



P0766-0009

May 20, 2026

Mr. Rick Chellman, Planning Board Chair
City of Portsmouth Planning & Sustainability Department
1 Junkins Avenue
Portsmouth, New Hampshire 03801

**Re: Request for Wetlands Conditional Use Permit Review
1 Franklin Ave - New Franklin School Upgrades**

Dear Chair Chellman:

On behalf of The Portsmouth School Department/SAU 52, we are pleased to submit one (1) set of hard copies and one electronic file (.pdf) of the following information to support the request for a Wetland Conditional Use Permit for the above referenced project.

- One (1) 22x34 & one (1) 11x17 copy of the Site Plan Set, Last Revised May 20, 2026;
- Request for Information Memo, dated May 8, 2026;
- Wetland Buffer Exhibit, dated May 8, 2026;
- Wetland Buffer Surface Cover Exhibit, dated May 8, 2026
- Drainage Analysis, dated May 8, 2026;
- Wetland Conditional Use Permit Checklist, dated May 8, 2026;
- Owner Authorization, dated March 19, 2026

Project Summary

The proposed project is located at 1 Franklin Ave which is identified as Map 220 Lot 2 on the City of Portsmouth Tax Maps. The proposed project consists of the construction of three (3) additions to the existing New Franklin Elementary School. The first addition, approximately 500 square feet, will function as a vestibule entrance to serve student drop-off activities. The second addition, approximately 2,350 square feet, will provide an additional kindergarten classroom and a loading zone. The third addition, approximately 6,000 square feet, will accommodate new third- and fourth-grade classrooms.

The project also includes associated site, grading, drainage, and utilities improvements. These improvements consist of the installation of an accessible path of egress around the eastern building addition, as well as the creation of an accessible pathway at the main entrance located southwest of the existing building. The 18 additional parking spaces north of the building have been reduced to 14 spaces and relocated to reduce proposed impacts to the 100' wetland buffer. Water, sewer, and electrical utilities will be relocated as required to allow for the proposed building expansions.

Wetland Buffers

The proposed project results in work between the 50 to 100-foot wetland buffer. Therefore, a Wetland Conditional Use Permit is required for demolition and construction activities.

Wetlands are located on the parcel (Map 220 Lot 2). Some wetland areas exceed 10,000 square feet which classify them as Jurisdictional Areas per City of Portsmouth Zoning Ordinance, Section 10.1013.10. This subjects them to the 100 foot wetland buffer. The area within the 100 foot buffer currently consists of paved parking and playground areas, maintained lawn areas, as well as a small, wooded area and upland wetland vegetation. See Figure 2- "Wetland Buffer Surface Cover Exhibit" for existing surface covers within the 100 foot wetland buffer. Gas, water, and overhead electrical services pass through the buffer to service the existing building. Stormwater flow from this section of the 100 foot buffer currently sheet flows into the wetlands from the northwest parking area.

Existing impervious areas within the buffer can be seen on the "Wetland Buffer Area Exhibit" included under this submission.

Existing impervious areas within the buffer include paved parking and play areas, concrete pads, and a temporary storage shed. Impervious areas under the proposed condition within the buffer include a small corner of the proposed kindergarten building addition, a small portion of the proposed accessible ramp servicing the kindergarten building addition and proposed paved parking and drive isles to maintain fire apparatus movement around the building. A comparison of the existing and proposed impervious areas within the buffer are numerically summarized in the following table (Table 1).

TABLE 1: NEW FRANKLIN SCHOOL, WETLAND BUFFER IMPERVIOUS SURFACES

Buffer Segment	Existing Impervious (SF)	Final Impervious (SF)
0-25 feet	586	586
25-50 feet	4,681	4,681
50-100 feet	16,869	17,404
Total	22,136	22,671
Net Impervious Surface	535 SF	

The proposed site development includes a net increase in impervious areas within the 100 foot buffer of approximately 535 square feet. In order to help offset impacts associated with the increase in impervious area, additional stormwater structures have been designed to collect and re-direct runoff from the proposed building and parking area to closed drainage network, utilizing deep sump catch basins with oil/water separator hoods, reducing the amount of runoff from impervious areas sheeting directly into the existing wetlands on site. Additionally, seeding with a conservation mix is proposed within the 25' vegetated buffer to restore the surrounding wetland area. Due to project budget constraints, additional plantings and wetland restoration are not being proposed at this time.

Land Use Permit Applications

The proposed project will require the following site-related approvals from the Planning Board:

- Wetland Conditional Use Permit

To date the applicant has attended the following meetings with the local land-use boards related to the Site Plan:

- April 7, 2026 - Technical Advisory Committee Meeting
- May 6, 2026 - Conservation Commission Site Walk
- May 13, 2026 - Conservation Commission Meeting

Wetland Conditional Use Permit

Jurisdictional wetland areas are located on this property (Map 220, Lot 2). The associated wetland buffer extends to the Northeast, within the proposed limits of redevelopment. A Conditional Use Permit for Wetland Buffer Impact will be required for the project for on-site work within the 100 foot wetland buffer.

Wetland Conditional Use Permit Criteria

Based on the above described and enclosed materials, the following addresses how the proposed project warrants the granting of a Wetland Conditional Use Permit by addressing the following six (6) criteria for approval in Section 10.1017.50 of the Zoning Ordinance:

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

The subject property at 1 Franklin Ave is an existing, developed site currently occupied by the New Franklin Elementary School. The site has long been used for educational purposes and is served by existing municipal infrastructure, including water, sewer, drainage, and utilities. The proposed additions represent a continuation and modest expansion of this established institutional use.

The areas within the 100 foot wetland buffer that will be affected by the proposed work are already disturbed and maintained as part of the overall school campus, currently consisting primarily of lawn, pavement, and managed landscape areas. These portions of the buffer do not function as undisturbed natural resource areas and have limited ecological value relative to the adjacent wetland resource areas.

Based on the existing developed condition of the site, the continuation of its long-standing educational use, and the lack of reasonable alternatives outside the buffer, the land is considered reasonably suited to the proposed additions and associated site improvements.

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

The existing New Franklin Elementary School occupies a constrained parcel with established building footprints, play areas, access drives, and required life-safety circulation. Areas outside of the wetland buffer are already committed to essential school functions, including student drop-off and pick-up, playgrounds, emergency access, and required setbacks.

The project team evaluated multiple alternatives for locating the proposed additions and site work outside of the 100 foot wetland buffer. Due to the fully developed nature of the existing school site, there are no feasible and reasonable locations that would accommodate the programmatic needs of the school while avoiding buffer encroachment.

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

The portions of the buffer subject to alteration are currently maintained as lawn, pavement, or other managed landscapes associated with the existing school and do not provide significant wildlife habitat, flood storage, or other high-value wetland functions. No alteration to vegetated wetland areas, surface water bodies, or hydrologic connections is proposed. To protect wetland interests during construction, the project includes a comprehensive set of erosion and sedimentation controls, including the installation of perimeter erosion control, inlet protection barriers, and clearly defined limits of disturbance. These measures will prevent sediment transport and protect adjacent wetland resource areas during construction.

Post-construction, the project will maintain and, where practicable, improve existing drainage patterns. Stormwater runoff from new impervious surfaces will be managed in accordance with applicable standards to prevent increases in runoff volume, rate, or pollutant loading to adjacent wetlands. Based on the avoidance of direct wetland impacts, the limited and previously disturbed nature of the buffer areas affected, and the incorporation of appropriate stormwater and erosion control measures, the proposed project will not adversely impact the wetland functional values of the site or surrounding properties.

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

No clearing of undisturbed woodland or natural vegetative communities is proposed as a part of this project. Where minor vegetation removal is necessary, it will be targeted and controlled, with clearly established limits of disturbance to prevent unnecessary impacts.

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

The proposed project represents the alternative with the least adverse impacts to the wetland buffer zone, based on a comprehensive evaluation of site constraints, programmatic needs, and design options while staying within the approved municipal budget.

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

There is no proposed work within the 25' vegetated buffer strip as a part of this project. Additional measures to restore the 25' wetland buffer are being proposed by including conservation seed mix restoration to replace the existing maintained lawn area. Due to budgetary constraints, additional plantings within the wetland outside of the limit of work, were not proposed as a part of this project.

The Conservation Commission, at its regularly scheduled meeting on May 13, 2026, voted to recommend approval of this application to the Planning Board with one stipulation:

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. It is recommended that markers be placed along the existing fenceline that runs alongside the jurisdictional wetland but final determination of placement and number of markers shall be done in collaboration with Planning & Sustainability Department staff.*


Site note #15 has been added to Sheet C-300 to address this stipulation.

Conclusion

The proposed additional impervious area within the wetland buffer is in the best interest of the public as the proposed project will address existing student overcrowding issues at the New Franklin School.

We respectfully request to remain on the Planning Board meeting agenda for June 18, 2026.

Sincerely,
Tighe & Bond, Inc.



Neil A Hansen, PE
PROJECT MANAGER

J:\P\0766 Portsmouth, NH General Proposals\0009 New Franklin School Upgrades\Reports\Planning Board Submission\0766-0009 PB Cover Letter.docx

Findings of Fact | Wetland Conditional Use Permit

City of Portsmouth Planning Board

Date: June 18, 2026

Property Address: 1 Franklin Drive

Application #: LU-26-37

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	<i>1. The land is reasonably suited to the use activity or alteration.</i>	Meets Does Not Meet	This is currently a school property and functions as an elementary school. This project is proposing expanding the use of the school into the wetland buffer and a partially existing impervious area.
2	<i>2. There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.</i>	Meets Does Not Meet	Of the additions, only addition #2 appears to impact the wetland buffer and does so minimally. The majority of impacts appear to be for egress and driving aisles. This is a tight location with minimal maneuverability. Alternative locations for the drive aisles do not appear to be feasible. In addition, porous pavement is required but the applicant has demonstrated that this requirement is not structurally feasible in this location due to impacts from soil saturation.

	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 application proposes a modest impervious surface increase within the wetland buffer. While the applicant is not proposing any plantings to help mitigate these impacts, they are proposing an enhancement of the buffer with a wetland/conservation seed mix within the 25' vegetated buffer.
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 project appears to be removing a majority of existing disturbed areas in addition to lawn. The applicant should call out on plans any trees or existing vegetation to be removed as part of this project if applicable.
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 increases permanent impacts to the wetland buffer, but the project is working within a constrained space with minimal alternative locations. A wetland buffer enhancement plan was not provided but applicant has supplemented with a commitment to seed mix and will be implementing a new stormwater management system to capture parking lot sheet flow before entering the wetland. These additional improvements help to mitigate the increased impervious.
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 application does not increase impervious surfaces within the vegetated buffer strip.
7	<u>Other Board Findings:</u>		

Technical Memorandum

1 Franklin Ave - Request for Information

To: Kate Homet, Environmental Planner & Sustainability Coordinator

From: Neil A. Hansen, PE - Tighe & Bond

Date: May 8, 2026

Please see below for responses to comments received via email on May 1st, 2026 in reference to the New Franklin School Upgrades Conditional Use Permit application:

- 1. Section 10.1017.22 (3) of the City of Portsmouth Zoning Ordinance requires you to provide the following info: *More than 250 sq. ft. of alteration to the wetland buffer (regardless of the amount of alteration to the wetland): a description of the 100-foot buffer including vegetation type, the percent of the buffer with invasive species, and the percent of the buffer that is paved or developed.***

See "Wetland Buffer Surface Cover Exhibit". The existing 100' wetland buffer within the subject area consists primarily of maintained lawn/grass with impervious parking areas, and a small area of existing trees, upland wetland vegetation, and a small area identified as green ash.

- 2. Has not demonstrated compliance with 10.1017.24: *If it is not feasible to remove impervious surfaces from the wetland buffer at least equal in area to the area of new impervious surface impact, the application shall include a wetland buffer enhancement plan that describes how the wetland functions and values will be enhanced to offset the proposed impact.***

Notes will be added to the plan indicating areas to be disturbed within the wetland buffer, which, for this project, is limited to the area between the 50' Limited Cut buffer, and the 100' Wetland Buffer, will be restored. Following construction, all disturbed soils will be regraded and stabilized to prevent erosion. Temporary erosion and sediment controls will remain in place until vegetation is fully established. Where soils have been compacted, they will be loosened or amended as necessary to restore infiltration capacity and support plant growth. Mulching and watering will be provided as needed during the establishment period. Areas disturbed within the buffer will be restored to the maximum extent feasible and planted with a conservation seed mix.

The scope of the project has been evaluated in relation to the City's available funding and it has determined that there is insufficient budget to undertake additional enhancements to the wetland buffer to offset the increase in impervious area within the buffer. As a result, a separate landscape restoration or enhancement plan has not been included as part of this project.

The current project is limited to essential infrastructure improvements, and available resources have been allocated accordingly. Should additional funding become available in the future, the City may consider opportunities for supplemental restoration or enhancement initiatives at that time

- 3. Has not demonstrated compliance with 10.1017.25: We understand that stormwater improvements are planned but our regs require a combination of new plantings, invasive species removal, habitat creation areas, improved site hydrology, or protective easements provided offsite if a wetland buffer enhancement plan is required.**

See response to Comment 2., Invasive species were not observed within the 100' wetland buffer in the vicinity of the project area. Therefore, no removal is proposed to enhance the wetland buffer. To improve the 25' vegetated buffer adjacent to the project area, additional wetland seeding is proposed. A conservation seed mix will be used within the project vicinity to enhance the 25' vegetated buffer without disturbing the existing play area on site.

- 4. Please include a detail sheet for the planned erosion controls.**

Please see sheet C-600 "Erosion Control Notes & Details Sheet" included in the original submission.

- 5. Please demonstrate compliance with 10.1018.31**

Existing site conditions do not support the use of porous pavement. Due to the proximity of the parking area to the wetland, saturated soil conditions would limit the efficiencies of porous pavement which could lead to clogging, backup, or potential failure.

In the existing condition, water sheets directly from the proposed impervious parking area into adjacent wetlands. In the proposed condition, catch basins have been proposed to collect and redirect stormwater from the proposed impervious surface to an existing closed drainage network directing flow away from the wetlands to mitigate the effects of the additional impervious runoff within the wetland buffer.

- 6. Please demonstrate compliance with 10.1018.32**

A pavement maintenance plan was not prepared because porous pavement is not being proposed for this project.

- 7. Please demonstrate compliance with 10.1018.40**

Wetland boundary markers can be added to the plan prior to submission to the Planning Board in a location coordinated with the Conservation Commission and City Planning & Sustainability Department.

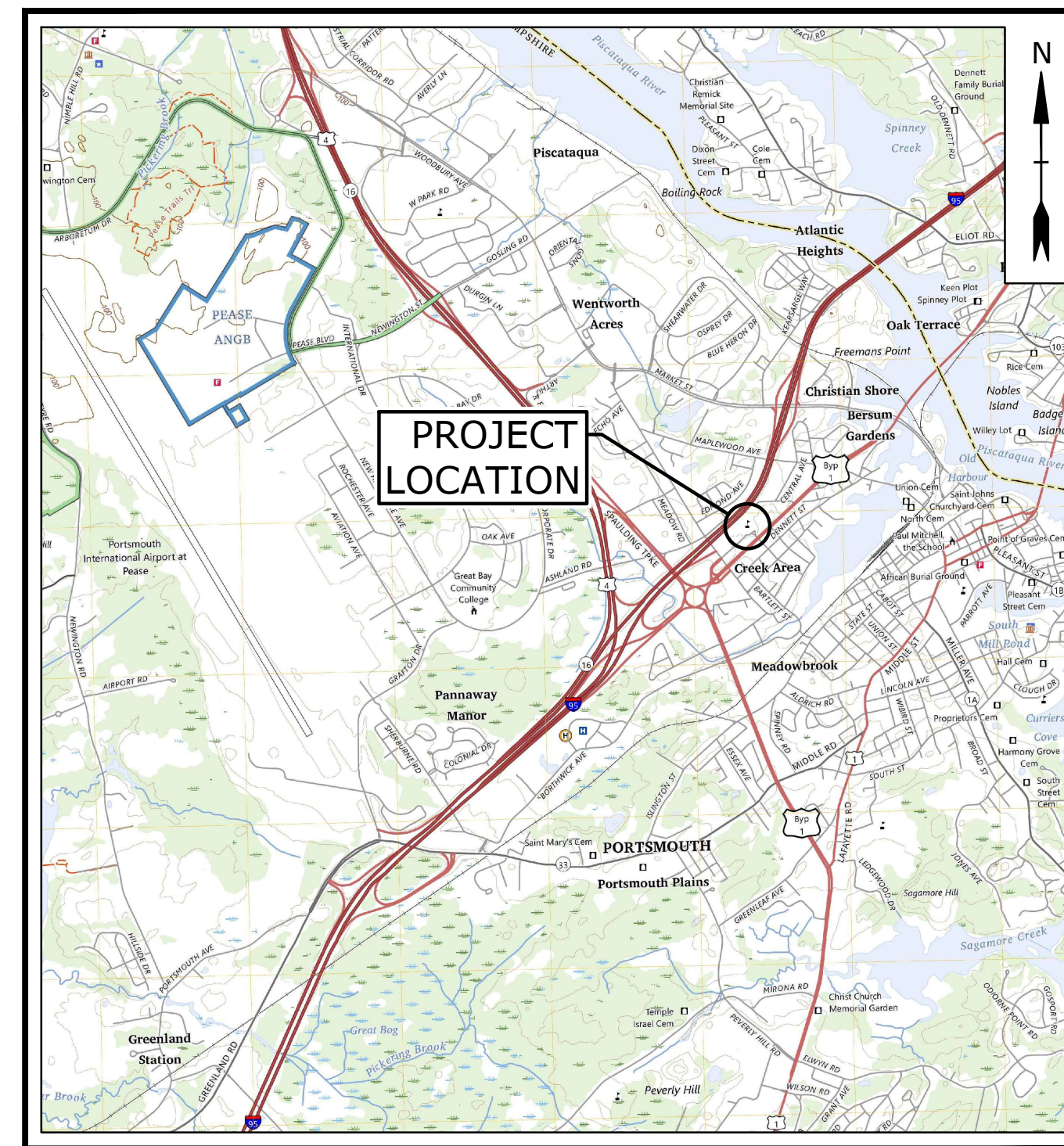
CITY OF PORTSMOUTH, NH NEW FRANKLIN SCHOOL

P-0766-009

APRIL 29, 2026

LAST REVISED MAY 20, 2026

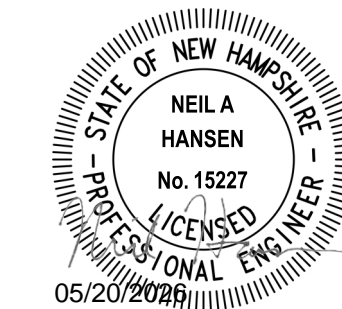
LIST OF DRAWINGS	
DRAWING NO.	DRAWING TITLE
G-001	COVER SHEET
CIVIL	
1 OF 1	EXISTING CONDITIONS PLAN
C-100	WETLANDS DELINEATION PLAN
C-200	DEMOLITION PLAN
C-300	SITE PLAN
C-400	GRADING, DRAINAGE, AND EROSION CONTROL PLAN
C-500	UTILITIES PLAN
C-600	EROSION CONTROL NOTES & DETAILS SHEET
C-601	DETAILS SHEET
C-602	DETAILS SHEET
C-603	DETAILS SHEET
C-700	FIRE TRUCK TURNING PLANS
C-800	PRE-DEVELOPMENT WATERSHED PLAN
C-801	POST DEVELOPMENT WATERSHED PLAN
ARCHITECTURAL	
TAC100	FLOOR PLAN DATA
TAC200	ELEVATION DATA
ELECTRICAL	
PH	PHOTOMETRIC PLAN FOR BUILDING ADDITIONS



SITE LOCATION MAP
SCALE: 1"=1000'

PREPARED BY:

Tighe & Bond
177 Corporate Drive
Portsmouth, NH 03801
T: 603.433.8818



NEIL A HANSEN

OWNER:
PORTSMOUTH SCHOOL DEPARTMENT, SAU52
1 JUNKINS AVE, SUITE 402
PORTSMOUTH, NH 03801
T: (603) 436-0910

SURVEYOR
GREENMAN PEDERSEN, INC,
44 STILES ROAD, SUITE ONE
SALEM, NH, 03079
T: (603) 893-0720

ARCHITECT:
BANWELL ARCHITECTS
6 SOUTH PARK STREET
LEBANON, NH 03766
T: (603) 448-3778

ELECTRICAL:
SEACOAST CONSULTING ENGINEERS, LLC
261 JENNIE LANE
ELLIOT, MAINE 03903
T: (207) 475-7054

**PLANNING BOARD SUBMISSION
COMPLETE SET 17 SHEETS**

- WETLAND NOTES**
- EXISTING CONDITIONS ARE BASED ON AN ON-THE-GROUND FIELD SURVEY PERFORMED BY GREENMAN PEDERSEN, INC (GPI), BETWEEN JANUARY 20 AND JANUARY 22, 2026, PLAN DATED FEBRUARY 27, 2026.
 - 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 APRIL 23, 2026 USING THE FOLLOWING METHODOLOGY AND STANDARDS:
 - REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTH-CENTRAL AND NORTHEAST REGION, (VERSION 2.0) JANUARY 2012, U.S. ARMY CORPS OF ENGINEERS.
 - 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.
 - 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/](http://wetland-plants.usace.army.mil/)
 - NEW HAMPSHIRE ADMINISTRATIVE RULE CHAPTER ENV-WT 406, DELINEATION AND CLASSIFICATION OF JURISDICTIONAL AREAS, EFFECTIVE DECEMBER 15, 2019.



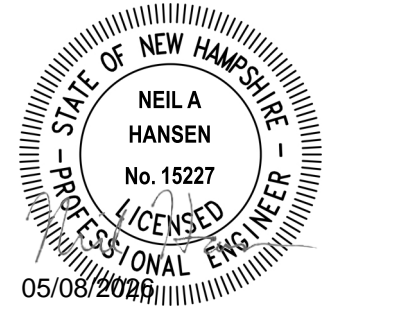
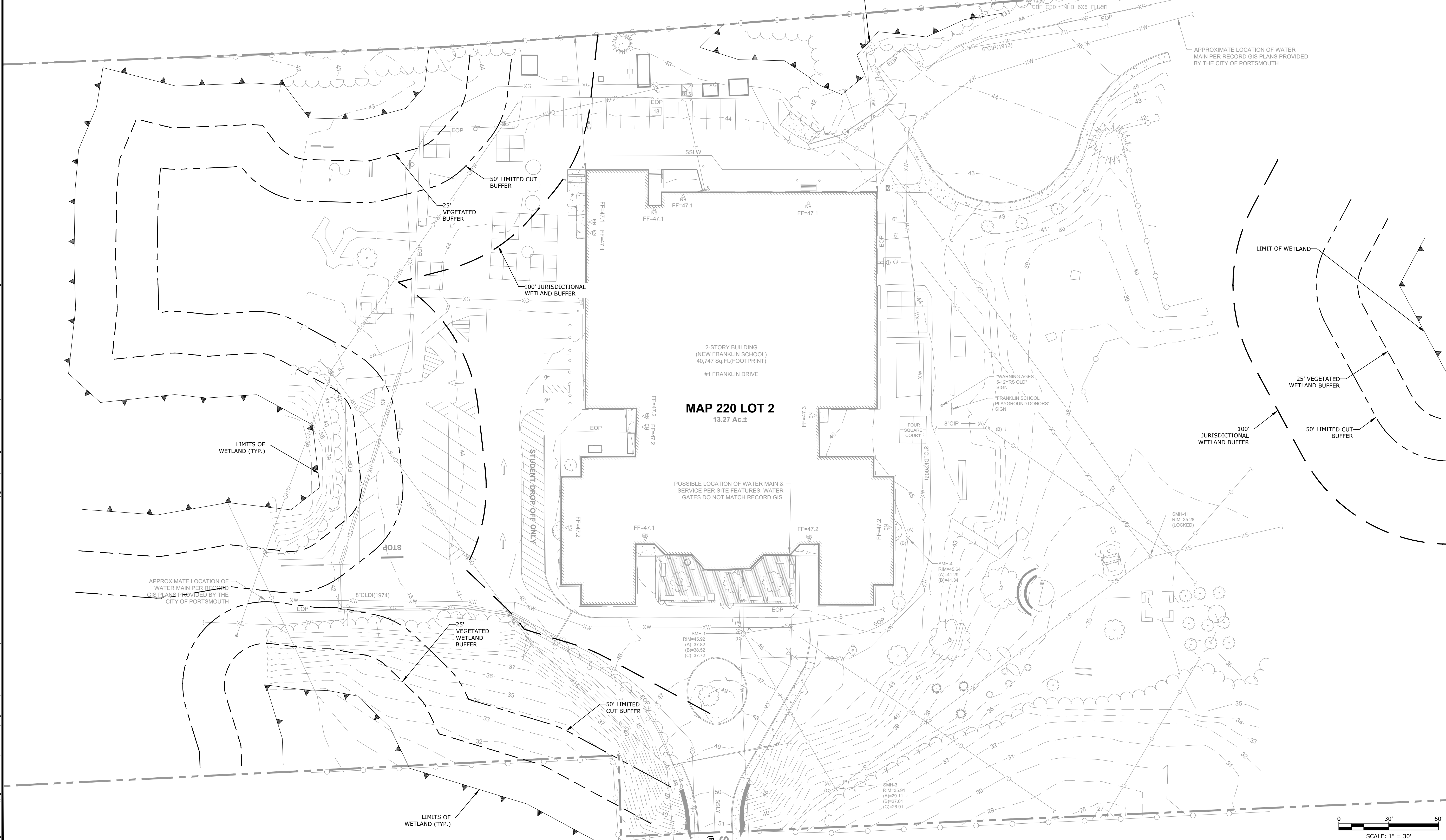
LEGEND

- LIMIT OF WETLAND
- 25 FT VEGETATED WETLAND BUFFER
- 50 FT LIMITED CUT BUFFER
- 100 FT JURISDICTIONAL WETLAND BUFFER

INTERSTATE ROUTE 95 (I-95)
(PUBLIC - VARIABLE WIDTH)

LIMITS OF WETLAND
(<10,000 SF)

APPROXIMATE LOCATION OF WATER MAIN PER RECORD GIS PLANS PROVIDED BY THE CITY OF PORTSMOUTH



New Franklin School Upgrades

Portsmouth School Department SAU 52

Portsmouth, New Hampshire

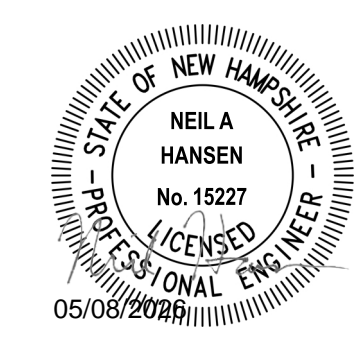
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DATE:	04/29/2026	
FILE:	P0766-0009- DSGN - CLUP Permit Set.dwg	
DRAWN BY:	MKF	
DESIGNED BY:	LAA	
CHECKED BY:	SMT	
APPROVED BY:	SMT	

WETLANDS DELINEATION PLAN

SCALE: AS SHOWN

C-100

Last Saved: 4/28/2026 11:01:11am By: MPhillips
 Plotted On: Apr 29, 2026 - 10:11am By: MPhillips
 Tighe & Bond \globe\shared\data\projects\p0766 Portsmouth, NH General Proposals\0009 New Franklin School Upgrades\Drawings\AutoCAD\Sheet\0766-0009- DSGN - CLUP Permit Set.dwg



New Franklin School Upgrades

Portsmouth School Department
SAU 52

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
1	5/8/2026	WCUP - RTC
PROJECT NO:	P0766-0009	
DATE:	04/29/2026	
FILE:	P0766-0009- DSGN - CLUP Permit Set.dwg	
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DESIGNED BY:	EGD	
CHECKED BY:	NAH	
APPROVED BY:	NAH	

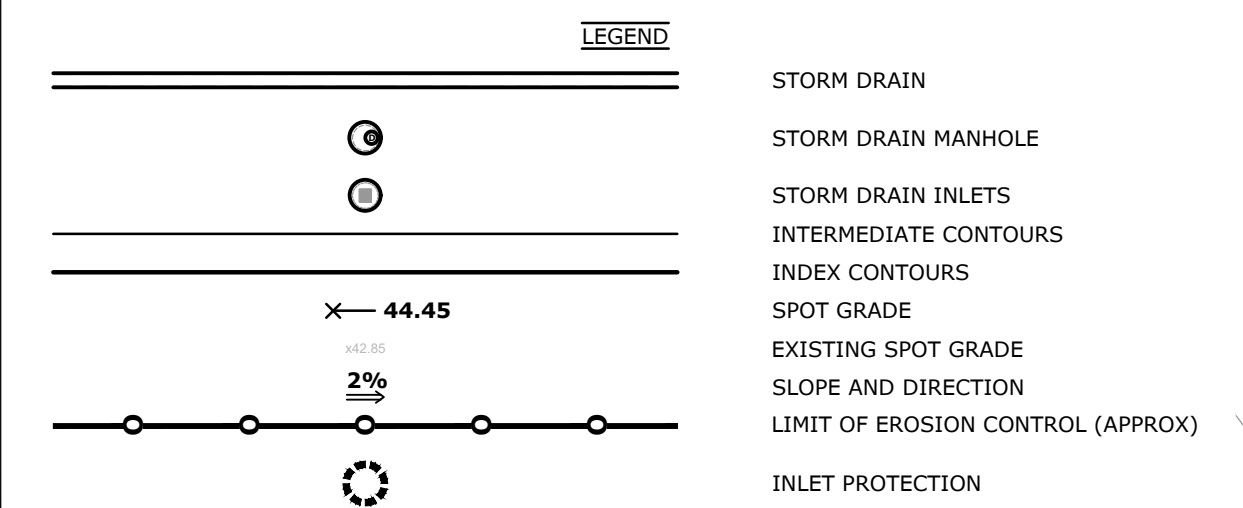
GRADING, DRAINAGE & EROSION CONTROL PLAN

SCALE: AS SHOWN

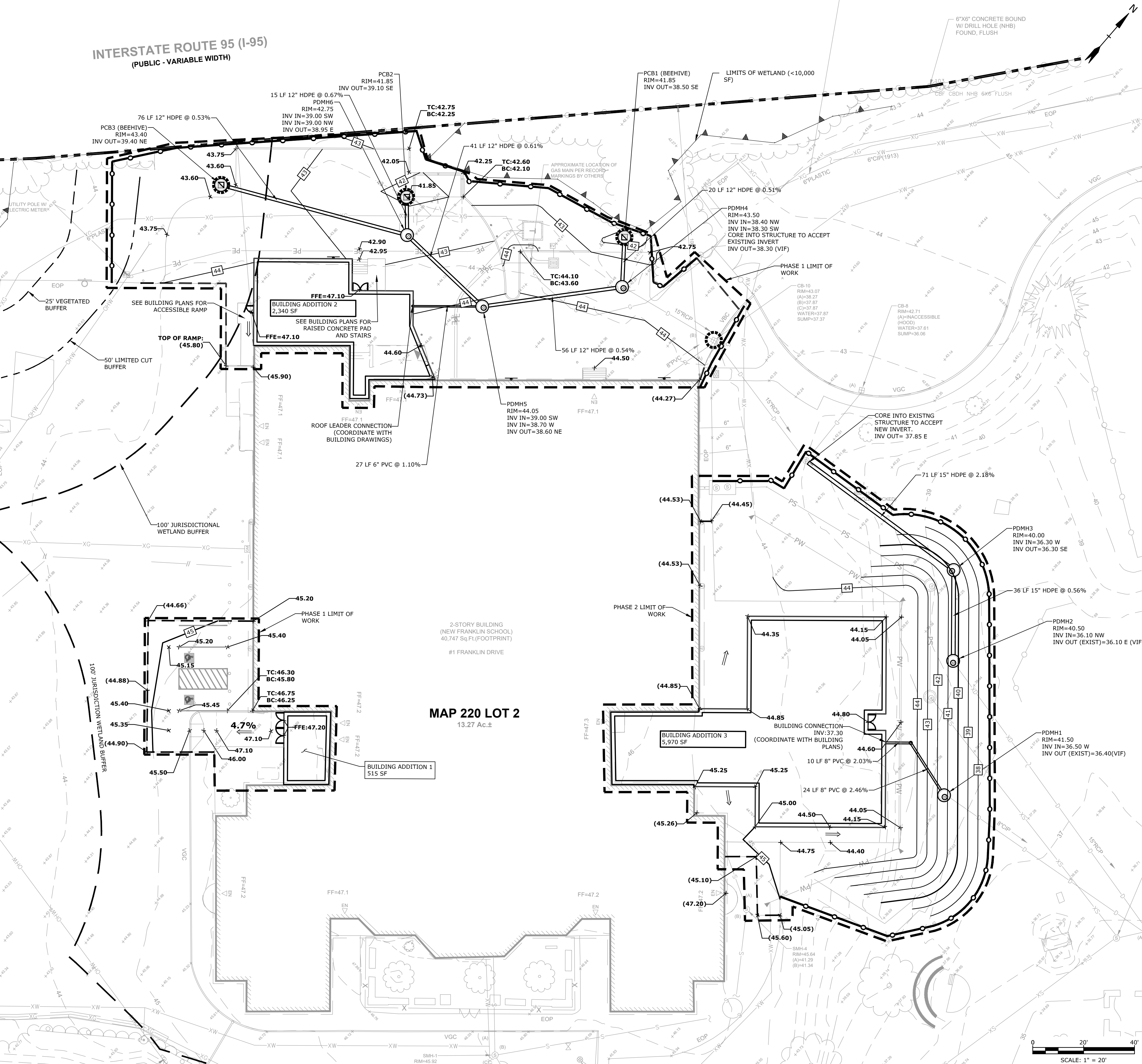
C-400

- GRADING AND DRAINAGE NOTES:**
- 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.
 - ALL STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HANCOR HI-Q, ADS N-12 OR EQUAL) OR POLYVINYL CHLORIDE PIPE, UNLESS OTHERWISE SPECIFIED.
 - SEE UTILITY PLAN FOR ALL SITE UTILITY INFORMATION.
 - ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
 - 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.
 - 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 OR 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%
 - THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCH BASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
 - ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES.
 - ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
 - ALL PROPOSED CATCH BASINS SHALL BE EQUIPPED WITH OIL/GAS SEPARATOR HOODS AND 4" SUMPS.
 - ALL WORK AND STORM DRAIN CONSTRUCTION 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.
 - THE CONTRACTOR SHALL SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR AND SHALL INCLUDE A FULL TOPOGRAPHY SURVEY WITHIN THE LIMITS OF WORK INCLUDING BUT NOT LIMITED TO SITE TOPOGRAPHY, SITE FEATURES, (BUILDINGS, ROADS, CURBS, SIDEWALK, ETC.), STORM DRAINAGE, AND SURFACE & SUBSURFACE UTILITIES.
 - THE CONTRACTOR SHALL VERIFY INVERTS OF EXISTING DRAIN AND SEWER LINES AND STRUCTURES AT PROPOSED DRAINAGE CONNECTION LOCATIONS AS FIRST ORDER OF WORK AND IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES.
 - 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.
 - TIGHE & BOND ASSUMES NO RESPONSIBILITY FOR ANY ISSUES, LEGAL OR OTHERWISE, RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM TIGHE & BOND.

- GENERAL EROSION CONTROL NOTES:**
- ALL EROSION CONTROL MEASURES AND PRACTICES SHALL CONFORM TO THE "NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3: EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION", PREPARED BY NHDES.
 - SEE SHEET C-501 AND C-502 FOR ADDITIONAL EROSION CONTROL REQUIREMENTS AND DETAILS.
 - CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL EROSION AND SEDIMENT CONTROL MEASURES FOR APPROVAL.
 - AS THE FIRST ORDER OF WORK, PRIOR TO ANY EARTH DISTURBANCE, THE CONTRACTOR SHALL INSTALL ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BUT NOT LIMITED TO: INLET PROTECTION BARRIERS, SILT SOCKS, SILT FENCES, MULCH BERMS, AND STABILIZED CONSTRUCTION EXITS AS SHOWN ON THE DRAWINGS, AND AS REQUIRED BY ALL STATE AND LOCAL PERMITS AND APPROVALS.
 - INLET PROTECTION BARRIERS SHALL BE INSTALLED AT ALL EXISTING AND PROPOSED CATCH BASINS/CURB INLETS AND YARD DRAINS WITHIN THE LIMITS OF WORK AS WELL AS ANY CATCH BASINS/CURB INLETS AND YARD DRAINS THAT RECEIVE RUNOFF FROM ANY CONSTRUCTION ACTIVITIES. THESE MEASURES SHALL BE FULLY MAINTAINED FOR THE DURATION OF THE PROJECT.
 - PERIMETER CONTROLS INCLUDING SILT FENCES, MULCH BERM, SILT SOCK, AND/OR HAY BALE BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL ALL NON-PAVED AREAS HAVE BEEN STABILIZED.
 - THE CONTRACTOR SHALL INSTALL EROSION CONTROL BLANKETS ON ALL STEEP SLOPE AREA (3:1 OR GREATER).
 - DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST AND WIND EROSION THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL MEASURES INCLUDE, BUT NOT LIMITED TO; MOISTEN EXPOSED SOIL SURFACES PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST, MECHANICAL SWEEPERS ON PAVED SURFACES, AND COVERING SURFACES WITH CRUSHED STONE OR COARSE GRAVEL.
 - THE CONTRACTOR SHALL HAVE ALL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, INLET PROTECTION BARRIERS, PERIMETER SEDIMENT CONTROLS, AND STEEP SLOPE EROSION CONTROL BLANKETS INSPECTED BY A QUALIFIED PERSON AT LEAST ONCE A WEEK AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.25 INCHES OR GREATER. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED, REPAIRED, MODIFIED, OR ADDITIONAL MEASURES INSTALLED AS NECESSARY TO ADDRESS EVOLVING CONDITIONS DURING CONSTRUCTION.
 - SEDIMENT CONTROL FILTER MEASURES SHALL BE REPLACED WHEN SEDIMENT REACHES 1/3 THE HEIGHT OF THE FILTER.
 - THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
 - ALL DISTURBED AREAS NOT OTHERWISE BEING TREATED SHALL RECEIVE 6" LOAM, SEED AND FERTILIZER.
 - ALL CATCH BASIN SUMPS AND PIPING SHALL BE THOROUGHLY CLEANED TO REMOVE ALL SEDIMENT AND DEBRIS AFTER THE PROJECT HAS BEEN FULLY STABILIZED.
 - TEMPORARY SOIL STOCKPILE SHALL BE SURROUNDED WITH SEDIMENT CONTROLS AND SHALL BE STABILIZED BY TEMPORARY EROSION CONTROL SEEDING. STOCKPILE AREAS TO BE LOCATED AS FAR AS POSSIBLE FROM THE DELINEATED EDGE OF WETLANDS. STOCKPILES OVER 10 FEET SHALL HAVE SAFETY FENCING PROVIDED AROUND THE STOCKPILES.
 - IF NECESSARY CONCRETE TRUCKS WILL BE REQUIRED TO WASHOUT THE SHOOTS. THIS ACTIVITY SHALL ONLY BE DONE WITHIN A DESIGNATED CONCRETE WASHOUT FACILITY ON-SITE.
 - IF NECESSARY TEMPORARY SEDIMENT TRAPS SHALL BE PROVIDED FOR GENERAL EXCAVATION DEWATERING PRACTICES PRIOR TO DIRECTING FLOW TO ANY OTHER EROSION AND SEDIMENT CONTROL MEASURES.
 - THE CONTRACTOR SHALL BE FAMILIAR WITH SPILL PREVENTION MEASURES REQUIRED BY ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

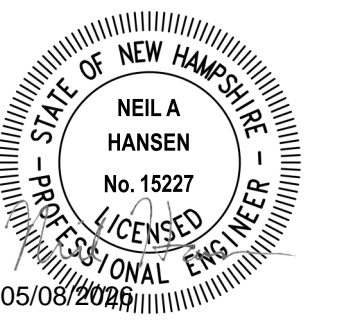


**INTERSTATE ROUTE 95 (I-95)
(PUBLIC - VARIABLE WIDTH)**



MAP 220 LOT 2
13.27 Ac.±

Last Saved: 5/7/2026
 Plotted On: May 07, 2026 - 4:34pm By: Mfillion
 Tighe & Bond \Engineering\Drawings\AutoCAD\Sheets\0766-0009- DSGN - CLUP Permit Set.dwg
 New Franklin School Upgrades\Drawings\AutoCAD\Sheets\0766-0009- DSGN - CLUP Permit Set.dwg



New Franklin School Upgrades

Portsmouth School Department
SAU 52

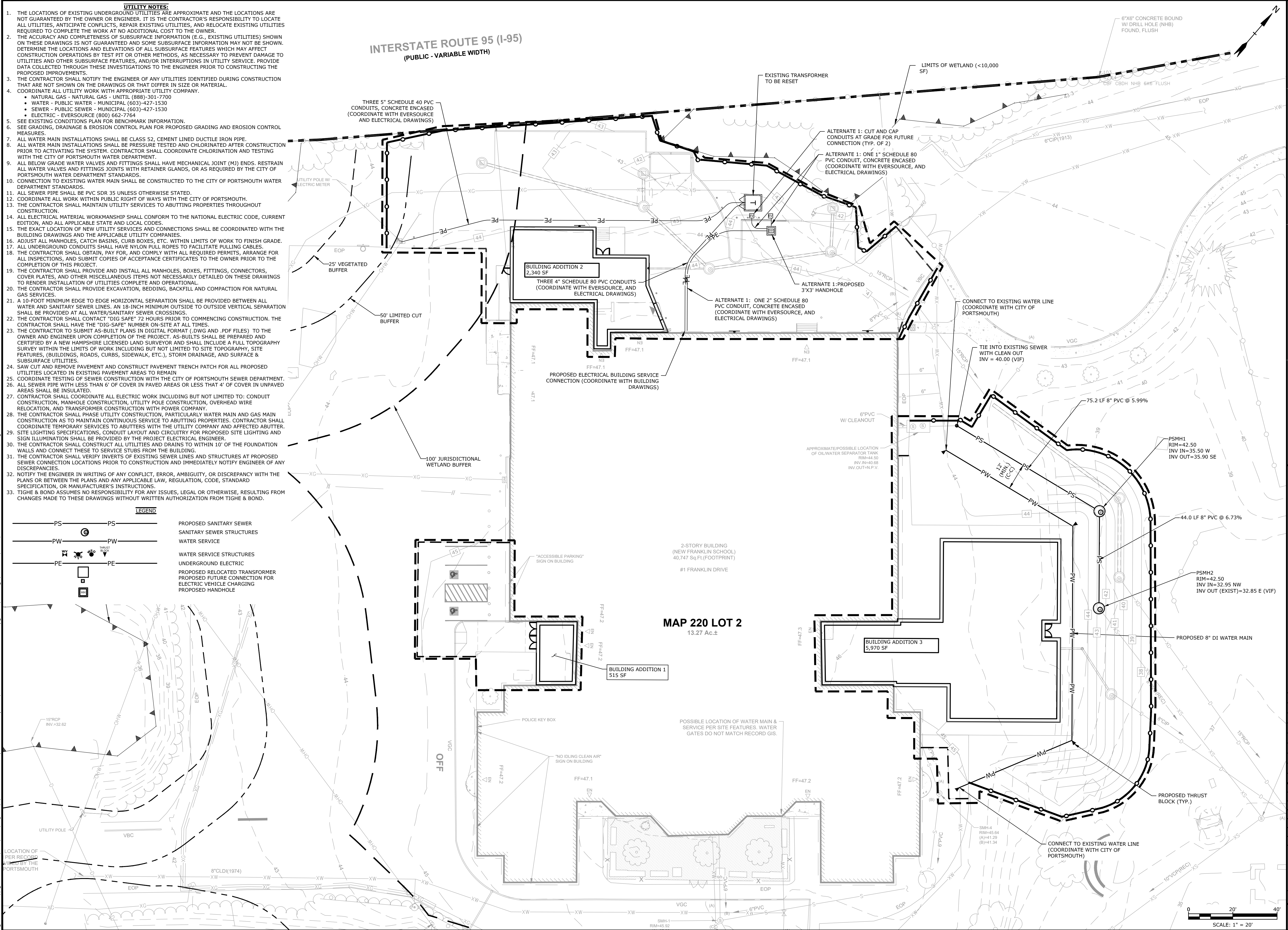
Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
1	5/8/2026	WCUP - RTC
PROJECT NO:	P0766-0009	
DATE:	04/29/2026	
FILE:	P0766-0009- DSGN - CLUP Permit Set.dwg	
DRAWN BY:	MKF	
DESIGNED BY:	EGD	
CHECKED BY:	NAH	
APPROVED BY:	NAH	

UTILITIES PLAN

SCALE: AS SHOWN

C-500



INTERSTATE ROUTE 95 (I-95)
(PUBLIC - VARIABLE WIDTH)

- UTILITY NOTES:**
- 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 CONTACTS, REPAIR EXISTING UTILITIES, AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
 - 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.
 - 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.
 - COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
 - NATURAL GAS - NATURAL GAS - UNITIL (888)-301-7700
 - WATER - PUBLIC WATER - MUNICIPAL (603)-427-1530
 - SEWER - PUBLIC SEWER - MUNICIPAL (603)-427-1530
 - ELECTRIC - EVERSOURCE (800) 662-7764
 - SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
 - SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
 - ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE.
 - 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.
 - 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.
 - CONNECTION TO EXISTING WATER MAIN SHALL BE CONSTRUCTED TO THE CITY OF PORTSMOUTH WATER DEPARTMENT STANDARDS.
 - ALL SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE STATED.
 - COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH.
 - THE CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ADJUTING PROPERTIES THROUGHOUT CONSTRUCTION.
 - ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, CURRENT EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
 - THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE APPLICABLE UTILITY COMPANIES.
 - ADJUST ALL MANHOLES, CATCH BASINS, BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
 - ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
 - 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.
 - 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.
 - THE CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
 - 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.
 - THE CONTRACTOR SHALL CONTACT "DIG SAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL HAVE THE "DIG-SAFE" NUMBER ON-SITE AT ALL TIMES.
 - THE CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR AND SHALL INCLUDE A FULL TOPOGRAPHY SURVEY WITHIN THE LIMITS OF WORK INCLUDING BUT NOT LIMITED TO SITE TOPOGRAPHY, SITE FEATURES, (BUILDINGS, ROADS, CURBS, SIDEWALK, ETC.), STORM DRAINAGE, AND SURFACE & SUBSURFACE UTILITIES.
 - SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
 - COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF PORTSMOUTH SEWER DEPARTMENT.
 - ALL SEWER PIPE WITH LESS THAN 6' OF COVER IN PAVED AREAS OR LESS THAN 4' OF COVER IN UNPAVED AREAS SHALL BE INSULATED.
 - 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.
 - THE CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION, PARTICULARLY WATER MAIN AND GAS MAIN CONSTRUCTION AS TO MAINTAIN CONTINUOUS SERVICE TO ADJUTING PROPERTIES. CONTRACTOR SHALL COORDINATE TEMPORARY SERVICES TO ADJUTERS WITH THE UTILITY COMPANY AND AFFECTED ADJUTER.
 - SITE LIGHTING SPECIFICATIONS, CONDUIT LAYOUT AND CIRCUITRY FOR PROPOSED SITE LIGHTING AND SIGN ILLUMINATION SHALL BE PROVIDED BY THE PROJECT ELECTRICAL ENGINEER.
 - THE CONTRACTOR SHALL CONSTRUCT ALL UTILITIES AND DRAINS TO WITHIN 10' OF THE FOUNDATION WALLS AND CONNECT THESE TO SERVICE STUBS FROM THE BUILDING.
 - 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.
 - 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.
 - TIGHE & BOND ASSUMES NO RESPONSIBILITY FOR ANY ISSUES, LEGAL OR OTHERWISE, RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM TIGHE & BOND.

LEGEND

- PS PS PROPOSED SANITARY SEWER
- PW PW SANITARY SEWER STRUCTURES
- PE PE WATER SERVICE
- PE PE WATER SERVICE STRUCTURES
- PE PE UNDERGROUND ELECTRIC
- PE PE PROPOSED RELOCATED TRANSFORMER
- PE PE PROPOSED FUTURE CONNECTION FOR ELECTRIC VEHICLE CHARGING
- PE PE PROPOSED HANDHOLE

Last Saved: 5/7/2026 4:35pm By: Mfillion
 Plotted On: May 07, 2026 4:35pm
 Tighe & Bond \Vigilante\com\DrawData\Projects\190766 Portsmouth, NH General Proposals\0009 New Franklin School Upgrades\Drawings\AutoCAD\Sheet\0766-0009- DSGN - CLUP Permit Set.dwg

GENERAL PROJECT INFORMATION

PROJECT OWNER: PORTSMOUTH SCHOOL DEPARTMENT/SAU52
 PROJECT NAME: NEW FRANKLIN SCHOOL UPGRADES
 PROJECT ADDRESS: 1 FRANKLIN DRIVE
 PORTSMOUTH, NH 03801
 PROJECT MAP / LOT: MAP 220 / LOT 02
 PROJECT LATITUDE: 43° 47' 37.948"N
 PROJECT LONGITUDE: 70° 46' 35.724"W

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE CONSTRUCTION OF 3 BUILDING ADDITIONS TO EXPAND THE FOOTPRINT OF THE EXISTING NEW FRANKLIN SCHOOL. THE PHASE 1 WORK IS ANTICIPATED TO START IN APRIL 2026, AND BE COMPLETED BY OCTOBER 2026.

DISTURBED AREA

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 0.98 ACRES.

SOIL CHARACTERISTICS

BASED ON THE NRCS WEB SOIL SURVEY FOR ROCKINGHAM COUNTY - NEW HAMPSHIRE, THE SOILS ON SITE CONSIST OF URBAN LAND SOILS WHICH ARE WELL DRAINED SOILS WITH HYDROLOGIC SOIL GROUP RATINGS OF A.

NAME OF RECEIVING WATERS

THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED VIA OVERLAND FLOW TO A CLOSED DRAINAGE NETWORK, AND OFF SITE.

CONSTRUCTION SEQUENCE PLAN OF MAJOR ACTIVITIES:

- CONSTRUCT TEMPORARY AND PERMANENT PERIMETER EROSION CONTROLS, SEDIMENT CONTROLS AND DETENTION MEASURES, PRIOR TO ANY EARTH MOVING OPERATIONS THAT MAY AFFECT STORMWATER RUNOFF SUCH AS:
 - DISPOSAL OF SEDIMENT SPOILS, STUMPS, DEMOLITION DEBRIS, AND OTHER SOLID WASTE
 - CONTROL OF DUST
 - CONSTRUCTION OF DRIVES, PARKING AREAS, AND OTHER IMPERVIOUS SURFACES
 - INSTALLATION OF UTILITIES, BUILDINGS, AND PLAYGROUND EQUIPMENT
 - CONSTRUCTION DURING LATE WINTER AND EARLY SPRING
- DEMOLISH ALL SITE FEATURES AS DIRECTED ON THE DRAWINGS. CLEAR AND DISPOSE OF DEBRIS IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.
- CUT AND CLEAR TREES ACROSS SITE. (GRUBBING SHALL NOT OCCUR UNTIL AFTER THE INSTALLATION OF PERIMETER CONTROLS)
- INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE ENTIRETY OF CONSTRUCTION. REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS NEEDED.
- NOTE THAT ALL PERMANENT DITCHES, SWALES, DETENTION, RETENTION AND SEDIMENTATION BASINS SHALL BE STABILIZED USING THE VEGETATIVE AND NON-STRUCTURAL BMPs PRIOR TO DIRECTING RUNOFF TO THEM.
- CONSTRUCT TEMPORARY CULVERTS, DIVERSION CHANNELS, AND/OR BASINS AS REQUIRED. SEDIMENT TRAPS AND/OR BASINS SHALL BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL SOILS ARE STABILIZED.
- COMPLETE MASS GRADING AND EARTHWORK IN ORDER TO ESTABLISH SITE SUBGRADE ELEVATIONS, AS WELL AS EXCAVATION NECESSARY TO CONSTRUCT FOUNDATIONS FOR PROPOSED STRUCTURES.
- CONSTRUCT UNDERGROUND DRAINAGE, UTILITY AND LIGHTING INFRASTRUCTURE NECESSARY TO SUPPORT TEMPORARY AND PERMANENT CONDITIONS. ALL TRENCHES TO BE BACKFILLED IN ACCORDANCE WITH PROJECT DRAWINGS AND SPECIFICATIONS.
- ALL AREAS OF UNSTABILIZED SOIL SHALL BE TEMPORARILY STABILIZED AS SOON AS PRACTICABLE, BUT IN ALL CASES WITHIN 45 DAYS OF INITIAL DISTURBANCE, UNLESS A SHORTER TIME IS SPECIFIED BY LOCAL AUTHORITIES, THE CONSTRUCTION SEQUENCE APPROVED AS PART OF THE ISSUED PERMIT, OR AN INDEPENDENT MONITOR. ALL AREAS OF TEMPORARILY STABILIZED SOIL SHALL PERMANENTLY STABILIZED AS SOON AS PRACTICABLE BUT IN ALL CASES WITHIN 3 DAYS OF FINAL GRADING.
- CONSTRUCT BASE COURSE GRAVELS FOR ALL DRIVES AND PARKING AREAS. ALL DRIVES AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES THAT HAVE NOT BEEN OTHERWISE STABILIZED BY GRAVELS SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, PERIMETER EROSION CONTROL MEASURES, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
- FINISH PAVING ALL DRIVES, AND PARKING AREAS. CONSTRUCT ALL HARDSCAPE, FIELD SLOPES AND SITE AMENITIES/FEATURES.
- COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- REMOVE TRAPPED SEDIMENTS FROM ALL EROSION CONTROL MEASURES AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES.

EROSION CONTROL NOTES:

- ALL EROSION CONTROL MEASURES AND PRACTICES SHALL CONFORM TO THE "NEW HAMPSHIRE STORMWATER MANUAL - LATEST EDITION.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL EROSION AND SEDIMENT CONTROL MEASURES FOR APPROVAL.
- AS THE FIRST ORDER OF WORK, PRIOR TO ANY EARTH DISTURBANCE, THE CONTRACTOR SHALL INSTALL ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BUT NOT LIMITED TO: INLET PROTECTION BARRIERS, SILT SOCKS, AND STABILIZED CONSTRUCTION EXITS AS SHOWN ON THE DRAWINGS, AND AS REQUIRED BY ALL STATE AND LOCAL PERMITS AND APPROVALS.
- INLET PROTECTION BARRIERS SHALL BE INSTALLED AT ALL EXISTING AND PROPOSED CATCH BASINS/CURB INLETS AND YARD DRAINS WITHIN THE SURFACES OF WORK AS WELL AS ANY CATCH BASINS/CURB INLETS AND YARD DRAINS THAT RECEIVE RUNOFF FROM ANY CONSTRUCTION ACTIVITIES. THESE MEASURES SHALL BE FULLY MAINTAINED FOR THE DURATION OF THE PROJECT.
- PERIMETER CONTROLS INCLUDING SILT SOCK SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL ALL NON-PAVED AREAS HAVE BEEN STABILIZED.
- CONTRACTOR SHALL INSTALL EROSION CONTROL BLANKETS ON ALL STEEP SLOPE AREA (3:1 OR GREATER).
- DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST AND WIND EROSION THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL MEASURES INCLUDE, BUT NOT LIMITED TO; MOISTEN EXPOSED SOIL SURFACES PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST, MECHANICAL SWEEPERS ON PAVED SURFACES SURFACES WITH CRUSHED STONE OR COARSE GRAVEL.
- THE CONTRACTOR SHALL HAVE ALL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, INLET PROTECTION BARRIERS, PERIMETER SEDIMENT CONTROLS, AND STEEP SLOPE EROSION CONTROL BLANKETS INSPECTED BY A QUALIFIED PERSON AT LEAST ONCE A WEEK AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.25 INCHES OR GREATER. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED, REPAIRED, MODIFIED, OR ADDITIONAL MEASURES INSTALLED AS NECESSARY TO ADDRESS EVOLVING CONDITIONS DURING CONSTRUCTION.
- SEDIMENT CONTROL FILTER MEASURES SHALL BE REPLACED WHEN SEDIMENT REACHES 1/3 THE HEIGHT OF THE FILTER.
- THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
- ALL DISTURBED AREAS NOT OTHERWISE BEING TREATED SHALL RECEIVE 6" LOAM, SEED AND FERTILIZER.

EROSION CONTROL OBSERVATIONS AND MAINTENANCE PRACTICES

- THIS PROJECT DOES NOT EXCEED ONE (1) ACRE OF DISTURBANCE AND THUS DOES NOT REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP).

STABILIZATION:

- AN AREA SHALL BE CONSIDERED STABLE WHEN ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS MEETING THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, ITEM 304.2 HAVE BEEN INSTALLED.
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED;
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- ALL CUT AND FILL SLOPES SHALL BE SEEDED AND LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- ALL ROADS, DRIVES AND PARKING AREA SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- WINTER STABILIZATION PRACTICES:
 - ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% 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;
 - ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS;
 - AFTER OCTOBER 15, INCOMPLETE ROAD, DRIVES, 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;
 - FOR OVER-WINTER PROTECTION, A DOUBLE ROW OF SEDIMENT BARRIERS (SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX, ETC.) SHALL BE PLACED WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE AREA.
- STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES, AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL NOT OCCUR FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. STABILIZATION MEASURES TO BE USED INCLUDE:
 - TEMPORARY SEEDING;
 - MULCHING.
- ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
- 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 ALL THESE AREAS, SILT FENCES, MULCH BERMS, HAY BALE BARRIERS AND ANY EARTHWORKS SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.
- 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:

- THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD.
- 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.
- DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ADJACENT AREAS.

STOCKPILES:

- LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CATCH BASINS, SWALES, AND CULVERTS.
- ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE ONSET OF PRECIPITATION.
- 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.
- 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:

- THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION EXIT(S) PRIOR TO ANY EXCAVATION ACTIVITIES.

VEGETATION:

- TEMPORARY GRASS COVER:
 - SEEDBED PREPARATION:
 - 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;
 - SEEDING:
 - UTILIZE ANNUAL RYE GRASS AT A RATE OF 40 LBS/ACRE;
 - WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF TWO (2) INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED;
 - 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;
 - MAINTENANCE:
 - 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.).
- PERMANENT MEASURES AND PLANTINGS:
 - 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;
 - 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;
 - 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;
 - 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;
 - HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AS INDICATED ABOVE;
 - 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;
 - THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED;
 - 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 SEEDING LAWS. SEEDING SHALL BE DONE NO LATER THAN SEPTEMBER 15. IN NO CASE SHALL SEEDING TAKE PLACE OVER SNOW.
 - DORMANT SEEDING (SEPTEMBER 15 TO FIRST SNOWFALL):
 - 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:

- THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY;
- IF IT IS NECESSARY, THE SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER;
- CONTRACTOR SHALL LOCATE WASHOUT AREAS AT LEAST 150 FEET AWAY FROM STORM DRAINS, SWALES AND SURFACE WATERS OR DELINEATED WETLANDS;
- INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

ALLOWABLE NON-STORMWATER DISCHARGES:

- THE FOLLOWING ARE THE ONLY STORMWATER DISCHARGES ALLOWED. ALL OTHER NON-STORMWATER DISCHARGES ARE PROHIBITED ON SITE.
 - FIRE-FIGHTING ACTIVITIES;
 - FIRE HYDRANT FLUSHING;
 - WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
 - WATER USED FOR CONCRETE CURE;
 - POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
 - ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
 - PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED;
 - UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;
 - UNCONTAMINATED GROUND WATER OR SPRING WATER;
 - FOUNDATION OR FOOTING DRAINS WHICH ARE UNCONTAMINATED;
 - UNCONTAMINATED EXCAVATION DEWATERING;
 - LANDSCAPE IRRIGATION.

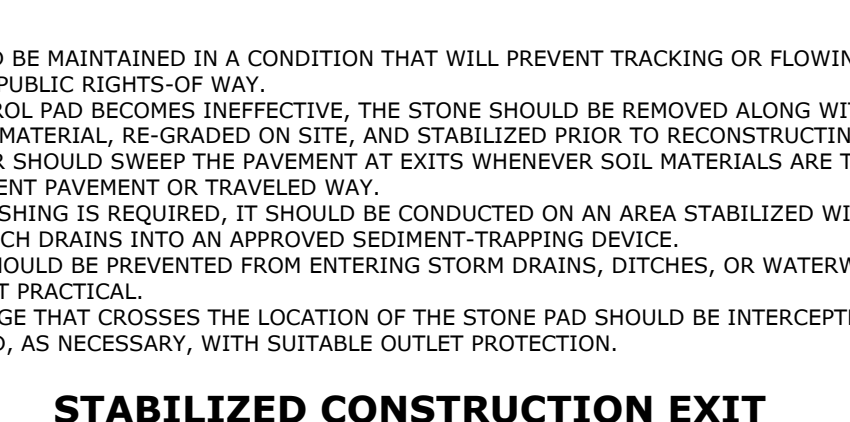
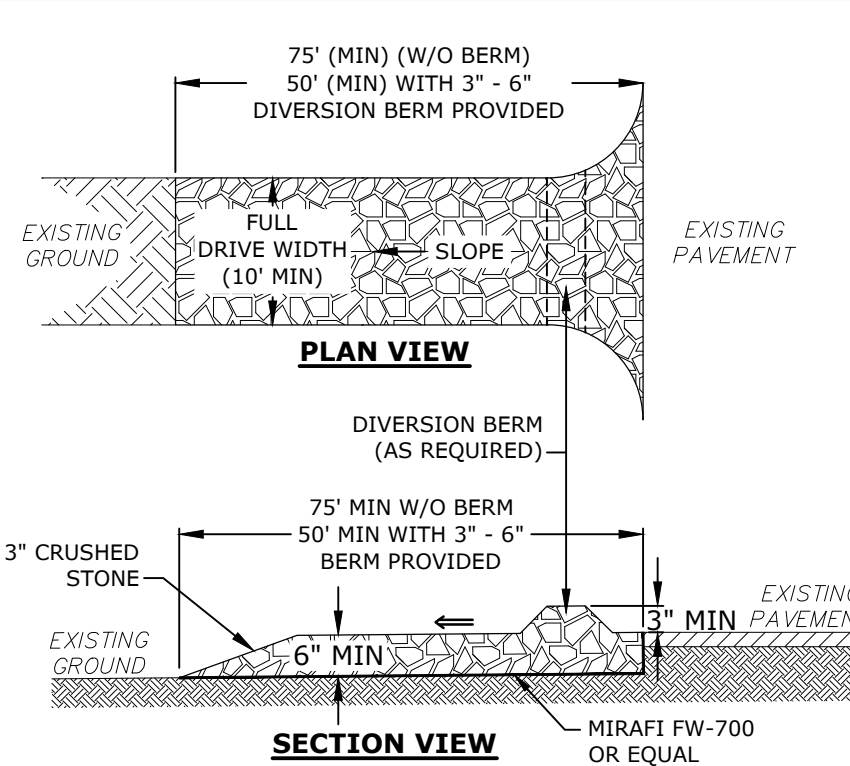
WASTE DISPOSAL:

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

SPILL PREVENTION:

- CONTRACTOR SHALL BE FAMILIAR WITH SPILL PREVENTION MEASURES REQUIRED BY ALL LOCAL, STATE AND FEDERAL REGULATIONS. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT SPILL PREVENTION PRACTICES OUTLINED BELOW.
- 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:
 - GOOD HOUSEKEEPING - THE FOLLOWING GOOD HOUSEKEEPING PRACTICE SHALL BE FOLLOWED ON SITE DURING CONSTRUCTION:
 - ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB SHALL BE STORED ON SITE.
 - 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, OR AN IMPERVIOUS SURFACE;
 - MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED;
 - THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS;
 - SUBSTANCES THAT ARE NOT TO BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER; WHENEVER POSSIBLE ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
 - 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.
 - HAZARDOUS MATERIALS - THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
 - PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE;
 - ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION;
 - SURPLUS PRODUCT THAT MUST BE DISPOSED OF SHALL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.
 - PRODUCT SPECIFIC PRACTICES - THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ON SITE:
 - PETROLEUM PRODUCTS:
 - ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE;
 - 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;
 - SECURE FUEL STORAGE AREAS AGAINST UNAUTHORIZED ENTRY;
 - INSPECT FUEL STORAGE AREAS WEEKLY;
 - 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.
 - COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS;
 - 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.
 - THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
 - EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED;

- PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS;
 - HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS;
 - USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES;
 - PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
- 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-DWBG-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT, OR ITS SUCCESSOR DOCUMENT.
- https://www.des.nh.gov/sites/gd/files/ehem341/files/documents/2020-01/dwbg-22-6.pdf
- FERTILIZERS:**
- FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS;
 - ONCE APPLIED FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER;
 - 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.
 - PAINTS:
 - ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE;
 - EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM;
 - 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:
- 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;
 - 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;
 - ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY;
 - THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE;
 - SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE LOCAL, STATE OR FEDERAL AGENCIES AS REQUIRED;
 - THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.
- E. VEHICLE FUELING AND MAINTENANCE PRACTICES:**
- CONTRACTOR SHALL MAKE AN EFFORT TO PERFORM EQUIPMENT/VEHICLE FUELING AND MAINTENANCE AT AN OFF-SITE FACILITY;
 - CONTRACTOR SHALL PROVIDE AN ON-SITE FUELING AND MAINTENANCE AREA THAT IS CLEAN AND DRY;
 - IF POSSIBLE THE CONTRACTOR SHALL KEEP AREA COVERED;
 - CONTRACTOR SHALL KEEP A SPILL KIT AT THE FUELING AND MAINTENANCE AREA;
 - CONTRACTOR SHALL REGULARLY INSPECT VEHICLES FOR LEAKS AND DAMAGE;
 - CONTRACTOR SHALL USE DRIP PANS, DRIP CLOTHS, OR ABSORBENT PADS WHEN REPLACING SPENT FLUID.

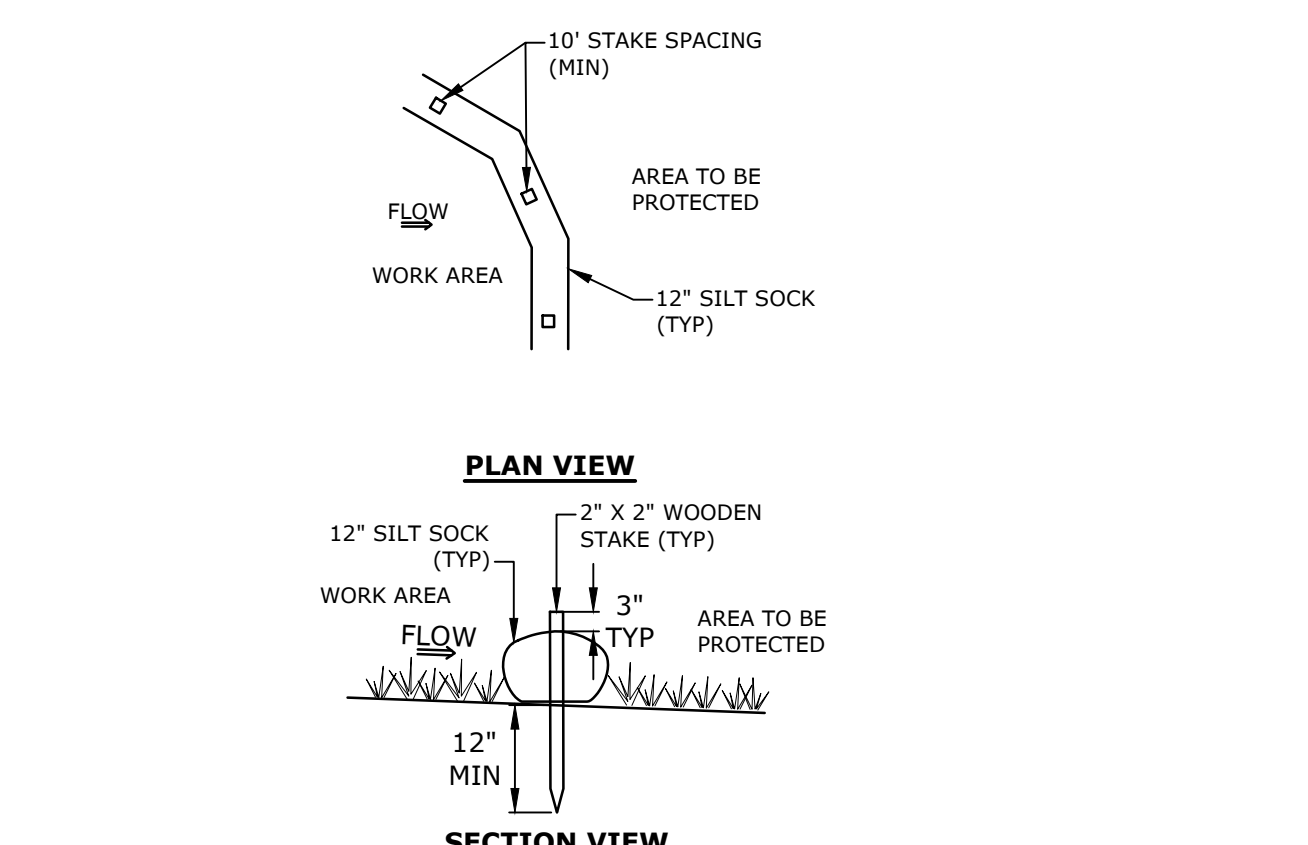


NOTES

- THE EXIT SHOULD BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY.
- WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHOULD BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL, RE-GRADED ON SITE, AND STABILIZED PRIOR TO RECONSTRUCTING THE EXIT.
- THE CONTRACTOR SHOULD SWEEP THE PAVEMENT AT EXITS WHENEVER SOIL MATERIALS ARE TRACKED ONTO THE ADJACENT PAVEMENT OR TRAVEL WAY.
- WHEN WHEEL WASHING IS REQUIRED, IT SHOULD BE CONDUCTED ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT-TRAPPING DEVICE.
- ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS TO THE GREATEST EXTENT PRACTICAL.
- NATURAL DRAINAGE THAT CROSSES THE LOCATION OF THE STONE PAD SHOULD BE INTERCEPTED AND PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET PROTECTION.

STABILIZED CONSTRUCTION EXIT

NO SCALE



NOTES

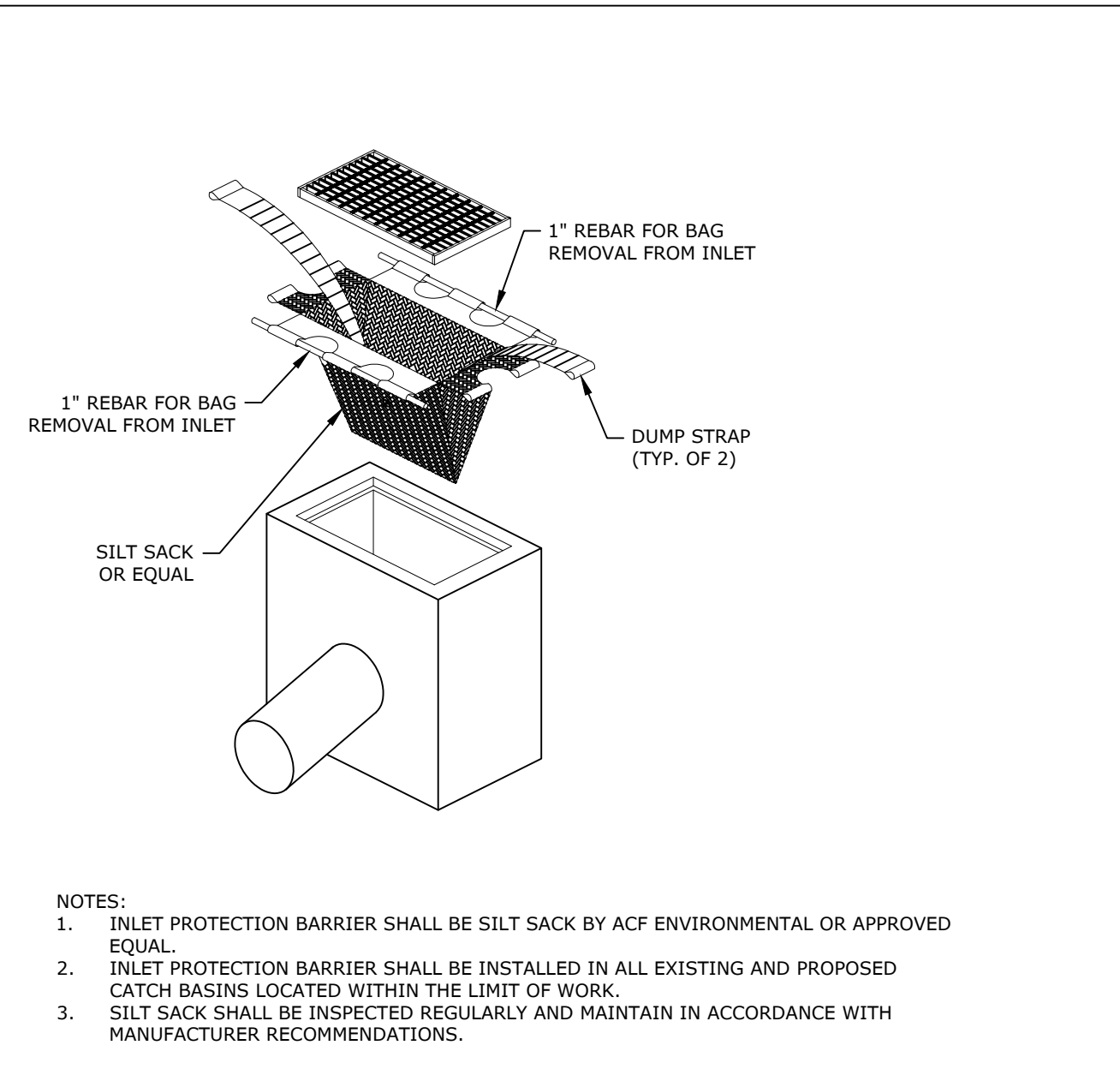
- SILT SOCK SHALL BE FILLED WITH A CERTIFIED COMPOST FILTERMEDIA BY FILTEREXX OR EQUAL.
- SILT SOCK SHALL BE FILLED WITH A CERTIFIED COMPOST FILTERMEDIA BY FILTEREXX OR EQUAL.
- WHERE TWO SILT SOCKS ARE JOINED, A MINIMUM OF 2 FEET OF OVERLAP SHALL BE MAINTAINED.
- CONTRACTOR SHALL INSTALL SILT SOCK IN "J-HOOK" OR "SMILE" CONFIGURATION TO LIMIT CONCENTRATION OF STORMWATER RUNOFF AT A SINGLE DISCHARGE POINT AS PER RECOMMENDATIONS IN THE NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3: EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION.
- SILT SOCKS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

SILT SOCK

NO SCALE

EROSION CONTROL BLANKET

NO SCALE

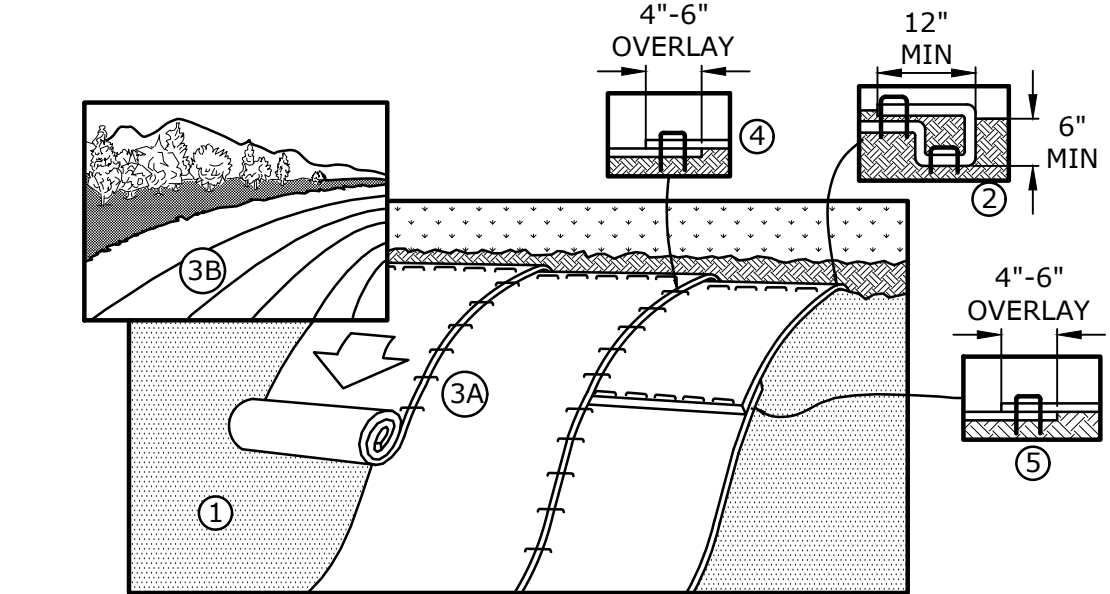


NOTES:

- INLET PROTECTION BARRIER SHALL BE SILT SACK BY ACF ENVIRONMENTAL OR APPROVED EQUAL.
- INLET PROTECTION BARRIER SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASINS LOCATED WITHIN THE LIMIT OF WORK.
- SILT SACK SHALL BE INSPECTED REGULARLY AND MAINTAIN IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

INLET PROTECTION BARRIER

NO SCALE

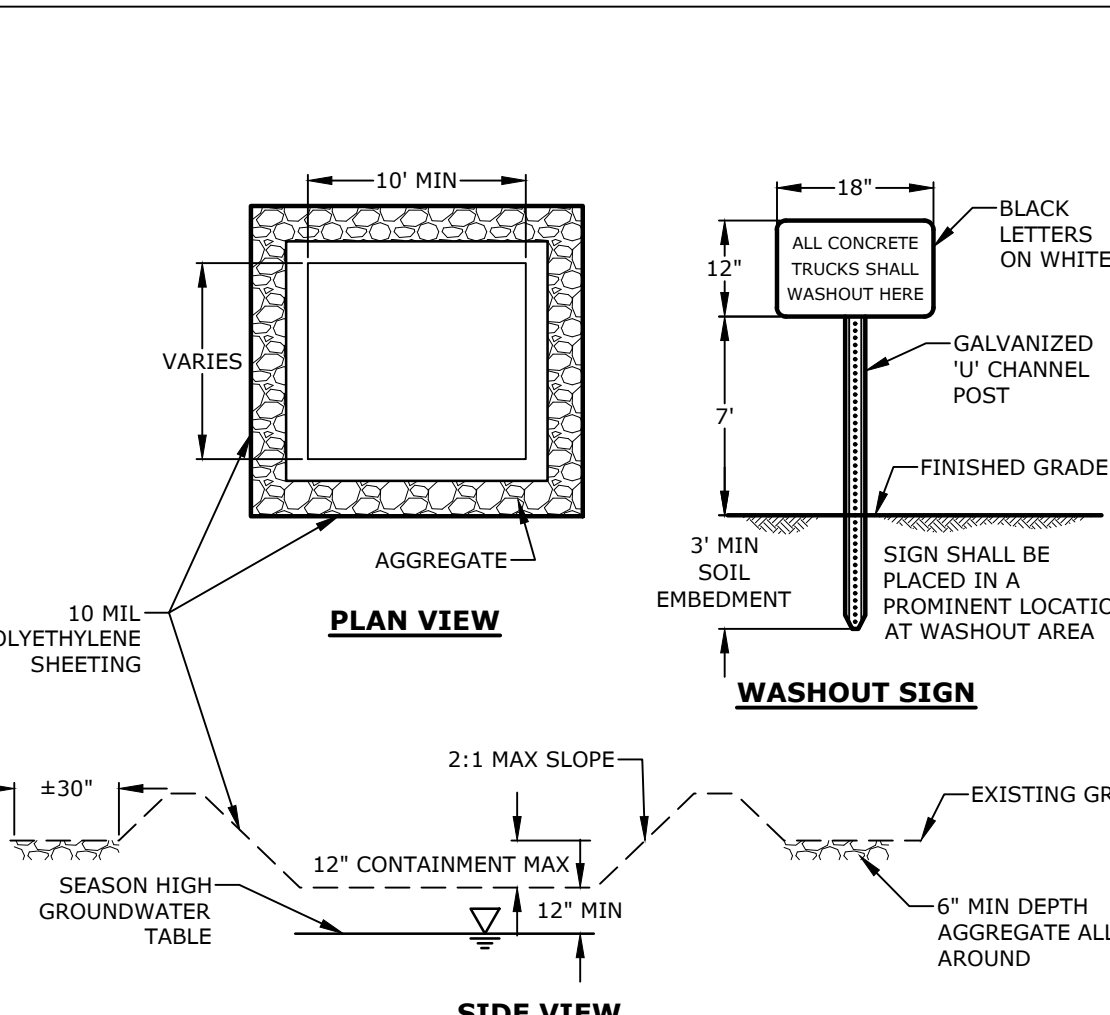


NOTES

- EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL STEEP SLOPE AREA (3:1 OR GREATER).
- PRIOR TO INSTALLATION SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS. BLANKETS SHALL HAVE GOOD SOIL CONTACT.
- PERMANENT SEEDING SHOULD BE PRIOR TO INSTALLING BLANKETS.
- BLANKETS SHALL BE LOOSELY LAID AND STAKED/STAPLED TO MAINTAIN DIRECT CONTACT WITH THE SOIL. BLANKETS SHALL NOT BE STRETCHED.
- EROSION CONTROL BLANKET SHALL BE "EAST COAST EROSION CONTROL ECC-28™" OR EQUAL AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS.

CONCRETE WASHOUT AREA

NO SCALE



NOTES:

- CONTAINMENT SHALL BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
- CONTAINMENT OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
- WASHOUT SHALL BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
- WASHOUT AREAS SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS
- ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
- AT LEAST WEEKLY, REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

CONCRETE WASHOUT AREA

NO SCALE



177 Corporate Drive
 Portsmouth, NH 03801
 T 603.433.8818



New Franklin School Upgrades

Portsmouth School Department SAU 52

Portsmouth, New Hampshire

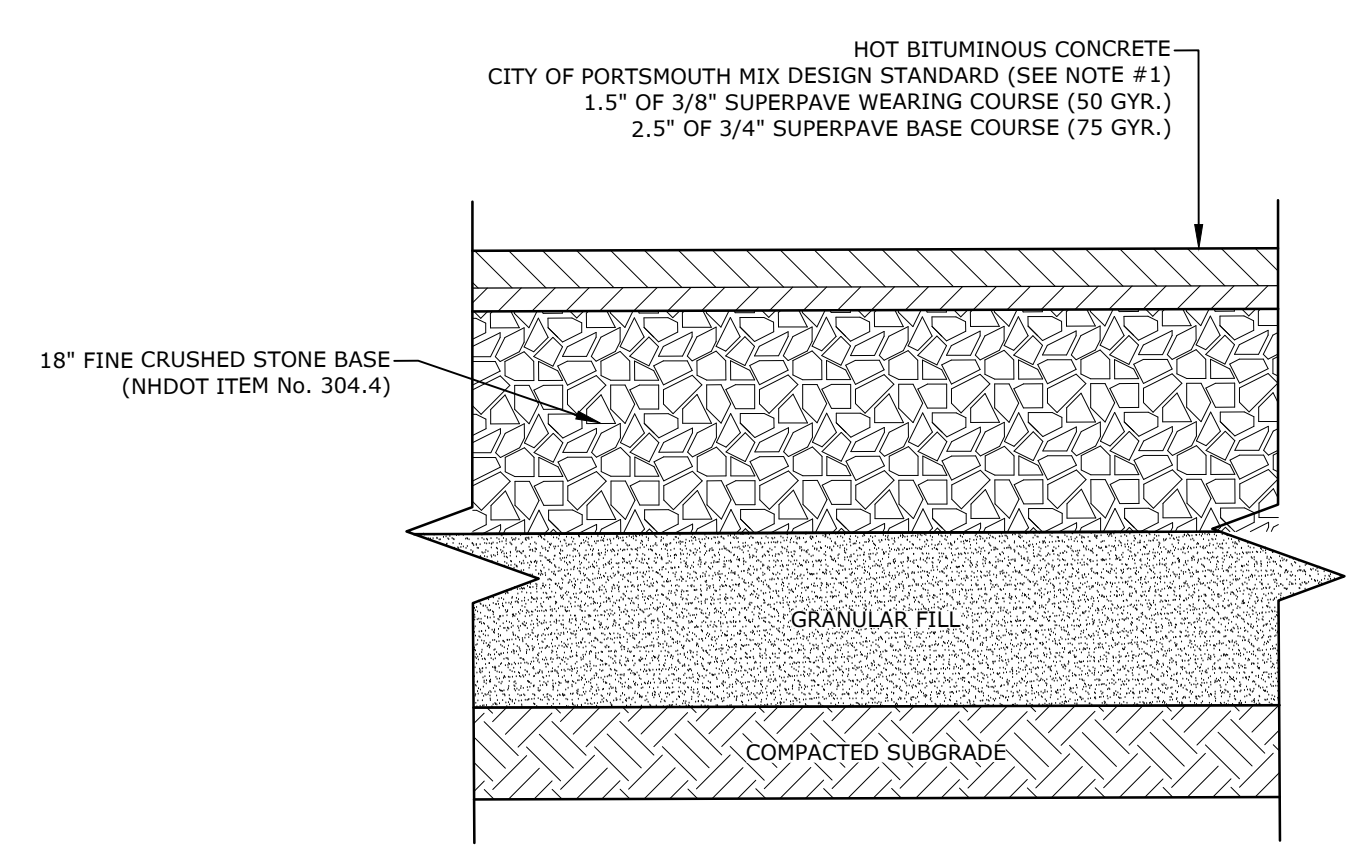
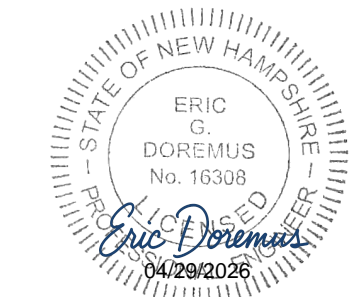
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DRAWN BY:	MKF	
DESIGNED BY:	EGD	
CHECKED BY:	NAH	
APPROVED BY:	EGD	

EROSION CONTROL NOTES & DETAILS SHEET

SCALE: AS SHOWN

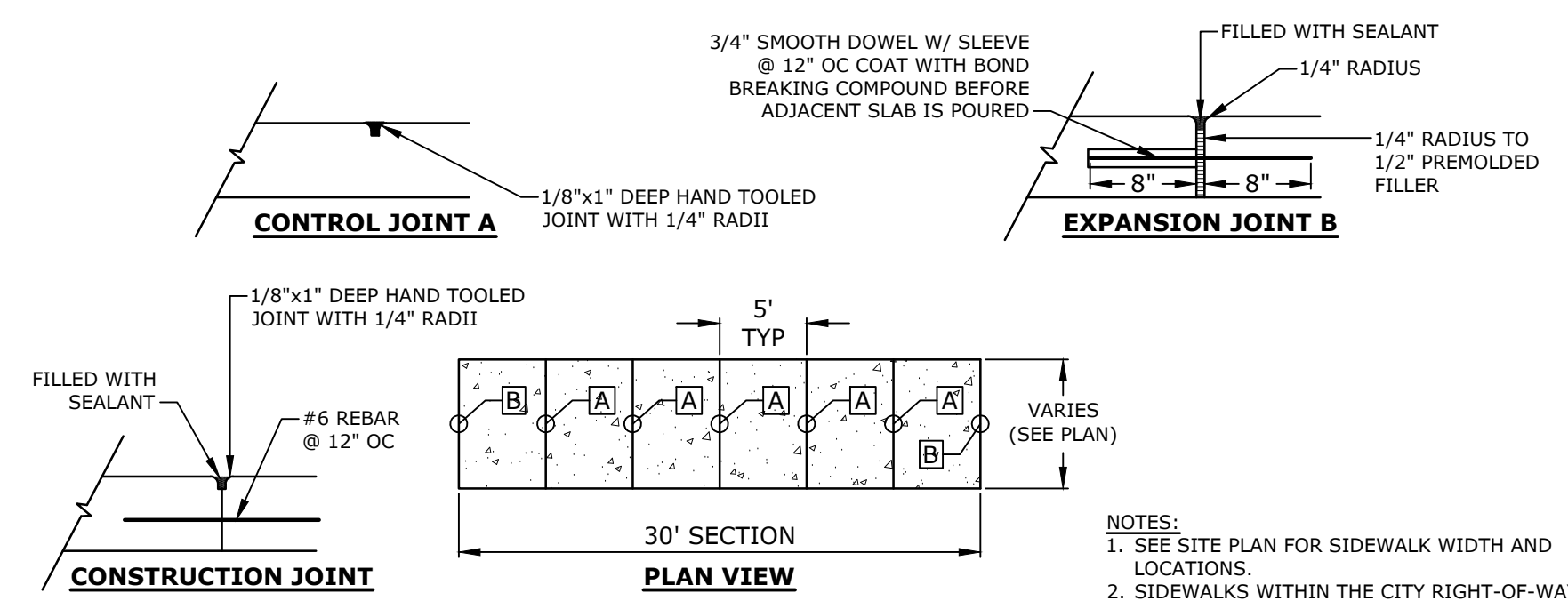
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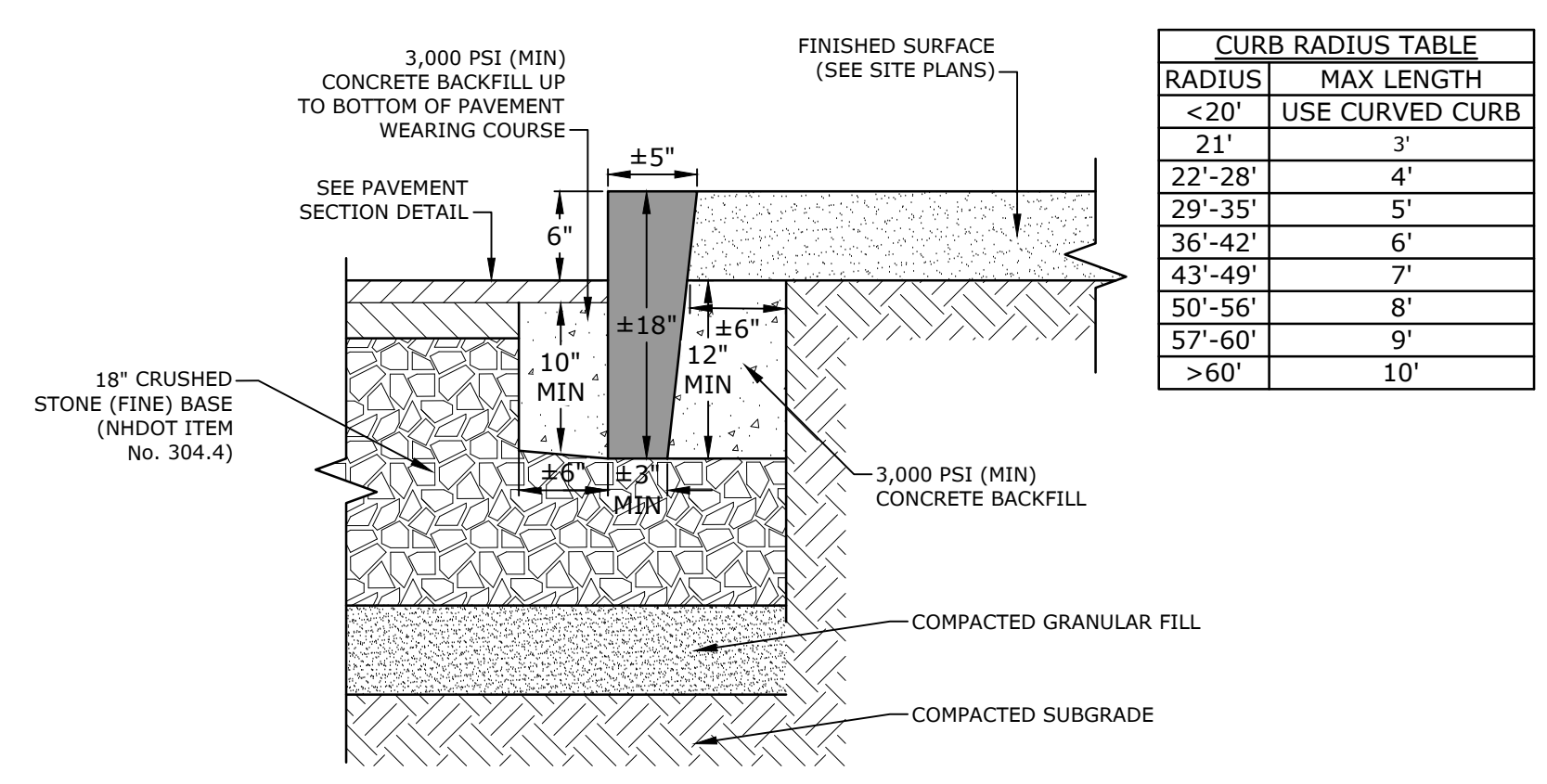
- NOTES:**
- PAVEMENT MIX DESIGN WITHIN THE CITY RIGHT-OF-WAY SHALL COMPLY WITH THE CITY OF PORTSMOUTH MIX DESIGN STANDARD WITH A MAXIMUM OF 10% RAP. CONTRACTOR SHALL SUPPLY MIX DESIGNS TO DPW FOR APPROVAL PRIOR TO INSTALLATION.
 - SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
 - SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
 - A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.

TYPICAL STANDARD DUTY PAVEMENT SECTION
NO SCALE



- NOTES:**
- SEE SITE PLAN FOR SIDEWALK WIDTH AND LOCATIONS.
 - SIDEWALKS WITHIN THE CITY RIGHT-OF-WAY SHALL BE CONSTRUCTED USING FIBER REINFORCEMENT.
 - SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR WALK AND SIDE SLOPE GRADES.
 - SIDEWALK SURFACE SHALL GIVEN A BROOM FINISH.
 - ISOLATION JOINTS ADJACENT TO BUILDING SHALL BE COORDINATED WITH BUILDING DRAWINGS.
 - CONTRACTOR SHALL SUBMIT THE PROPOSED CONCRETE MIX DESIGN FOR APPROVAL PRIOR TO CONSTRUCTION.
 - 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.

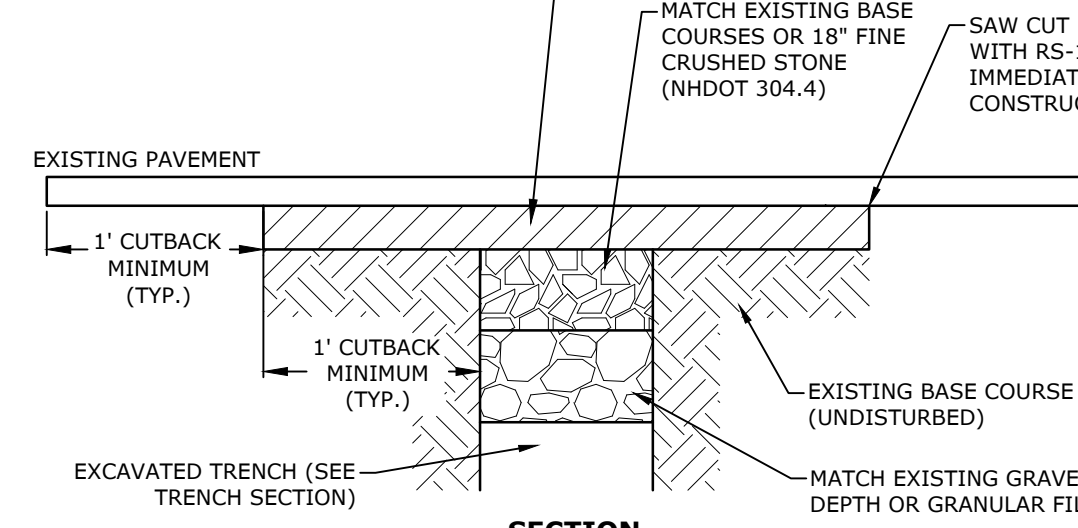
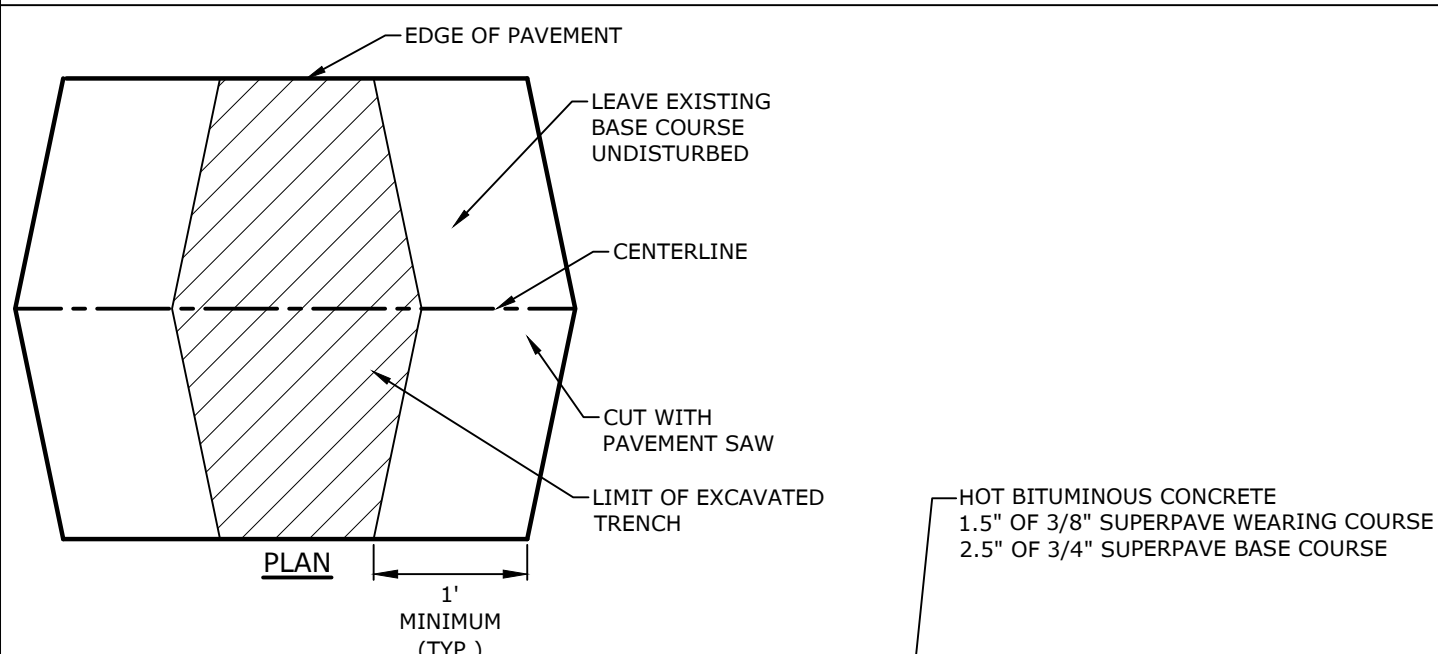
CONCRETE SIDEWALK
NO SCALE



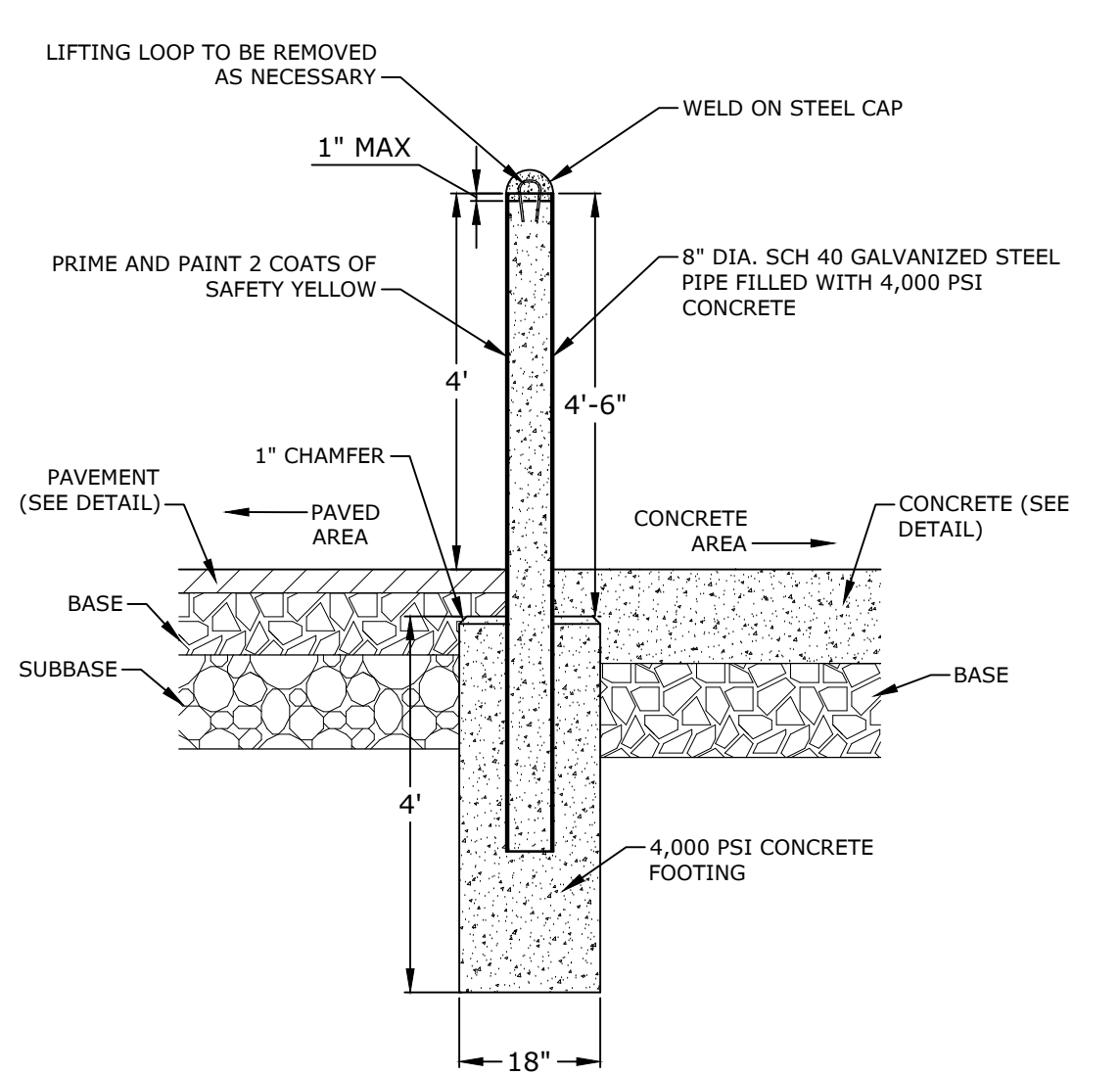
CURB RADIUS TABLE	
RADIUS	MAX LENGTH
<20'	USE CURVED CURB
21'	3'
22'-28'	4'
29'-35'	5'
36'-42'	6'
43'-49'	7'
50'-56'	8'
57'-60'	9'
>60'	10'

- NOTES:**
- SEE SITE PLANS FOR LIMITS OF VERTICAL GRANITE CURB (VGC).
 - ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
 - MINIMUM LENGTH OF STRAIGHT CURB STONES = 3'
 - MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
 - ALL RADII 20 FEET AND SMALLER SHALL BE CONSTRUCTED USING CURVED SECTIONS.
 - JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE MORTARED.

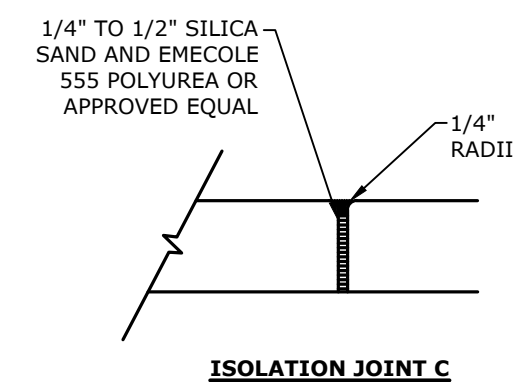
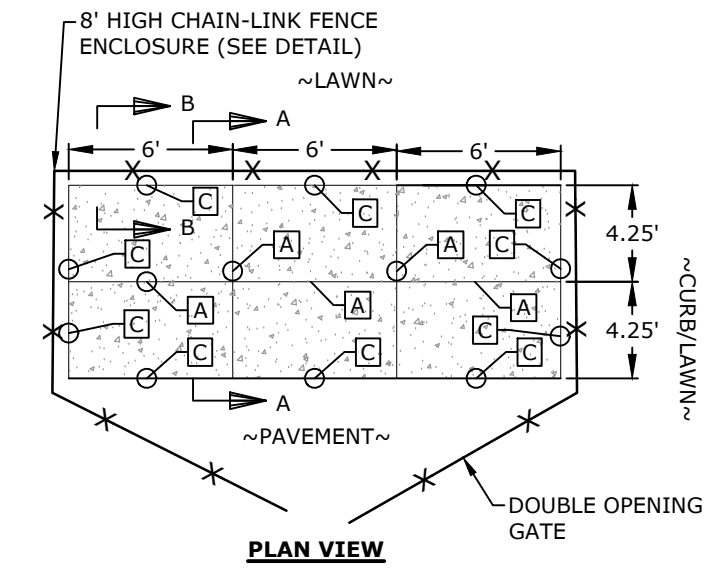
VERTICAL GRANITE CURB
NO SCALE



DIAMOND ROADWAY TRENCH PATCH
NO SCALE

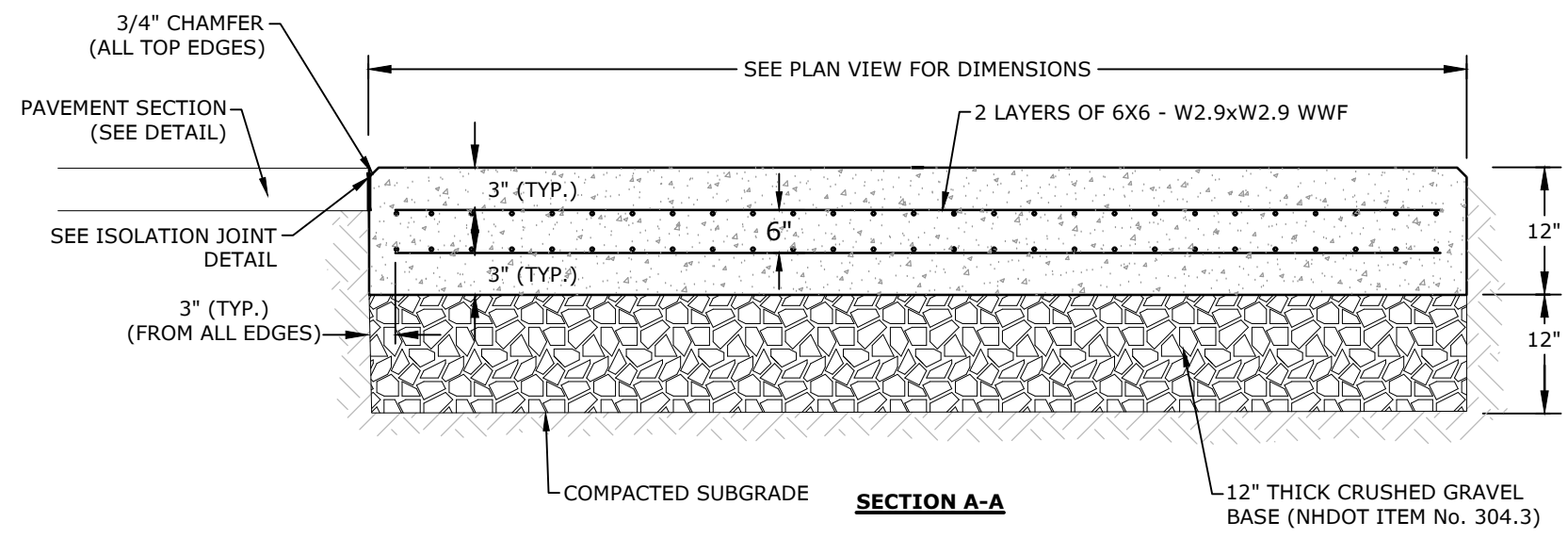


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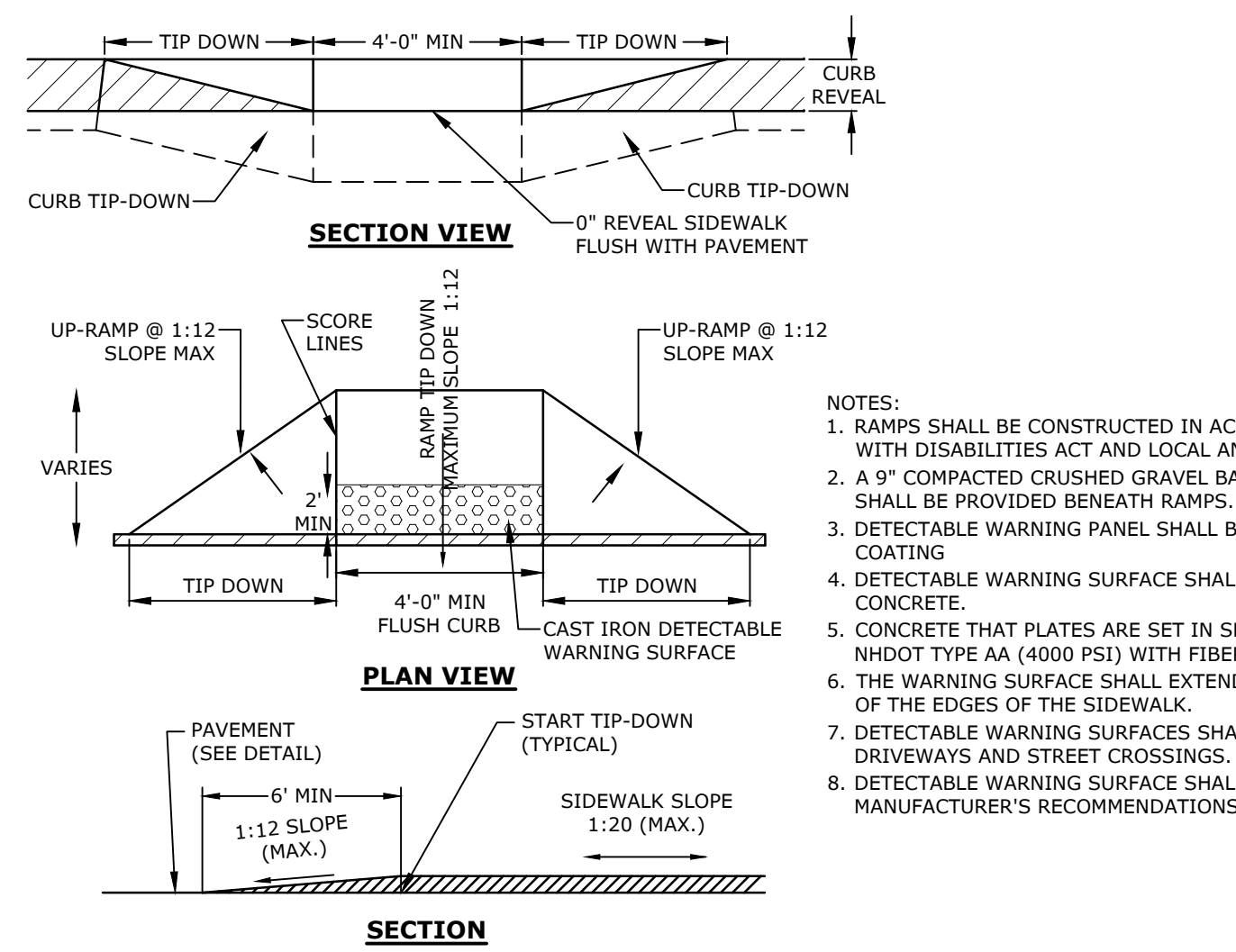


- NOTES:**
- CONCRETE TO BE CLASS A 4500 PSI, 7% AIR ENTRAINED
 - STANDARD BROOM FINISH.
 - QUICKCRETE CURE & SEAL OR APPROVED EQUAL TO BE APPLIED PER MANUFACTURER RECOMMENDATIONS AFTER PLACEMENT OF CONCRETE
 - BURLAP AND POLY COVERINGS SHALL NOT BE USED FOR CURING.

DUMPSTER PAD
NO SCALE

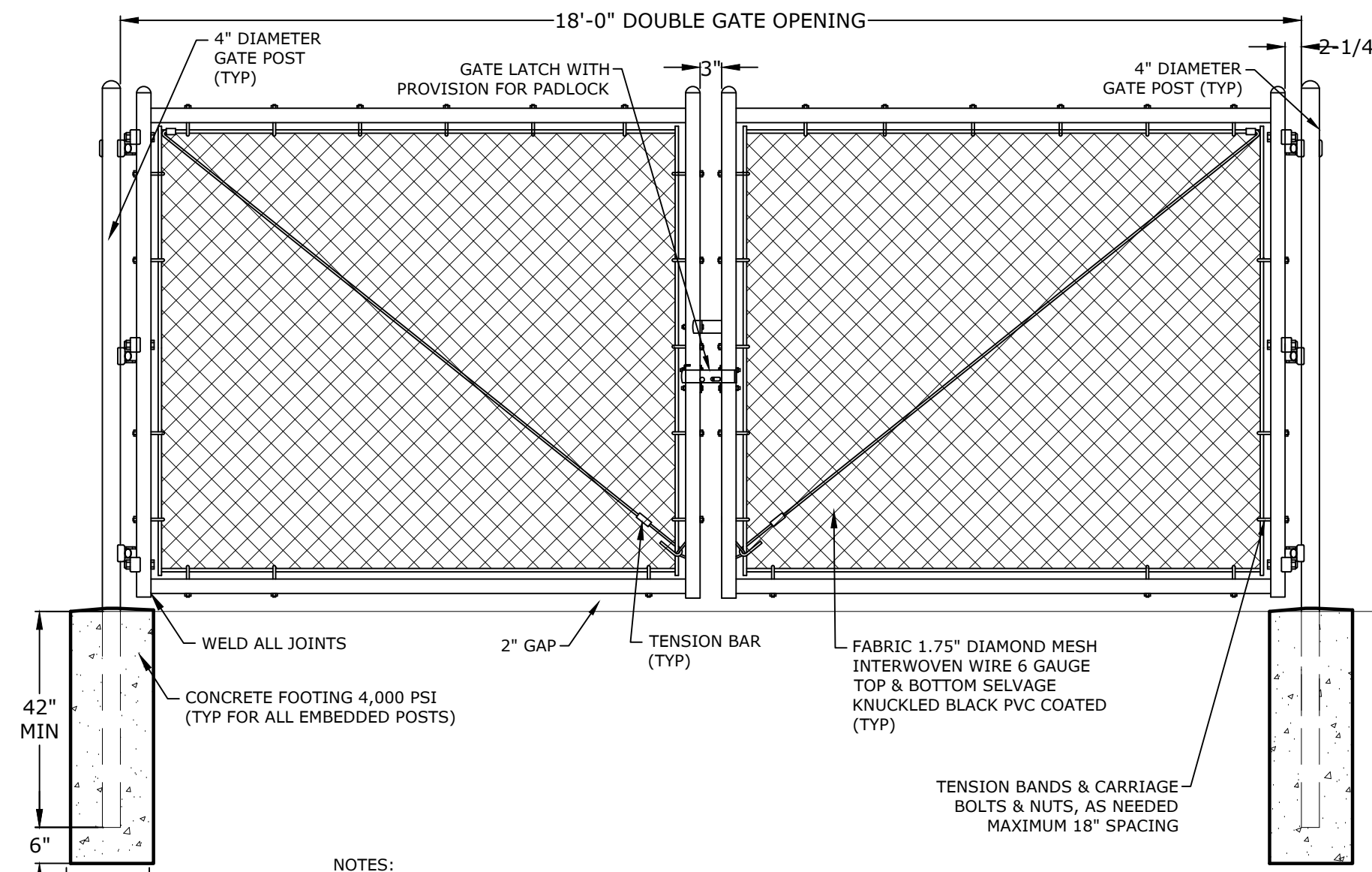


DUMPSTER PAD
NO SCALE

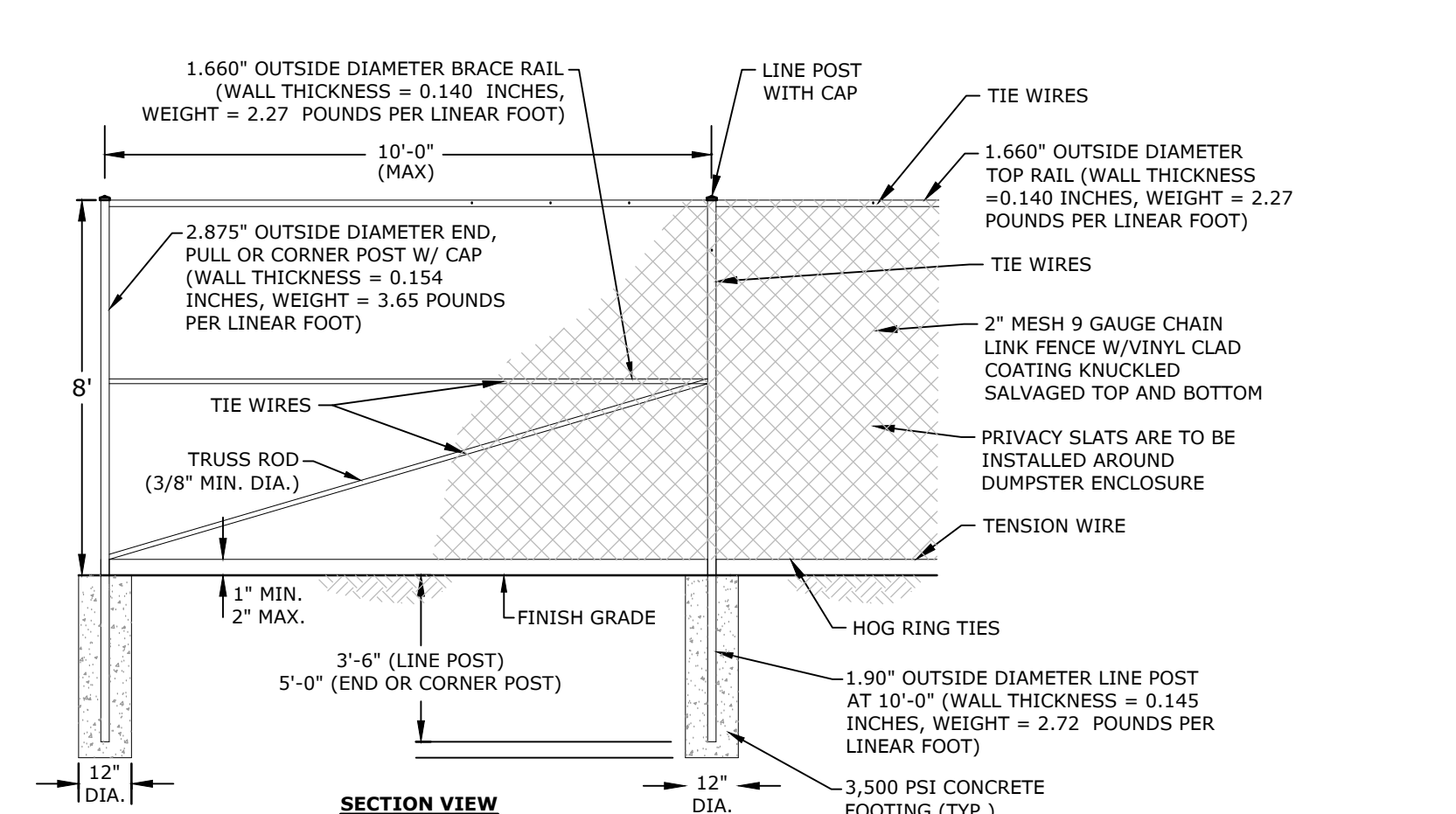


- NOTES:**
- RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS.
 - A 9\"/>

CONCRETE SIDEWALK TIP-DOWN RAMPS WITH DETECTIBLE WARNING SURFACE
NO SCALE



DOUBLE SWING GATE FOR DUMPSTER ENCLOSURE
NO SCALE



CHAIN LINK FENCE ENCLOSURE FOR DUMPSTER PAD
NO SCALE

New Franklin School Upgrades

Portsmouth School Department
SAU 52

Portsmouth, New Hampshire

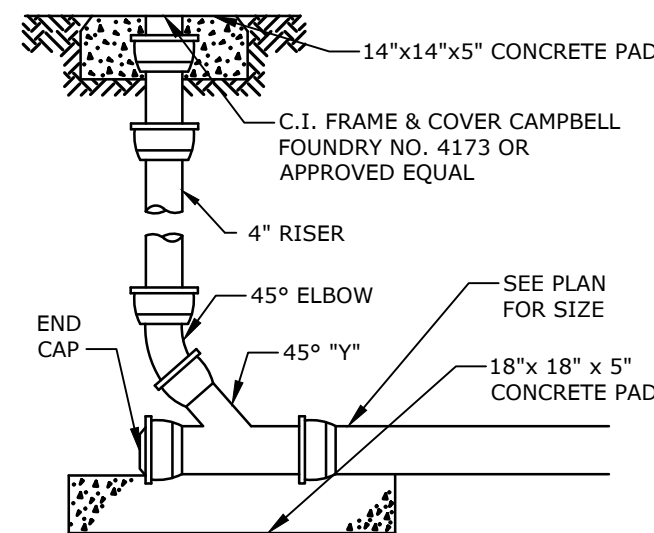
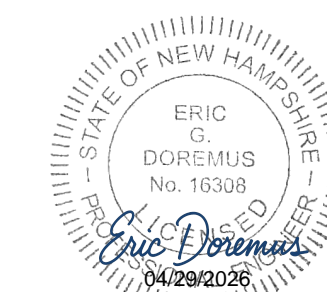
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DRAWN BY:	MKF	
DESIGNED BY:	EGD	
CHECKED BY:	NAH	
APPROVED BY:	EGD	

DETAILS SHEET

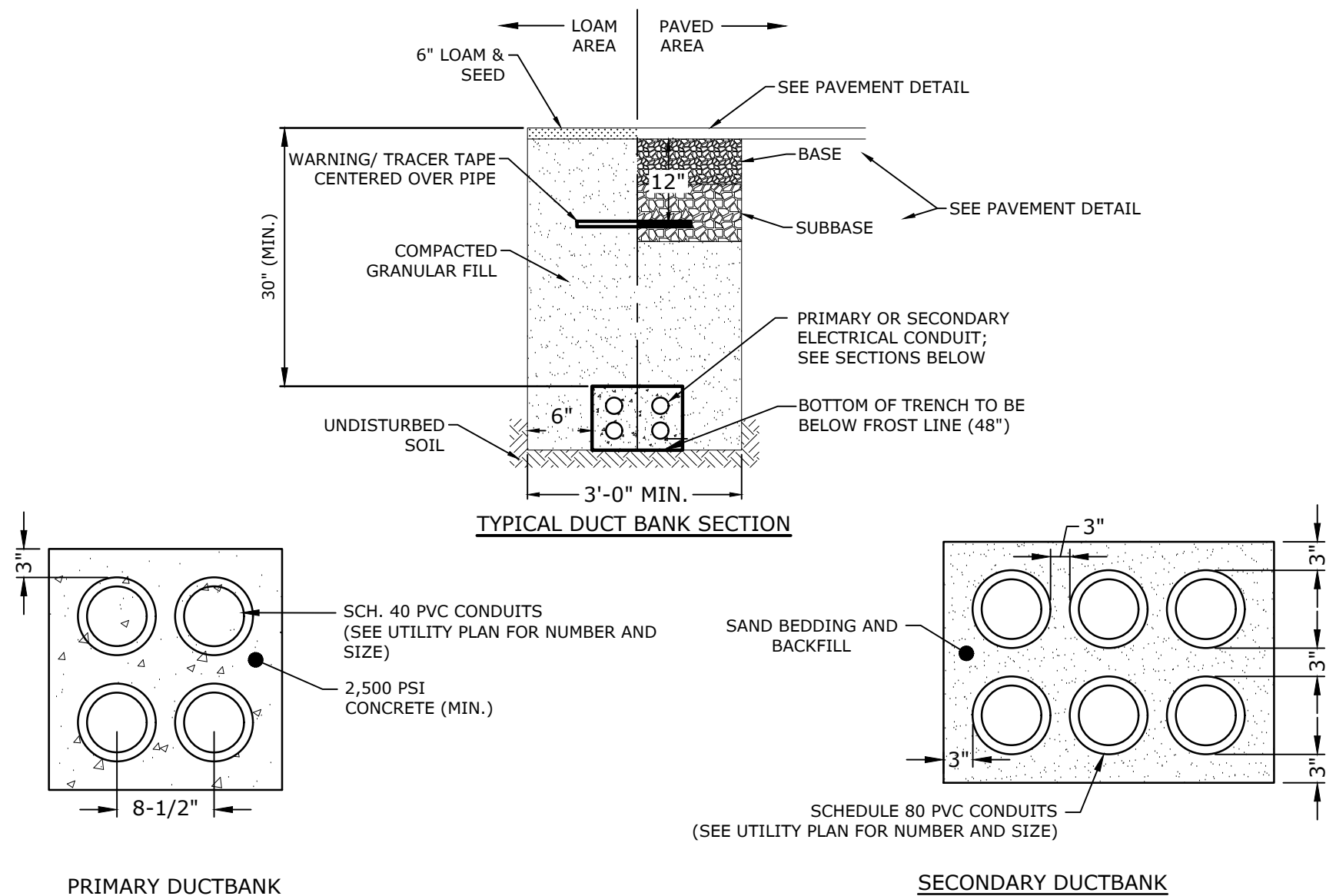
SCALE: AS SHOWN

C-601

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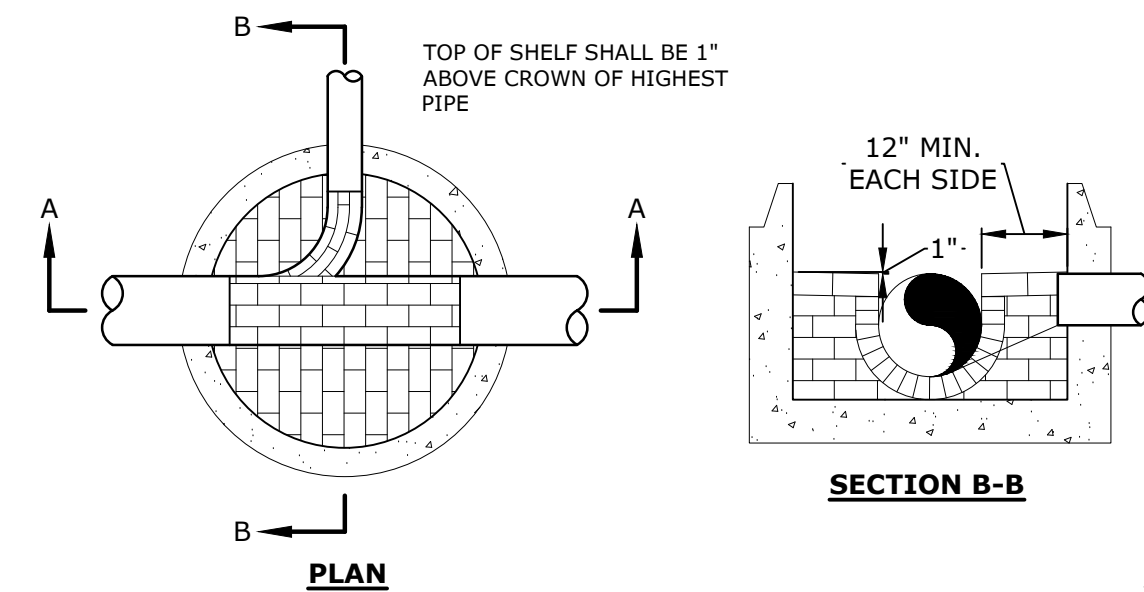


CLEAN OUT DETAIL
NO SCALE



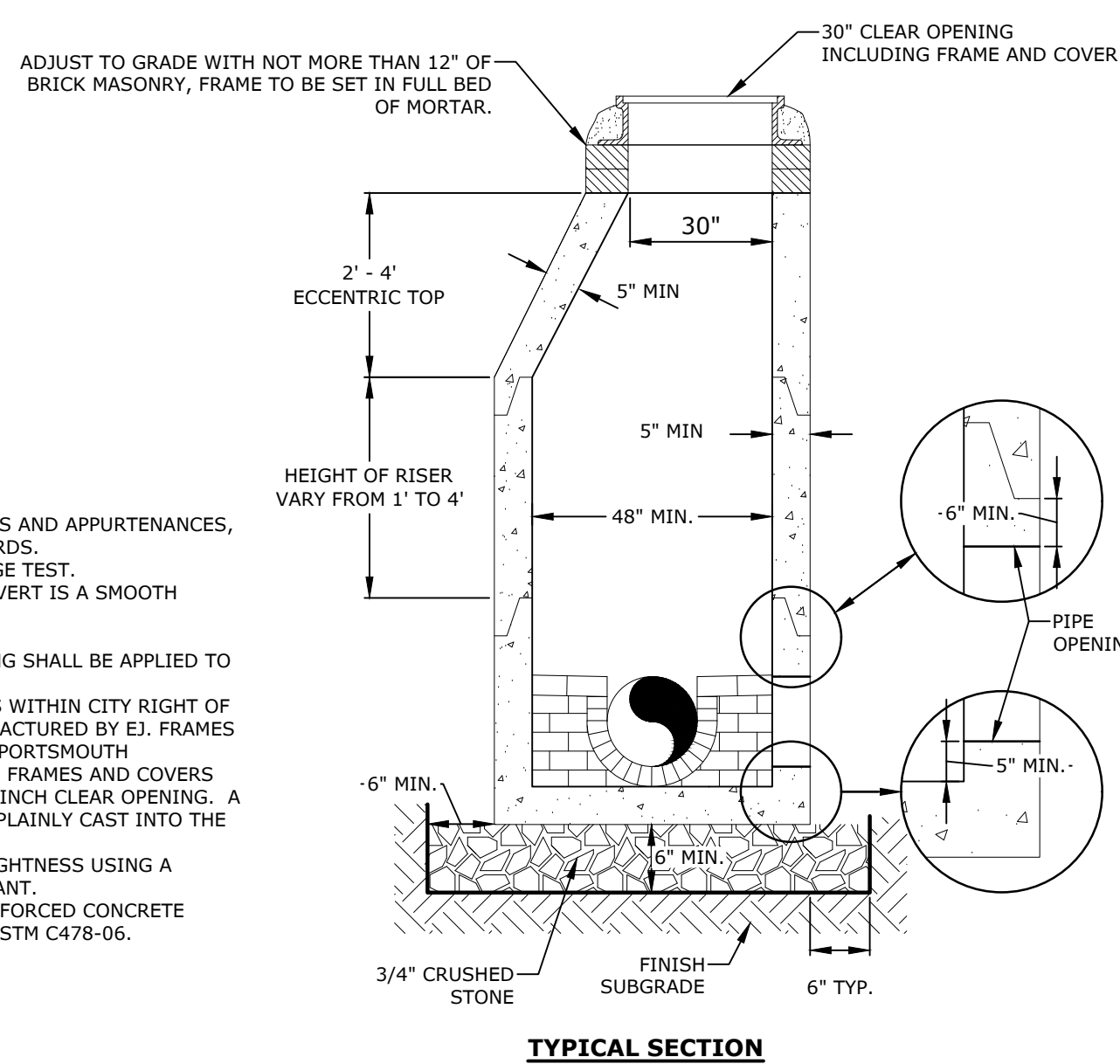
ELECTRICAL TRENCH DETAIL
NO SCALE

- NOTES:**
- NO CONDUIT RUN SHALL EXCEED 360 DEGREES IN TOTAL BENDS.
 - A SUITABLE PULLING STRING, CAPABLE OF 200 POUNDS OF PULL, SHALL BE INSTALLED IN THE CONDUIT PRIOR TO INSTALLING CONDUIT. THE STRING SHALL BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT.
 - ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRICAL SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE.
 - SEE UTILITY PLAN FOR LIMITS.
 - ALL ELECTRICAL CONDUIT PENETRATING VAULTS AND FOUNDATION WALLS OR TRANSITIONING OUT OF A CONCRETE DUCT BANK SHALL BE RIGID GALVANIZED WITH TWO COATS OF CARBOLINE BITUMASTIC 300M COAL TAR EPOXY FOR PROTECTION.
 - PRIMARY ELECTRICAL CONDUITS SHALL BE SCH. 40 PVC IN A CONCRETE DUCT BANK. SECONDARY ELECTRICAL SHALL BE SCH. 40 PVC WITH SAND BEDDING AND BACKFILL.
 - PROVIDE 3" MIN. CONCRETE COVER OVER PRIMARY CONDUITS. SIDES OF CONCRETE DUCTBANKS SHALL BE FORMED VERTICAL. TOPS OF DUCTBANKS SHALL BE BULL-FLOATED.
 - EV CHARGER CONDUITS SHALL BE CONCRETE ENCASED.

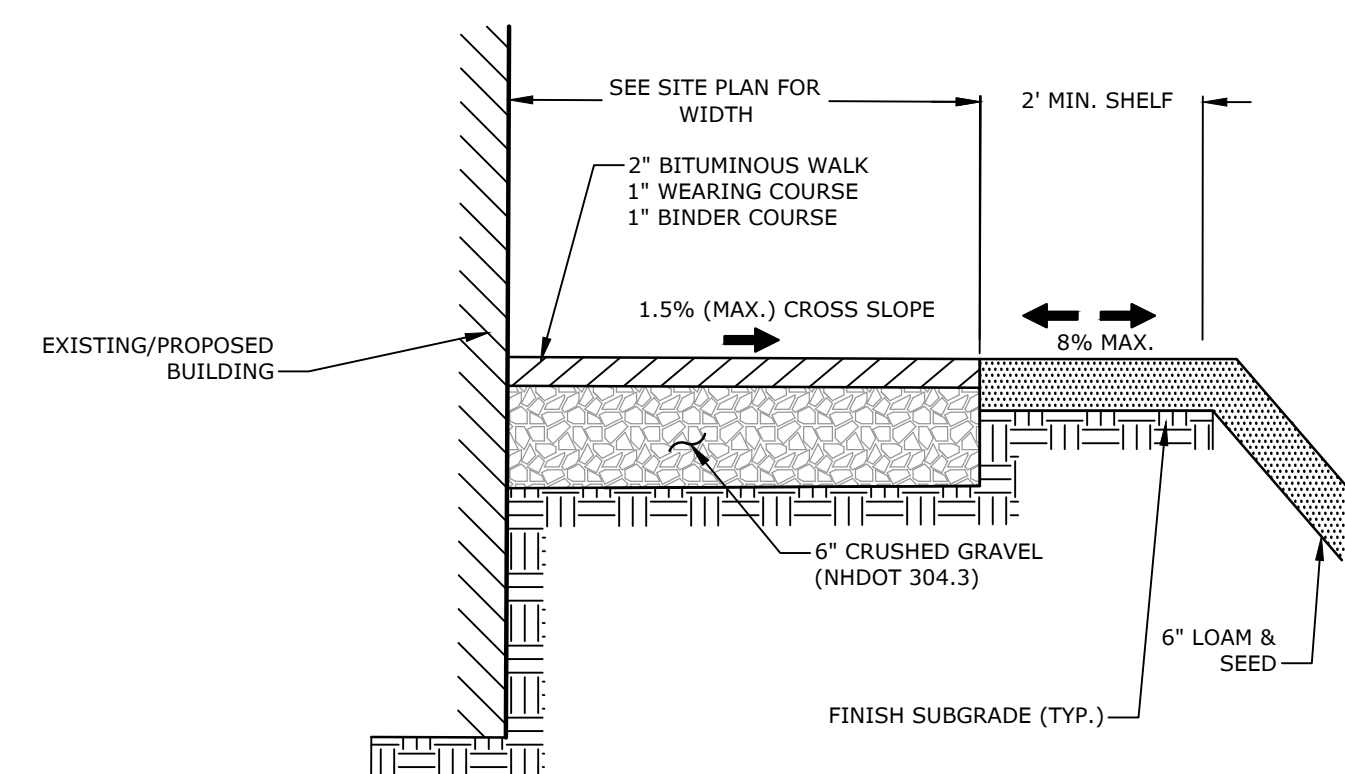


SEWER MANHOLE
NO SCALE

- NOTES:**
- ALL SEWER MANHOLES, AS WELL AS ASSOCIATED PIPES AND APPURTENANCES, SHALL BE CONSTRUCTED TO CITY AND STATE STANDARDS.
 - INVERT AND SHELF TO BE PLACED AFTER EACH LEAKAGE TEST.
 - CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
 - INVERT BRICKS SHALL BE LAID ON EDGE.
 - TWO (2) COATS OF BITUMINOUS WATERPROOF COATING SHALL BE APPLIED TO ENTIRE EXTERIOR OF MANHOLE.
 - FRAMES AND COVERS: MANHOLE FRAMES AND COVERS WITHIN CITY RIGHT OF WAY SHALL BE CITY STANDARD HINGE COVERS MANUFACTURED BY E.J. 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.
 - HORIZONTAL JOINTS SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE SEALANT.
 - BARREL AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE DESIGNED FOR H2O LOADING, AND CONFORMING TO ASTM C478-06.

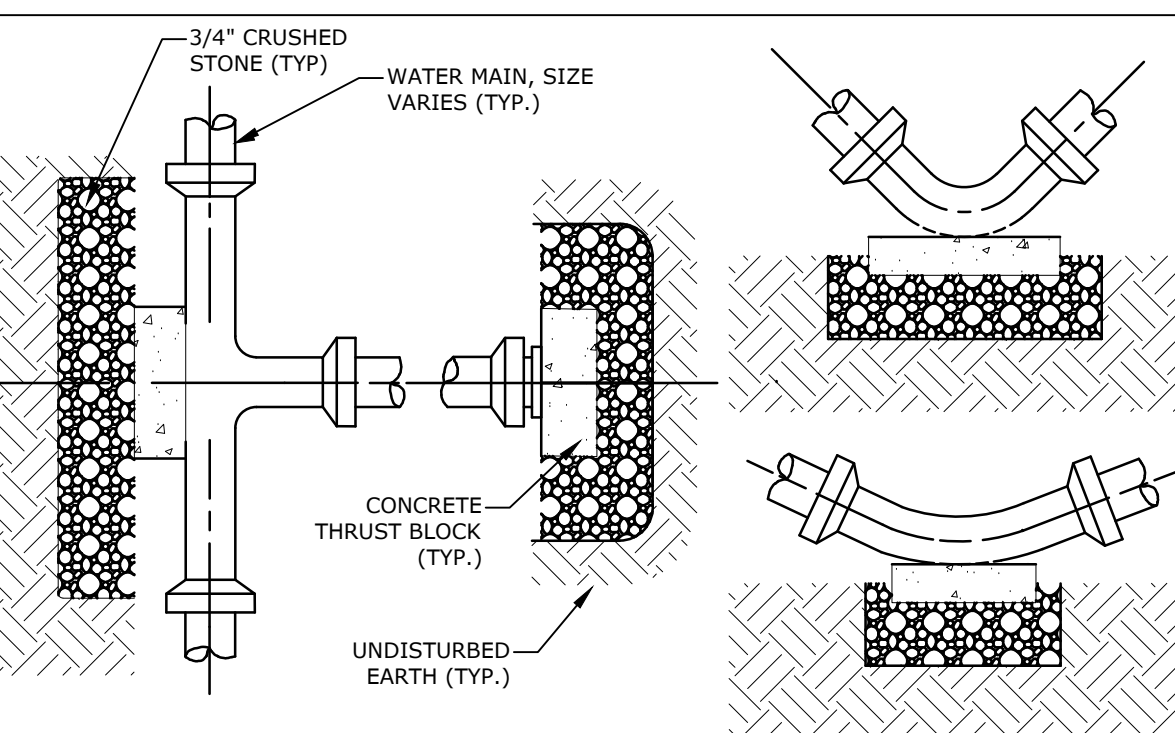


TYPICAL SECTION



BITUMINOUS CONCRETE SIDEWALK
NO SCALE

- NOTES:**
- SEE SITE PLAN FOR SIDEWALK WIDTH, AND LOCATIONS.
 - SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR WALK AND SIDESLOPE GRADES.



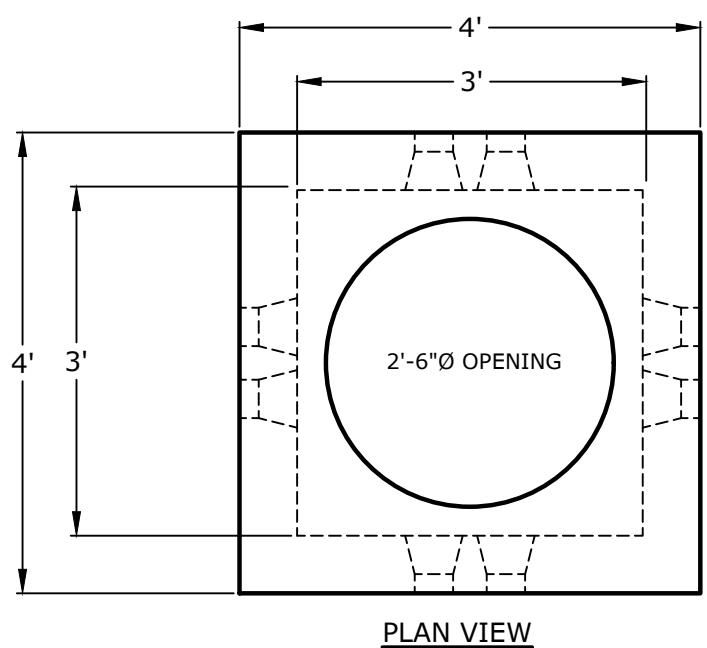
THRUST BLOCKING DETAIL
NO SCALE

- NOTES:**
- ALL THRUST BLOCKS SHALL BE PRE-CAST CONCRETE UNLESS APPROVED BY THE CITY ENGINEER.
 - 2'x2'x2' MINIMUM THRUST BLOCK REQUIRED, ANY BEARING AREA OVER 4 SF REQUIRES THRUST BLOCKS, RESTRAINED JOINTS AND CALCULATIONS ASSOCIATED WITH THE JOINT.
 - FOR MINIMUM BEARING AREAS OVER 4 SF, THE LENGTH (L) OF THE BLOCK IS APPROXIMATELY TWICE AS LONG AS THE HEIGHT (H).
 - THE MINIMUM BEARING AREAS SHOWN IN THE THRUST BLOCK SCHEDULE ARE BASED ON A SYSTEM PRESSURE OF 125 PSI. IF THE SYSTEM PRESSURE IS ABOVE 125 PSI, INCREASE THE NOTED AREAS PROPORTIONALLY TO THE ACTUAL SYSTEM PRESSURE.
 - PLACE CRUSHED STONE BEHIND THRUST BLOCK AGAINST UNDISTURBED SOIL.
 - PLACE THRUST BLOCK ALONG MAXIMUM LENGTH OF THE FITTING TO MAXIMIZE BEARING AREA.
 - CONCRETE COMPRESSIVE STRENGTH: 2,000 PSI MINIMUM.
 - WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED FOR END BLOCKINGS.
 - INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE WITH CITY OF PORTSMOUTH WATER DEPARTMENT STANDARDS.

NOMINAL DIA. (in)	PIPE SIZE				
	4"	6"	8"	10"	12"
PIPE FITTINGS	-	-	5.18	7.96	11.43
A 90°	-	4.11	7.33	11.26	16.17
C 45°	-	-	6.20	8.75	15.53
D 22-1/2°	-	-	-	4.46	7.92
E 11-1/4°	-	-	-	-	-

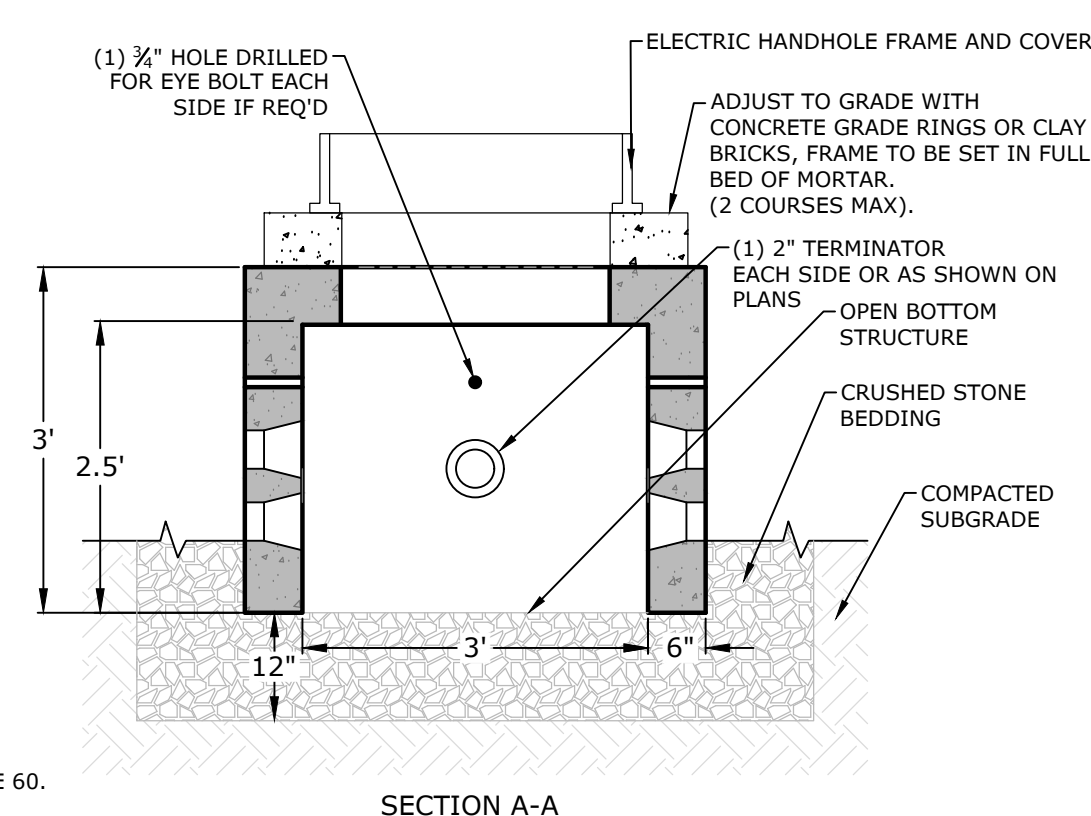
SYSTEM PRESSURE: 125 PSI
SAFETY FACTOR: 1.5
SOIL BEARING CAPACITY: 2,000 psf

*SEE NOTE 2

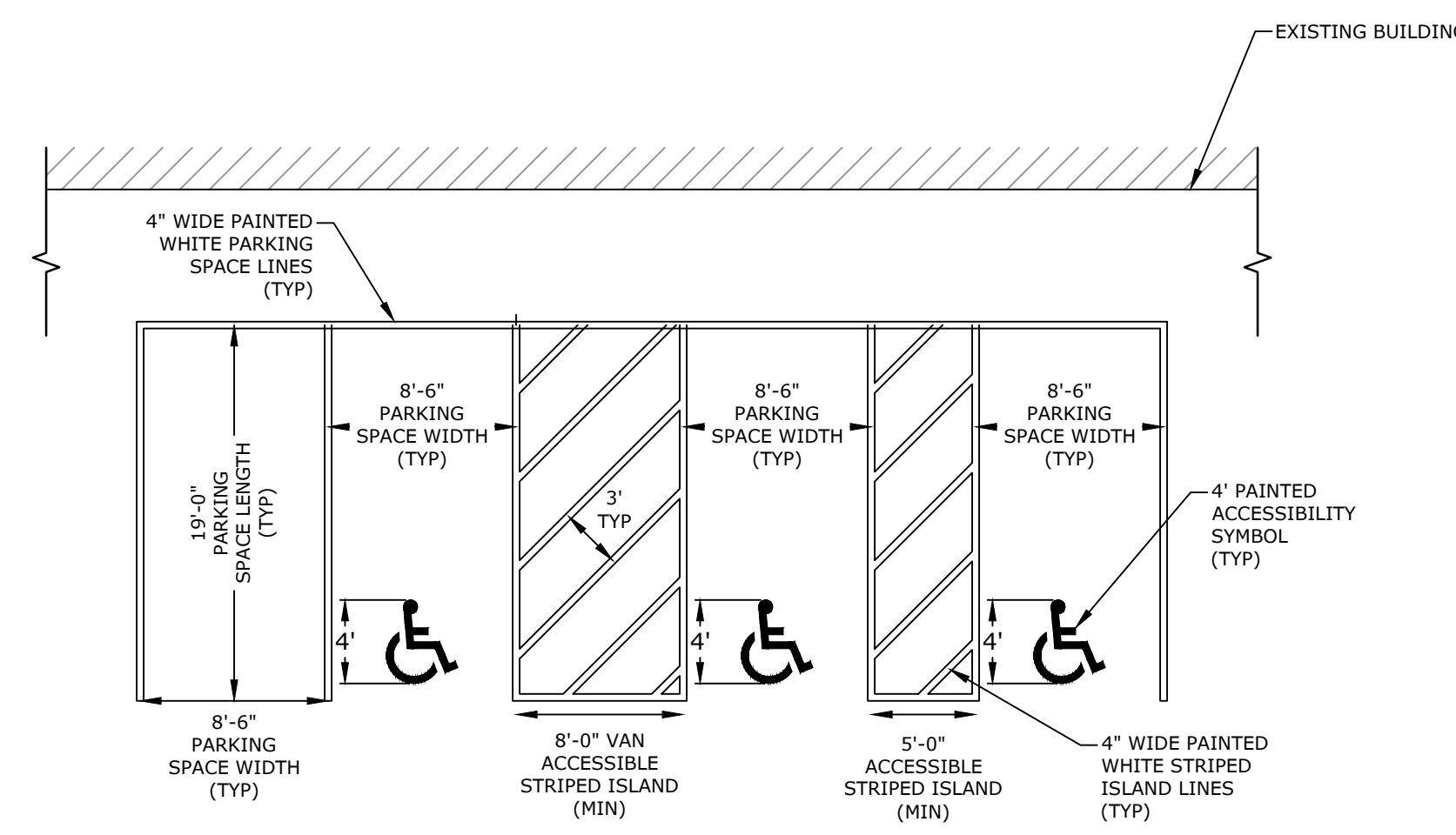


3' x 3' HANDHOLE
NO SCALE

- NOTES:**
- CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
 - DESIGN LOADING: AASHTO HS-20-44.
 - STEEL REINFORCEMENT CONFORMS TO ASTM A615, GRADE 60.
 - MINIMUM STEEL COVER 1".



SECTION A-A



TYPICAL PARKING SPACE STRIPING AND ACCESSIBLE ACCESS LAYOUT
NO SCALE

- NOTES:**
- ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED PER MANUFACTURER RECOMMENDATIONS.
 - SYMBOLS & PARKING STALLS SHALL BE INSTALLED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT, 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, AND ALL STATE AND LOCAL REQUIREMENTS.
 - FINISH PAVEMENT GRADES AT ALL HANDICAP ACCESSIBLE STALLS AND PAINTED ACCESS AISLES SHALL NOT EXCEED 2% IN ANY DIRECTION.

New Franklin School Upgrades

Portsmouth School Department SAU 52

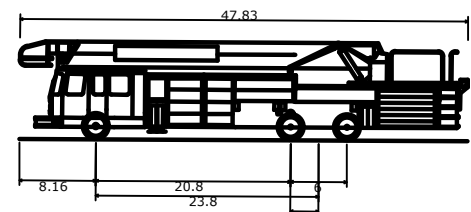
Portsmouth, New Hampshire

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DATE:	04/29/2026	
FILE:	P0766-0009- DSGN - CLUP Permit Set.dwg	
DRAWN BY:	MKF	
DESIGNED BY:	EGD	
CHECKED BY:	NAH	
APPROVED BY:	EGD	

DETAILS SHEET

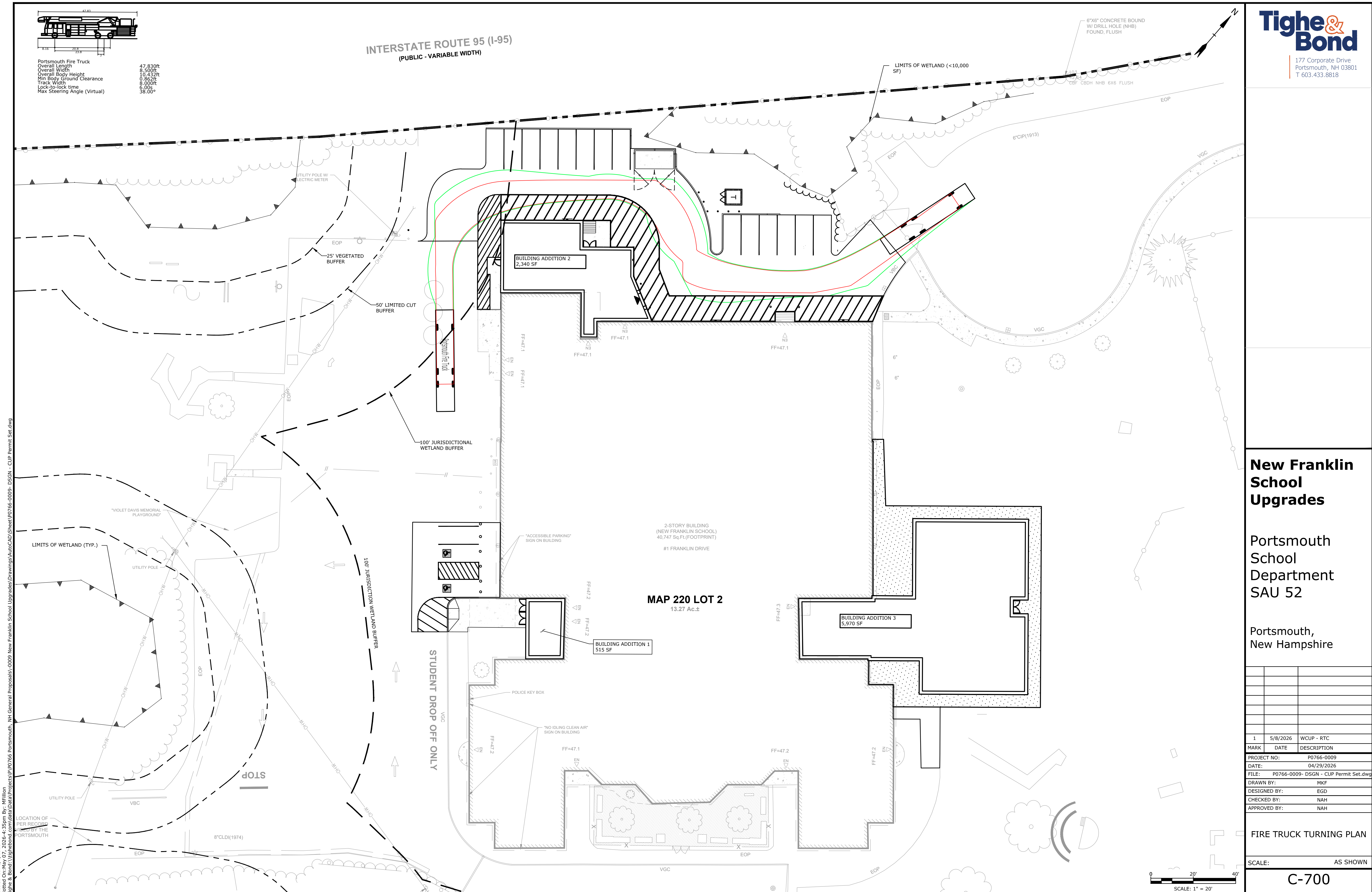
SCALE: AS SHOWN

C-603



Portsmouth Fire Truck
 Overall Length 42.830ft
 Overall Width 8.500ft
 Overall Body Height 10.432ft
 Min Body Ground Clearance 0.862ft
 Track Width 8.000ft
 Lock-to-lock time 6.000s
 Max Steering Angle (Virtual) 38.00°

INTERSTATE ROUTE 95 (I-95)
 (PUBLIC - VARIABLE WIDTH)



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New Franklin School Upgrades

Portsmouth School Department
 SAU 52

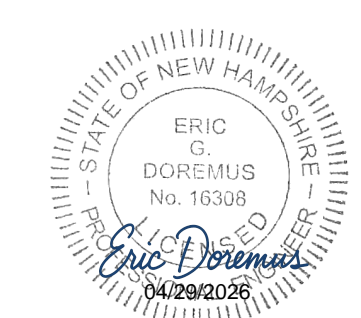
Portsmouth, New Hampshire

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DATE: 04/29/2026		
FILE: P0766-0009-DSGN - CUP Permit Set.dwg		
DRAWN BY: MKF		
DESIGNED BY: EGD		
CHECKED BY: NAH		
APPROVED BY: NAH		

FIRE TRUCK TURNING PLAN

SCALE: AS SHOWN

C-700



New Franklin School Upgrades

Portsmouth School Department
SAU 52

Portsmouth, New Hampshire


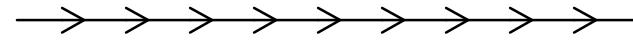


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DATE:	04/29/2026	
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DRAWN BY:	MKF	
DESIGNED BY:	EGD	
CHECKED BY:	NAH	
APPROVED BY:	EGD	

PRE-DEVELOPMENT WATERSHED PLAN

SCALE: AS SHOWN

C-800

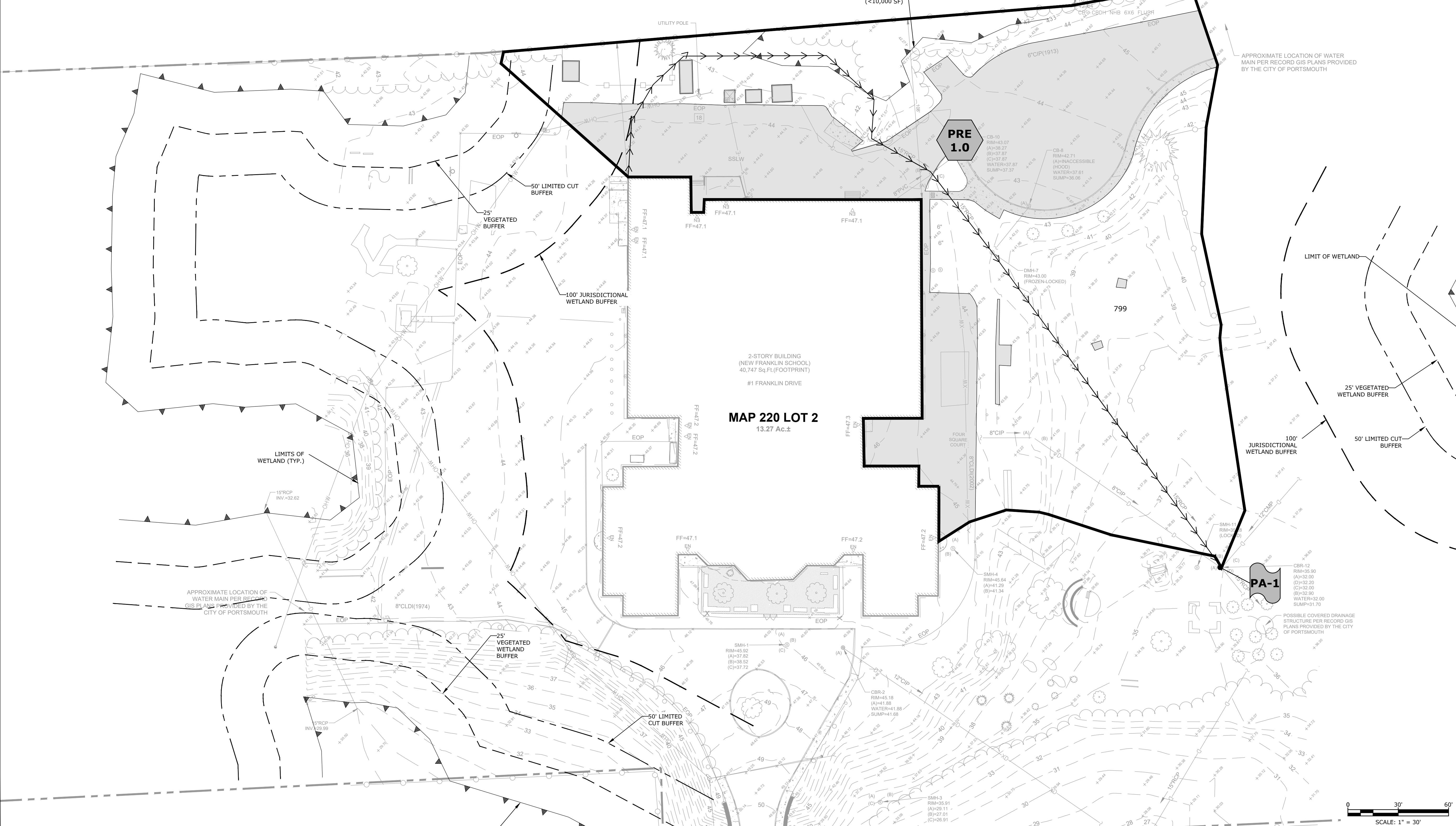
PRE-DEVELOPMENT WATERSHED LEGEND

-  PRE-DEVELOPMENT WATERSHED BOUNDARY
-  LONGEST FLOW PATH
-  PRE DEVELOPMENT WATERSHED AREA DESIGNATION
-  POINT OF ANALYSIS

USDA WEB SOIL SURVEY HYDROLOGIC SOIL GROUP (HSG) LEGEND

SYMBOL	SOIL TYPE, SLOPE RATING	HSG
799	URBAN LAND-CANTON COMPLEX, 3 TO 15 PERCENT SLOPES	A

INTERSTATE ROUTE 95 (I-95)
(PUBLIC - VARIABLE WIDTH)



MAP 220 LOT 2
13.27 Ac.±

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POST
1.0

PA-1

POST-DEVELOPMENT WATERSHED BOUNDARY

LONGEST FLOW PATH

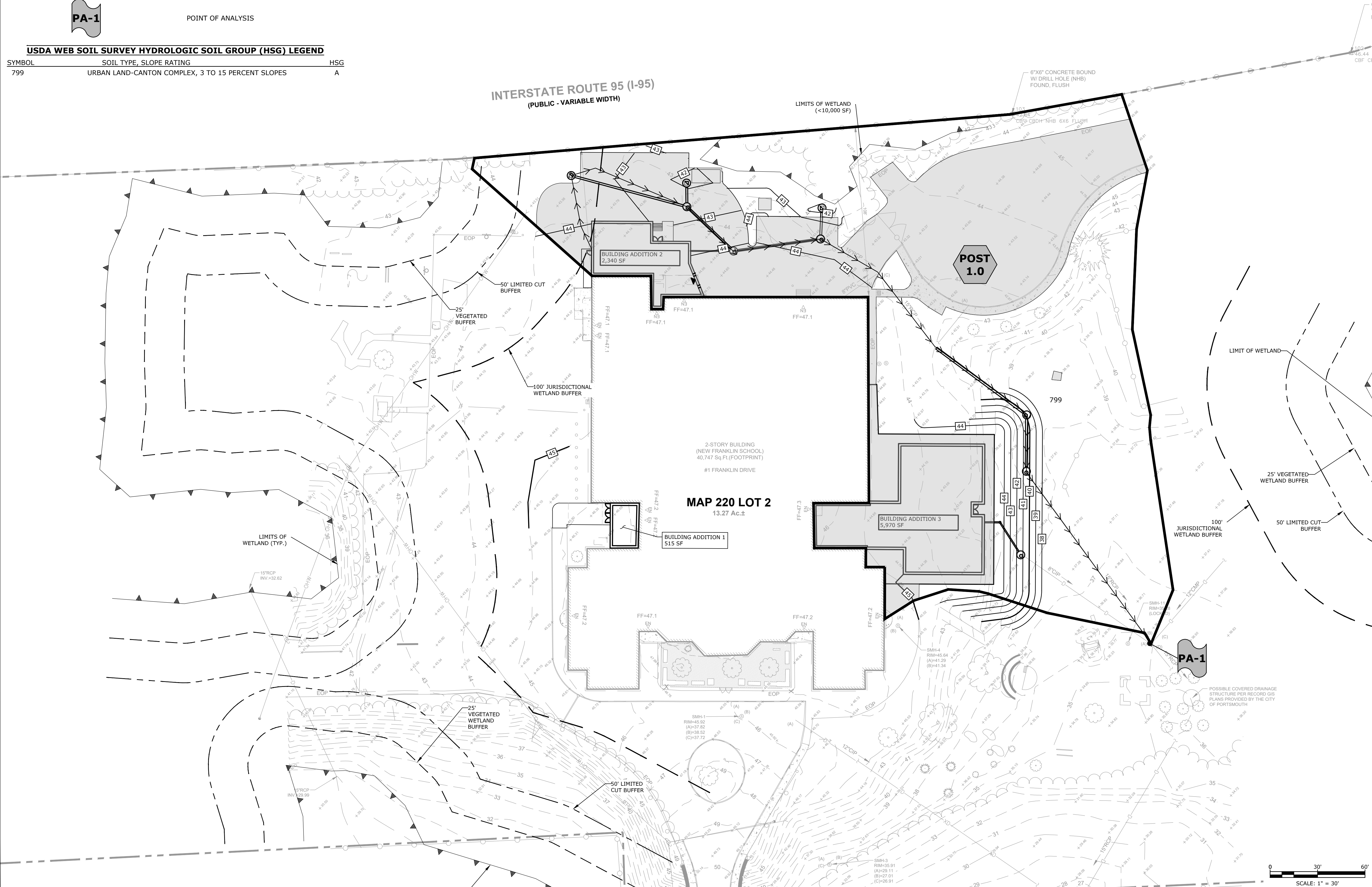
POST DEVELOPMENT WATERSHED
AREA DESIGNATION

POINT OF ANALYSIS

USDA WEB SOIL SURVEY HYDROLOGIC SOIL GROUP (HSG) LEGEND

SYMBOL	SOIL TYPE, SLOPE RATING	HSG
799	URBAN LAND-CANTON COMPLEX, 3 TO 15 PERCENT SLOPES	A

INTERSTATE ROUTE 95 (I-95)
(PUBLIC - VARIABLE WIDTH)



New Franklin School Upgrades

Portsmouth School Department
SAU 52

Portsmouth, New Hampshire

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1	5/8/2026	WCUP - RTC
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DRAWN BY:	MKF	
DESIGNED BY:	EGD	
CHECKED BY:	NAH	
APPROVED BY:	NAH	

POST-DEVELOPMENT
WATERSHED PLAN

SCALE: AS SHOWN

C-801

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 T:\matt@banwell.com



TAC INFORMATION:

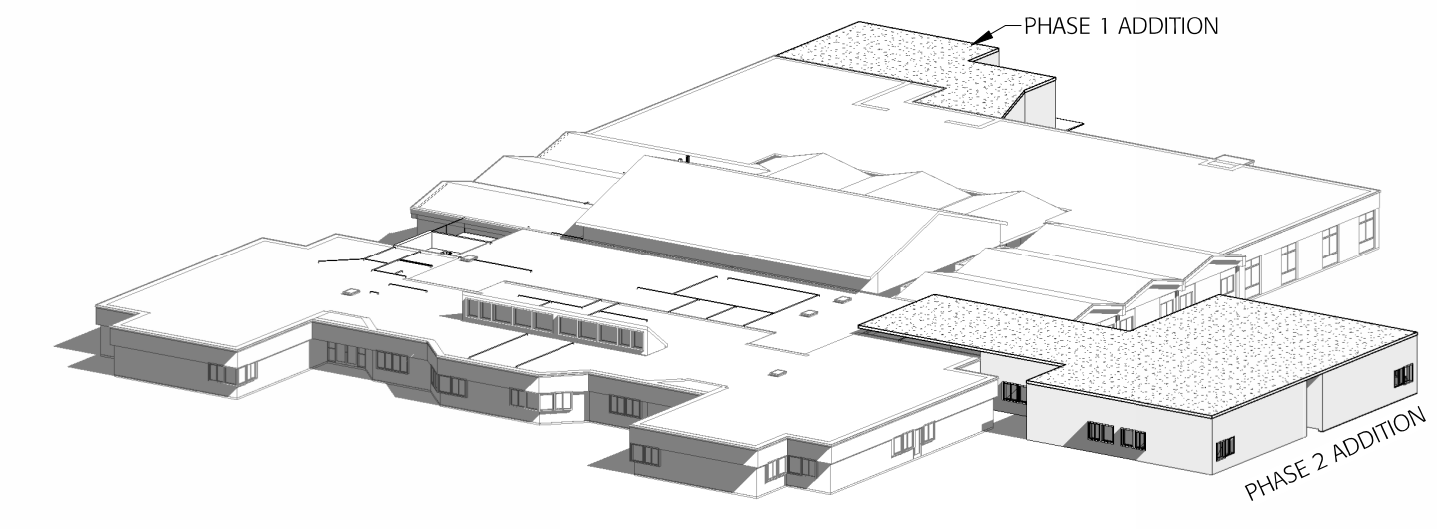
GROSS AREA (BUILDING ONLY)
 (NEW) PHASE 1: 3,281 SF
 (NEW) PHASE 2: 6,063 SF
 TOTAL: 9,344 SF
 (EXISTING) PHASE 3: 40,506 SF
 GRAND TOTAL (NEW + EXISTING): 49,850 SF

STATEMENT OF USES:
 BUILDING IS A SINGLE STORY ELEMENTARY SCHOOL (EDUCATIONAL OCCUPANCY) W/ BUSINESS (OFFICES), ASSEMBLY (GYM, CAFETERIA), STORAGE, AND MECHANICAL SUPPORT SPACES.

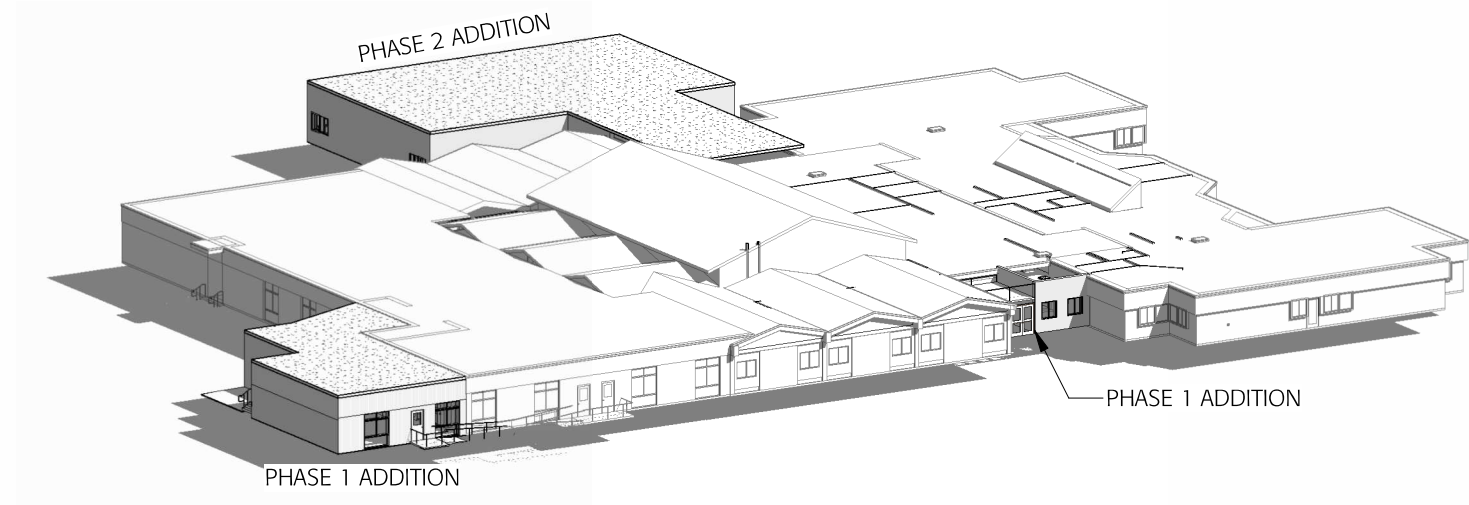
OVERHANGS:
 PROPOSED OVERHANGS NOT SHOWN. SOFFIT PROJECTIONS = 4"
 EXISTING OVERHANGS NOT SHOWN. SOFFIT PROJECTIONS RANGE FROM 2" TO 20".

FIRST FLOOR ELEVATION:
 SEE CIVIL PLAN / SURVEY FOR FIRST FLOOR ELEVATION AND GRADE PLANE.

MASSING:



2 MASSING FOR TAC 1
 Scale:



3 MASSING FOR TAC 2
 Scale:

REVISION	DATE	COMMENTS

KEY PLAN & NORTH ARROW:

PROJECT:
 NEW FRANKLIN ELEMENTARY SCHOOL - PHASE 1
 1 FRANKLIN DRIVE
 PORTSMOUTH, NH 03801

ISSUED:
 TAC REVIEW

DRAWING
 FLOOR PLAN DATA

PROJECT NO: 19-602 DATE: 3/23/2026

SHEET NUMBER:

TAC 100

REVISION	DATE	COMMENTS

KEY PLAN & NORTH ARROW:

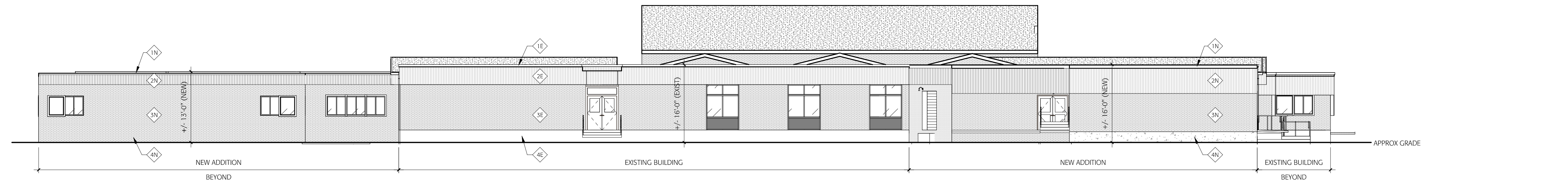
PROJECT:
NEW FRANKLIN ELEMENTARY
SCHOOL - PHASE 1
1 FRANKLIN DRIVE
PORTSMOUTH, NH 03801

ISSUED:
TAC REVIEW

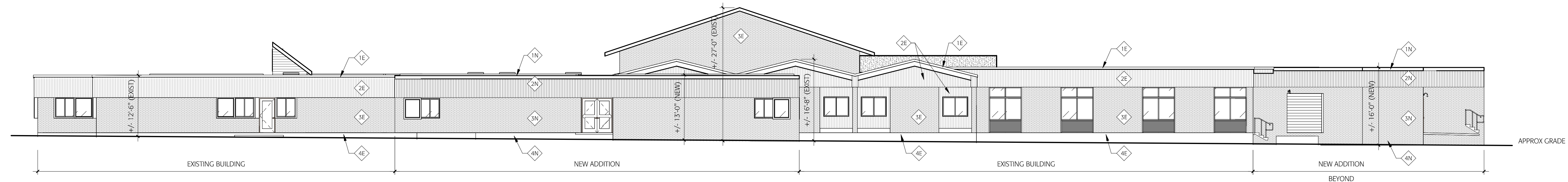
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ELEVATION DATA

PROJECT NO: 19-602 **DATE:** 3/23/2026

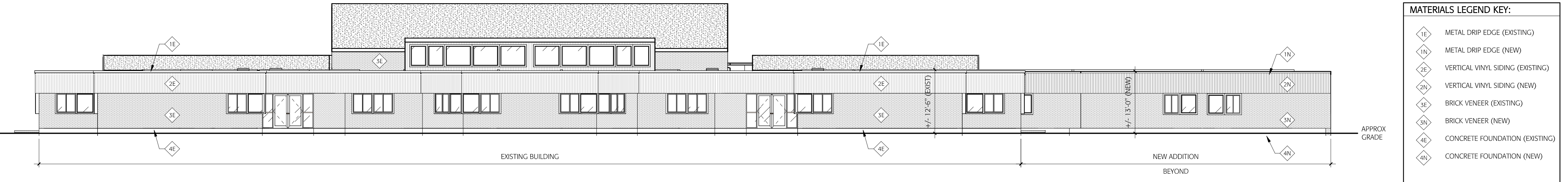
SHEET NUMBER:
TAC200



1 ELEVATION - NORTH (P)
NTS



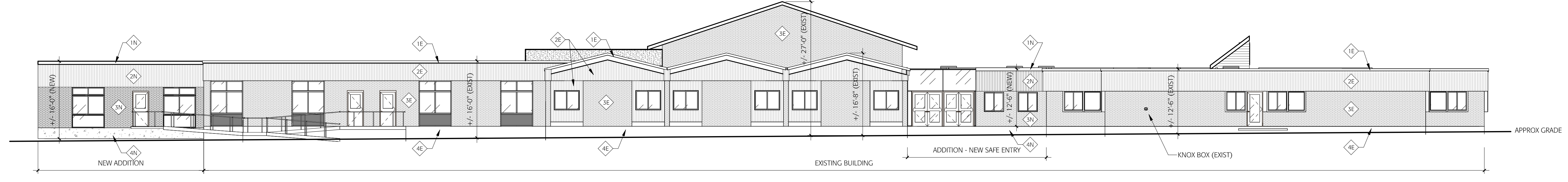
2 ELEVATION - EAST (P)
NTS



3 ELEVATION - SOUTH (P)
NTS

MATERIALS LEGEND KEY:

- 1E METAL DRIP EDGE (EXISTING)
- 1N METAL DRIP EDGE (NEW)
- 2E VERTICAL VINYL SIDING (EXISTING)
- 2N VERTICAL VINYL SIDING (NEW)
- 3E BRICK VENEER (EXISTING)
- 3N BRICK VENEER (NEW)
- 4E CONCRETE FOUNDATION (EXISTING)
- 4N CONCRETE FOUNDATION (NEW)



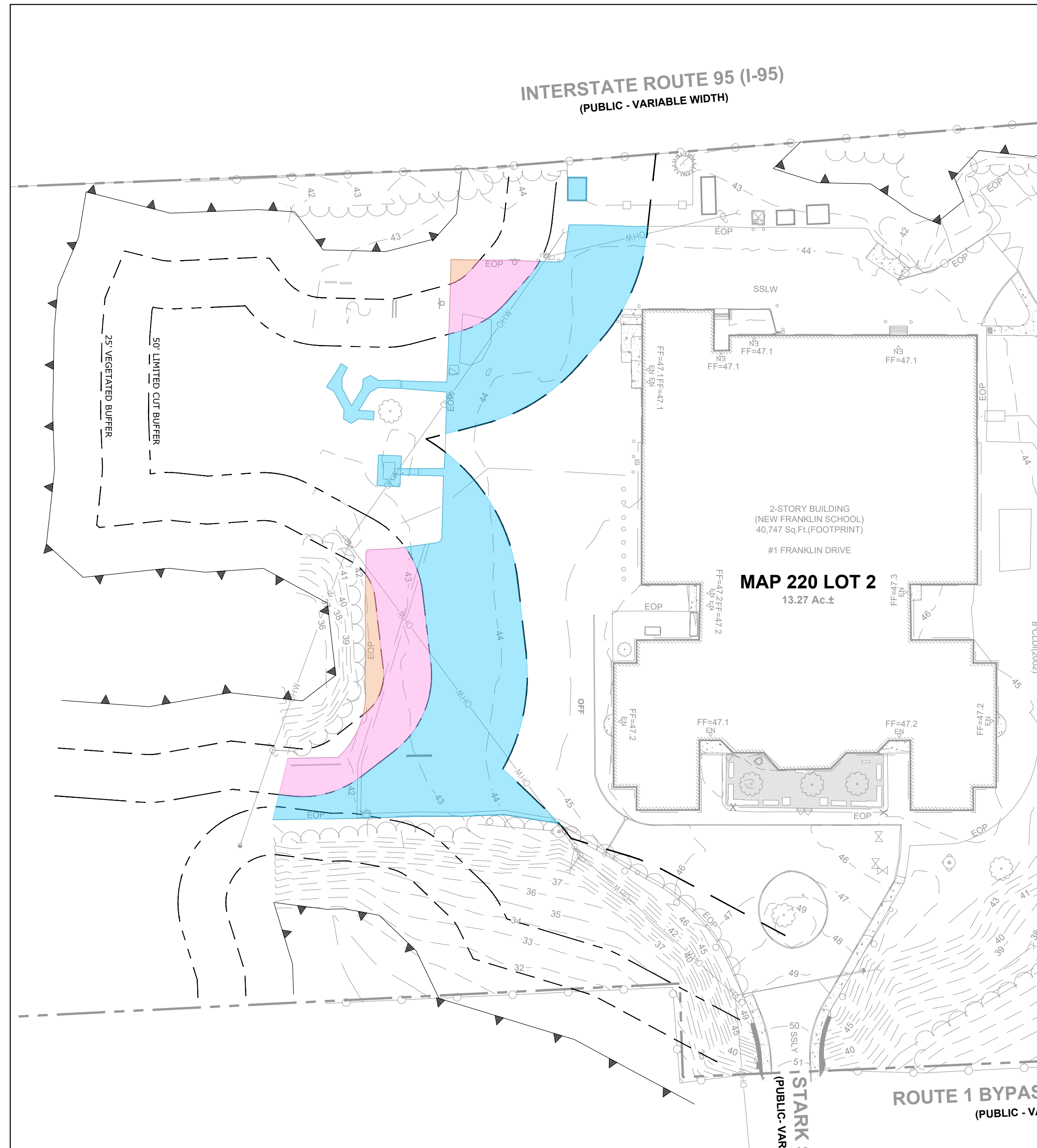
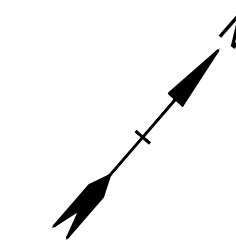
4 ELEVATION - WEST (P)
NTS

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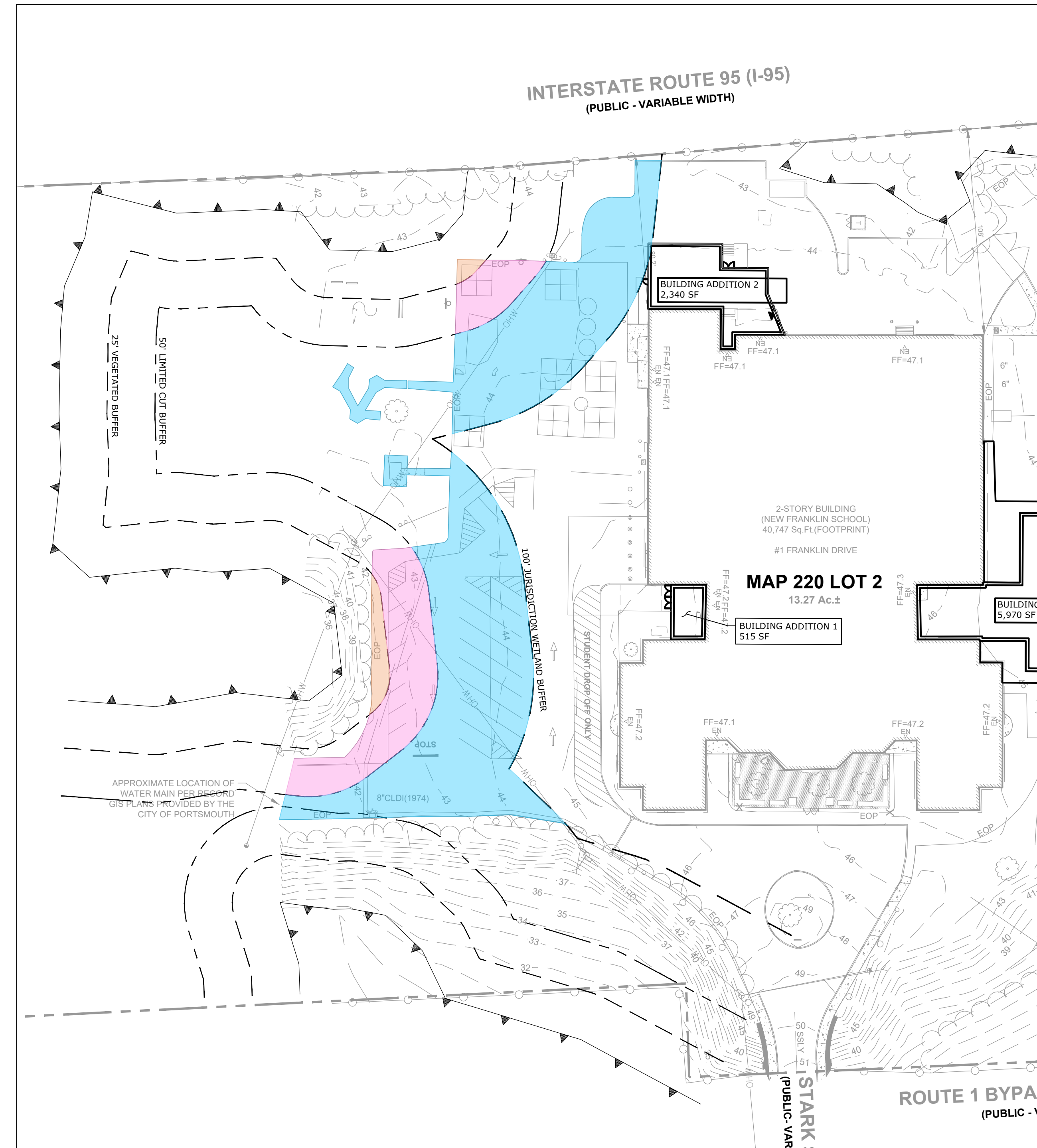
NEW FRANKLIN SCHOOL UPGRADES
1 FRANKLIN DRIVE
PORTSMOUTH, NEW HAMPSHIRE

WETLAND BUFFER IMPERVIOUS
SURFACE EXHIBIT

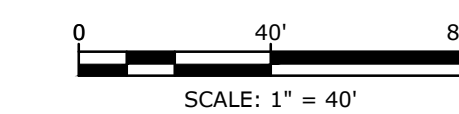
Local Wetland Buffer Setback	Impervious Surface Within Buffer Area	
	Existing Condition	Proposed Condition
0 - 25 FT	586 SF	586 SF
25 - 50 FT	4,681 SF	4,681 SF
50 - 100 FT	16,869 SF	17,404 SF
Total Impervious Surface	22,136 SF	22,671 SF
Net Impervious Surface	+535 SF	



EXISTING WETLAND BUFFER IMPERVIOUS SURFACE
SCALE 1" = 40'



PROPOSED WETLAND BUFFER IMPERVIOUS SURFACE
SCALE 1" = 40'



New Franklin School Upgrades

Portsmouth School Department
SAU 52

Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
1	5/8/2026	WCUP - RTC
PROJECT NO: P0766-0009		
DATE: 04/29/2026		
FILE: P0766-0009- DSGN - CUP Permit Set.dwg		
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DESIGNED BY: EGD		
CHECKED BY: NAH		
APPROVED BY: NAH		

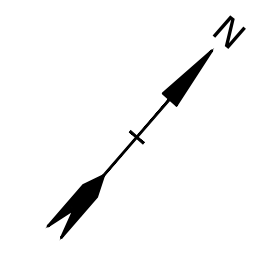
WETLAND BUFFER AREA
EXHIBIT

SCALE: AS SHOWN



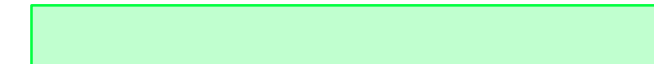

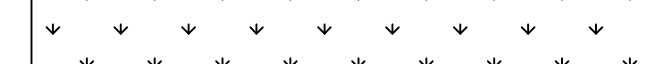
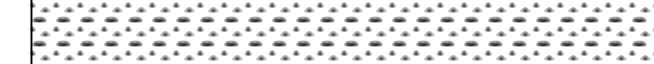
Figure 1

NEW FRANKLIN SCHOOL UPGRADES
1 FRANKLIN DRIVE
PORTSMOUTH, NEW HAMPSHIRE

WETLAND BUFFER SURFACE
COVER EXHIBIT



LEGEND

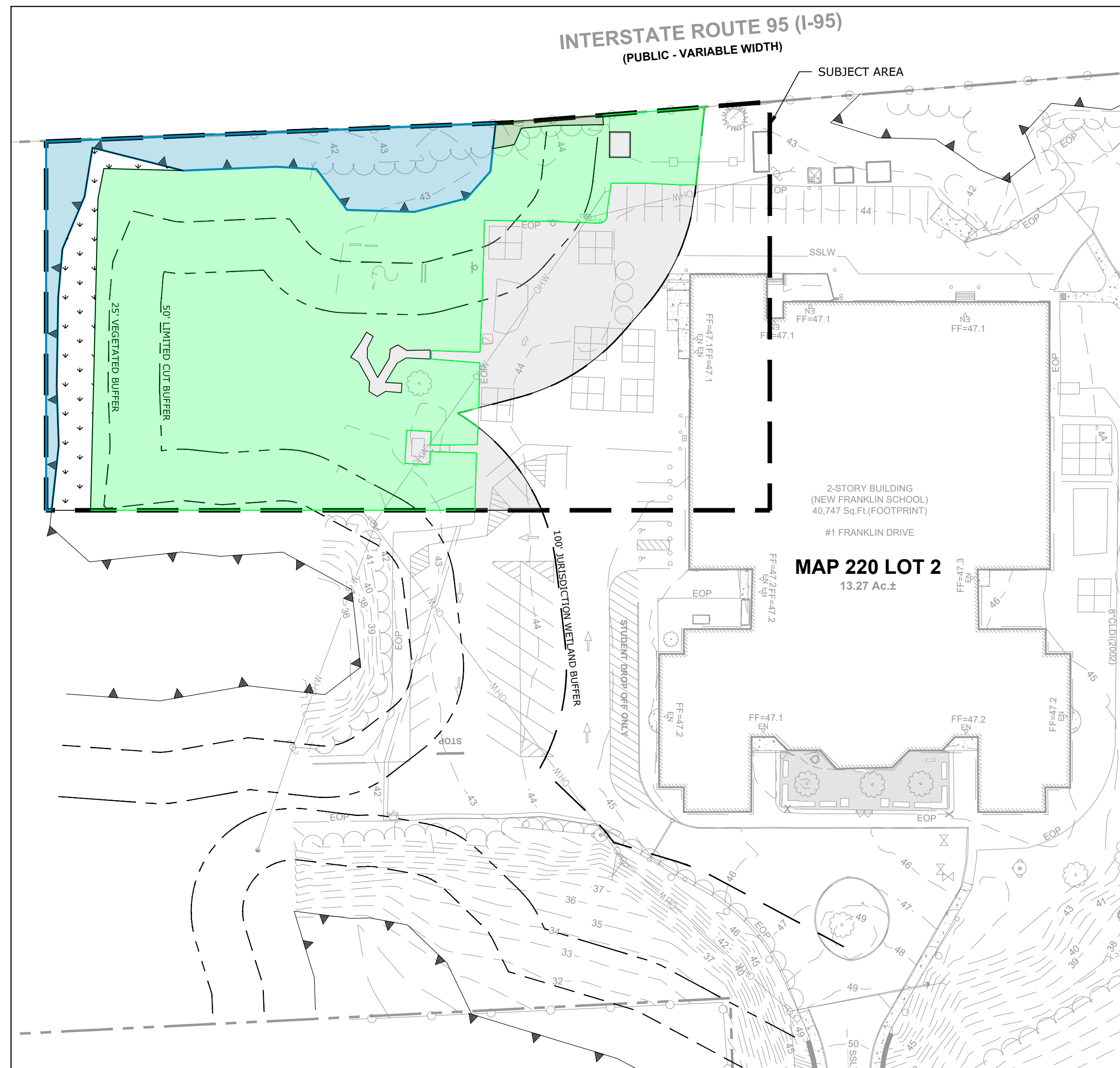
-  WETLAND AREA
-  IMPERVIOUS AREA
-  MAINTAINED GRASS/LAWN COVER
-  GREEN ASH (*fraxinus pennsylvanica*)
-  UPLAND VEGETATION
-  RESTORED 25' VEGETATED WETLAND BUFFER

Surface Cover	Area	Percentage of Subject Area
Impervious	8,748 SF	19.47%
Maintained Grass/Lawn	33,031 SF	73.51%
Green Ash (<i>fraxinus pennsylvanica</i>)	292 SF	0.65%
Upland Vegetation	2,860 SF	6.37%

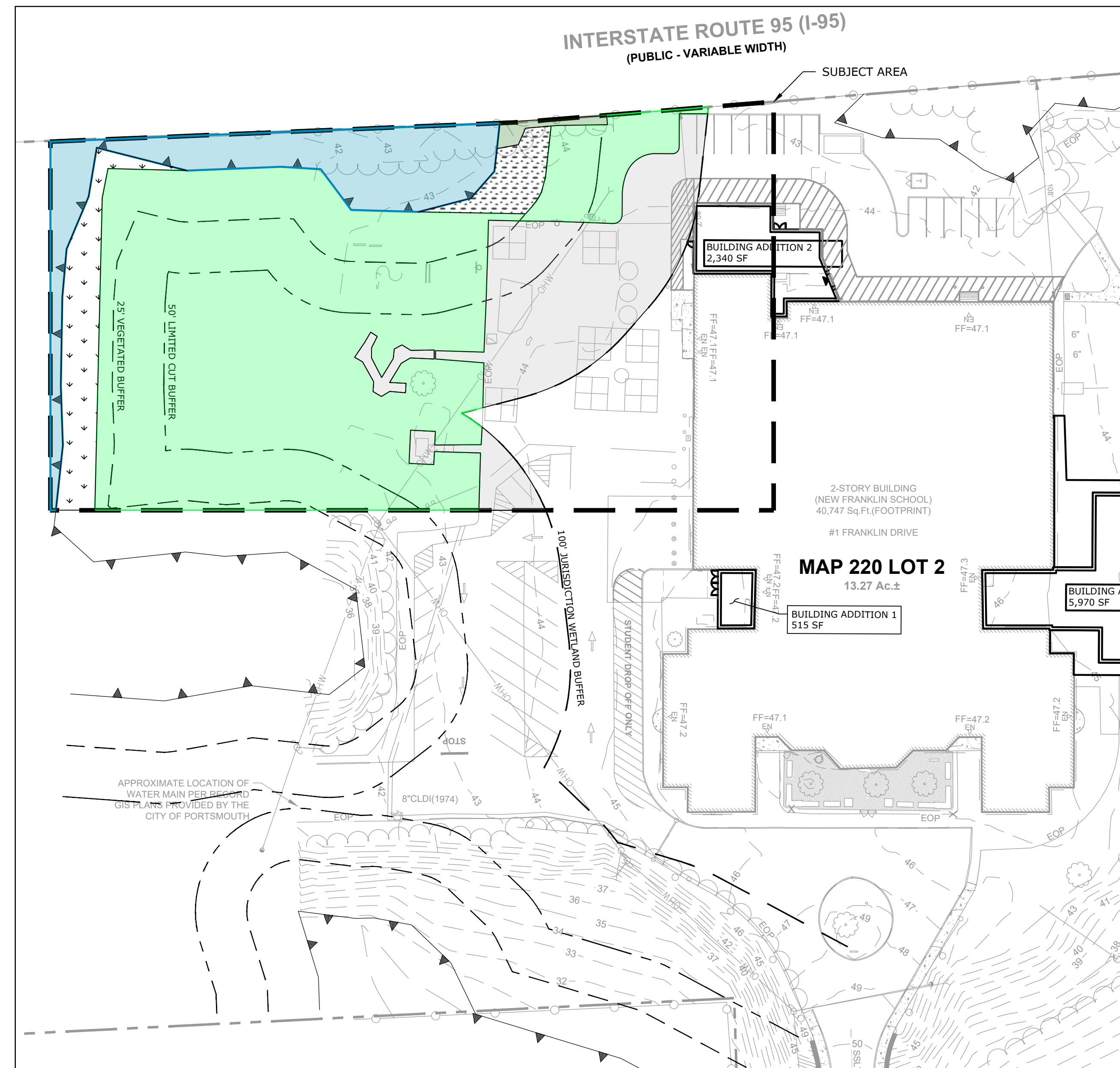
NOTES:
1. IMPERVIOUS COVER INCLUDES PAVED PARKING AREA, EXISTING SHED, AND PLAYGROUND EQUIPMENT.
2. INVASIVE SPECIES WERE NOT OBSERVED WITHIN 100' BUFFER OF WETLAND LOCATED IN SUBJECT AREA.

Surface Cover	Area	Percentage of Subject Area	Change
Impervious	9,283 SF	20.66%	+535 SF (1.19%)
Maintained Grass/Lawn	31,371 SF	69.82%	-1,660 SF (-3.69%)
Green Ash (<i>fraxinus pennsylvanica</i>)	292 SF	0.65%	0
Restored 25' Vegetated Wetland Buffer	1,125 SF	2.50%	+1,125 SF (+2.50%)
Upland Vegetation	2,860 SF	6.37%	0

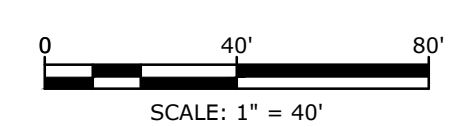
NOTES:
1. IMPERVIOUS COVER INCLUDES PAVED PARKING AREA, EXISTING SHED, AND PLAYGROUND EQUIPMENT.
2. INVASIVE SPECIES WERE NOT OBSERVED WITHIN 100' BUFFER OF WETLAND LOCATED IN SUBJECT AREA.
3. RESTORED 25' VEGETATED WETLAND BUFFER SHALL BE PLANTED WITH CONSERVATION SEED MIX, AND MAINTAINED ACCORDINGLY.



EXISTING WETLAND BUFFER IMPERVIOUS SURFACE
SCALE 1" = 40'



PROPOSED WETLAND BUFFER IMPERVIOUS SURFACE
SCALE 1" = 40'



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Plotted On: May 08, 2026 9:33am By: WJF/lln
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New Franklin School Upgrades

Portsmouth School Department
SAU 52

Portsmouth, New Hampshire

1	5/8/2026	WCUP - RTC
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PROJECT NO: P0766-0009		
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DRAWN BY: MKF		
DESIGNED BY: EGD		
CHECKED BY: NAH		
APPROVED BY: NAH		

WETLAND BUFFER SURFACE COVER EXHIBIT

SCALE: AS SHOWN

Figure 2



Tighe & Bond

Partnership
with purpose

New Franklin School
1 Franklin Ave
Portsmouth, NH 03801

Drainage Analysis

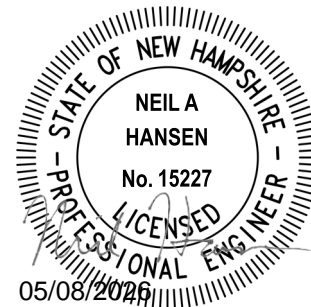
Prepared For:

City of Portsmouth
1 Junkins Ave
Portsmouth, NH 03801

May 8, 2026

Drainage Analysis

To: City of Portsmouth Conservation Commission
FROM: Neil Hansen, PE
COPY: Portsmouth School Department | SAU 52
DATE: May 8, 2026



1.0 Project Description

The project site is located at 1 Franklin Avenue and is identified as Map 220, Lot 2 on the City of Portsmouth Tax Maps.

The proposed project consists of the construction of three (3) additions to the existing New Franklin Elementary School. The first addition, approximately 500 square feet, will function as a vestibule entrance to serve student drop-off activities. The second addition, approximately 2,350 square feet, will provide an additional kindergarten classroom and a loading zone. The third addition, approximately 6,000 square feet, will accommodate new third- and fourth-grade classrooms.

The project also includes associated site, grading, drainage, and utilities improvements. These improvements consist of the installation of an accessible path of egress around the third building addition, as well as the creation of an accessible pathway at the main entrance located southwest of the existing building. The relocation of water, sewer, and electrical utilities will be required to allow for the proposed building expansion.

2.0 Drainage Analysis

The proposed project will create approximately 6,330 square feet of additional impervious surface compared to existing conditions. Currently, stormwater runoff from the existing Northwest parking area flows northwest toward an adjacent wetland, where it is collected by an existing catch basin and conveyed through a closed drainage system before discharging off-site.

To improve upon these existing conditions, runoff from the proposed parking area and building will be intercepted by new curbing and redirected to deep sump catch basins equipped with oil-water separator hoods. The additional proposed roof runoff will be discharged directly to a closed drainage system. This system will provide an additional level of pre-treatment prior to discharge into the existing closed drainage network and subsequent off-site conveyance.

Due to project budget constraints, full stormwater quality treatment and detention for the proposed impervious surfaces is not being proposed at this time. However, the selected design approach represents a practical and cost-effective improvement over existing conditions by reducing the direct discharge of untreated runoff to the wetland.

Overall, the proposed improvements will limit the amount of untreated impervious surface runoff reaching the wetland while enhancing stormwater management relative to the current site conditions.

TECHNICAL MEMORANDUM

2.1 Pre- and Post-Development Comparison

The pre-development and post-development watershed areas have been evaluated using a single point of analysis, designated as PA-1. This point is located at the connection between the proposed drainage system and the existing catch basin, prior to discharge off-site.

The location of PA-1 remains unchanged between pre- and post-development conditions. Additionally, the overall contributing sub-catchment areas to this point will remain consistent under both scenarios.

The post-development watershed will largely reflect existing site conditions, with the primary changes consisting of proposed building additions and a reconfigured parking area. These modifications will result in an increase of approximately ±6,330 square feet of impervious surface within the watershed.


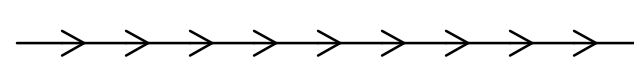


2.2 Peak Rate Comparison

The peak discharge rates at these points of analysis were determined by analyzing Type III, 24-hour storm events. The rainfall data for these storm events were obtained from the data published by the Northeast Regional Climate Center at Cornell University.

The following table summarizes and compares the pre- and post-development peak runoff rates for the 2-year, 10-year, 25-year and 50-year storm events at the point of analysis.

Table 2.2 - Comparison of Pre- and Post- Development Flows				
Point of Analysis	Pre/ Post 2-Year Storm (cfs)	Pre/ Post 10-Year Storm (cfs)	Pre/ Post 25-Year Storm (cfs)	Pre/ Post 50-Year Storm (cfs)
PA1	2.11/ 2.89	5.43/ 6.67	8.39/ 9.94	11.23/ 13.13

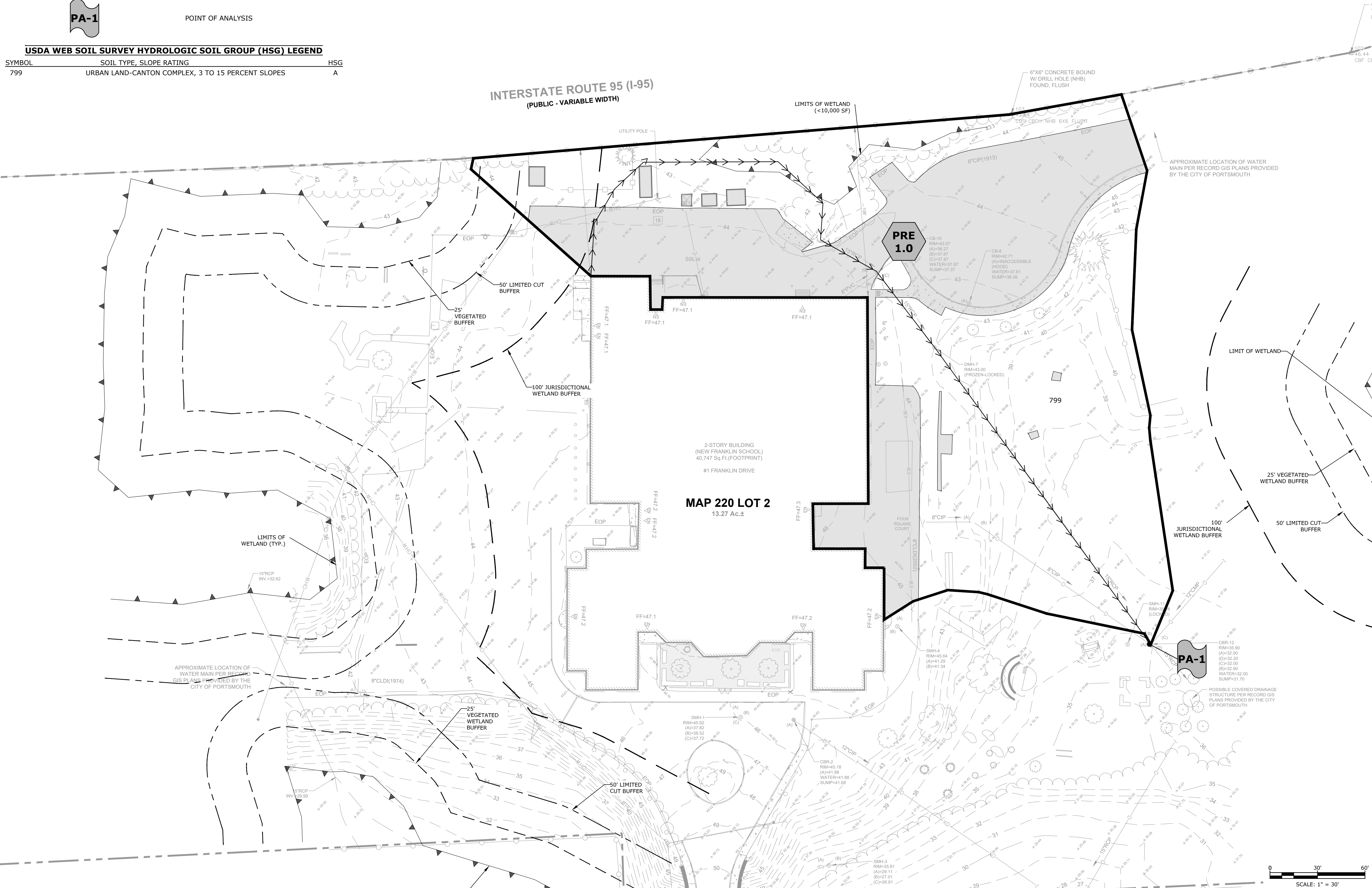
PRE-DEVELOPMENT WATERSHED LEGEND

-  PRE-DEVELOPMENT WATERSHED BOUNDARY
-  LONGEST FLOW PATH
-  PRE DEVELOPMENT WATERSHED AREA DESIGNATION
-  POINT OF ANALYSIS

USDA WEB SOIL SURVEY HYDROLOGIC SOIL GROUP (HSG) LEGEND

SYMBOL	SOIL TYPE, SLOPE RATING	HSG
799	URBAN LAND-CANTON COMPLEX, 3 TO 15 PERCENT SLOPES	A

INTERSTATE ROUTE 95 (I-95)
(PUBLIC - VARIABLE WIDTH)



New Franklin School Upgrades

Portsmouth School Department
SAU 52

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
1	5/8/2026	WCUP - RTC

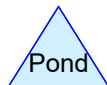
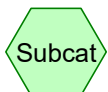
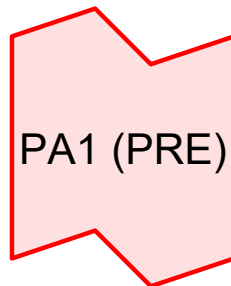
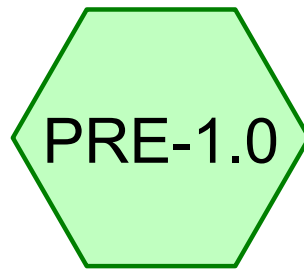
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FILE:	P0766-0009- DSGN - CLUP Permit Set.dwg
DRAWN BY:	MKF
DESIGNED BY:	EGD
CHECKED BY:	NAH
APPROVED BY:	NAH

PRE-DEVELOPMENT WATERSHED PLAN

SCALE: AS SHOWN

C-800

Last Saved: 5/7/2026 5:13pm By: MFillion
 Plotted On: May 07, 2026 5:13pm By: MFillion
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Page 2

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	Type II 24-hr		Default	24.00	1	3.20	2
2	10-yr	Type II 24-hr		Default	24.00	1	4.86	2
3	25-yr	Type II 24-hr		Default	24.00	1	6.16	2
4	50-yr	Type II 24-hr		Default	24.00	1	7.38	2

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.087	49	50-75% Grass cover, Fair, HSG A (PRE-1.0)
0.673	98	Paved parking, HSG A (PRE-1.0)
1.761	68	TOTAL AREA

Pre-Development Model

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.761	HSG A	PRE-1.0
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
1.761		TOTAL AREA

Pre-Development Model

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
1.087	0.000	0.000	0.000	0.000	1.087	50-75% Grass cover, Fair	PRE-1.0
0.673	0.000	0.000	0.000	0.000	0.673	Paved parking	PRE-1.0
1.761	0.000	0.000	0.000	0.000	1.761	TOTAL AREA	

Pre-Development Model

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Type II 24-hr 2-yr Rainfall=3.20"

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Page 6

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment PRE-1.0:

Runoff Area=76,696 sf 38.25% Impervious Runoff Depth>0.65"
Flow Length=568' Tc=6.1 min CN=68 Runoff=2.11 cfs 0.095 af

Link PA1 (PRE):

Inflow=2.11 cfs 0.095 af
Primary=2.11 cfs 0.095 af

Total Runoff Area = 1.761 ac Runoff Volume = 0.095 af Average Runoff Depth = 0.65"
61.75% Pervious = 1.087 ac 38.25% Impervious = 0.673 ac

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Type II 24-hr 2-yr Rainfall=3.20"

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Page 7

Summary for Subcatchment PRE-1.0:

Runoff = 2.11 cfs @ 11.99 hrs, Volume= 0.095 af, Depth> 0.65"

Routed to Link PA1 (PRE) :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
29,335	98	Paved parking, HSG A
47,361	49	50-75% Grass cover, Fair, HSG A
76,696	68	Weighted Average
47,361		61.75% Pervious Area
29,335		38.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	44	0.0180	1.12		Sheet Flow, Parking Area Smooth surfaces n= 0.011 P2= 3.20"
4.6	192	0.0100	0.70		Shallow Concentrated Flow, Woods Area Against Parking Short Grass Pasture Kv= 7.0 fps
0.8	332	0.0170	6.86	8.42	Pipe Channel, Pipe Network 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Cast iron, coated
6.1	568	Total			

Summary for Link PA1 (PRE):

Inflow Area = 1.761 ac, 38.25% Impervious, Inflow Depth > 0.65" for 2-yr event

Inflow = 2.11 cfs @ 11.99 hrs, Volume= 0.095 af

Primary = 2.11 cfs @ 11.99 hrs, Volume= 0.095 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pre-Development Model

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Type II 24-hr 10-yr Rainfall=4.86"

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Page 8

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment PRE-1.0:

Runoff Area=76,696 sf 38.25% Impervious Runoff Depth>1.62"
Flow Length=568' Tc=6.1 min CN=68 Runoff=5.43 cfs 0.237 af

Link PA1 (PRE):

Inflow=5.43 cfs 0.237 af
Primary=5.43 cfs 0.237 af

Total Runoff Area = 1.761 ac Runoff Volume = 0.237 af Average Runoff Depth = 1.62"
61.75% Pervious = 1.087 ac 38.25% Impervious = 0.673 ac

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Type II 24-hr 10-yr Rainfall=4.86"

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Page 9

Summary for Subcatchment PRE-1.0:

Runoff = 5.43 cfs @ 11.98 hrs, Volume= 0.237 af, Depth> 1.62"

Routed to Link PA1 (PRE) :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.86"

Area (sf)	CN	Description
29,335	98	Paved parking, HSG A
47,361	49	50-75% Grass cover, Fair, HSG A
76,696	68	Weighted Average
47,361		61.75% Pervious Area
29,335		38.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	44	0.0180	1.12		Sheet Flow, Parking Area Smooth surfaces n= 0.011 P2= 3.20"
4.6	192	0.0100	0.70		Shallow Concentrated Flow, Woods Area Against Parking Short Grass Pasture Kv= 7.0 fps
0.8	332	0.0170	6.86	8.42	Pipe Channel, Pipe Network 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Cast iron, coated
6.1	568	Total			

Summary for Link PA1 (PRE):

Inflow Area = 1.761 ac, 38.25% Impervious, Inflow Depth > 1.62" for 10-yr event

Inflow = 5.43 cfs @ 11.98 hrs, Volume= 0.237 af

Primary = 5.43 cfs @ 11.98 hrs, Volume= 0.237 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pre-Development Model

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Type II 24-hr 25-yr Rainfall=6.16"

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Page 10

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment PRE-1.0:

Runoff Area=76,696 sf 38.25% Impervious Runoff Depth>2.51"
Flow Length=568' Tc=6.1 min CN=68 Runoff=8.39 cfs 0.369 af

Link PA1 (PRE):

Inflow=8.39 cfs 0.369 af
Primary=8.39 cfs 0.369 af

Total Runoff Area = 1.761 ac Runoff Volume = 0.369 af Average Runoff Depth = 2.51"
61.75% Pervious = 1.087 ac 38.25% Impervious = 0.673 ac

Pre-Development Model

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Type II 24-hr 25-yr Rainfall=6.16"

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Page 11

Summary for Subcatchment PRE-1.0:

Runoff = 8.39 cfs @ 11.98 hrs, Volume= 0.369 af, Depth> 2.51"

Routed to Link PA1 (PRE) :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=6.16"

Area (sf)	CN	Description
29,335	98	Paved parking, HSG A
47,361	49	50-75% Grass cover, Fair, HSG A
76,696	68	Weighted Average
47,361		61.75% Pervious Area
29,335		38.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	44	0.0180	1.12		Sheet Flow, Parking Area Smooth surfaces n= 0.011 P2= 3.20"
4.6	192	0.0100	0.70		Shallow Concentrated Flow, Woods Area Against Parking Short Grass Pasture Kv= 7.0 fps
0.8	332	0.0170	6.86	8.42	Pipe Channel, Pipe Network 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Cast iron, coated
6.1	568	Total			

Summary for Link PA1 (PRE):

Inflow Area = 1.761 ac, 38.25% Impervious, Inflow Depth > 2.51" for 25-yr event

Inflow = 8.39 cfs @ 11.98 hrs, Volume= 0.369 af

Primary = 8.39 cfs @ 11.98 hrs, Volume= 0.369 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pre-Development Model

Type II 24-hr 50-yr Rainfall=7.38"

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Page 12

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment PRE-1.0:

Runoff Area=76,696 sf 38.25% Impervious Runoff Depth>3.43"
Flow Length=568' Tc=6.1 min CN=68 Runoff=11.23 cfs 0.503 af

Link PA1 (PRE):

Inflow=11.23 cfs 0.503 af
Primary=11.23 cfs 0.503 af

Total Runoff Area = 1.761 ac Runoff Volume = 0.503 af Average Runoff Depth = 3.43"
61.75% Pervious = 1.087 ac 38.25% Impervious = 0.673 ac

Pre-Development Model

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Type II 24-hr 50-yr Rainfall=7.38"

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Page 13

Summary for Subcatchment PRE-1.0:

[47] Hint: Peak is 133% of capacity of segment #3

Runoff = 11.23 cfs @ 11.97 hrs, Volume= 0.503 af, Depth> 3.43"
Routed to Link PA1 (PRE) :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 50-yr Rainfall=7.38"

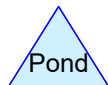
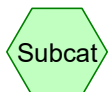
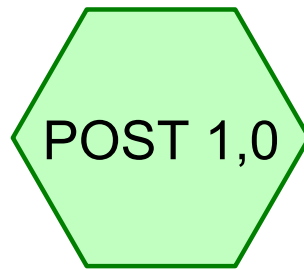
Area (sf)	CN	Description
29,335	98	Paved parking, HSG A
47,361	49	50-75% Grass cover, Fair, HSG A
76,696	68	Weighted Average
47,361		61.75% Pervious Area
29,335		38.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	44	0.0180	1.12		Sheet Flow, Parking Area Smooth surfaces n= 0.011 P2= 3.20"
4.6	192	0.0100	0.70		Shallow Concentrated Flow, Woods Area Against Parking Short Grass Pasture Kv= 7.0 fps
0.8	332	0.0170	6.86	8.42	Pipe Channel, Pipe Network 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Cast iron, coated
6.1	568	Total			

Summary for Link PA1 (PRE):

Inflow Area = 1.761 ac, 38.25% Impervious, Inflow Depth > 3.43" for 50-yr event
Inflow = 11.23 cfs @ 11.97 hrs, Volume= 0.503 af
Primary = 11.23 cfs @ 11.97 hrs, Volume= 0.503 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



Pre-Development Model

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Page 2

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	Type II 24-hr		Default	24.00	1	3.20	2
2	10-yr	Type II 24-hr		Default	24.00	1	4.86	2
3	25-yr	Type II 24-hr		Default	24.00	1	6.16	2
4	50-yr	Type II 24-hr		Default	24.00	1	7.38	2

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Page 3

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.953	49	50-75% Grass cover, Fair, HSG A (POST 1,0)
0.818	98	Paved parking, HSG A (POST 1,0)
1.771	72	TOTAL AREA

Pre-Development Model

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Page 4

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.771	HSG A	POST 1,0, POST 1,0
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
1.771		TOTAL AREA

Pre-Development Model

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Page 5

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.953	0.000	0.000	0.000	0.000	0.953	50-75% Grass cover, Fair	POST 1,0
0.818	0.000	0.000	0.000	0.000	0.818	Paved parking	POST 1,0
1.771	0.000	0.000	0.000	0.000	1.771	TOTAL AREA	

Pre-Development Model

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Type II 24-hr 2-yr Rainfall=3.20"

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Page 6

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment POST 1,0:

Runoff Area=77,146 sf 46.20% Impervious Runoff Depth>0.83"
Flow Length=567' Tc=5.0 min CN=72 Runoff=2.89 cfs 0.123 af

Link PA1 (POST):

Inflow=2.89 cfs 0.123 af
Primary=2.89 cfs 0.123 af

Total Runoff Area = 1.771 ac Runoff Volume = 0.123 af Average Runoff Depth = 0.83"
53.80% Pervious = 0.953 ac 46.20% Impervious = 0.818 ac

Pre-Development Model

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Type II 24-hr 2-yr Rainfall=3.20"

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Page 7

Summary for Subcatchment POST 1,0:

[49] Hint: Tc<2dt may require smaller dt

[47] Hint: Peak is 115% of capacity of segment #3

Runoff = 2.89 cfs @ 11.97 hrs, Volume= 0.123 af, Depth> 0.83"
Routed to Link PA1 (POST) :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
35,639	98	Paved parking, HSG A
41,507	49	50-75% Grass cover, Fair, HSG A
77,146	72	Weighted Average
41,507		53.80% Pervious Area
35,639		46.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	47	0.0200	2.87		Shallow Concentrated Flow, Parking Area Paved Kv= 20.3 fps
0.4	18	0.0100	0.70		Shallow Concentrated Flow, Grass Short Grass Pasture Kv= 7.0 fps
0.8	158	0.0050	3.21	2.52	Pipe Channel, Pipe Network 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Cast iron, coated
0.9	344	0.0150	6.45	7.91	Pipe Channel, Pipe Network 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.4	567	Total, Increased to minimum Tc = 5.0 min			

Summary for Link PA1 (POST):

Inflow Area = 1.771 ac, 46.20% Impervious, Inflow Depth > 0.83" for 2-yr event

Inflow = 2.89 cfs @ 11.97 hrs, Volume= 0.123 af

Primary = 2.89 cfs @ 11.97 hrs, Volume= 0.123 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pre-Development Model

Type II 24-hr 10-yr Rainfall=4.86"

Prepared by Tighe & Bond

Printed 5/8/2026

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Page 8

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment POST 1,0:

Runoff Area=77,146 sf 46.20% Impervious Runoff Depth>1.91"
Flow Length=567' Tc=5.0 min CN=72 Runoff=6.67 cfs 0.282 af

Link PA1 (POST):

Inflow=6.67 cfs 0.282 af
Primary=6.67 cfs 0.282 af

Total Runoff Area = 1.771 ac Runoff Volume = 0.282 af Average Runoff Depth = 1.91"
53.80% Pervious = 0.953 ac 46.20% Impervious = 0.818 ac

Pre-Development Model

Prepared by Tighe & Bond

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Type II 24-hr 10-yr Rainfall=4.86"

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Page 9

Summary for Subcatchment POST 1,0:

[49] Hint: Tc<2dt may require smaller dt

[47] Hint: Peak is 265% of capacity of segment #3

Runoff = 6.67 cfs @ 11.96 hrs, Volume= 0.282 af, Depth> 1.91"
Routed to Link PA1 (POST) :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.86"

Area (sf)	CN	Description
35,639	98	Paved parking, HSG A
41,507	49	50-75% Grass cover, Fair, HSG A
77,146	72	Weighted Average
41,507		53.80% Pervious Area
35,639		46.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	47	0.0200	2.87		Shallow Concentrated Flow, Parking Area Paved Kv= 20.3 fps
0.4	18	0.0100	0.70		Shallow Concentrated Flow, Grass Short Grass Pasture Kv= 7.0 fps
0.8	158	0.0050	3.21	2.52	Pipe Channel, Pipe Network 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Cast iron, coated
0.9	344	0.0150	6.45	7.91	Pipe Channel, Pipe Network 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.4	567	Total, Increased to minimum Tc = 5.0 min			

Summary for Link PA1 (POST):

Inflow Area = 1.771 ac, 46.20% Impervious, Inflow Depth > 1.91" for 10-yr event

Inflow = 6.67 cfs @ 11.96 hrs, Volume= 0.282 af

Primary = 6.67 cfs @ 11.96 hrs, Volume= 0.282 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pre-Development Model

Prepared by Tighe & Bond

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Type II 24-hr 25-yr Rainfall=6.16"

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Page 10

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment POST 1,0:

Runoff Area=77,146 sf 46.20% Impervious Runoff Depth>2.88"
Flow Length=567' Tc=5.0 min CN=72 Runoff=9.94 cfs 0.425 af

Link PA1 (POST):

Inflow=9.94 cfs 0.425 af
Primary=9.94 cfs 0.425 af

Total Runoff Area = 1.771 ac Runoff Volume = 0.425 af Average Runoff Depth = 2.88"
53.80% Pervious = 0.953 ac 46.20% Impervious = 0.818 ac

Pre-Development Model

Prepared by Tighe & Bond

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Type II 24-hr 25-yr Rainfall=6.16"

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Page 11

Summary for Subcatchment POST 1,0:

- [49] Hint: Tc<2dt may require smaller dt
- [47] Hint: Peak is 395% of capacity of segment #3
- [47] Hint: Peak is 126% of capacity of segment #4

Runoff = 9.94 cfs @ 11.96 hrs, Volume= 0.425 af, Depth> 2.88"
 Routed to Link PA1 (POST) :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type II 24-hr 25-yr Rainfall=6.16"

Area (sf)	CN	Description
35,639	98	Paved parking, HSG A
41,507	49	50-75% Grass cover, Fair, HSG A
77,146	72	Weighted Average
41,507		53.80% Pervious Area
35,639		46.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	47	0.0200	2.87		Shallow Concentrated Flow, Parking Area Paved Kv= 20.3 fps
0.4	18	0.0100	0.70		Shallow Concentrated Flow, Grass Short Grass Pasture Kv= 7.0 fps
0.8	158	0.0050	3.21	2.52	Pipe Channel, Pipe Network 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Cast iron, coated
0.9	344	0.0150	6.45	7.91	Pipe Channel, Pipe Network 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.4	567	Total, Increased to minimum Tc = 5.0 min			

Summary for Link PA1 (POST):

Inflow Area = 1.771 ac, 46.20% Impervious, Inflow Depth > 2.88" for 25-yr event
 Inflow = 9.94 cfs @ 11.96 hrs, Volume= 0.425 af
 Primary = 9.94 cfs @ 11.96 hrs, Volume= 0.425 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pre-Development Model

Prepared by Tighe & Bond

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Type II 24-hr 50-yr Rainfall=7.38"

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Page 12

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment POST 1,0:

Runoff Area=77,146 sf 46.20% Impervious Runoff Depth>3.85"
Flow Length=567' Tc=5.0 min CN=72 Runoff=13.13 cfs 0.568 af

Link PA1 (POST):

Inflow=13.13 cfs 0.568 af
Primary=13.13 cfs 0.568 af

Total Runoff Area = 1.771 ac Runoff Volume = 0.568 af Average Runoff Depth = 3.85"
53.80% Pervious = 0.953 ac 46.20% Impervious = 0.818 ac

Pre-Development Model

Prepared by Tighe & Bond

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Type II 24-hr 50-yr Rainfall=7.38"

Printed 5/8/2026

Page 13

Summary for Subcatchment POST 1,0:

- [49] Hint: Tc<2dt may require smaller dt
- [47] Hint: Peak is 521% of capacity of segment #3
- [47] Hint: Peak is 166% of capacity of segment #4

Runoff = 13.13 cfs @ 11.96 hrs, Volume= 0.568 af, Depth> 3.85"
Routed to Link PA1 (POST) :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 50-yr Rainfall=7.38"

Area (sf)	CN	Description
35,639	98	Paved parking, HSG A
41,507	49	50-75% Grass cover, Fair, HSG A
77,146	72	Weighted Average
41,507		53.80% Pervious Area
35,639		46.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	47	0.0200	2.87		Shallow Concentrated Flow, Parking Area Paved Kv= 20.3 fps
0.4	18	0.0100	0.70		Shallow Concentrated Flow, Grass Short Grass Pasture Kv= 7.0 fps
0.8	158	0.0050	3.21	2.52	Pipe Channel, Pipe Network 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Cast iron, coated
0.9	344	0.0150	6.45	7.91	Pipe Channel, Pipe Network 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.4	567	Total, Increased to minimum Tc = 5.0 min			

Summary for Link PA1 (POST):

Inflow Area = 1.771 ac, 46.20% Impervious, Inflow Depth > 3.85" for 50-yr event
 Inflow = 13.13 cfs @ 11.96 hrs, Volume= 0.568 af
 Primary = 13.13 cfs @ 11.96 hrs, Volume= 0.568 af, Atten= 0%, Lag= 0.0 min

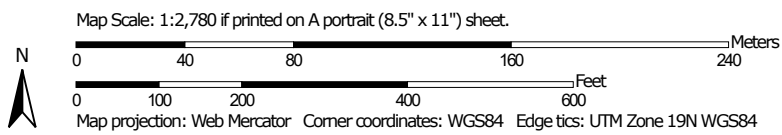
Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Appendix A - Web Soil Survey

Soil Map—Rockingham County, New Hampshire
(New Franklin School - Web Soil Survey Map)




Soil Map may not be valid at this scale.




MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rockingham County, New Hampshire
Survey Area Data: Version 28, Sep 9, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
799	Urban land-Canton complex, 3 to 15 percent slopes	15.0	100.0%
Totals for Area of Interest		15.0	100.0%

Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named, soils that are similar to the named components, and some minor components that differ in use and management from the major soils.

Most of the soils similar to the major components have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Some minor components, however, have properties and behavior characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

Rockingham County, New Hampshire

799—Urban land-Canton complex, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9cq0

Elevation: 0 to 1,000 feet

Mean annual precipitation: 42 to 46 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 120 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 55 percent

Canton and similar soils: 20 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Canton

Setting

Parent material: Till

Typical profile

H1 - 0 to 5 inches: gravelly fine sandy loam

H2 - 5 to 21 inches: gravelly fine sandy loam

H3 - 21 to 60 inches: loamy sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): High
(2.00 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: A

Ecological site: F144AY034CT - Well Drained Till Uplands

Hydric soil rating: No

Minor Components

Udorthents

Percent of map unit: 5 percent

Hydric soil rating: No

Squamscott and scitico

Percent of map unit: 4 percent

Landform: Marine terraces

Hydric soil rating: Yes

Boxford and eldridge

Percent of map unit: 4 percent

Hydric soil rating: No

Walpole

Percent of map unit: 4 percent

Landform: Depressions

Hydric soil rating: Yes

Scituate and newfields

Percent of map unit: 4 percent

Hydric soil rating: No

Chatfield

Percent of map unit: 4 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Rockingham County, New Hampshire

Survey Area Data: Version 28, Sep 9, 2025

Appendix B - Rainfall Data

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Metadata for Point	
Smoothing	Yes
State	New Hampshire
Location	New Hampshire, United States
Latitude	43.077 degrees North
Longitude	70.777 degrees West
Elevation	10 feet
Date/Time	Thu Mar 19 2026 16:53:08 GMT-0400 (Eastern Daylight Time)

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.40	0.50	0.65	0.81	1.04	1yr	0.70	0.98	1.21	1.56	2.03	2.66	2.92	1yr	2.35	2.80	3.21	3.93	4.54	1yr
2yr	0.32	0.50	0.62	0.81	1.02	1.30	2yr	0.88	1.18	1.51	1.94	2.48	3.20	3.56	2yr	2.84	3.43	3.93	4.67	5.32	2yr
5yr	0.37	0.58	0.73	0.97	1.24	1.60	5yr	1.07	1.46	1.88	2.42	3.13	4.06	4.57	5yr	3.59	4.39	5.03	5.92	6.69	5yr
10yr	0.41	0.65	0.82	1.11	1.45	1.88	10yr	1.25	1.72	2.22	2.88	3.74	4.86	5.52	10yr	4.30	5.31	6.07	7.09	7.96	10yr
25yr	0.48	0.76	0.96	1.33	1.77	2.33	25yr	1.52	2.13	2.76	3.62	4.73	6.16	7.09	25yr	5.45	6.81	7.78	9.00	10.03	25yr
50yr	0.53	0.85	1.09	1.53	2.06	2.74	50yr	1.78	2.52	3.27	4.31	5.64	7.38	8.57	50yr	6.53	8.24	9.39	10.78	11.96	50yr
100yr	0.59	0.96	1.24	1.76	2.40	3.24	100yr	2.07	2.96	3.88	5.13	6.75	8.84	10.36	100yr	7.82	9.96	11.34	12.93	14.25	100yr
200yr	0.67	1.09	1.41	2.03	2.80	3.81	200yr	2.42	3.50	4.59	6.10	8.05	10.59	12.52	200yr	9.37	12.04	13.70	15.50	16.99	200yr
500yr	0.79	1.30	1.70	2.46	3.45	4.73	500yr	2.97	4.35	5.72	7.66	10.18	13.46	16.11	500yr	11.91	15.49	17.59	19.72	21.46	500yr

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.23	0.36	0.44	0.59	0.73	0.88	1yr	0.63	0.87	0.92	1.32	1.67	2.22	2.49	1yr	1.96	2.40	2.85	3.16	3.87	1yr
2yr	0.31	0.49	0.60	0.81	1.00	1.19	2yr	0.86	1.16	1.37	1.82	2.34	3.05	3.45	2yr	2.70	3.32	3.82	4.54	5.07	2yr
5yr	0.35	0.54	0.67	0.92	1.17	1.40	5yr	1.01	1.37	1.61	2.12	2.74	3.78	4.19	5yr	3.35	4.03	4.71	5.52	6.23	5yr
10yr	0.38	0.59	0.73	1.02	1.32	1.60	10yr	1.14	1.56	1.81	2.39	3.07	4.37	4.86	10yr	3.86	4.67	5.43	6.40	7.19	10yr
25yr	0.44	0.67	0.83	1.18	1.56	1.90	25yr	1.34	1.86	2.10	2.77	3.55	4.68	5.89	25yr	4.14	5.66	6.64	7.78	8.67	25yr
50yr	0.48	0.73	0.91	1.31	1.76	2.17	50yr	1.52	2.12	2.35	3.09	3.95	5.28	6.80	50yr	4.67	6.54	7.71	9.03	10.01	50yr
100yr	0.54	0.81	1.01	1.46	2.01	2.47	100yr	1.73	2.41	2.62	3.43	4.37	5.92	7.85	100yr	5.24	7.55	8.97	10.49	11.54	100yr
200yr	0.59	0.89	1.13	1.63	2.28	2.82	200yr	1.96	2.75	2.93	3.81	4.82	6.63	9.07	200yr	5.86	8.72	10.41	12.20	13.34	200yr
500yr	0.68	1.02	1.31	1.90	2.71	3.37	500yr	2.34	3.29	3.41	4.35	5.50	7.69	10.96	500yr	6.81	10.54	12.69	14.92	16.15	500yr

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.44	0.54	0.72	0.89	1.08	1yr	0.77	1.06	1.26	1.74	2.21	2.99	3.15	1yr	2.64	3.03	3.58	4.37	5.04	1yr
2yr	0.33	0.52	0.64	0.86	1.06	1.27	2yr	0.92	1.24	1.48	1.96	2.51	3.42	3.69	2yr	3.03	3.55	4.08	4.83	5.63	2yr
5yr	0.40	0.61	0.76	1.05	1.33	1.62	5yr	1.15	1.58	1.88	2.53	3.24	4.33	4.95	5yr	3.83	4.76	5.36	6.36	7.14	5yr
10yr	0.47	0.72	0.89	1.24	1.60	1.97	10yr	1.38	1.92	2.28	3.10	3.94	5.33	6.18	10yr	4.72	5.94	6.79	7.81	8.73	10yr
25yr	0.57	0.87	1.08	1.55	2.04	2.56	25yr	1.76	2.50	2.94	4.06	5.13	7.81	8.31	25yr	6.91	7.99	9.10	10.30	11.38	25yr
50yr	0.67	1.01	1.26	1.82	2.44	3.11	50yr	2.11	3.04	3.58	4.98	6.28	9.78	10.41	50yr	8.66	10.01	11.37	12.68	13.92	50yr
100yr	0.78	1.18	1.48	2.14	2.94	3.78	100yr	2.53	3.70	4.36	6.13	7.71	12.25	13.04	100yr	10.84	12.54	14.20	15.63	17.04	100yr
200yr	0.92	1.38	1.74	2.53	3.52	4.62	200yr	3.04	4.51	5.31	7.55	9.46	15.38	16.36	200yr	13.62	15.73	17.77	19.27	20.86	200yr
500yr	1.13	1.69	2.17	3.15	4.49	5.99	500yr	3.87	5.85	6.89	9.96	12.43	20.81	22.08	500yr	18.42	21.23	23.91	25.40	27.27	500yr



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: Portsmouth School Department Date Submitted: 04/29/2026

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

Site Address: 1 Franklin Ave Portsmouth, NH 03801 Map: 220 Lot: 02

<input checked="" type="checkbox"/>	Required Items for Submittal	Item Location (e.g. Page or Plan Sheet/Note #)
<input type="checkbox"/>	Complete application form submitted via the City's web-based permitting program	
<input type="checkbox"/>	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.	

<input checked="" type="checkbox"/>	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
<input type="checkbox"/>	Basic property and wetland resource information. (10.1017.21)	
<input type="checkbox"/>	Additional information required for projects proposing greater than 250 square feet of permanent or temporary impacts. (10.1017.22)	
<input type="checkbox"/>	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)	
<input type="checkbox"/>	Balance impervious surface impacts with removal and/or wetland buffer enhancement plan. (10.1017.24)	

<input checked="" type="checkbox"/>	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
<input type="checkbox"/>	Wetland buffer enhancement plan. (10.1017.25)	
<input type="checkbox"/>	Living shoreline strategy provided for tidal wetland and/or tidal buffer impacts. (10.1017.26)	
<input type="checkbox"/>	Stormwater management must be in accordance with Best Management Practices including but not limited to: 1. <i>New Hampshire Stormwater Manual, NHDES, current version.</i> 2. <i>Best Management Practices to Control Non-point Source Pollution: A Guide for Citizens and City Officials, NHDES, January 2004.</i> (10.1018.10)	
<input type="checkbox"/>	Vegetated Buffer Strip slope of greater than or equal to 10%. (10.1018.22)	
<input type="checkbox"/>	Removal or cutting of vegetation, use of fertilizers, pesticides and herbicides. (10.1018.23/10.1018.24/10.1018.25)	
<input type="checkbox"/>	All new pavement within a wetland buffer shall be porous pavement. (10.1018.31)	
<input type="checkbox"/>	An application that proposes porous pavement in a wetland buffer shall include a pavement maintenance plan. (10.1018.32)	
<input type="checkbox"/>	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)	
<input checked="" type="checkbox"/>	Requested Items for Submittal	Item Location (e.g. Page or Plan Sheet/Note #)
<input type="checkbox"/>	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.	
<input type="checkbox"/>	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.	

Applicant's Signature: Neil Ham Date: _____

Owner Letter of Authorization

This letter is to authorize Tighe & Bond, Inc. (Civil Engineer), to represent and submit on behalf of Portsmouth School Department/SAU 52 (Owner/Applicant), applications and materials in all site design and permitting matters for the proposed *New Franklin School Addition Project* located at 1 Frankin Drive in Portsmouth, New Hampshire on parcel of land identified as Map 220 Lot 2. This project includes the construction of three separate additions to the existing school and associated on-site improvements. This authorization shall relate to those activities that are required for local, state and federal permitting for the above project and include any required signatures for those applications.



Signature

Zachary J. McLaughlin

Print Name

3/15/06

Date