2. *There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.*	**Meets** **Does Not Meet**	The applicant is proposing to seed all previously disturbed areas with an appropriate seed mix and plant a well-spaced section of trees within an area of the wetland buffer that relies on dense vegetation to protect the brook.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
3	*3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.*	**Meets** **Does Not Meet**	The disturbance of this site was in direct violation of the City of Portsmouth Zoning Ordinance and increased the risk of disturbance to Hodgson Brook, an already impaired waterbody that requires protection. With the successful establishment of the proposed plantings and conservation seed mix, the previous impacts to the wetland buffer should be mitigated.
4	*4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.*	**Meets** **Does Not Meet**	This area had already been altered and is proposed to be revegetated to come into compliance with our wetland buffer requirements.
5	*5. The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.*	**Meets** **Does Not Meet**	This restoration of the previously disturbed area will bring this site back into compliance and hopefully help to improve the health of Hodgson Brook over time.
6	*6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.*	**Meets** **Does Not Meet**	This site is unique as it triggers a wider vegetated buffer strip. With the slope of the brook's bank, this site requires a 40' vegetated buffer strip according to Section 10.1018.22 of the Zoning Ordinance. Currently, two buildings exist within this area which prevents the entire vegetation of this strip, but the planting of the trees and shrubs greatly increases the amount of vegetation there currently.
7	**<u>Other Board Findings:</u>**		

MAINTENANCE PLAN

TO: Peter Britz, City of Portsmouth Director of Planning and Sustainability
Kate Homet, City of Portsmouth Environmental Planner
FROM: Sarah Sullivan (Large), FB Environmental Associates
SUBJECT: **224 Cate Street Wetland Buffer Revegetation Maintenance Plan**
DATE: May 22, 2025
CC: Jesse Anderson (property owner); Forrest Bell & Kevin Ryan, FB Environmental Associates
Attachment: Planting and Mulching Trees and Shrubs Fact Sheet

This maintenance plan provides guidance for maintaining the planted tree saplings, shrubs, and conservation seed mix, and defines mowing limits. It is a supplemental document to the Wetland Conditional Use Permit application and was prepared at the request of the City of Portsmouth Conservation Commission.

MAINTENANCE PLAN

Watering and Establishment Guidelines

Tree and Shrub Plantings

Immediately after planting, water slowly to saturate the soil around root balls. Consistent watering is especially important in the first few weeks but should occur regularly throughout the growing season. UNH Cooperative Extension's *Landscaping at the Water's Edge,* recommends this general watering schedule:

- *Week 1:* water daily
- *Weeks 2-3:* water every other day
- *Remainder of the growing season:* water twice weekly, tapering to once weekly in the fall depending on rainfall

Shrubs typically establish within the first growing season, while trees can take over a year to develop adequate root systems and may require supplemental watering for up to two years. Once established, ongoing watering and maintenance should be minimal; the selected native species are adapted to local conditions.

If needed, apply a 2-3 inch thick layer of mulch (e.g., compost, wood chips, or shredded leaves free of weeds) to stabilize soil and conserve moisture around the plantings. Keep mulch away from the base of the plantings. Additional guidance is provided in the attached *Planting and Mulching Fact Sheet.*

Conservation Seed Mix

Apply seed in the spring or from mid-summer to early fall (the optimal time of year for establishment). Avoid application in summer, as heat and drought can hinder germination and growth. The seed mix is adapted to New England's climate and when applied during the appropriate season, should establish with typical rainfall and not need additional watering. However, during extended dry periods, supplemental water will be necessary.

- *Seeding rate:* 20-30 lbs per acre (or 1 lb per 1,450 – 2,180 SF)
- *Post-seeding:* Apply a light layer of weed-free straw mulch to promote germination and reduce erosion
- *Maintenance:* Additional seed may be applied in the first and second years to improve coverage

Mowing and Vegetation Removal

No mowing or cutting of herbaceous or woody vegetation shall occur between the newly planted buffer enhancement area and Hodgson Brook. The herbaceous ground cover, shrubs, and tree shall be left to grow, enhancing the existing vegetated bank of the brook enhancing soil and shoreline stabilization, stormwater management, nutrient uptake, and wildlife habitat along the riparian zone.

Fertilizer, Pesticides, and Herbicides

Fertilizer will not be used within the vegetated buffer strip or limited cut area in accordance with the City of Portsmouth's Zoning Ordinances (10.1018.24). Pesticides and herbicides will not be used within the wetland buffer (10.1018.25).

Extension

Bringing information and education into the communities of the Granite State

Planting and Mulching Trees and Shrubs

Cathy Neal, Extension Professor/Specialist, Nursery and Landscape Horticulture

UNH Cooperative Extension Programs	
	Community and Economic Development
	Food and Agriculture ✓
	Natural Resources
	Youth and Family

Selecting healthy plants

Take a step back to examine the plant's overall structure. Shrubs should have several stems coming from the base of the plant. Most trees, on the other hand, should have only one upright trunk and branches should be evenly spaced along the trunk. A few species such as birch are sometimes grown as clumps and so may have multiple trunks. In general, however, you should avoid purchasing trees with double trunks, dead branches, trunk cracks or wounds, or leaves that show signs of insect damage, disease, or drought. Avoid buying weedy containers or ball-and-burlap (B&B) products so that you don't introduce more weeds to your own landscape. The presence of weeds, algae, or decomposing burlap on a B&B plant also indicates that it was harvested quite some time ago.

Choose plants with healthy root systems. Healthy root tips are generally light in color; older or diseased roots are dark colored. If the plant is container-grown, carefully remove the pot and take a look at the roots for yourself. A good root ball will stay intact. Avoid pot-bound plants, plants with a thick root mat at the bottom, or with numerous large-diameter roots circling inside the container wall (Fig. 1).

It's harder to check field-grown, B&B plants (Fig. 2), but you can. The trunk should taper outward where it enters the soil and you should see a few major roots connecting to the base of the trunk at the soil surface (see Diagram 1). If not, probe into the soil ball about three inches away from the trunk with a blunt nail or wire, trying to locate a few large roots within two inches of the surface. If you don't find any, avoid that plant because it is buried too deep. Many of the tree's roots are left behind in the nursery when a B&B plant is harvested, but the structural roots present in the soil ball provide enough stored energy for new roots to grow out quickly, under good conditions.

Fig. 1. Woody plants grown in plastic containers often have dense, matted roots. This plant is "pot-bound" or "root-bound".

Fig. 2. Field grown trees are harvested and then wrapped in burlap and baskets for sale and handling. Trees like this leave over 80% of their roots in the nursery. The roots outside the burlap regenerated in a mulch layer while being held in a sales yard.

Fig. 3. Woody plants grown in porous fabric containers have most of their roots contained within the bag, and the small roots that grow through can be easily shaved off before removing the bag.

Fig. 4. These root systems have had the soil washed off in order to compare the roots structure of birch trees produced in a plastic pot (right) with those from a fabric container (left). Large circling roots and the bottom root mat should be removed from the plant on the right before transplanting. The plant on the left has better root structure and the swollen root nodules (circled) provide energy stores for new root growth.

A third type of planting stock is sometimes available: trees grown in porous fabric containers, sometimes called grow-bags (Fig. 3). Roots in these fabric containers are generally dense but fibrous and the larger roots should form swollen nodules at the container edge, rather than circling like in a plastic container (Fig. 4). The nodules store carbohydrates that are used for rapid root growth once transplanted. Trees grown in fabric containers are lighter weight and easier to handle than B&B plants, so they require staking and frequent watering after transplanting. Research at UNH shows that these root systems have structural advantages for trees and may enhance growth and longevity.

Transporting and storing your plants

When moving your plants, handle them by the wire basket or container and not by the trunk or branches. Move small plants in a van or car trunk but don't leave them exposed to excessive heat in a parked vehicle. Larger shrubs and trees should be laid down in a pickup bed or trailer, secured to prevent rolling, and covered with a tarp during the ride home, to avoid windburn. Load and unload them carefully; avoid dropping or bouncing plants on the ground. Many B&B trees weigh over 250 pounds, so specialized equipment is needed to move and install them.

The best thing for your plants is to transplant them as soon as possible. If you can't plant right away, water them frequently to prevent the root balls from drying out. Plants in containers will need watering daily in the summer; sometimes even more than once a day. If you find they dry out too quickly, you may want to give them a temporary home in the shade. B&B plants still need watering every 1-2 days but won't dry out as quickly as containers.

Digging the hole

First, find the trunk flare (also called the root flare) on your tree or shrub. This is the base of the trunk which tapers out just above the first permanent roots. Small temporary roots may have grown above the root flare if the plant was too deep or covered with soil or mulch – ignore these small roots and find the topmost woody root growing radially out from the trunk; usually it will be at least ¼" in diameter. If there is excess soil or potting medium on top of the permanent roots, carefully remove it to expose the trunk flare. Any temporary small roots above the flare can be cut off with hand pruners.

Measure the height and diameter of the root ball now. The most common mistake people make when planting a new tree or shrub is making the planting hole too deep and narrow. Instead, dig a hole only

as deep as the height of the root ball. Make the hole two to three times as wide as the diameter of the root ball; the sides may be sloped as shown in Diagram 1. Digging a wide hole loosens the soil and provides a good environment for new roots to begin growth.

At this point, you should have a healthy plant ready to be planted into a properly-sized hole. Carefully place it in the hole to check the depth. If you've made the hole too deep, remove the plant and place some soil back into the hole, firming it with your foot. The soil underneath needs to stay firm so the plant doesn't settle later on.

Did You Know?

The most common mistake people make when planting a new tree or shrub is making the planting hole too deep and narrow.

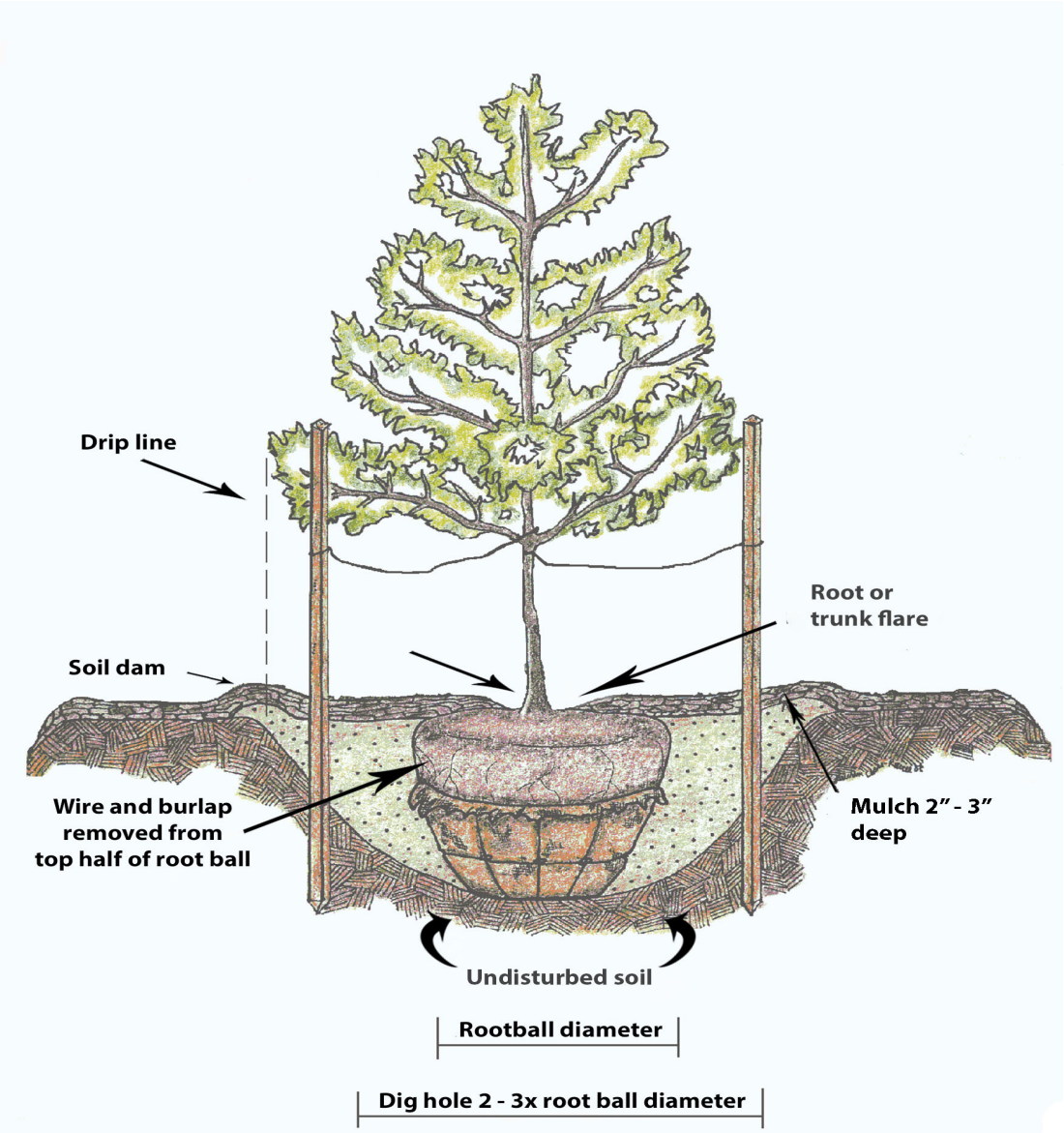


Diagram 1: This B&B tree has been planted at the proper depth, and has had the wire and burlap removed from the top half to allow new roots to grow outwards. Drawing by Lauren Chase-Rowell

Planting

Now you're ready to plant. If the plant is in a pot, remove it by sliding it out sideways on the ground. If circling roots are visible on small plants, slice the root ball downwards with a sharp knife in three or four places around the outside of the root ball, an inch or two deep, cutting through all the outer, horizontally-growing roots. After placing it in the planting hole, try to position the roots in a radial pattern to encourage them to grow in an outward direction (Fig. 5), and firmly pack soil in between them.

Fig. 5. Roots should grow outwards from the trunk in a radial pattern, like spokes on a wheel (top). (These roots have been exposed for illustration; you should not expose the roots on your plants.)

For large trees or shrubs, simply slicing the root ball is not likely to be easy or effective. Instead, cut any visible circling roots over ¼ inch diameter with hand pruners. If there is a root mat at the bottom, cut and remove it as best possible. While root pruning may seem harsh and is stressful to the plant, research has shown that leaving circling and/or matted roots may prevent plants from establishing a normal, outward growing root system, which is essential to the long-term survival and health of the tree or shrub. It is best to select a plant that is not root bound or matted to start with.

If preparing a B&B plant, remove as much of the wire, burlap, rope, straps and other ties as possible, but avoid breaking up the soil ball while doing so. It may be easiest to strategically cut the basket in several places with wire cutters, then set the plant in the hole and stabilize it. Now continue cutting and removing all the wire, wrapping and strapping materials, and as much of the burlap as possible. At a minimum, you should expose at least the entire top half of the soil ball. It's okay to leave some wire and burlap on the bottom half, if necessary, because almost all the new roots will grow outwards from the top half of the original soil ball, not downwards from the bottom half (Diagram 1). Make sure, however, that the materials left on are natural and therefore biodegradable; avoid leaving any nylon straps or synthetic burlap (Fig. 6).

Fig. 6. This redbud tree was dying from the top down (left photo). It was planted too deeply and the straps and burlap were still wrapped around the trunk (right photo).

Fabric containers must be completely removed before planting. Cutting them from top to bottom with scissors or a box cutter will then allow you to peel the container away from the sides and bottom. If small roots have grown through the sides, just cut them off before removing the container (Fig. 3). Once the container is off, check for circling roots and cut any you find, but be sure to leave the nodules intact.

Place the plant in the center of the hole and check again that it is at the proper depth. Next, fill in around the root ball with the soil you saved from digging the hole, just leave out the rocks! In most cases, there is no need to amend the soil with organic matter. Research has rarely shown any benefit to using hydrogels, root stimulants, mycorrhizal inoculants, or other additives, except in the poorest of soils. However, it is a good idea to have a soil test done ahead of time so that you can add the proper amounts of lime and essential nutrients at planting.

On some sites with poor-quality urban fill, amending the soil with equal volumes of compost and sand may be beneficial. If the soil is very heavy (clay soil) or very sandy, adding ten percent (by volume) compost or peat moss to the backfill may be worthwhile. Otherwise, it is not worthwhile because the roots should rapidly grow through the backfilled soil and out into the surrounding soil. Preparing the hole properly is more important than adding any amendments.

Preparing the hole properly is more important than adding any amendments.

Firm the soil by hand (or tamp lightly with your foot) as you backfill. You can add water when the hole is half full to help settle the soil, then again when you've finished planting. Making a shallow, donut-shaped dam of soil around the outer edge of the planting hole to form a shallow saucer is an option which may help if planting on a slope or site where the water tends to "run away" from the plant before sinking in (Fig. 7). You can break up the dam before winter to prevent ice from accumulating around the trunk.

Fig 7. This tree has been properly planted and staked. Note the donut-shaped soil dam. Now it needs water and mulch.

Watering

Water is the most essential resource that you can give your new plant. Immediately after planting, water slowly but thoroughly to saturate the entire root ball and backfill area – this could take a couple of hours with a slow trickle from a hose. Thorough watering eliminates air pockets, rehydrates the plant and provides the water necessary for survival and growth.

Water frequently for the first few weeks, every other day if there's no rain and you have a well-drained soil. After that, water a B&B plant every five to seven days if needed, until late fall. Trees from containers

dry out very quickly and need more frequent irrigation than B&B trees for the first several weeks--even into the fall months, which is a good time for root growth. Apply water right over the original root ball, as well as to the backfilled area, because water from the surrounding soil will not move laterally into the porous potting medium where most of the roots are. Skip watering only if you get more than an inch of rain or can tell that the soil is moist. Don't depend on your lawn sprinklers to provide the right amount of water for your new shrubs or trees.

Fig 8. Watering aids such as this can be used to provide slow application of water over the root zone. Don't forget to refill them frequently.

How much water to apply will depend on plant size, weather, time of year, soil type and drainage. Apply enough water to wet the soil a foot deep throughout the rooting area. Under good growing conditions and well-drained soil conditions, apply about an inch of water each time (just over a half-gallon per square foot of soil surface). While a small shrub may only need half a gallon, ten gallons may be required for a 2-inch diameter tree.

Applying water slowly so that it soaks in is much better than applying it rapidly with a hose. If you do use a hose, set the nozzle to a shower or gentle spray setting. There are tree bags (Fig. 8) or rings that you can purchase and place around your tree that hold several gallons of water and allow it to ooze out slowly through small holes. For larger plantings, drip irrigation or soaker hoses may be worth the investment.

On the other hand, avoid over-watering any plant. This is likely only if you have clay soil and/or underlying poor drainage; in this case, the loosened soil around your newly-planted tree or shrub may fill up like a bath tub and drown the roots. If in doubt, do a percolation test before you plant and make sure that water drains from the hole completely within 24 hours. If it does not, make sure to choose a tree species that can tolerate a wet or poorly drained site.

Mulching

Mulching gives your plant a competitive advantage over grass and weeds, so that it establishes roots and resumes growth more quickly than unmulched plants. Mulch also helps keep the soil moist and moderates soil temperatures.

You have several mulch options. Shredded bark, nuggets, or wood chips are good choices, as are pine needles.

You have several mulch options. Shredded bark, nuggets, or wood chips are good choices, as are pine needles. The color doesn't matter to the plant. Avoid any mulch which smells sour or is hot to the touch. A thin layer of compost may be used as a mulch but may provide a good environment for weed seed germination over time. Covering the compost with a larger particle-size mulch such as wood chips will help prevent weed growth.

Staking trees

Large trees may need staking to stabilize the root balls while the roots grow out into the surrounding soil, especially if they were grown in containers or fabric bags. Use two sturdy stakes, pounded firmly into the soil just outside the root ball at the time of planting, for a tree 2-3 inches in diameter (measured 4 inches above the root flare). A smaller tree needs only a single stake – or may not need to be staked at all, unless it is a very windy site. Attach the tree loosely with a flexible material

Keep an eye out for damage caused by insects or diseases. Identify the pest and make informed decisions before applying any control measures. But remember, the key to getting your plant off to a good start is planting it properly and providing adequate water during the critical first year.

Spread the mulch in a uniform layer two to three inches deep over the entire root ball and outwards at least to the drip line of the plant (Diagram 1). Don't pile the mulch up around the trunk of your tree, known as volcano mulching. This common mulching practice can lead to disease and insect problems at the base, encourages rodents, may cause roots to grow upwards into the mulch, and can eventually result in the decline and death of your plant. Pull the mulch back a few inches from the trunk or stem instead, allowing for good air circulation around the trunk flare.

Follow-up care

Water as needed for a year or more. Shrubs will become established during the first year, but trees will take more than one year to grow anadequate root system. Don't expect to see much growth above-ground the first season. After that, most trees will grow .5 to 1 inch in diameter and several inches in height each year. But, keep watering them whenever the soil is dry. A two-inch diameter tree will take two years before it can be expected to survive on its own without supplemental watering.

Crabapple trees growing in plastic pots (right) and fabric bags (left) in a research trial at UNH.

Your plant doesn't need added nitrogen fertilizer the first year, when it has little capacity to absorb nutrients. In fact, fertilizers containing soluble nutrients may inhibit root growth. Wait until the following spring and apply a slow-release fertilizer over the root zone, following soil test recommendations.

Don't do any major pruning at planting; only remove dead or injured branches or stems. Also identify what will become the dominant leader, or central trunk, on a deciduous tree and prune off competing leaders. Beginning the second year, prune during the dormant season as needed to establish good form and structure, especially on large-growing deciduous trees. How much pruning is needed will depend on how well the tree was trained in the nursery, but you should minimize pruning until the tree is well-established and vigorously growing in its new location.

Keep an eye out for damage caused by insects or diseases. Identify the pest and make informed decisions before applying any control measures. But remember, the key to getting your plant off to a good start is planting it properly and providing adequate water during the critical first year.

Revised and Reformatted: July 2016

About the Author

Dr. Cathy Neal is an Extension Professor in the Dept. of Biological Sciences at UNH, state specialist in Landscape Horticulture for Cooperative Extension and a researcher with the NH Ag. Experiment Station. Her program emphasizes using sustainable landscape practices that protect our natural resources.

For More Information

State Office
Taylor Hall
59 College Rd.
Durham, NH 03824
extension.unh.edu

Education Center and Information Line
answers@unh.edu
1-877-EXT-GROW
(1-877-398-4769)
9 am–2 pm M–F
Search key words:
"UNH Education Center"

Watch our short videos on planting and mulching:
http://extension.unh.edu/Videos-Home-Gardener

Visit our website:
extension.unh.edu

UNH Cooperative Extension brings information and education into the communities of the Granite State to help make New Hampshire's individuals, businesses, and communities more successful and its natural resources healthy and productive. For over 100 years, our specialists have been tailoring contemporary, practical education to regional needs, helping create a well-informed citizenry while strengthening key economic sectors.

KEY TO WETLAND & STREAM CLASSIFICATION CODES

R3 = Upper Perennial
UB = Unconsolidated Bottom
1 = Cobble-Gravel
2 = Sand

Notes:

Wetland Buffer Total Area on Lot:	15,673 SF
Wetland Buffer Area Previously Disturbed:	2,047 SF
Wetland Buffer Enhancement Area:	1,300 SF
Inland Wetland Area On Lot:	2,864 SF
Inland Wetland Area Off Lot: (within map extent)	14,111 SF

*Measurements calculated in GIS.

Buffer Enhancement Area:
Plant three (3) red maple saplings and seven (7) red osier or gray dogwood shrubs in this area. The trees should be spaced ~20-25 feet apart and the shrubs should be spaced ~10-15 feet apart.

Disturbance Area:
The disturbance area hatched in brown represents the approximate limits of topsoil disturbance. Disturbed areas will be seeded with conservation seed mix to re-establish groundcover. Species commonly found in conservation seed mix include native grasses, wildflowers, and legumes such as common eastern wild rye, little bluestem, big bluestem, switch grass, beggar ticks, and early goldenrod.

Boundary Markers:
Wetland buffer boundary markers affixed to stakes, natural features, or exisiting infrastructure will be installed.

Maintenance:
No mowing or cutting of vegetation will occur between the newly planted buffer enhancement area and Hodgson Brook. Planting, watering, and maintenance will be done in accordance with the Maintenance Plan.

STATE OF NEW HAMPSHIRE
SARAH LARGE
Sarah E. Large
No. 334
CERTIFIED WETLAND SCIENTIST

LOCUS MAP

- Survey Area
- Parcel Boundary
- Road
- Tree Stump
- **Watercourse Boundary**
- OHW/TOB
- Disturbance Area (approximate)
- Buffer Enhancement Area
- **Planting**
- dogwood
- red maple

N W E S

0 25 50 Feet

FB environmental

Wetland Buffer Restoration
224 Cate Street
Portsmouth, NH
Site Map and Revegetation Plan

Data Sources: NH GRANIT, ESRI, FBE. Base map is 2021/2022 aerial imagery. Coord. System: NAD 1983 NH State Plane.
Map created by S. Large on Jan. 30, 25. Revised April 10 & May 22, 2025

Notes: Wetlands were delineated by Sarah Sullivan (Large), NHCWS in accordance with the 1987 US Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, v2.0. January 2012. All wetlands were classified using the Classification of Wetlands and Deepwater Habitats of the United States (USFWS, 1979).

Findings of Fact | Site Plan Review
City of Portsmouth Planning Board

Date: June 18, 2025
Property Address: 65 Washington Street
Application #: LU-25-63
Decision: □ Approve □ Deny □ Approve with Conditions

Findings of Fact:

Per RSA 676:3, I: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of the all conditions necessary to obtain final approval.

Site Plan Regulations Section 2.9 Evaluation Criteria - in order to grant site plan review approval, the TAC and the Planning Board shall find that the application satisfies evaluation criteria pursuant to NH State Law and listed herein. In making a finding, the TAC and the Planning Board shall consider all standards provided in Articles 3 through 11 of these regulations.

	Site Plan Review Regulations Section 2.9 Evaluation Criteria	**Finding (Meets Standard/Criteria)**	**Supporting Information**
1	Compliance with all City Ordinances and Codes and these regulations. Applicable standards:	**Meets** **Does Not Meet**	Applicable standards: Site Plan Review Regulations and Zoning Ordinance
2	Provision for the safe development, change or expansion of use of the site.	**Meets** **Does Not Meet**	The site plan set provides for safe development involving drainage improvements.
3	Adequate erosion control and stormwater management practices and other mitigative measures, if needed, to prevent adverse effects on downstream water quality and flooding of the property or that of another.	**Meets** **Does Not Meet**	The site plan set provides an erosion control plan including the installation of silt sacks on existing and proposed catch basins during construction. Stormwater management is provided as part of the drainage improvements, and a maintenance plan for the stormwater infrastructure has been included.

	Site Plan Review Regulations Section 2.9 Evaluation Criteria	Finding (Meets Standard/Criteria)	Supporting Information
4	Adequate protection for the quality of groundwater.	**Meets** **Does Not Meet**	The site is fully developed. The installation of rain gardens will provide treatment of runoff, improving the quality of the groundwater.
5	Adequate and reliable water supply sources.	**Meets** **Does Not Meet**	The Penhallow house is serviced by an existing water line on Washington Street. No water lines are proposed to be impacted.
6	Adequate and reliable sewage disposal facilities, lines, and connections.	**Meets** **Does Not Meet**	The Penhallow house is serviced by an existing sewer line that is connected to a 30" sewer main in Newton St, that is connected to a main on Washington St.
7	Absence of undesirable and preventable elements of pollution such as smoke, soot, particulates, odor, wastewater, stormwater, sedimentation or any other discharge into the environment which might prove harmful to persons, structures, or adjacent properties.	**Meets** **Does Not Meet**	A silt sack is proposed on the existing and proposed catch basins to collect sedimentation from the construction. Drainage improvements will collect stormwater on site, detain and slowly release the water. Excess water will be directed to an existing 30" drainage main, to avoid discharging stormwater onto adjacent properties.
8	Adequate provision for fire safety, prevention and control.	**Meets** **Does Not Meet**	The proposed drainage improvements will not impact the existing fire safety, prevention and control of the site.
9	Adequate protection of natural features such as, but not limited to, wetlands.	**Meets** **Does Not Meet**	Natural features such as wetlands do not exist in close proximity to the development area. Proposed drainage improvements will result in an improvement of stormwater runoff off site with the installation of rain gardens and swales.
10	Adequate protection of historical features on the site.	**Meets** **Does Not Meet**	The work will be done as per the site plan to not disturb the historical buildings on site. The purpose of the work is to improve the drainage to increase protection of the buildings across the site.
11	Adequate management of the volume and flow of traffic on the site and adequate traffic controls to protect public safety and prevent traffic congestion.	**Meets** **Does Not Meet**	The site has mainly foot traffic, with no vehicular traffic besides construction or repairs. Drainage improvements will be installed with minimal impact to the flow of traffic and traffic congestion. Vehicular traffic will remain minimal after construction.

	Site Plan Review Regulations Section 2.9 Evaluation Criteria	Finding (Meets Standard/Criteria)	Supporting Information
12	Adequate traffic controls and traffic management measures to prevent an unacceptable increase in safety hazards and traffic congestion off-site.	**Meets** **Does Not Meet**	The improvements will have minimal impact to the flow of traffic and traffic congestion.
13	Adequate insulation from external noise sources.	**Meets** **Does Not Meet**	The drainage improvements will not result in an increase in external noise sources.
14	Existing municipal solid waste disposal, police, emergency medical, and other municipal services and facilities adequate to handle any new demands on infrastructure or services created by the project.	**Meets** **Does Not Meet**	The existing solid waste disposal will not be impacted by the proposed drainage improvements.
15	Provision of usable and functional open spaces of adequate proportions, including needed recreational facilities that can reasonably be provided on the site	**Meets** **Does Not Meet**	The drainage improvements will allow for usable and functional open spaces, which are abundant on site.
16	Adequate layout and coordination of on-site accessways and sidewalks in relationship to off-site existing or planned streets, accessways, bicycle paths, and sidewalks.	**Meets** **Does Not Meet**	There are no proposed impacts to the relation of existing accessways to off-site existing streets. The entrance to Newton St from Washington St will be raised as part of the drainage improvements. Adequate measures have been taken to ensure the sidewalk along Washington St remains ADA compliant.
17	Demonstration that the land indicated on plans submitted with the application shall be of such character that it can be used for building purposes without danger to health.	**Meets** **Does Not Meet**	The site is fully developed and the work depicted on the site plan can be constructed without danger to health.
18	Adequate quantities, type or arrangement of landscaping and open space for the provision of visual, noise and air pollution buffers.	**Meets** **Does Not Meet**	The site has an abundance of open space. The rain gardens will provide stormwater management as well as a type of landscaping with the rain garden plantings.
19	Compliance with applicable City approved design standards.	**Meets** **Does Not Meet**	Application complies with Site Plan Review Regulations. Waivers for parts of the Site Plan Review Regulations have been requested.

	Site Plan Review Regulations Section 2.9 Evaluation Criteria	Finding (Meets Standard/Criteria)	Supporting Information
	Other Board Findings:		

Ross Engineering, LLC
Civil / Structural Engineering
909 Islington Street **603-433-7560**
Portsmouth, NH 03801 **alexross@comcast.net**

Strawbery Banke
Amended Site Plan Application
Minor Drainage Improvements
Project Narrative

May 28, 2025

This amended site plan application is for minor drainage improvements to an existing fully developed site. Tax Map 104, Lot 7 is an 8.24 Acre parcel, and is the site of the Strawbery Banke Museum.

Site plan approval was granted recently for site improvements to the Visitor Center Building and Ice Rink. The proposed work in this application is located just west of the Ice Rink. The work will take place along Washington St, Newton St, and Whidden Place. The work proposed makes minor changes to improve the drainage on site.

Site improvements include installing 2 cobble swales across Whidden Place, a vegetated swale on the southern side of Newton St, and 2 rain gardens with forebays and underdrains on either side of Whidden Place. Runoff will be directed into the rain gardens through grading and the proposed swales. 5 new catch basins are proposed to direct excess runoff through the rain gardens and into a 30" Drain main.

The entrance of Newton St that intersects with Washington St shall be raised in elevation. This will prevent runoff from Washington St from travelling onto Newton St and washing out the gravel road. Runoff on Washington St will instead be directed into the catch basins located on Washington St, that connect to the 30" Drain Main mentioned above.

A new ramp is proposed to provide ADA access to the Penhallow House. The elevations of the ramp have been incorporated in the grading and drainage design. The ramp shall be installed over an existing gravel path and does not result in a decrease of open space from the existing conditions.

TAC recommended approval of this application at it's meeting on 5-6-25 with the condition of approval that the applicant will work with DPW to ensure proper grading of the proposed rain gardens prior to submission to the Planning Board. The rain garden has been relocated and regraded as per discussions with DPW.

Sincerely,

Alex Ross, P.E.

Ross Engineering, LLC
909 Islington Street **603-433-7560**
Portsmouth, NH 03801 **alexross@comcast.net**
April 21, 2025

Planning Department
City of Portsmouth
Portsmouth, NH 03801

RE: Amended Site Plan Application
Minor Drainage Improvements
Tax Map 104, Lot 7
Portsmouth, NH 03801

Owner: Rodney Rowland
Director of Facilities and Environmental Sustainability
Strawbery Banke Museum

Please be advised that Alex Ross of Ross Engineering is authorized to be my agent for the above application process. Should you have any questions, please contact me.

Sincerely,

_____
Rodney Rowland
Director of Facilities and Environmental Sustainability
Strawbery Banke Museum

City of Portsmouth, New Hampshire

Site Plan Application Checklist

This site plan application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Planning Board review. The checklist is required to be completed and uploaded to the Site Plan application in the City's online permitting system. A pre-application conference with a member of the planning department is strongly encouraged as additional project information may be required depending on the size and scope. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all site plan review requirements. Please refer to the Site Plan review regulations for full details.

Applicant Responsibilities (Section 2.5.2): Applicable fees are due upon application submittal along with required attachments. The application shall be complete as submitted and provide adequate information for evaluation of the proposed site development. Waiver requests must be submitted in writing with appropriate justification.

Name of Applicant: Alex Ross Date Submitted: 4/21/2025

Application # (in City's online permitting): TBD

Site Address: Washington St (Penhallow House) Map: 104 Lot: 7

Application Requirements			
☑	**Required Items for Submittal**	**Item Location (e.g. Page or Plan Sheet/Note #)**	**Waiver Requested**
☑	Complete application form submitted via the City's web-based permitting program (2.5.2.1**(2.5.2.3A)**	Online Application in Viewpoint	N/A
☑	All application documents, plans, supporting documentation and other materials uploaded to the application form in viewpoint in digital Portable Document Format (PDF). One hard copy of all plans and materials shall be submitted to the Planning Department by the published deadline. **(2.5.2.8)**	Online Application in Viewpoint	N/A

Site Plan Review Application Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	Statement that lists and describes "green" building components and systems. **(2.5.3.1B)**		X
☑	Existing and proposed gross floor area and dimensions of all buildings and statement of uses and floor area for each floor. **(2.5.3.1C)**	N/A - No Work on Structures Proposed	N/A
☑	Tax map and lot number, and current zoning of all parcels under Site Plan Review. **(2.5.3.1D)**	Drawing 1 - Existing Conditions Notes 1 & 3	N/A

Site Plan Review Application Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	Owner's name, address, telephone number, and signature. Name, address, and telephone number of applicant if different from owner. **(2.5.3.1E)**	Strawbery Banke 17 Hancock St Portsmouth, NH 03801 603-422-0600	N/A
☑	Names and addresses (including Tax Map and Lot number and zoning districts) of all direct abutting property owners (including properties located across abutting streets) and holders of existing conservation, preservation or agricultural preservation restrictions affecting the subject property. **(2.5.3.1F)**	Abutter List to be generated by City	N/A
☑	Names, addresses and telephone numbers of all professionals involved in the site plan design. **(2.5.3.1G)**	Cover Sheet	N/A
☑	List of reference plans. **(2.5.3.1H)**	Drawing 1 - Existing Conditions	N/A
☑	List of names and contact information of all public or private utilities servicing the site. **(2.5.3.1I)**	Drawing 3 - Site Plan	N/A

Site Plan Specifications			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	Full size plans shall not be larger than 22 inches by 34 inches with match lines as required, unless approved by the Planning Director.. **(2.5.4.1A)**	Required on all plan sheets	N/A
☑	Scale: Not less than 1 inch = 60 feet and a graphic bar scale shall be included on all plans. **(2.5.4.1B)**	Required on all plan sheets	N/A
☑	GIS data should be referenced to the coordinate system New Hampshire State Plane, NAD83 (1996), with units in feet. **(2.5.4.1C)**	GIS Data to be provided if required by City	N/A
☑	Plans shall be drawn to scale and stamped by a NH licensed civil engineer. **(2.5.4.1D)**	Required on all plan sheets	N/A
☑	Wetlands shall be delineated by a NH certified wetlands scientist and so stamped. **(2.5.4.1E)**	N/A - No Wetlands	N/A
☑	Title (name of development project), north point, scale, legend. **(2.5.4.2A)**	Drawing 1 - Existing Conditions	N/A
☑	Date plans first submitted, date and explanation of revisions. **(2.5.4.2B)**	All drawings	N/A
☑	Individual plan sheet title that clearly describes the information that is displayed. **(2.5.4.2C)**	Required on all plan sheets	N/A
☑	Source and date of data displayed on the plan. **(2.5.4.2D)**	Drawing 1 - Existing Conditions	N/A

Site Plan Specifications – Required Exhibits and Data			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	**1. Existing Conditions: (2.5.4.3A)** • Surveyed plan of site showing existing natural and built features; • Existing building footprints and gross floor area; • Existing parking areas and number of parking spaces provided; • Zoning district boundaries; • Existing, required, and proposed dimensional zoning requirements including building and open space coverage, yards and/or setbacks, and dwelling units per acre; • Existing impervious and disturbed areas; • Limits and type of existing vegetation; • Wetland delineation, wetland function and value assessment (including vernal pools); • SFHA, 100-year flood elevation line and BFE data, as required.	Drawing 1 - Existing Conditions	
☑	**2. Buildings and Structures: (2.5.4.3B)** • Plan view: Use, size, dimensions, footings, overhangs, 1st fl. elevation; • Elevations: Height, massing, placement, materials, lighting, façade treatments; • Total Floor Area; • Number of Usable Floors; • Gross floor area by floor and use.	Drawing 1 - Existing Conditions	
☑	**3. Access and Circulation: (2.5.4.3C)** • Location/width of access ways within site; • Location of curbing, right of ways, edge of pavement and sidewalks; • Location, type, size and design of traffic signing (pavement markings); • Names/layout of existing abutting streets; • Driveway curb cuts for abutting prop. and public roads; • If subdivision; Names of all roads, right of way lines and easements noted; • AASHTO truck turning templates, description of minimum vehicle allowed being a WB-50 (unless otherwise approved by TAC).	Drawing 3 "Site Plan" & Drawing 6 "Sidewalk Details"	
☑	**4. Parking and Loading: (2.5.4.3D)** • Location of off street parking/loading areas, landscaped areas/buffers; • Parking Calculations (# required and the # provided).		X
☑	**5. Water Infrastructure: (2.5.4.3E)** • Size, type and location of water mains, shut-offs, hydrants & Engineering data; • Location of wells and monitoring wells (include protective radii).	Drawing 1 - Existing Conditions & Drawing 3 - Site Plan	
☑	**6. Sewer Infrastructure: (2.5.4.3F)** • Size, type and location of sanitary sewage facilities & Engineering data, including any onsite temporary facilities during construction period.	Drawing 1 - Existing Conditions & Drawing 3 - Site Plan	

☑	**7. Utilities: (2.5.4.3G)** • The size, type and location of all above & below ground utilities; • Size type and location of generator pads, transformers and other fixtures.	Drawing 1 - Existing Conditions & Drawing 3 - Site Plan	
☑	**8. Solid Waste Facilities: (2.5.4.3H)**		X
	• The size, type and location of solid waste facilities.		
☑	**9. Storm water Management: (2.5.4.3I)** • The location, elevation and layout of all storm-water drainage. • The location of onsite snow storage areas and/or proposed off-site snow removal provisions. • Location and containment measures for any salt storage facilities • Location of proposed temporary and permanent material storage locations and distance from wetlands, water bodies, and stormwater structures.	Drawing 5 - Drainage Plan Drawing 7 - CobbleSwale Details Drawing 8 - Details	
☑	**10. Outdoor Lighting: (2.5.4.3J)** • Type and placement of all lighting (exterior of building, parking lot and any other areas of the site) and photometric plan.		X
☑	**11.** Indicate where dark sky friendly lighting measures have been implemented. **(10.1)**		X
☑	**12. Landscaping: (2.5.4.3K)** • Identify all undisturbed area, existing vegetation and that which is to be retained; • Location of any irrigation system and water source.	Drawing 5 - Drainage Plan	
☑	**13. Contours and Elevation: (2.5.4.3L)** • Existing/Proposed contours (2 foot minimum) and finished grade elevations.	Drawing 1 - Existing Conditions & Drawing 3 - Site Plan	
☑	**14. Open Space: (2.5.4.3M)** • Type, extent and location of all existing/proposed open space.		X
☑	**15. All easements, deed restrictions and non-public rights of ways. (2.5.4.3N)**	N/A - No easements proposed	
☑	**16. Character/Civic District (All following information shall be included): (2.5.4.3P)** • Applicable Building Height (10.5A21.20 & 10.5A43.30); • Applicable Special Requirements (10.5A21.30); • Proposed building form/type (10.5A43); • Proposed community space (10.5A46).	N/A - Not in a Character or Civic District	
☑	**17. Special Flood Hazard Areas (2.5.4.3Q)** • The proposed development is consistent with the need to minimize flood damage; • All public utilities and facilities are located and construction to minimize or eliminate flood damage; • Adequate drainage is provided so as to reduce exposure to flood hazards.	Drawing 1 - Existing Conditions: Note 4	

Other Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	Traffic Impact Study or Trip Generation Report, as required. **(3.2.1-2)**		X
☑	Indicate where Low Impact Development Design practices have been incorporated. **(7.1)**	Drawing 5 - Drainage Plan Rain Gardens, Swales	
☑	Indicate whether the proposed development is located in a wellhead protection or aquifer protection area. Such determination shall be approved by the Director of the Dept. of Public Works. **(7.3.1)**	Not in Wellhead Protection or Aquifer Protection Area	
☑	Stormwater Management and Erosion Control Plan. **(7.4)**	Drawing 5 - Drainage Plan Drawing 9 - Erosion Control Plan	
☑	Inspection and Maintenance Plan **(7.6.5)**	Stormwater Operations & Maintenance Manual	

Final Site Plan Approval Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	All local approvals, permits, easements and licenses required, including but not limited to: • Waivers; • Driveway permits; • Special exceptions; • Variances granted; • Easements; • Licenses. **(2.5.3.2A)**		
☑	Exhibits, data, reports or studies that may have been required as part of the approval process, including but not limited to: • Calculations relating to stormwater runoff; • Information on composition and quantity of water demand and wastewater generated; • Information on air, water or land pollutants to be discharged, including standards, quantity, treatment and/or controls; • Estimates of traffic generation and counts pre- and post-construction; • Estimates of noise generation; • A Stormwater Management and Erosion Control Plan; • Endangered species and archaeological / historical studies; • Wetland and water body (coastal and inland) delineations; • Environmental impact studies. **(2.5.3.2B)**		
☑	A document from each of the required private utility service providers indicating approval of the proposed site plan and indicating an ability to provide all required private utilities to the site. **(2.5.3.2D)**	N/A - No proposed utilities	

Final Site Plan Approval Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	A list of any required state and federal permit applications required for the project and the status of same. **(2.5.3.2E)**	No State or Federal Permits Required	
☑	A note shall be provided on the Site Plan stating: "All conditions on this Plan shall remain in effect in perpetuity pursuant to the requirements of the Site Plan Review Regulations." **(2.5.4.2E)**	Drawing 3 - Site Plan: Note 3	N/A
☑	For site plans that involve land designated as "Special Flood Hazard Areas" (SFHA) by the National Flood Insurance Program (NFIP) confirmation that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334. **(2.5.4.2F)**	No State or Federal Permits Required	
☑	Plan sheets submitted for recording shall include the following notes: a. "This Site Plan shall be recorded in the Rockingham County Registry of Deeds." b. "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." **(2.13.3)**		N/A

Applicant's Signature: _____ **Date:** 4/21/25

Ross Engineering
Civil/Structural Engineering & Surveying

909 Islington Street **603-433-7560**
Portsmouth, NH 03801 **alexross@comcast.net**

May 28, 2025

City of Portsmouth Planning Department
1 Jenkins Avenue
Portsmouth, NH 03801

Waiver Request Letter

Re: Amended Site Plan Application
Minor Drainage Improvements
Tax Map 104, Lot 7
Portsmouth, NH

Planning Board Members, we are requesting waivers to the site plan review regulations listed below, due to the fact that this is a fully developed existing site with site plan approval. The work proposed in this application is for drainage improvements. Waivers have been requested for regulations for which the work proposed will not impact.

1) ***2.5.3.1B: Green Building Components***
   There is no proposed work to any structures in this application.

2) ***2.5.4.3.D: Parking and Loading***
   Parking will not be impacted by the drainage improvements.

3) ***2.5.4.3.H: Solid Waste Facilities***
   Solid Waste Facilities will not be impacted by the drainage improvements.

4) ***2.5.4.3.J: Outdoor Lighting***
   Outdoor Lighting will not be impacted by the drainage improvements.

5) ***2.5.4.3.M: Open Space***
   Drainage improvements include rain gardens, swales, and grading. There is no decrease in open space as a result of the drainage improvements.

6) ***3.2.1-2: Traffic Impact Study***
   Drainage improvements will not impact the traffic generated by the site.

7) ***7.4: Stormwater Calculations and Independent Review***
   A drainage study is not necessary for these minor improvements.

8) ***10.1: Dark Sky Friendly Measures***
   Outdoor Lighting will not be impacted by the drainage improvements.

Ross Engineering
Civil/Structural Engineering & Surveying

909 Islington Street **603-433-7560**
Portsmouth, NH 03801 **alexross@comcast.net**

Thank you for your consideration.

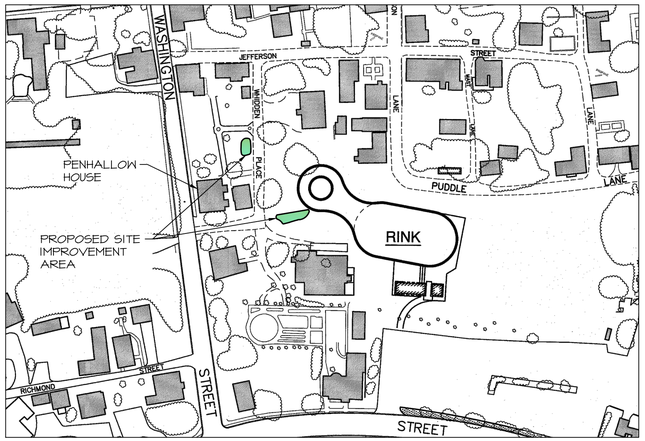
Sincerely,

Alex Ross, P.E., LLS

Amended Site Plan Application
Minor Drainage Improvements

Strawbery Banke

Portsmouth, NH 03801



PREPARED FOR:

Strawbery Banke

PREPARED BY:

ROSS ENGINEERING, LLC
Civil/Structural Engineering
& Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

Placework
96 Penhallow Street
Portsmouth, NH 03801
(603) 319-8199

Horsley Witten Group
90 Route 6A, Unit 1
Sandwich, MA 02563
(508) 833-6600

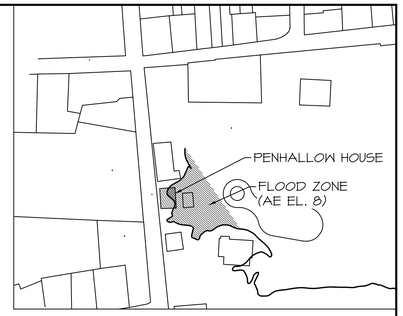
LIST OF PROJECT PLANS:

SITE PLAN SET

May 28, 2025

LEGEND

- 10 — EXISTING CONTOUR
- 10x00 SPOT ELEVATION
- DRAINAGE FLOW PATH
- (D) DRAIN MANHOLE
- (S) SEWER MANHOLE
- FENCE
- UTILITY POLE
- —OHU— OVERHEAD UTILITIES
- — W — WATER
- —SPK— SPRINKLER LINE
- — G — GAS
- — S — SEWER
- — D — STORMWATER DRAIN
- VERTICAL GRANITE CURB
- CATCH BASIN
- WATER SHUT-OFF
- WATER GATE VALVE
- RCP REINFORCED CONCRETE PIPE
- VC VITRIFIED CLAY PIPE



LOCUS PLAN
N.T.S.

NOTES

1) OWNER OF RECORD:
STRAWBERY BANKE INC
TAX MAP 104, LOT 7
PO BOX 300
PORTSMOUTH, NH 03802
AREA: 8.24 ACRES

2) BASIS OF BEARING HELD FROM PLAN REFERENCE #1.

3) PARCEL IS IN MIXED RESIDENCE-OFFICE ZONE (MRO) AND HISTORIC DISTRICT (HD):
MINIMUM LOT AREA.....7,500 SF
MIN. LOT AREA PER DWELLING UNIT.....7,500 SF
MINIMUM FRONTAGE.....100 FT
MINIMUM DEPTH.....80 FT
SETBACKS:
FRONT.....5FT
SIDE.....10 FT
REAR.....15 FT
MAXIMUM BUILDING HEIGHT:
SLOPED ROOF.....40 FT
FLAT ROOF.....30 FT
MAXIMUM BUILDING COVERAGE.....40%
MINIMUM OPEN SPACE.....25%

4) THE PARCEL IS PARTIALLY LOCATED WITHIN FEMA FLOOD ZONE AE (EL 8), AS PER FLOOD INSURANCE RATE MAP #33015C0254F, PANEL 259 OF 681, DATED JANUARY 29, 2021. VERTICAL DATUM IS NAVD 1988.

5) ELEVATIONS SHOWN WERE OBTAINED USING GPS DATA OBTAINED BY THIS OFFICE USING A BRx7 GPS UNIT ON AUGUST 18, 2023.

REFERENCE PLANS

1) "EXISTING CONDITIONS PLAN STRAWBERY BANKE" BY JAMES VERRA AND ASSOCIATES, INC. DATED MARCH 17, 2016.

2) "PROPOSED SEASONAL ICE SKATING RINK" BY JOHN CHAGNON AND AMBIT ENGINEERING, INC. DATED MAY 25, 2016

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
SCALE: 1" = 10'

ISS.	DATE	DESCRIPTION OF ISSUE
2	5/28/2025	REVISIONS
1	4/21/2025	TAC SUBMITTAL

SCALE 1" = 10'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

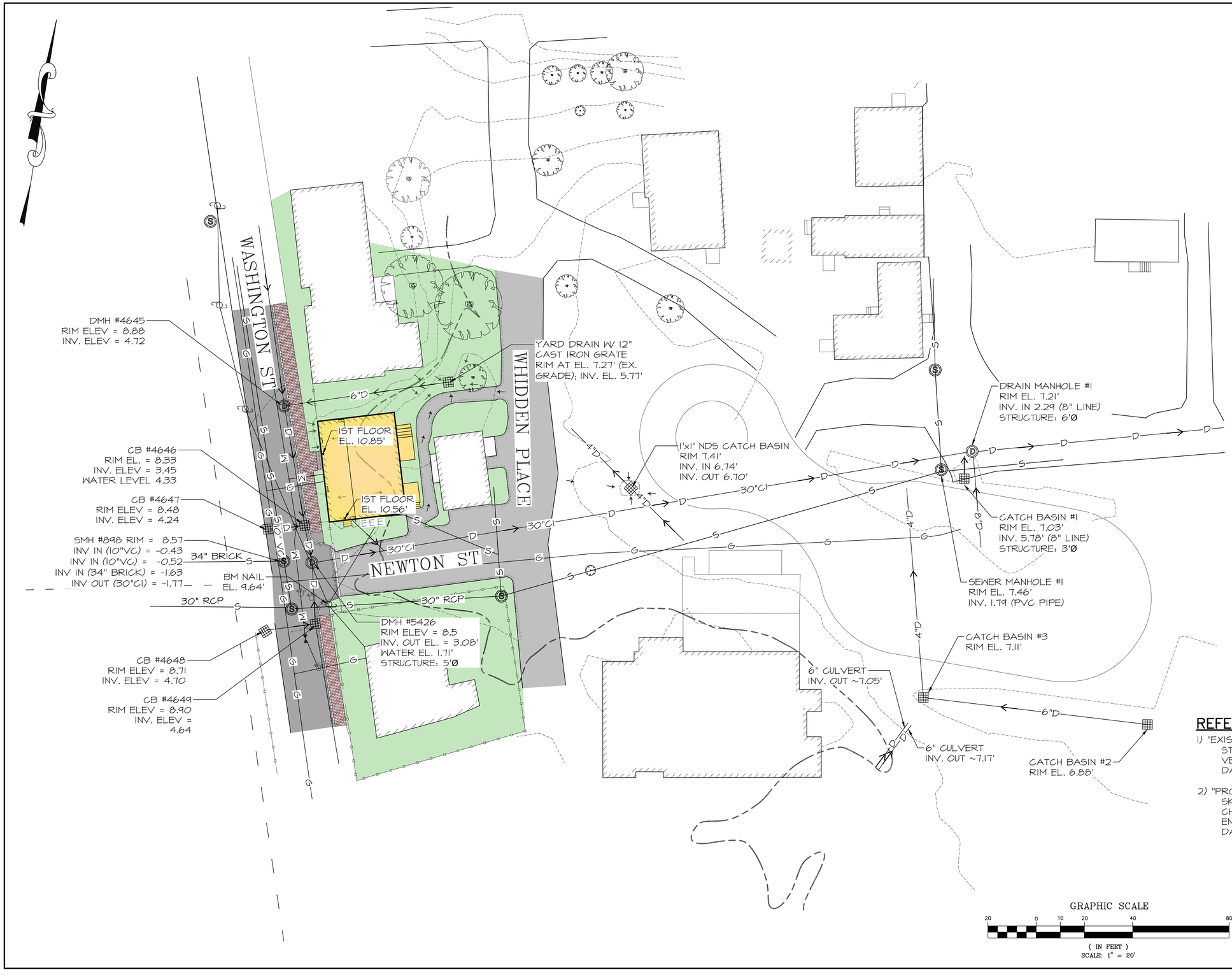
ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RODNEY D ROWLAND
STRAWBERY BANKE MUSEUM,
PO BOX 300,
PORTSMOUTH, NH 03802

TITLE
EXISTING CONDITIONS

WHIDDEN PL & NEWTON ST
DRAINAGE IMPROVEMENTS
PORTSMOUTH, NH 03801
TAX MAP 104, LOT 7–9

JOB NUMBER	DWG. NO.	ISSUE
22–027	1 OF 9	2



LEGEND

- EXISTING CONTOUR
- SPOT ELEVATION
- DRAINAGE FLOW PATH
- DRAIN MANHOLE
- SEWER MANHOLE
- FENCE
- UTILITY POLE
- OVERHEAD UTILITIES
- WATER
- SPRINKLER LINE
- GAS
- SEWER
- STORMWATER DRAIN
- VERTICAL GRANITE CURB
- CATCH BASIN
- WATER SHUT-OFF
- WATER GATE VALVE
- RCP — REINFORCED CONCRETE PIPE
- VC — VITRIFIED CLAY PIPE

REFERENCE PLANS

1) "EXISTING CONDITIONS PLAN STRAWBERY BANKE" BY JAMES VERRA AND ASSOCIATES, INC. DATED MARCH 17, 2016.

2) "PROPOSED SEASONAL ICE SKATING RINK" BY JOHN CHAGNON AND AMBIT ENGINEERING, INC. DATED MAY 25, 2016

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
SCALE: 1" = 20'

R. ALEX ROSS No. 9409 LICENSED PROFESSIONAL ENGINEER - STATE OF NEW HAMPSHIRE

ISS.	DATE	DESCRIPTION OF ISSUE
2	5/28/2025	REVISIONS
1	4/21/2025	TAC SUBMITTAL

SCALE 1" = 20'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RODNEY D ROWLAND
STRAWBERY BANKE MUSEUM,
PO BOX 300,
PORTSMOUTH, NH 03802

TITLE

EXISTING CONDITIONS

WHIDDEN PL & NEWTON ST
DRAINAGE IMPROVEMENTS
PORTSMOUTH, NH 03801
TAX MAP 104, LOT 7-9

JOB NUMBER	DWG. NO.	ISSUE
22-027	2 OF 9	2

UTILITIES:

1) CONTACT LIST:
GAS: UNITIL: SUSAN L. DUPLISEA.....603-294-5147
WATER: PORTSMOUTH DPW: 603-427-1530
SEWER: PORTSMOUTH DPW: 603-427-1530
STORMWATER: PORTSMOUTH DPW: 603-427-1530
ELECTRIC: EVERSOURCE: CASEY MCDONALD.....603-436-7708 EXT 5641

2) DRAIN MANHOLE #5426 IS TO BE KEPT IN PLACE. THE COVER OF THIS DMH IS TO BE ADJUSTED TO MATCH THE SLOPE OF THE GRADE THAT HAS BEEN ALTERED AT THE ENTRANCE ON WASHINGTON ST.

3) INSTALL WASTOP INLINE CHECK VALVE IN CB C & CB D TO ENSURE NO BACKFLOW INTO CATCH BASINS B, C & D.

LEGEND

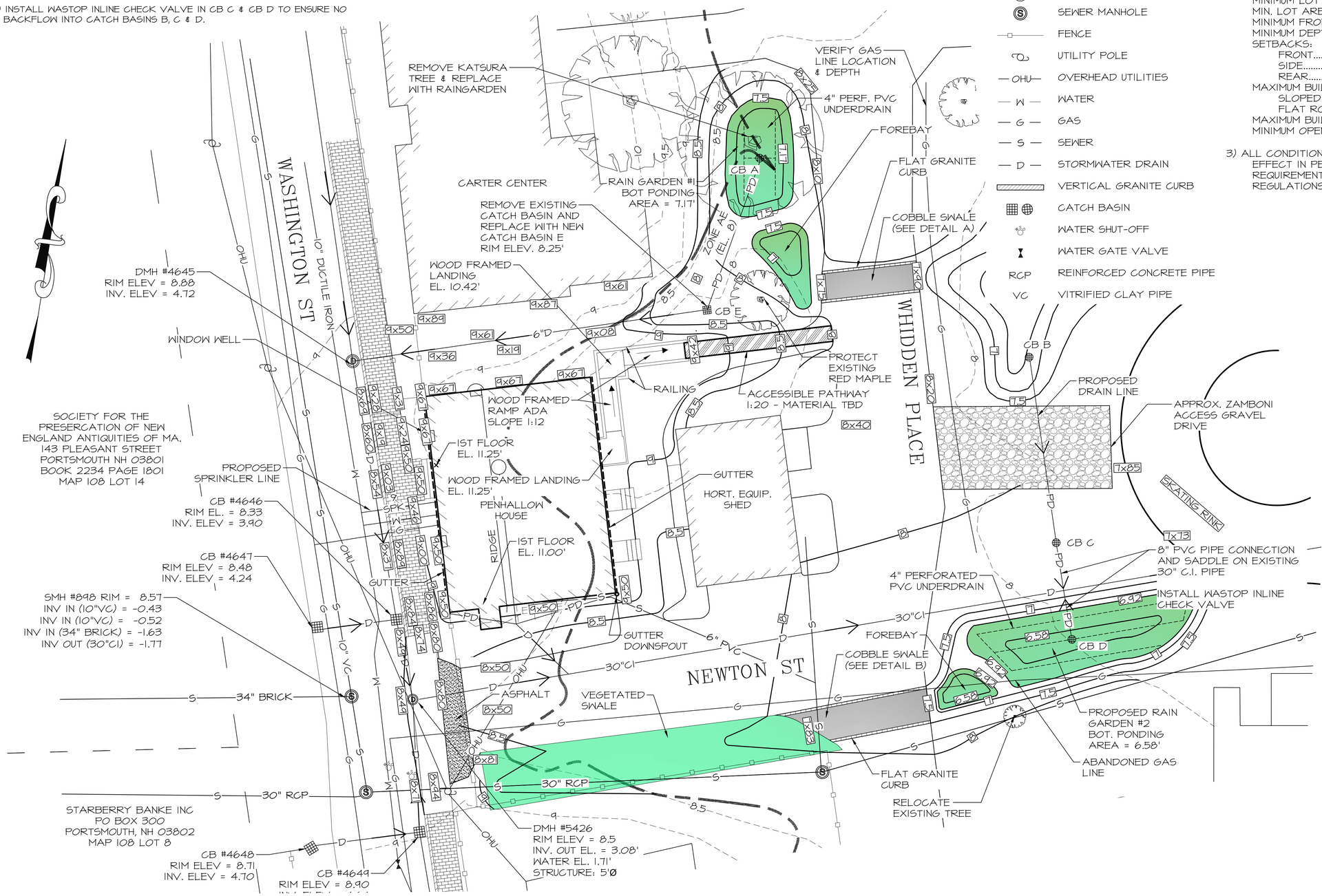
- EXISTING CONTOUR
- PROPOSED CONTOUR
- SPOT ELEVATION
- DRAINAGE FLOW PATH
- DRAIN MANHOLE
- SEWER MANHOLE
- FENCE
- UTILITY POLE
- OVERHEAD UTILITIES
- WATER
- GAS
- SEWER
- STORMWATER DRAIN
- VERTICAL GRANITE CURB
- CATCH BASIN
- WATER SHUT-OFF
- WATER GATE VALVE
- RCP — REINFORCED CONCRETE PIPE
- VC — VITRIFIED CLAY PIPE

NOTES

1) OWNER OF RECORD:
STRAWBERY BANKE INC
TAX MAP 104, LOT 7
PO BOX 300
PORTSMOUTH, NH 03802
AREA: 8.24 ACRES

2) PARCEL IS IN MIXED RESIDENCE-OFFICE ZONE (MRO) AND HISTORIC DISTRICT (HD):
MINIMUM LOT AREA.....7,500 SF
MIN. LOT AREA PER DWELLING UNIT.....7,500 SF
MINIMUM FRONTAGE.....100 FT
MINIMUM DEPTH.....80 FT
SETBACKS:
FRONT.....5FT
SIDE.....10 FT
REAR.....15 FT
MAXIMUM BUILDING HEIGHT:
SLOPED ROOF.....40 FT
FLAT ROOF.....30 FT
MAXIMUM BUILDING COVERAGE.....40%
MINIMUM OPEN SPACE.....25%

3) ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.



GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
SCALE: 1" = 10'

ISS.	DATE	DESCRIPTION OF ISSUE
2	5/28/2025	REVISIONS
1	4/21/2025	TAC SUBMITTAL

SCALE 1" = 10'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RODNEY D ROWLAND
STRAWBERY BANKE MUSEUM,
PO BOX 300,
PORTSMOUTH, NH 03802

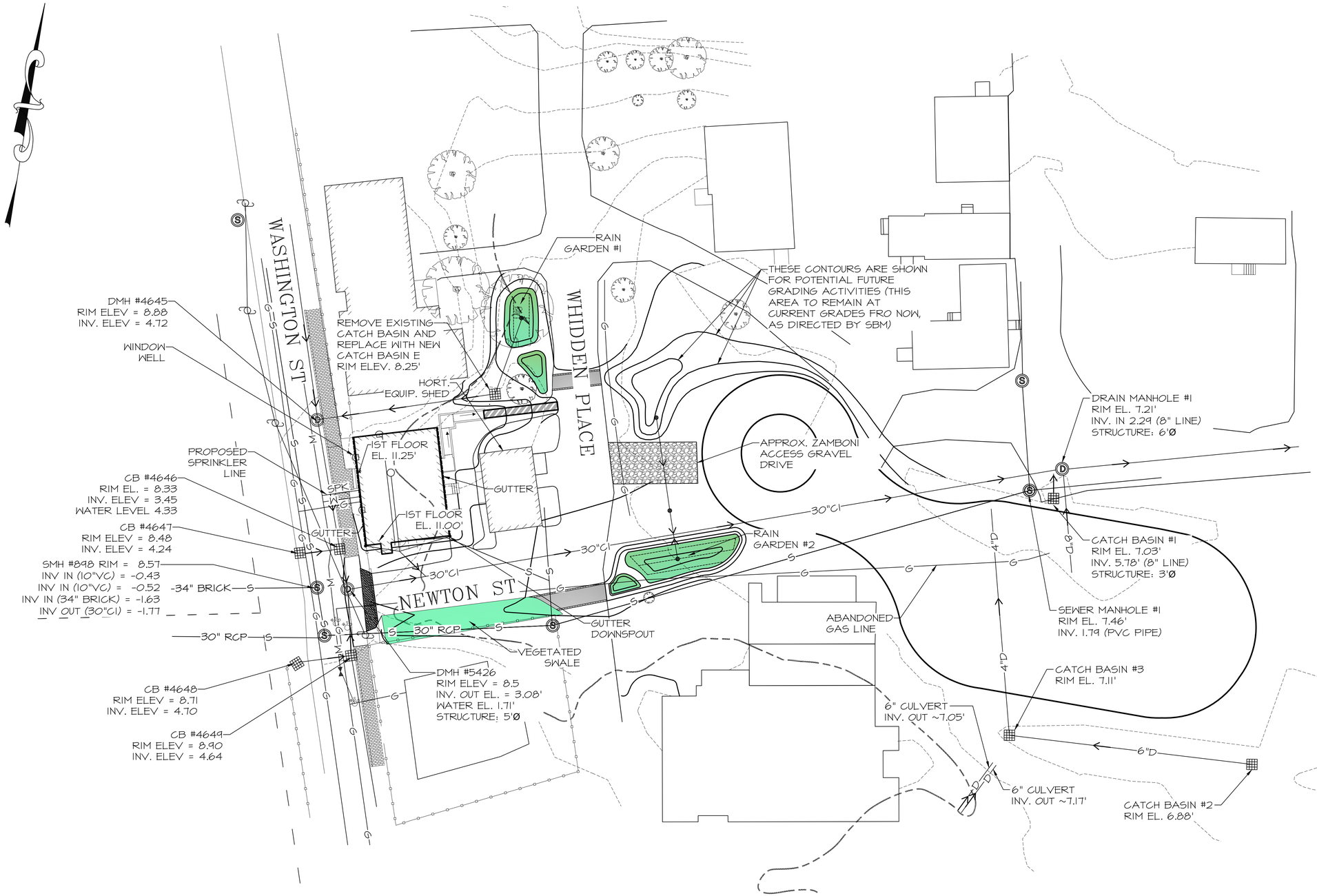
TITLE

SITE PLAN

WHIDDEN PL & NEWTON ST
DRAINAGE IMPROVEMENTS
PORTSMOUTH, NH 03801
TAX MAP 104, LOT 7-9

STATE OF NEW HAMPSHIRE — R. ALEX ROSS No. 9409 LICENSED PROFESSIONAL ENGINEER

JOB NUMBER	DWG. NO.	ISSUE
22-027	3 OF 9	2



LEGEND

- EXISTING CONTOUR
- SPOT ELEVATION
- DRAINAGE FLOW PATH
- DRAIN MANHOLE
- SEWER MANHOLE
- FENCE
- UTILITY POLE
- OHU — OVERHEAD UTILITIES
- W — WATER
- SPK — SPRINKLER LINE
- G — GAS
- S — SEWER
- D — STORMWATER DRAIN
- VERTICAL GRANITE CURB
- CATCH BASIN
- WATER SHUT-OFF
- WATER GATE VALVE
- RCP — REINFORCED CONCRETE PIPE
- VC — VITRIFIED CLAY PIPE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
SCALE: 1" = 20'

ISS.	DATE	DESCRIPTION OF ISSUE
2	5/28/2025	REVISIONS
1	4/21/2025	TAC SUBMITTAL

SCALE 1" = 20'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RODNEY D ROWLAND
STRAWBERY BANKE MUSEUM,
PO BOX 300,
PORTSMOUTH, NH 03802

TITLE

SITE PLAN

WHIDDEN PL & NEWTON ST
DRAINAGE IMPROVEMENTS
PORTSMOUTH, NH 03801
TAX MAP 104, LOT 7-9

STATE OF NEW HAMPSHIRE · R. ALEX ROSS No. 9409 · LICENSED PROFESSIONAL ENGINEER

JOB NUMBER	DWG. NO.	ISSUE
22-027	4 OF 9	2

EXISTING STRUCTURES

CATCH BASIN

CB #4646
RIM EL. 8.33
INV. 3.90

CB #4647
RIM EL. 8.48
INV. 4.24

CB #4648
RIM EL. 8.71
INV. 4.70

CB #4649
RIM EL. 8.90
INV. 4.64

DRAIN MANHOLE

DMH #4645
RIM EL. 8.88
INV. 4.72

DMH #5426
RIM EL. 8.50
INV. OUT -1.38 (30" CI)

PROPOSED STRUCTURES

CATCH BASIN

CB A
RIM EL. 7.50
INV. IN 6.17 (4" PERF. PVC UNDERDRAIN)
INV. IN 6.17 (4" PERF. PVC UNDERDRAIN
INV. OUT 6.12 (6" PVC)
STRUCTURE: 18" PERFORATED NYLOPLAST WITH DOME (BEEHIVE) GRATE

CB B
RIM EL. 7.67
INV. OUT 6.00 (6" PVC)
STRUCTURE: 18" PERFORATED NYLOPLAST WITH STANDARD GRATE
USE REMOVABLE RISER TO ALLOW FOR FUTURE RIM ELEV. RETROFIT

CB C
RIM EL. 7.50
INV. IN 5.60 (6" PVC)
INV. OUT 5.50 (8" PVC)
STRUCTURE: 18" PERFORATED NYLOPLAST WITH STANDARD GRATE

CB D
RIM EL. 7.00
INV. IN 5.58 (4" PERF. PVC UNDERDRAIN)
INV. IN 5.58 (4" PERF. PVC UNDERDRAIN)
INV. OUT 5.50 (8" PVC)
STRUCTURE: 18" PERFORATED NYLOPLAST WITH DOME (BEEHIVE) GRATE

CB E
RIM EL. 8.25
INV. IN 5.80 (6" PVC)
INV. OUT 5.75 (6" PVC)
STRUCTURE: 18" PERFORATED NYLOPLAST WITH STANDARD GRATE

NOTES

1) THE FOLLOWING STORMWATER MANAGEMENT IMPROVEMENTS ARE PROPOSED.

A) INSTALL TWO RAIN GARDENS WITH UNDERDRAINS AND FOREBAYS. RUNOFF TO BE DIRECTED INTO THE RAIN GARDENS, WHICH WILL DETAIN THE RUNOFF AND SLOWLY RELEASE IT INTO SURROUNDING SOILS. UNDERDRAINS WILL DIRECT EXCESS RUNOFF INTO NEW CATCH BASINS.

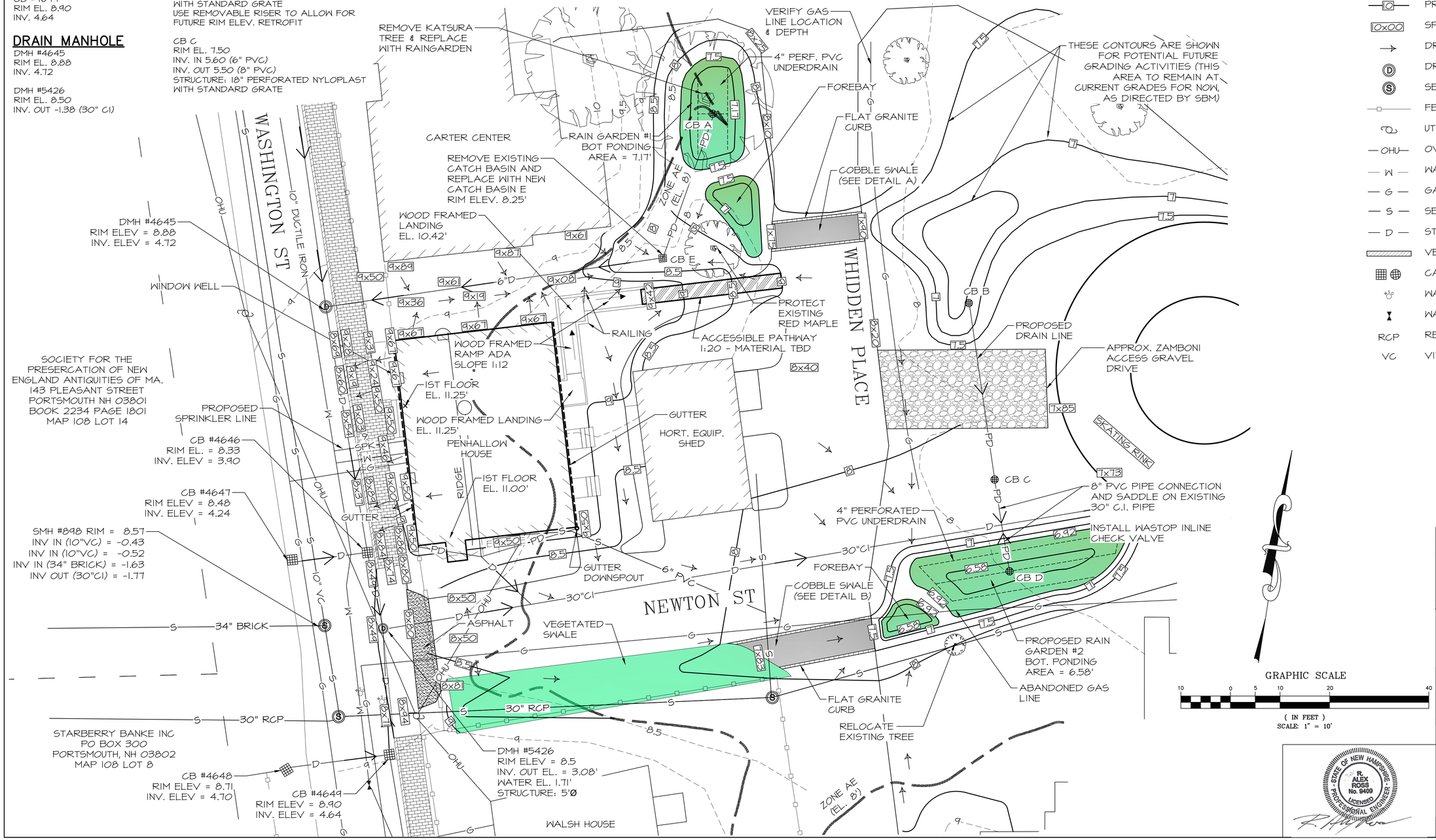
B) INSTALL 2 COBBLE SWALES AND 1 VEGETATED SWALE TO DIRECT DRAINAGE INTO THE FOREBAYS OF THE RAIN GARDENS, THEN TO THE RAIN GARDEN. COBBLE SWALES TO BE INSTALLED CROSSING WHIDDEN PLACE, AND THE VEGETATED SWALE TO BE CONSTRUCTED ON THE SOUTHERN SIDE OF NEWTON ST.

C) INSTALL 5 NEW CATCH BASINS TO COLLECT EXCESS RUNOFF AND DIRECT IT THROUGH EXISTING AND PROPOSED DRAIN LINES INTO AN EXISTING 30" CAST IRON DRAIN LINE.

D) RAISE THE ELEVATION OF THE PAVEMENT AT THE ENTRANCE OF NEWTON ST TO DIRECT RUNOFF ON WASHINGTON ST INTO THE CATCH BASINS ON WASHINGTON ST, RATHER THAN WASHING OUT NEWTON ST.

LEGEND

10	EXISTING CONTOUR
10	PROPOSED CONTOUR
10x00	SPOT ELEVATION
	DRAINAGE FLOW PATH
D	DRAIN MANHOLE
S	SEWER MANHOLE
	FENCE
	UTILITY POLE
OHU	OVERHEAD UTILITIES
W	WATER
G	GAS
S	SEWER
D	STORMWATER DRAIN
	VERTICAL GRANITE CURB
	CATCH BASIN
	WATER SHUT-OFF
	WATER GATE VALVE
RCP	REINFORCED CONCRETE PIPE
VC	VITRIFIED CLAY PIPE



ISS.	DATE	DESCRIPTION OF ISSUE
2	5/28/2025	REVISIONS
1	4/21/2025	TAC SUBMITTAL

SCALE 1" = 10'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RODNEY D ROWLAND
STRAWBERY BANKE MUSEUM,
PO BOX 300,
PORTSMOUTH, NH 03802

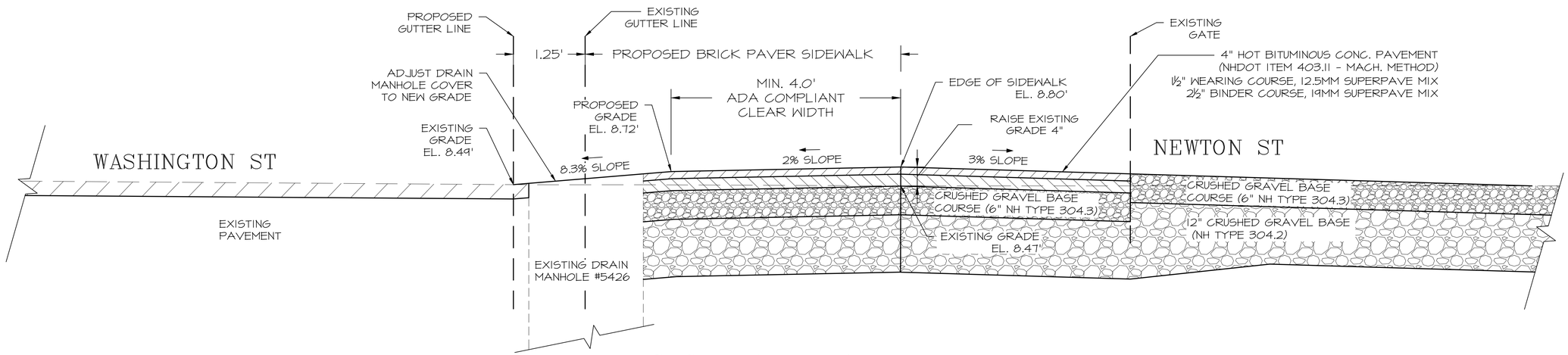
TITLE

DRAINAGE PLAN

WHIDDEN PL & NEWTON ST
DRAINAGE IMPROVEMENTS
PORTSMOUTH, NH 03801
TAX MAP 104, LOT 7-9

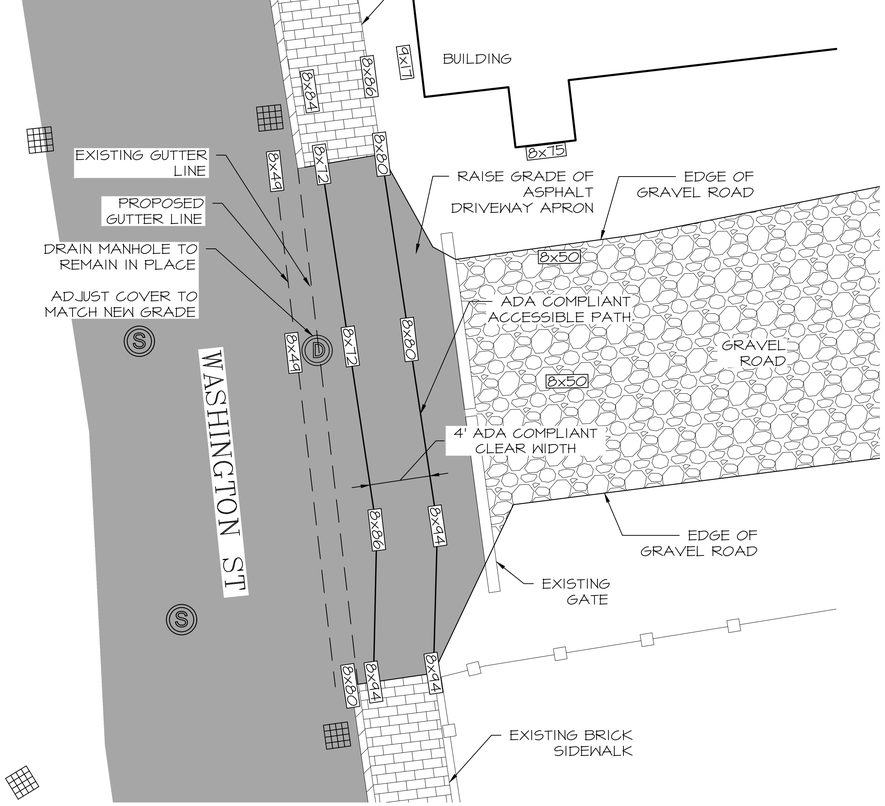
STATE OF NEW HAMPSHIRE · R. ALEX ROSS No. 9409 · LICENSED PROFESSIONAL ENGINEER

JOB NUMBER	DWG. NO.	ISSUE
22-027	5 OF 9	2



BRICK SIDEWALK DETAIL

N.T.S



NOTES

1) OWNER OF RECORD:
STRAWBERY BANKE INC
TAX MAP 104, LOT 7
PO BOX 300
PORTSMOUTH, NH 03802
AREA: 8.24 ACRES

2) PARCEL IS IN MIXED RESIDENCE-OFFICE ZONE (MRO) AND HISTORIC DISTRICT (HD):
MINIMUM LOT AREA.....7,500 SF
MIN. LOT AREA PER DWELLING UNIT.....7,500 SF
MINIMUM FRONTAGE.....100 FT
MINIMUM DEPTH.....80 FT
SETBACKS:
FRONT.....5FT
SIDE.....10 FT
REAR.....15 FT
MAXIMUM BUILDING HEIGHT:
SLOPED ROOF.....40 FT
FLAT ROOF.....30 FT
MAXIMUM BUILDING COVERAGE.....40%
MINIMUM OPEN SPACE.....25%

UTILITIES:

CONTACT LIST:
GAS: UNITIL: SUSAN L. DUPLISEA.....603-294-5147
WATER: PORTSMOUTH DPW: 603-427-1530
SEWER: PORTSMOUTH DPW: 603-427-1530
STORMWATER: PORTSMOUTH DPW: 603-427-1530
ELECTRIC: EVERSOURCE: CASEY MCDONALD.....603-436-7708 EXT 5641

ISS.	DATE	DESCRIPTION OF ISSUE
2	5/28/2025	REVISIONS
1	4/21/2025	TAC SUBMITTAL

SCALE 1" = 10'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

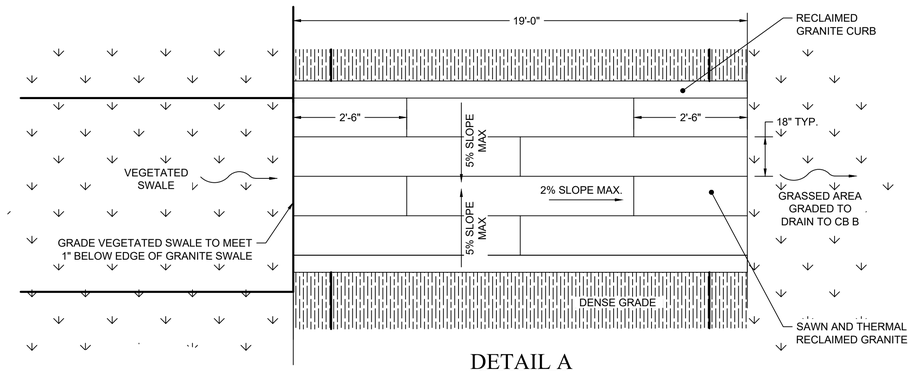
CLIENT
RODNEY D ROWLAND
STRAWBERY BANKE MUSEUM,
PO BOX 300,
PORTSMOUTH, NH 03802

TITLE
FRONT ENTRANCE DETAILS

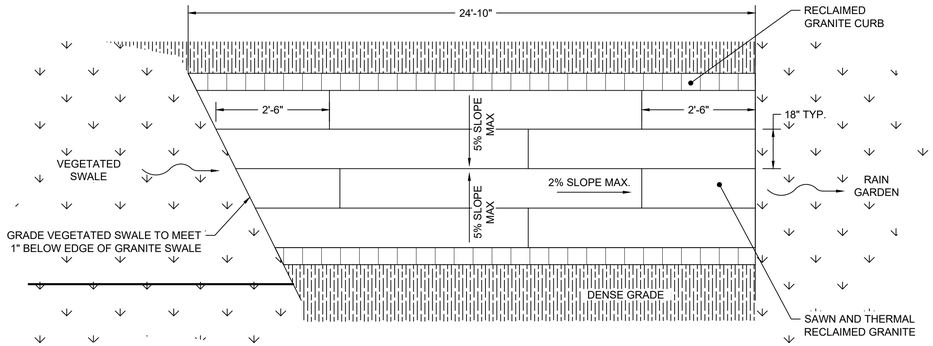
WHIDDEN PL & NEWTON ST
DRAINAGE IMPROVEMENTS
PORTSMOUTH, NH 03801
TAX MAP 104, LOT 7-9

STATE OF NEW HAMPSHIRE - R. ALEX ROSS No. 9409 LICENSED PROFESSIONAL ENGINEER

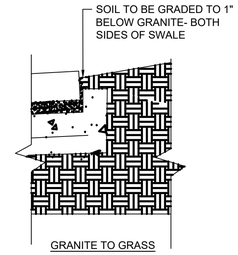
JOB NUMBER	DWG. NO.	ISSUE
22-027	6 OF 9	2



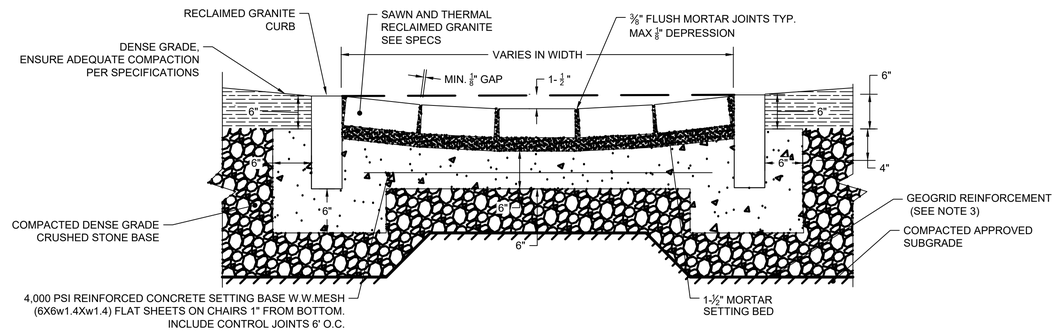
DETAIL A
N.T.S.



DETAIL B
N.T.S.



GRANITE TO GRASS TRANSITION



NOTES:
1. THIS SWALE SECTION MUST BE ADA AND MAAB COMPLIANT. SPECIAL CARE SHOULD BE TAKEN DURING INSTALLATION OF GRANITE TO MAINTAIN A MAXIMUM VERTICAL DIFFERENCE BETWEEN ANY STONE OR TRANSITION OF 1/4". TRANSITIONS BETWEEN SWALE AND CURBING SHOULD BE AS FLUSH AND SMOOTH AS PRACTICABLE. THE SLOPES OF THE SWALE SHALL BE 4.5% OR LESS.
2. THE RECLAIMED GRANITE CURB WILL SPAN THE 10' WIDE PATH, THE SAME WIDTH AS THE DENSE GRADE.
3. SEE AGGREGATE BASE COURSE SPECIFICATION FOR GEOGRID.

TYPICAL COBBLE SWALE CROSS SECTION
N.T.S.

ISS.	DATE	DESCRIPTION OF ISSUE
2	5/28/2025	REVISIONS
1	4/21/2025	TAC SUBMITTAL

SCALE 1" = 10'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

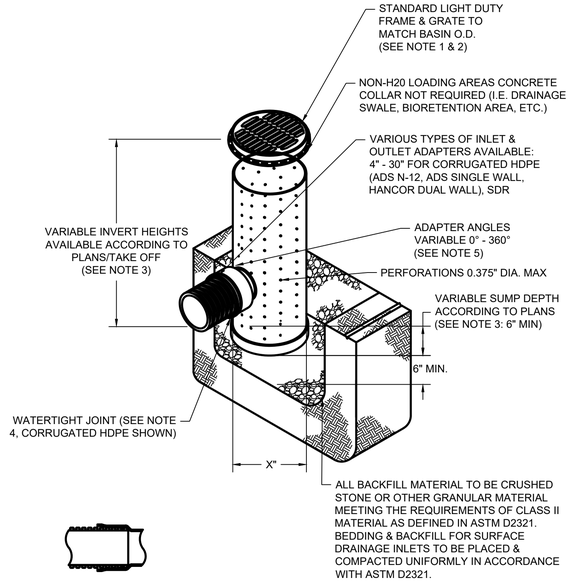
ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RODNEY D ROWLAND
STRAWBERY BANKE MUSEUM,
PO BOX 300,
PORTSMOUTH, NH 03802

TITLE
COBBLE SWALE DETAILS
WHIDDEN PL & NEWTON ST
DRAINAGE IMPROVEMENTS
PORTSMOUTH, NH 03801
TAX MAP 104, LOT 7-9

JOB NUMBER	DWG. NO.	ISSUE
22-027	7 OF 9	2

R. ALEX ROSS No. 9409 LICENSED PROFESSIONAL ENGINEER - STATE OF NEW HAMPSHIRE

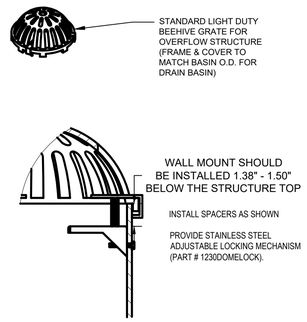


NOTES:
1. GRATES/SOLID COVER TO BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05,
2. FRAMES TO BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS SEE DRAWING NO. 7001-110-065
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS TO CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012, 7001-110-013, & 7001-110-014
6. TO PREVENT BLOCKAGE OF PERFORATIONS, BASIN SHOULD BE WRAPPED IN AN ENGINEER APPROVED GEO-TEXTILE FABRIC

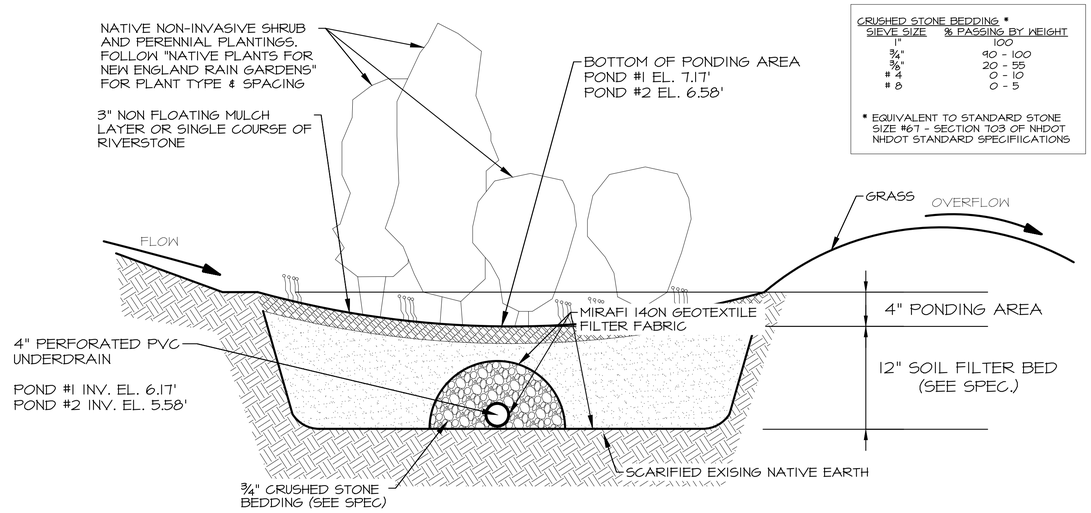
Nyloplast
3128 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

PERFORATED DRAIN BASIN
NOT TO SCALE

BY "NYLOPLAST" OR APPROVED EQUIVALENT



DOME GRATE DETAIL
NOT TO SCALE



CRUSHED STONE BEDDING *

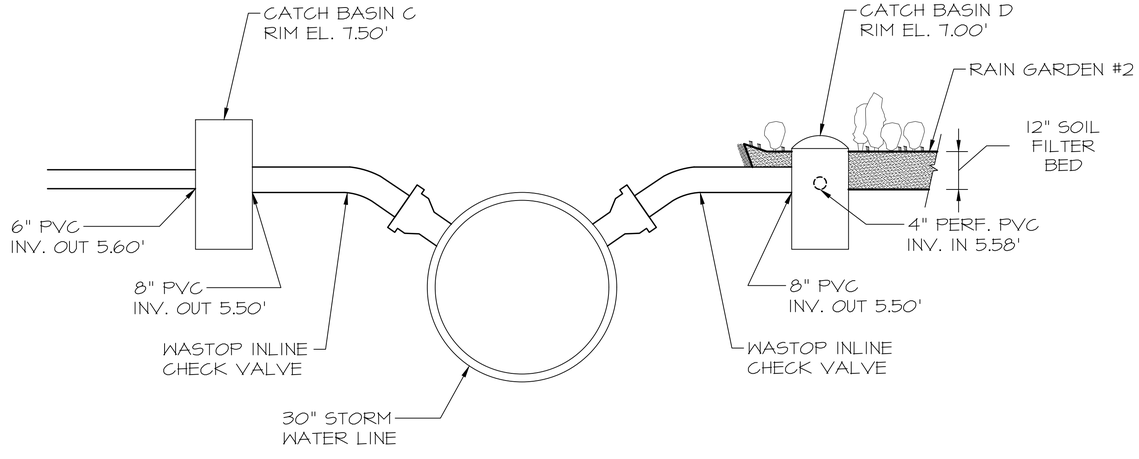
SIEVE SIZE	% PASSING BY WEIGHT
1"	100
3/4"	90 - 100
3/8"	20 - 55
# 4	0 - 10
# 8	0 - 5

* EQUIVALENT TO STANDARD STONE SIZE #67 - SECTION 703 OF NHDOT NHDOT STANDARD SPECIFIICATIONS

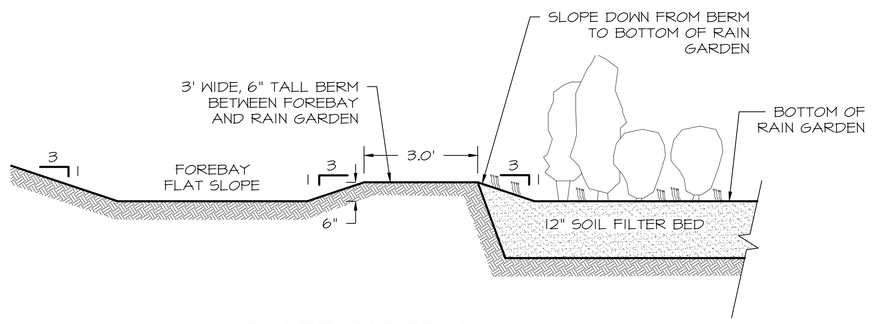
TYPICAL RAINGARDEN DETAIL
NOT TO SCALE

Component Material	Percent of Mixture by Volume	Gradation of Material	
		Sieve No.	Percent by Weight Passing Standard Sieve
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	<5
Loamy coarse sand	70 to 80	10	85 to 100
		20	70 to 100
		60	15 to 40
		200	8 to 15

FILTER MEDIA SPECIFICATION



STORM WATER LINE SECTION
Scale : N.T.S.



FOREBAY DETAIL
NTS

ISS.	DATE	DESCRIPTION OF ISSUE
2	5/28/2025	REVISIONS
1	4/21/2025	TAC SUBMITTAL

SCALE 1" = 10'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RODNEY D ROWLAND
STRAWBERY BANKE MUSEUM,
PO BOX 300,
PORTSMOUTH, NH 03802

TITLE

DETAILS

WHIDDEN PL & NEWTON ST
DRAINAGE IMPROVEMENTS
PORTSMOUTH, NH 03801
TAX MAP 104, LOT 7-9

R. ALEX ROSS No. 9409 LICENSED PROFESSIONAL ENGINEER - STATE OF NEW HAMPSHIRE

JOB NUMBER	DWG. NO.	ISSUE
22-027	8 OF 9	2

EROSION AND SEDIMENTATION CONTROL CONSTRICTION PHASING AND SEQUENCING

1. SEE "EROSION AND SEDIMENTATION CONTROL GENERAL NOTES" WHICH ARE TO BE AN INTEGRAL PART OF THIS PROCESS.
2. INSTALL SILTSOXX FENCING AS PER DETAILS AND AT SEDIMENT MIGRATION.
3. CONSTRUCT TREATMENT SWALES , LEVEL SPREADERS AND DETENTION STRUCTURES AS DEPICTED ON DRAWINGS.
4. STRIP AND STOCKPILE TOPSOIL. STABILIZE PILES OF SOIL CONSTRUCTION MATERIAL & COVER WHERE PRACTICABLE.
5. MINIMIZE DUST THROUGH APPROPRIATE APPLICATION OF WATER OR OTHER DUST SUPPRESSION TECHNIQUES ON SITE.
6. ROUGH GRADE SITE. INSTALL CULVERTS AND ROAD DITCHES.
7. FINISH GRADE AND COMPACT SITE.
8. RE-SPREAD AND ADD TOPSOIL TO ALL ROADSIDE SLOPES. TOTAL TOPSOIL THICKNESS TO BE A MINIMUM OF FOUR TO SIX INCHES.
9. STABILIZE ALL AREAS OF BARE SOIL WITH MULCH AND SEEDING.
10. RE-SEED PER EROSION AND SEDIMENTATION CONTROL GENERAL NOTES.
11. SILT SOXX FENCING TO REMAIN AND BE MAINTAINED FOR TWENTY FOUR MONTHS AFTER CONSTRUCTION TO ENSURE ESTABLISHMENT OF ADEQUATE SOIL STABILIZATION AND VEGETATIVE COVER. ALL SILT SOXX FENCING ARE THEN TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.
12. PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.
13. ALL TEMPORARY WATER DIVERSION (SWALES, BASINS, ETC. MUST BE USED AS NECESSARY UNTIL AREAS ARE STABILIZED.
14. PONDS AND SWALES SHALL BE INSTALLED EARLY ON IN THE CONSTRUCTION SEQUENCE - BEFORE ROUGH GRADING THE SITE.
15. ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM
16. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
17. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
18. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-INCH OF RAINFALL.
19. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
20. LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.

PLANTING NOTES:

1. ALL PLANT MATERIALS SHALL BE FIRST QUALITY NURSERY GROWN STOCK.
2. ALL PLANTS SHALL BE PLANTED IN ACCORDANCE WITH NEW HAMPSHIRE LANDSCAPE ASSOCIATION STANDARDS AND GUARANTEED FOR ONE YEAR BY THE LANDSCAPE CONTRACTOR.
3. ALL TREES AND SHRUBS SHALL HAVE WATER SAUCERS BUILT AROUND THEIR BASES AND THESE SHALL BE MULCHED WITH 4" OF DARK BROWN AGED BARK MULCH. MULCH MUST BE KEPT 2" AWAY FROM THEIR TRUNKS.
4. ALL TREES AND SHRUBS SHALL BE PLANTED AND MULCHED BEFORE LAWN IS SEEDED.

MAINTENANCE REQUIREMENTS:

1. ALL TREES, SHRUBS, AND PERENNIALS WILL NEED TO BE WATERED THROUGH THANKSGIVING DURING THE FIRST SEASON IN WHICH THEY ARE INSTALLED.
2. AN UNDERGROUND DRIP IRRIGATION SYSTEM IS RECOMMENDED. IF AN UNDERGROUND DRIP IRRIGATION SYSTEM IS NOT INSTALLED, SOAKER HOSES WOUND THROUGHOUT PLANTING BEDS ARE ACCEPTABLE. ALTHOUGH OVERHEAD SPRINKLERS ARE RECOMMENDED FOR LAWN AREAS, THEY ARE NOT ACCEPTABLE FOR IRRIGATING TREES AND SHRUBS.

SEEDING AND STABILIZATION FOR LOAMED SITE:

FOR TEMPORARY & LONG TERM SEEDINGS USE AGWAY'S SOIL CONSERVATION GRASS SEED OR EQUAL
COMPONENTS: ANNUAL RYE GRASS, PERENNIAL RYE GRASS, WHITE CLOVER, 2 FESCUES, SEED AT A RATE OF 100 POUNDS PER ACRE,
FERTILIZER & LIME:
NITROGEN (N) 50 LBS/ACRE, PHOSPHATE (P205) 100 LBS/ACRE, POTASH (K20) 100 LBS/ACRE, LIME 2000 LBS/ACRE
MULCH:
HAY OR STRAW 1.5-2 TONS/ACRE

A) GRADING AND SHAPING
1) SLOPES SHALL NOT BE STEEPER THAN 2:1; 3:1 SLOPES OR FLATTER ARE PREFERRED. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.

B) SEED BED PREPARATION
1) SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
2) STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND MIX FERTILIZER AND LIME INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

EROSION AND SEDIMENTATION CONTROL GENERAL NOTES

1. CONDUCT ALL CONSTRUCTION IN A MANNER AND SEQUENCE THAT CAUSES THE LEAST PRACTICAL DISTURBANCE OF THE PHYSICAL ENVIRONMENT, BUT IN NO CASE SHALL EXCEED 2 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
2. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
3. ALL DITCHES, SWALES AND PONDS MUST BE STABILIZED PRIOR TO DIRECTING FLOW TO THEM.
4. ALL GROUND AREAS, OPENED UP FOR CONSTRUCTION WILL BE STABILIZED WITHIN 24 HOURS OF EARTH-DISTURBING ACTIVITIES BEING CEASED, AND WILL BE FULLY STABILIZED NO LONGER THAN 14 DAYS AFTER INITIATION, (SEE NOTE 11 FOR DEFINITION OF STABLE). ALL SOILS FINISH GRADED MUST BE STABILIZED WITHIN SEVENTY TWO HOURS OF DISTURBANCE. ALL TEMPORARY OR LONG TERM SEEDING MUST BE APPLIED TO COMPLY WITH "WINTER CONSTRUCTION NOTES" (SEE WINTER CONSTRUCTION NOTES). EMPLOY TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES AS DETAILED ON THIS PLAN AS NECESSARY UNTIL ADEQUATE STABILIZATION HAS BEEN ASSURED (SEE NOTE 11 FOR DEFINITION OF STABLE).
5. TEMPORARY & LONG TERM SEEDING: USE SEED MIXTURES, FERTILIZER, LIME AND MULCHING AS RECOMMENDED (SEE SEEDING AND STABILIZATION NOTES).
6. SILTSOXX FENCING TO BE SECURELY EMBEDDED AND STAKED AS DETAILED. WHEREVER POSSIBLE A VEGETATED STRIP OF AT LEAST TWENTY FIVE FEET IS TO BE KEPT BETWEEN SILTSOXX AND ANY EDGE OF WET AREA.
7. SEEDED AREAS WILL BE FERTILIZED AND RE-SEEDED AS NECESSARY TO ENSURE VEGETATIVE ESTABLISHMENT.
8. SEDIMENT BASIN(S), IF REQUIRED, TO BE CHECKED AFTER EACH SIGNIFICANT RAINFALL AND CLEANED AS NEEDED TO RETAIN DESIGN CAPACITY.
9. SILTSOXX FENCING WILL BE CHECKED REGULARLY AND AFTER EACH SIGNIFICANT RAINFALL. NECESSARY REPAIRS WILL BE MADE TO CORRECT UNDERMINING OR DETERIORATION OF THE BARRIER AS WELL AS CLEANING, REMOVAL AND PROPER DISPOSAL OF TRAPPED SEDIMENT.
10. TREATMENT SWALES WILL BE CHECKED WEEKLY AND REPAIRED WHEN NECESSARY UNTIL ADEQUATE VEGETATIVE COVER HAS BEEN ESTABLISHED.
11. AN AREA SHALL BE CONSIDERED FULLY STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
- A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED.
- EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

11. ALL EROSION AND SEDIMENTATION CONTROL MEASURES IN THE PLAN SHALL MEET THE DESIGN BASED ON STANDARDS AND SPECIFICATIONS SET FORTH IN THE STORM WATER MANAGEMENT AND EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE (DECEMBER 2008 OR LATEST) PREPARED BY ROCKINGHAM COUNTY CONSERVATION DISTRICT, N.H. DES AND NRCS.

WINTER CONSTRUCTION NOTES

1. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, 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 COMPETED IN ADVANCE OF THAW OR SPRING MELT EVENT.;
2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
3. AFTER OCTOBER 15TH, 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.

LONG TERM SEEDING

*WELL TO MODERATELY WELL DRAINED SOILS

FOR CUT AND FILL AREA AND FOR WATERWAYS AND CHANNELS

SEEDING MIXTURE C

	lb/ACRE	lb/1000SF
TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
RED CLOVER (ALSIKE)	20	0.45
TOTAL	48	1.35

LIME: AT 2 TONS PER ACRE OR 100 LBS PER 1,000 S.F.
FERTILIZER: 10 20 20 (NITROGEN, PHOSPHATE, POTASH AT 500# PER ACRE.
MULCH: HAY OR CLEAN STRAW; 2 TONS/ACRE OR 2 BALES/1000 S.F.

GRADING AND SHAPING:
SLOPES SHALL NOT BE STEEPER THAN 2 TO 1. 3 TO 1 OR FLATTER SLOPES ARE PREFERRED.
SEEDBED PREPARATION:
SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
STONES LARGER THAN FOUR INCHES AND TRASH SHOULD BE REMOVED.
SOD SHOULD BE TILLED TO A DEPTH OF FOUR INCHES TO PREPARE SEEDBED. FERTILIZER & LIME SHOULD BE MIXED INTO THE SOIL.
THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

* FROM: STORMWATER MANAGEMENT AND EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE, DECEMBER 2008.

SHORT TERM SEEDING

*WELL TO MODERATELY WELL DRAINED SOILS

FOR CUT AND FILL AREA AND FOR WATERWAYS AND CHANNELS

SEEDING MIXTURE C

	#/ACRE	#/1000SF
FOR APRIL 1 - AUGUST 15		
ANNUAL RYE GRASS	40	1
FOR FALL SEEDING		
WINTER RYE	112	2.5

LIME: AT 1 TON PER ACRE OR 100 LBS PER 1,000 S.F.
FERTILIZER: 10 10 10 (NITROGEN, PHOSPHATE, POTASH AT 500# PER ACRE.
MULCH: HAY OR CLEAN STRAW; 2 TONS/ACRE OR 2 BALES/1000 S.F.

GRADING AND SHAPING:
SLOPES SHALL NOT BE STEEPER THAN 2 TO 1. 3 TO 1 OR FLATTER SLOPES ARE PREFERRED.
SEEDBED PREPARATION:
SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
STONES LARGER THAN FOUR INCHES AND TRASH SHOULD BE REMOVED.
SOD SHOULD BE TILLED TO A DEPTH OF FOUR INCHES TO PREPARE SEEDBED. FERTILIZER & LIME SHOULD BE MIXED INTO THE SOIL.
THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

* FROM: STORMWATER MANAGEMENT AND EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE, DECEMBER 2008.

WHEN PROPOSED FOR ALTERATION DURING CONSTRUCTION AS BEING INFESTED WITH INVASIVE SPECIES SHALL BE MANAGED APPROPRIATELY USING THE DISPOSAL PRACTICES IDENTIFIED IN "NHDOT - BEST MANAGEMENT PRACTICES FOR ROADSIDE INVASIVE PLANTS -2008" AND "METHODS FOR DISPOSING NON-NATIVE INVASIVE PLANTS - UNH COOPERATIVE EXTENSION - 2010"

SEED MIXES SHALL NOT CONTAIN ANY SPECIES IDENTIFIED BY THE NEW HAMPSHIRE PROHIBITED INVASIVE PLANT SPECIES LIST.

MAINTENANCE NOTES

A. MAINTENANCE OF COMMON FACILITIES OR PROPERTY

1. FUTURE OWNERS OR ASSIGNS ARE RESPONSIBLE FOR MAINTENANCE OF ALL STORMWATER INFRASTRUCTURE ASSOCIATED WITH THE FACILITY AND THE PROPERTY. THIS INCLUDES THE ROOF DRAINAGE SYSTEM, CISTERN, STORMWATER POND, PERVIOUS PAVERS, STORM TECH CHAMBERS, LANDSCAPED AREAS, PERVIOUS ASPHALT AND CONTECH TREATMENT STRUCTURE.

B. GENERAL INSPECTION AND MAINTENANCE REQUIREMENTS

1. PERMANENT STORMWATER AND SEDIMENT AND EROSION CONTROL FACILITIES TO BE MAINTAINED ON THE SITE INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

a. RAIN GARDEN
b. SWALES (COBBLE AND VEGETATED)
c. CATCH BASINS

2. MAINTENANCE OF PERMANENT MEASURES SHALL FOLLOW THE FOLLOWING SCHEDULE:

a. RAIN GARDEN

THE FOLLOWING RECOMMENDATIONS WILL HELP ASSURE THAT THE RAIN GARDEN IS MAINTAINED TO PRESERVE ITS EFFECTIVENESS:

i. INSPECT SYSTEM AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EVENT EXCEEDING 2.5 INCHES IN A 24 HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS WARRANTED BY SUCH INSPECTION.

ii. TRASH AND DEBRIS SHOULD BE REMOVED AT EACH INSPECTION.

iii. AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF THE SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION (AS APPLICABLE), INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.

iv. VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING PRUNING, REMOVAL AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

b. SWALES (COBBLE AND VEGETATED)

i. GRASSED CHANNELS SHOULD BE INSPECTED PERIODICALLY (AT LEAST ANNUALLY) FOR SEDIMENT ACCUMULATION, EROSION, AND CONDITION OF SURFACE LINING (VEGETATION OR RIPRAP). REPAIRS, INCLUDING STONE OR VEGETATION REPLACEMENT, SHOULD BE MADE BASED ON THIS INSPECTION.

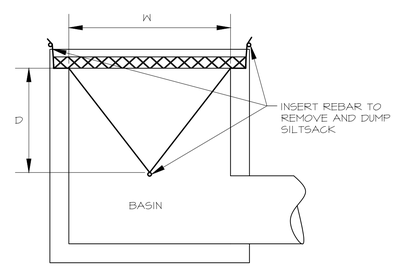
ii. REMOVE SEDIMENT AND DEBRIS ANNUALLY, OR MORE FREQUENTLY AS WARRANTED BY INSPECTION.

iii. MOW VEGETATED CHANNELS AT LEAST ONCE PER YEAR IS REQUIRED TO CONTROL ESTABLISHMENT OF WOODY VEGETATION. IT IS RECOMMENDED TO CUT GRASS NO SHORTER THAN 4 INCHES.

c. CATCH BASINS

i. INSPECT TWICE A YEAR, MORE OFTEN IF NEEDED. INSPECT FOR ACCUMULATION OF DEBRIS. REMOVE MATERIAL FROM SUMP AND INLET/OUTLET AS NECESSARY, DISPOSE OF OFFSITE.

C. OWNERS SHALL PROVIDE A REPORT ON ACTIVITIES PERFORMED THROUGHOUT THE YEAR. REPORT SHALL INCLUDE DOCUMENTATION THAT INSPECTION AND MAINTENANCE IS ACCOMPLISHED PER THIS DOCUMENT AND A CERTIFICATION THAT THE SYSTEMS CONTINUE TO FUNCTION AS DESIGNED. AN ANNUAL REPORT WILL BE SUBMITTED TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS.



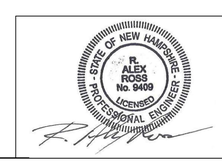
SILTSACK IS TO BE SECURED BY WEIGHT OF BASIN GRATE TO PREVENT SEDIMENT FROM ENTERING THE DRAIN LINE

INSTALL SILTSACK TO CATCH BASINS ON WASHINGTON ST AND ON SITE PRIOR TO CONSTRUCTION & TO CATCH BASINS A, B, C, D, & E DURING CONSTRUCTION. DO NOT REMOVE SILTSACK UNTIL CONSTRUCTION IS COMPLETE.

Siltsack
N.T.S.

STORMWATER INSPECTION & MAINTENANCE LOG

ACTIVITY	DATE OF INSPECTION	WHO INSPECTED	SATISFACTORY: YES, NO, N/A	MAINTENANCE NEEDED	IMPLEMENTED DATE OF CORRECTIVE ACTION	FINDINGS OF INSPECTOR
RAIN GARDEN						
COBBLE & VEGETATED SWALES						
CATCH BASINS						



ISS.	DATE	DESCRIPTION OF ISSUE
2	5/28/2025	REVISIONS
1	4/21/2025	TAC SUBMITTAL

SCALE 1" = 10'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RODNEY D ROWLAND
STRAWBERY BANKE MUSEUM,
PO BOX 300,
PORTSMOUTH, NH 03802

TITLE
EROSION CONTROL PLAN

WHIDDEN PL & NEWTON ST
DRAINAGE IMPROVEMENTS
PORTSMOUTH, NH 03801
TAX MAP 104, LOT 7-9

JOB NUMBER	DWG. NO.	ISSUE
22-027	9 OF 9	2

Findings of Fact | Site Plan Review
City of Portsmouth Planning Board

Date: June 18, 2025
Property Address: 400 Spaulding Turnpike
Application #: LU-25-50
Decision: □ Approve □ Deny □ Approve with Conditions

Findings of Fact:

Per RSA 676:3, I: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of the all conditions necessary to obtain final approval.

Site Plan Regulations Section 2.9 Evaluation Criteria - in order to grant site plan review approval, the TAC and the Planning Board shall find that the application satisfies evaluation criteria pursuant to NH State Law and listed herein. In making a finding, the TAC and the Planning Board shall consider all standards provided in Articles 3 through 11 of these regulations.

	Site Plan Review Regulations **Section 2.9 Evaluation Criteria**	**Finding** **(Meets Standard/Criteria)**	**Supporting Information**
1	Compliance with all City Ordinances and Codes and these regulations. Applicable standards:	**Meets** Does Not Meet	Applicable standards: *Site Plan Review Regulations Section 2.15.1* – Minor amendment for after-the-fact review and administrative approval. *Zoning Ordinance Article 10, Environmental Protection Standards, Section 1017.60* - Public and Private Utilities within Rights-of-Way in Wetlands and Wetland Buffers.
2	Provision for the safe development, change or expansion of use of the site.	**Meets** Does Not Meet	The project does not include any expansion or change in use; a gate will be installed to maintain safe access for utility maintenance on the right-of-way.

	Site Plan Review Regulations Section 2.9 Evaluation Criteria	Finding (Meets Standard/Criteria)	Supporting Information
3	Adequate erosion control and stormwater management practices and other mitigative measures, if needed, to prevent adverse effects on downstream water quality and flooding of the property or that of another.	**Meets** Does Not Meet	The existing gravel access driveway is stable and perimeter protective measures consisting of silt socks were installed to minimize potential impacts to nearby wetlands. Appropriate erosion and sediment controls will be implemented during the installation of the gate.
4	Adequate protection for the quality of groundwater.	**Meets** Does Not Meet	The project does not include any expansion or increase in developed areas. Adequate water quality protects were implemented during the utility maintenance project and the proposed gate will not affect groundwater quality.
5	Adequate and reliable water supply sources.	**Meets** Does Not Meet	The project does not include any expansion or increase in developed areas. Adequate water quality protects were implemented during the utility maintenance project and the proposed gate will not affect groundwater quantity.
6	Adequate and reliable sewage disposal facilities, lines, and connections.	**Meets** Does Not Meet	The proposed gate and access drive do not affect sewage facilities on the site.
7	Absence of undesirable and preventable elements of pollution such as smoke, soot, particulates, odor, wastewater, stormwater, sedimentation or any other discharge into the environment which might prove harmful to persons, structures, or adjacent properties.	**Meets** Does Not Meet	The project does not include any expansion or increase in developed areas. Adequate water quality protects were implemented during the utility maintenance project and the existing gravel access drive is stable.
8	Adequate provision for fire safety, prevention and control.	**Meets** Does Not Meet	The proposed gate and access drive do not affect fire safety, prevention, or control.

	Site Plan Review Regulations Section 2.9 Evaluation Criteria	Finding (Meets Standard/Criteria)	Supporting Information
9	Adequate protection of natural features such as, but not limited to, wetlands.	**Meets** Does Not Meet	The project does not include any expansion or increase in developed areas. Water quality protects were implemented during the utility maintenance project to minimize potential impacts to nearby wetlands. Appropriate erosion and sediment controls will be implemented during the installation of the gate.
10	Adequate protection of historical features on the site.	**Meets** Does Not Meet	A "no affect" finding was provided by the NH Division of Historical Resources during their review of the 2023/2024 utility maintenance project.
11	Adequate management of the volume and flow of traffic on the site and adequate traffic controls to protect public safety and prevent traffic congestion.	**Meets** Does Not Meet	The proposed gate and access drive do not affect traffic flow.
12	Adequate traffic controls and traffic management measures to prevent an unacceptable increase in safety hazards and traffic congestion off-site.	**Meets** Does Not Meet	The proposed gate and access drive do not affect traffic flow.
13	Adequate insulation from external noise sources.	**Meets** Does Not Meet	The proposed gate and access drive do not generate noise or affect external noise.
14	Existing municipal solid waste disposal, police, emergency medical, and other municipal services and facilities adequate to handle any new demands on infrastructure or services created by the project.	**Meets** Does Not Meet	The proposed gate and access drive do create any new demand for municipal services or public facilities.
15	Provision of usable and functional open spaces of adequate proportions, including needed recreational facilities that can reasonably be provided on the site	**Meets** Does Not Meet	The proposed gate and access drive are limited to Eversource's maintenance of the utility right of way and not reasonably available for functional open space or recreational opportunity.

	Site Plan Review Regulations Section 2.9 Evaluation Criteria	Finding (Meets Standard/Criteria)	Supporting Information
16	Adequate layout and coordination of on-site accessways and sidewalks in relationship to off-site existing or planned streets, accessways, bicycle paths, and sidewalks.	**Meets** Does Not Meet	The proposed gate and access drive are limited to Eversource's maintenance of the utility right of way and not reasonably available for public access.
17	Demonstration that the land indicated on plans submitted with the application shall be of such character that it can be used for building purposes without danger to health.	**Meets** Does Not Meet	The project does not include any expansion or change in use; a gate will be installed to maintain safe access for utility maintenance on the right-of-way.
18	Adequate quantities, type or arrangement of landscaping and open space for the provision of visual, noise and air pollution buffers.	**Meets** Does Not Meet	The project does not include any landscaping or open space; a gate will be installed to maintain safe access for utility maintenance on the right-of-way.
19	Compliance with applicable City approved design standards.	**Meets** Does Not Meet	The gravel access drive and proposed gate on Portsmouth Ford's parcel represents a Minor Amendment to the current Site Plan.

Other Board Findings:

- Work was completed by Eversource on the subject property in 2024 under a Conditional Use Permit (CUP) granted by the City on June 22, 2023 (LU-23-60). Eversource replaced forty-five (45) wooden utility structures with steel structures on the E194 and U181 Lines in Portsmouth and Newington.
- The CUP permitted direct impacts to the adjacent wetland and to the wetland buffer. Following CUP approval, Eversource obtained landowner authorization from the Portsmouth Ford to access the right-of-way directly from Echo Avenue. As such, Structures 19 and 19 (E194 and U181) were accessed by a more direct route with no wetland impacts.
- Review and after-the-fact approval of an updated CUP with the amended wetland buffer impact has been requested by Eversource to the City of Portsmouth Conservation Commission and Planning Board under separate cover.
- Eversource proposes to retain the constructed access to Structures 19 and 19 (E194 and U181) for future maintenance and emergency repairs.
- Where permanent access through the buffer to Structures 19 is requested, the existing boulder barricade will be replaced with a steel gate, resulting in a change to Portsmouth Ford's previously approved Site Plan.

Findings of Fact | Wetland Conditional Use Permit
City of Portsmouth Planning Board

Date: June 18, 2025
Property Address: 400 Spaulding Tpke.
Application #: LU-25-50
Decision: □ Approve □ Deny □ Approve with Conditions

Findings of Fact:

Per RSA 676:3, I: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of all conditions necessary to obtain final approval.

In order to grant Wetland Conditional Use permit approval the Planning Board shall find the application satisfies criteria set forth in the Section 10.1017.50 (Criteria for Approval) of the Zoning Ordinance.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	**Finding** **(Meets Criteria for Approval)**	**Supporting Information**
1	*1. The land is reasonably suited to the use activity or alteration.*	**Meets** **Does Not Meet**	This work was part of a previously approved project that had previously approved impact to the wetland for access to Eversource's Pole #19. The actual work that occurred eliminated the impact to the wetland resource and shifted impacts to the wetland buffer.
2	*2. There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.*	**Meets** **Does Not Meet**	The poles that had to be replaced are located directly within the wetland buffer behind the Ford Dealership. To access the poles, there is no way to bring in equipment without entering into the buffer.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
3	*3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.*	**Meets** **Does Not Meet**	After work on replacing the poles finished, the work pad directly under the poles was naturally revegetated which is the area adjacent to the wetland to the north. The most adverse impact of this project is the permanence of the crushed gravel access road leading to the poles. This was left in place for future maintenance needs but a silt soxx buffers it from the wetland to the south, which should remain as a permanent installation with replacement over time as needed.
4	*4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.*	**Meets** **Does Not Meet**	The temporary alteration to the buffer that occurred as part of this work included the work pad underneath the poles. This area has been allowed to naturally revegetate, which has since occurred. The access road has altered the natural vegetative state but it was noted during the site walk that vegetation is already growing through it and a silt soxx remains in place to protect the adjacent wetland. This seems sufficient for buffering the wetland from the permanent impacts of the accessway.
5	*5. The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.*	**Meets** **Does Not Meet**	When this violation of the original permit was first noticed, the work pad had not yet revegetated, and the access road contained many layers of crushed gravel for accessing the poles and for parking Ford Dealership vehicles off lot. Since this occurred, an agreement has been made to prevent future parking of vehicles within this area, a silt soxx has been replaced south of the accessway to prevent impact to the wetland, the property owners have removed a large amount of gravel from the accessway, and the work pad has started to naturally revegetate.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
6	*6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.*	**Meets** **Does Not Meet**	The work pad area has been returned to a natural state and while it is not feasible to allow full revegetation of the accessway due to future needs for maintenance, most of the crushed gravel has been removed which created a much thinner layer of impact to the buffer, allowing vegetation to poke through in some areas.
7	**Other Board Findings:**		

City of Portsmouth, New Hampshire

Wetland Conditional Use Permit Application Checklist

This wetland conditional use permit application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Conservation Commission and Planning Board review. The checklist is required to be uploaded as part of your wetland conditional use permit application to ensure a full and complete application is submitted to the Planning and Sustainability Department and to the online portal. A pre-application conference with a member of the Planning and Sustainability Department is encouraged as additional project information may be required depending on the size and scope of the project. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all wetland conditional use permit requirements. Please refer to Article 10 of the City of Portsmouth Zoning Ordinance for full details.

Applicant Responsibilities: Applicable fees are due upon application submittal to the Planning Board (no fees are required for Conservation Commission submission). The application will be reviewed by Planning and Sustainability Department staff to determine completeness. Incomplete applications which do not provide required information for the evaluation of the proposed site development shall not be provided review by the Conservation Commission or Planning Board.

Name of Applicant: Eversource Energy Date Submitted: 03/25/2025

Application # (in City's online permitting): LU-25-50

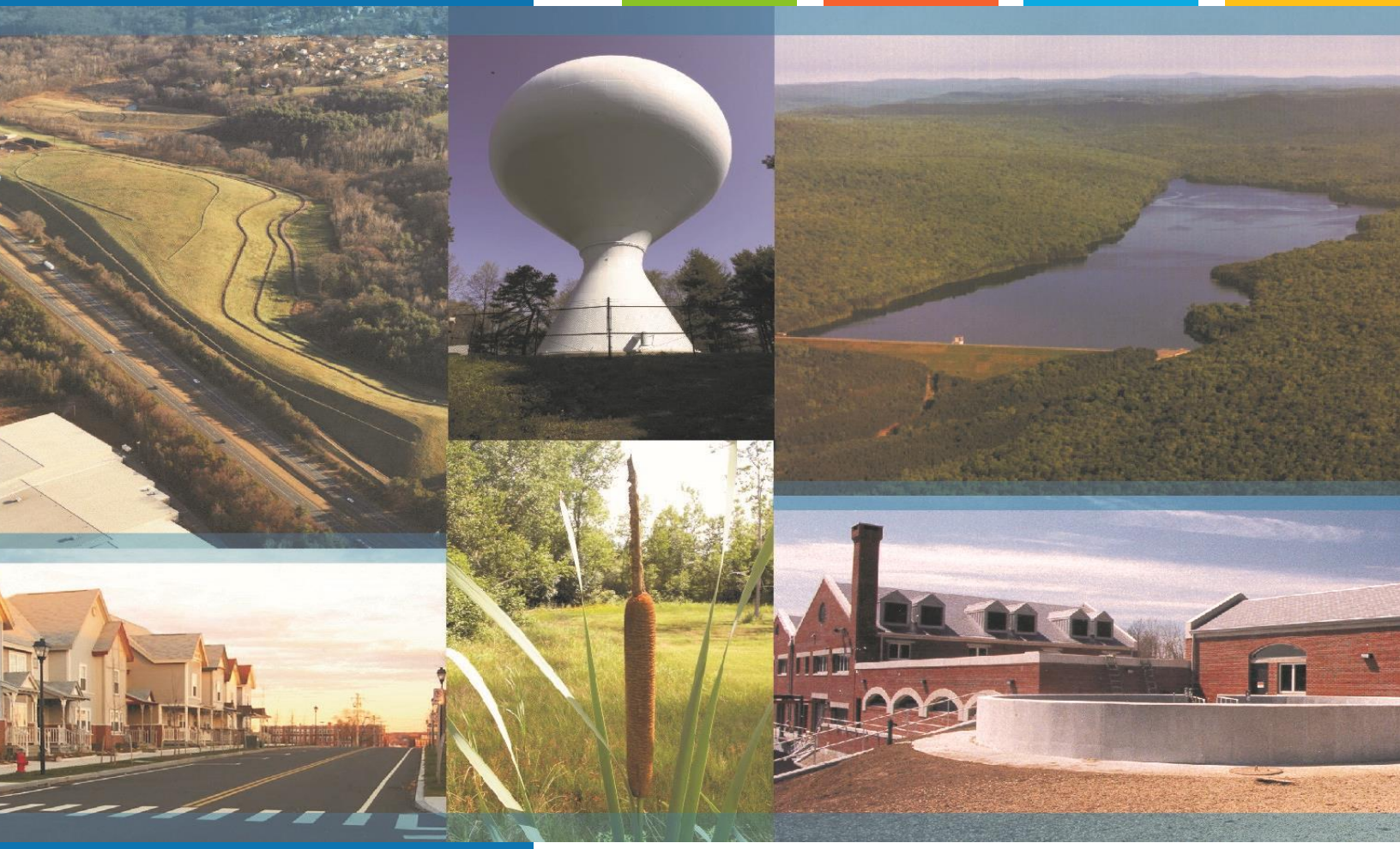
Site Address: 400 Spaulding Turnpike Map: 238 Lot: 2

☑	Required Items for Submittal	Item Location (e.g. Page or Plan Sheet/Note #)
✔	Complete application form submitted via the City's web-based permitting program	Section 2.1, Page 2-1
✔	All application documents, plans, supporting documentation, this checklist and other materials uploaded to the application form in OpenGov in digital **Portable Document Format (PDF)**. One hard copy of all plans and materials shall be submitted to the Planning and Sustainability Department by the published deadline.	online 03/25/2025; hard copy 04/17/2025; Section 4, Page 4-1

☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
✔	Basic property and wetland resource information. **(10.1017.21)**	Section 2.1, Page 2-1
✔	Additional information required for projects proposing greater than 250 square feet of permanent or temporary impacts. **(10.1017.22)**	Section 2.2, Page 2-1; Section 4.1.1, Page 4-2; Appendix B
✔	Demonstrate impacts as they relate to the criteria for approval set forth in Section 10.1017.50 (or Section 10.1017.60 in the case of utility installation in a right-of-way). **(10.1017.23)**	online 03/25/2025; hard copy 04/17/2025; Section 4, Page 4-1
✔	Balance impervious surface impacts with removal and/or wetland buffer enhancement plan. **(10.1017.24)**	Section 4.1.2, Page 4-2

☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
✔	Wetland buffer enhancement plan. **(10.1017.25)**	Section 4.1.2, Page 4-2
☐	Living shoreline strategy provided for tidal wetland and/or tidal buffer impacts. **(10.1017.26)**	N/A
✔	Stormwater management must be in accordance with Best Management Practices including but not limited to: *1. New Hampshire Stormwater Manual, NHDES, current version.* *2. Best Management Practices to Control Non-point Source Pollution: A Guide for Citizens and City Officials, NHDES, January 2004.* **(10.1018.10)**	Section 4.2.1, 4.3.2, Page 4-2; project plans, Appendix A
☐	Vegetated Buffer Strip slope of greater than or equal to 10%. **(10.1018.22)**	N/A
☐	Removal or cutting of vegetation, use of fertilizers, pesticides and herbicides. **(10.1018.23/10.1018.24/10.1018.25)**	N/A
☐	All new pavement within a wetland buffer shall be porous pavement. **(10.1018.31)**	N/A
☐	An application that proposes porous pavement in a wetland buffer shall include a pavement maintenance plan. **(10.1018.32)**	N/A
☐	Permanent wetland boundary markers shall be shown on the plan submitted with an application for a conditional use permit and shall be installed during project construction. **(10.1018.40)**	N/A
☑	**Requested Items for Submittal**	**Item Location (e.g. Page or Plan Sheet/Note #)**
✔	A narrative/letter addressed to the Conservation Commission Chair (if recommended to Planning Board then an additional narrative addressed to the Planning Board Chair at that time) describing the project and any proposed wetland and/or wetland buffer impacts. Please visit the WCUP instruction page for further application instructions.	online 03/25/2025; hard copy 04/17/2025
✔	If New Hampshire Department of Environmental Services (NHDES) Standard Dredge and Fill Permit is required for this work, please provide this permit application at the same time as your submission for a Wetland Conditional Use Permit.	NHDES Utility SPN 2022-03496, received 10/06/2023

Applicant's Signature: Stefan M. Tetreault **Date:** 05/02/2025



E194 and U181 Structure Replacement Project
Echo Avenue, Portsmouth, New Hampshire

CITY OF PORTSMOUTH AFTER-THE-FACT CONDITIONAL USE PERMIT

Eversource Energy
13 Legends Drive
Hooksett, New Hampshire

March 2025

Tighe&Bond

100% Recyclable

E5034-200
May 30, 2025

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

Re: **Eversource E194 and U181 Structure Replacement Project**
After-the-Fact Wetland Conditional Use Permit
Echo Avenue, Portsmouth, NH

Dear Mr. Chellman and Members of the Planning Board:

On behalf of Eversource Energy dba Public Service Company of New Hampshire (Eversource), Tighe & Bond is submitting the following after-the-fact Conditional Use Permit (CUP) for the above referenced project.

This work was completed under an existing CUP which was granted on June 22, 2023 (LU-23-60). Eversource Energy replaced forty-five (45) wooden utility structures with steel structures on the E194 and U181 Lines in Portsmouth and Newington, due to their overall age and condition. As part of the approved access to Structures 19 and 19 (E194 and U181), the CUP permitted 6,286 square feet (SF) of impacts to the adjacent wetland and 1,644 SF of impacts to the wetland buffer.

Following City approval and the issuance of the CUP, Eversource obtained landowner authorization from the Portsmouth Ford auto dealership to access the right-of-way (ROW) directly from Echo Avenue. As such, construction deviated from what was permitted by the CUP in this area, and both structures were accessed by a more direct route with no wetland impacts. This re-route eliminated direct wetland impacts; however, impacts within the wetland buffer increased from the permitted 1,644 SF to an as-built total of 3,685 SF.

Enclosed is a project description and supporting documents for a request to permit after-the-fact wetland buffer impacts associated with the constructed access to Structures 19, including project mapping, the Wetland Resource Area Description and Assessment Report that was included in the original 2023 CUP application, and representative site photographs.

The Conservation Commission reviewed this CUP at its meeting on May 14, 2025, and voted to recommend approval of this application to the Planning Board with the following conditions:

1. In accordance with Section 10.1018.40 of the Zoning Ordinance, applicant shall permanently install wetland boundary markers, which may be purchased through the City of Portsmouth Planning & Sustainability Department. The Commission recommends placing two markers on either side of the proposed gate at the bottom of the access road. These markers must be installed prior to the start of any work.
2. Applicant shall include a note on this plan set to indicate that parking and/or vehicle storage is prohibited in this accessway unless required for utility maintenance by Eversource.

Pursuant to Condition #1, wetland boundary markers will be installed on either side of the proposed gate prior to the start of work. Pursuant to Condition #2, the Site Plan has been updated to include the suggested note regarding parking and/or vehicle storage being prohibited. A copy of the updated Site Plan (dated January 7, 2025, revised through May 27,

2025) was filed with the City Planning Department and uploaded to the City's online permit system on May 28, 2025.

We trust the enclosed information addresses the requirements for the CUP application and site plan approval. If you have any questions or require any additional information, please feel free to contact me at (603) 231-9918 or at STetreault@tighebond.com.

Respectfully,

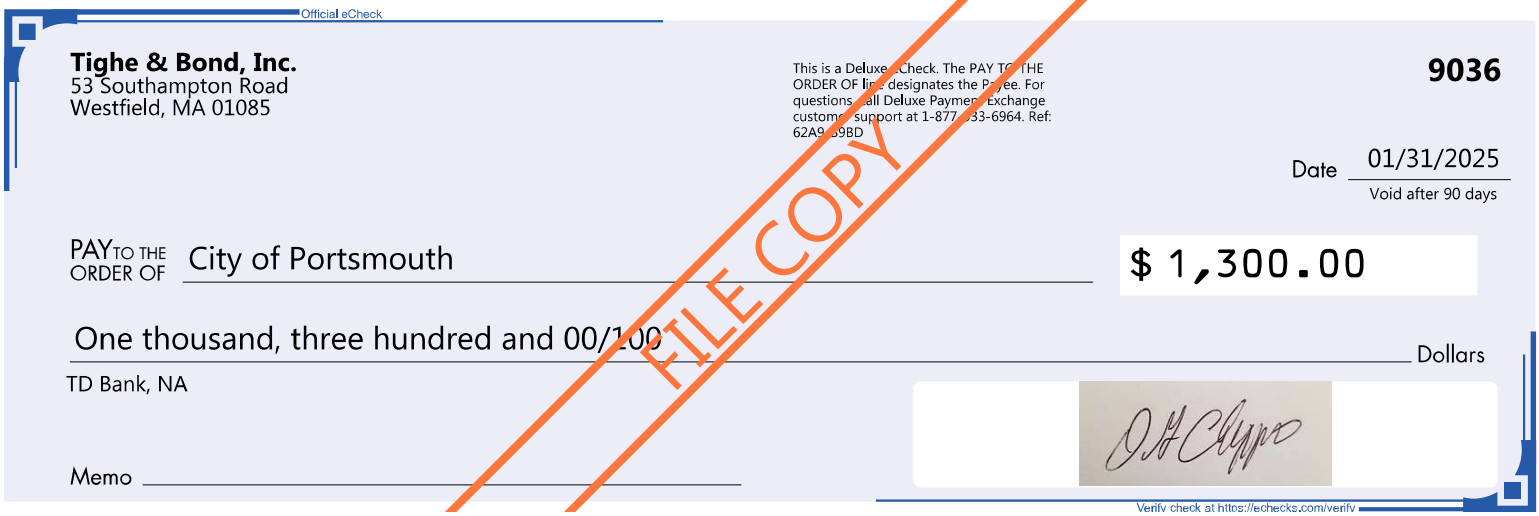
TIGHE & BOND, INC.

Stefanie M. Tetreault
Project Manager

Enclosures
Copy: Conservation Commission, City of Portsmouth
Ashley Friend, Licensing and Permitting, Eversource Energy

Appendices

\\Tighebond.com\data\Data\Projects\E\E5034 Eversource L&P 2019\200 - Line E194 & U181\Permitting\202409 Portsmouth Ford Violation\Archive\E194 & U181 2025 CUP Narrative - Final.docx



FILE COPY ⑈009036⑈ ⑆[redacted]⑆ [redacted]⑈ FILE COPY

Account numbers are concealed for your security

Check Details

Check issued: 01/30/2025

Check number: 9036

From: Tighe & Bond, Inc.

Amount: $1,300.00

Payable to: City of Portsmouth

Delivered to: jdegler@tighebond.com

Documents: Yes - see Remittance below

Message from sender: Hi, attached is your Tighe & Bond electronic check. Any questions please email AP@tighebond.com.

Notes

Activity

ACTIVITY TYPE	TIME	DATE
Tracy Houle issued check 9036	08:13 AM EST	01/31/2025
Check 9036 printed by Jeremy Degler	16:44 PM EDT	03/13/2025
Check 9036 file copy printed by Jeremy Degler	16:45 PM EDT	03/13/2025

Section 1
Project Description

From October 2023 through June 2024, Eversource Energy replaced forty-five (45) wooden utility structures with steel structures on the E194 and U181 Transmission Lines in Portsmouth and Newington, due to their overall age and condition. Forty-two (42) of these structures were located within Portsmouth. These included Structures 13-16, 19, 37-41, 43-45, 48-54, 65.5 and 66 on the U181 Line, and Structures 12-14, 19, 41-53, 65.5, and 66 on the E194 Line. Additionally, static wire work was conducted at STRs 65-67 on the U181 and STRs 65-67 on the E194. The proposed structure replacements were required to maintain the safety and reliability of the existing transmission system.

This work was completed under an existing Conditional Use Permit (CUP) which was granted on June 22, 2023 (LU-23-60). As part of the approved access to Structures 19 and 19 (E194 and U181), the CUP permitted 6,286 square feet (SF) of impacts to the adjacent wetland and 1,644 SF of impacts to the wetland buffer.

Following City approval and the issuance of the CUP, Eversource obtained landowner authorization from the Portsmouth Ford auto dealership to access the right-of-way (ROW) directly from Echo Avenue. As such, construction deviated from what was permitted by the CUP in this area, and both structures were accessed by a more direct route with no wetland impacts. This re-route resulted in a total elimination of the direct wetland impacts; however, impacts within the wetland buffer increased from the permitted 1,644 SF to an as-built total of 3,685 SF.

The following narrative describes existing conditions and the completed activities within jurisdictional areas. Project Mapping is provided in Appendix A, the Wetland Resource Area Description and Assessment Report that was in the original 2023 CUP application is included in Appendix B, and representative photographs of the project area are found in Appendix C.

Section 2
Existing Conditions

2.1 Project Site

The E194 and U181 transmission lines originate at the Newington Substation off Gosling Road in Newington and run southwest of the Piscataqua River. The lines then extend southeast, parallel with Route 4 before turning southwest again, parallel with Interstate 95. The lines continue southwest through Great Bog in Portsmouth before turning west and terminating at the Ocean Road Substation in Greenland. The topography is generally flat throughout the right-of-way (ROW) with slight depressions and hills located in the less developed reaches. The areas surrounding the ROW are mostly commercial, industrial, and residential, with some large portions of forested and wetland areas closer to the Greenland town line.

The proposed limit of work covered by this after-the-fact CUP is the constructed access route to Structures 19 and 19 (E194 and U181). This work area is located northeast of Echo Avenue, directly across from the Portsmouth Ford automotive dealership. Based on review of aerial imagery, access from Echo Avenue in this location has historically been used for routine ROW maintenance and vehicle storage from Portsmouth Ford. Representative site photographs are provided in Appendix C.

2.2 Jurisdictional Wetland Resource Areas

There are multiple wetland resource areas within this portion of the E194 and U181 ROW corridor. Jurisdictional wetland resource areas within the project area were identified and delineated on December 21, 2022, and January 4, 9, and 17, 2023 by Tighe & Bond wetland scientists, including a New Hampshire Certified Wetland Scientist. Refer to the Wetland Resource Area Description and Assessment Report that was included in the original 2023 CUP application provided in Appendix B for a detailed description of these areas.

2.2.1 Wetlands

Wetlands within the project area are characterized as a mixture of palustrine scrub-shrub (PSS) and palustrine emergent (PEM) systems. These wetlands are situated within disturbed areas in the ROW, surrounded by development. The original CUP permitted 6,286 SF of impacts to the adjacent southern wetland. The as-built conditions eliminated all direct impacts to wetlands.

2.2.2 100-foot Buffer Zone

The 100-foot Buffer Zone within the project area consists of the existing maintained ROW and impervious area (e.g., parking lots and roadways), with some upland areas in and adjacent to the ROW. The original CUP permitted 1,644 SF of impacts to the adjacent southern wetland buffer. The as-built conditions resulted in a net increase of impacts to the wetland buffer, up to 3,685 SF.

Section 3
Completed Activities

3.1 Structure Replacement and Maintenance

The structure replacements consisted of drilling holes up to four feet in diameter and the installation of a steel caisson into each hole approximately 15 to 20 feet (10% of structure height plus 2 feet) below the ground surface. The new poles were placed into the caissons and backfilled with clean, suitable materials. Spoils generated from the drilling operations were placed in appropriate upland areas at least 100 feet away from wetland areas and then stabilized.

Once the new poles were installed, old poles were then removed by cutting them below the ground surface. The old poles, cross-arms, wires, and accessory equipment were removed and disposed off-site. The pole butts associated with the existing poles were only removed if they impacted the structural integrity of the new poles.

3.2 Access

Access road improvements and development were needed to provide reliable access for the proposed work. As part of the approved access to Structures 19, the CUP permitted 6,286 SF of impacts to the adjacent southern wetland and 1,644 SF of impacts to the wetland buffer.

Following City approval and the issuance of the CUP, Eversource obtained landowner authorization from the Portsmouth Ford auto dealership to access the ROW directly from Echo Avenue. As such, Structures 19 were accessed by a more direct route. This route resulted in a total elimination of the direct wetland impacts; however, impacts within the wetland buffer increased from the permitted 1,644 SF to an as-built total of 3,685 SF.

Where permanent access through the buffer to Structures 19 is requested under this CUP, the existing boulder barricade will be replaced with a steel gate. This will prevent further encroachment within the buffer and limit use to future maintenance and emergency repairs within the ROW at Structures 19.

3.3 Work Pad Construction

The proposed project included the construction of 100-foot by 100-foot gravel work pads to provide level and stable surfaces needed to facilitate the structure installations. Work pads in upland areas were constructed using crushed stone, top-dressed with 1.5- to 3-inch diameter clean stone. 68 SF of wetland impact was permitted to construct suitable work pads at Structures 19, though during construction, wetland impacts were avoided altogether. Areas of soil disturbance around the work pads were stabilized with seed and straw mulch.

3.4 Construction Sequence

The work began in October of 2023 and was completed in June 2024. The following is a description of the general construction sequence. The actual sequence and schedule was determined by the selected contractor(s).

- Install sediment and erosion controls
- Upgrade access roads and build work pads, install construction mats where needed
- Conduct structure replacements
- Remove construction mats and stabilize/restore disturbed areas
- Stabilize exposed soils within the ROW
- Remove erosion and sedimentation controls following stabilization

Pending review and approval of the proposed activities, Eversource will replace the existing boulder barricade with a steel gate. Appropriate construction-period best management practices will be implemented to minimize potential impacts to the nearby wetland resource areas.

3.5 Protective Measures

Work was performed utilizing the latest *Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetlands and Waterbodies in New Hampshire* (NH DNCR 2019) to limit impacts to the environment. Perimeter protective measures consisting of silt fence, straw wattles, and/or straw bales were installed around the structure to minimize potential impacts to the nearby wetland resource areas. Water bars were also installed in areas of road improvements and in areas with steep slopes as identified by the contractor. Areas of disturbed soil were mulched with hay or straw following the completion of work. No equipment or material was stored within wetland resource areas. Erosion controls were implemented during construction, as noted on the project plans in Appendix A, to minimize any potential impacts during construction.

Section 4
Regulatory Compliance

4.1 City of Portsmouth Zoning Ordinance – Article 10

Work was completed in compliance with the requirements set forth in the City of Portsmouth Zoning Ordinance (Article 10, Environmental Protection Standards). The work complied with the criteria set forth in Article 10, Section 1017.60, Public and Private Utilities within Rights-of-Way in Wetlands and Wetland Buffers, discussed below.

(1) The proposed construction is in the public interest;

The construction was in the public interest, as these structure replacements are necessary to continue reliable transmission of public utilities.

(2) Design, construction, and maintenance methods will utilize best management practices to minimize any detrimental impact of such use upon the wetland and will include restoration of the site as nearly as possible to its original grade, condition, and vegetated state;

Eversource utilized Best Management Practices, as described in Section 3.5, during construction to mitigate impacts to wetland resource areas. Following construction, disturbed areas were restored to previously existing conditions, where feasible. Where access was constructed to Structures 19 through the buffer, Eversource proposes to retain this impact area after-the-fact, for future maintenance and emergency repairs, as shown on the attached Site Plans in Appendix A.

(3) No alternative feasible route exists which does not cross or alter a wetland or have less detrimental impact on a wetland; and

The work was designed in consideration of environmental impacts. The replacement activities were limited to the existing maintained ROW and limits of work were established to allow only for work necessary to complete the structure replacements. Access to the structures was primarily by utilizing existing access routes in previously disturbed areas to replace the existing infrastructure. Work associated with the replacement of Structures 19 resulted in no direct wetland impacts. The after-the-fact impact proposed by this CUP application was necessary to achieve a direct route to the replacement structures once landowner authorization was obtained, and resulted in 2,041 SF of additional impact to the buffer, beyond what was originally approved. Overall, the as-built condition resulted in the least overall impact on the wetland, as shown on the attached Site Plans in Appendix A.

(4) Alterations of natural vegetation of managed woodland will occur only to the extent necessary to achieve construction goals.

There was no proposed alteration of woodland vegetation, as all work was within the maintained extent of the ROW. As noted above, the limits of work were established to allow work only necessary to complete the structure replacements;

where access was constructed to Structures 19 through the buffer, Eversource proposes to retain this impact area after-the-fact, for future maintenance and emergency repairs, as shown on the attached Site Plan in Appendix A.

4.1.1 Wetland Functions and Values Assessment

Pursuant to Article 10, Section 1017.22 of the City of Portsmouth Zoning Ordinance, a project that proposes the temporary or permanent alteration of greater than 1,000 square feet of wetland and greater than 250 square feet of wetland buffer requires a function and values assessment and wetland buffer description. A copy of the Wetland Resource Area Description and Assessment Report, including those for the Echo Avenue Wetlands, that was included in the original 2023 CUP application provided in Appendix B.

4.1.2 Wetland Buffer Impervious Surface Impacts

Impacts resulting from the construction of gravel access paths to work pads will not increase impervious surfaces within wetland buffers. A wetland buffer enhancement plan is not feasible due to the nature of the proposed work and the need to retain viable access for future maintenance within the ROW. Vegetation within the ROW is routinely maintained and access will be necessary for future utility maintenance.

4.2 State Permits

4.2.1 Alteration of Terrain

The overall project exceeded 100,000 square feet of earth moving activities and as such required an Alteration of Terrain (AoT) permit from the New Hampshire Department of Environmental Services (NHDES) AoT Bureau. This permit was obtained on July 29, 2023 (AoT-2427).

4.2.2 Utility Statutory Permit-by-Notification

This project included direct impacts to wetlands and waters of the state, and thus required authorization under NH RSA § 482-A. Utility Statutory Permit-by-Notification applications were filed in September 2023 for each municipality where work was completed (NHDES file numbers 2022-03511 and 2022-03496).

4.3 Federal Permits

4.3.1 EPA 2022 Construction General Permit

The total of work completed exceeded one acre of earth moving activities and required a Construction General Permit (CGP) from the U.S. Environmental Protection Agency (EPA). A Notice of Intent (NOI) and Stormwater Pollution Prevention Plan (SWPPP) was completed in September 2023, at least 14 days prior to the start of construction. The project was monitored by a SWPPP inspector throughout the duration of construction.

Tighe&Bond

APPENDIX A

ORIGINAL CUP GRANTED JUNE 22, 2023 (LU-23-60)
1,644 SF WETLAND BUFFER IMPACT
6,286 SF WETLAND IMPACT

TOTAL AOT IMPACTS ON THIS PAGE:
14,255 SQ. FT.
TOTAL AOT IMPACTS:
206,545 SQ. FT.

STRUCTURE 19 WORK PAD
TEMPORARY WETLAND IMPACT
+/- 68 SQ. FT.

STRUCTURE 19 ACCESS
TEMPORARY WETLAND IMPACT
+/- 6,286 SQ. FT.

PORTSMOUTH FORD DEALERSHIP

Portsmouth

Arthur F Brady Dr

No Name

Unknown 93

833-028
833-034
833-035 - 833-035.19
833-036
833-031
833-033
833-037
833-038
833-030
833-032

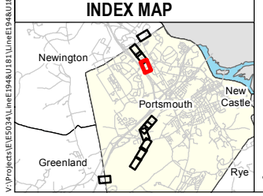
Echo Ave
Echo Ave Dead End
Omne Mall Connector
Spaulding Tpke North

Line 3135
Line U181
Line E194

125
124
18
19
20

PEM1E
PEM/PSS1C

INDEX MAP



Legend

- Proposed Structure
- Existing Structure to be Modified
- Existing Structure to be Removed
- Existing Structure
- Gate
- Culvert
- Existing Access
- Proposed Access
- Off-ROW Access Pending Rights
- Railroad
- Contour Line (2 Ft.)
- Fence
- Overhead Eversource Line
- Distribution Line
- Stonewall
- Sediment Control Barrier
- 25' Wetland Buffer (Newington)
- 100' Buffer Zone (Portsmouth)
- Existing Right-of-Way
- Municipal Boundary
- Delineated Intermittent Watercourse
- Delineated Wetland Boundary Outline
- Field Delineated Wetland*
- Parcel Boundary
- Work Pad
- 100 Year Flood Zone
- Wellhead Protection Areas
- Alteration of Terrain

Map Notes:
Data valid as of March 2023.
Data source: New Hampshire Geographically Referenced Analysis and Information Transfer System (GRANIT) and USFWS. Orthophotography courtesy of ESRI.

Contours downloaded from New Hampshire GRANIT

Parcels provided by New Hampshire GRANIT

Figure intended to be printed on 11x17

**Indicates datasets with a transparency setting of 30-70%*

This mapping product has been created to comply with submittal requirements to obtain certain regulatory approvals and, as such, there is no reliance on the information contained herein for any other purpose.

1 inch = 100 feet
0 50 100 Feet

NO.	DATE	REVISIONS

EVERSOURCE

Line E194 and U181
Structure Replacement Project

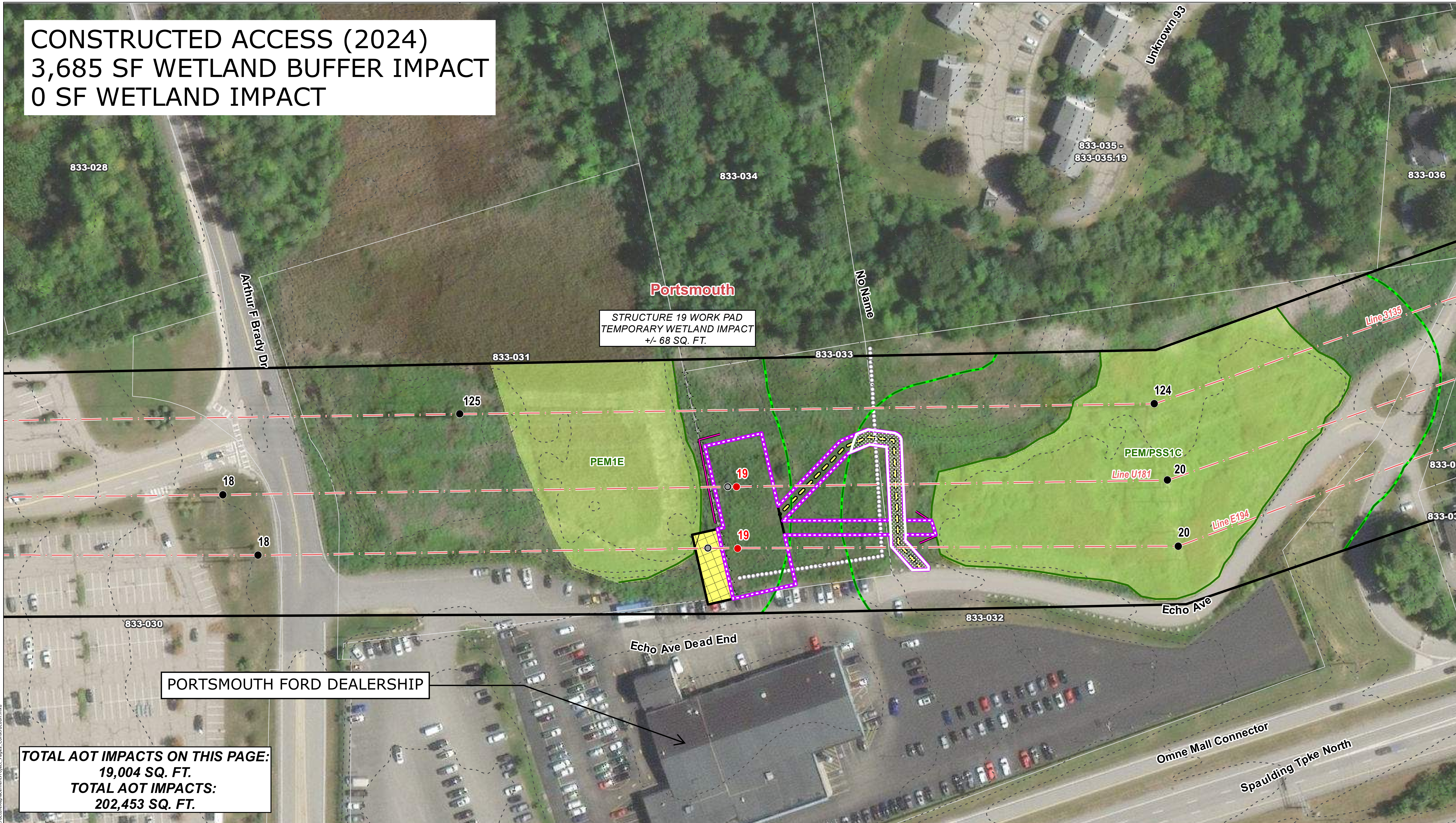
Portsmouth, New Hampshire

Date: March 23, 2023

Map Sheet 4 of 11

Tighe&Bond

V:\Projects\ES\0341Line\E194&U181Line\ES194&U181_StructureReplacementProject_Pages_AoT.mxd



INDEX MAP

Newington, Portsmouth, New Castle, Greenland, Rye

Legend

- Proposed Structure
- Existing Structure to be Modified
- Existing Structure to be Removed
- Existing Structure
- Gate
- Culvert
- Existing Access
- Proposed Access
- Off-ROW Access Pending Rights
- Railroad
- Contour Line (2 Ft.)
- Fence
- Overhead Eversource Line
- Distribution Line
- Stonewall
- Sediment Control Barrier
- 25' Wetland Buffer (Newington)
- 100' Buffer Zone (Portsmouth)
- Existing Right-of-Way
- Municipal Boundary
- Delineated Intermittent Watercourse
- Delineated Wetland Boundary Outline
- Field Delineated Wetland*
- Work Pad
- 100 Year Flood Zone
- Temporary Construction Matting
- Alteration of Terrain
- Parcel Boundary
- Work Area Within in Histosols

Map Notes:
Data valid as of September 2023.
Data source: New Hampshire Geographically Referenced Analysis and Information Transfer System (GRANIT) and USFWS. Orthophotography courtesy of ESRI.

Contours downloaded from New Hampshire GRANIT

Parcels provided by New Hampshire GRANIT

Soil boundary obtained from SSURGO for the state of New Hampshire.

Figure intended to be printed on 11x17

**Indicates datasets with a transparency setting of 30-70%*

This mapping product has been created to comply with submittal requirements to obtain certain regulatory approvals and, as such, there is no reliance on the information contained herein for any other purpose.

N

1 inch = 100 feet

0 50 100 Feet

NO.	DATE	REVISIONS

EVERSOURCE

Line E194 and U181 Structure Replacement Project

Portsmouth, New Hampshire

Date: September 25, 2023

Map Sheet 4 of 11

Tighe&Bond

Tighe&Bond

APPENDIX B

E194 & U181 Structure Replacement Project

Wetland Resource Area Description and Assessment

TO: Katy Wilkins, Project Manager, Tighe & Bond, Inc.

FROM: Julia Novotny, Environmental Scientist, Tighe & Bond, Inc.
Jeremy Degler, Project Environmental Scientist, CWS, PWS, CWB, Tighe & Bond, Inc.

DATE: March 22, 2023

On December 21, 2022 and January 4, 9, and 17, 2023, Tighe & Bond wetland scientists conducted a wetland resource area investigation within and adjacent to the location of the E194 and U181 transmission line right-of-way (ROW) in support of a structure replacement project proposed by Eversource Energy (Eversource). This memorandum presents a summary of the wetland resource areas investigated at the Project Site and a functions and values assessment for these resource areas.

Project Location

The project area consists of the existing maintained transmission line ROW that contains the E194 and U181 Lines. This ROW is comprised of a mixture of impervious area, maintained upland, and wetland. The surrounding landscape areas are comprised of impervious surfaces (e.g., roadways and parking lots), industrial, commercial, and residential areas, in addition to forest and wetlands. The ROW runs from the Newington Substation off Gosling Road to the Ocean Road Substation on the Greenland/Portsmouth border.

Methodology of Wetland Resource Investigations

The wetland delineation was conducted in accordance with the procedures outlined in the *U.S. Army Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1 (January 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (January 2012). Locations of wetland boundaries were surveyed using a global positioning system (GPS) unit with sub-meter accuracy.

Summary of Jurisdictional Wetland Resource Areas

The following sections discuss the wetland resource areas identified in the project area and summarize their characteristics.

Vegetated Wetlands

Multiple wetlands were identified within the E194 and U181 ROW, adjacent to the limits of work. Wetlands identified within the ROW were classified as having the characteristics of both palustrine emergent system with persistent vegetation, and a palustrine scrub-shrub system with broad-leaved deciduous vegetation (PEM1/PSS1).

Common vegetation observed included common reed (*Phragmites australis;* FACW), cattail (*Typha sp.; OBL)*, purple loosestrife (*Lythrum salicaria*; OBL), sensitive fern (*Onoclea sensibilis*; FACW), curly dock (*Rumex crispus*; FAC), winterberry (*Ilex verticillata*; FACW), willow (*Salix spp.)*, glossy buckthorn (*Frangula alnus*; FAC), red maple (*Acer rubrum*; FAC), common rush (*Juncus effusus*; OBL), reed canary grass (*Phalaris arundinacea*; FACW), white meadowsweet (*Spirea alba*; FACW), red osier dogwood (*Cornus sericea*; FACW), speckled

alder (*Alnus incana*; FACW), tussock sedge (*Carex stricta*; OBL), brambles (*Rubus spp.*), and goldenrod (*Solidago spp*.)

Two streams were identified in association with the delineated wetlands: an unnamed tributary to the Piscataqua River (Newington) and an unnamed tributary to Pickering Brook in Great Bog (Portsmouth). Many of the wetlands within the project area are disturbed from previous ROW work and surrounding development including from commercial, industrial, and residential areas.

100-foot Buffer Zone (Locally Regulated)

The 100-foot Buffer Zone associated with the wetlands identified in the project area consists of a mixture of impervious area (e.g., paved parking lots, roadways), residential, industrial, and commercial areas, as well as forested areas, and maintained ROW. The percentage of Buffer Zone that is developed, including impervious paved areas, is approximately 40 percent. Non-impervious 100-foot Buffer Zone is mainly comprised of maintained shrubby vegetation within the existing ROW and mixed deciduous and coniferous forest on the ROW boundaries.

Functions and Values Assessment

Gosling Road and Durgin Lane Wetlands

Wetlands off Gosling Road and Durgin Lane are surrounded by residential and commercial development. They are classified as palustrine emergent and scrub-shrub systems, mostly dominated by common reed, purple loosestrife, and cattail. These wetlands are situated in depressions and flat, low lying areas and are densely vegetated with pockets of standing water. Flood storage, sediment and toxicant retention, and nutrient retention/removal are likely functions of these wetlands. Due to the location of these wetlands in highly developed areas and the dominance of invasive species, they do not provide good aesthetic qualities and are unlikely to provide good wildlife habitat.

Echo Avenue Wetlands

Echo Avenue wetlands are characterized as palustrine emergent and palustrine scrub-shrub systems. These wetlands are located directly adjacent to commercial and residential development. They are also located approximately 330 feet northeast of Route 4. These wetlands are densely vegetated and some portions are situated in depressions. Functions associated with these areas include flood storage and sediment and toxicant retention. Due to the location of these wetlands in a developed area and the dominance of invasive species, they do not provide good aesthetic qualities and are unlikely to provide good wildlife habitat.

Borthwick Avenue Wetlands

The wetlands adjacent to Borthwick Avenue are situated in highly disturbed areas. These wetlands are mainly palustrine emergent systems dominated by common reed and cattail. These wetlands are designated as Prime Wetlands pursuant to NH RSA § 482-A:15.

Dense emergent vegetation and organic soils in these wetlands allow for sediment and toxicant retention. Given the proximity of these wetlands to surrounding development and impervious surfaces and their position on the landscape they are likely important in providing flood storage. These wetlands provide little aesthetic qualities as they are dominated by invasive species that obstruct clear views and are surrounded by impervious area and commercial development.

Great Bog Wetlands

The wetlands associated with Great Bog are predominantly palustrine emergent and palustrine scrub-shrub systems. These wetlands are associated with Pickering Brook, which flows northeast to southwest through Great Bog. These wetlands are designated as Prime Wetlands.

Due to the dense vegetation in this wetland and the presence of deep water and organic soils, it likely provides sediment and toxicant retention, as well as nutrient retention and transformation. Additionally, the large size of this wetland complex and its position on the landscape allows for flood storage. Great Bog has historic known occurrences of rare, threatened, and endangered plant species, and has aesthetic qualities and recreational opportunities via adjacent trails. This area likely provides good wildlife habitat as Great Bog is large and relatively unfragmented. The aesthetic quality is partially compromised by the dominance of invasive common reed and purple loosestrife, and the proximity of Great Bog to major roads and highways.

Tighe&Bond

APPENDIX C

Photographic Log

Client: Eversource Energy **Job Number:** 14-5034-200

Site: E194 & U181 Structure Replacement Project
Portsmouth and Newington, NH

Photograph No.: 1	**Date:** 1/9/2023	**Direction Taken:** Northwest

Description: Overview of the originally permitted access to Structures 19 on the E194 and U181 Lines (indicated by the arrows). This would have resulted in 6,286 SF of impacts to the pictured wetland.

Photograph No.: 2	**Date:** 3/18/2024	**Direction Taken:** Northeast

Description: Overview of the as-built gravel access to Structures 19 on the E194 and U181 Lines (red arrow). No direct wetland impacts occurred during construction; rather, 3,685 SF of buffer impacts are requested to be retained under this after-the-fact CUP. A steel gate will be installed to replace the existing boulders.

www.tighebond.com

100% Recyclable

EASEMENT REFERENCES:

1. DRAINAGE EASEMENT IN FAVOR OF THE STATE OF NEW HAMPSHIRE AS DESCRIBED IN RCRD BK.#2503 PG.#1410.
2. ACCESS EASEMENT ACROSS MAP 238 LOT 20 FOR THE BENEFIT OF MAP 28 LOTS 1A & 2 AS DESCRIBED IN RCRD BK.#2503 PG.#1420 & BK.#2503 PG.#1413, AND FURTHER DESCRIBED IN "AGREEMENT & CONSENT TO JOINT USE", JUNE 1984, RCRD BK.#2498 PG.#363.
3. DRAINAGE EASEMENT ON MAP 238 LOT 1A IN FAVOR OF THE STATE OF NEW HAMPSHIRE AS DESCRIBED IN RCRD BK.#2503 PG.#1426.
4. SLOPE AND EMBANKMENT EASEMENT IN FAVOR OF THE STATE OF NEW HAMPSHIRE AS DESCRIBED IN RCRD BK.#1143 PG.#92 (NOT DEFINED AS TO LOCATION).
5. SLOPE AND EMBANKMENT EASEMENT IN FAVOR OF THE STATE OF NEW HAMPSHIRE AS DESCRIBED IN RCRD BK.#1143 PG.#92 (NOT DEFINED AS TO LOCATION).
6. 300' WIDE PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE EASEMENT, TRACT F-607-E. SEE RCRD BK.#1263 PG.#204 & BK.#1350 PG.#1864.
7. SEWER EASEMENT ACROSS MAP 238 LOT 2 TO BENEFIT MAP 238 LOT 20 AS DESCRIBED IN BK.#2503 PG.#1424.
8. SEWER EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH AS DESCRIBED IN BK.#1868 PG.#79.
9. RIGHT-OF-WAY APPURTENANT TO 238-002 AS DESCRIBED IN RCRD BK.#955 PG.#455 (EXTENDS TO WOODBURY AVENUE).
10. APPROXIMATE CENTER LINE OF RIGHT OF WAY AS SHOWN ON REF. PLAN NO.4 AND AS RESERVED IN RCRD BK.#1032 PG.#24.
11. SLOPE AND EMBANKMENT EASEMENT IN FAVOR OF THE STATE OF NEW HAMPSHIRE AS DESCRIBED IN RCRD BK.#1143 PG.#94.
12. UTILITY EASEMENT IN FAVOR OF PUBLIC SERVICE CO. N.H. & N.E. TELEPHONE CO. AS DESCRIBED IN RCRD BK.#2503 PG.#1400-1403 & BK.#2503 PG.#1403.
13. WATER LINE EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH AS DESCRIBED IN BK.#2503 PG.#1402.
14. EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH FOR ROADWAY CHANGE OF DIRECTION AS DESCRIBED IN BK.#2507 PG.#1723.

PURSUANT TO NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES LAN 503.09(24):
I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY THOSE UNDER MY DIRECT SUPERVISION AND ARE THE RESULT OF A FIELD SURVEY CONDUCTED ON OCTOBER 2015 & NOVEMBER 2024. THIS SURVEY CONFORMS TO THE ACCURACY REQUIREMENTS OF AN URBAN SURVEY OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. THIS SURVEY IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, AND THE FIELD TRAVERSE SURVEY EXCEEDS A PRECISION OF 1:15,000.

PURSUANT TO NEW HAMPSHIRE REVISED STATUTES ANNOTATED 676:18, II, III AND IV AND 672:14:
"I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN."

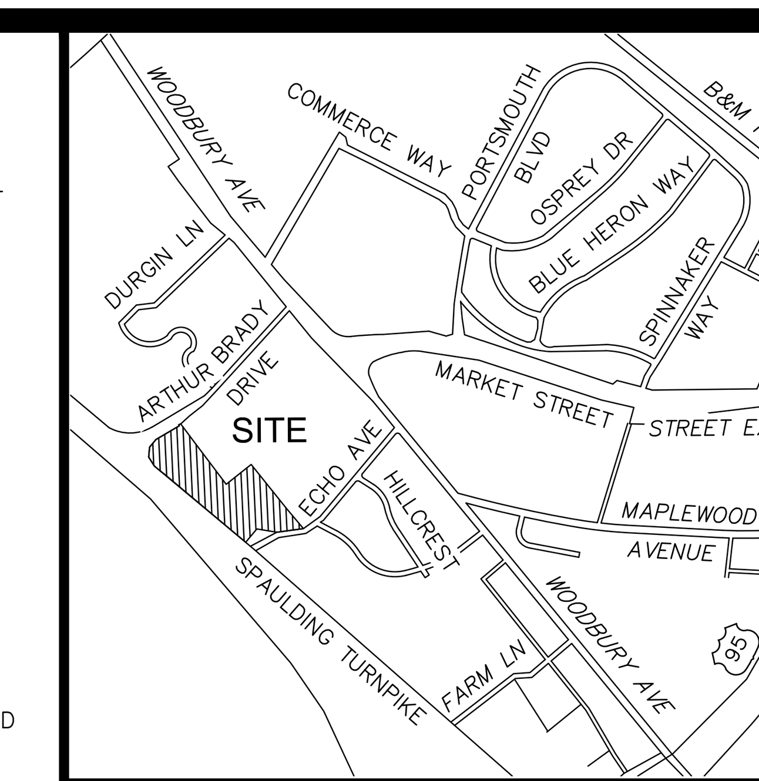
A COPY OF THIS PLAT HAS BEEN FILED WITH THE LOCAL PLANNING BOARD.

LICENSED LAND SURVEYOR

2025-05-27
DATE

NOTES:

1. THE PARCEL IS LOCATED IN THE GATEWAY NEIGHBORHOOD MIXED USE CORRIDOR (G1) ZONING DISTRICT. SEE THE CITY OF PORTSMOUTH ZONING ORDINANCE ARTICLE 5B FOR REGULATIONS/DEVELOPMENT STANDARDS.
2. THE PARCEL IS AS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 238 AS LOT 2.
3. THE PARCEL IS LOCATED IN ZONE X, AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM (NFIP), FLOOD INSURANCE RATE MAP (FIRM) ROCKINGHAM COUNTY, NEW HAMPSHIRE, PANEL 260 OF 681, MAP NUMBER 33015C0260F, WITH AN EFFECTIVE DATE OF JANUARY 29, 2021.
4. OWNER OF RECORD:
   MAP 238 LOT 2:
   SLF REALTY GROUP LLC
   400 SPAULDING TURNPIKE
   PORTSMOUTH, NH 03801
   RCRD BK#3327 PG#1409
5. PARCEL AREA:
   MAP 238 LOT 2:
   453,914 S.F.
   (10.424 ACRES)
6. THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH THE CURRENT LEGAL DESCRIPTIONS. IT IS NOT AN ATTEMPT TO DEFINE THE EXTENT OF OWNERSHIP OR DEFINE THE LIMITS OF TITLE.
7. THE PURPOSE OF THIS PLAN IS TO SHOW THE BOUNDARY LINES AND CURRENT SITE FEATURES OF MAP 238 LOT 2 AND THE GRAVEL ACCESS DRIVE AND CLEARED AREA ON MAP 238 LOT 3.
8. FIELD SURVEY COMPLETED BY TCE IN OCTOBER 2015 AND NOVEMBER 2024 USING A LEICA TS-16 INSTRUMENT AND CARLSON SURVPC DATA COLLECTION SOFTWARE.
9. THE HORIZONTAL DATUM IS NAD83 (2011) PER REDUNDANT NETWORK RTK GPS OBSERVATIONS.
10. EASEMENTS, RIGHTS, AND RESTRICTIONS SHOWN OR IDENTIFIED ARE THOSE WHICH WERE FOUND DURING RESEARCH PERFORMED AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. OTHER RIGHTS, EASEMENTS, OR RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF SUBJECT PARCEL(S) WOULD DETERMINE.
11. THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. TFMORAN, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UNDERGROUND UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE.
12. SEE SHEET S-2 FOR LEGEND.
13. PARKING AND/OR VEHICLE STORAGE SHALL BE PROHIBITED IN THIS ACCESS WAY UNLESS REQUIRED FOR UTILITY MAINTENANCE BY EVERSOURCE.



LOCATION PLAN

WETLANDS NOTE:

(A) THE WETLANDS DEPICTED ON THIS PLAN WERE DELINEATED ON AUGUST 19, 2024, BY JASON R. AUBE CWS #313. THESE WETLANDS WERE DELINEATED ACCORDING TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (JANUARY 1987) AND THE REGIONAL SUPPLEMENT TO THE U.S. CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0 (JANUARY 2012). THE PRESENCE OF DOMINANT HYDROPHYTIC VEGETATION WAS DETERMINED USING THE NORTHCENTRAL AND NORTHEAST 2016 REGIONAL WETLAND PLANT LIST, VERSION 3.3, 2016, PUBLISHED BY THE ARMY CORPS OF ENGINEERS. HYDRIC SOILS WERE DETERMINED USING THE NH HYDRIC SOILS TECHNICAL COMMITTEE'S "FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND",VERSION 4, 2017, PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION.

(B) WETLANDS SHOWN HEREON BETWEEN POINT "A" TO POINT "B" WERE DELINEATED BY MARC JACOBS, CERTIFIED WETLAND SCIENTIST ON JULY 7, 2013 AND FIELD LOCATED BY MSC, INC. (NOW TFMORAN, INC).

(C) WETLANDS SHOWN HEREON BETWEEN POINT "C" TO POINT "D" WERE PROVIDED BY JAMES VERRA & ASSOCIATES, INC. AND USED WITH PERMISSION AS SHOWN ON "ALTA/ACSM LAND TITLE SURVEY, 400 SPAULDING TURNPIKE, PORTSMOUTH, NH, OWNER: SLF REALTY GROUP, LLC, ASSESSOR'S PARCEL NO. 238-02" BY JAMES VERRA AND ASSOCIATES, INC, DATED 2-22-2010.

May 27, 2025 - 12:23pm
\\TFM-BEDFORD4\Projects\Civil-Survey\MSC Projects\47111-11 Portsmouth Ford 400 Spaulding Tpke\Carlson Survey\Dwgs\47111-11 Survey_Mylar.dwg

50 25 0 50
Graphic Scale in Feet

REV.	DATE	DESCRIPTION	DR	CK
3	5/27/2025	ADDED NOTE 13	BMK	JCC
2	2/25/2025	CLEAN UP FOR RECORDING	OMS	BMK
1	2/17/2025	ADDED PROPOSED GATE	BMK	JCC

Seacoast Division
TFM®
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

FILE	DR	RJB	FB	606	
47111-20	CK	BMK	CADFILE	SEE MARGIN	S-1

TAX MAP 238 LOT 2

AS-BUILT PLAN

400 SPAULDING TURNIKE

PORTSMOUTH, NEW HAMPSHIRE

COUNTY OF ROCKINGHAM

OWNED BY

SLF REALTY GROUP LLC

SCALE: 1" = 50' (22x34)
1" = 100' (11x17)

JANUARY 7, 2025

LEGEND:

MAP 137 LOT 11	ASSESSORS MAP/ LOT NUMBER
BK. PG.	BOOK/PAGE
BIT	BITUMINOUS CURB
BNDF	BOUND FOUND
EG	EDGE OF GRAVEL
EP	EDGE OF PAVEMENT
IRF	IRON ROD FOUND
LAROW	LIMITED ACCESS RIGHT OF WAY
PSNH	PUBLIC SERVICE OF NEW HAMPSHIRE
N/F	NOW OR FORMERLY
NHHB	NEW HAMPSHIRE HIGHWAY BOUND
PVC	POLYVINYL CHLORIDE
TYP.	TYPICAL
RCP	REINFORCED CONCRETE PIPE
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
S.F.	SQUARE FEET
SGC	SLOPED GRANITE CURB
SWL	SINGLE WHITE LINE
SYL	SINGLE YELLOW LINE
VBC	VERTICAL BITUMINOUS CURB
VGC	VERTICAL GRANITE CURB
	IRON PIPE/ROD FOUND
	BOUND FOUND
	BOLLARD
	BOULDER
	GUY POLE
	LIGHT POLE
	UTILITY POLE
	ELECTRIC BOX
	LIGHT POLE WITH ARM
	DRAIN MANHOLE
	CATCH BASIN
	FLAG POLE
	DECIDUOUS TREE
	MANHOLE
	SEWER MANHOLE
	HANDICAP PARKING
	GAS VALVE
	HYDRANT
	WATER SHUT OFF
	WATER GATE VALVE
	SIGN
OHU	OVERHEAD UTILITIES
	CHAINLINK FENCE
	BOUNDARY LINE
D	DRAIN LINE
S	SEWER LINE
G	GAS LINE
W	WATER LINE
	EDGE OF WETLAND
	WETLAND SETBACK
	CONCRETE
	GRAVEL
	CLEARED AREA
	WETLANDS
	EASEMENT #1
	EASEMENT #2
	EASEMENT #3
	EASEMENT #6
	EASEMENT #7
	EASEMENT #8
	EASEMENT #9
	EASEMENT #12
	EASEMENT #13
	EASEMENT #14

NOTE:

1. SEE SHEET S-1 FOR AS-BUILT PLAN, NOTES AND LOCATION PLAN.

PURSUANT TO NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES LAN 503.09(24):
I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY THOSE UNDER MY DIRECT SUPERVISION AND ARE THE RESULT OF A FIELD SURVEY CONDUCTED ON OCTOBER 2015 & NOVEMBER 2024. THIS SURVEY CONFORMS TO THE ACCURACY REQUIREMENTS OF AN URBAN SURVEY OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. THIS SURVEY IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, AND THE FIELD TRAVERSE SURVEY EXCEEDS A PRECISION OF 1:15,000.

PURSUANT TO NEW HAMPSHIRE REVISED STATUTES ANNOTATED 676:18, II, III AND IV AND 672:14:
"I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN."

A COPY OF THIS PLAT HAS BEEN FILED WITH THE LOCAL PLANNING BOARD.

STATE OF NEW HAMPSHIRE — No. 01037 BRENDA M. KOLBOW — LICENSED LAND SURVEYOR — SIGNATURE

LICENSED LAND SURVEYOR

2025-05-27
DATE

3	5/27/2025	NO REVISIONS THIS SHEET	BMK	JCC
2	2/25/2025	CLEAN UP FOR RECORDING	OMS	BMK
1	2/17/2025	NO REVISIONS THIS SHEET	BMK	JCC
REV.	DATE	DESCRIPTION	DR	CK

Seacoast Division
TFM
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

FILE	DR	RJB	FB	606	
47111-20	CK	BMK	CADFILE	SEE MARGIN	S-2

TAX MAP 238 LOT 2

AS-BUILT PLAN - LEGEND

400 SPAULDING TURNIKE

PORTSMOUTH, NEW HAMPSHIRE

COUNTY OF ROCKINGHAM

OWNED BY

SLF REALTY GROUP LLC

SCALE: 1" = 50' (22x34)
1" = 100' (11x17)

JANUARY 7, 2025

From: Mauser-Hoye, Rebecca
To: Peter M. Stith
Cc: Kimberli Kienia
Subject: RE: 505 Route 1
Date: Thursday, June 12, 2025 2:51:47 PM
Attachments: image001.png

Peter,
Thank you for the follow up.

Please see this email as our request to postpone to the July Planning Board meeting. We are still at Conservation Commission review.

Thank you.

Rebecca A. Mauser-Hoye, PE, CEA
PROJECT MANAGER
direct: 603-570-6308
cell: 603-986-8865

Weston & Sampson
150 Dow Street Tower 4, Suite 350
Manchester, NH 03101
tel: 978-532-1900
westonandsampson.com

Follow us on Facebook | Twitter | LinkedIn

From: Peter M. Stith <pmstith@portsmouthnh.gov>
Sent: Thursday, June 12, 2025 8:49 AM
To: Mauser-Hoye, Rebecca <mauserr@wseinc.com>
Cc: Kimberli Kienia <kkienia@portsmouthnh.gov>
Subject: 505 Route 1

Rebecca,

Don't worry about getting me the FOF or combined set at this point. What we need, and you can just email me, is a request to postpone to July and you can indicate you are still at Conservation Commission.

Thanks,

Peter Stith, AICP
Planning Manager
Planning & Sustainability Department
City of Portsmouth

K0076-065
April 23, 2025

Mr. Peter Britz, Director of Planning & Sustainability
City of Portsmouth Planning & Sustainability Department
1 Junkins Avenue
Portsmouth, New Hampshire 03801

Re: Request for Design Review
Map 213 Lot 12 -Proposed Multi-Family Development

Dear Peter,

On behalf of Brora, LLC (owner) and The Kane Company (applicant) we are pleased to submit the following information to support a Request for Design Review with the Planning Board for the above-referenced project:

- One (1) full size & one (1) half size copy of the Site Plan Set, dated April 23, 2025;
- One (1) copy of the Planning Board Design Review Presentation Slides;
- One (1) copy of the Owner Authorization;

The proposed project is located on a parcel of land along Portsmouth Boulevard that is identified as Map 213 Lot 12 on the City of Portsmouth Tax Maps. The property is bound to the north by Portsmouth Boulevard, to the west by the Hilton Homewood Suites, to the south by residences on Osprey Drive and to the east by residences on Dunlin Way. The site is currently undeveloped. This property is an 8.4-acre parcel of land located in the Office Research District and the Gateway Neighborhood Overly District (GNOD). The northern portion of the parcel along Portsmouth Boulevard gently slopes up from north to south and then approximately one-third of the way into the parcel the topography changes to a steep slope that plateaus in the south corner of the site after grade change of approximately 50-feet in elevation.

The proposed project will be permitted under the recently adopted GNOD Overlay District regulations. As currently designed, the project will include three (3), six (6) story multifamily residential buildings consisting of approximately 274 dwelling units. With approval from the City Council, the Applicant will be proposing a Land Transfer to the City on separate property in order to achieve the Density Bonus offered by the Land Transfer Incentive Option (Section 10.686.30) and allow for six (6) story construction with up to 120 dwelling units per building.

The three (3) proposed buildings will be located along the frontage of Portsmouth Boulevard with associated parking located at the rear of buildings. Tenant amenity areas are anticipated to be provided on the first floor of the buildings with the primary amenities being centrally located in the middle building. The buildings will be connected by attractively landscaped and hardscaped outdoor amenity areas. The south portion of the site, where there is a significant change in grade, will remain undeveloped to provide a buffer between the proposed development and the existing residences along Osprey Drive. This south portion of the site is anticipated to be improved with walking paths and landscape features for outdoor recreation. The section of Portsmouth Boulevard along the frontage of the subject property is proposed to be reconstructed with a new sidewalk and parking spaces to promote connection between the development and the surrounding neighborhood.

The Applicant is seeking to meet with the Planning Board for Design Review. As such, the Applicant respectfully requests a vote from the Planning Board at the May 15, 2025 meeting to accept a request for Design Review such that a public hearing can be scheduled for the June 18, 2025 Planning Board meeting.

If you have any questions or need any additional information, please contact us by phone at (603) 433-8818 or by email at nahansen@tighebond.com.

Sincerely,
TIGHE & BOND, INC.

Patrick M. Crimmins, PE
Vice President

Neil A. Hansen, PE
Project Manager

Copy: Brora, LLC (via email)

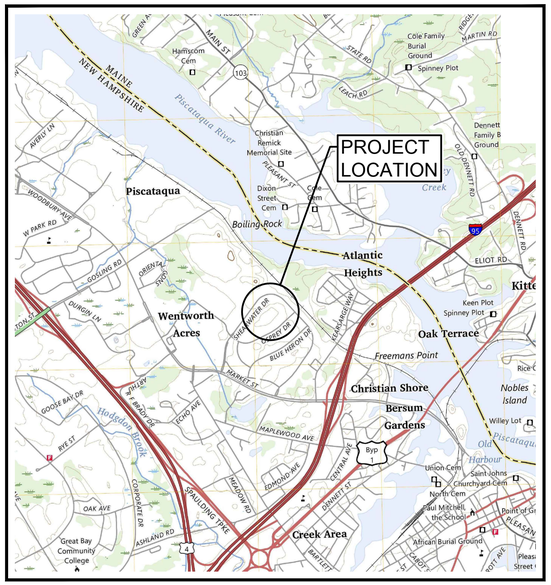
PROPOSED MULTI-FAMILY DEVELOPMENT

DUNLIN WAY & PORTSMOUTH BOULEVARD

PORTSMOUTH, NEW HAMPSHIRE

APRIL 23, 2025

SHEET NO.	SHEET TITLE	LAST REVISED
-	COVER SHEET	2025-04-23
1 OF 2	EXISTING CONDITIONS PLAN FOR DUNLIN WAY & PORTSMOUTH BOULEVARD	MARCH 2025
2 OF 2	EXISTING CONDITIONS PLAN FOR DUNLIN WAY & PORTSMOUTH BOULEVARD	MARCH 2025
C-101	GENERAL NOTES AND LEGEND	2025-04-23
C-201	DEMOLITION PLAN	2025-04-23
C-301	SITE PLAN	2025-04-23
C-401	GRADING AND DRAINAGE PLAN	2025-04-23
C-501	UTILITIES PLAN	2025-04-23
C-601	EROSION CONTROL NOTES AND DETAILS SHEET	2025-04-23
C-602	DETAILS SHEET	2025-04-23
C-603	DETAILS SHEET	2025-04-23
C-604	DETAILS SHEET	2025-04-23
C-605	DETAILS SHEET	2025-04-23
C-606	DETAILS SHEET	2025-04-23
C-607	DETAILS SHEET	2025-04-23



LOCATION MAP
SCALE: 1" = 2000'

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL NOT RELY ON SCALED DIMENSIONS AND SHALL CONTACT THE ENGINEER FOR CLARIFICATION IF A REQUIRED DIMENSION IS NOT PROVIDED ON THE PLANS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, AND FOR SITE CONDITIONS THROUGHOUT CONSTRUCTION. NEITHER THE PLANS NOR THE SEAL OF THE ENGINEER AFFIXED HEREON EXTEND TO OR INCLUDE SYSTEMS REQUIRED FOR THE SAFETY OF THE CONTRACTOR, THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND IMPLEMENTING SAFETY PROCEDURES AND SYSTEMS AS REQUIRED BY THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND ANY STATE OR LOCAL SAFETY REGULATIONS.

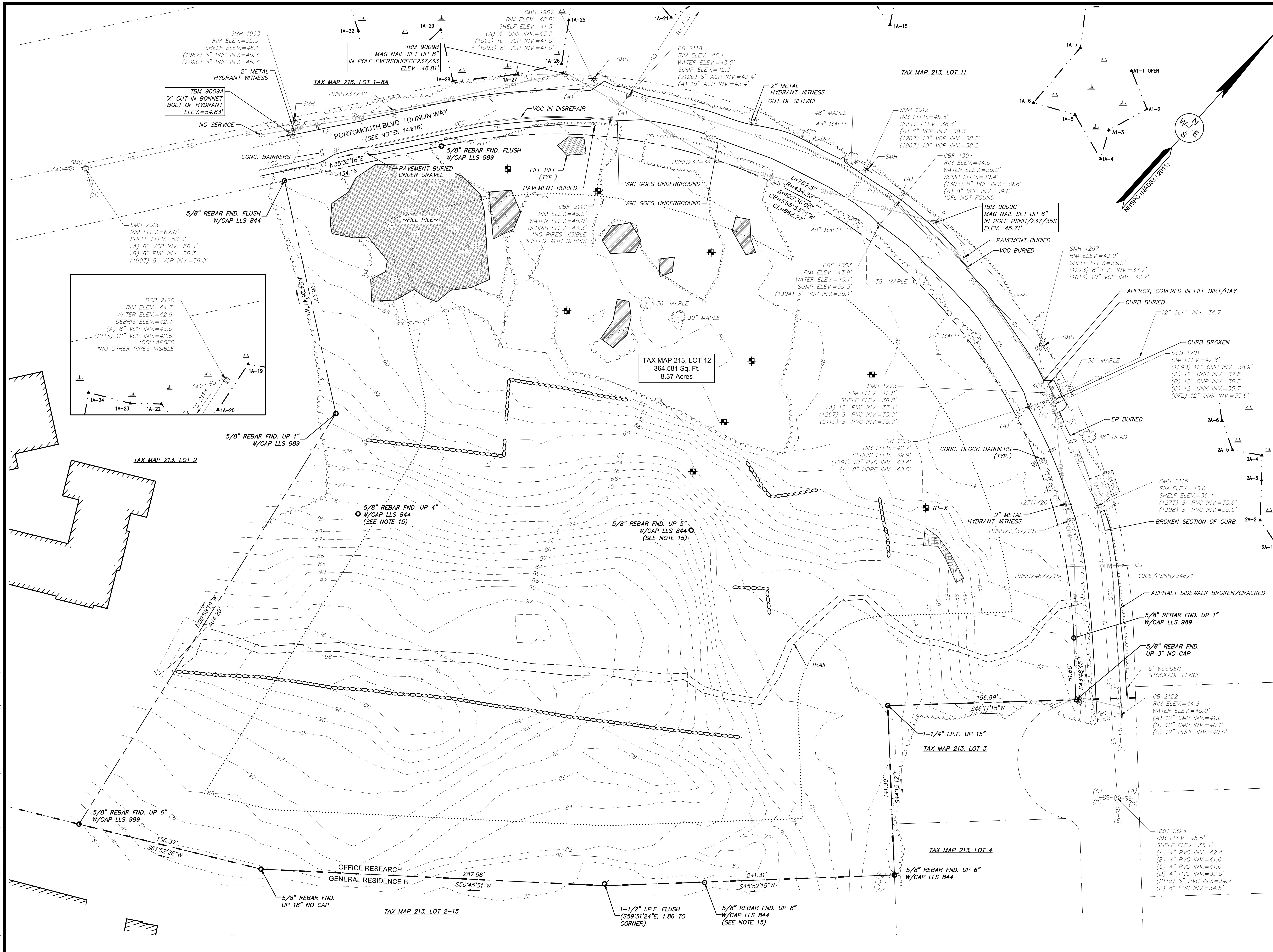
3. TIGHE & BOND ASSUMES NO RESPONSIBILITY FOR ANY ISSUES LEGAL OR OTHERWISE, RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION OF TIGHE & BOND.

PREPARED BY:
Tighe&Bond
177 CORPORATE DRIVE
PORTSMOUTH, NEW HAMPSHIRE 03801
603-433-8818

OWNER/APPLICANT:
BRORA LLC
210 COMMERCE WAY, SUITE 300
PORTSMOUTH, NH 03801

SURVEYOR:
DOUCET SURVEY, LLC.
102 KENT PLACE
NEWMARKET, NH 03857

DESIGN REVIEW PHASE SET
COMPLETE SET (15) SHEETS



LEGEND

- EXISTING LOT LINE
- BUILDING SETBACK LINE
- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- STONE WALL
- STOCKADE FENCE
- OVERHEAD WIRE
- DRAIN LINE
- SEWER LINE
- GAS LINE
- TREE LINE
- SHRUB LINE
- EDGE OF DELINEATED WETLAND
- WETLAND AREA
- CONCRETE
- CRUSHED STONE
- PILE
- LEDGE OUTCROP
- SPOT GRADE
- UTILITY POLE
- UTILITY POLE & GUY WIRE
- UTILITY POLE W/LIGHT
- UTILITY POLE STUMP
- CATCH BASIN
- DOUBLE CATCH BASIN
- SEWER MANHOLE
- FIRE HYDRANT
- PIPE/ROD FOUND
- SIGN
- POST
- DECIDUOUS TREE 10" DIA. OR GREATER
- TEST PIT LOCATION
- WETLAND FLAG
- ACP — ASBESTOS CONCRETE PIPE
- CONC. — CONCRETE
- CMP — CORRUGATED METAL PIPE
- EP — EDGE OF PAVEMENT
- HDPE — HIGH DENSITY POLYETHYLENE PIPE
- I.P.F. — IRON PIPE FOUND
- PVC — POLYVINYL CHLORIDE PIPE
- SGC — SLOPED GRANITE CURB
- TYP. — TYPICAL
- UNK — UNKNOWN
- VCP — VITREOUS CLAY PIPE
- VGC — VERTICAL GRANITE CURB
- (X) — INVERT I.D. CONNECTION UNKNOWN

SCALE: 1 INCH = 40 FT.

EXISTING CONDITIONS PLAN

FOR
THE KANE COMPANY
LAND OF
BRORA LLC
(TAX MAP 213, LOT 12)
DUNLIN WAY & PORTSMOUTH BOULEVARD
PORSTMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

DRAWN BY:	G.A.N.	DATE:	MARCH 2025
CHECKED BY:	M.W.F.	DRAWING NO.	9009A
JOB NO.	9009	SHEET	1 OF 2

DOUCET SURVEY A SAM Company
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
Offices in Bedford & Keene, NH and Kennebunk, ME
Locations Nationwide | http://www.sam.biz

NOTES:

1. REFERENCE: TAX MAP 213, LOT 12
   DUNLIN WAY & PORTSMOUTH BOULEVARD
   PORTSMOUTH, NEW HAMPSHIRE 03801
   D.S. PROJECT NO. 9009

2. TOTAL PARCEL AREA: 364,581 SQ. FT. OR 8.37 AC.

3. OWNER OF RECORD: BRORA LLC
   210 COMMERCE WAY, SUITE 300
   PORTSMOUTH, NH 03801
   R.C.R.D. BOOK 3465, PAGE 462

4. ZONE: OR – DIMENSIONAL REQUIREMENTS:

MIN. LOT AREA	3 AC.
MIN. FRONTAGE	300 ft.
MIN. FRONT SETBACK	50 ft.
MIN. SIDE SETBACK	75 ft.
MIN. REAR SETBACK	50 ft.
MIN. BUILDING HEIGHT	60 ft.

   ZONING INFORMATION LISTED HEREON IS BASED ON THE CITY OF PORTSMOUTH ZONING ORDINANCE AMENDED NOVEMBER 18, 2024 AS AVAILABLE ON THE CITY'S WEBSITE ON MARCH 25, 2025. ADDITIONAL REGULATIONS MAY APPLY, AND REFERENCE IS HEREBY MADE TO THE EFFECTIVE ZONING ORDINANCE. THE LAND OWNER IS RESPONSIBLE FOR VERIFYING AND COMPLYING WITH ALL APPLICABLE MUNICIPAL, STATE, AND FEDERAL REGULATIONS.

5. FIELD SURVEY PERFORMED BY J.P.E. & D.W.D. DURING FEBRUARY AND MARCH 2025 USING A TRIMBLE S6 TOTAL STATION AND A TRIMBLE R10 SURVEY GRADE GPS WITH A TRIMBLE TSC5 DATA COLLECTOR AND A TRIMBLE DINI DIGITAL LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.

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

7. VERTICAL DATUM IS BASED ON APPROXIMATE NAVD88(GEOID18) (±.2') DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.

8. *WETLANDS AND AREAS UNDER THE JURISDICTION OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES, PURSUANT TO NH ADMINISTRATIVE RULES CHAPTER ENV–WT 100–900, WERE DELINEATED BY TIGHE & BOND ON MARCH 21, 2025 USING THE FOLLOWING METHODOLOGY AND STANDARDS:*
   a. *REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, (VERSION 2.0) JANUARY 2012, U.S. ARMY CORPS OF ENGINEERS.*
   b. *NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE. 2019 VERSION 4, FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND. NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION, LOWELL, MA.*
   c. *U.S. ARMY CORPS OF ENGINEERS. (2023). 2022 NATIONAL WETLAND PLANT LIST, VERSION 3.6. U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER, VICKSBURG, MS. HTTP://WETLAND-PLANTS.USACE.ARMY.MIL/*
   d. *NEW HAMPSHIRE ADMINISTRATIVE RULE CHAPTER ENV–WT 602.23, DEFINITIONS: HIGHEST OBSERVABLE TIDE LINE (HOTL) AND ENV–WT 406, DELINEATION AND CLASSIFICATION OF JURISDICTIONAL AREAS, EFFECTIVE DECEMBER 15, 2019.*

9. FLOOD HAZARD ZONE:"X", PER FIRM MAP #33015C0259F, DATED 1/29/21.

10. PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 2' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DOUCET SURVEY WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.

11. THE ACCURACY OF MEASURED UTILITY INVERTS AND PIPE SIZES/TYPES IS SUBJECT TO NUMEROUS FIELD CONDITIONS, INCLUDING; THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS, MANHOLE CONFIGURATION, ETC.

12. THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH AND IN RELATION TO THE CURRENT LEGAL DESCRIPTION, AND IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP, OR DEFINE THE LIMITS OF TITLE.

13. 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.

14. DUE TO THE COMPLEXITY OF RESEARCHING ROAD RECORDS AS A RESULT OF INCOMPLETE, UNORGANIZED, INCONCLUSIVE, OBLITERATED, OR LOST DOCUMENTS, THERE IS AN INHERENT UNCERTAINTY INVOLVED WHEN ATTEMPTING TO DETERMINE THE LOCATION AND WIDTH OF A ROADWAY RIGHT OF WAY. THE EXTENT OF DUNLIN WAY AS DEPICTED HEREON IS/ARE BASED ON RESEARCH CONDUCTED AT THE CITY OF PORTSMOUTH AND THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. PORTSMOUTH BOULEVARD IS A 50 FOOT WIDE RIGHT OF WAY PER REFERENCE PLAN 7.

15. MONUMENT OF BOUNDARY LINE ABANDONED BY R.C.R.D. PLAN D-38784 (REF. PLANS 1).

16. **AT TIME OF SURVEY PORTIONS OF PORTSMOUTH BOULEVARD ALONG THE SUBJECT PARCEL WAS OVERGROWN AND COVERED IN DEBRIS. THE LIMITS OF PAVEMENT AND SIDEWALK AS SHOWN IS BASED ON THE BEST AVAILABLE SURVEY LOCATIONS UNDER THE CURRENT STATE OF THE ROADWAY.**

REFERENCE PLANS:

1. "BOUNDARY LINE ADJUSTMENT PLAN, LAND OF DOAKS, LLC (TAX MAP 213, LOT 2) AND BRORA, LLC (TAX MAP 213, LOT 12), PORTSMOUTH, NEW HAMPSHIRE" BY DOUCET SURVEY, INC., DATED DECEMBER 31, 2014, R.C.R.D. PLAN D-38784.
2. "PRELIMINARY CONCEPT PLAN AT SCHILLER STATION, PORTSMOUTH, NEW HAMPSHIRE", BY PUBLIC SERVICE OF NEW HAMPSHIRE GENERAL ENGINEERING DIVISION, DATED 2/3/97.
3. "SUBDIVISION PLAN FOR BRORA, LLC", BY MILLETTE, SPRAGUE & COLWELL, INC., DATED AUGUST 27, 2003, R.C.R.D. PLAN #D-31583.
4. "SUBDIVISION/CONSOLIDATION PLAN MAP R-16/LOTS 1, 1-5 & 1-8B, MAP R-17/LOTS 2-1838 THRU 2-1844, MAP R-17/LOT 2-0300", BY CLD CONSULTING ENGINEERS, INC., DATED DEC. 1999 R.C.R.D. PLAN #D-28385.
5. "RESUBDIVISION PLAN OSPREY LANDING", BY CLD CONSULTING ENGINEERS, INC., DATED FEB. 1999, R.C.R.D. PLAN #D-27099.
6. "LOT LINE RELOCATION PLAN OSPREY LANDING", BY CLD CONSULTING ENGINEERS, INC., DATED FEB. 1999, R.C.R.D. PLAN #D-27029.
7. "SUBDIVISION PLAN OF MARINERS VILLAGE & SPINNAKER POINT CONDOMINIUM", BY ASSOCIATED ENGINEERING SERVICES, DATED OCTOBER 23, 1993, R.C.R.D. PLAN #D-23202.

ABUTTERS INFORMATION:

TAX MAP 213, LOT 2
NEP PORTSMOUTH OWNER LLC
& COLONY CAPITAL
545 E JOHN CARPENTER FREEWAY SUITE 1400
IRVING, TX 75062
R.C.R.D. BOOK 5627, PAGE 702

TAX MAP 213, LOT 2-15
INISHMAAN ASSOC. LTD. PARTNERSHIP
& JCM MANAGEMENT CO.
540 NORTH COMMERCIAL STREET
MANCHESTER, NH 03101
R.C.R.D. BOOK 3078, PAGE 1947

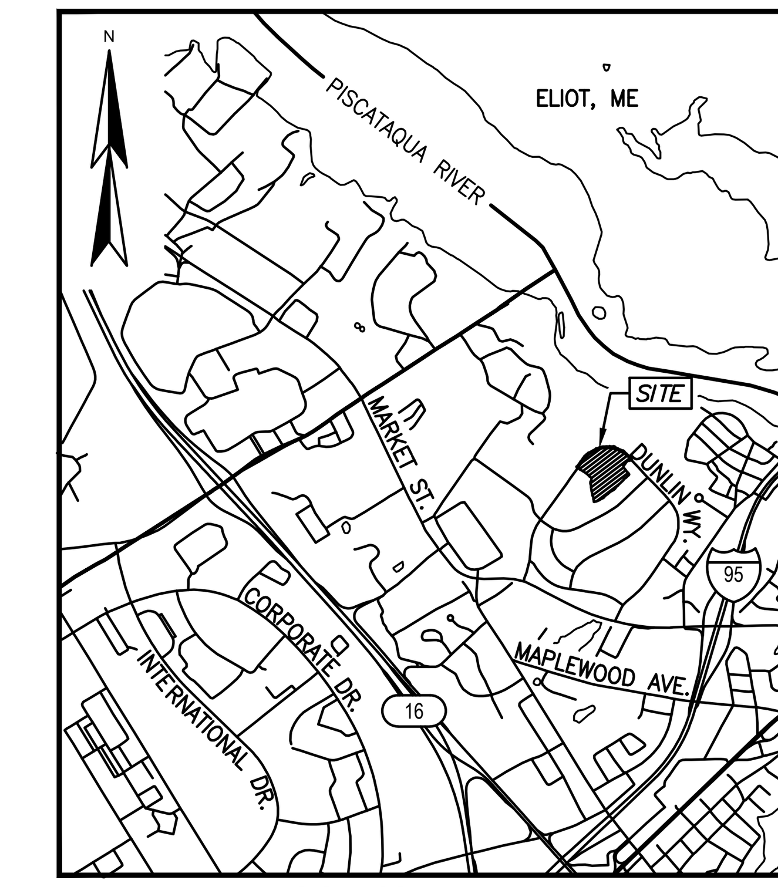
TAX MAP 213, LOT 3
THOM GRAEME
1518 SUMMER AVE
JUPITER, FL 33469
R.C.R.D. BOOK 3453, PAGE 2213

TAX MAP 213, LOT 4
DAVID S. ROGERS DECLARATION OF TRUST
15 DUNLIN WAY
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 5539, PAGE 146

TAX MAP 213, LOT 10
MUKHLIS & ALABDULLA FAMILY TRUST
20 DUNLIN WAY
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 6579, PAGE 466

TAX MAP 213, LOT 11
GSP SCHILLER, LLC
431 RIVER RD.
BOW, NH 03304
R.C.R.D. BOOK 5887, PAGE 823

TAX MAP 216, LOT 1-8A
BEACON HARBOR TRUST, LLC
210 COMMERCE WAY SUITE 300
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 5877, PAGE 2905



LOCATION MAP (n.t.s.)

EXISTING CONDITIONS PLAN
FOR
THE KANE COMPANY
LAND OF
BRORA LLC
(TAX MAP 213, LOT 12)
DUNLIN WAY & PORTSMOUTH BOULEVARD
PORTSMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

DRAWN BY:	G.A.N.	DATE:	MARCH 2025
CHECKED BY:	M.W.F.	DRAWING NO.	9009A
JOB NO.	9009	SHEET 2 OF	2

DOUCET® SURVEY LLC
Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
Offices in Bedford & Keene, NH and Kennebunk, ME
http://www.doucetsurvey.com

EXISTING CONDITIONS PLAN NOTES:

1. EXISTING CONDITIONS ARE BASED ON A FIELD SURVEY BY DOUCET SURVEY, LLC., DATED MARCH 2025.
2. WETLANDS AND AREAS UNDER THE JURISDICTION OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES, PURSUANT TO NH ADMINISTRATIVE RULES CHAPTER ENV-WT 100-900, WERE DELINEATED BY TIGHE & BOND ON MAP 213 LOT 11 AND MAP 216 LOT 1-8A ON MARCH 21, 2025 USING THE FOLLOWING METHODOLOGY AND STANDARDS:
   a. REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, (VERSION 2.0) JANUARY 20212, U.S. ARMY CORPS OF ENGINEERS.
   b. NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE. 2019 VERSION 4, FIELD INDICATORS FOR IDENTIFYING HYDRIC OILS IN NEW ENGLAND. NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION, LOWELL, MA.
   c. U.S. ARMY CORPS OF ENGINEERS. (2023). 2022 NATIONAL WELAND PLANT LIST, VERSION 3.6. U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER, VICKSBURG, MS. HTTP://WETLAND-PLANTS.USACE.ARMY.MIL/
   d. NEW HAMPSHIRE ADMINISTRATIVE RULE CHAPTER ENV-WT 602.23, DEFINITIONS: HIGHEST OBSERVABLE TIDE LINE (HOTL) AND ENV-WT 406, DELINEATION AND CLASSIFICATION OF JURISDICTIONAL AREAS, EFFECTIVE DECEMBER 15, 2019.

GENERAL NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
2. 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.
3. 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.
4. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION (E.G., EXISTING UTILITIES) SHOWN ON THESE DRAWINGS IS NOT GUARANTEED AND SOME SUBSURFACE INFORMATION MAY NOT BE SHOWN. DETERMINE THE LOCATIONS AND ELEVATIONS OF ALL SUBSURFACE FEATURES WHICH MAY AFFECT CONSTRUCTION OPERATIONS BY TEST PIT OR OTHER METHODS, AS NECESSARY TO PREVENT DAMAGE TO UTILITIES AND OTHER SUBSURFACE FEATURES, AND/OR INTERRUPTIONS IN UTILITY SERVICE. PROVIDE DATA COLLECTED THROUGH THESE INVESTIGATIONS TO THE ENGINEER PRIOR TO CONSTRUCTING THE PROPOSED IMPROVEMENTS.
5. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY UTILITIES IDENTIFIED DURING CONSTRUCTION THAT ARE NOT SHOWN ON THE DRAWINGS OR THAT DIFFER IN SIZE OR MATERIAL
6. THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY; COORDINATION WITH THE OWNER, ALL SUBCONTRACTORS, AND WITH OTHER CONTRACTORS WORKING WITHIN THE LIMITS OF WORK, THE MEANS AND METHODS OF CONSTRUCTING THE PROPOSED WORK.
7. THE CONTRACTOR SHALL OBTAIN AND PAY FOR AND COMPLY WITH ADDITIONAL PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
8. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES & SPECIFICATIONS.
9. THE CONTRACTOR SHALL COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAY WITH THE CITY OF PORTSMOUTH.
10. 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 FOR ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITION.
11. THE 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.
12. BEFORE ANY DEWATERING IS PERFORMED A TEMPORARY DISCHARGE PERMIT FROM THE NHDES IS REQUIRED.
13. THE CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY TRAFFIC CONTROL/SAFETY DEVICES TO ENSURE SAFE VEHICULAR AND PEDESTRIAN ACCESS THROUGH THE WORK AREA, OR FOR SAFELY IMPLEMENTING DETOURS AROUND THE WORK AREA. PERFORM TRAFFIC CONTROL IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED TRAFFIC CONTROL PLAN.
14. WHEN WORKING IN THE RIGHT OF WAY, THE CONTRACTOR SHALL PROVIDE THE OWNER AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES A DETAILED PLAN OF APPROACH INDICATING METHODS OF PROPOSED TRAFFIC ROUTING ON A DAILY BASIS, AND COORDINATION TO ENSURE COMMUNICATION AND COORDINATION BETWEEN THE OWNER, THE CONTRACTOR AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES THROUGHOUT THE CONSTRUCTION PERIOD.
15. THE CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS TO ALL PROPERTIES WITHIN THE PROJECT AREA AT ALL TIMES DURING CONSTRUCTION.
16. NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICT, ERROR, AMBIGUITY, OR DISCREPANCY WITH THE PLANS OR BETWEEN THE PLANS AND ANY APPLICABLE LAW, REGULATION, CODE, STANDARD SPECIFICATION, OR MANUFACTURER'S INSTRUCTIONS.
17. TIGHE & BOND ASSUMES NO RESPONSIBILITY FOR ANY ISSUES, LEGAL OR OTHERWISE, RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM TIGHE & BOND.

DEMOLITION NOTES:

1. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
2. THE CONTRACTOR IS RESPONSIBLE FOR SUPPORT OF EXISTING UTILITIES AND REPAIR OR REPLACEMENT COSTS OF UTILITIES DAMAGED DURING CONSTRUCTION, WHETHER ABOVE OR BELOW GRADE. REPLACE DAMAGED UTILITIES IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER AND AT NO COST TO THE PROPERTY OWNER.
3. 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.
4. CONTRACTOR SHALL VERIFY ORIGIN OF ALL DRAINS AND UTILITIES PRIOR TO REMOVAL/TERMINATION TO DETERMINE IF DRAINS OR UTILITY ARE 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.
5. 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.
6. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE PADS, UTILITIES AND PAVEMENT WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ITEMS TO BE REMOVED INCLUDE BUT ARE NOT LIMITED TO: CONCRETE, PAVEMENT, CURBS, LIGHTING, MANHOLES, CATCH BASINS, UNDER GROUND PIPING, POLES, STAIRS, SIGNS, FENCES, RAMPS, WALLS, BOLLARDS, TREES AND LANDSCAPING.
7. 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.
8. 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.
9. THE CONTRACTOR SHALL COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
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. 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.
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. 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.
14. THE CONTRACTOR SHALL REMOVE AND SALVAGE EXISTING GRANITE CURB FOR REUSE.
15. 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.
16. THE 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. 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.
18. BOLD LINETYPES SHOWN WITHIN THE LIMITS OF WORK INDICATE SITE FEATURES TO BE REMOVED, UNLESS SPECIFICALLY IDENTIFIED TO REMAIN.

SITE NOTES:

1. PAVEMENT MARKINGS, INCLUDING BUT NOT LIMITED TO; PARKING SPACES, STOP BARS, ADA SYMBOLS, PAINTED ISLANDS, CROSS WALKS, ARROWS, LEGENDS, AND CENTERLINES, SHALL BE CONSTRUCTED AS SHOWN ON THE DRAWINGS AND DETAILS, AND SHALL MEET THE FOLLOWING REQUIREMENTS:
   - ALL ON-SITE PAVEMENT MARKINGS EXCEPT CENTERLINES, MEDIAN ISLANDS, FOG/SHOULDER LINES, AND LANE LINES SHALL BE CONSTRUCTED USING WHITE TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248 TYPE "F".
   - ALL ON-SITE CENTERLINES AND MEDIAN ISLANDS SHALL BE CONSTRUCTED USING YELLOW THERMOPLASTIC STRIPING MATERIAL, MEETING THE REQUIREMENTS OF AASHTO M249.
   - ALL ON-SITE FOG/SHOULDER LINES AND LANE LINES SHALL BE CONSTRUCTED USING WHITE THERMOPLASTIC STRIPING MATERIAL, MEETING THE REQUIREMENTS OF AASHTO M249.
   - ALL PAVEMENT MARKINGS WITHIN PUBLIC RIGHT OF WAY SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, AND APPLICABLE DEPARTMENT OF TRANSPORTATION (DOT), STANDARD SPECIFICATIONS.
2. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" CURRENT EDITION, "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" CURRENT EDITION, AND THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA), THE ARCHITECTURAL BARRIERS ACT (ABA), AND THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (AAB), AS APPLICABLE.
3. THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED LAND SURVEYOR TO DETERMINE ALL LINES AND GRADES.
4. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAW CUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
5. THE CONTRACTOR TO PROVIDE BACKFILL AND COMPACTION AT CURB LINE AFTER CONCRETE FORMS FOR SIDEWALKS AND PADS HAVE BEEN STRIPPED.
6. COORDINATE ALL WORK ADJACENT TO BUILDINGS WITH BUILDING DRAWINGS/CONTRACTOR.
7. SEE ARCHITECTURAL/BUILDING DRAWINGS FOR ALL CONCRETE PADS & SIDEWALKS ADJACENT TO BUILDING.
8. ALL LIGHT POLE BASES NOT PROTECTED BY A RAISED CURB SHALL BE PAINTED YELLOW.
9. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING RETAINING WALL DESIGN FROM STRUCTURAL ENGINEER AND/OR WALL MANUFACTURER. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO CONSTRUCT WALL IN ACCORDANCE WITH DESIGN APPROVED BY THE ENGINEER. RETAINING WALL SHALL BE SEGMENTAL BLOCK WALL SYSTEM AS OUTLINED IN THE DETAILS.
11. PROPERTY MANAGER WILL BE RESPONSIBLE FOR TIMELY SNOW REMOVAL FROM ALL PUBLIC WALKS, DRIVES, AND PARKING AREAS ON-SITE. SNOW SHALL BE HAULED OFF-SITE AND LEGALLY DISPOSED OF, WHEN NECESSARY, WHEN SNOW STORAGE AREAS HAVE REACHED CAPACITY.

GRADING AND DRAINAGE NOTES:

1. GENERAL 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) OR RCP CLASS IV, 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. THE 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. PROVIDE SITE GRADING AT ACCESSIBLE SIDEWALK RAMPS, SIDEWALKS, AND BUILDING ENTRANCES THAT IS CONSISTENT WITH THE RELEVANT ACCESS REQUIREMENTS OF THE ARCHITECTURAL BARRIERS ACT (ABA), THE AMERICANS WITH DISABILITIES ACT (ADA), AND MA ARCHITECTURAL ACCESS BOARD REQUIREMENTS (AAB). SMALL CHANGES IN GRADE OVER RELATIVELY SHORT DISTANCES (E.G. AT PARKING SPACES, ACCESSIBLE ROUTES, AND RAMPS) MIGHT NOT BE CLEARLY DEPICTED WITHIN THE CONTOUR INTERVAL SHOWN. COMPLY WITH THE CRITERIA IN THESE STANDARDS. SELECT MAXIMUM SLOPE CRITERIA ARE REPRODUCED BELOW:
   - ACCESSIBLE PARKING STALLS AND PASSENGER LOADING ZONES (IN ANY DIRECTION) SHALL BE < 2.0%
   - LONGITUDINAL SLOPE ALONG ACCESSIBLE ROUTES SHALL BE < 5.0%
   - CROSS SLOPE ALONG ACCESSIBLE ROUTES SHALL BE < 2.0%
7. THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCH BASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
8. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES.
9. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
10. ALL PROPOSED CATCH BASINS SHALL BE EQUIPPED WITH OIL/GAS SEPARATOR HOODS AND 4' SUMPS.
11. THE CONTRACTOR SHALL VERIFY INVERTS OF EXISTING DRAIN LINES AND STRUCTURES AT PROPOSED DRAINAGE CONNECTION LOCATIONS PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES.

GENERAL EROSION CONTROL NOTES:

1. REFER TO SHEET C-601 FOR GENERAL EROSION CONTROL NOTES AND DETAILS.

UTILITY NOTES:

1. COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
   - NATURAL GAS - UNITIL
   - WATER - CITY OF PORTSMOUTH
   - SEWER - CITY OF PORTSMOUTH
   - ELECTRIC - EVERSOURCE
   - COMMUNICATIONS - CONSOLIDATED COMM/FAIRPOINT/COMCAST
3. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
4. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
5. ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE.
6. 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.
7. ALL BELOW GRADE WATER VALVES AND FITTINGS SHALL HAVE MECHANICAL JOINT (MJ) ENDS. RESTRAIN ALL WATER VALVES AND FITTINGS JOINTS WITH RETAINER GLANDS, OR AS REQUIRED BY THE CITY OF PORTSMOUTH WATER DEPARTMENT STANDARDS.
8. CONNECTION TO EXISTING WATER MAIN SHALL BE CONSTRUCTED TO THE CITY OF PORTSMOUTH WATER DEPARTMENT STANDARDS.
9. HYDRANTS, GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH FIRE AND/OR WATER DEPARTMENT.
10. ALL SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE STATED.
11. THE CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ABUTTING PROPERTIES THROUGHOUT CONSTRUCTION.
12. 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.
13. ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, CURRENT EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
14. THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE APPLICABLE UTILITY COMPANIES.
15. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
16. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
17. 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.
18. 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.
19. THE CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
20. 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.
21. SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
22. COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF PORTSMOUTH SEWER DEPARTMENT.
23. ALL SEWER PIPE WITH LESS THAN 6' OF COVER IN PAVED AREAS OR LESS THAT 4' OF COVER IN UNPAVED AREAS SHALL BE INSULATED.
24. 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.
25. THE 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.
26. SITE LIGHTING SPECIFICATIONS, CONDUIT LAYOUT AND CIRCUITRY FOR PROPOSED SITE LIGHTING AND SIGN ILLUMINATION SHALL BE PROVIDED BY THE PROJECT ELECTRICAL ENGINEER.
27. THE CONTRACTOR SHALL CONSTRUCT ALL UTILITIES AND DRAINS TO WITHIN 10' OF THE FOUNDATION WALLS AND CONNECT THESE TO SERVICE STUBS FROM THE BUILDING.
28. FINAL LOCATION OF ALL WATER METER AND VALVE SHALL BE COORDINATED WITH THE CITY OF PORTSMOUTH WATER DEPARTMENT PRIOR TO CONSTRUCTION.
29. THE CONTRACTOR SHALL VERIFY INVERTS OF EXISTING SEWER LINES AND STRUCTURES AT PROPOSED SEWER CONNECTION LOCATIONS PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES.

ABBREVIATIONS

ABDN('D)	ABANDON(ED)
AC	ASBESTOS CEMENT PIPE
APPROX	APPROXIMATE
BC	BITUMINOUS CURB
BFP	BACK FLOW PREVENTOR
BIT	BITUMINOUS
BL	BASELINE
BLDG	BUILDING
BND	BOUND
BOC	BOTTOM OF CURB
BOT	BOTTOM
BS	BOTTOM OF STEP
BW	BOTTOM OF WALL
CATV	CABLE TELEVISION
CB	CATCH BASIN
CCW	CEMENT CONCRETE WALK
CEM	CEMENT
CI	CAST IRON PIPE
CL	CENTERLINE
CLF	CHAIN LINK FENCE
CO	CLEAN OUT
CONC	CONCRETE
CPP	CORRUGATED POLYETHYLENE PIPE
CY	CUBIC YARD
DH	DRILL HOLE
DI	DUCTILE IRON PIPE
DIA	DIAMETER
DMH	DRAIN MANHOLE
E	EAST
EF	EACH FACE
EG	EXISTING GRADE
EL/ELEV	ELEVATION
ELEC	ELECTRIC
EMH	ELECTRIC MANHOLE
EOP	EDGE OF PAVEMENT
EW	EACH WAY
EXIST	EXISTING
FES	FLARED END SECTION
FF	FINISH FLOOR
FM	FORCE MAIN
G	GAS
GG	GAS GATE
GRAN	GRANITE
HC	HANDICAP
HDPE	HIGH DENSITY POLYETHYLENE
HMA	HOT MIX ASPHALT
HYD	HYDRANT
IN	INCHES
INV	INVERT
IP	IRON PIN
L	LENGTH OF CURB
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MON	MONUMENT
MJ	MECHANICAL JOINT
N	NORTH
NITC	NOT IN THIS CONTRACT
NTS	NOT TO SCALE
N/A	NOT APPLICABLE
N/F	NOW OR FORMERLY
OC	ON CENTER
OCS	OUTLET CONTROL STRUCTURE
OH	OVERHEAD
PB	PLANT BED
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCPP	PERFORATED CORRUGATED POLYETHYLENE PIPE
PERF	PERFORATED
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVATURE
PROT	PROTECT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYLCHLORIDE
PVMT	PAVEMENT
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REV	REVISION
ROW	RIGHT OF WAY
RT	RIGHT
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
S	SOUTH
SAN	SANITARY
SCH	SCHEDULE
SF	SQUARE FOOT
SMH	SEWER MANHOLE
SS	STAINLESS STEEL
STA	STATION
STL	STEEL
STRM	STORM
T	TANGENT LENGTH
TC	TOP OF CURB
TEL	TEL-DATA
TP	TEST PIT
TS	TOP OF STEP
TW	TOP OF WALL
TYP	TYPICAL
UP	UTILITY POLE
W	WATER
WG	WATER GATE
WV	WATER VALVE
XFMR	TRANSFORMER

LEGEND

EXISTING PROPOSED DESCRIPTION

PROPERTY LINE
ADJACENT PROPERTY LINE
RIGHT OF WAY (ROW) LINE
EASEMENT LINE
ZONING DISTRICT BOUNDARY LINE (APPROX)
BUILDING SETBACK LINE
INTERMEDIATE CONTOURS
INDEX CONTOURS
SPOT / APPROX SPOT GRADE
MAGNITUDE & DIRECTION OF SLOPE
LIMIT OF WETLANDS WATER COURSE
LIMIT OF LOCAL WETLAND BUFFER
LOCATION OF BORING (APPROX)
LOCATION OF TEST PIT (APPROX)
LIMIT OF WORK (APPROX)
LIMIT OF SAWCUT (APPROX)
LIMIT OF EROSION CONTROL (APPROX)
INLET PROTECTION
PAVEMENT / CONCRETE SECTION TO BE REMOVED (APPROX)
LIMIT OF CLEARING & GRUBBING (APPROX)
LIMIT OF BUILDING(S) / STRUCTURE(S) TO BE REMOVED (APPROX)
LIMIT OF UTILITY / SITE FEATURE TO BE REMOVED (APPROX)
EDGE OF PAVEMENT
VERTICAL GRANITE CURB
SLOPED GRANITE CURB
CURB RADIUS
PAVEMENT SECTION
CONCRETE SIDEWALK & TIP DOWN RAMP
FENCE
GUARDRAIL
LIGHT POLE / BASE
SIGN
BOLLARD
SNOW STORAGE (APPROX)
PAVEMENT STRIPING
TREE LINE (APPROX)
STONE WALL
RETAINING WALL
STORM DRAIN
STORM DRAIN (APPROX)
STORM DRAIN MANHOLE
STORM DRAIN INLETS
FLARED END SECTION & RIP RAP APRON
GRAVITY SANITARY SEWER
GRAVITY SANITARY SEWER (APPROX)
SANITARY SEWER STRUCTURES
WATER SERVICE
WATER SERVICE (APPROX)
WATER SERVICE STRUCTURES
UNDERGROUND ELECTRIC
UNDERGROUND ELECTRIC (APPROX)
OVERHEAD UTILITY (UNSPECIFIED)
UNDERGROUND COMMUNICATIONS SERVICE
UNDERGROUND ELECTRIC & COMMUNICATION SERVICES
UNDERGROUND ELECTRIC / COMMUNICATIONS SERVICE STRUCTURES
ELECTRIC / COMMUNICATION SERVICE STRUCTURES
GAS SERVICE
GAS SERVICE STRUCTURES
DECIDUOUS TREE
EVERGREEN TREE
ORNAMENTAL TREE
SHRUBS / GROUND COVERS

Tighe&Bond
Engineers | Environmental Specialists

PROPOSED MULTI-FAMILY DEVELOPMENT

Brora LLC

Portsmouth, NH

MARK	DATE	DESCRIPTION

PROJECT NO:	K0076-065
DATE:	APRIL 23, 2025
FILE:	K0076-065_C-DSGN.DWG
DRAWN BY:	MDC/BKC
CHECKED:	NAH
APPROVED:	PMC

GENERAL NOTES
AND LEGENDS

SCALE: AS SHOWN

C-101

Last Saved: 4/22/2025
Plotted On:Apr 22, 2025-3:59pm By: BCurcio
Tighe & Bond: J:\K\K0076 The Kane Company - General Proposals\0076-0065 GNOD Hillside Lot\Drawings\AutoCAD\Sheet\K0076-065_C-DSGN.dwg

EXISTING VGC TO BE REMOVED (TYP.)
EXISTING CONC. BARRIERS TO BE REMOVED (TYP.)
EXISTING GRASS TO BE REMOVED (TYP.)
EXISTING PAVEMENT TO BE REMOVED (TYP.)
EXISTING FILL PILES TO BE REMOVED (TYP.)
EXISTING SHRUBS TO BE REMOVED (TYP.)
EXISTING CONC. BARRIERS TO BE REMOVED (TYP.)
EXISTING TREES TO BE REMOVED (TYP.)
PORTSMOUTH BLVD. / DUNLIN WAY
TAX MAP 213, LOT 11
TAX MAP 213, LOT 2
TAX MAP 213, LOT 3
TAX MAP 213, LOT 4
TAX MAP 213, LOT 2-15
OFFICE RESEARCH
GENERAL RESIDENCE B
GRAPHIC SCALE

Tighe&Bond
Engineers | Environmental Specialists

PROPOSED MULTI-FAMILY DEVELOPMENT

Brora LLC

Portsmouth, NH

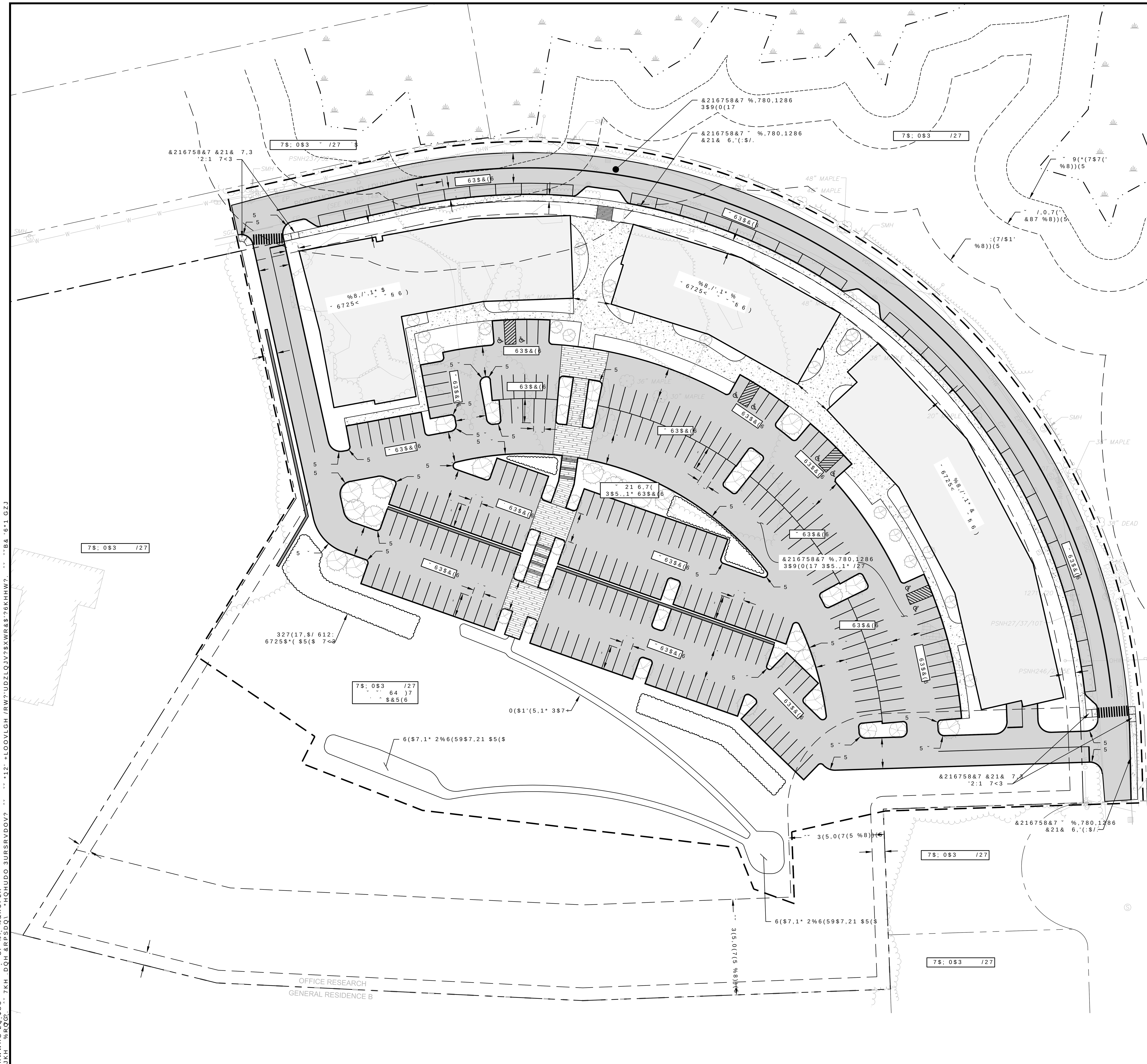
MARK	DATE	DESCRIPTION

PROJECT NO:	K0076-065
DATE:	APRIL 23, 2025
FILE:	K0076-065_C-DSGN.DWG
DRAWN BY:	MDC/BKC
CHECKED:	NAH
APPROVED:	PMC

DEMOLITION PLAN

SCALE: AS SHOWN

C-201



6,7('7

/2&$7,21, 7$; 0$3 ' /27

2:1(5, %525$ //& &200(5&(:$< 68,7(325760287+ 1+

352326(' 86(, 08/7,)$0,/< 5(6,'(17,$/

'(9(/230(17 67$1'$5'6

2)) 675((7 3$5.,1* 5(48,5(0(176

6,7(5(&25',1* 127(6

Tighe&Bond
Engineers | Environmental Specialists

352326(' 08/7,)$0,/< '(9(/230(17

%URUD //&

3RUWVPRXWK 1+

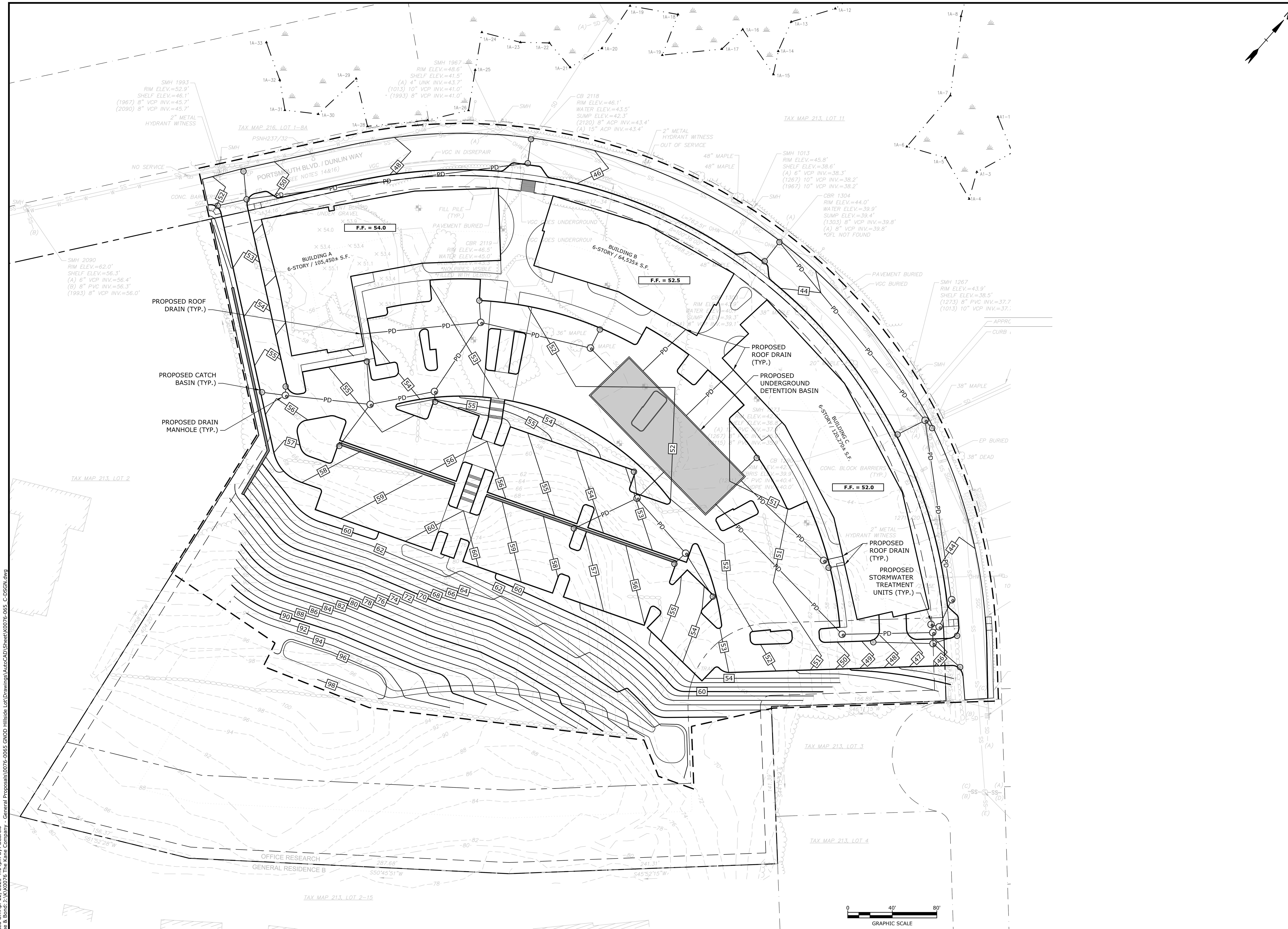
0$5. '$7('(6&5,37,21
352-(&7 12,
'$7(, $35,/
),/(,
'5$:1 %<, 0'& %.&
&+(&.(', 1$+
$33529(', 30&

6,7(3/$1

6&$/(, $6 6+2:1

&

*5$3+,& 6&$/(



Tighe&Bond
Engineers | Environmental Specialists

PROPOSED MULTI-FAMILY DEVELOPMENT

Brora LLC

Portsmouth, NH

MARK	DATE	DESCRIPTION

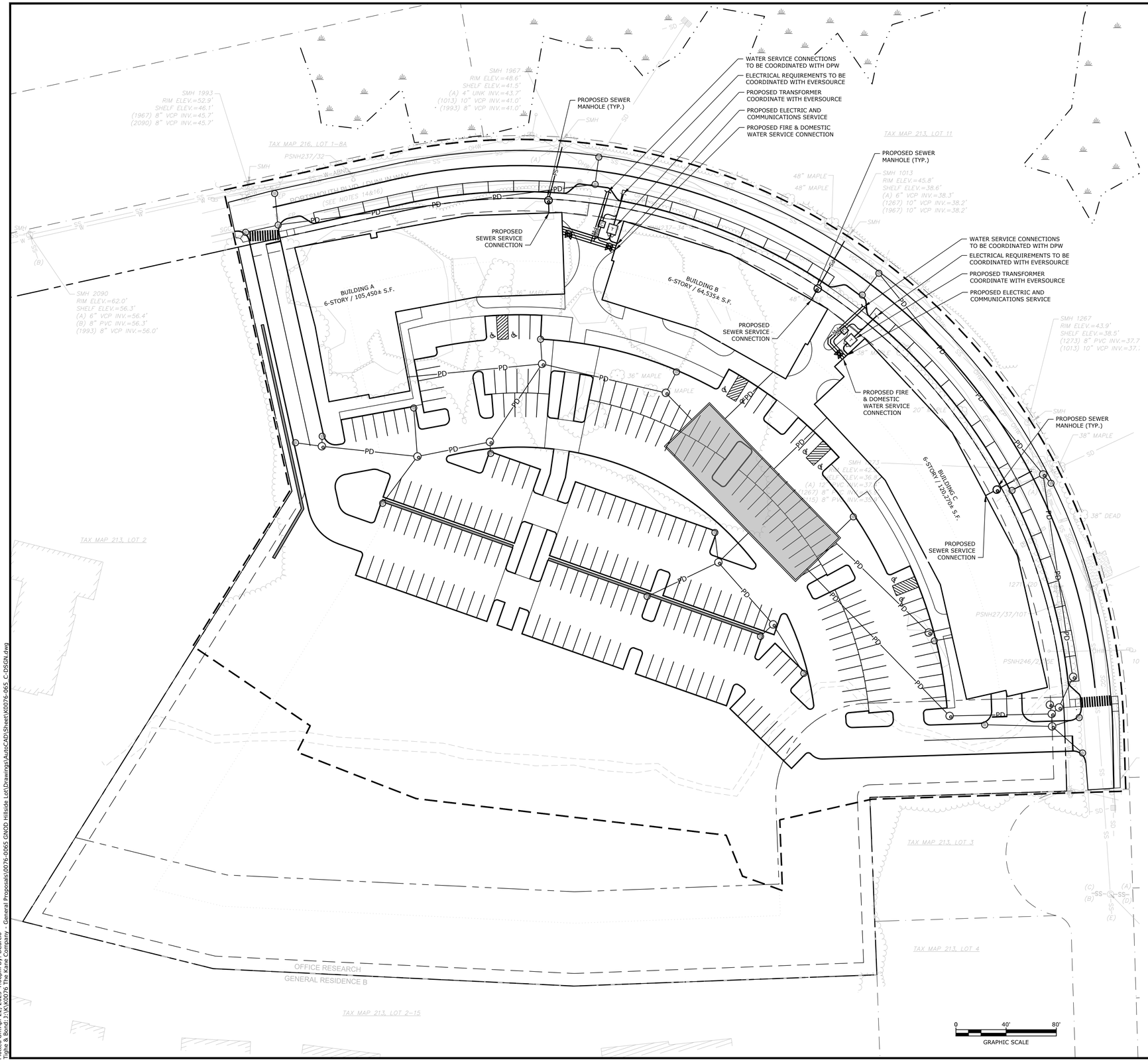
PROJECT NO:	K0076-065
DATE:	APRIL 23, 2025
FILE:	K0076-065_C-DSGN.DWG
DRAWN BY:	MDC/BKC
CHECKED:	NAH
APPROVED:	PMC

GRADING AND DRAINAGE PLAN

SCALE: AS SHOWN

C-401

Last Saved: 4/22/2025
Plotted On:Apr 22, 2025-4:04pm By: BCurcio
Tighe & Bond: J:\K\K0076 The Kane Company - General Proposals\0076-065 GNOD Hillside Lot\Drawings\AutoCAD\Sheet\K0076-065_C-DSGN.dwg



Last Saved: 4/22/2025
Plotted On: Apr 23, 2025 - 4:09pm By: BCurcio
Tighe & Bond: J:\K0076 The Kane Company - General Proposals\0076-0065 GNOD Hillside Lot\Drawings\AutoCAD\Sheet\K0076-065_C-DSGN.dwg

Tighe&Bond
Engineers | Environmental Specialists

PROPOSED MULTI-FAMILY DEVELOPMENT

Brora LLC

Portsmouth, NH

MARK	DATE	DESCRIPTION

PROJECT NO:	K0076-065
DATE:	APRIL 23, 2025
FILE:	K0076-065_C-DSGN.DWG
DRAWN BY:	MDC/BKC
CHECKED:	NAH
APPROVED:	PMC

UTILITIES PLAN

SCALE: AS SHOWN

C-501

GENERAL PROJECT INFORMATION
PROJECT APPLICANT: BRORA LLC

PROJECT NAME: PROPOSED MULTI-FAMILY DEVELOPMENT

PROJECT ADDRESS: DUNLIN WAY & PORTSMOUTH BOULEVARD
PORTSMOUTH, NH 03801

PROJECT LATITUDE: 43°-05'-29" N
PROJECT LONGITUDE: 70°-46'-48" W

PROJECT DESCRIPTION
THE PROPOSED PROJECT INCLUDES THREE 6-STORY MULTI-FAMILY BUILDINGS. THE PROJECT WILL ALSO CONSIST OF ASSOCIATED SITE IMPROVEMENTS SUCH AS PAVING, STORMWATER MANAGEMENT, UTILITIES AND LIGHTING.

DISTURBED AREA
THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 6.8 ACRES.

SOIL CHARACTERISTICS
BASED ON THE SITE SPECIFIC SOIL SURVEY, THE SOILS ON SITE PRIMARILY CONSIST OF *** SOILS WITH A HYDROLOGIC SOIL GROUP RATING OF ***.

NAME OF RECEIVING WATERS
THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED VIA A CLOSED DRAINAGE SYSTEM TO AN UNNAMED ON SITE WETLANDS WHICH ULTIMATELY FLOW TO THE PISCATAQUA RIVER.

CONSTRUCTION SEQUENCE OF MAJOR ACTIVITIES:
1. CONSTRUCT TEMPORARY AND PERMANENT SEDIMENT, EROSION AND DETENTION CONTROL FACILITIES. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL INFLUENCE STORMWATER RUNOFF SUCH AS:
   - NEW CONSTRUCTION
   - CONTROL OF DUST
   - 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. THE AREA OF DISTURBANCE SHALL NOT EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED UNLESS FURTHER APPROVAL IS RECEIVED FROM THE NEW HAMPSHIRE LAND RESOURCES MANAGEMENT BUREAU.
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. TEMPORARY WATER DIVERSION AND 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. APPLY FERTILIZER AT THE RATE OF 600 POUNDS PER ACRE OF 10-10-10. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF THREE (3) TONS PER ACRE;
   B. SEEDING:
      a. UTILIZE ANNUAL RYE GRASS AT A RATE OF 40 LBS/ACRE;
      b. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF TWO (2) INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED;
      c. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). HYDROSEEDINGS, WHICH INCLUDE MULCH, MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING;
   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. FOR PERMANENT MEASURES AND PLANTINGS:
      a. LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF THREE (3) TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5;
      b. FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 800 POUNDS PER ACRE OF 10-20-20 FERTILIZER;
      c. SOIL CONDITIONERS AND FERTILIZER SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS WEIGHING BETWEEN 4-1/2 POUNDS AND 5-1/2 POUNDS PER INCH OF WIDTH;
      d. SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4 INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH;
      e. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AS INDICATED ABOVE;
      f. THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED WITH GRASS SHALL BE RESEEDED, AND ALL NOXIOUS WEEDS REMOVED;
      g. THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED;
      h. A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE APPLIED AT THE INDICATED RATE:

SEED MIX	APPLICATION RATE
CREEPING RED FESCUE	20 LBS/ACRE
TALL FESCUE	20 LBS/ACRE
REDTOP	2 LBS/ACRE

   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 SLOPE, LIME, FERTILIZER AND GRADING REQUIREMENTS. APPLY SEED MIXTURE AT TWICE THE INDICATED RATE. APPLY MULCH AS INDICATED FOR PERMANENT MEASURES.

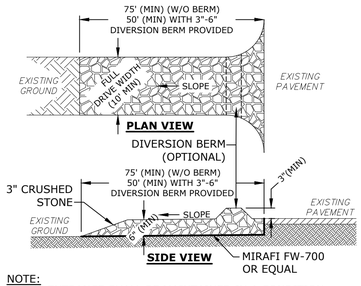
CONCRETE WASHOUT AREA:
   A. THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY;
   B. IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER;
   C. CONTRACTOR 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. THE FOLLOWING ARE THE ONLY NON-STORMWATER DISCHARGES ALLOWED. ALL OTHER NON-STORMWATER DISCHARGES ARE PROHIBITED ON SITE:
   1.1. FIRE-FIGHTING ACTIVITIES;
   1.2. FIRE HYDRANT FLUSHING;
   1.3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
   1.4. WATER USED TO CONTROL DUST;
   1.5. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
   1.6. ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
   1.7. PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED;
   1.8. UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;
   1.9. UNCONTAMINATED GROUND WATER OR SPRING WATER;
   1.10. FOUNDATION OR FOOTING DRAINS WHICH ARE UNCONTAMINATED;
   1.11. UNCONTAMINATED EXCAVATION DEWATERING;
   1.12. LANDSCAPE IRRIGATION.

WASTE DISPOSAL:
4. 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.

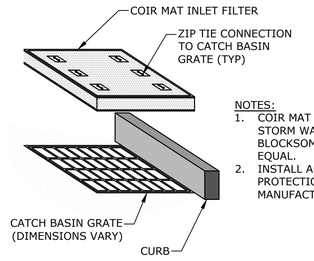
SPILL PREVENTION:
1. CONTRACTOR SHALL BE FAMILIAR WITH SPILL PREVENTION MEASURES REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT SPILL PREVENTION PRACTICES OUTLINED BELOW.
2. THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT SHALL BE USED 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
   A. THIS PROJECT EXCEEDS ONE (1) ACRE OF DISTURBANCE AND THUS REQUIRES A SWPPP.



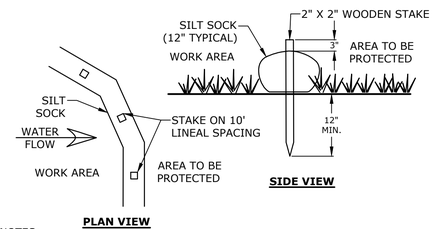
NOTE:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT FROM THE SITE. WHEN WASHING IS REQUIRED, IT SHALL BE DONE SO RUNOFF DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS

STABILIZED CONSTRUCTION EXIT
NO SCALE



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

INLET PROTECTION BARRIER
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

Tighe&Bond
Engineers | Environmental Specialists

PROPOSED MULTI-FAMILY DEVELOPMENT

Brora LLC

Portsmouth, NH

MARK	DATE	DESCRIPTION

PROJECT NO:	K0076-065
DATE:	APRIL 23, 2025
FILE:	K0076-065_C-DTLS.DWG
DRAWN BY:	MDC/BKC
CHECKED:	NAH
APPROVED:	PMC

EROSION CONTROL NOTES AND DETAILS

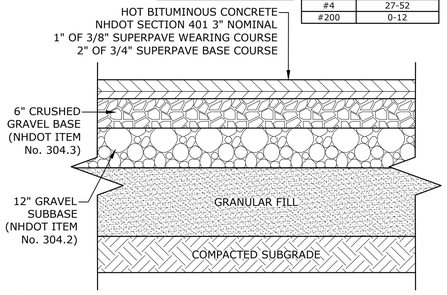
SCALE: AS SHOWN

C-601

Last Saved: 4/17/2025
Printed On: 4/17/2025 9:26am By: MCurley
Tighe & Bond: J:\K\K0076 The Kane Company - General Proposals\0076-0065 GNOD Hillside Lot\Drawings\AutoCAD\Sheet\K0076-065_C-DTLS.dwg

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

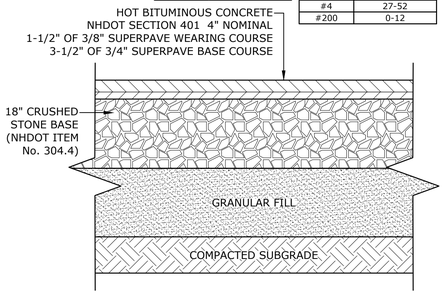


NOTES:
1. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
3. A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.
4. REFER TO CITY SPECIFICATIONS FOR ASPHALT MIX DESIGN.
5. FINAL PAVEMENT DESIGN TO BE DETERMINED BY GEOTECHNICAL ENGINEER.

ON-SITE PAVEMENT SECTION
NO SCALE

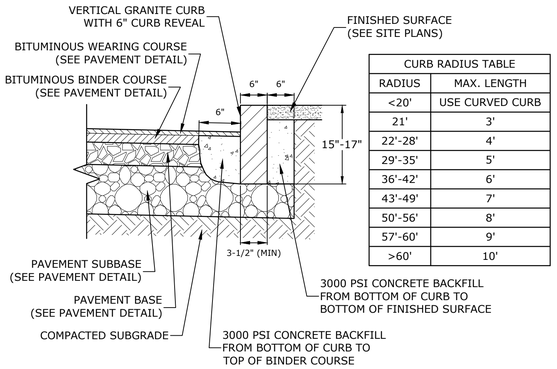
NHDOT ITEM No. 304.2 (GRAVEL)	
SIEVE SIZE	% PASSING
6"	100
#4	25-70
#200	0-12

NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEVE SIZE	% PASSING
3"	100
2"	95-100
1"	55-85
#4	27-52
#200	0-12



NOTES:
1. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
3. A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.
4. REFER TO CITY SPECIFICATIONS FOR ASPHALT MIX DESIGN.

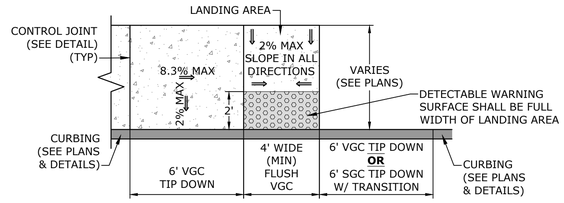
CITY RIGHT-OF-WAY PAVEMENT SECTION
NO SCALE



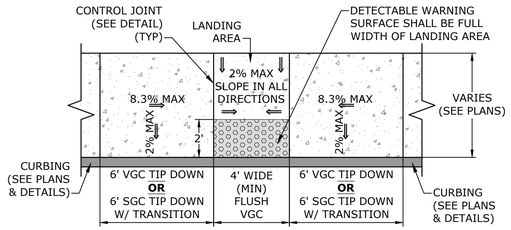
CURB RADIUS TABLE	
RADIUS	MAX. LENGTH
<20'	USE CURVED CURB
21'	3'
22'-28'	4'
29'-35'	5'
36'-42'	6'
43'-49'	7'
50'-56'	8'
57'-60'	9'
>60'	10'

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.

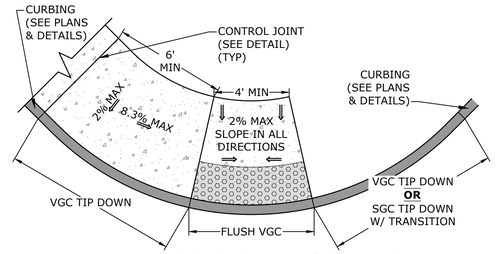
VERTICAL GRANITE CURB
NO SCALE



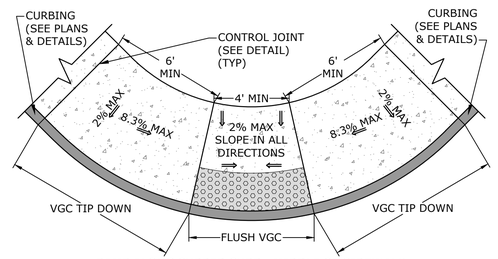
RAMP ALONG CURB - END OF SIDEWALK



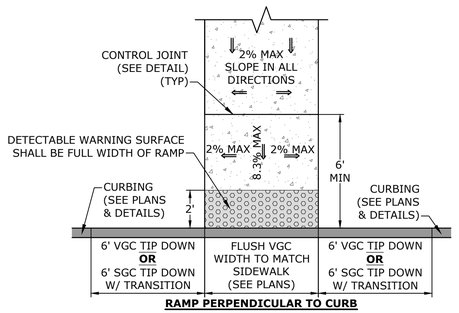
RAMP ALONG CURB - MIDDLE OF SIDEWALK



RAMP ALONG CURVED CURB - END OF SIDEWALK



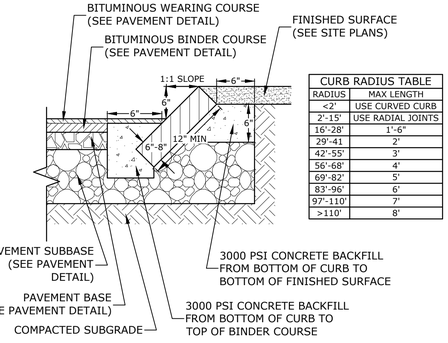
RAMP ALONG CURBED CURB - MIDDLE OF SIDEWALK



RAMP PERPENDICULAR TO CURB

NOTES
1. RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT, 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, AND ALL STATE AND LOCAL REQUIREMENTS.
2. SEE CONCRETE SIDEWALK DETAIL(S) FOR CONCRETE AND BASE MATERIAL REQUIREMENTS.
3. DETECTABLE WARNING SURFACES:
   - DETECTABLE WARNING SURFACES WITHIN THE RIGHT OF WAY SHALL BE ADA SOLUTIONS - IRON DOME AND IRON DOME SECURE FLANGE, CAST IRON PLANTS WITH A BLACK PAINTED FINISH, OR EQUAL.
   - DETECTABLE WARNING SURFACES WITHIN THE SITE SHALL BE ADA SOLUTIONS - CAST-IN-PLACE DETECTABLE WARNING SURFACE PANELS, COLOR: FEDERAL YELLOW, OR EQUAL
4. DETECTABLE WARNING SURFACES SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.

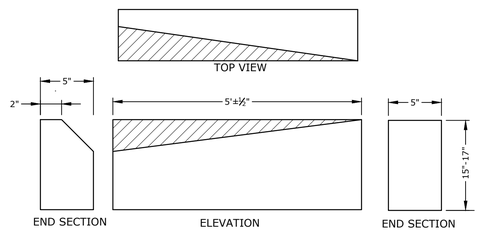
CONCRETE TIP DOWN RAMP WITH DETECTABLE WARNING SURFACE
NO SCALE



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.

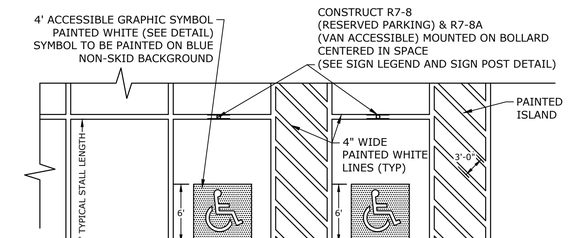
SLOPED GRANITE CURB
NO SCALE



MOUNTABLE VERTICAL GRANITE CURB TO VERTICAL GRANITE CURB

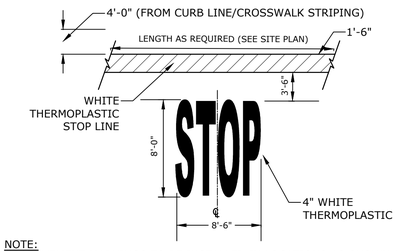
NOTES:
1. THE INTENT OF THIS ITEM IS TO PROVIDE A SMOOTH TRANSITION BETWEEN VERTICAL GRANITE CURB AND MOUNTABLE VERTICAL GRANITE CURB WITHOUT REQUIRING FIELD CHIPPING DURING INSTALLATION. THE MOUNTABLE VERTICAL GRANITE CURB MAY REQUIRE ADJUSTMENTS TO MEET THE TRANSITION PIECE HEIGHT. TRANSITION SLOPE CURB TO STANDARD REVEAL AS QUICKLY AS POSSIBLE TO PROVIDE FOR THIS SMOOTH TRANSITION.

CURB TRANSITION
NO SCALE



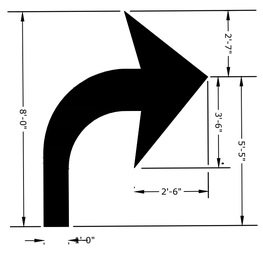
NOTES:
1. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS.
3. FINISH PAVEMENT GRADES AT ALL HANDICAP ACCESSIBLE STALLS AND PAINTED ACCESS AISLES SHALL NOT EXCEED 2% IN ANY DIRECTION.

PARKING STALL/PAINTED ISLAND STRIPING
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

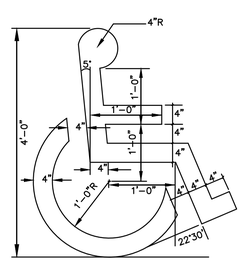
STOP BAR AND LEGEND
NO SCALE



TURN ARROW
(LEFT TURN OPPOSITE IN KIND)

NOTES:
1. SYMBOLS SHALL BE RETROREFLECTIVE WHITE AND SHALL CONFORM TO THE LATEST VERSION OF THE MUTCD.
2. PREFORMED WORDS AND SYMBOLS SHALL BE PRE-CUT BY THE MANUFACTURER.
3. ALL STOP BARS, WORDS, SYMBOLS AND ARROW SHALL BE THERMOPLASTIC.

TURN ARROW
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
Engineers | Environmental Specialists

PROPOSED MULTI-FAMILY DEVELOPMENT

Brora LLC

Portsmouth, NH

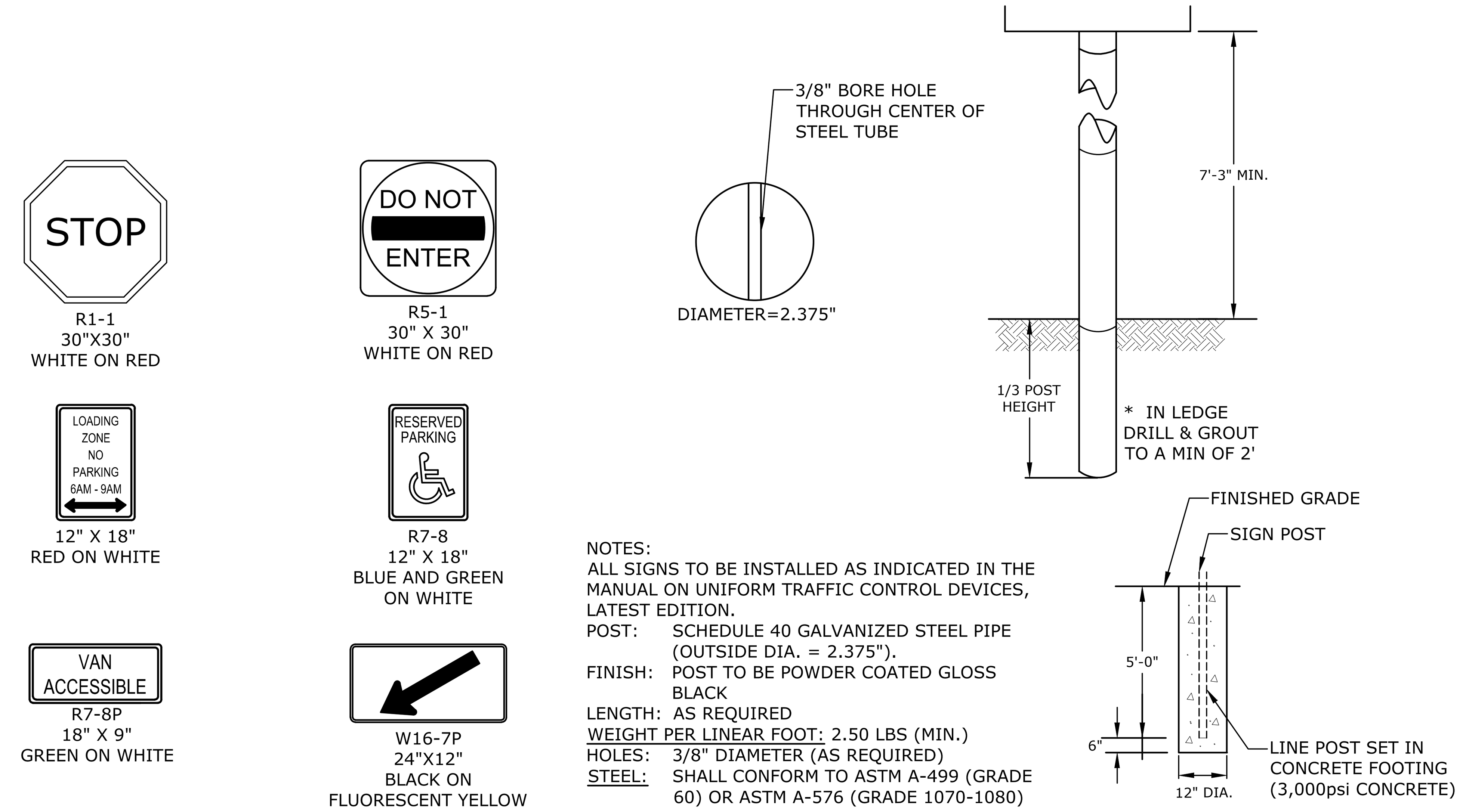
MARK	DATE	DESCRIPTION

PROJECT NO:	K0076-065
DATE:	APRIL 23, 2025
FILE:	K0076-065_C-DTLS.DWG
DRAWN BY:	MDC/BKC
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

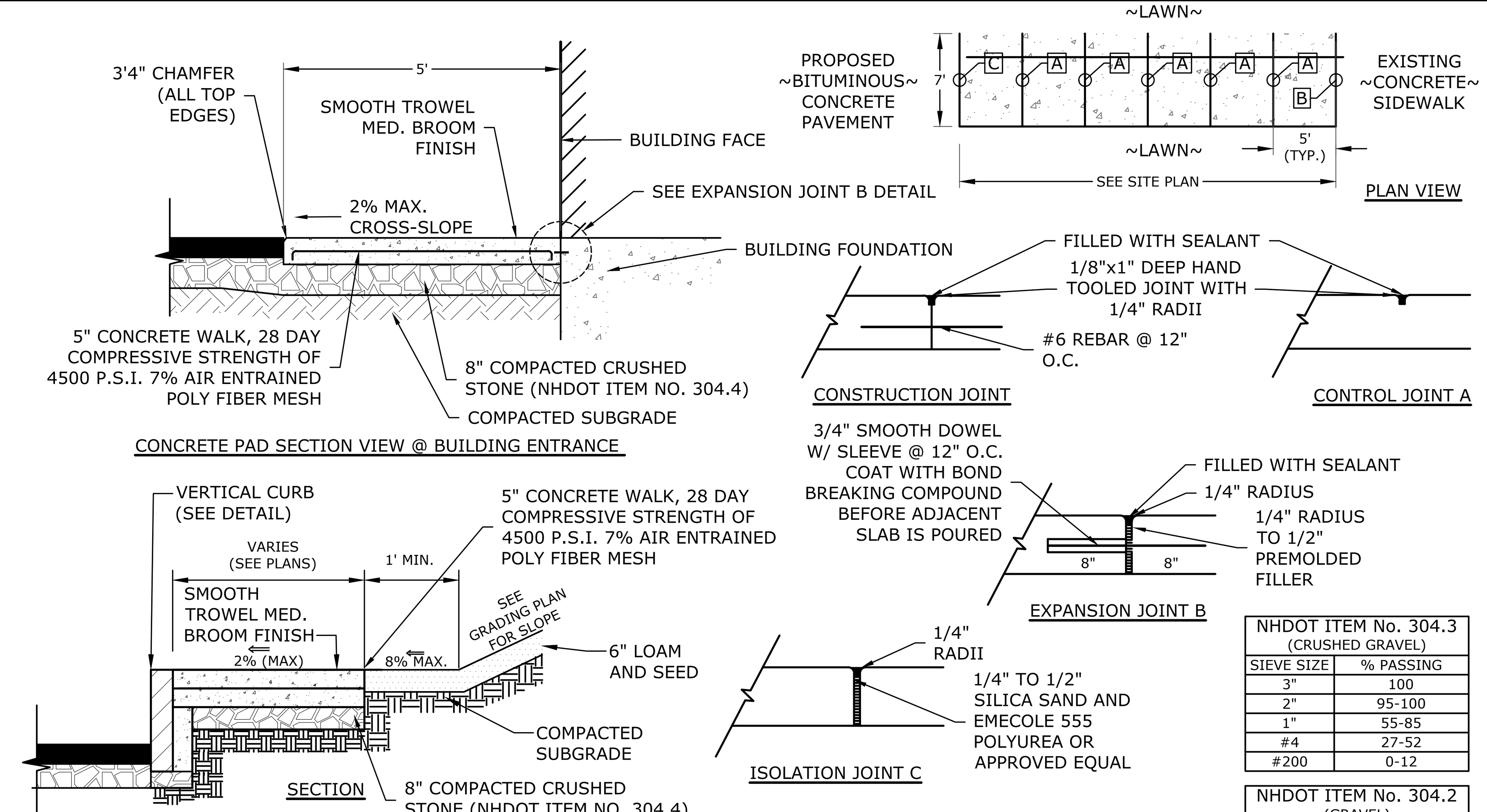
SCALE: AS SHOWN

C-602



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

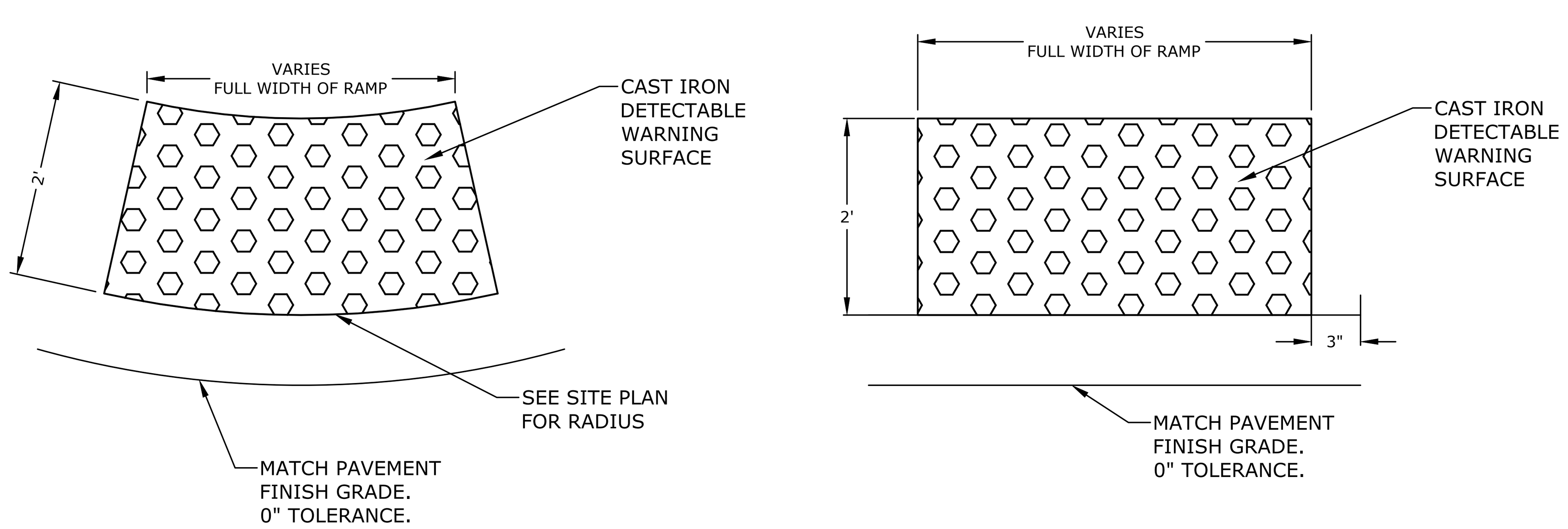


NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEVE SIZE	% PASSING
3"	100
2"	95-100
1"	55-85
#4	27-52
#200	0-12

NHDOT ITEM No. 304.2 (GRAVEL)	
SIEVE SIZE	% PASSING
6"	100
#4	25-70
#200	0-12

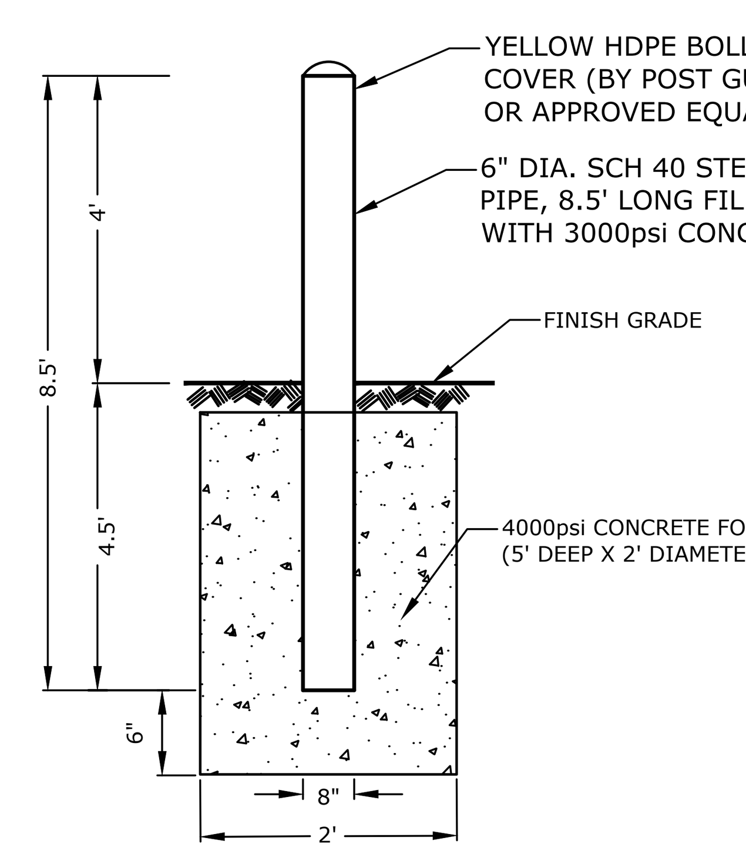
NOTES:
1. SEE SITE PLAN FOR SIDEWALK WIDTH AND LOCATIONS.
2. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR WALK AND SIDE SLOPE GRADES.

CONCRETE SIDEWALK
NO SCALE



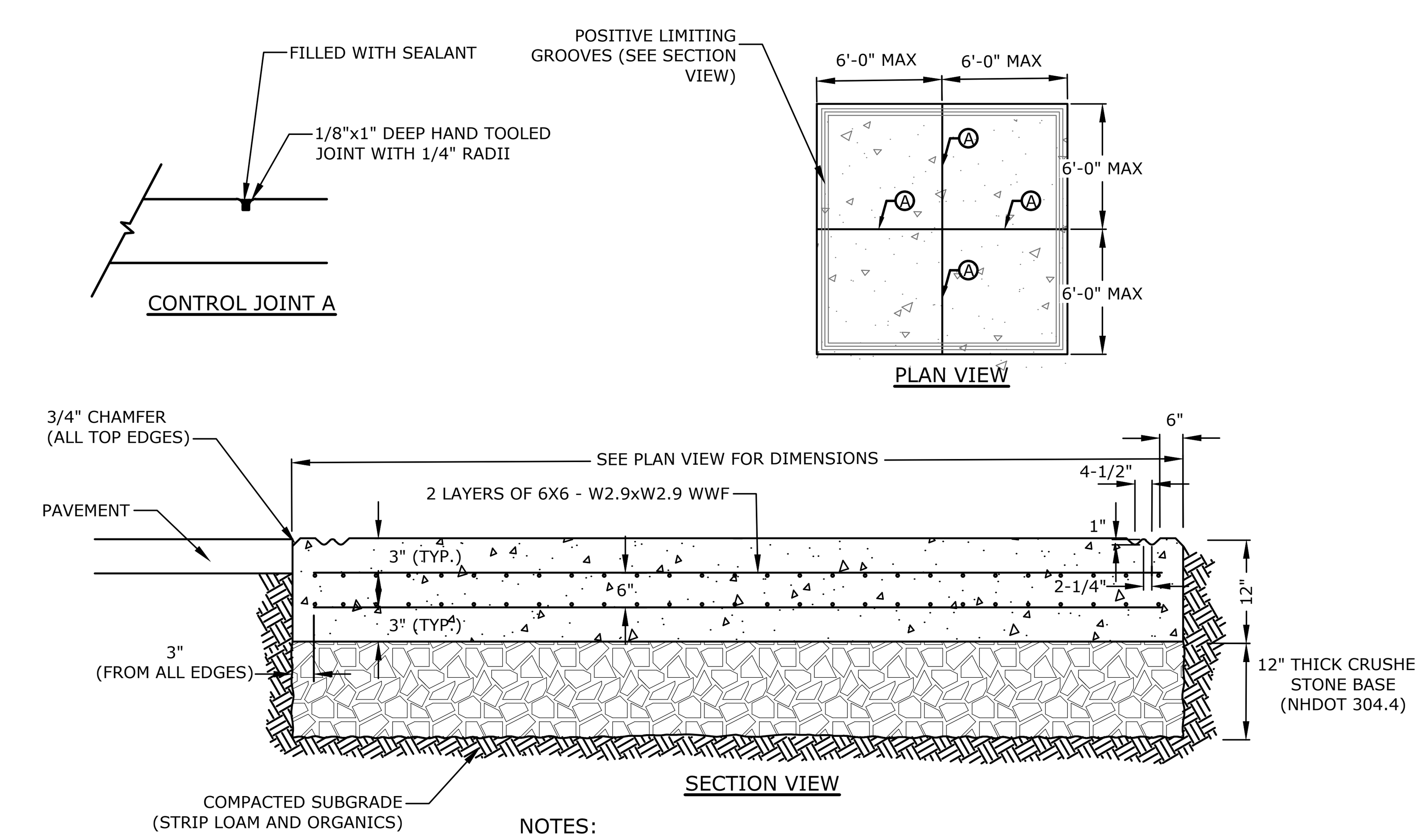
NOTES:
1. DETECTABLE WARNING SURFACE SHALL BE 2' X 3' CAST IRON PANEL SET IN CONCRETE.
2. DETECTABLE WARNING SURFACE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

CAST IRON DETECTABLE WARNING SURFACE
NO SCALE



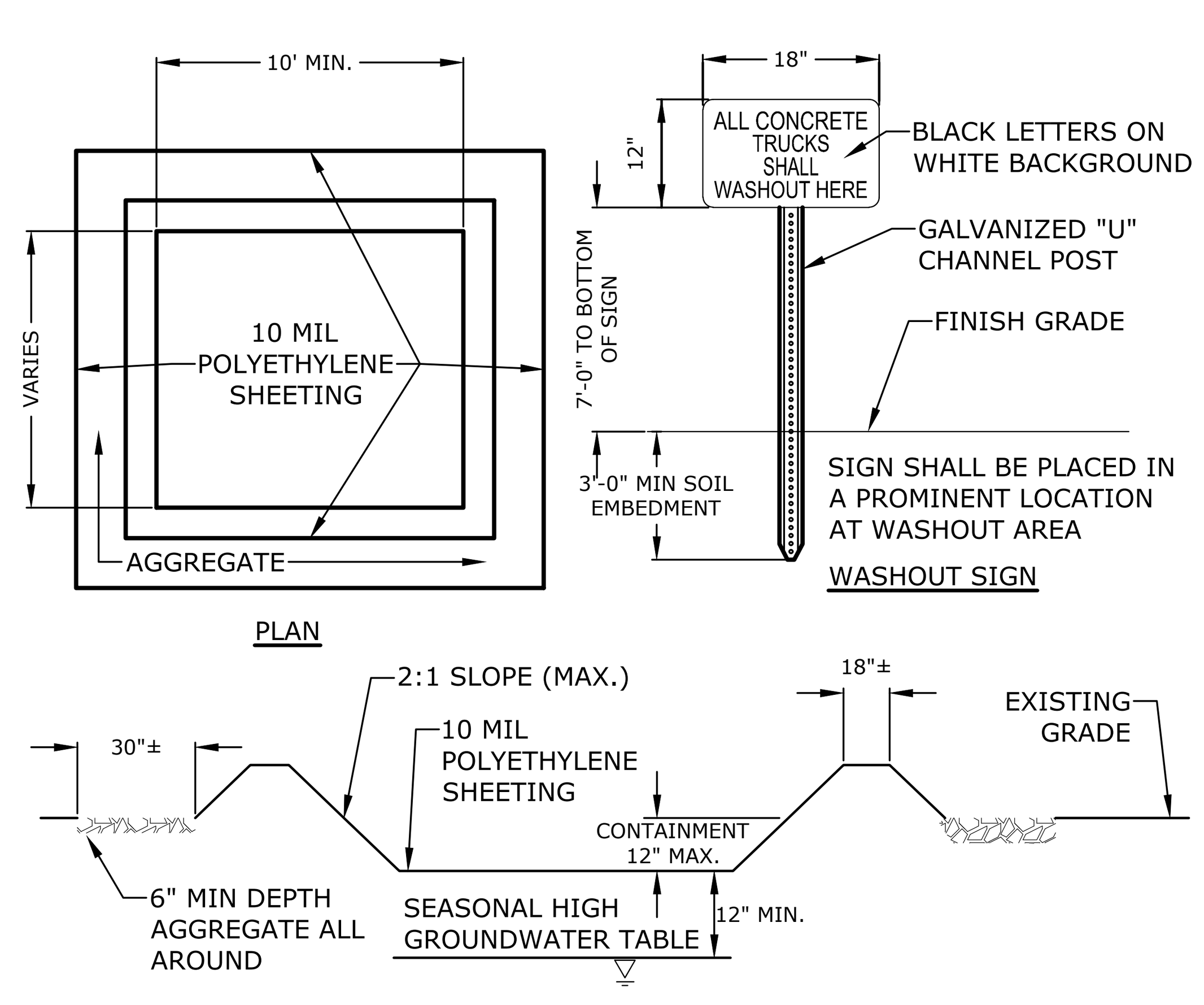
NOTE:
1. COORDINATE WITH EVERSOURCE TO VERIFY THAT BOLLARD, FOOTING, AND BOLLARD COVER MEET EVERSOURCE REQUIREMENTS.

BOLLARD DETAIL
NO SCALE



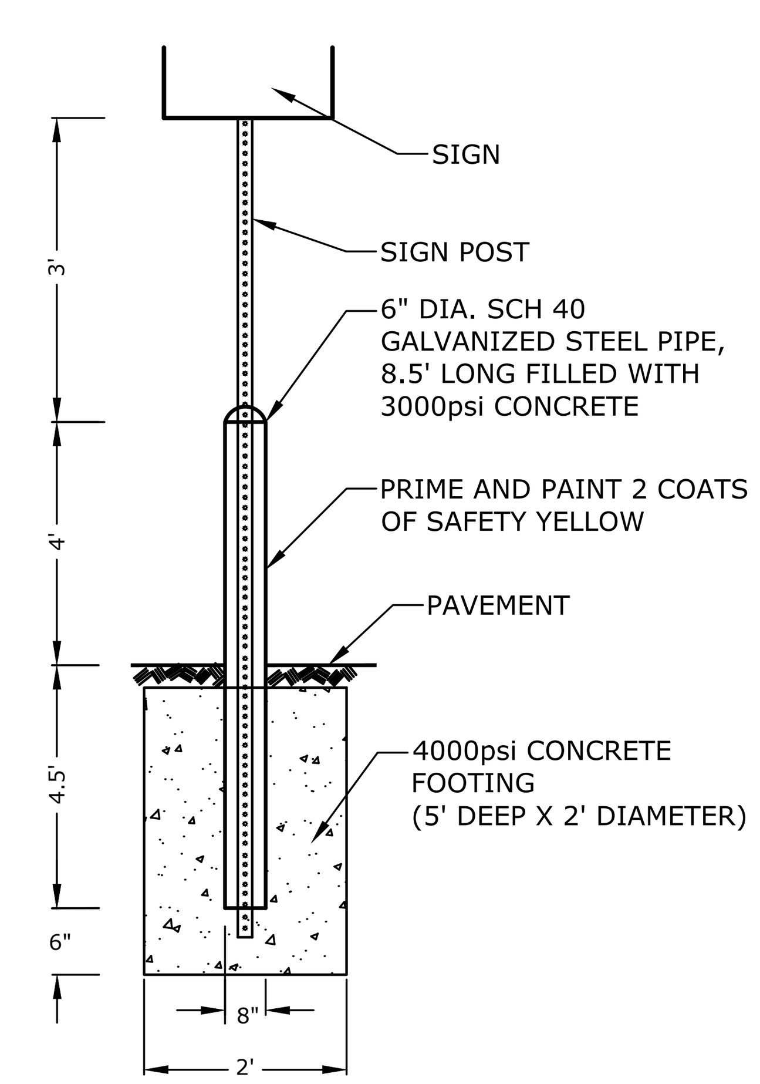
NOTES:
1. CONCRETE TO BE 4500 PSI, 7% AIR ENTRAINED
2. STANDARD BROOM FINISH.

DUMPSTER PAD
NO SCALE

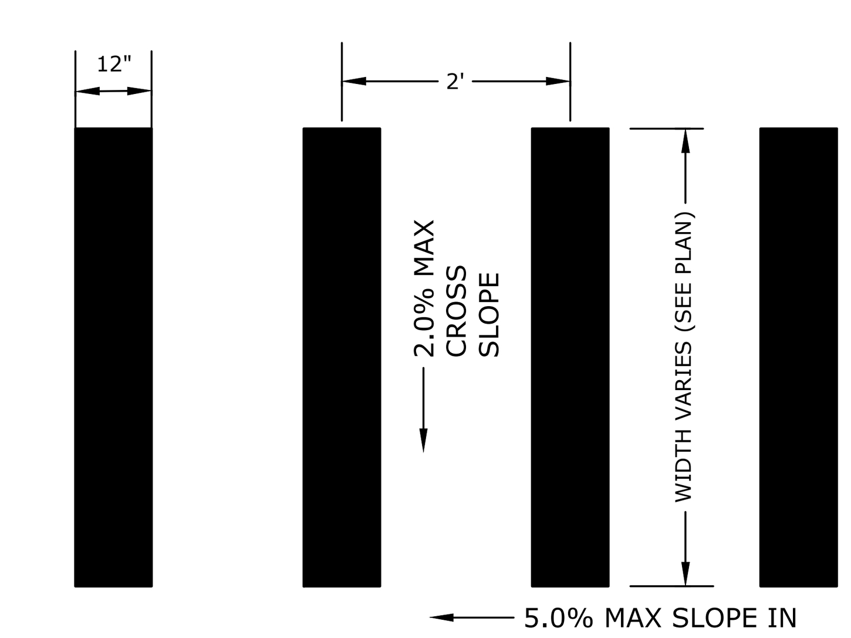


NOTES:
1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% 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



BOLLARD MOUNTED SIGN DETAIL
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

Tighe&Bond
Engineers | Environmental Specialists

PROPOSED MULTI-FAMILY DEVELOPMENT

Brora LLC

Portsmouth, NH

MARK	DATE	DESCRIPTION

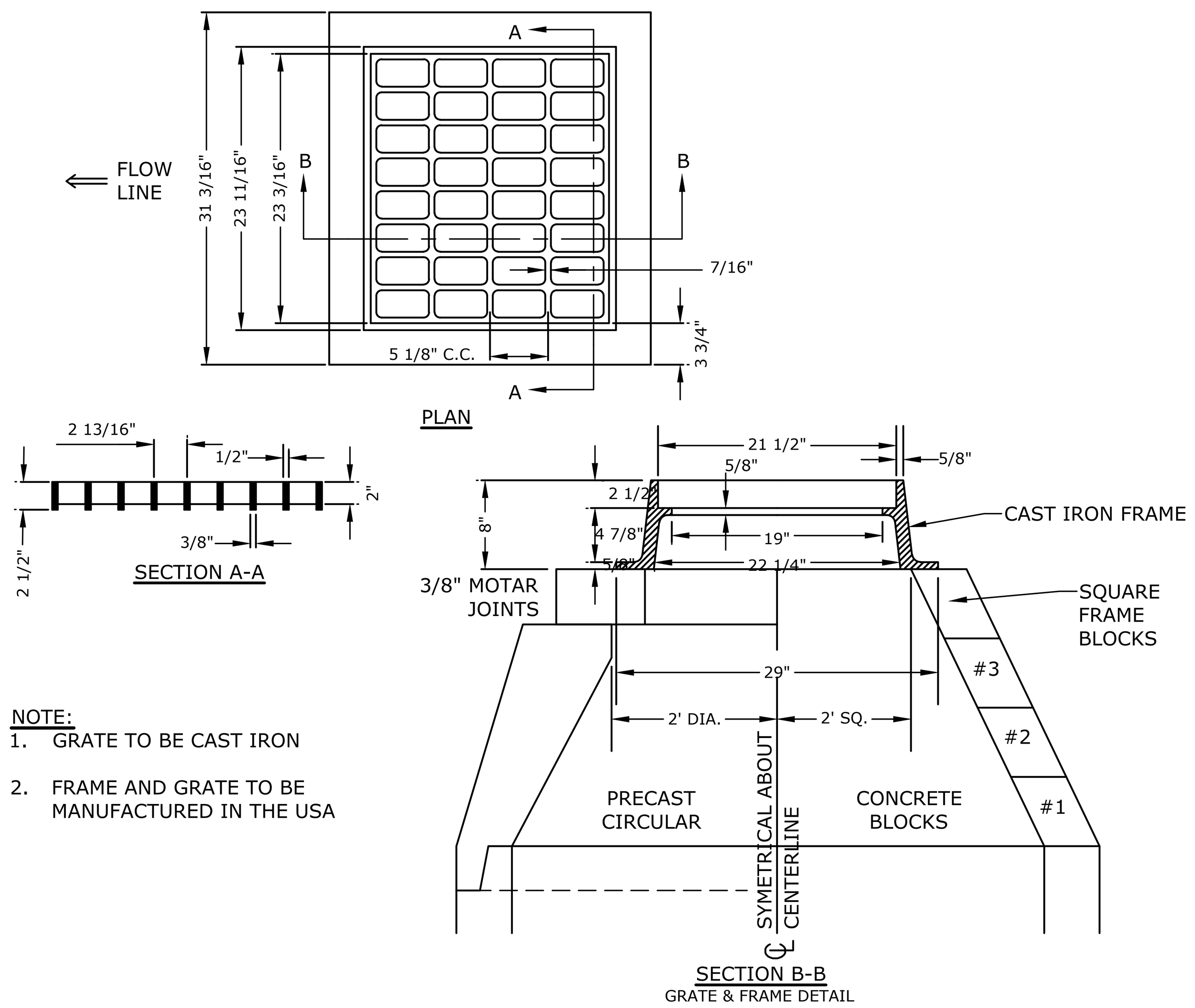
PROJECT NO:	K0076-065
DATE:	APRIL 23, 2025
FILE:	K0076-065_C-DTLS.DWG
DRAWN BY:	MDC/BKC
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

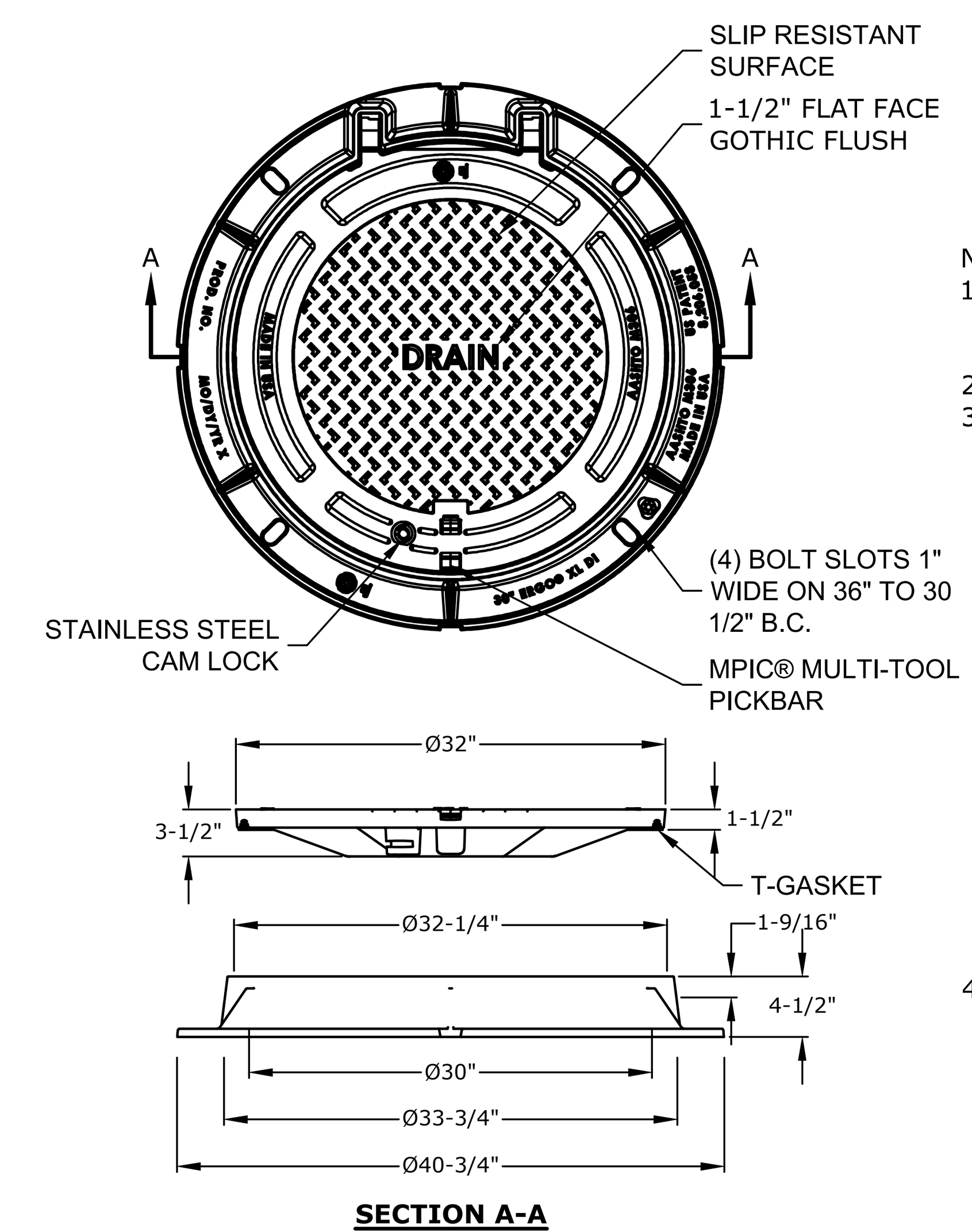
C-603

Last Saved: 4/17/2025
Plotted On:Apr 18, 2025-9:25am By: MCurley
Tighe & Bond: J:\K\K0076 The Kane Company - General Proposals\K0076-065 GNOD Hillside Lot\Drawings\AutoCAD\Sheet\K0076-065_C-DTLS.dwg



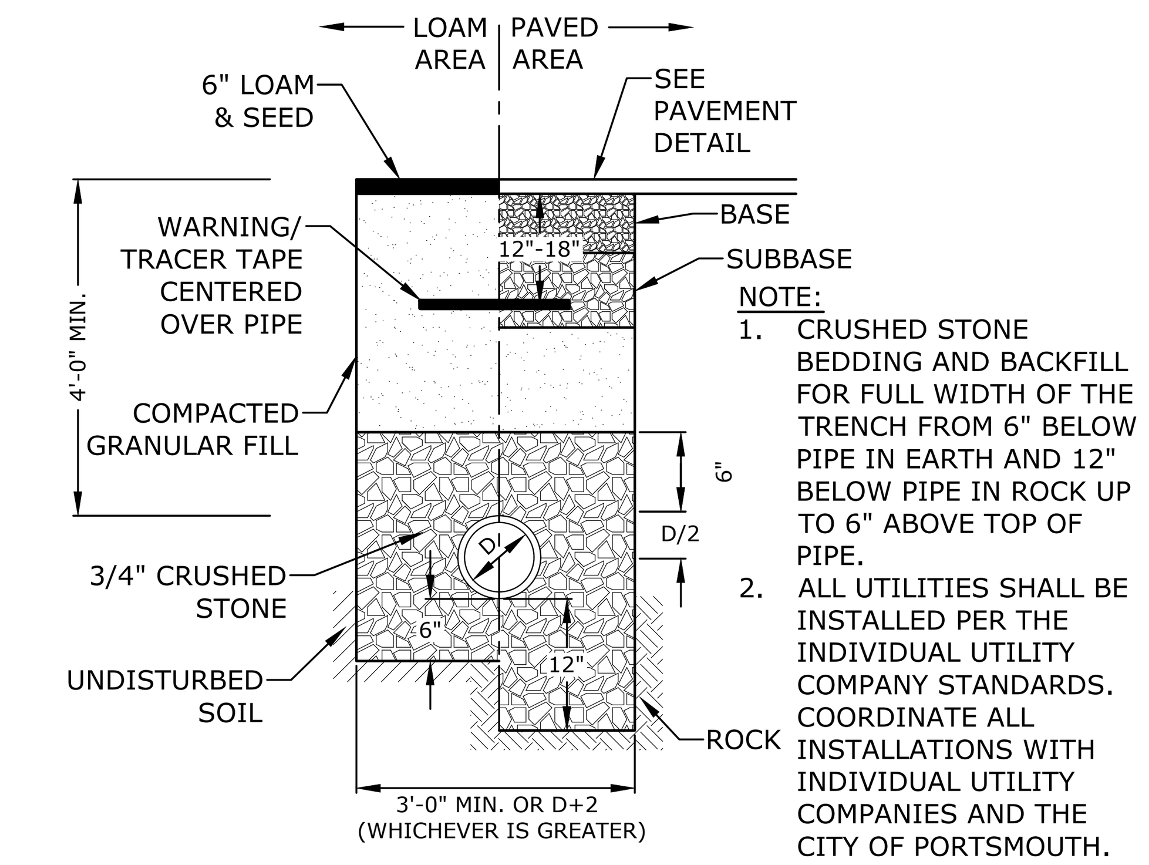
NOTE:
1. GRATE TO BE CAST IRON
2. FRAME AND GRATE TO BE MANUFACTURED IN THE USA

CATCH BASIN FRAME & GRATE
NO SCALE



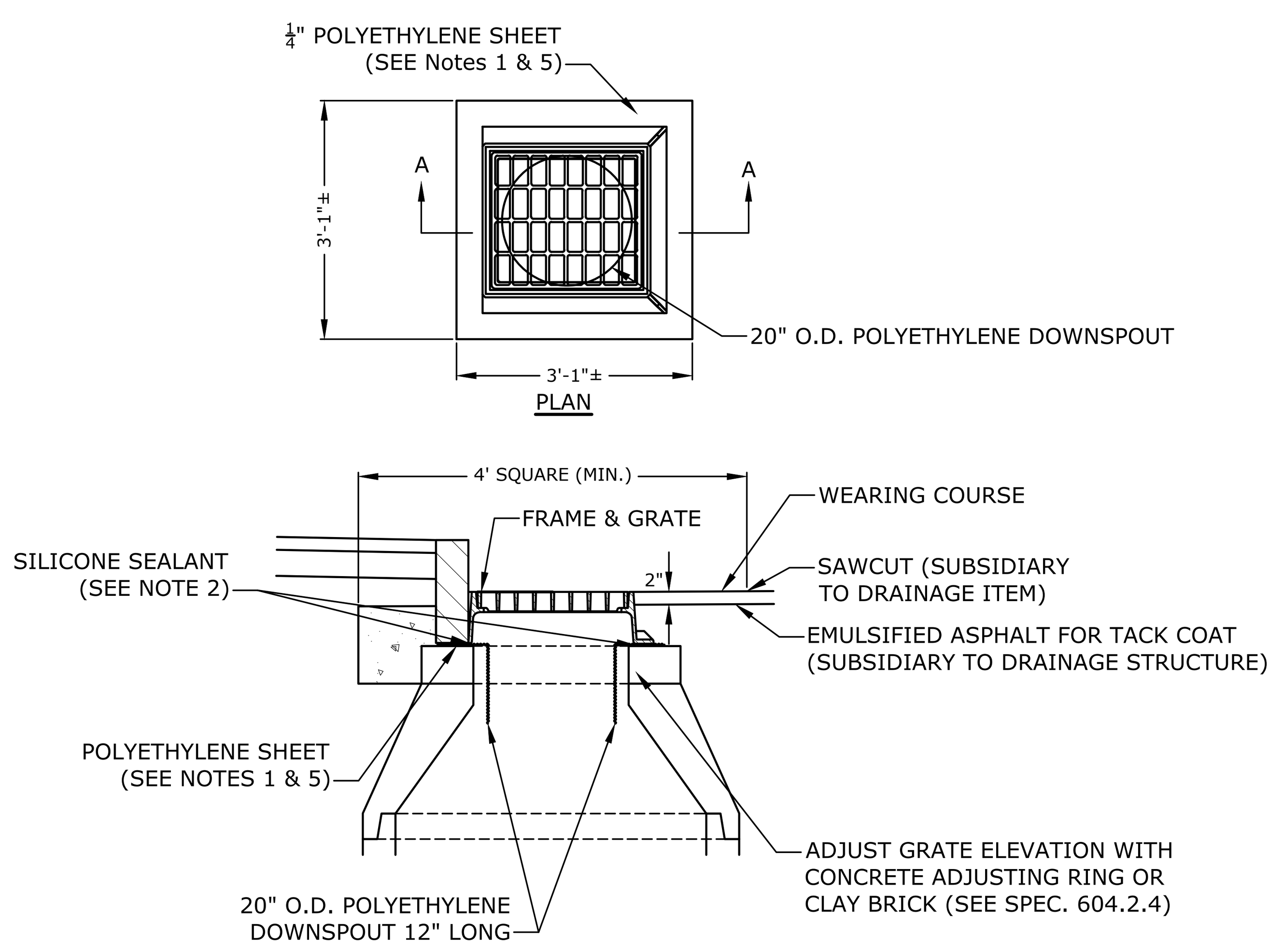
NOTES:
1. MANHOLE FRAME AND COVER SHALL BE 32" HINGED ERGO XL BY EJ CO.
2. ALL DIMENSIONS ARE NOMINAL.
3. FRAMES USING NARROWER DIMENSIONS FOR THICKNESS ARE ALLOWED PROVIDED:
   A. THE FRAMES MEET OR EXCEED THE SPECIFIED LOAD RATING.
   B. THE INTERIOR PERIMETER (SEAT AREA) DIMENSIONS OF THE FRAMES REMAIN 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



NOTE:
1. CRUSHED STONE BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 6" ABOVE TOP OF PIPE.
2. ALL UTILITIES SHALL BE INSTALLED PER THE INDIVIDUAL UTILITY COMPANY STANDARDS. COORDINATE ALL INSTALLATIONS WITH INDIVIDUAL UTILITY COMPANIES AND THE CITY OF PORTSMOUTH.

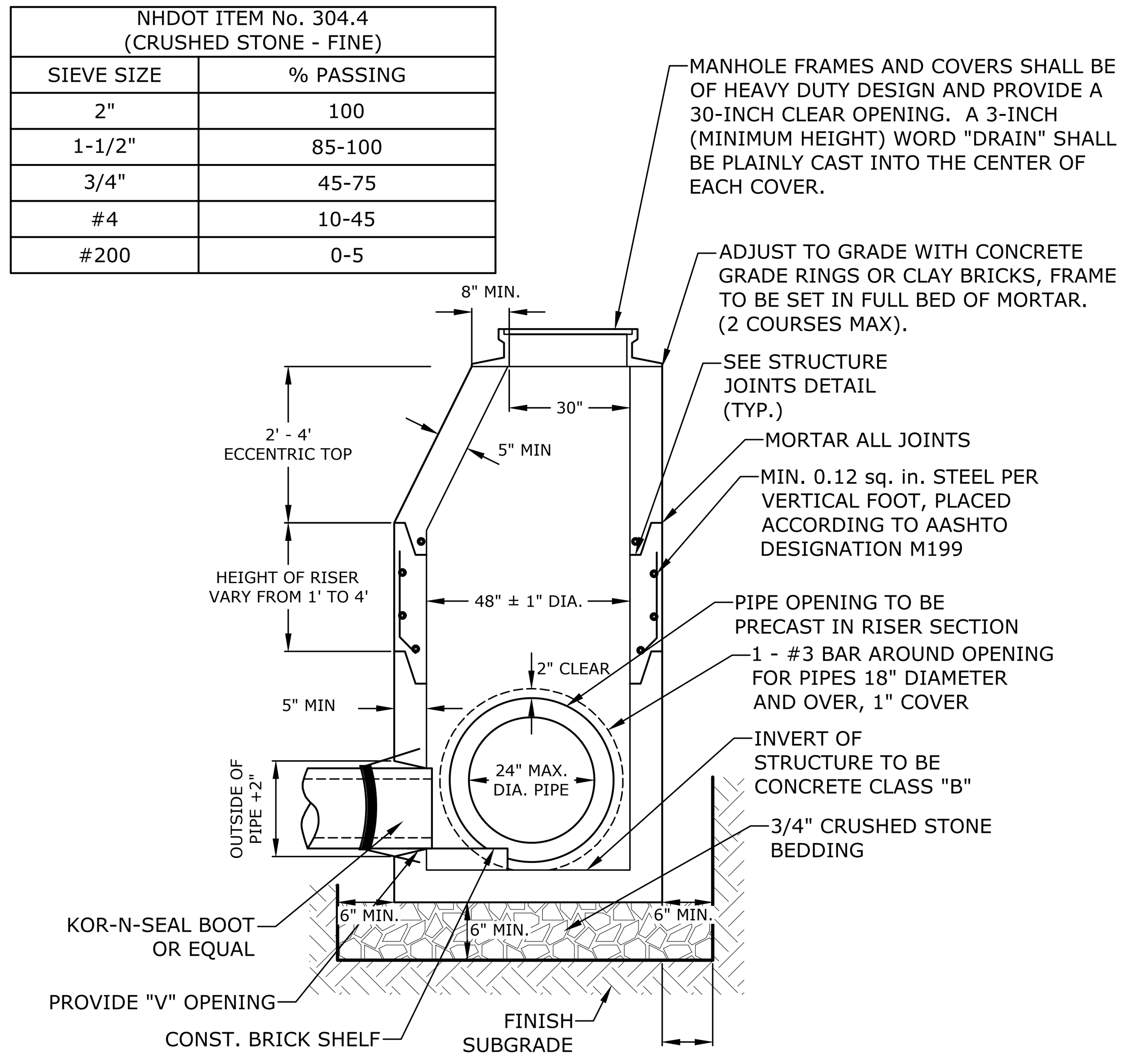
STORM DRAIN TRENCH
NO SCALE



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

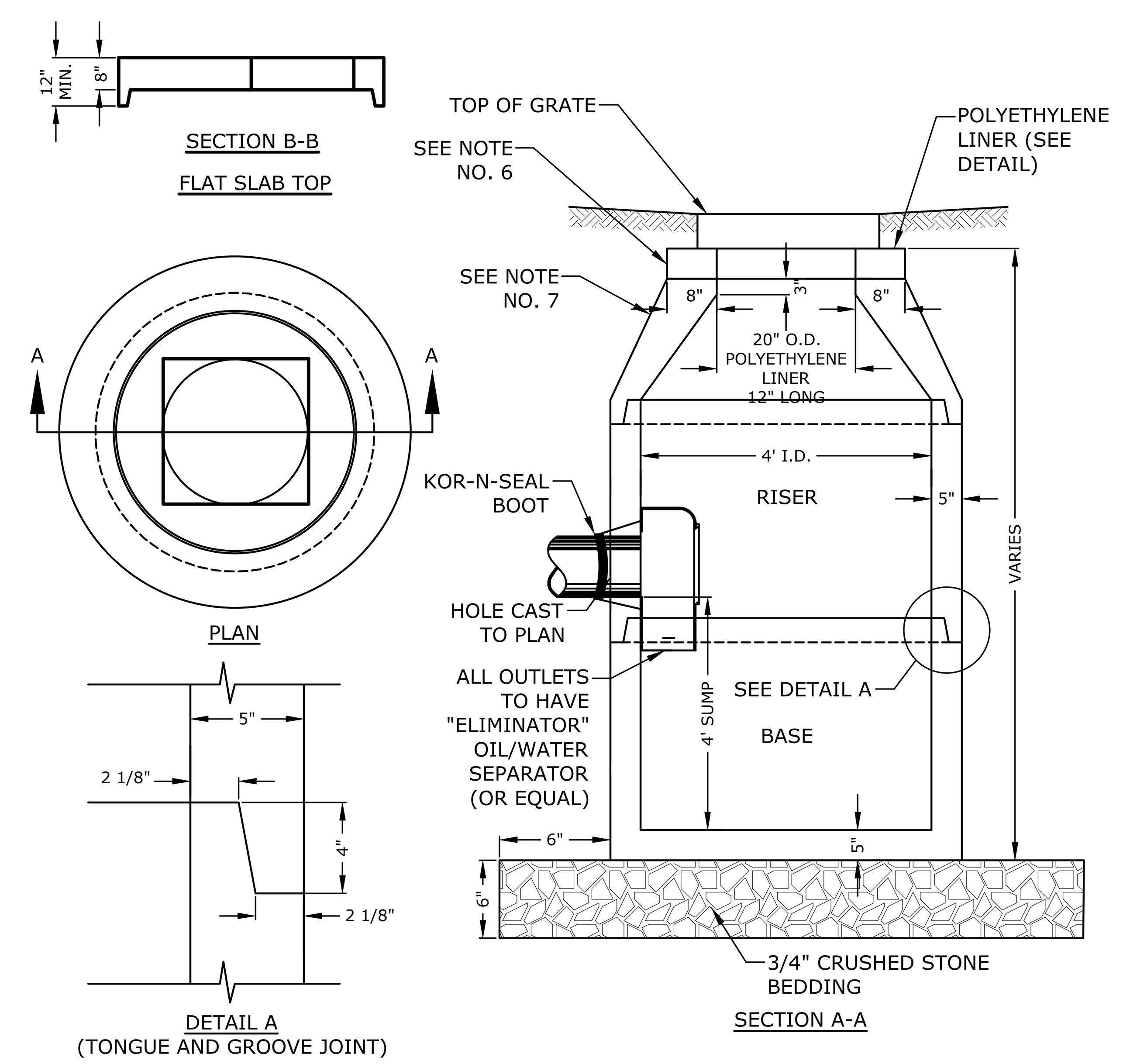
POLYETHYLENE LINER
NO SCALE

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



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.
12. "ELIMINATOR" OIL/WATER SEPARATOR SHALL BE INSTALLED TIGHT TO INSIDE OF CATCHBASIN.

4' DIAMETER CATCHBASIN
NO SCALE

Tighe&Bond
Engineers | Environmental Specialists

PROPOSED MULTI-FAMILY DEVELOPMENT

Brora LLC

Portsmouth, NH

MARK	DATE	DESCRIPTION

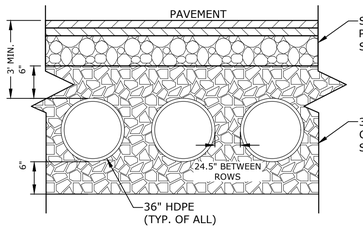
PROJECT NO:	K0076-065
DATE:	APRIL 23, 2025
FILE:	K0076-065_C-DTLS.DWG
DRAWN BY:	MDC/BKC
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

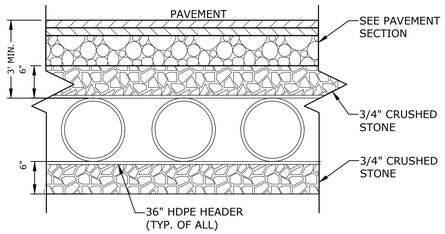
SCALE: AS SHOWN

C-604

Last Saved: 4/17/2025
Plotted On:Apr 18, 2025-9:25am By: MCurley
Tighe & Bond: J:\K\K0076 The Kane Company - General Proposals\0076-065 GNOD Hillside Lot\Drawings\AutoCAD\Sheet\K0076-065_C-DTLS.dwg



UNDERGROUND DETENTION AREA

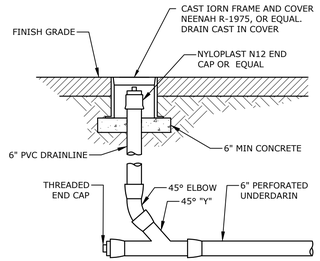


HEADER ROW

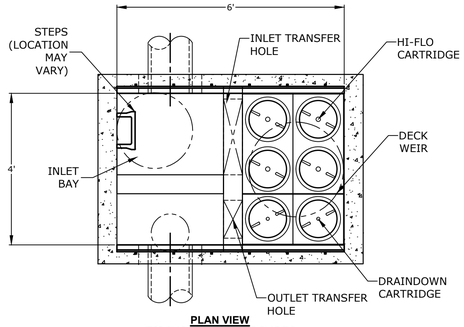
FIELD ELEVATIONS				
	TOP OF STONE ELEV	TOP OF PIPE ELEV	BOTTOM OF PIPE ELEV	BOTTOM OF STONE ELEV
TBD	TBD	TBD	TBD	TBD

NOTES:
1. UNDERGROUND DETENTION SYSTEM TO BE 36" 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.

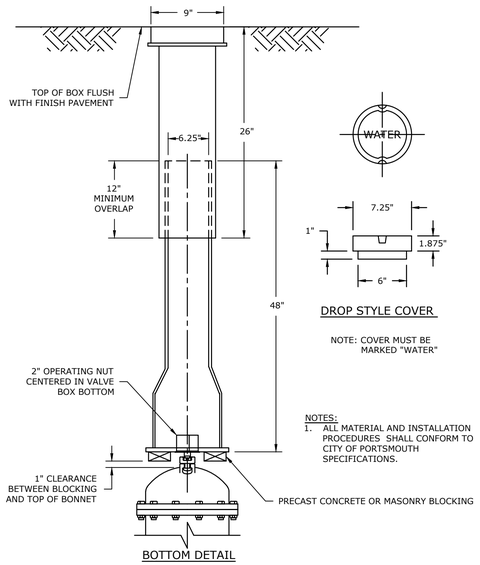
UNDERGROUND DETENTION SYSYTEM DETAIL
NO SCALE



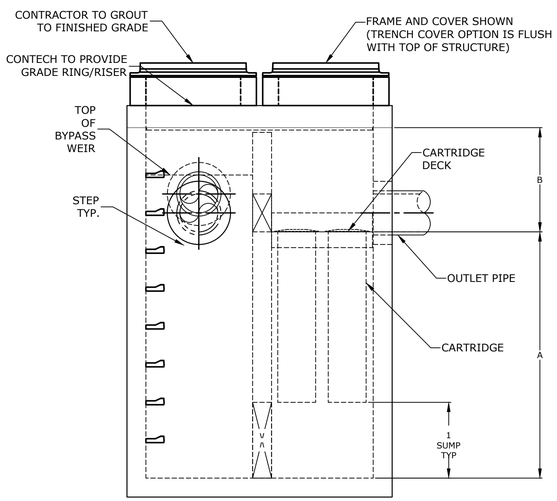
DRAIN CLEAN-OUT
NO SCALE



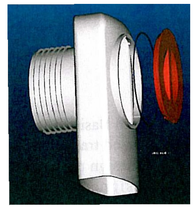
PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)



TYPICAL VALVE BOX DETAIL
NO SCALE



ELEVATION VIEW
JELLYFISH JFPD0406



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

"ELIMINATOR" OIL FLOATING DEBRIS TRAP

FIELD ELEVATIONS					
	RIM ELEVATION	INLET ELEVATION	INLET PIPE	OUTLET ELEVATION	OULET PIPE
TBD	TBD	TBD	TBD	TBD	TBD

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
MODEL SIZE	JFPD0406
WATER QUALITY FLOW RATE (cfs)	0.56
PEAK FLOW RATE (cfs)	4.59
RETURN PERIOD OF PEAK FLOW (yrs)	25
# OF CARTRIDGES REQUIRED (HF / DD)	3/1
CARTRIDGE SIZE	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. 8,287,728, 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

CONTECH JELLYFISH STORMWATER FILTER
NO SCALE

Tighe&Bond
Engineers | Environmental Specialists

PROPOSED MULTI-FAMILY DEVELOPMENT

Brora LLC

Portsmouth, NH

MARK	DATE	DESCRIPTION

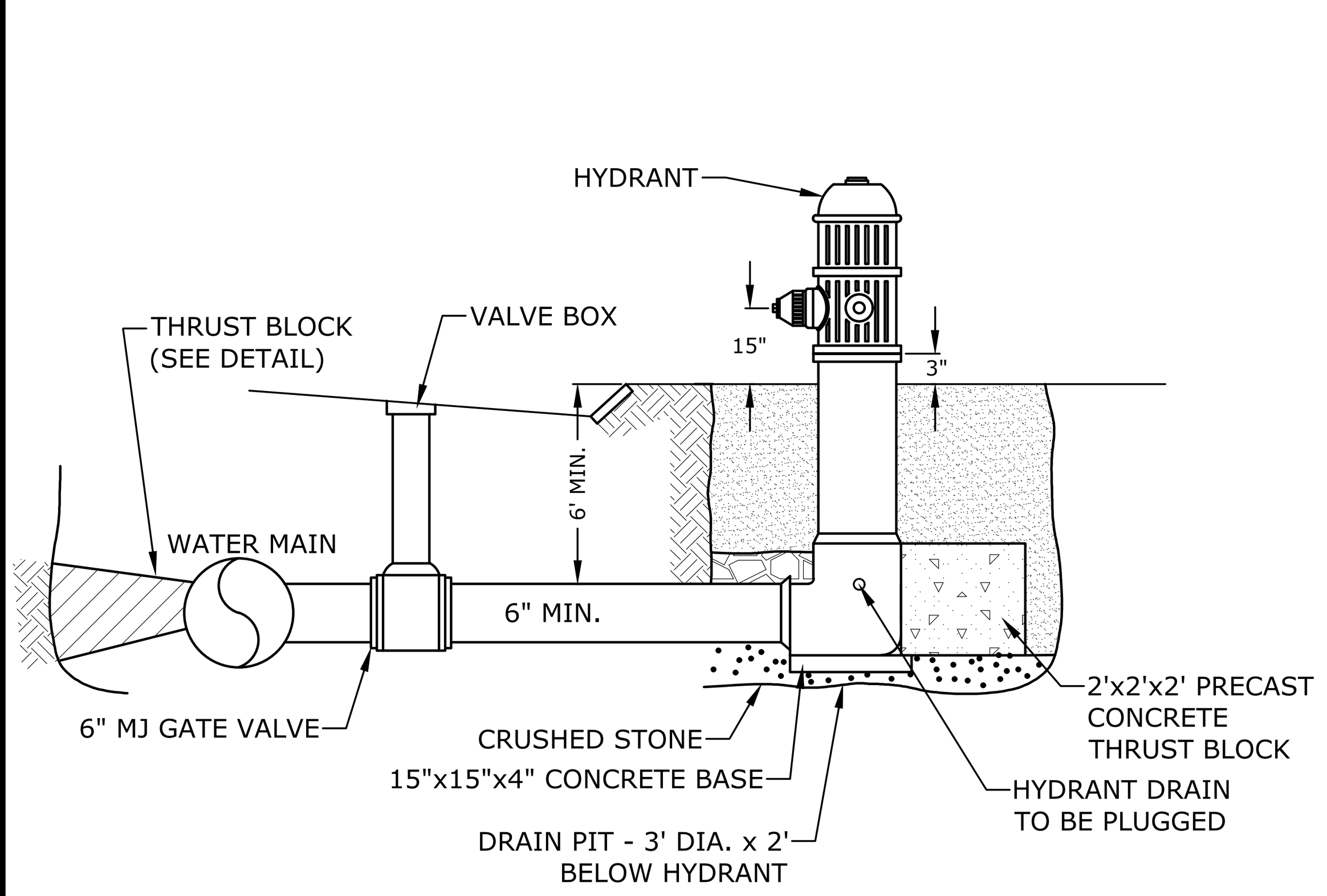
PROJECT NO:	K0076-065
DATE:	APRIL 23, 2025
FILE:	K0076-065_C-DTLS.DWG
DRAWN BY:	MDC/BKC
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

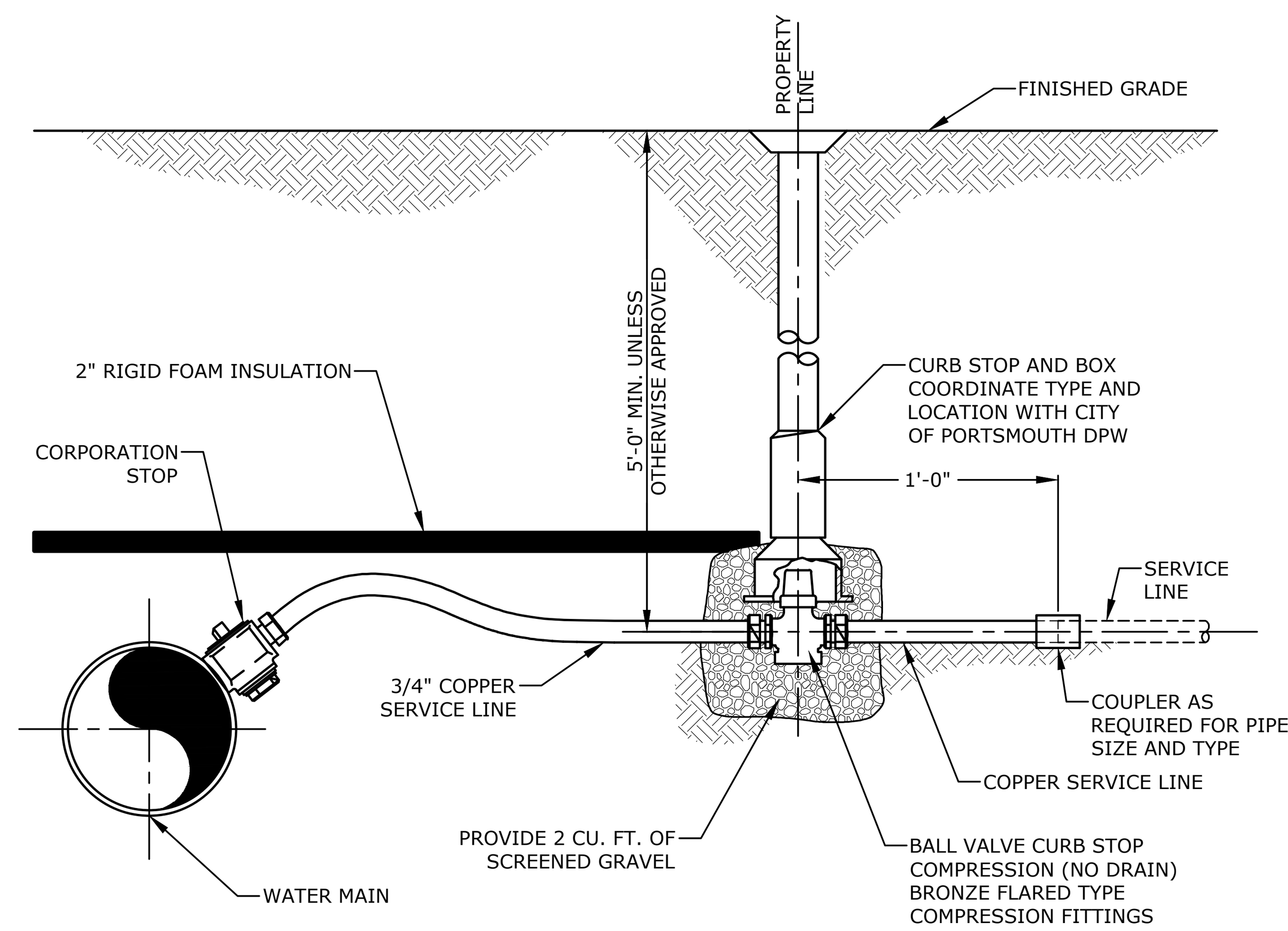
C-605

Last Saved: 4/17/2025
Plotted: Friday, April 18, 2025 - 9:25am By: MCurley
Tighe & Bond: I:\K\K0076 The Kane Company - General Proposals\0076-0065 GNOD Hillside Lot\Drawings\AutoCAD\Sheet\K0076-065_C-DTLS.dwg



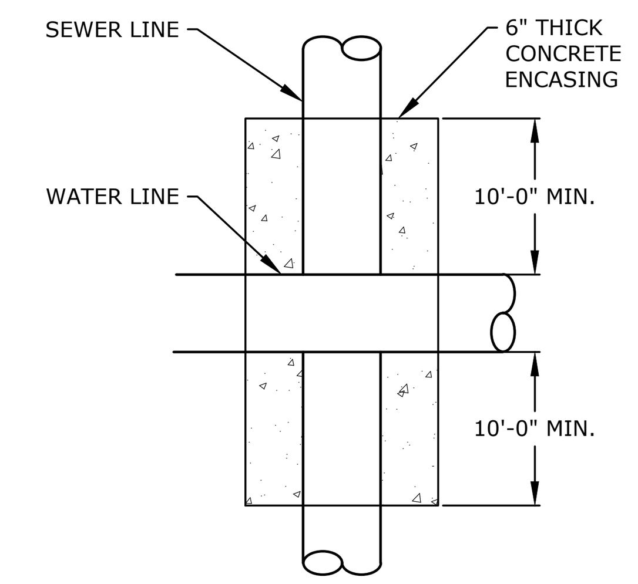
NOTES:
1. HYDRANT TO BE KENNEDY TYPE K-81, RIGHT OPEN (NO EQUAL). COORDINATE WITH CITY OF PORTSMOUTH WATER DEPARTMENT AND CITY OF PORTSMOUTH FIRE DEPARTMENT.
2. PAINT HYDRANT IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS AFTER INSTALLATION AND TESTING.

FIRE HYDRANT
NO SCALE

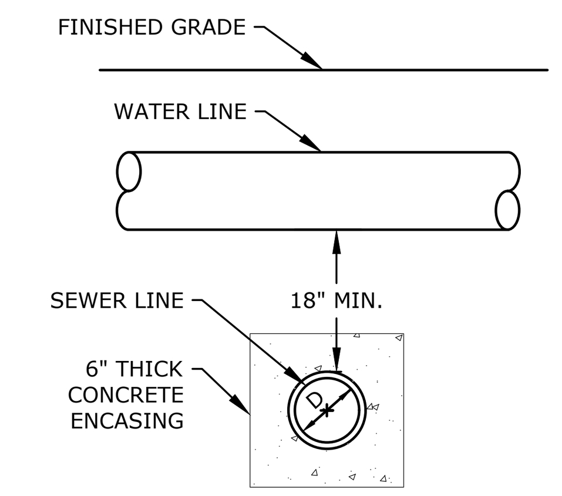


NOTE:
1. ALL WATER SERVICE CONNECTIONS SHALL CONFORM TO CITY OF PORTSMOUTH STANDARDS.

WATER SERVICE CONNECTION
NO SCALE



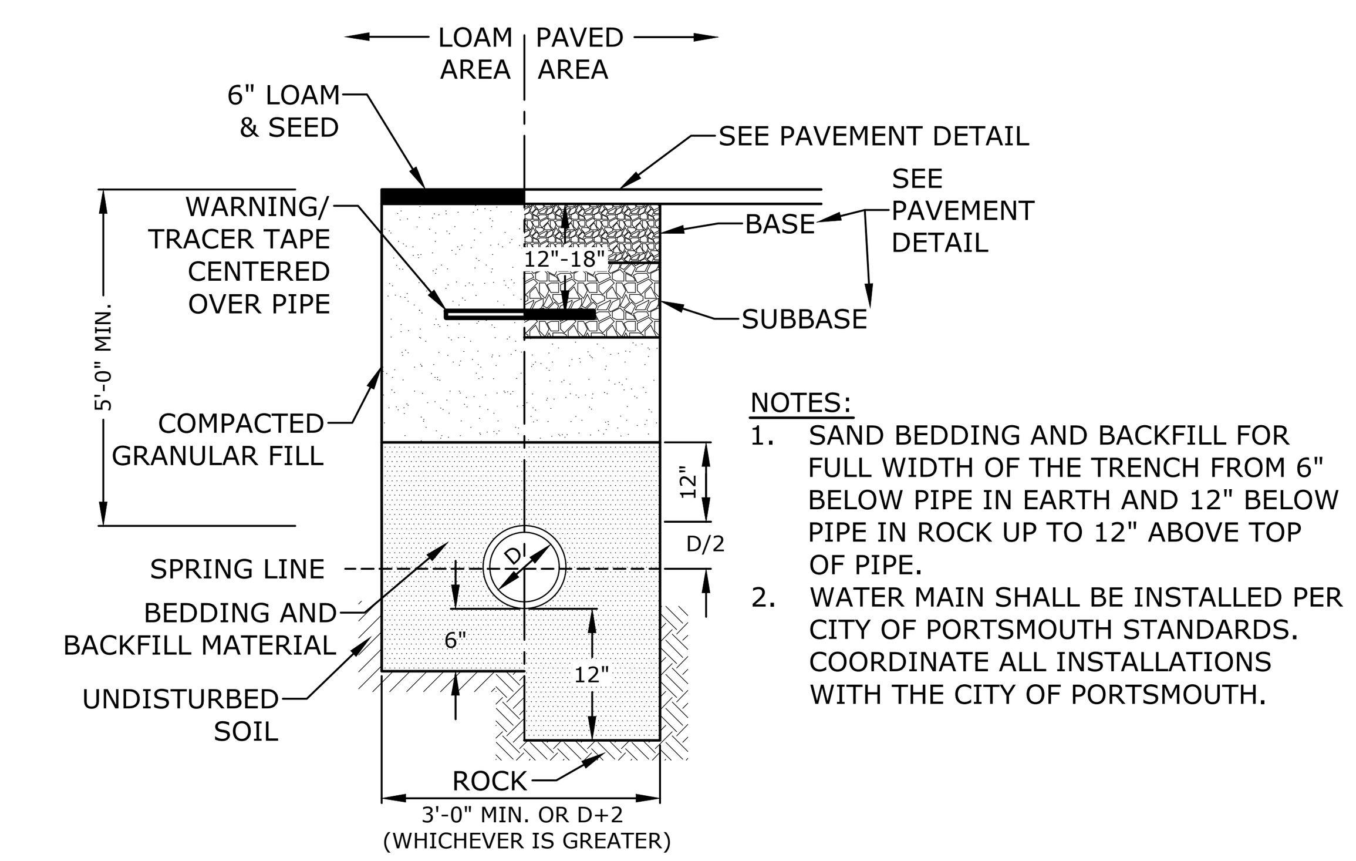
PLAN VIEW



PROFILE VIEW

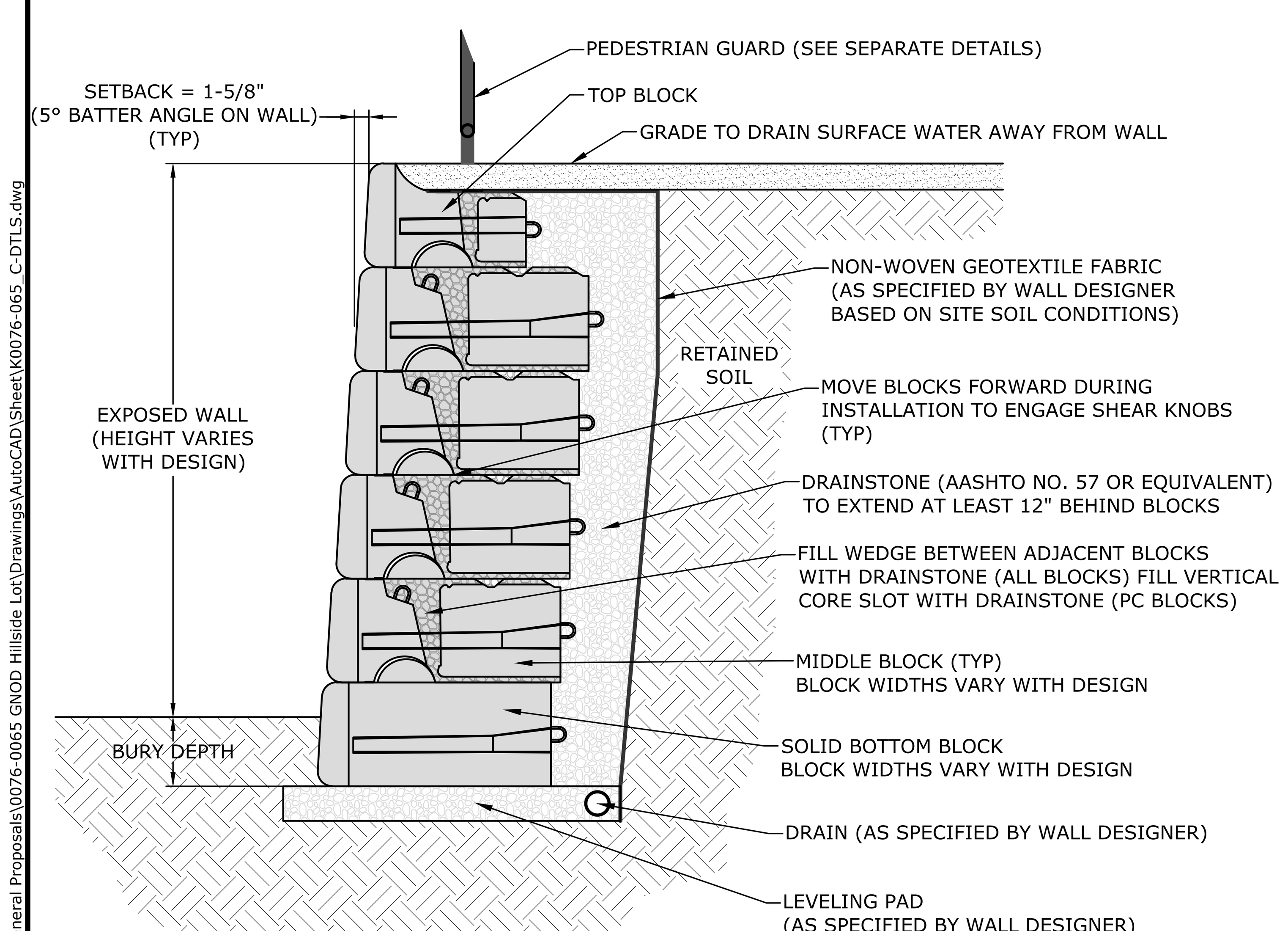
NOTES:
1. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED FROM ANY EXISTING OR PROPOSED WATER LINE.
2. AN 18" MINIMUM EDGE TO EDGE VERTICAL SEPARATION SHALL BE PROVIDED, WITH WATER ABOVE SEWER, AT ALL CROSSINGS.
3. SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN.
4. WHERE AN 18" VERTICAL SEPARATION CANNOT BE PROVIDED, SEWER PIPE SHALL BE CONSTRUCTED USING A SDR 26 PVC PIPE OR ENCASED CONCRETE FOR A MINIMUM DISTANCE OF 10 FEET ON BOTH SIDES OF THE LINE BEING CROSSED, AS SHOWN ABOVE.
5. CROSSINGS SHALL CONFORM TO THE CITY OF PORTSMOUTH STANDARDS AND SPECIFICATIONS.

WATER & SEWER CROSSING
NO SCALE

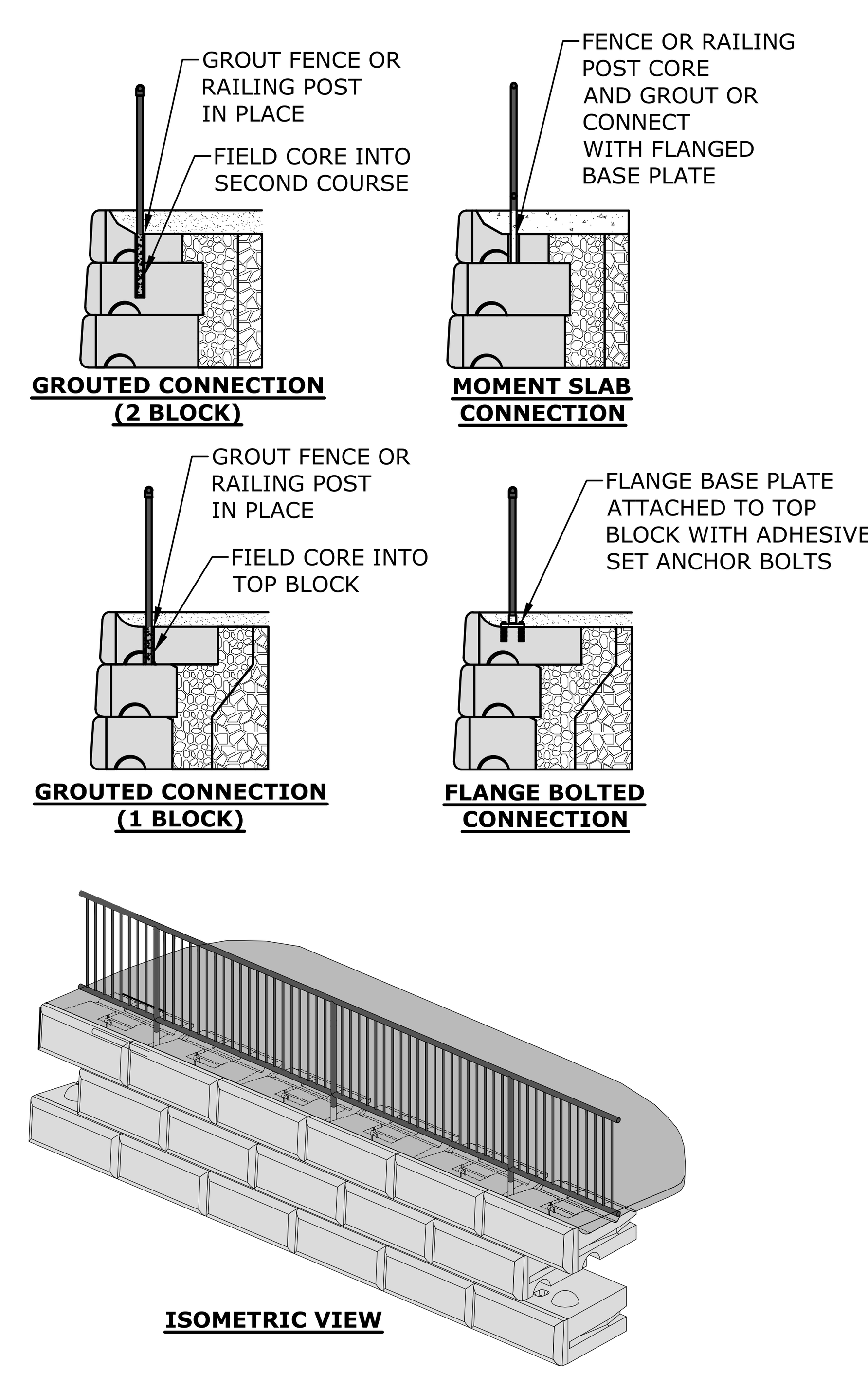


NOTES:
1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
2. WATER MAIN SHALL BE INSTALLED PER CITY OF PORTSMOUTH STANDARDS. COORDINATE ALL INSTALLATIONS WITH THE CITY OF PORTSMOUTH.

WATER TRENCH
NO SCALE



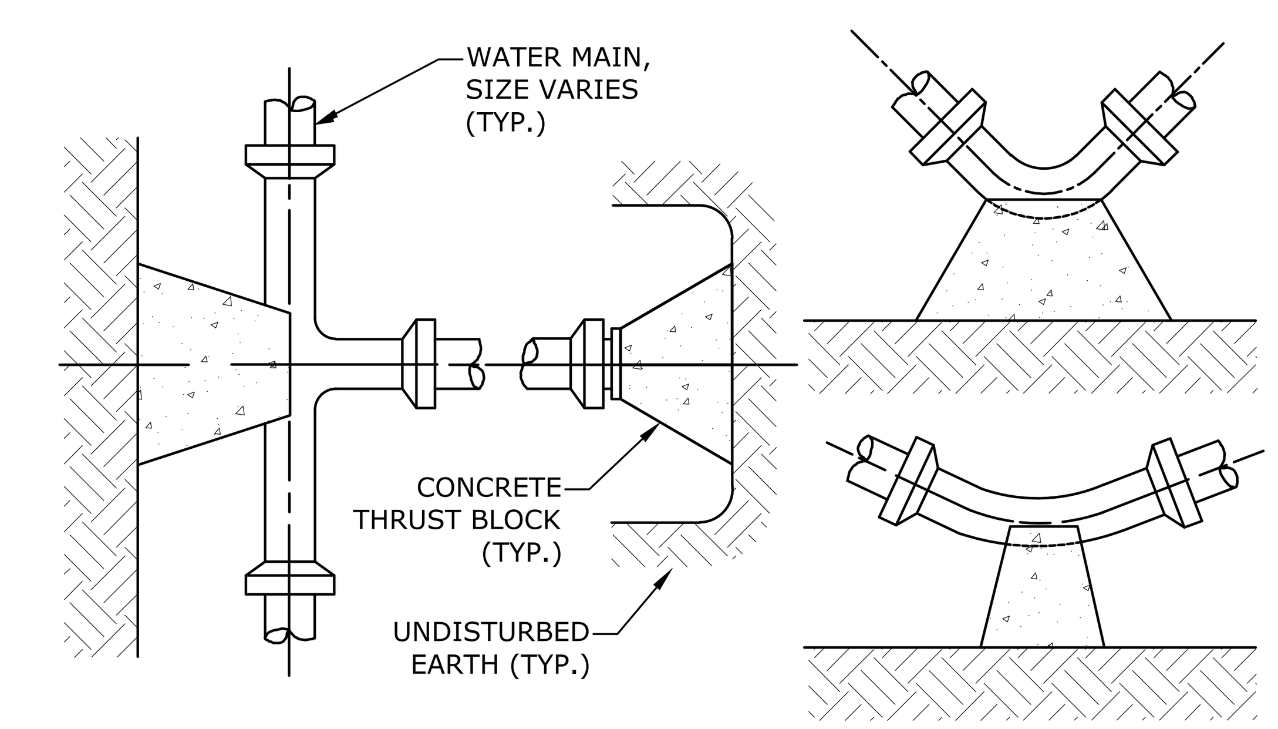
TYPICAL BLOCK RETAINING WALL SECTION
NO SCALE



NOTE
1. THESE GENERIC PEDESTRIAN GUARD AND FENCE DETAILS SHOW POTENTIAL OPTIONS FOR INSTALLATION ON THE TOP OF RETAINING WALL. IT IS THE WALL DESIGN ENGINEER'S RESPONSIBILITY TO FULLY DESIGN AND DETAIL THE CONNECTION OF THE GUARD POSTS TO THE RETAINING WALL BLOCKS AND ASSURE ACCEPTABLE RESISTANCE TO THE APPLIED FORCES.

TYPICAL FENCE OR PEDESTRIAN GUARD CONNECTION OPTIONS
NO SCALE

NOTES
1. RETAINING WALL SHALL BE REDI ROCK (BASIS OF DESIGN), VERSA-LOK, RECON WALL SYSTEMS, OR EQUAL.
2. THE CONTRACTOR SHALL SUBMIT DESIGN AND CALCULATIONS FOR THE RETAINING WALL THAT SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE. CALCULATIONS SHALL INCLUDE A GLOBAL STABILITY ANALYSIS.
3. MINIMUM DESIGN PARAMETERS:
   - GLOBAL STABILITY FACTOR OF SAFETY = 1.3
   - OVERTURNING FACTOR OF SAFETY UNDER STATIC LOADS = 1.5
   - SLIDING FACTOR OF SAFETY UNDER STATIC LOADS = 1.5
   - GEOGRID PULLOUT FACTOR OF SAFETY = 1.5
   - SEISMIC FACTOR OF SAFETY = 1.1
   - EQUIVALENT FLUID PRESSURE = 40 POUNDS PER CUBIC FOOT (PCF) FOR GRAVITY AND CANTILEVERED WALLS ABOVE GROUNDWATER AND WALLS WITH APPROPRIATE DRAINAGE BEHIND THE WALL.
   - HYDROSTATIC WATER PRESSURE ALONG THE HEIGHT OF THE WALL BELOW GROUNDWATER SHOULD BE INCLUDED IF DRAINAGE IS NOT PROVIDED.
   - WHERE THE CALCULATED EARTH PRESSURE BEHIND THE WALL IS LESS THAN 250 POUNDS PER SQUARE FOOT (PSF), IT SHOULD BE INCREASED TO 250 PSF TO ACCOUNT FOR STRESSES CREATED BY COMPACTION WITHIN 5 FEET OF THE WALL.
   - WALLS SHOULD BE DESIGNED FOR APPROPRIATE SLOPING BACKFILL.
   - WALLS SHOULD BE DESIGNED TO RESIST AN EARTHQUAKE FORCE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (IBC), CURRENT EDITION.
4. WALL DESIGNS SHALL CONSIDER EFFECTS OF SLOPE, TRAFFIC LOADS, BUILDING LOADS, STRUCTURES, UTILITIES, GUARDRAIL AND/OR FENCING AS REQUIRED.
5. WALL DESIGN ENGINEER SHALL CONSIDER HEIGHT AND SPECIFY SAFETY RAIL WHERE REQUIRED.
6. ALL INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION MANUAL AND THE WALL DESIGN ENGINEER'S DESIGN PLANS AND SPECIFICATIONS.
7. THE WALL DESIGN ENGINEER SHALL COMPLETE SUFFICIENT INSPECTIONS DURING CONSTRUCTION TO CERTIFY WORK IS COMPLETED IN ACCORDANCE WITH DESIGN.
8. CONTRACTOR SHALL DIRECT SURFACE RUNOFF AWAY FROM THE WALL DURING CONSTRUCTION.
9. ANY SURFACE DRAINAGE FEATURES, FINISH GRADING, PAVEMENT OR OTHER SURFACE TREATMENT SHALL BE INSTALLED IN THE AREA OF THE WALL IMMEDIATELY AFTER THE WALL IS COMPLETE OR OTHER MEASURES SHALL BE TAKEN TO PROTECT THE WALL FROM RUNOFF.
10. CONTRACTOR SHALL SUPPLY PRODUCT INFORMATION FOR BLOCK TYPE / TEXTURE AND COLOR CHOICE TO THE OWNER FOR APPROVAL PRIOR TO ORDERING MATERIALS.
11. RETAINING WALL DESIGN PLANS AND CALCULATIONS SHALL BE FROM THE WALL MANUFACTURER AND SHALL INCLUDE A GLOBAL STABILITY ANALYSIS.
12. FINAL STRUCTURAL DESIGN TO BE SUBMITTED TO THE ENGINEER WITH ALL REQUIRED CALCULATIONS AND PLANS.
13. STRUCTURAL DESIGN TO BE COMPLETED AND STAMPED BY A NEW HAMPSHIRE LICENSED STRUCTURAL ENGINEER. DESIGN ENGINEER SHALL INSPECT WALL DURING CONSTRUCTION AND CERTIFY THAT IT HAS BEEN INSTALLED IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS SUBMITTED AS PART OF THE BUILDING PERMIT.
14. AN AS-BUILT PLAN SHOWING WALL LOCATION AND DIMENSIONS SHALL BE SUBMITTED TO THE OWNER AND ENGINEER UPON COMPLETION.
15. ANY UNSUITABLE SOIL SUCH AS FROZEN OR ORGANIC SOILS SHOULD BE REMOVED FROM BEHIND THE PROPOSED RETAINING WALLS AND REPLACED WITH FREE DRAINING BACKFILL SUCH AS GRAVEL BORROW.
16. EXISTING FILL SHOULD NOT BE USED WITHIN FIVE (5) FEET OF CANTILEVERED OR GRAVITY WALLS.
17. THESE DETAILS ARE FOR REFERENCE ONLY. DETERMINATION OF THE SUITABILITY AND/OR MANNER OF USE OF ANY DETAILS CONTAINED IN THIS DOCUMENT IS THE SOLE RESPONSIBILITY OF THE WALL DESIGN ENGINEER OF RECORD. FINAL PROJECT DESIGNS, INCLUDING ALL CONSTRUCTION DETAILS, SHALL BE PREPARED BY A NEW HAMPSHIRE LICENSED PROFESSIONAL ENGINEER USING THE ACTUAL CONDITIONS OF THE PROPOSED SITE.



TEST PRESSURE = 200psi	SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL					
	REACTION TYPE	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

Tighe&Bond
Engineers | Environmental Specialists

PROPOSED MULTI-FAMILY DEVELOPMENT

Brora LLC

Portsmouth, NH

MARK	DATE	DESCRIPTION

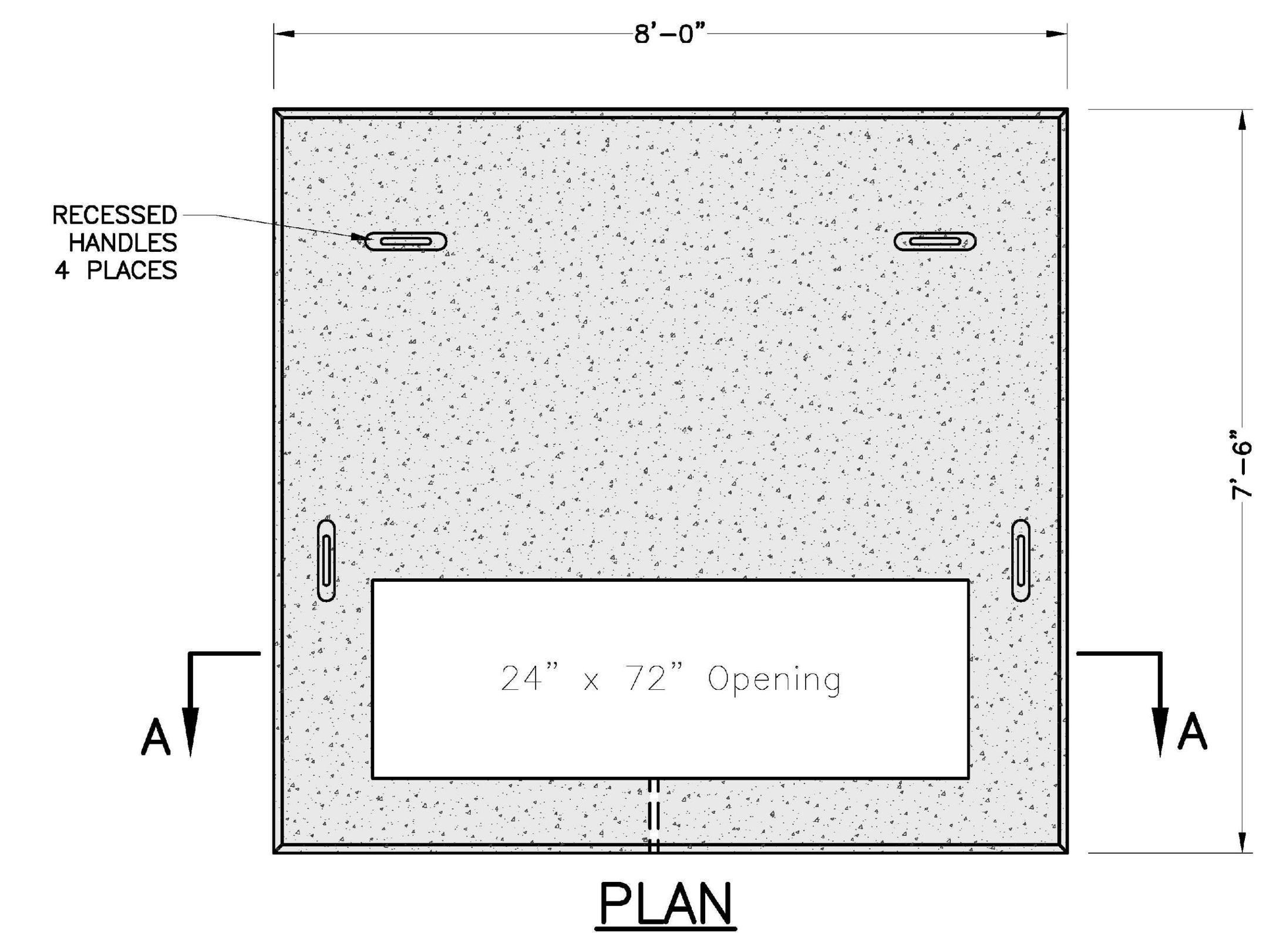
PROJECT NO:	K0076-065
DATE:	APRIL 23, 2025
FILE:	K0076-065_C-DTLS.DWG
DRAWN BY:	MDC/BKC
CHECKED:	NAH
APPROVED:	PMC

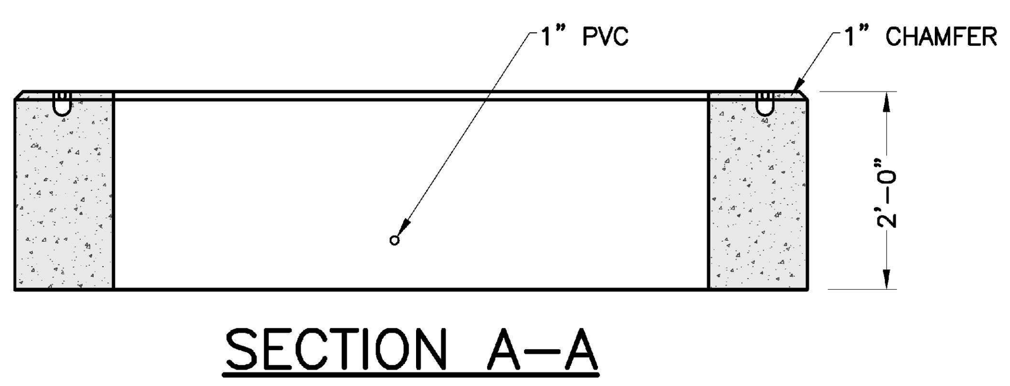
DETAILS SHEET

SCALE: AS SHOWN

C-606

Last Saved: 4/17/2025
Plotted On:Apr 18, 2025-9:24am By: MCurley
Tighe & Bond: J:\K\K0076 The Kane Company - General Proposals\0076-065 GNOD Hillside Lot\Drawings\AutoCAD\Sheet\K0076-065_C-DTLS.dwg

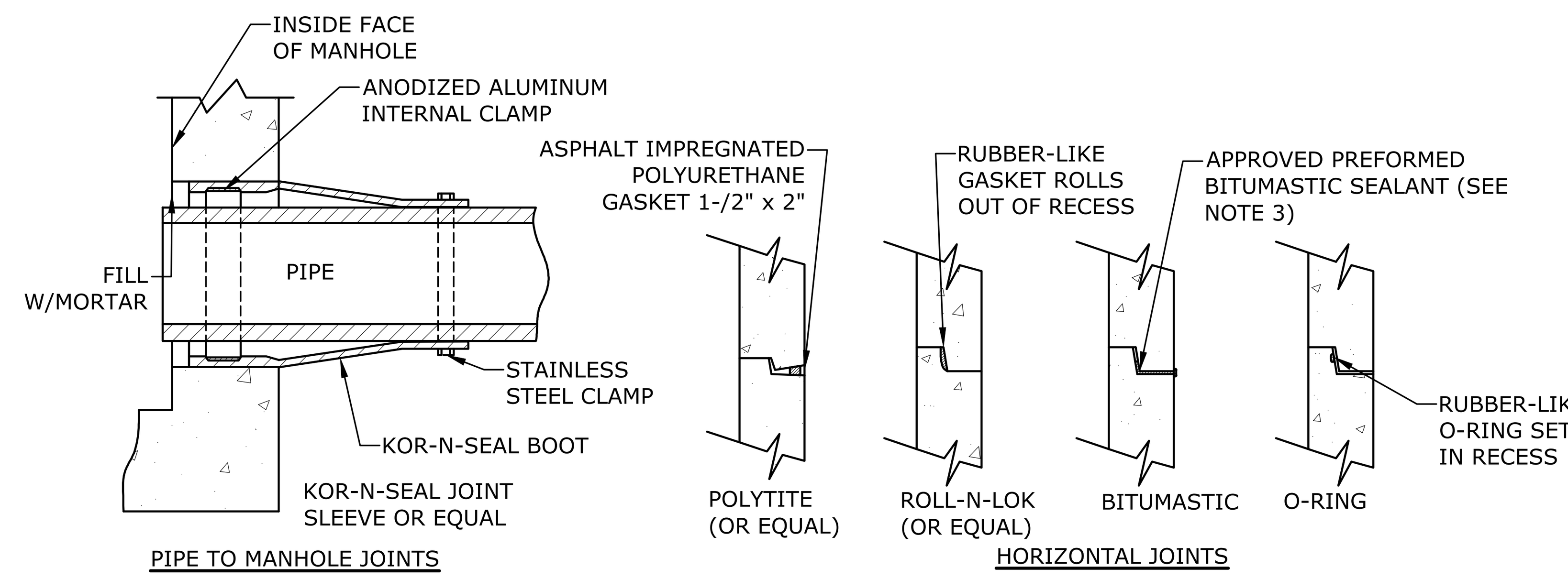




NOTES:
1. DIMENSIONS SHOWN REPRESENT TYPICAL REQUIREMENTS. MANHOLE LOCATIONS AND REQUIREMENTS SHALL BE COORDINATED WITH EVERSOURCE PRIOR TO CONSTRUCTION
2. CONCRETE MINIMUM STRENGTH - 4,000 PSI @ 28 DAYS
3. STEEL REINFORCEMENT - ASTM A615, GRADE 60
4. PAD MEETS OR EXCEEDS EVERSOURCE SPECIFICATIONS

3-PHASE TRANSFORMER PAD

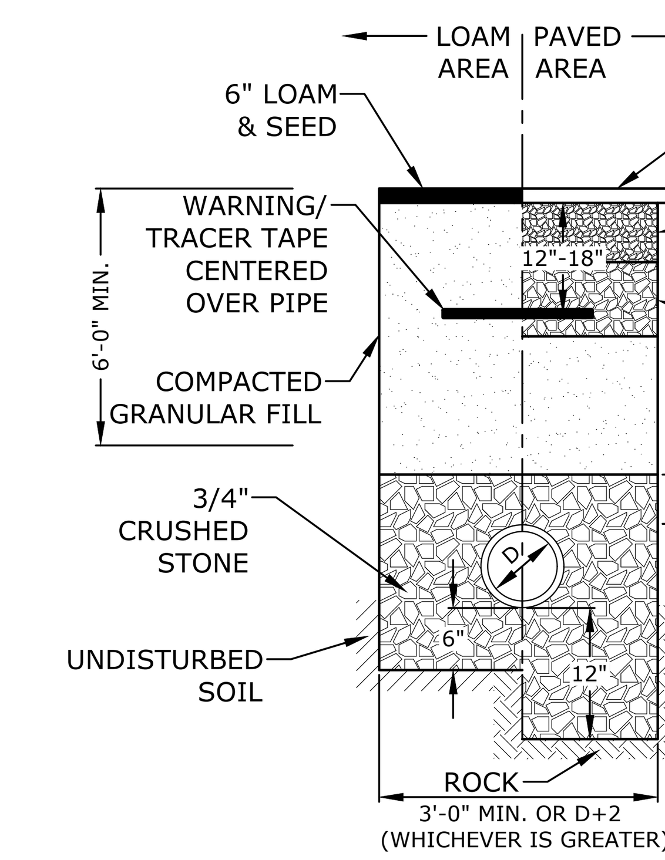
NO SCALE



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

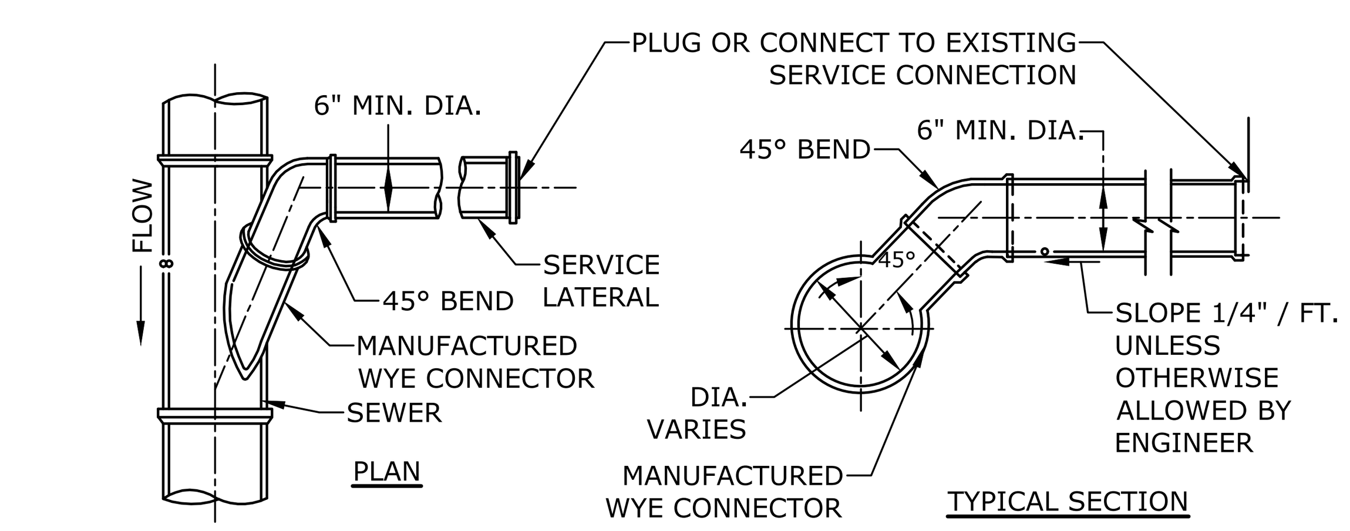
NO SCALE



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.

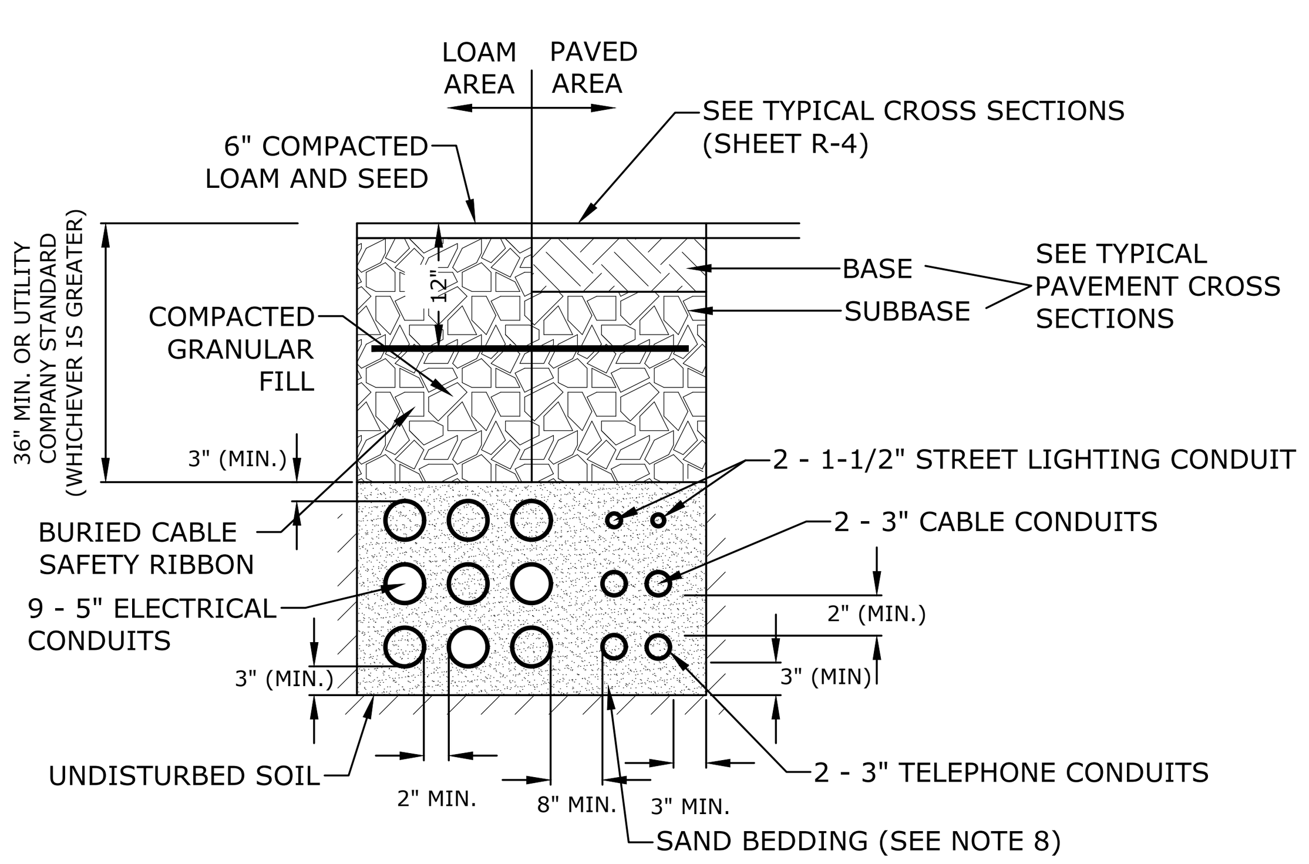
SEWER SERVICE TRENCH

NO SCALE



STANDARD SERVICE LATERAL CONNECTION

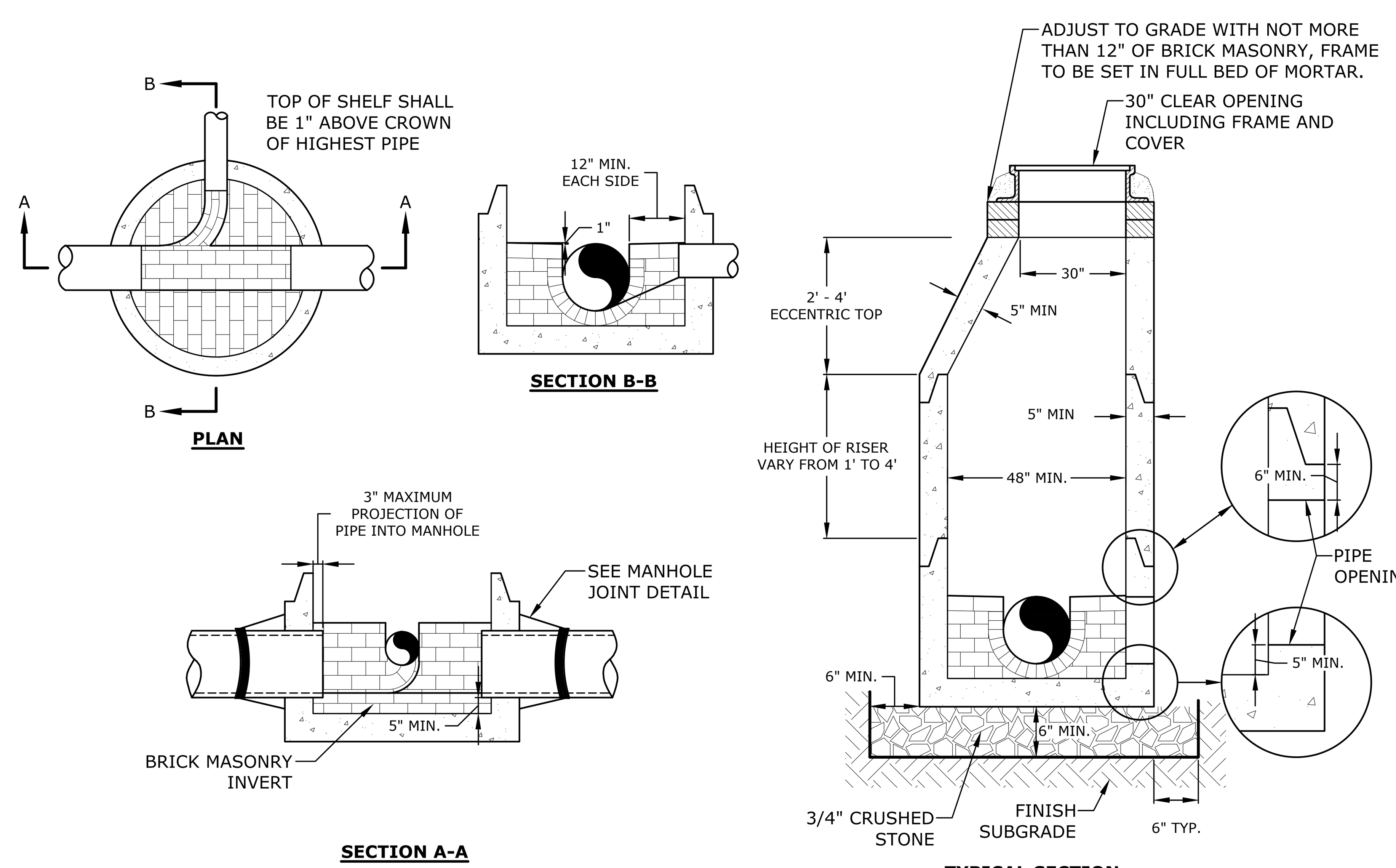
NO SCALE



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

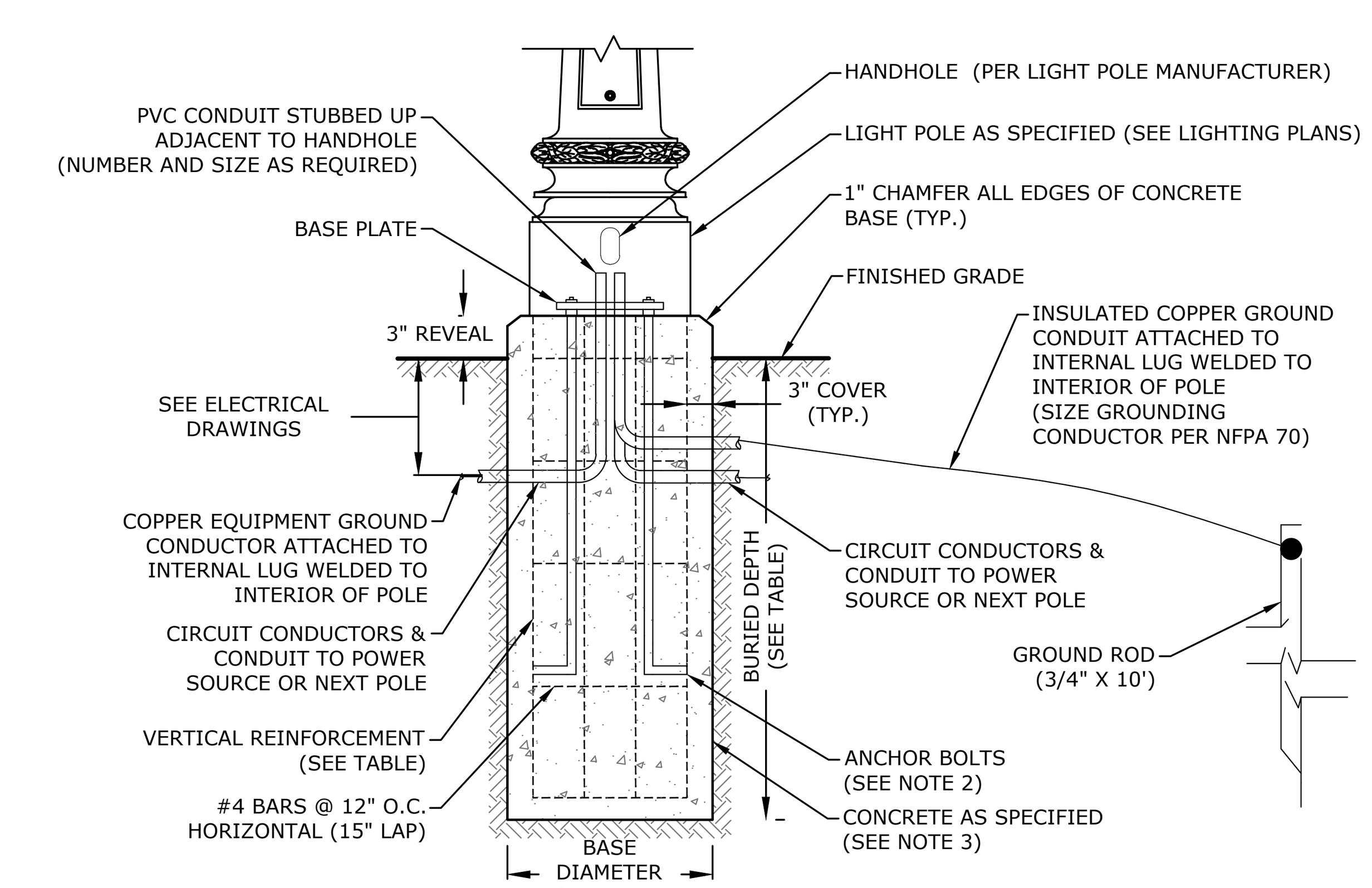
NO SCALE



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. TWO (2) COATS OF BITUMINOUS WATERPROOF COATING SHALL 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



POLE HEIGHT	DEPTH (BURIED)	BASE DIAMETER	VERTICAL REINFORCEMENT
<16'	72" (MIN.)	18"	6 - #6
>16'	72" (MIN.)	24"	6 - #8

NOTES:
1. ALL LIGHT POLES, LUMINARIES AND WIRE TO BE FURNISHED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED.
2. CONTRACTOR SHALL VERIFY BOLT TEMPLATE AND ANCHOR BOLT SIZE WITH POLE MANUFACTURER PRIOR TO CONSTRUCTION.
3. CONCRETE SHALL BE 4,000 PSI CLASS A, PRE-CAST CONCRETE.
4. REINFORCEMENT SHALL BE ASTM A615, GRADE 60.
5. FOR LIGHT POLES GREATER THAN 20' IN HEIGHT, THE LIGHT POLE BASE SHALL BE DESIGNED AND STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE.

TYPICAL LIGHT POLE BASE

NO SCALE

Tighe&Bond
Engineers | Environmental Specialists

PROPOSED MULTI-FAMILY DEVELOPMENT

Brora LLC

Portsmouth, NH

MARK	DATE	DESCRIPTION

PROJECT NO:	K0076-065
DATE:	APRIL 23, 2025
FILE:	K0076-065_C-DTLS.DWG
DRAWN BY:	MDC/BKC
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

C-607

Last Saved: 4/17/2025
Plotted On:Apr 18, 2025-9:20am By: MCurley
Tighe & Bond: J:\K\K0076 The Kane Company - General Proposals\0076-0065 GNOD Hillside Lot\Drawings\AutoCAD\Sheet\K0076-065_C-DTLS.dwg

PROCON
CONNECT · CREATE · CONSTRUCT

MULTI-FAMILY DEVELOPMENT

PORTSMOUTH BLVD, PORTSMOUTH,

THE KANE COMPANY
KANE
COMMERCIAL INDUSTRIAL REAL ESTATE

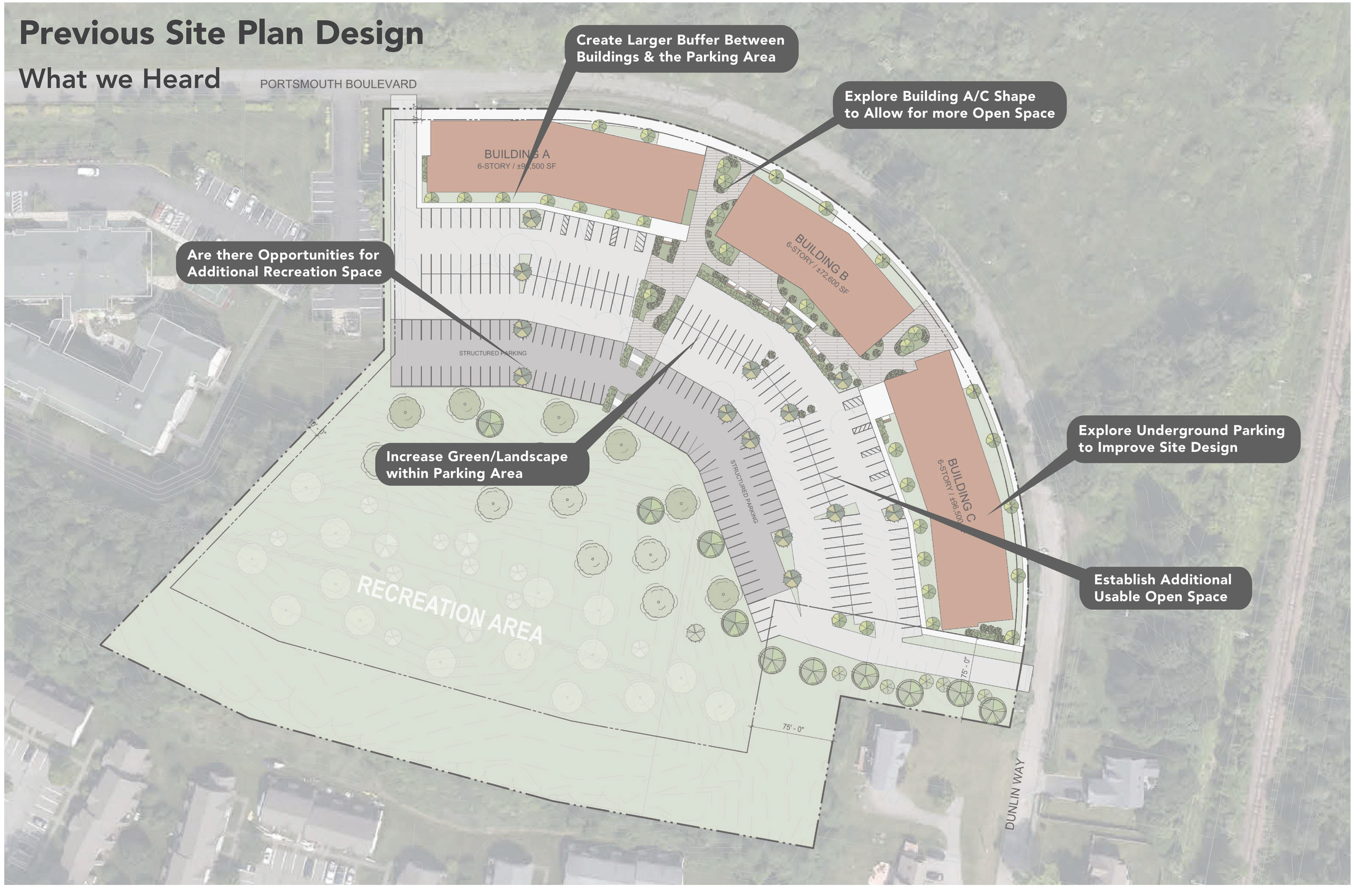
Tidemark

APRIL 23, 2025

Project Site Location

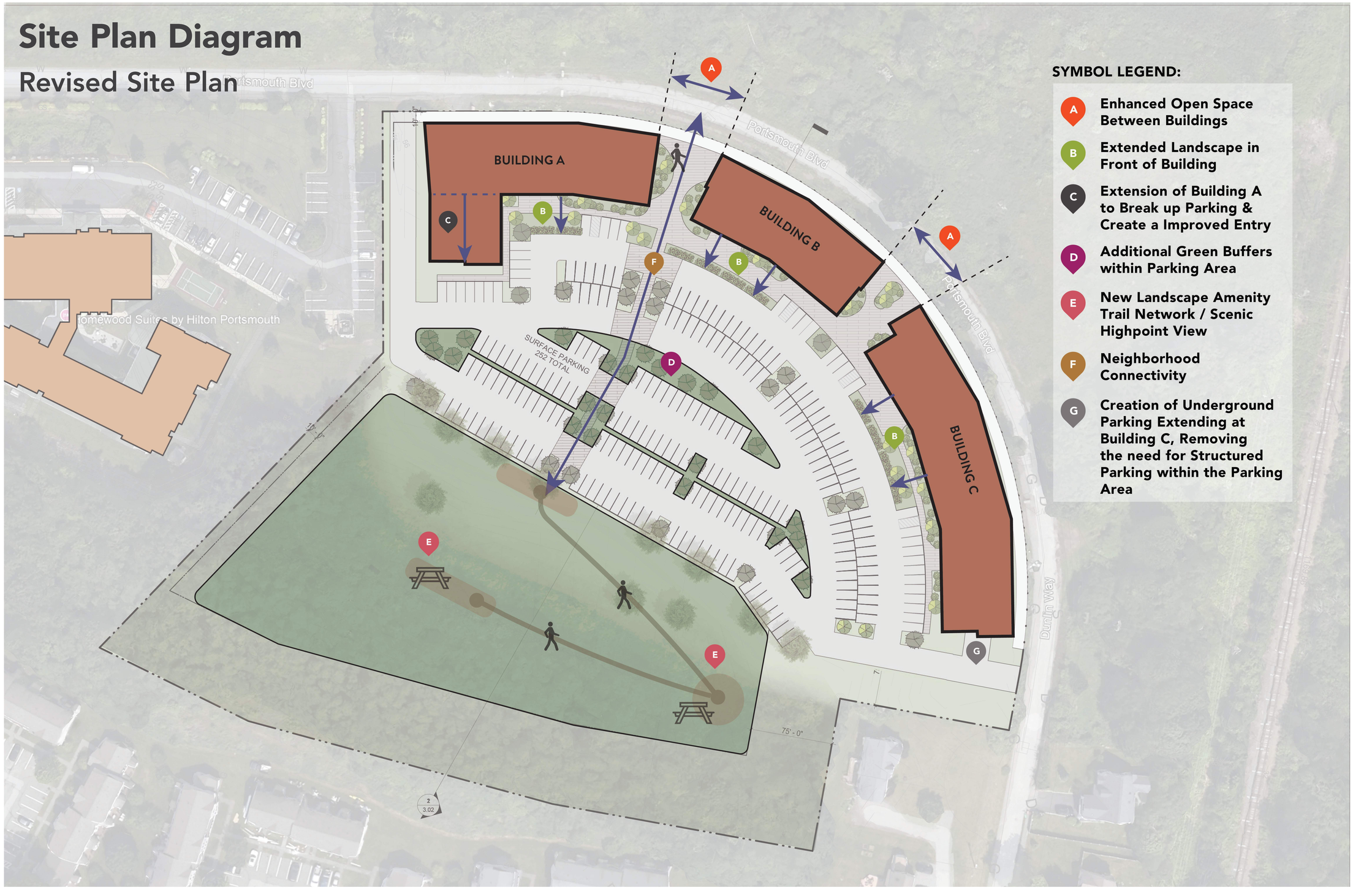
Previous Site Plan Design

What we Heard



Site Plan Diagram

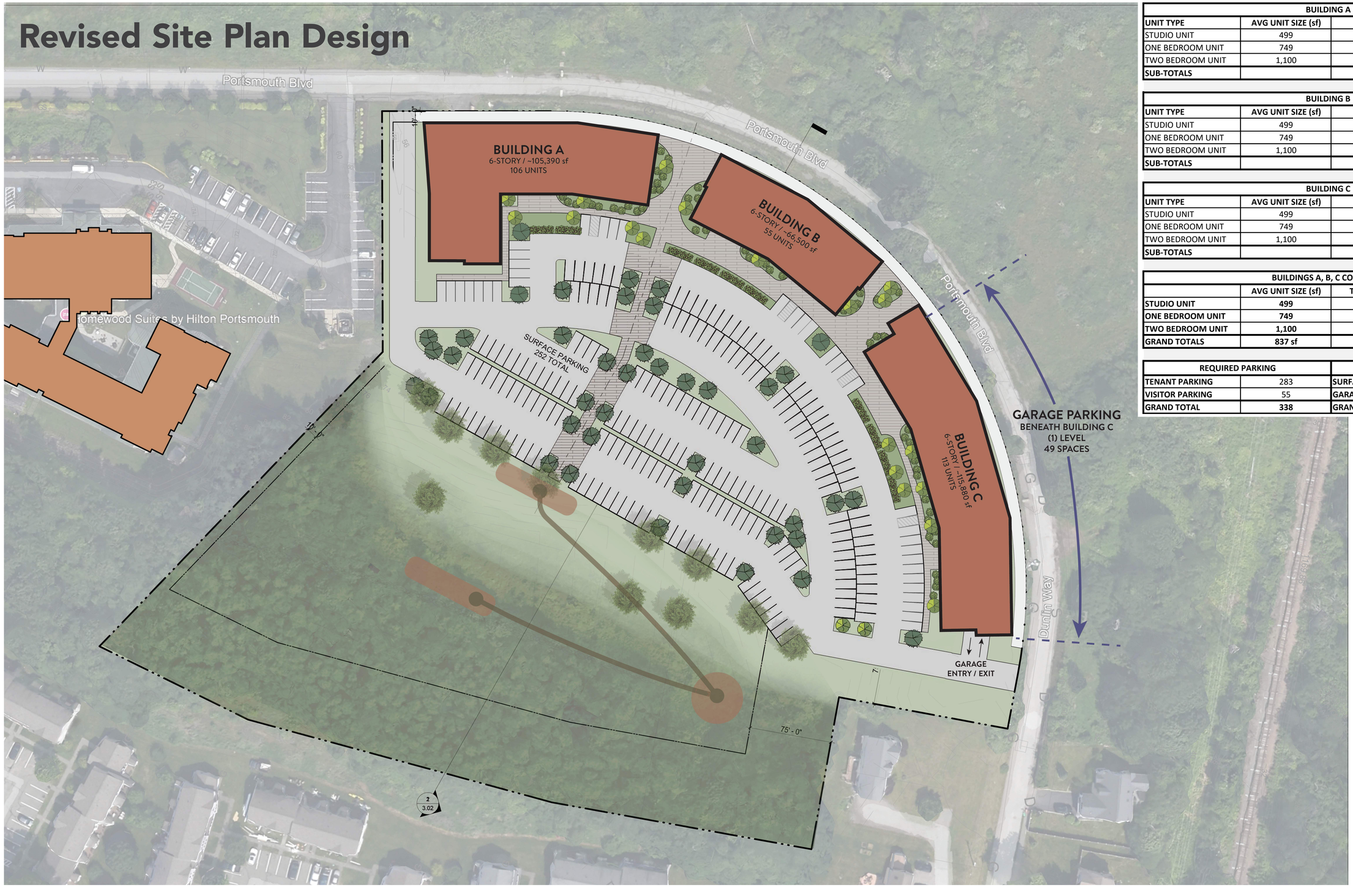
Revised Site Plan



SYMBOL LEGEND:

- **A** — Enhanced Open Space Between Buildings
- **B** — Extended Landscape in Front of Building
- **C** — Extension of Building A to Break up Parking & Create a Improved Entry
- **D** — Additional Green Buffers within Parking Area
- **E** — New Landscape Amenity Trail Network / Scenic Highpoint View
- **F** — Neighborhood Connectivity
- **G** — Creation of Underground Parking Extending at Building C, Removing the need for Structured Parking within the Parking Area

Revised Site Plan Design



BUILDING A			
UNIT TYPE	AVG UNIT SIZE (sf)	COUNT	UNIT %
STUDIO UNIT	499	23	21.7%
ONE BEDROOM UNIT	749	40	37.7%
TWO BEDROOM UNIT	1,100	43	40.6%
SUB-TOTALS		**106**	

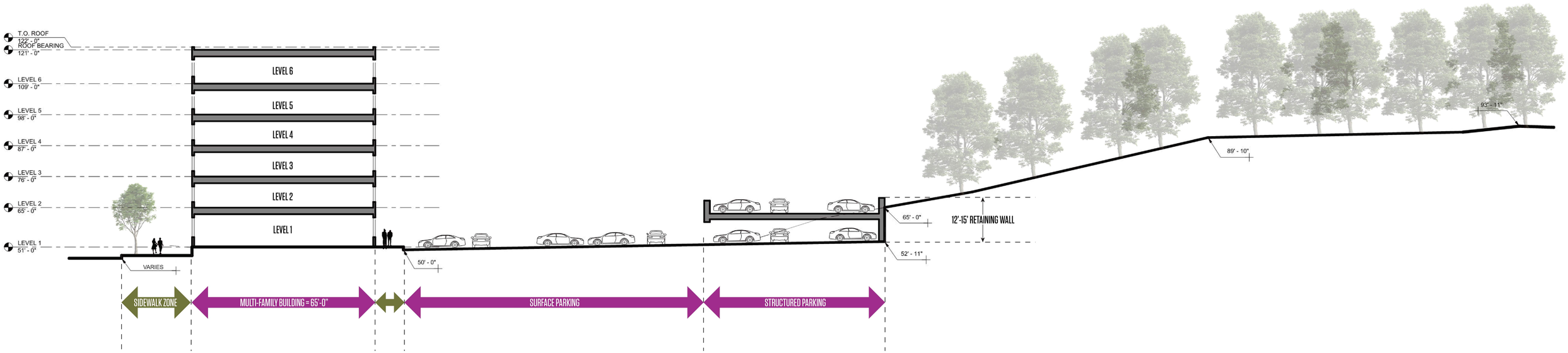
BUILDING B			
UNIT TYPE	AVG UNIT SIZE (sf)	COUNT	UNIT %
STUDIO UNIT	499	10	18.2%
ONE BEDROOM UNIT	749	25	45.5%
TWO BEDROOM UNIT	1,100	20	36.4%
SUB-TOTALS		**55**	

BUILDING C			
UNIT TYPE	AVG UNIT SIZE (sf)	COUNT	UNIT %
STUDIO UNIT	499	12	10.6%
ONE BEDROOM UNIT	749	59	52.2%
TWO BEDROOM UNIT	1,100	42	37.2%
SUB-TOTALS		**113**	

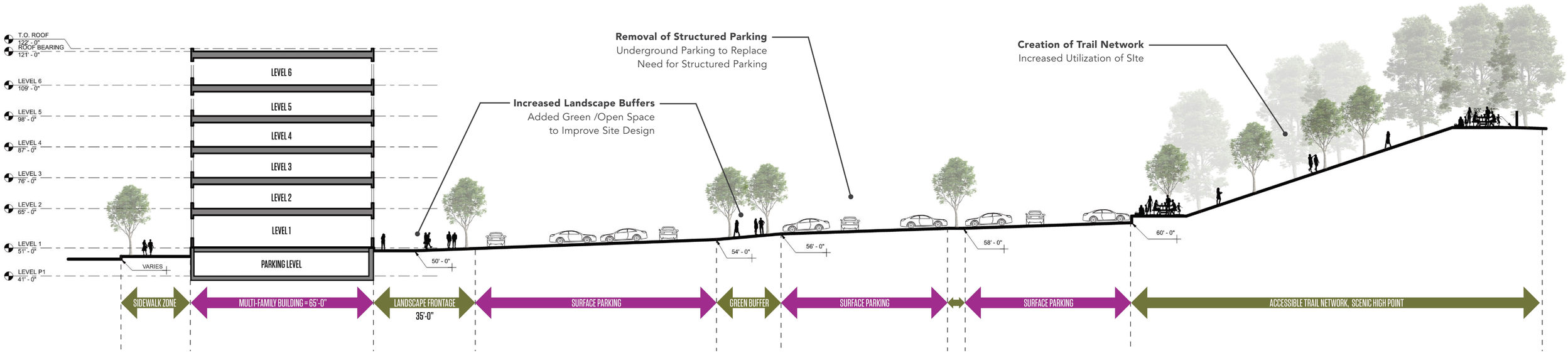
BUILDINGS A, B, C COMBINED			
	AVG UNIT SIZE (sf)	TOTAL COUNT	OVERALL UNIT %
STUDIO UNIT	**499**	**45**	**16.4%**
ONE BEDROOM UNIT	**749**	**124**	**45.3%**
TWO BEDROOM UNIT	**1,100**	**105**	**38.3%**
GRAND TOTALS	**837 sf**	**274**	

REQUIRED PARKING		PROVIDED PARKING	
TENANT PARKING	283	**SURFACE PARKING**	252
VISITOR PARKING	55	**GARAGE PARKING**	49
GRAND TOTAL	**338**	**GRAND TOTAL**	**301**

Site Section Diagrams



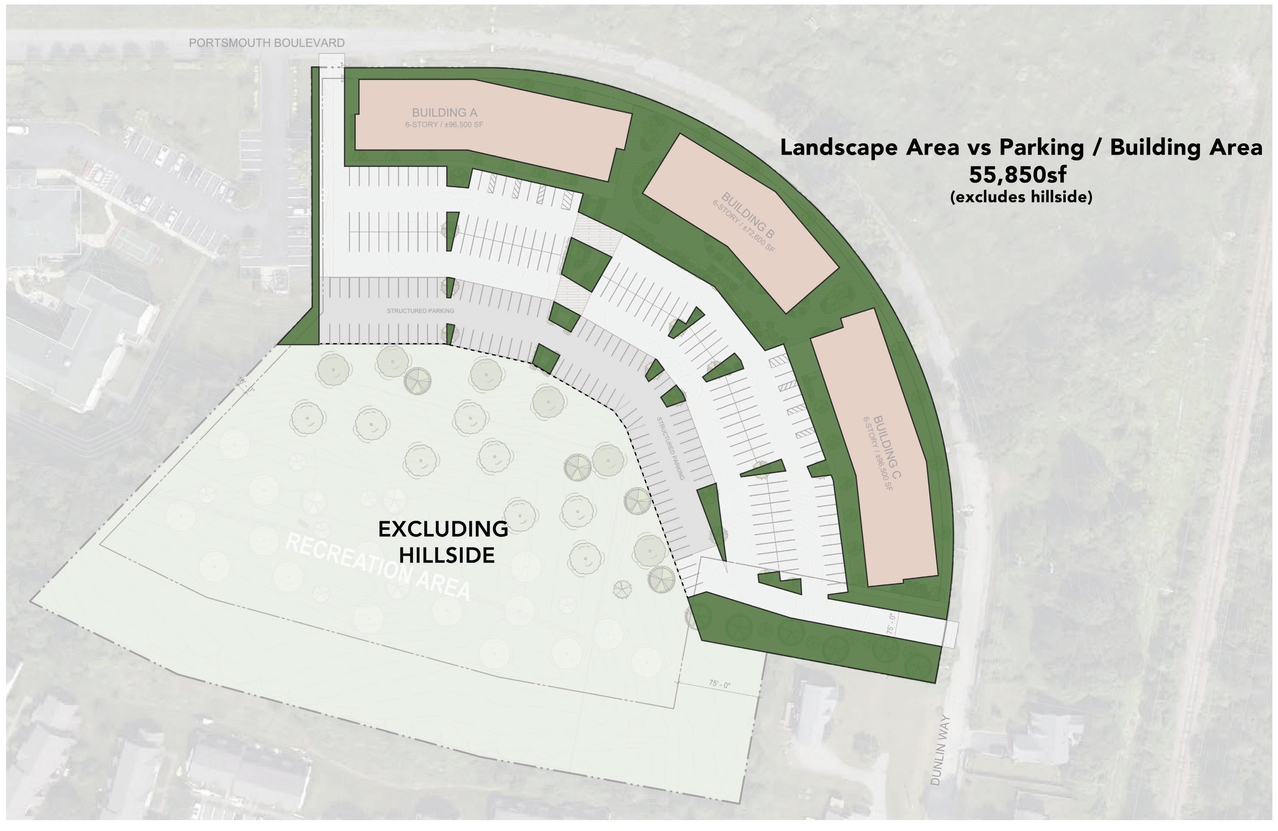
Previous Site Section



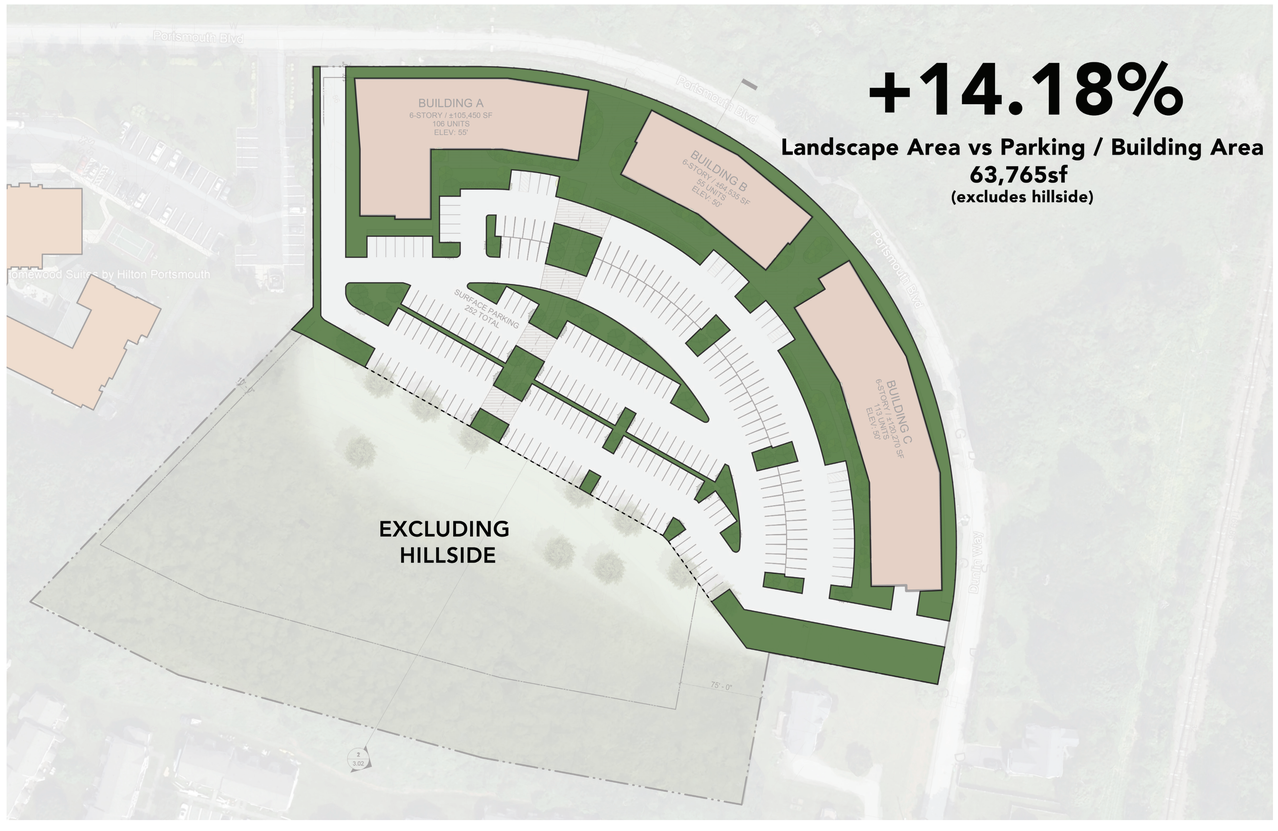
Proposed Site Section

Landscape Area vs Parking / Building Area

Site Comparison



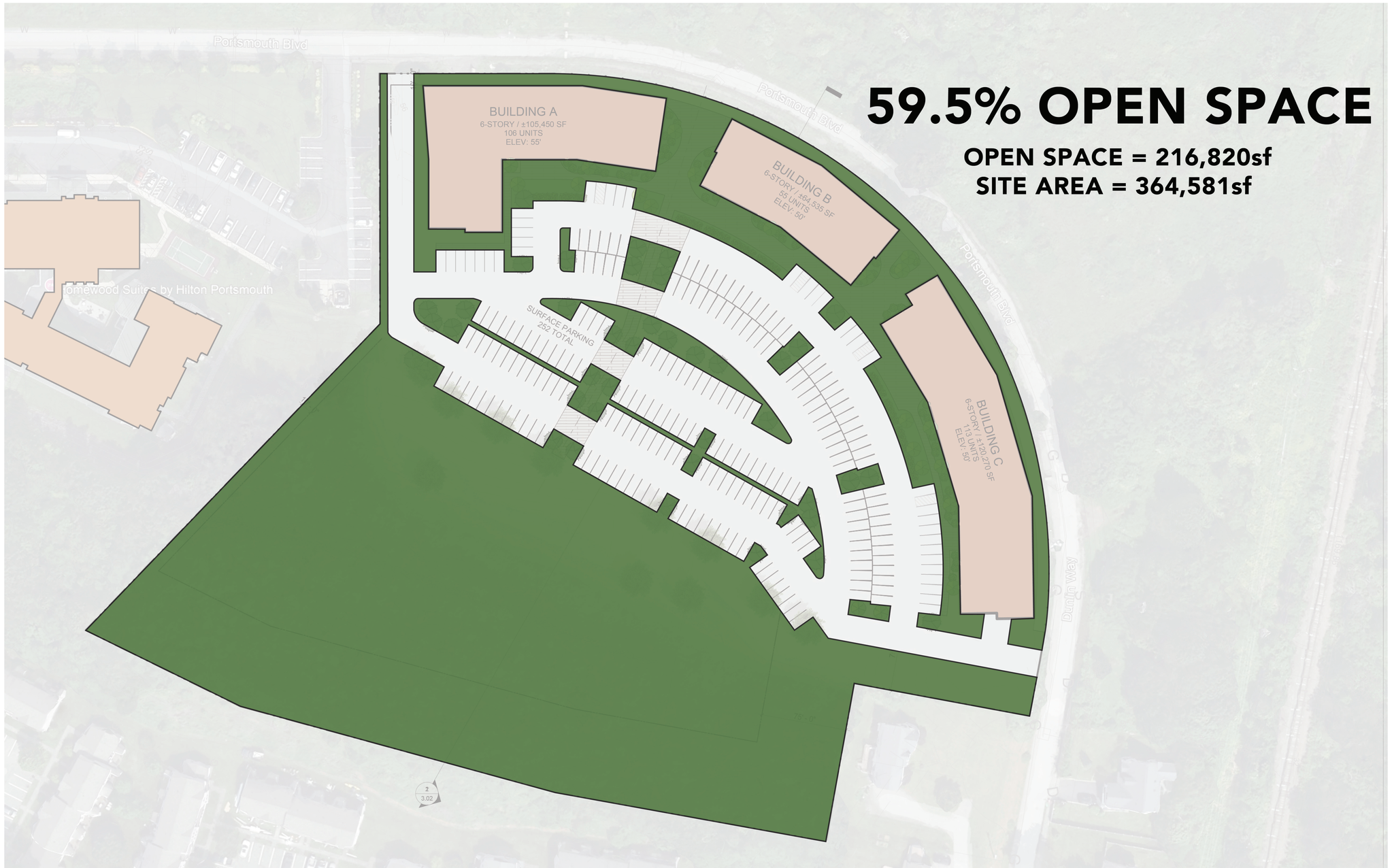
Previous 03/06 Planning Board Site Plan



Current Proposed Site Plan

Open Space Area

Current Site Plan



Letter of Authorization
Dunlin Way & Portsmouth Boulevard, Portsmouth
Map 213 Lot 12

The undersigned owner and applicant of the above-referenced property hereby authorize representatives of Tighe & Bond, Inc. to represent their interests, and to submit any and all materials related thereto on their behalf for any local and state permitting applications solely in connection with the multifamily development thereof.

Brora, LLC

Date: 4/21/2025

By: _____

Name: Jennifer Stebbins Thomas

Title: Manager

The Kane Company

Date: 4/21/2025

By: _____

Name: Kimery Poldrack

Title: SVP Development & Construction

City of Portsmouth

Department of Public Works

MEMORANDUM

TO: Peter Stith, Principal Planner

CC: Karen Conard, City Manager
Peter Rice, Director of Public Works
Peter Britz, Director of Planning

FROM: Marc Batchelder, Project Manager
Erich Fiedler, City Engineer

DATE: June 11, 2025

SUBJECT: City Council Recommendation
Borthwick / Coakley Connector Road Easements

As part of a plan to reduce the long-standing congestion and address safety concerns at the intersection of Route 1 By-Pass and Coakley Road / Cottage Street, the City Department of Public Works is coordinating efforts with the New Hampshire Department of Transportation to eliminate the existing traffic signal at this intersection. The plan calls for extending the median island on the By-Pass to block left turns to and from Coakley Road and Cottage Street.

To implement these traffic changes, the City must create a new connector road between Coakley Road and Borthwick Avenue. The connector will allow residents and business along Coakley Road to reach the signalized intersection at Route 1 By-Pass and Borthwick Avenue, preserving access to the Traffic Circle and points beyond.

Public Works has identified the best location for this connector road as the area between the Fairfield Inn and the Granite Group Plumbing Supply, as depicted on the attached plan (Sheet C-201). The project requires the City to acquire certain legal rights over privately owned land to complete the connector road. The proposed permanent and temporary easements are depicted on the attached plans (Sheets E-001 and E-002).

The proposed layout follows the legal process under RSA 231:8–RSA 231:10, which includes the formal use of eminent domain. This also includes the formal eminent domain processes described in RSA Chapter 498-A.

City staff seeks Planning Board review and recommendation to the City Council to secure the required easements in accordance with Ordinance Chapter 11, Section 11.602.

COAKLEY ROAD

BORTHWICK AVENUE

NH STATE PLANE COORDINATE SYSTEM
NAD 1983

TAX MAP 234, LOT 6
GPP PROPERTIES 1995 1 LLC
PO BOX 2004
CONCORD, NH 03302
R.C.R.D. BOOK 3102, PAGE 284

PARKING COUNT:
EXISTING – 20
PROPOSED – 20

TAX MAP 234, LOT 6
52,494 Sq. Ft.
1.21 Acres

TAX MAP 234, LOT 7-6
NAVEESHA HOSPITALITY LLC
110 HARTWELL AVE SUITE 300
LEXINGTON, MA 02421
R.C.R.D. BOOK 6434, PAGE 696

PARKING COUNT:
EXISTING – 115
PROPOSED SITE – 106
PROPOSED STREET – 9

TAX MAP 234, LOT 7-6
125,801 Sq. Ft.
2.89 Acres

TAX MAP 234, LOT 5
GIRI PORTSMOUTH 505 INC
2300 CROWN COLONY DR STE 203
QUINCY, MA 02169
R.C.R.D. BOOK 6015, PAGE 2242

3191/5/NETT/271/5/BT
W/CABLE BOX & COND

BEGIN VGC (3' TIP)
END VGC (6' TIP)
END VGC (MATCH)
BEGIN VGC (MATCH)
END VGC
END VGC (MATCH)
BEGIN VGC (MATCH)

5/8" REBAR FND. DOWN 7" W/ID CAP TRITECH ENGINEERING
5/8" REBAR FND. DOWN 3" NO CAP
5/8" REBAR FND. UP 2" NO CAP
5/8" REBAR FND. FLUSH W/ID CAP ILLEGIBLE

N62°30'47"E 212.00'
N62°30'47"E 273.87'
S69°31'16"W 212.23'
S69°31'16"W 226.12'
S24°11'14"E 260.91'
N24°09'47"W 234.98'
S47°52'14"E 242.26'

28.1'
20'R
30'R
260'

8' WOODEN STOCKADE FENCE
8' CHAIN LINK FENCE
100' WETLANDS SETBACK
100' WETLANDS BUFFER
SLIDING GATE
DUMPSTERS
CENTERLINE OF SEWER MAIN. EASEMENT DOES NOT SPECIFY WIDTH
CONC. RET. WALL
DUMPSTER ENCLOSURE 8' CHAIN LINK FENCE
PROPOSED LANDSCAPING
PROPOSED 5.0' WIDE SIDEWALK (PRIVATE)
PROPOSED 5.5' WIDE SIDEWALK
PROPOSED DUMPSTER PAD w/ FENCE AND GATE
VINYL STOCKADE FENCE
METAL PICKET FENCE
POOL ENCLOSURE
CONC. BLOCK RET. WALL
ENTRANCE SIGN
CONC. WALK
~PAVED DRIVE~
~PAVED PARKING~
~PAVED WALK~
~GRASS~
~CONC. RAMP~
~EMPTY PALLETS~
COAST BUS STOP
ES3101X1/7Y W/COAST BUS STOP SIGN
~NETT/

GRAPHIC SCALE
20 10 0 20 40 60 80 FEET
5 0 5 10 15 20 25 METERS

NO.	REVISIONS	APP'D	DATE
A	30% CONCEPT PLAN	MRB	02/05/25
B	60% DRAWING REVIEW	MRB	02/21/25

DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: JANUARY 2025
SCALE: AS SHOWN
PROJ. NO.: 7251
APVD BY: MRB

PROJECT: BORTHWICK – COAKLEY CONNECTOR ROAD

TITLE: SITE PLAN

SHEET: C-201

COAKLEY ROAD

BORTHWICK AVENUE

NH STATE PLANE COORDINATE SYSTEM
NAD 1983

EXISTING COAKLEY ROAD R.O.W.

PROPOSED NEW R.O.W.

EXISTING PROPERTY LINE

EXISTING DRAINAGE EASEMENT

EXISTING BORTHWICK AVENUE R.O.W.

TAX MAP 234, LOT 7-6
125,801 Sq. Ft.
2.89 Acres

TAX MAP 234, LOT 6
52,494 Sq. Ft.
1.21 Acres

TAX MAP 234, LOT 7-6
NAVEESHA HOSPITALITY LLC
110 HARTWELL AVE SUITE 300
LEXINGTON, MA 02421
R.C.R.D. BOOK 6434, PAGE 696

TAX MAP 234, LOT 6
GPP PROPERTIES 1995 1 LLC
PO BOX 2004
CONCORD, NH 03302
R.C.R.D. BOOK 3102, PAGE 284

TAX MAP 234, LOT 5
GIRI PORTSMOUTH 505 INC
2300 CROWN COLONY DR STE 203
QUINCY, MA 02169
R.C.R.D. BOOK 6015, PAGE 2242

N62°30'47"E 212.00'
N62°30'47"E 273.87'
S27°52'54"E 242.26'
S24°11'41"E 260.91'
N24°09'47"W 234.98'
S69°31'16"W 212.23'
S69°31'16"W 226.12'

28.2'
45'
22.5'
22.5'
36.1'
39.1'
8.6'
7.4'
8.8'

100' WETLANDS BUFFER

100' WETLANDS SETBACK

TBM 8824A
MAG NAIL SET UP 7"
IN POLE PSNH/3101X1/6/7/NETT
ELEV.=23.30'

TBM 8824B
MAG NAIL SET UP 6"
IN POLE ES3101X1/7
ELEV.=20.20'

TBM 8824C
CHISELED BOX IN
CORNER OF CONC. PAD
ELEV.=22.22'

GRAPHIC SCALE
20 10 0 20 40 60 80 FEET
5 0 5 10 15 20 25 METERS

NO.	REVISIONS	APP'D	DATE
A	ISSUED FOR REVIEW	MRB	06/10/25

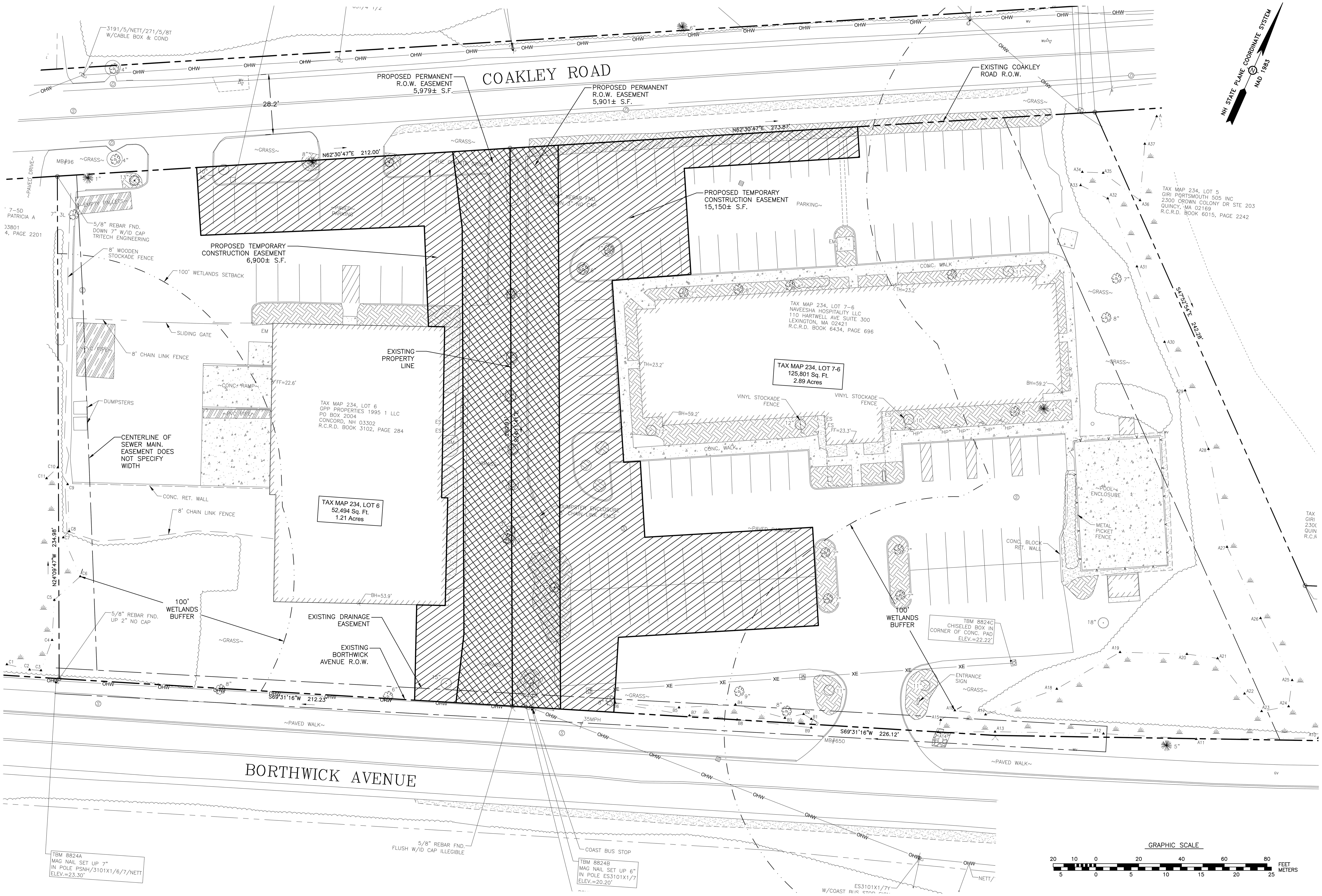
DEPARTMENT OF
PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: JANUARY 2025
SCALE: AS SHOWN
PROJ. NO.: 7251
APV'D BY: MRB

PROJECT: BORTHWICK – COAKLEY CONNECTOR ROAD

TITLE: PROPOSED RIGHT-OF-WAY PLAN

SHEET: E-001



COAKLEY ROAD
BORTHWICK AVENUE
PROPOSED PERMANENT R.O.W. EASEMENT 5,979± S.F.
PROPOSED PERMANENT R.O.W. EASEMENT 5,901± S.F.
EXISTING COAKLEY ROAD R.O.W.
PROPOSED TEMPORARY CONSTRUCTION EASEMENT 15,150± S.F.
PROPOSED TEMPORARY CONSTRUCTION EASEMENT 6,900± S.F.
EXISTING PROPERTY LINE
TAX MAP 234, LOT 6 52,494 Sq. Ft. 1.21 Acres
TAX MAP 234, LOT 6 GPP PROPERTIES 1995 1 LLC PO BOX 2004 CONCORD, NH 03302 R.C.R.D. BOOK 3102, PAGE 284
TAX MAP 234, LOT 7-6 125,801 Sq. Ft. 2.89 Acres
TAX MAP 234, LOT 7-6 NAVEESHA HOSPITALITY LLC 110 HARTWELL AVE SUITE 300 LEXINGTON, MA 02421 R.C.R.D. BOOK 6434, PAGE 696
TAX MAP 234, LOT 5 GIRI PORTSMOUTH 505 INC 2300 CROWN COLONY DR STE 203 QUINCY, MA 02169 R.C.R.D. BOOK 6015, PAGE 2242
CENTERLINE OF SEWER MAIN. EASEMENT DOES NOT SPECIFY WIDTH
100' WETLANDS BUFFER
100' WETLANDS SETBACK
EXISTING DRAINAGE EASEMENT
EXISTING BORTHWICK AVENUE R.O.W.
N62°30'47"E 212.00'
N62°30'47"E 273.87'
S69°31'16"W 212.23'
S69°31'16"W 226.12'
N24°09'47"W 234.98'
S47°52'54"E 242.28'
28.2'
TBM 8824A MAG NAIL SET UP 7" IN POLE PSNH/3101X1/6/7/NETT ELEV.=23.30'
TBM 8824B MAG NAIL SET UP 6" IN POLE ES3101X1/7 ELEV.=20.20'
TBM 8824C CHISELED BOX IN CORNER OF CONC. PAD ELEV.=22.22'
5/8" REBAR FND. FLUSH W/ID CAP ILLEGIBLE
COAST BUS STOP
NH STATE PLANE COORDINATE SYSTEM NAD 1983
GRAPHIC SCALE
FEET
METERS

PROJECT: BORTHWICK – COAKLEY CONNECTOR ROAD

TITLE: PROPOSED EASEMENT PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: JANUARY 2025
SCALE: AS SHOWN
PROJ. NO.: 7251
APVD BY: MRB

NO.	REVISIONS	APP'D	DATE
A	ISSUED FOR REVIEW	MRB	06/10/25

SHEET: E-002

P-5118-001
May 9, 2025

Mr. Peter Britz
Director of Planning and Sustainability
City of Portsmouth Planning & Sustainability Department
1 Junkins Avenue
Portsmouth, New Hampshire 03801

Re: **Site Plan Review & Conditional Use Approval Extension Request (LU-24-92)**
Proposed Mixed-Use Development, 1035 Lafayette Road, Portsmouth, NH

Dear Peter,

On behalf of Christ Church Parish (Owner), and Portsmouth Housing Authority (Applicant), we respectfully request to extend the Site Plan Review, and Development Site, Density Bonus and Off-Street Parking Conditional Use approvals that were granted on August 15, 2024, for an additional one (1) year.

If you have any questions or need any additional information, please contact me by phone at (603) 294-9213 or by email at NAHansen@tighebond.com.

Sincerely,

TIGHE & BOND, INC.

Neil A. Hansen, PE
Project Manager

Copy: Portsmouth Housing Authority (via E-mail)
Christ Church Parish (via E-mail)

J:\P\P5118 Portsmouth Housing Authority\001_1035 Lafayette Road\Report_Evaluation\Applications\City of Portsmouth\20250509_PB Approval Extension\20250509 PB Approval Extension Request.docx

Ross Engineering, LLC
Civil / Structural Engineering

909 Islington Street
Portsmouth, NH 03801

603-433-7560
alexross@comcast.net

May 28, 2025

City of Portsmouth
Planning Department
1 Junkins Ave
Portsmouth, NH 03801

Site Plan Approval Extension Request
806 Route 1 Bypass
Tax Map 161, Lot 43
Land Use Application 22-81

The City of Portsmouth Site Plan Approval for this parcel will expire on June 23, 2025. The site plan approval was granted a second extension at a Planning Board meeting on June 20, 2024 as shown in a Planning Board Notice of Decision dated June 27, 2024. The Planning Board also granted Amended Site Plan Approval on this date for revisions as necessary to connect the drainage on 806 Route 1 Bypass to the drainage work on 822 US Route 1 Bypass (Tax Map 160, Lot 29).

Work has commenced on 806 US Route 1 Bypass to construct the drainage structures and connect to the work on 822 US Route 1 Bypass as approved by the Planning Board. In order to keep the business open and allow safe flow of traffic, the work on both sites has been done in stages. The drainage work must be completed prior to the construction of other site improvements as part of the staged work. Due to the on-going work and the planned site improvements after the completion of the on-going work, the owner would like to request an extension of the approvals. TAC recommended approval of an additional 1-year extension at its meeting on May, 6, 2025 as per a TAC Notice of Decision dated May 8, 2025.

The latest approved plan set dated 6-11-24 has been attached to this submittal. No changes to this plan set are proposed.

Sincerely

Alex Ross, P.E., L.L.S.

Site Plan

806 Route 1 Bypass

Portsmouth, New Hampshire

PREPARED FOR:

RIGZ ENTERPRISES LLC

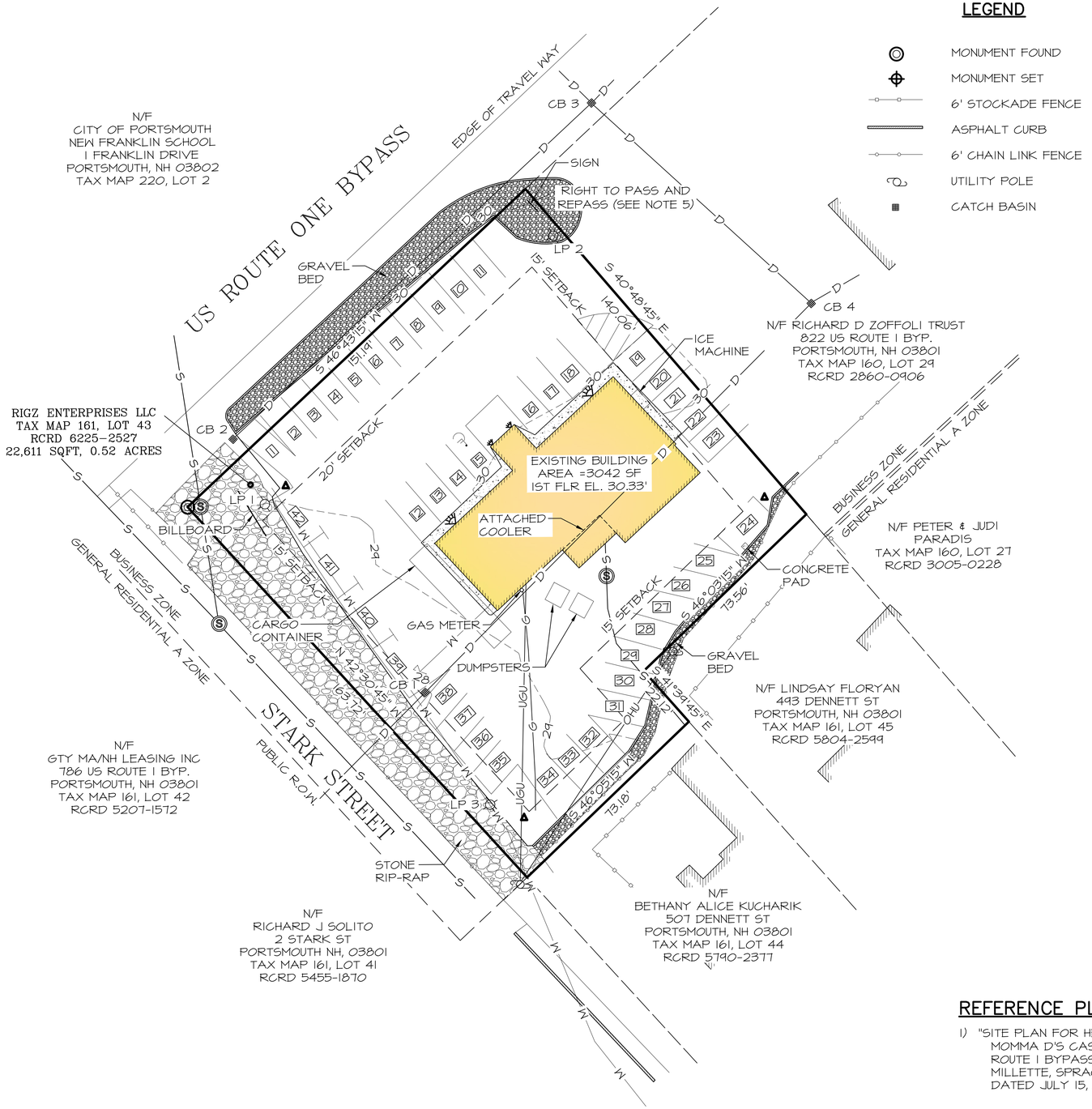
PREPARED BY:

ROSS ENGINEERING, LLC
Civil/Structural Engineering
& Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

LIST OF PROJECT PLANS:

SITE PLAN SET

June 11, 2024



LEGEND

- MONUMENT FOUND
- MONUMENT SET
- 6' STOCKADE FENCE
- ASPHALT CURB
- 6' CHAIN LINK FENCE
- UTILITY POLE
- CATCH BASIN

NOTES

1) OWNER OF RECORD:
RIGZ ENTERPRISES
18 DIXON LANE
DERRY, NH 03038

TAX MAP 161, LOT 43
806 US ROUTE 1 BYPASS
PORTSMOUTH, NH 03801
RCRD: 6225-2527
AREA: 22,611 SF, 0.52 ACRES

2) BASIS OF BEARING HELD FROM PLAN REFERENCE #1.

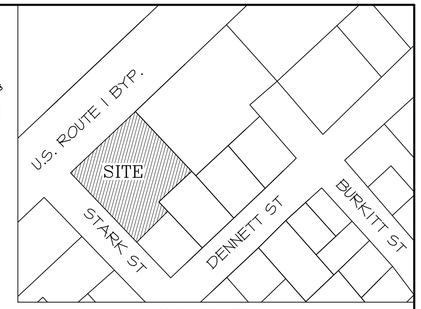
3) PARCEL IS IN BUSINESS ZONE (B):

MINIMUM LOT AREA	20,000 SF
MIN. LOT AREA PER DWELLING UNIT	2,500 SF
MINIMUM FRONTAGE	100 FT
MINIMUM DEPTH	80 FT
SETBACKS:	
FRONT	20 FT
SIDE	15 FT
REAR	15 FT
MAXIMUM BUILDING HEIGHT	50 FT
MAXIMUM BUILDING COVERAGE	35%
MINIMUM OPEN SPACE	15%

4) THE PARCEL IS NOT WITHIN A FEMA FLOOD ZONE, AS PER FLOOD INSURANCE RATE MAP #33015C0259F, PANEL 259 OF 681, DATED JANUARY 29, 2021. VERTICAL DATUM IS NAVD 1988.

5) A RIGHT TO PASS AND REPASS FROM THE INTERSTATE HIGHWAY USING THE EXITS IN COMMON WITH OTHERS LOCATED ON LAND FORMERLY OF D. RICHARD ZOFFOLI FOR PURPOSES OF PASSING AND REPASSING TO THE INTERSTATE HIGHWAY EXISTS TO THE BENEFIT OF LOT 43 OVER LAND OF LOT 29. SEE RCRD 2781-1490.

6) THE CITY PLANNING BOARD GRANTED SITE PLAN APPROVAL FOR THIS PROPERTY ON JUNE 23, 2022. A ONE YEAR EXTENSION WAS GRANTED AT THE JUNE 15, 2023 PLANNING BOARD MEETING. (LU-22-81)



LOCUS PLAN
N.T.S.

EXISTING STRUCTURES
CATCH BASIN

CB 1
RIM EL. 27.93
INV. IN 21.61 (±20" PIPE) SW
INV. OUT 20.58 (±20" PIPE) NE

CB 2
RIM EL. 29.46
INV. OUT 25.81 (12" CMP) SE

CB 3
RIM EL. 29.19
INV. IN 22.84 (12" CMP) SW
INV. IN 22.74 (12" CMP) NE
INV. IN 22.83 (24" RCP) NW
INV. OUT 22.66 (24" RCP) SE

CB 4
RIM EL. 30.48
INV. IN 18.20 (±20") SW
INV. IN 18.20 (24" RCP) NW
INV. OUT 18.15 (24") NE

AMENDMENTS

- REVISED CATCH BASIN ELEVATIONS
- ADDED NOTE 6 TO OUTLINE PB APPROVAL AND EXTENSION OF THIS PROJECT.

6 - ISSUE 6 AMENDMENTS

7 - ISSUE 7 AMENDMENTS

8 - ISSUE 8 AMENDMENTS

REFERENCE PLANS

1) "SITE PLAN FOR HENRY S. DUTKOWSKI MOMMA D'S CASA DI PASTA, 806 US ROUTE 1 BYPASS & STARK STREET" BY MILLETTE, SPRAGUE & COLWELL, INC. DATED JULY 15, 2004.

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
SCALE: 1" = 20'

ISS.	DATE	DESCRIPTION OF ISSUE	
8	6/11/2024	REVISIONS	
7	6/4/2024	REVISIONS	
6	5/17/2024	REVISIONS	
5	5/22/2023	REVISIONS	
4	5/25/2022	FOR PB	
3	4/26/2022	FOR TAC	

SCALE 1" = 20'
CHECKED A.ROSS
DRAWN I.C.A.
CHECKED

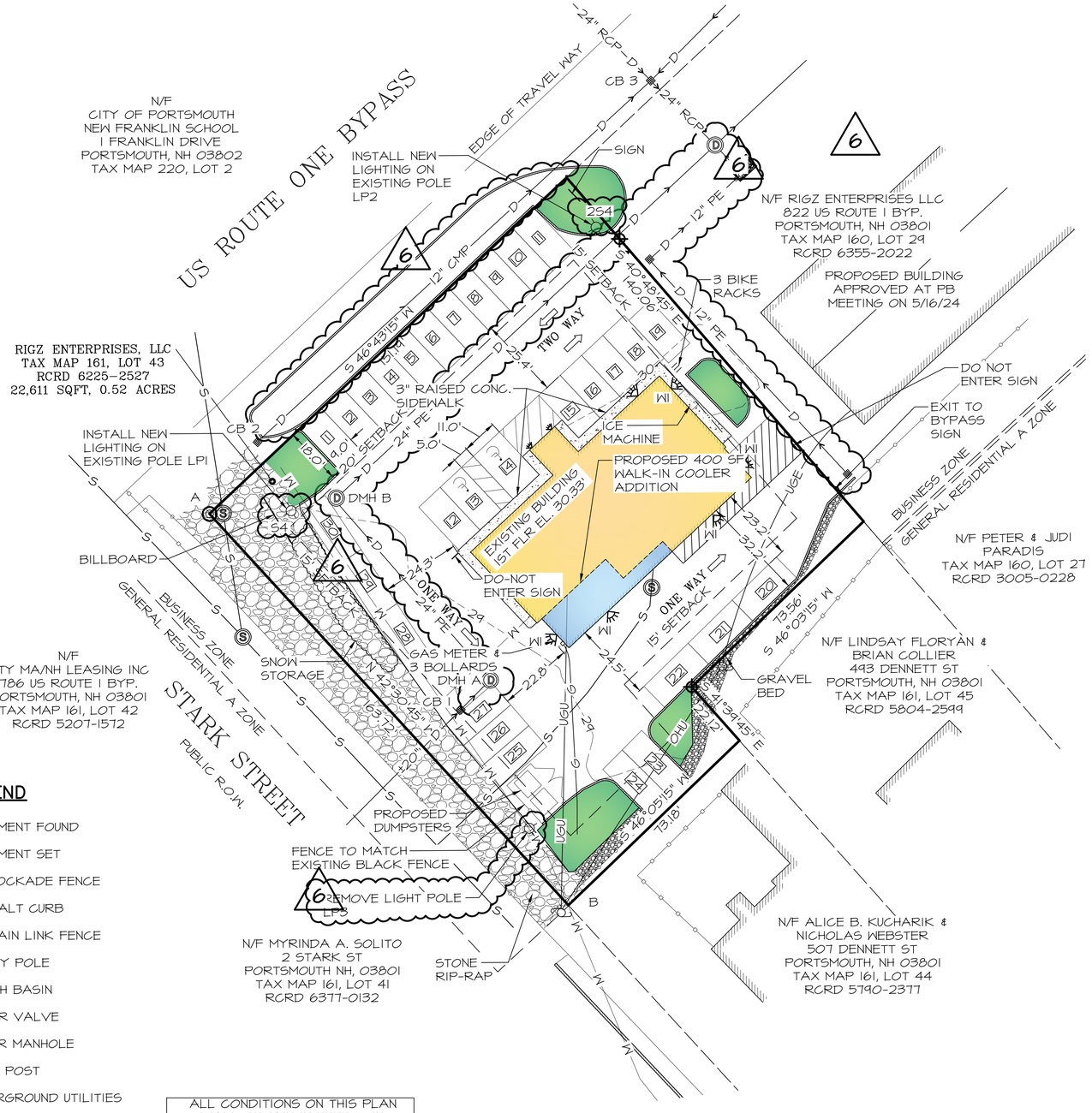
ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RIGZ ENTERPRISES LLC
18 DIXON LANE
DERRY, NH 03038

TITLE
EXISTING CONDITIONS PLAN
806 US-1 BYP.
PORTSMOUTH, NH 03801
TAX MAP 161, LOT 43

STATE OF NEW HAMPSHIRE - R. ALEX ROSS No. 9409 LICENSED PROFESSIONAL ENGINEER -

JOB NUMBER	DWG. NO.	ISSUE
21-072	1 OF 7	8



NOTES

1) OWNER OF RECORD:
RIGZ ENTERPRISES
18 DIXON LANE
DERRY, NH 03038

TAX MAP 161, LOT 43
806 US ROUTE 1 BYPASS
PORTSMOUTH, NH 03801
RCRD: 6225-2527
AREA: 22,611 SF, 0.52 ACRES

2) PARCEL IS IN BUSINESS ZONE (B):

MINIMUM LOT AREA	20,000 SF
MIN. LOT AREA PER DWELLING UNIT	2,500 SF
MINIMUM FRONTAGE	100 FT
MINIMUM DEPTH	80 FT
SETBACKS:	
FRONT	20 FT
SIDE	15 FT
REAR	15 FT
MAXIMUM BUILDING HEIGHT	50 FT
MAXIMUM BUILDING COVERAGE	35%
MINIMUM OPEN SPACE	15%

3) COVERAGES:

BUILDING COVERAGE

EXISTING BUILDING COVERAGE

BUILDING & COOLER	3,042 SF
EXISTING STRUCTURE	3,042 SF

BUILDING COVERAGE= 3,042 / 22,611 = 13.5%

PROPOSED BUILDING COVERAGE

BUILDING & COOLER	3,442 SF

BUILDING COVERAGE 3,442 / 22,611 = 15.2%

OPEN SPACE

EXISTING OPEN SPACE

BUILDING COVERAGE	3,042 SF
CONCRETE SIDEWALK	455 SF
ASPHALT PARKING	15,958 SF
ASPHALT CURB	83 SF
CONCRETE PAD	3 SF
TOTAL LOT COVERAGE	19,541 SF

EXISTING OPEN SPACE= 22,611-19,541 = 3,070 SF
EXISTING OPEN SPACE= 3,070 / 22,611 = 13.6%

PROPOSED OPEN SPACE

BUILDING COVERAGE	3,442 SF
CONCRETE SIDEWALK	457 SF
ASPHALT PARKING	14,500 SF
ASPHALT CURB	171 SF
TOTAL LOT COVERAGE	18,570 SF

PROPOSED OPEN SPACE=22,611-18,570= 4,041 SF
PROPOSED OPEN SPACE = 4,041 / 22,611 = 17.9%

4) PARKING SPACES:
AS PER PORTSMOUTH ZONING ORDINANCE 10.1112.321, PARKING SPACES FOR RETAIL USE SHALL BE 1 SPACE PER 300 SF GROSS FLOOR AREA.

3,442 SF / 300 SF/SPACE = 11.47 = 12 SPACES
12 SPACES REQUIRED
30 SPACES PROVIDED

5) THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.

6) 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.

7) ALL PROPOSED CURBING TO BE ASPHALT AND MATCH EXISTING. MINIMUM 5" REVEAL.

8) GIS COORDINATES OF TWO LOT CORNERS

	NORTHING	EASTING
A - NW CORNER	211322.113	1222327.652
B - SW CORNER	211202.419	1222434.356

9) PLANNING BOARD APPROVAL FOR 822 US ROUTE 1 BYPASS WAS GRANTED ON MAY 16, 2024 AND IS SHOWN IN A NOTICE OF DECISION LETTER DATED MAY 23, 2024. ACCESS WAY AND DRAINAGE EASEMENTS FOR THIS PROPERTY ARE SHOWN IN THE APPROVED PLAN SET. MEASURES SHALL BE TAKEN BY THE OWNER TO ENSURE THAT ALL DRAINAGE AND ACCESS EASEMENTS ON BOTH 806 AND 822 US ROUTE 1 BYPASS WORK IN CONJUNCTION WITH EACH OTHER AND ARE PROPERLY RECORDED.

WAIVERS

1) A WAIVER WAS GRANTED BY THE PORTSMOUTH PLANNING BOARD ON JUNE 23, 2022 FROM THE CITY OF PORTSMOUTH SITE PLAN REVIEW REGULATIONS SECTION 9.3.5, TO LOCATE A DUMPSTER 12.2' FROM THE WESTERN PROPERTY LINE WHERE 20' IS REQUIRED.

LEGEND

- MONUMENT FOUND
- MONUMENT SET
- 6' STOCKADE FENCE
- ASPHALT CURB
- 6' CHAIN LINK FENCE
- UTILITY POLE
- CATCH BASIN
- WATER VALVE
- SEWER MANHOLE
- LAMP POST
- UNDERGROUND UTILITIES
- GAS LINE
- DRAIN LINE
- WATER LINE
- SEWER LINE
- LIGHT
- CLEANOUT

ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
SCALE: 1" = 20'

AMENDED SITE PLAN

- LANDSCAPING REMOVED IN NHDOT RIGHT OF WAY AS PER NHDOT REQUEST.
- DRAINAGE HAS BEEN CHANGED TO DEPICT NEW PROPOSED DRAINAGE SYSTEM. NEW DRAINAGE SYSTEM IS DEPICTED TO MATCH PROPOSED DRAINAGE ON LOT 29, WHICH IS CONNECTED TO DRAINAGE SYSTEM ON LOT 43.
- REVISED LIGHTING CALLOUTS ON THE PLAN.

CITY OF PORTSMOUTH PLANNING BOARD

CHAIRPERSON DATE

STATE OF NEW HAMPSHIRE · R. ALEX ROSS No. 9409 LICENSED PROFESSIONAL ENGINEER

ISS.	DATE	DESCRIPTION OF ISSUE
8	6/11/2024	REVISIONS
7	6/4/2024	REVISIONS
6	5/17/2024	REVISIONS
5	5/22/2023	REVISIONS
4	5/25/2022	FOR PB
3	4/26/2022	FOR TAC

SCALE 1" = 20'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

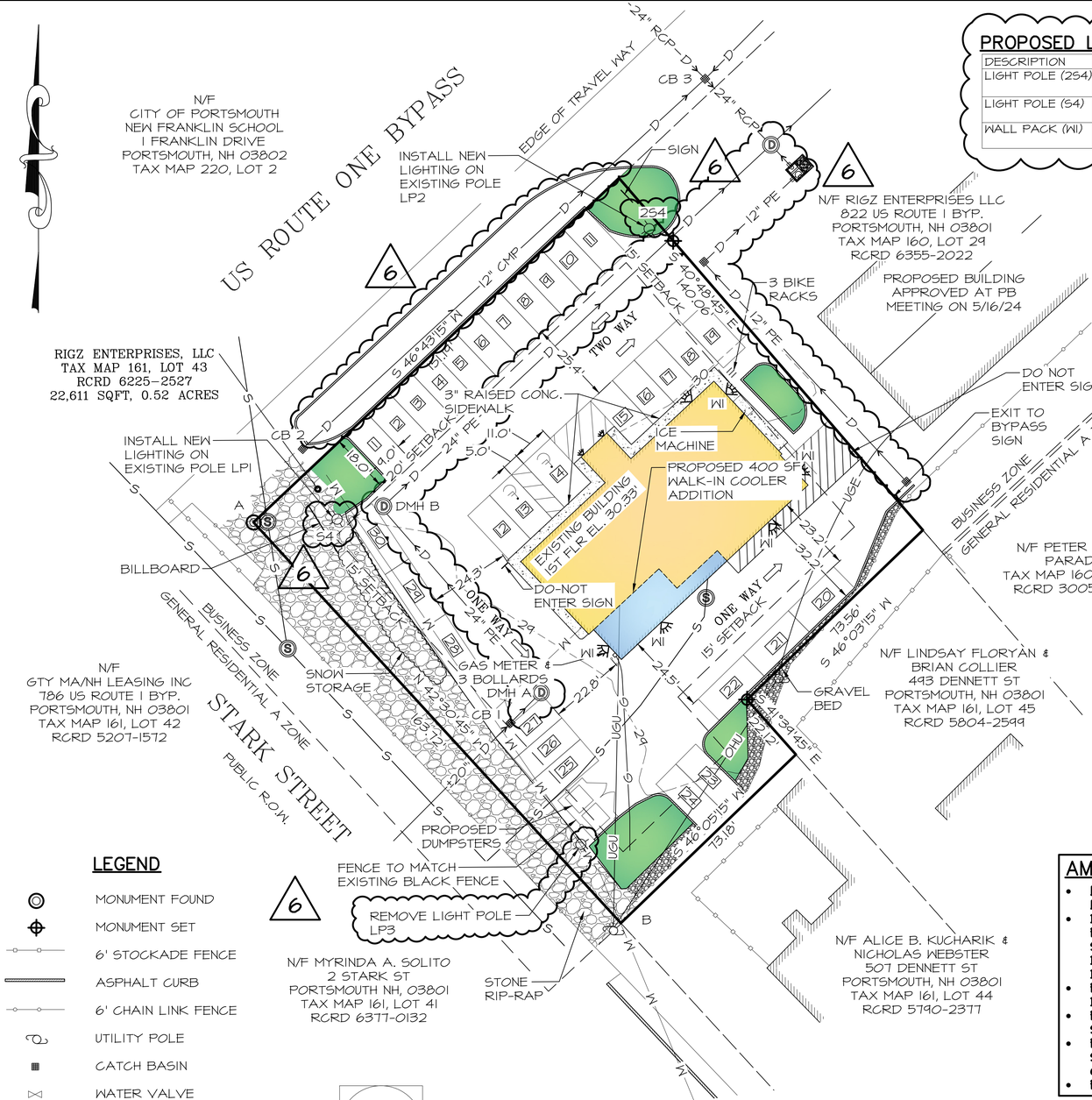
ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RIGZ ENTERPRISES LLC
18 DIXON LANE
DERRY, NH 03038

TITLE
SITE PLAN

806 US-1 BYP.
PORTSMOUTH, NH 03801
TAX MAP 161, LOT 43

JOB NUMBER	DWG. NO.	ISSUE
21-072	2 OF 7	8



PROPOSED LIGHTING

DESCRIPTION	CATALOG NUMBER	QTY
LIGHT POLE (254)	LITHONIA LIGHTING - DSXO LED P4 30K 80CRI TFTM MVOLT SPA DDBXC WITH SSS 18 4C DM29AS DDBXD	1
LIGHT POLE (54)	LITHONIA LIGHTING - DSXO LED P4 30K 80CRI TFTM MVOLT SPA DDBXD WITH SSS 18 4C DM19AS DDBXD	1
WALL PACK (W1)	LITHONIA LIGHTING - WDGE1 LED P1 30K 80CRI VM MVOLT SRM DDBXD	6

UTILITIES:

CONTACT LIST:

GAS: UNITIL: SUSAN L. DUPLISEA.....603-294-5147
WATER: PORTSMOUTH DPW: 603-427-1530
SEWER: PORTSMOUTH DPW: 603-427-1530
STORMWATER: PORTSMOUTH DPW: 603-427-1530
ELECTRIC: EVERSOURCE: CASEY MCDONALD.....603-436-7708 EXT 5641

PROPOSED UTILITIES:

1. STORMWATER:
   EXISTING DRAINAGE LINE UNDER THE BUILDING TO BE TAKEN OUT OF SERVICE AND FILLED WITH FLOWABLE FILL CONCRETE.

   INSTALL DMH A & DMH B WITH 24" PE PIPING CONNECTING CB 1 TO THE DRAINAGE IMPROVEMENTS ON LOT 29.

   SILTSACKS TO BE INSTALLED ON CATCH BASINS 1 & 4 PRIOR TO CONSTRUCTION. SILTSACKS TO REMAIN IN PLACE UNTIL DRAINAGE SYSTEM IS FULLY OPERATIONAL.

   3 NEW CATCH BASINS TO BE INSTALLED ON 822 US ROUTE 1 BYPASS AS PART OF DRAINAGE IMPROVEMENTS. SILTSACKS TO BE INSTALLED ON THESE CATCH BASINS DURRING CONTRUCTION UNTILL DRAINAGE SYSTEM IS FULLY OPERATIONAL..
2. GAS:
   A NEW METER WILL BE INSTALLED ON THE SIDE OF THE WALK-IN COOLER. THE EXISTING GAS LINE WILL BE RE-ROUTED TO THE NEW METER.
3. LIGHTING:
   INSTALL THE LIGHTS SHOWN ON THE PROPOSED LIGHTING TABLE ONTO EXISTING POLES LP1 AND LP2.
   REMOVE EXISTING LIGHT POLE LP3.
4. SEWER:
   ACCORDING TO DPW, THE EXISTING SEWER LINE TRAVELS TOWARDS DENNETT STREET. A NEW SEWER LINE SHALL BE INSTALLED TO THE LATERAL BY PARKING SPACE 25. PROPER SIZE, TYPE, AND CONNECTION AS PER CITY DPW.

7 EXISTING SEWER SERVICE TO DENNETT STREET SHALL BE DISCONNECTED AND CAPPED. THIS SHALL BE DONE BEHIND THE CURB SO AS NOT TO DISTURB THE PAVEMENT ON DENNETT ST. CONTRACTOR TO COORDINATE WITH DPW ON DISCONNECTION.

EXISTING STRUCTURES

CATCH BASIN

CB 1
RIM EL. 27.93
INV. IN 21.61 (±20" PIPE) SW
INV. OUT 20.58 (±20" PIPE) NE

CB 2
RIM EL. 29.46
INV. OUT 25.81 (12" CMP) SE

CB 3
RIM EL. 29.19
INV. IN 23.84 (12" CMP) SW
INV. IN 22.74 (12" CMP) NE
INV. IN 22.83 (24" RCP) NW
INV. OUT 22.66 (24" RCP) SE

CB 4
RIM EL. 30.48
INV. IN 18.20 (±20") SW
INV. IN 18.20 (24" RCP) NW
INV. OUT 18.15 (24") NE

PROPOSED STRUCTURES

CATCH BASIN

CB 1
RIM EL. 27.93
INV. IN 21.61 (±20" PIPE) SW
INV. OUT 21.50 (24" PE) NE - PROPOSED LINE

DRAIN MANHOLE

DMH A
RIM EL. 28.50
INV. IN 21.44 (24" PE) SW
INV. OUT 21.40 (24" PE) NW
STRUCTURE: 5' Ø CONCRETE BASIN

DMH B
RIM EL. 29.17
INV. IN 21.00 (24" PE) SE
INV. OUT 20.96 (24" PE) NE
STRUCTURE: 5' Ø CONCRETE BASIN

AMENDED UTILITY PLAN

- LANDSCAPING REMOVED IN NHDOT RIGHT OF WAY AS PER NHDOT REQUEST
- DRAINAGE HAS BEEN CHANGED TO DEPICT NEW PROPOSED DRAINAGE SYSTEM. NEW DRAINAGE SYSTEM IS DEPICTED TO MATCH PROPOSED DRAINAGE ON LOT 29. WHICH IS CONNECTED TO DRAINAGE SYSTEM ON LOT 43.
- REVISED STORMWATER NOTES & FOR DRAINAGE SYSTEM.
- REVISED EXISTING AND PROPOSED DRAINAGE STRUCTURE ELEVATIONS.
- REVISED LIGHTING NOTE 3, LIGHTING SPECIFICATION TABLE AND LIGHTING CALL OUTS ON THE PLAN.
- REVISED PROPOSED UTILITIES SEWER NOTE 4.

EXISTING LIGHT POLE HEIGHTS

LP 1 - 19.6'
LP 2 - 28.41'
LP 3 - 27.9'

PROPOSED LIGHTING

DESCRIPTION	CATALOG NUMBER	QUANTITY
WALL LIGHT (LP4)	KT-WPLED60-M2-8XX-VDIM	3
LIGHT POLE (LP1-LP3)	KT-ALED140-MI-X-NM-8XX-VDIM	3

LEGEND

- MONUMENT FOUND
- MONUMENT SET
- 6' STOCKADE FENCE
- ASPHALT CURB
- 6' CHAIN LINK FENCE
- UTILITY POLE
- CATCH BASIN
- WATER VALVE
- SEWER MANHOLE
- LAMP POST
- UNDERGROUND UTILITIES
- GAS LINE
- DRAIN LINE
- WATER LINE
- SEWER LINE
- LIGHT

DO NOT ENTER — R5-1, 30"x30", RED & WHITE

EXIT TO BYPASS — CUSTOM, 20"x20", BLACK & WHITE

SIGN DETAILS

SCALE: NTS

GENERAL NOTES

1) CONTRACTOR TO REVIEW ALL SURFACING TYPES, AND MATERIAL SPECIFICATIONS WITH COMMISSIONER OF PUBLIC WORKS.
2) ALL NECESSARY NHDOT, NHDES & TOWN PERMITS MUST BE OBTAINED.
3) ALL CONSTRUCTION SHALL BE PER NH-DOT, STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION. LATEST REVISION.
4) CONTRACTOR SHALL MEET STATE AND TOWN REQUIREMENTS. TO ASSURE TYPE, SEPARATION, COVER, ETC. ALWAYS CALL DIGSAFE PRIOR TO DIGGING. UTILITIES SHOWN ARE APPROXIMATE AND MUST BE VERIFIED.
5) SIZE ALL LINES AS PER REQUIREMENTS AND ASSURE THAT PROPOSED LOADING AND PRESSURE DEMANDS WILL BE MET.

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
SCALE: 1" = 20'

STATE OF NEW HAMPSHIRE — R. ALEX ROSS No. 9409 LICENSED PROFESSIONAL ENGINEER

ISS.	DATE	DESCRIPTION OF ISSUE
8	6/11/2024	REVISIONS
7	6/4/2024	REVISIONS
6	5/17/2024	REVISIONS
5	5/22/2023	REVISIONS
4	5/25/2022	FOR PB
3	4/26/2022	FOR TAC

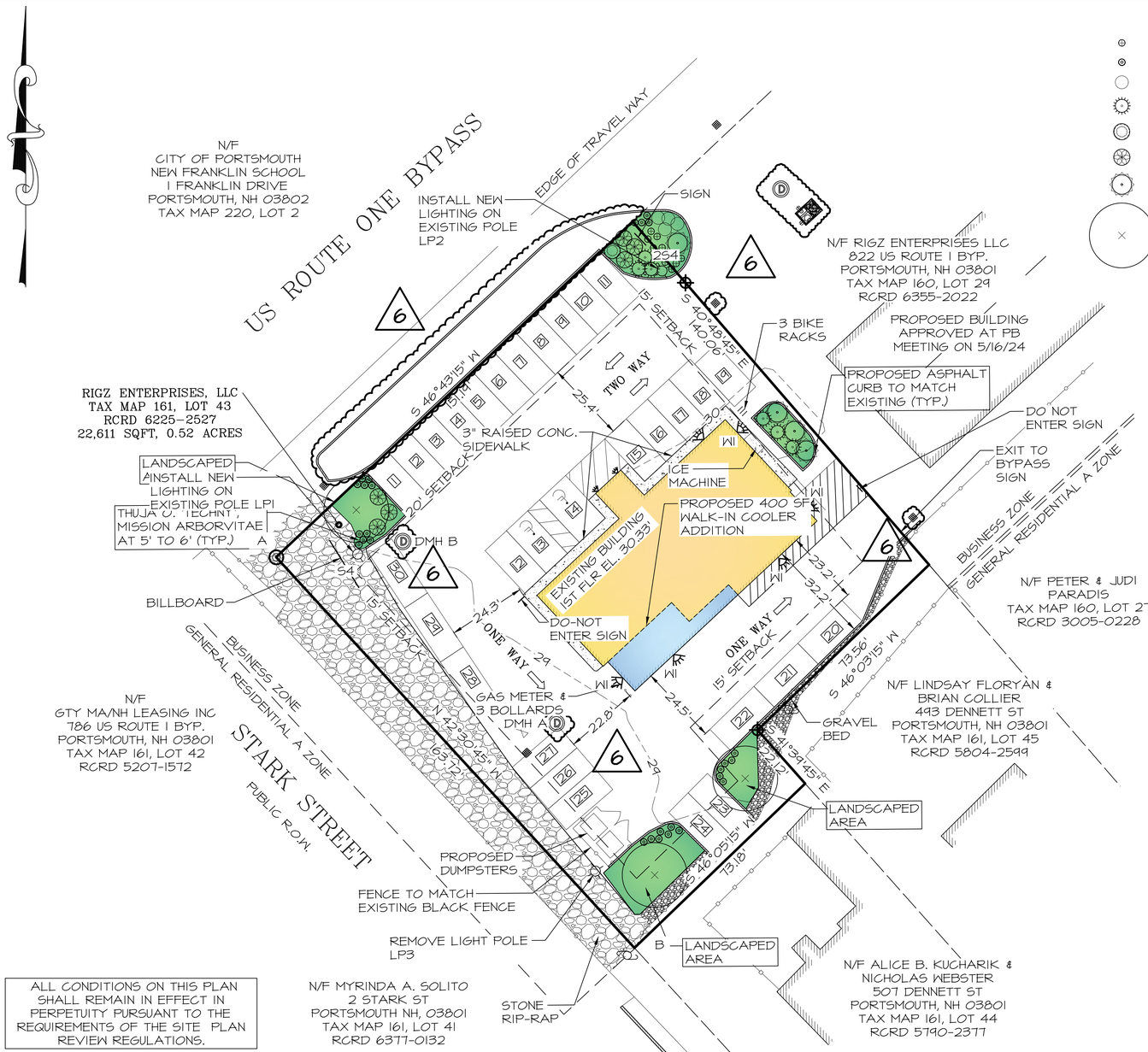
SCALE 1" = 20'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RIGZ ENTERPRISES LLC
18 DIXON LANE
DERRY, NH 03038

TITLE
UTILITY PLAN
806 US-1 BYP.
PORTSMOUTH, NH 03801
TAX MAP 161, LOT 43

JOB NUMBER 21-072 | DWG. NO. 3 OF 7 | ISSUE 8

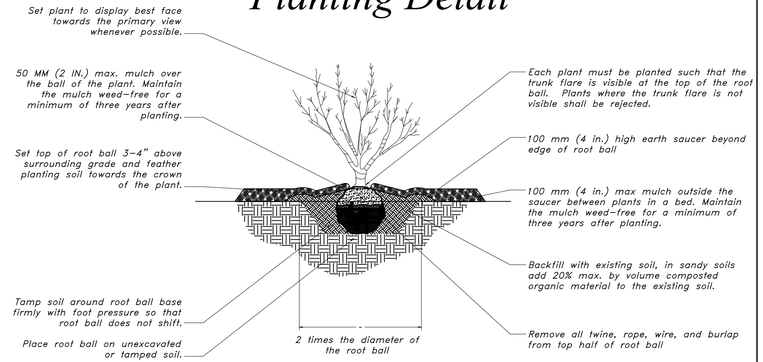


ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.

LEGEND

- SEDUM 'AUTUMN JOY'
- HEMEROCALLIS
- ARCTOSTAPHYLOS UVA-URSI
- CALAMAGROSTIS
- ROSA RUGOSA
- SYRINGA MEYERI 'PALIBIN'
- JUNIPERUS HORIZONTALIS
- GLEDITSIA

Planting Detail



AMENDED LANDSCAPE PLAN

- **LANDSCAPING REMOVED IN NHDOT RIGHT OF WAY AS PER NHDOT REQUEST.**
- **LANDSCAPE PLAN HAS HAS BEEN CHANGED TO DEPICT NEW PROPOSED MANHOLE AND CATCH BASINS LOCATIONS.**
- **PLANTING NOTES HAVE BEEN CHANGED TO REFLECT LANDSCAPING THAT HAS BEEN REMOVED IN THE NHDOT RIGHT OF WAY.**

NOTES

1) THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.

2) 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.

INSTALLATION REQUIREMENTS:

1. THE INSTALLATION OF A DRIP IRRIGATION SYSTEM IS RECOMMENDED TO ASSURE WELL GROWN PLANTS.
2. IN CASE OF DROUGHT (DEFINED AS TWO WEEK PERIOD WITHOUT RAIN) ALL NEW PLANTS SHALL BE WATERED THROUGH NOVEMBER 1ST DURING THE FIRST SEASON IN WHICH THE ARE INSTALLED. THEY SHALL BE WATERED ONE TIME PER DAY FOR THE FIRST WEEK AFTER INSTALLATION AND THREE TIMES PER WEEK FOR THE REMAINDER OF THE SEASON. AFTER THE FIRST SEASON WHEN THE ROOTS OF THE PLANTS ARE ESTABLISHED THEY WILL NOT REQUIRE WATERING.
3. SOAKER HOSES WOUND THROUGH THE BED NEAR THE BASE OF EACH PLANT ARE THE RECOMMENDED METHOD OF WATERING DURING THE FIRST SEASON. THESE CA BE REMOVED AFTER NOVEMBER 30TH WHEN THE PLANTS ARE ESTABLISHED.

PLANTING NOTES

1. ALL PLANT MATERIALS SHALL BE FIRST QUALITY NURSERY GROWN STOCK.
2. ALL PLANTS SHALL BE PLANTED IN ACCORDANCE WITH NEW HAMPSHIRE LANDSCAPE ASSOCIATION STANDARDS AND GUARANTEED FOR ONE YEAR BY THE LANDSCAPE CONTRACTOR.
3. AFTER PLANTING, ALL PLANTS SHALL BE FLOODED AT THE BASE WITH WATER FROM A SLOW-RUNNING HOSE FOR 5 MINUTES EACH.
4. ALL PLANTS SHALL BE INSTALLED BEFORE ANY GRASS IS SEEDED.
5. ALL SHRUBS AND PLANTING BEDS SHALL BE MULCHED WITH 3" OF DARK BROWN AGED BARK MULCH AS A FINAL STEP. MULCH MUST BE KEPT 2" AWAY FROM BASE OF EACH PLANT.
6. THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS SHALL BE RESPONSIBLE FOR THE MAINTENANCE, REPAIR, AND REPLACEMENT OF ALL REQUIRED SCREENING AND LANDSCAPE MATERIALS.
7. 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.
8. 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.
9. MULCH USED WILL BE NON-COMBUSTIBLE OR APPROVED BY THE PORTSMOUTH FIRE DEPARTMENT.

BOTANICAL NAME	COMMON NAME	SIZE	QTY:
SEDUM 'AUTUMN JOY'	STONECROP	1 QT	11
HEMEROCALLIS 'ROSY RETURNS'	REBLOOMING DAYLILY	1 QT	27
ARCTOSTAPHYLOS UVA-URSI 'BEARBERRY'	BEAR BERRY	1 GAL	4
CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	1 GAL	6
ROSA RUGOSA	SALT SPRAY ROSE	1 GAL	1
SYRINGA MEYERI 'PALIBIN'	DWARF KOREAN LILAC	2 GAL	6
JUNIPERUS HORIZONTALIS 'BAR HARBOR'	'BAR HARBOR' GROUND-COVER JUNIPER	1 GAL	4
GLEDITSIA T.I. 'STREET KEEPER'	'STREET KEEPER' HONEY LOCUST TREE	2-3" C	3

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
SCALE: 1" = 20'

LEGEND

- MONUMENT FOUND
- MONUMENT SET
- 6' STOCKADE FENCE
- ASPHALT CURB
- 6' CHAIN LINK FENCE
- UTILITY POLE
- CATCH BASIN
- WATER VALVE

CITY OF PORTSMOUTH PLANNING BOARD

CHAIRPERSON DATE

STATE OF NEW HAMPSHIRE R. ALEX ROSS No. 9409 LICENSED PROFESSIONAL ENGINEER

ISS.	DATE	DESCRIPTION OF ISSUE
8	6/11/2024	REVISIONS
7	6/4/2024	REVISIONS
6	5/17/2024	REVISIONS
5	5/22/2023	REVISIONS
4	5/25/2022	FOR PB
3	4/26/2022	FOR TAC

SCALE 1" = 20'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RIGZ ENTERPRISES LLC
18 DIXON LANE
DERRY, NH 03038

TITLE
LANDSCAPE PLAN
806 US-1 BYP.
PORTSMOUTH, NH 03801
TAX MAP 161, LOT 43

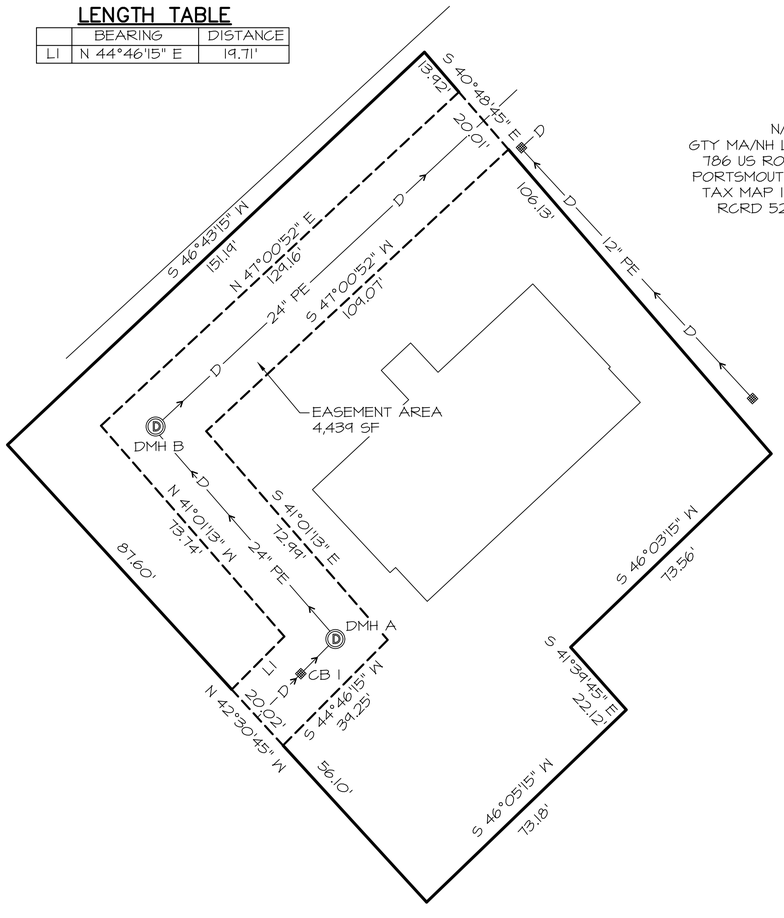
JOB NUMBER	DWG. NO.	ISSUE
21-072	4 OF 7	8

AMENDED EASEMENT PLAN

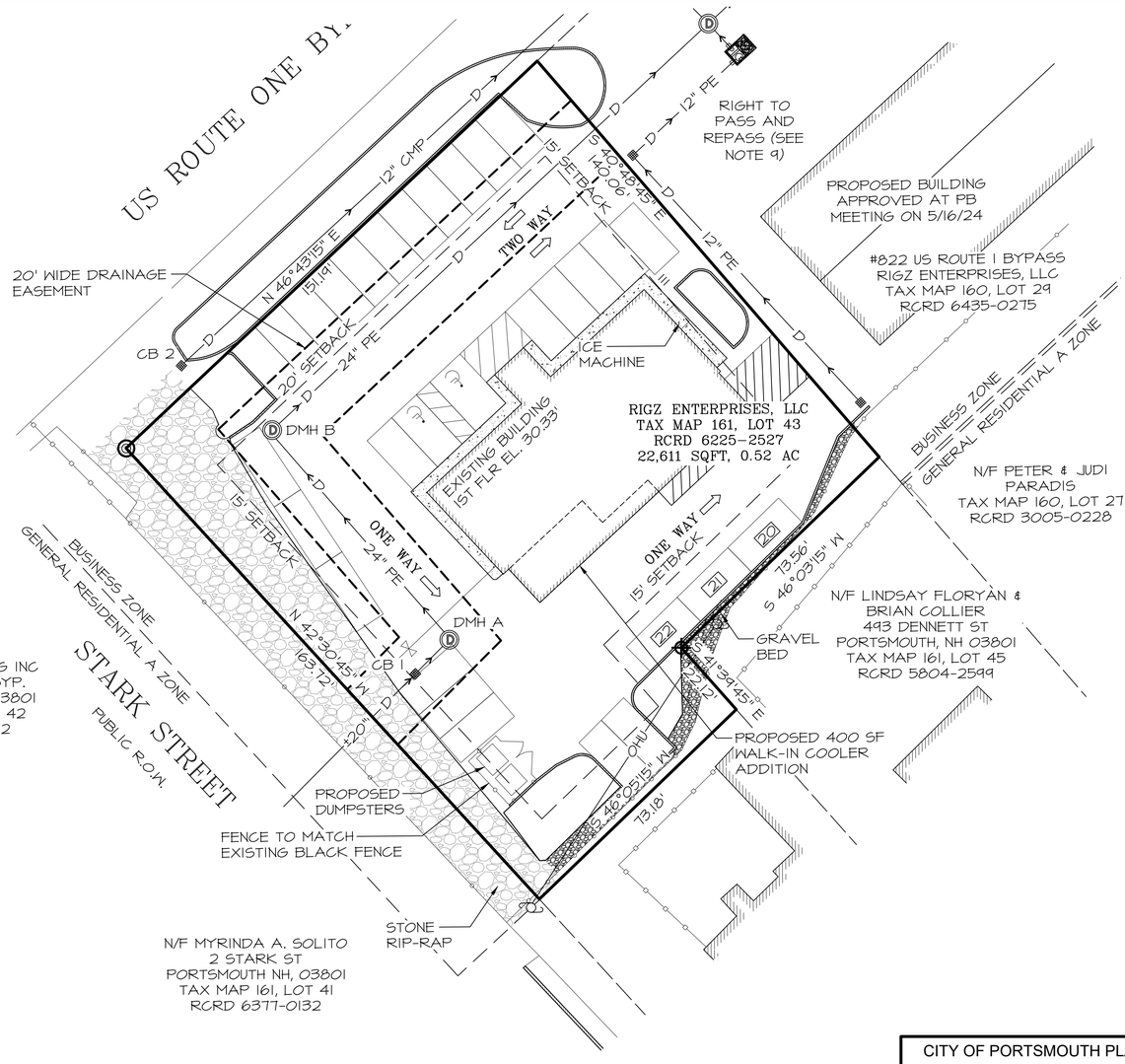
- EASEMENT PLAN ADDED SHOWING DRAINAGE EASEMENT ACROSS LOT 43.

LENGTH TABLE

	BEARING	DISTANCE
L1	N 44°46'15" E	19.71'



EASEMENT PLAN



LEGEND

- MONUMENT FOUND
- MONUMENT SET
- 6' STOCKADE FENCE
- VERTICAL GRANITE CURB
- 6' CHAIN LINK FENCE
- UTILITY POLE
- CATCH BASIN
- DRAIN MANHOLE
- —D— DRAIN LINE

NOTES

1) OWNER OF RECORD:
   RIGZ ENTERPRISES, LLC
   18 DIXON LANE
   DERRY, NH 03038

   SITE INFORMATION:
   TAX MAP 161, LOT 43
   806 US ROUTE 1 BYPASS
   PORTSMOUTH, NH 03801
   RCRD: 6225-2527
   AREA: 22,611 SF, 0.52 ACRES

2) THE PURPOSE OF THIS PLAN IS TO DEPICT A 4,439 SF DRAINAGE EASEMENT ACROSS LOT 43 TO THE BENEFIT OF THE CITY OF PORTSMOUTH FOR PURPOSES OF INSTALLING, MAINTAINING, INSPECTING, REMOVING, REPAIRING THE DRAINAGE PIPE & DRAINAGE STRUCTURES THAT DRAIN FROM OFF-SITE THROUGH LOT 43 TO LOT 29 TO BURKITT ST. EASEMENT TO BE 20' WIDE, CENTERED ON THE CENTERLINE OF THE PROPOSED DRAINAGE PIPE.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
SCALE: 1" = 20'

CITY OF PORTSMOUTH PLANNING BOARD

CHAIRPERSON DATE

I ALEX ROSS, HEREBY CERTIFY:

A) THAT THIS SURVEY PLAT WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION.

B) THIS PLAN IS A RESULT OF FIELD SURVEY PERFORMED BY DDD, & ICA DURING JULY OF 2022. THE ERROR OF CLOSURE IS BETTER THAN 1/15,000. SURVEY PER NHLSA STANDARDS; CATEGORY 1, CONDITION 1.

R. ALEX ROSS DATE

R. ALEX ROSS No. 9409 LICENSED PROFESSIONAL ENGINEER - STATE OF NEW HAMPSHIRE

ISS.	DATE	DESCRIPTION OF ISSUE
8	6/11/2024	REVISIONS
7	6/4/2024	REVISIONS
6	5/17/2024	REVISIONS
5	5/22/2023	REVISIONS
4	5/25/2022	FOR PB
3	4/26/2022	FOR TAC

SCALE 1" = 20'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RIGZ ENTERPRISES LLC
18 DIXON LANE
DERRY, NH 03038

TITLE
EASEMENT PLAN
806 US-1 BYP.
PORTSMOUTH, NH 03801
TAX MAP 161, LOT 43

JOB NUMBER	DWG. NO.	ISSUE
21-072	5 OF 7	8

TRENCH NOTES - STORM DRAIN:

1) BEDDING: BEDDING FOR PIPES SHALL CONSIST OF PREPARING THE BOTTOM OF THE TRENCH TO SUPPORT THE ENTIRE LENGTH OF THE PIPE AT A UNIFORM SLOPE AND ALIGNMENT. CRUSHED STONE SHALL BE USED TO BED THE PIPE TO THE ELEVATION SHOWN ON THE DRAWINGS. NORMAL PIPE BEDDING IS CRUSHED STONE TO THE HAUNCH OF THE PIPE AND SAND BEDDING 6" ABOVE THE CROWN. IF THE TOP OF THE PIPE IS LESS THAN 30" FROM FINISH GRADE, BED PIPE COMPLETELY IN STONE UP TO 6" ABOVE PIPE CROWN. UNDERDRAIN TO HAVE 4" MIN' OF STONE OVER PIPE OR AS NECESSARY TO BE IN CONTACT WITH GRAVEL LAYER OF SELECTS ABOVE. FILTER FABRIC TO BE PLACED IN BETWEEN ALL STONE BEDDING MATERIAL AND SUBSEQUENT LAYERS OF FILL MATERIAL.

2) COMPACTION: ALL BACKFILL SHALL BE COMPACTED AT OR NEAR OPTIMUM MOISTURE CONTENT BY PNEUMATIC TAMPERS, VIBRATORY COMPACTORS OR OTHER APPROVED MEANS. BACKFILL BENEATH PAVED SURFACES SHALL BE COZMPACTED TO NOT LESS THAN 95 PERCENT OF AASHTO T99, METHOD C.

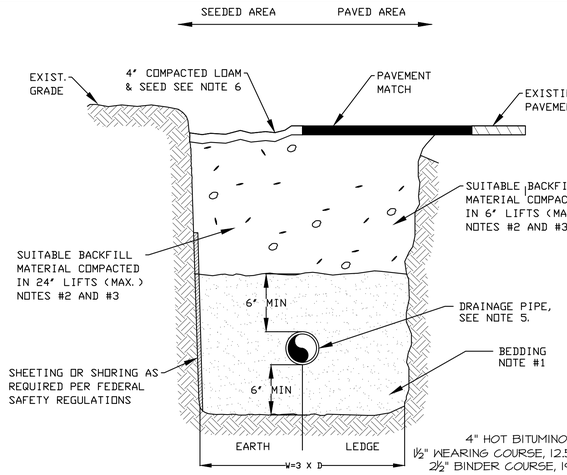
3) SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS; PIECES OF PAVEMENT; ORGANIC MATTER; TOP SOIL; ALL WET OR SOFT MUCK, PEAT, OR CLAY; ALL EXCAVATED LEDGE MATERIAL; ROCKS OVER 6 INCHES IN LARGEST DIMENSION; FROZEN EARTH AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.

   IN SEEDED AREAS, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAD, ROCKS UNDER 12", FROZEN EARTH OR CLAY, IF HE/SHE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EAST ACCESS TO THE PIPE WILL BE PRESERVED.

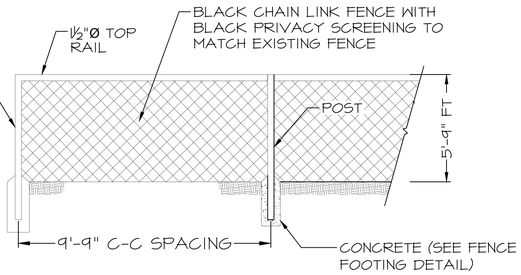
4) BASE COURSE AND PAVEMENT: SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES - DIVISIONS 300 AND 400 RESPECTIVELY.

5) DRAINAGE PIPE: PIPE MATERIALS SHALL BE POLYETHYLENE (SEE SPECIFICATIONS).

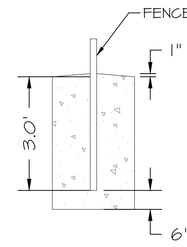
6) W=MAXIMUM ALLOWABLE TRENCH WIDTH: W SHALL BE THE MAXIMUM PAYMENT WIDTH FOR ROCK EXCAVATION (TRENCH) AND FOR ORDERED EXCAVATION BELOW GRADE.



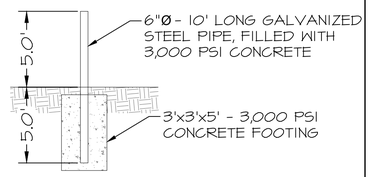
TRENCH DETAIL-STORM DRAIN
Scale : N.T.S.



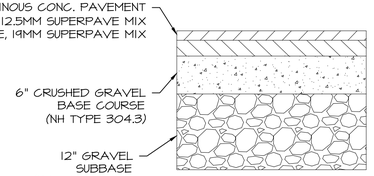
CHAIN LINK FENCE DETAIL
SCALE: NTS



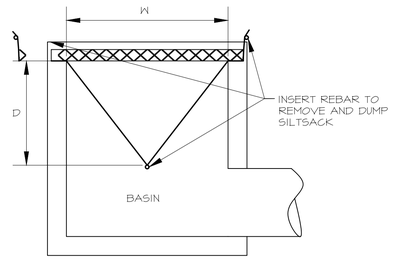
FENCE FOOTING DETAIL
SCALE: NTS



BOLLARD DETAIL
SCALE: NTS



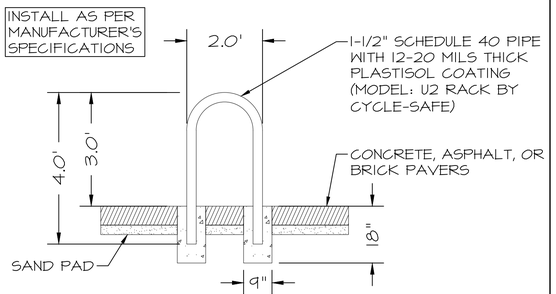
ASPHALT PAVEMENT DETAIL
Scale : N.T.S.



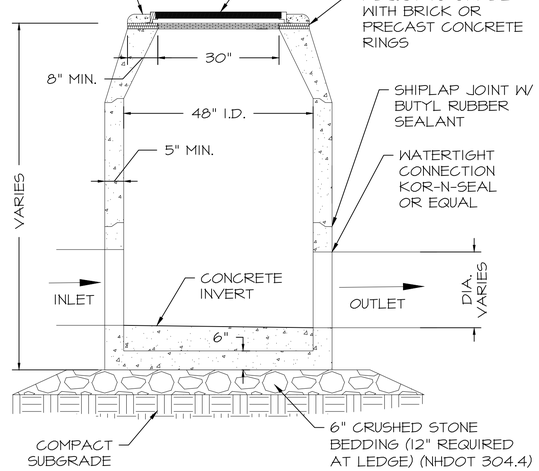
SILTSACK IS TO BE SECURED BY WEIGHT OF BASIN GRATE TO PREVENT SEDIMENT FROM ENTERING THE DRAIN LINE

INSTALL SILTSACK TO CATCH BASINS 1 & 4 PRIOR TO CONSTRUCTION & TO CATCH BASINS A, B, & C DURING CONSTRUCTION. DO NOT REMOVE SILTSACK UNTIL CONSTRUCTION IS COMPLETE AND DRAINAGE LINE IS FULLY OPERATIONAL (SEE SHEET 3)

Siltsack
N.T.S.



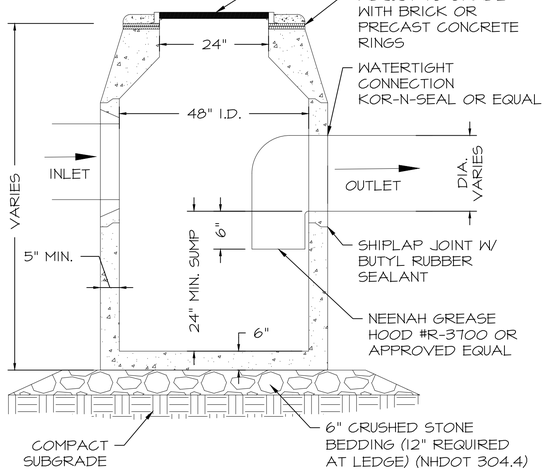
UPTURNED "U" BICYCLE RACK
SCALE: NTS



PROPOSED DRAIN MANHOLE (TYP)
N.T.S.

NOTES

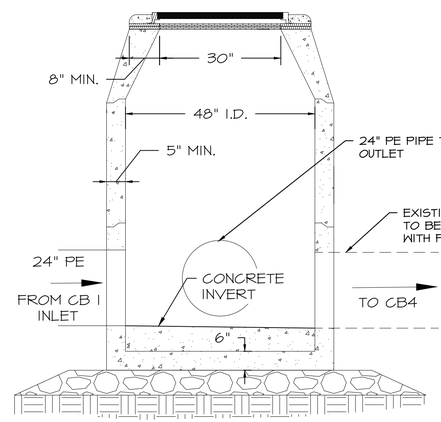
1) ALL SECTIONS SHALL BE DESIGNED FOR H20 LOADING.
2) CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
3) JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
4) CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN PER LINEAR FT. IN ALL SECTIONS & SHALL BE PLACED IN THE CENTER THIRD OF WALL.
5) THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ IN PER LINEAR FT.
6) EACH CASTING TO HAVE LIFTING HOLES CAST IN.



PROPOSED CATCH BASIN (TYP)
N.T.S.

NOTES

1) ALL SECTIONS SHALL BE DESIGNED FOR H20 LOADING.
2) CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
3) JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
4) CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN PER LINEAR FT. IN ALL SECTIONS & SHALL BE PLACED IN THE CENTER THIRD OF WALL.
5) THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ IN PER LINEAR FT.
6) EACH CASTING TO HAVE LIFTING HOLES CAST IN.



DRAIN MANHOLE A DETAIL
N.T.S.

AMENDED DETAILS PLAN

- MANHOLE & CATCH BASIN DETAILS REVISED

STATE OF NEW HAMPSHIRE — R. ALEX ROSS No. 9409 LICENSED PROFESSIONAL ENGINEER

ISS.	DATE	DESCRIPTION OF ISSUE
8	6/11/2024	REVISIONS
7	6/4/2024	REVISIONS
6	5/17/2024	REVISIONS
5	5/22/2023	REVISIONS
4	5/25/2022	FOR PB
3	4/26/2022	FOR TAC

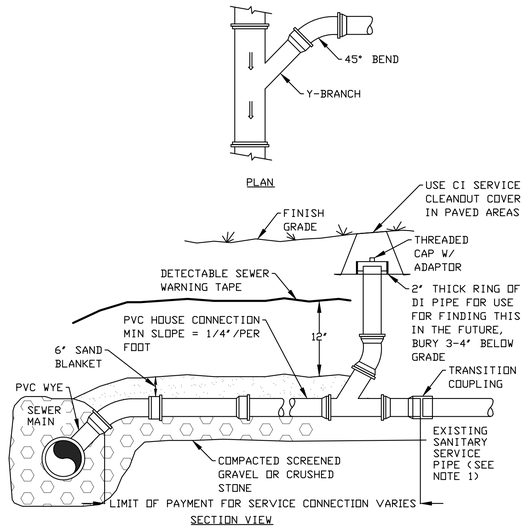
SCALE 1" = 20'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RIGZ ENTERPRISES LLC
18 DIXON LANE
DERRY, NH 03038

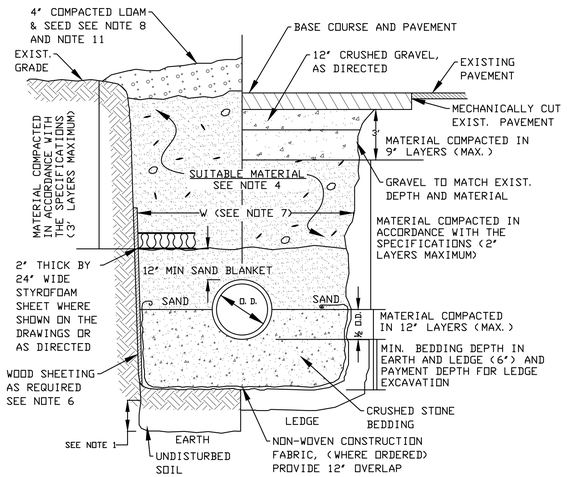
TITLE
NOTES & DETAILS
806 US-1 BYP.
PORTSMOUTH, NH 03801
TAX MAP 161, LOT 43

JOB NUMBER	DWG. NO.	ISSUE
21-072	6 OF 7	8



TYPICAL SERVICE CONNECTION

Scale : N.T.S.



TRENCH DETAIL- GRAVITY SEWER

Scale : N.T.S.

GRAVITY SEWER TRENCH NOTES:

1) ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE: BACKFILL AS STATED IN THE TECHNICAL SPECIFICATIONS OR AS SHOWN ON THE DRAWINGS.

2) BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33. STONE SIZE NO. 67.
   100% PASSING 1 INCH SCREEN
   0-10% PASSING #4 SIEVE
   90-100% PASSING 3/4 INCH SCREEN
   0-5% PASSING #8 SIEVE
   20-55% PASSING 3/8 INCH SCREEN
   WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1-1/2 INCH TO 1/2 INCH SHALL BE USED.

3) SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER, SO GRADED THAT 90-100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE. NO STONE LARGER THAN 2" SHOULD BE IN CONTACT WITH THE PIPE.

4) SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS; PIECES OF PAVEMENT; ORGANIC MATTER; TOP SOIL; ALL WET OR SOFT MUCK, PEAT, OR CLAY; ALL EXCAVATED LEDGE MATERIAL; ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION; AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. IN CROSS-COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK, OR PEAT, IF HE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER FOR MAINTENANCE AND POSSIBLY RECONSTRUCTION, WILL BE PRESERVED.

5) BASE COURSE AND PAVEMENT SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES - DIVISIONS 300 AND 400 RESPECTIVELY AND LOCAL REGULATION.

6) WOOD SHEATHING, IF REQUIRED: WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION 1 FOOT ABOVE THE TOP OF PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, NUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.

7) W = MAXIMUM ALLOWABLE TRENCH PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 12 INCHES IN NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE OUTSIDE DIAMETER (O.D.) ALSO, W SHALL BE THE PAYMENT WIDTH.

8) FOR CROSS COUNTRY CONSTRUCTION, BACKFILL OR FILL SHALL BE MOUNDED TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

9) CONCRETE FOR ENCASEMENT SHALL CONFORM TO THE REQUIREMENTS OF SECTION 520, (NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

10) CONCRETE FULL ENCASEMENT: IF FULL ENCASEMENT IS UTILIZED, DEPTH OF CONCRETE BELOW PIPE SHALL BE 1/4 I.D. (4" MINIMUM). BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS.

11) GRAVEL DRIVEWAY AND SHOULDER RESTORATION: CRUSHED GRAVEL IN DRIVEWAYS AND ROAD SHOULDERS SHALL MATCH EXISTING WITH A MINIMUM OF 12". GRAVEL REPLACEMENT SHALL BE SUBSIDIARY TO SEWER CONSTRUCTION AND WILL NOT BE MEASURED FOR PAYMENT.

ISS.	DATE	DESCRIPTION OF ISSUE
8	6/11/2024	REVISIONS
7	6/4/2024	REVISIONS
6	5/17/2024	REVISIONS
5	5/22/2023	REVISIONS
4	5/25/2022	FOR PB
3	4/26/2022	FOR TAC

SCALE 1" = 20'
CHECKED A.ROSS
DRAWN D.D.D.
CHECKED

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
RIGZ ENTERPRISES LLC
18 DIXON LANE
DERRY, NH 03038

TITLE
SEWER NOTES
806 US-1 BYP.
PORTSMOUTH, NH 03801
TAX MAP 161, LOT 43

STATE OF NEW HAMPSHIRE - R. ALEX ROSS No. 9409 LICENSED PROFESSIONAL ENGINEER

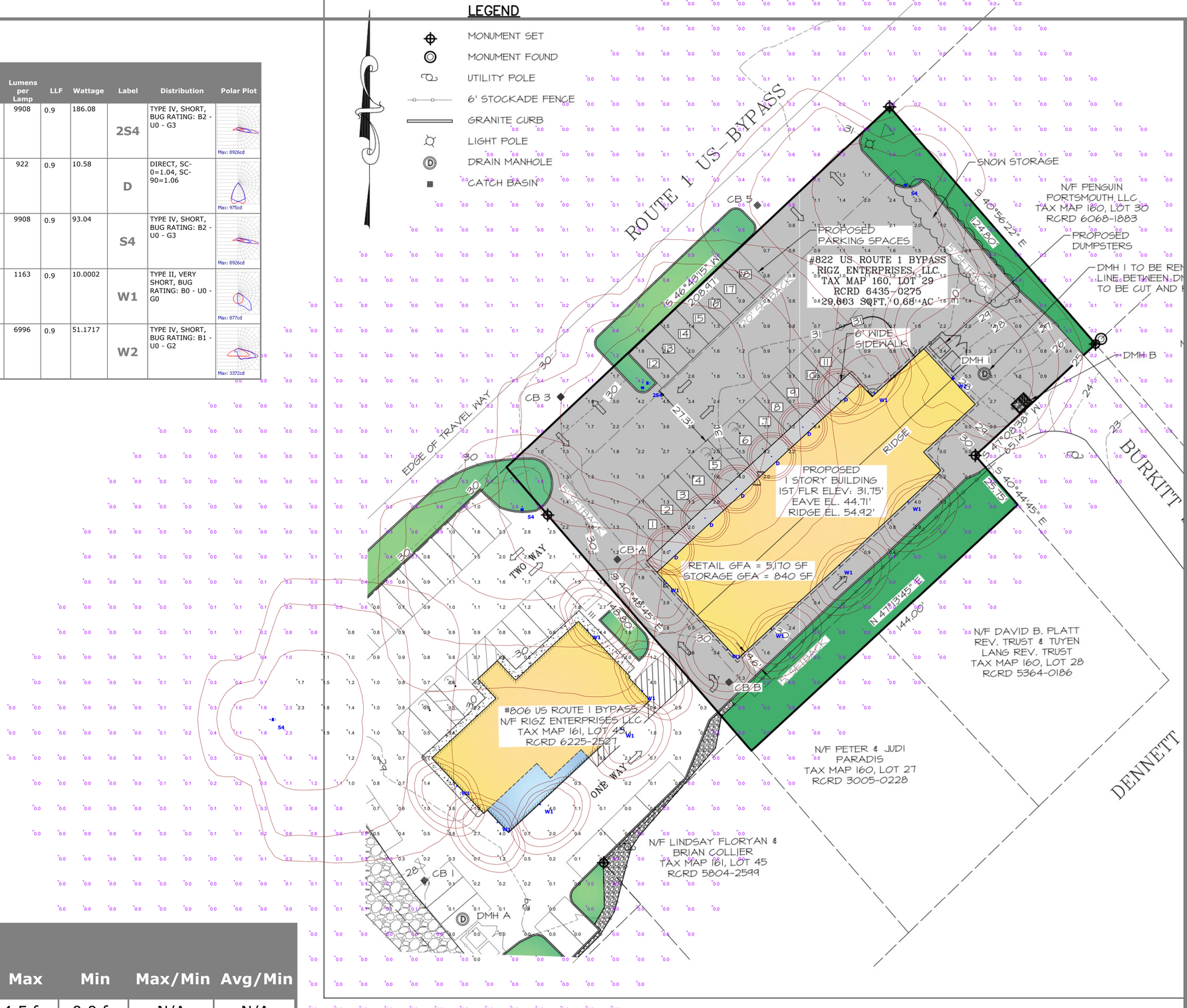
JOB NUMBER	DWG. NO.	ISSUE
21-072	7 OF 7	8

Schedule

Symbol	QTY	Manufacturer	Catalog Number	Description	Lamp	Filename	Lumens per Lamp	LLF	Wattage	Label	Distribution	Polar Plot
	1	Lithonia Lighting	DSX0 LED P4 30K 80CRI TFTM MVOLT SPA DDBXD with SSS 18 4C DM29AS DDBXD	2 D-Series Size 0 Area Fixture; mounted at 20ft (18ft pole on 2ft base)	LED	DSX0_LED_P4_30K_80CRI_TFTM.ies	9908	0.9	186.08	2S4	TYPE IV, SHORT, BUG RATING: B2 - U0 - G3	Max: 8926cd
	6	Lithonia Lighting	LDN4 30/10 LO4AR LD	4in LDN Round Downlight; mounted at 10ft	LED	LDN4_30_10_LO4AR_LD.ies	922	0.9	10.58	D	DIRECT, SC-0=1.04, SC-90=1.06	Max: 975cd
	3	Lithonia Lighting	DSX0 LED P4 30K 80CRI TFTM MVOLT SPA DDBXD with SSS 18 4C DM19AS DDBXD	D-Series Size 0 Area Fixture; mounted at 20ft (18ft pole on 2ft base)	LED	DSX0_LED_P4_30K_80CRI_TFTM.ies	9908	0.9	93.04	S4	TYPE IV, SHORT, BUG RATING: B2 - U0 - G3	Max: 8926cd
	12	Lithonia Lighting	WDGE1 LED P1 30K 80CRI VW MVOLT SRM DDBXD	WDGE1 LED Wallpack; mounted at 10ft	LED	WDGE1_LED_P1_30K_80CRI_VW.ies	1163	0.9	10.0002	W1	TYPE II, VERY SHORT, BUG RATING: B0 - U0 - G0	Max: 877cd
	1	Lithonia Lighting	WDGE3 LED P1 70CRI RFT 30K MVOLT SRM DDBXD	WDGE3 LED Wallpack; mounted at 16ft	LED	WDGE3_LED_P1_70CRI_RFT_30K.ies	6996	0.9	51.1717	W2	TYPE IV, SHORT, BUG RATING: B1 - U0 - G2	Max: 3372cd

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Outside of Parking Lot	+	0.1 fc	4.5 fc	0.0 fc	N/A	N/A
Parking Lot (larger building)	+	1.7 fc	8.0 fc	0.0 fc	N/A	N/A
Parking Lot (smaller building)	+	1.0 fc	4.5 fc	0.0 fc	N/A	N/A



Plan View
Scale - 1" = 20ft

THE CITY
Portsmouth, NH
Site Lighting Layout

Designer
Heidi G. Connors
Visible Light, Inc.
24 Stickney Terrace
Suite 6
Hampton, NH 03842

Date
4/12/2024
Scale
1"=20'
Drawing No.

Summary