

Civil Site Planning Environmental Engineering

133 Court Street Portsmouth, NH 03801-4413

October 21, 2024

Mr. Peter Britz Director of Planning and Sustainability City of Portsmouth Municipal Complex 1 Junkins Avenue Portsmouth, New Hampshire 03801

Re: Technical Advisory Committee (TAC) Submittal Department of Public Works Building Additions Altus Project #5421/5597

Dear Mr. Britz,

On behalf of the City of Portsmouth Department of Public Works (DPW), Altus Engineering, LLC (Altus) respectfully submits the attached plans and supporting material for the proposed building additions at DPW Facility at 680 Peverly Hill Road for consideration at the November 5, 2024 Technical Advisory Committee (TAC) meeting. The property is a identified as Tax Map 254, Lot 7 and is approximately 60.3 acres in size. The Department of Public Works facility building is located on the north portion of the site, adjacent to Peverly Hill Road. Altus and DPW met with the Technical Advisory Committee on October 8<sup>th</sup> for a Work Session to discuss the project and receive initial comments on the project. As discussed, this project is a municipal Design-Build project that has been awarded to Martini Northern, LLC for construction management. Therefor it is anticipated that minor revisions may be required during the Design-Build process and will be coordinated with the City of Portsmouth.

The proposed project will construct two separate building additions, identified as the Water Addition and Maintenance Addition on the plans. The Maintenance Addition is approximately 6,650 square feet in area (single story) and will provide four new maintenance bays on the north side of the facility near Peverly Hill Road. The building is located in existing paved areas and will not increase the impervious area draining to the Peverly Hill Road storm drainage system. The addition will provide access around the building for fire trucks with a new security gate and knox box. The existing police storage area will be relocated to the south portion of the site to allow access. Grading will require a retaining wall adjacent to Peverly Hill Road and a new transformer and Generator are proposed. The new wash bay will provide a 1,000 gallon oil-water separator that will connect to an e-one pump station and connect to the existing gravity sewer system on site.

Tel: (603) 433-2335 E-mail: Altus@altus-eng.com

The Water Addition is approximately 4,470 square feet in area with a second story above the garage bays for an expansion of DPW office space. The building is located on the south side of the facility near the new fuel station. The building will drain to the existing storm drain system that drains to the gravel wetlands located to the south. A parking area expansion will provide approximately 3,600 sf of impervious area that will drain to a new pre-text curb inlet for pre-treatment and a proposed raingarden. This system will also drain to the existing gravel wetland located to the south of the site for stormwater treatment.

Please do not hesitate to reach out to me if you have any questions or need additional information.

Sincerely,

**ALTUS ENGINEERING, LLC** 

Cory D. Belden, P.E. Project Engineer

Copy: Peter Rice, Director of Public Works

Joe Almeida, Facilities Manager

Peter Middleton, Martini Northern, LLC

Eric Weinrieb, Altus Engineering

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# City of Portsmouth, New Hampshire Department of Public Works Building Additions

City Project #16122

Issued for Technical Advisory Committee (NOT FOR CONSTRUCTION)

ISSUED: OCTOBER 21, 2024

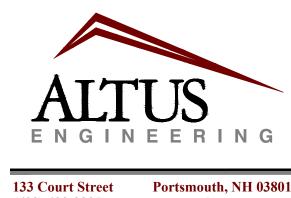
# Prepared For:



DEPTARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, NH 03801

# Prepared By:

Civil Engineer:



(603) 433-2335 Fortsmouth, NH 03801 www.altus-eng.com

# Surveyor:

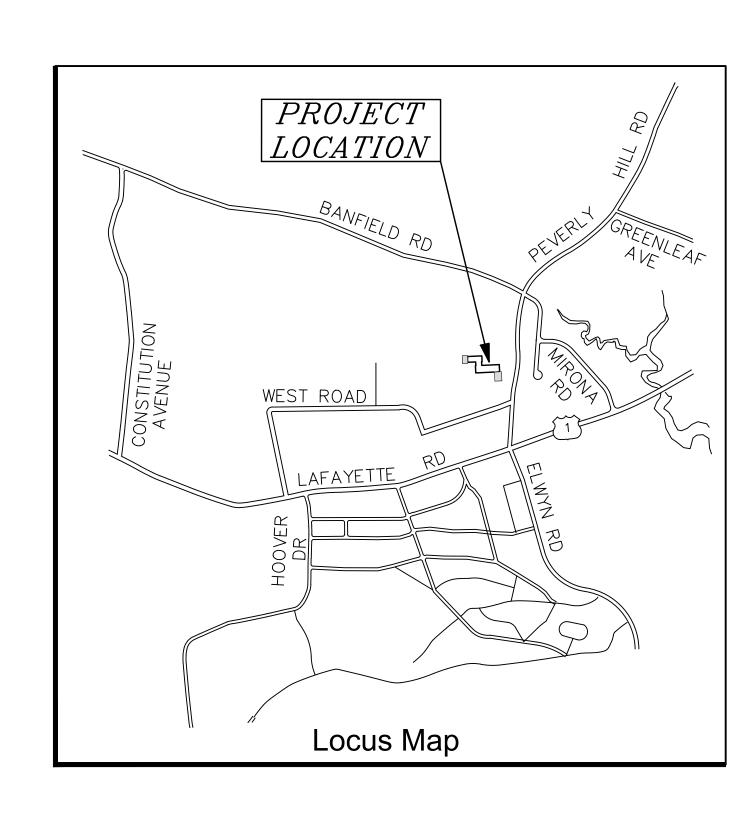


# Construction Manager:



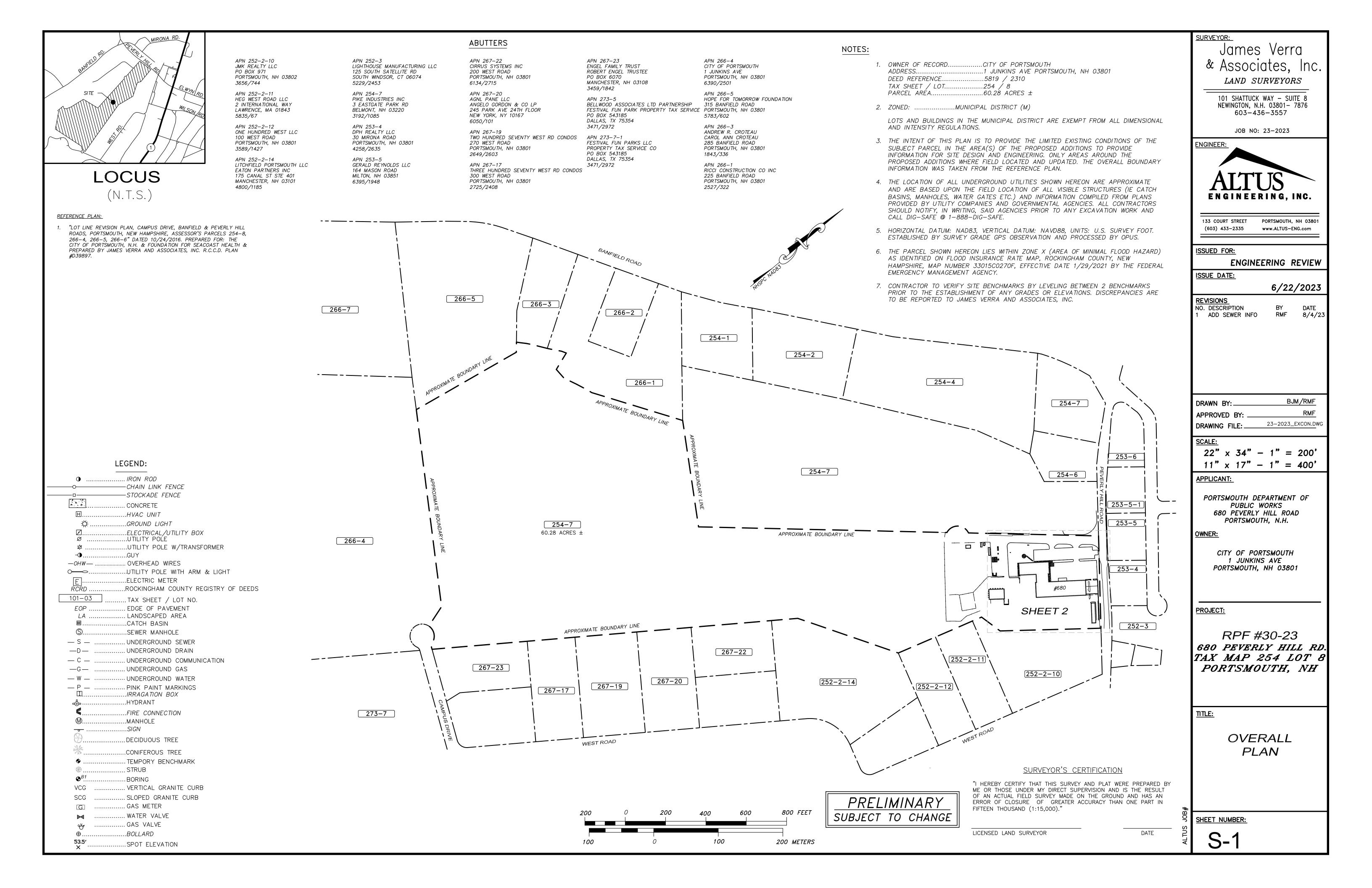
Architect:

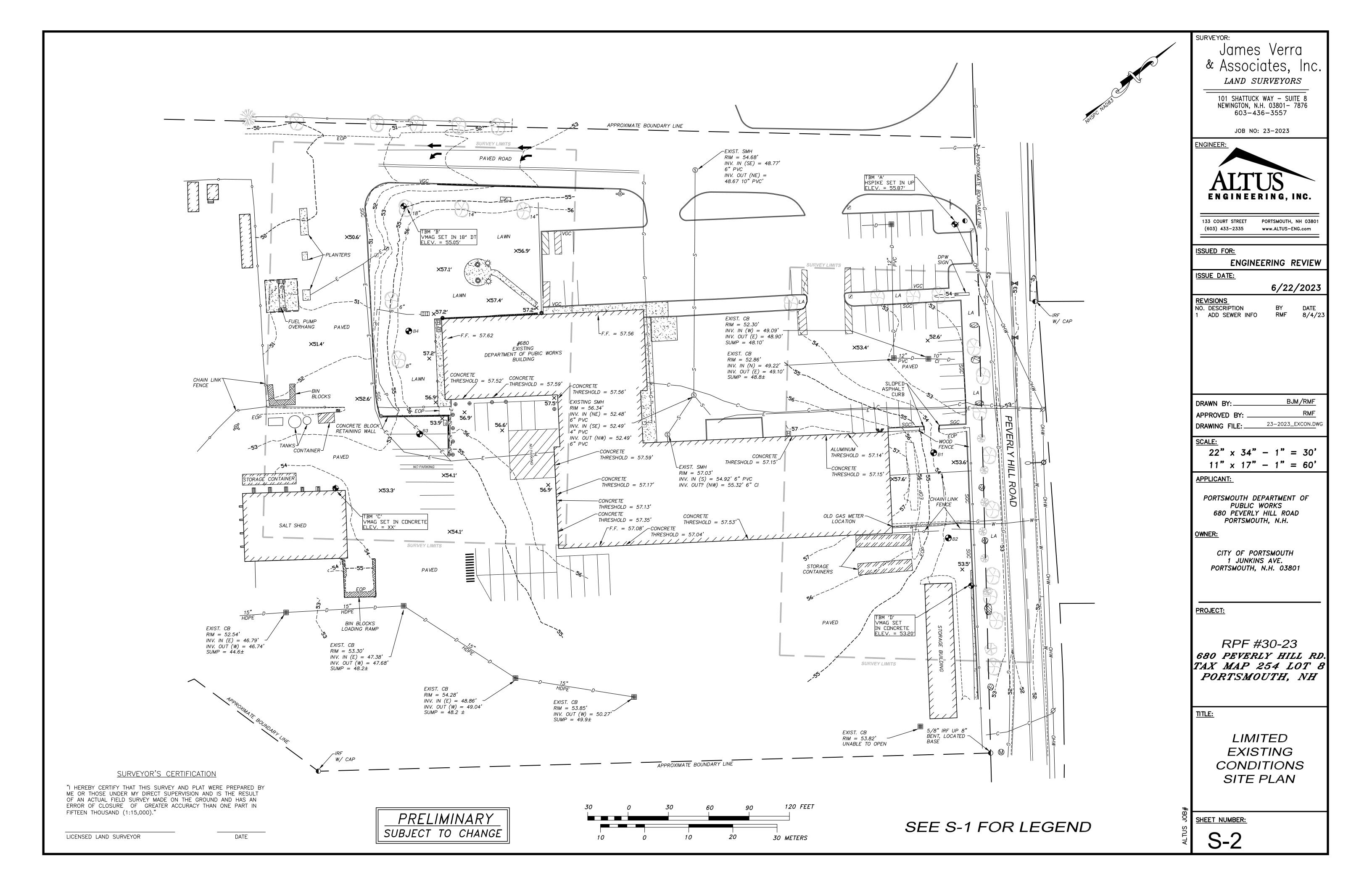




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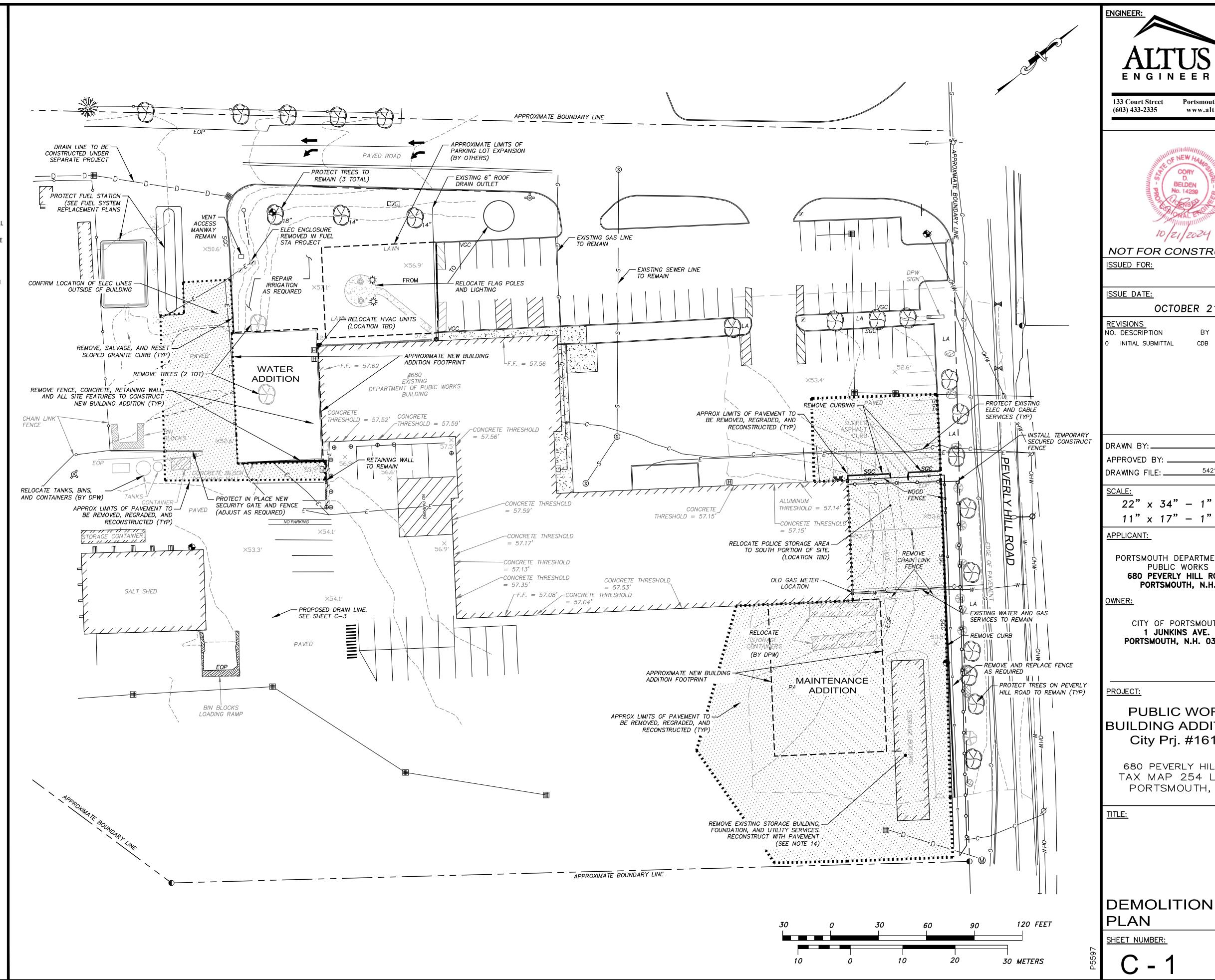


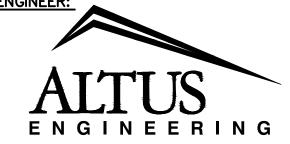
#### **DEMOLITION NOTES**

- THIS DEMOLITION PLAN IS INTENDED TO PROVIDE MINIMUM GUIDELINES FOR THE DEMOLITION OF EXISTING SITE FEATURES. UNLESS OTHERWISE NOTED TO REMAIN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL PAVEMENT, CONCRETE, CURBING, SIGNS, POLES, UTILITIES, FENCES, VEGETATION AND OTHER EXISTING FEATURES AS NECESSARY TO FULLY CONSTRUCT THE PROJECT.
- CONTRACTOR SHALL SAFELY SECURE THE SITE WITH SECURITY FENCING. FENCING
- SHALL BE LOCKED DURING NON-WORK HOURS. COORDINATE WITH DPW.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY NOTIFICATION OF ALL PARTIES, CORPORATIONS, COMPANIES, INDIVIDUALS AND STATE AND LOCAL AUTHORITIES OWNING AND/OR HAVING JURISDICTION OVER ANY UTILITIES RUNNING TO, THROUGH OR ACROSS AREAS TO BE DISTURBED BY DEMOLITION AND/OR CONSTRUCTION ACTIVITIES WHETHER OR NOT SAID UTILITIES ARE SUBJECT TO DEMOLITION, RELOCATION, MODIFICATION AND/OR CONSTRUCTION.

CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES TO REMAIN.

- ALL UTILITY DISCONNECTIONS/DEMOLITIONS/RELOCATIONS TO BE COORDINATED BETWEEN THE CONTRACTOR, ALL APPROPRIATE UTILITY COMPANIES AND THE PORTSMOUTH DEPARTMENT OF PUBLIC WORKS. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELATED EXCAVATION, TRENCHING AND BACKFILLING.
- ALL STRUCTURES, CURBING, CONCRETE, PAVEMENT AND SUBBASE MATERIALS SHALL BE REMOVED FROM PROPOSED DEVELOPMENT AREAS AND REPLACED WITH SUITABLE MATERIALS SUITABLE MEETING THE PROJECT SPECIFICATIONS. REFERENCE GEOTECHNICAL REPORT BY SW COLE.
- WHERE SPECIFIED TO REMAIN, MANHOLE RIMS, CATCH BASIN GRATES, VALVE COVERS, ETC. SHALL BE ADJUSTED TO FINISH GRADE.
- HAZARDOUS MATERIALS ENCOUNTERED DURING DEMOLITION AND CONSTRUCTION ACTIVITIES SHALL BE ABATED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS.
- 9. IN AREAS WHERE CONSTRUCTION IS TO BE ADJACENT TO ABUTTING PROPERTIES, THE CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCING ALONG THE PROPERTY LINE IN ALL AREAS WHERE SILT FENCING IS NOT OTHERWISE REQUIRED.
- 10. SEE GRADING, DRAINAGE AND EROSION CONTROL PLANS FOR EROSION CONTROL REQUIREMENTS TO BE IN PLACE PRIOR TO START OF DEMOLITION ACTIVITIES, INCLUDING, BUT NOT LIMITED TO; SILT BARRIERS, STABILIZED CONSTRUCTION SITE EXITS, AND STORM DRAIN INLET PROTECTION.
- 11. ALL DEMOLISHED MATERIALS OR MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFIED TO BE SALVAGED BY THE OWNER.
- 12. ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BE LEGALLY DISPOSED IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS AND CODES.
- 13. SEE GEOTHECHNICAL REPORT FOR SOIL CONDITIONS AT BORING LOCATIONS.
- 14. CONTRACTOR SHALL COORDINATE WITH DPW FOR DEMOLITION OF EXISTING STORAGE BUILDING AND POTENTIAL RELOCATION OF BUILDING.





Portsmouth, NH 03801 www.altus-eng.com



NOT FOR CONSTRUCTION

OCTOBER 21, 2024

TAC

DATE CDB 10/01/24

5421-SITE.DWG

 $11" \times 17" - 1" = 60"$ 

PORTSMOUTH DEPARTMENT OF PUBLIC WORKS 680 PEVERLY HILL ROAD PORTSMOUTH, N.H.

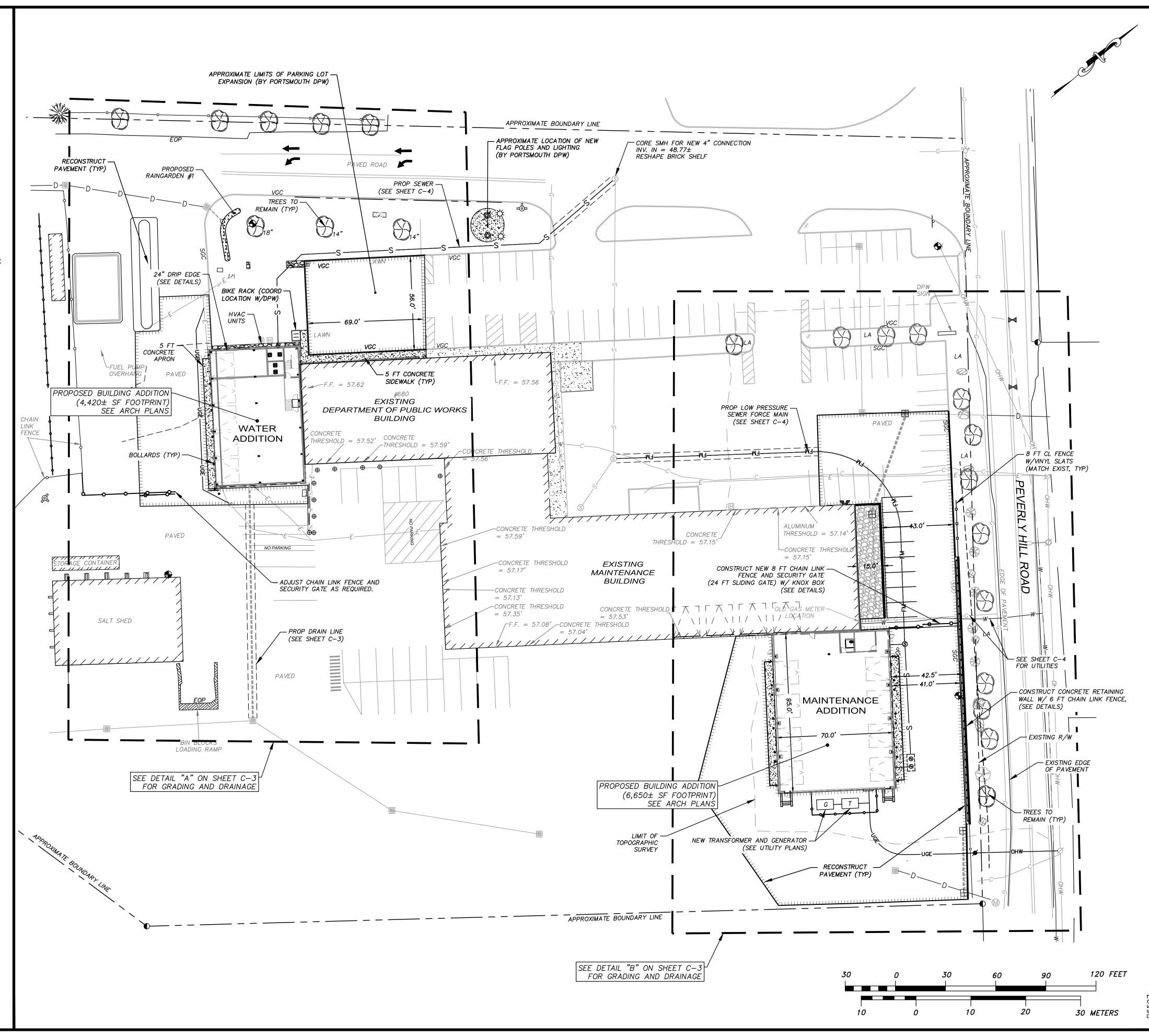
CITY OF PORTSMOUTH 1 JUNKINS AVE. PORTSMOUTH, N.H. 03801

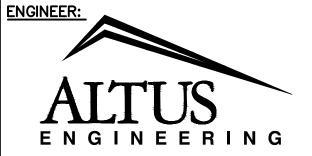
PUBLIC WORKS **BUILDING ADDITIONS** City Prj. #16122

680 PEVERLY HILL RD. TAX MAP 254 LOT 8 PORTSMOUTH, NH



- 1. ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE CITY OF PORTSMOUTH & NHDOT'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL
- 2. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAWCUT LINE WITH RS-1 IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
- 3. THE CONTRACTOR SHALL VERIFY ALL BENCHMARKS AND TOPOGRAPHY IN THE FIELD PRIOR TO CONSTRUCTION.
- 4. THE CONTRACTOR SHALL VERIFY ALL BUILDING DIMENSIONS WITH THE ARCHITECTURAL AND STRUCTURAL PLANS PRIOR TO CONSTRUCTION. ALL DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER FOR RESOLUTION.
- 5. AREA OF DISTURBANCE IS UNDER 43,560 SF COVERAGE, THEREFORE EPA NPDES PHASE II CONSTRUCTION GENERAL PERMIT IS NOT REQUIRED. CONTRACTOR SHALL MANAGE SITE STORMWATER RUNOFF PER CITY OF PORTSMOUTH REQUIREMENTS TO PREVENT SEDIMENT DISCHARGE TO THE MUNICIPAL STORM DRAIN SYSTEM.
- 6. PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC DEVICES," "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AND THE AMERICANS WITH DISABILITIES ACT (ADA), LATEST EDITIONS.
- 7. SITEWORK CONTRACTOR SHALL PREPARE A LICENSED LAND SURVEYOR (LLS) STAMPED AS-BUILT SITE PLAN & PROVIDE A DIGITAL (CAD FORMAT) COPY FOR THE CITY'S G.I.S. DATA





133 Court Street Portsmouth, NH 03801 (603) 433-2335

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NOT FOR CONSTRUCTION

ISSUED FOR:

ISSUE DATE:

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DATE

10/01/24

10/21/24

<u>REVISIONS</u> CDB INITIAL SUBMITTAL CDB

DRAWN BY: APPROVED BY: \_\_\_\_ 5421-SITE.DWG DRAWING FILE: -

 $22" \times 34" - 1" = 30"$  $11" \times 17" - 1" = 60"$ 

APPLICANT:

PORTSMOUTH DEPARTMENT OF PUBLIC WORKS 680 PEVERLY HILL ROAD PORTSMOUTH, N.H.

OWNER:

CITY OF PORTSMOUTH 1 JUNKINS AVE. PORTSMOUTH, N.H. 03801

PROJECT:

**PUBLIC WORKS** BUILDING ADDITIONS City Prj. #16122

680 PEVERLY HILL RD. TAX MAP 254 LOT 8 PORTSMOUTH, NH

OVERALL SITE PLAN

SHEET NUMBER:

C - 2

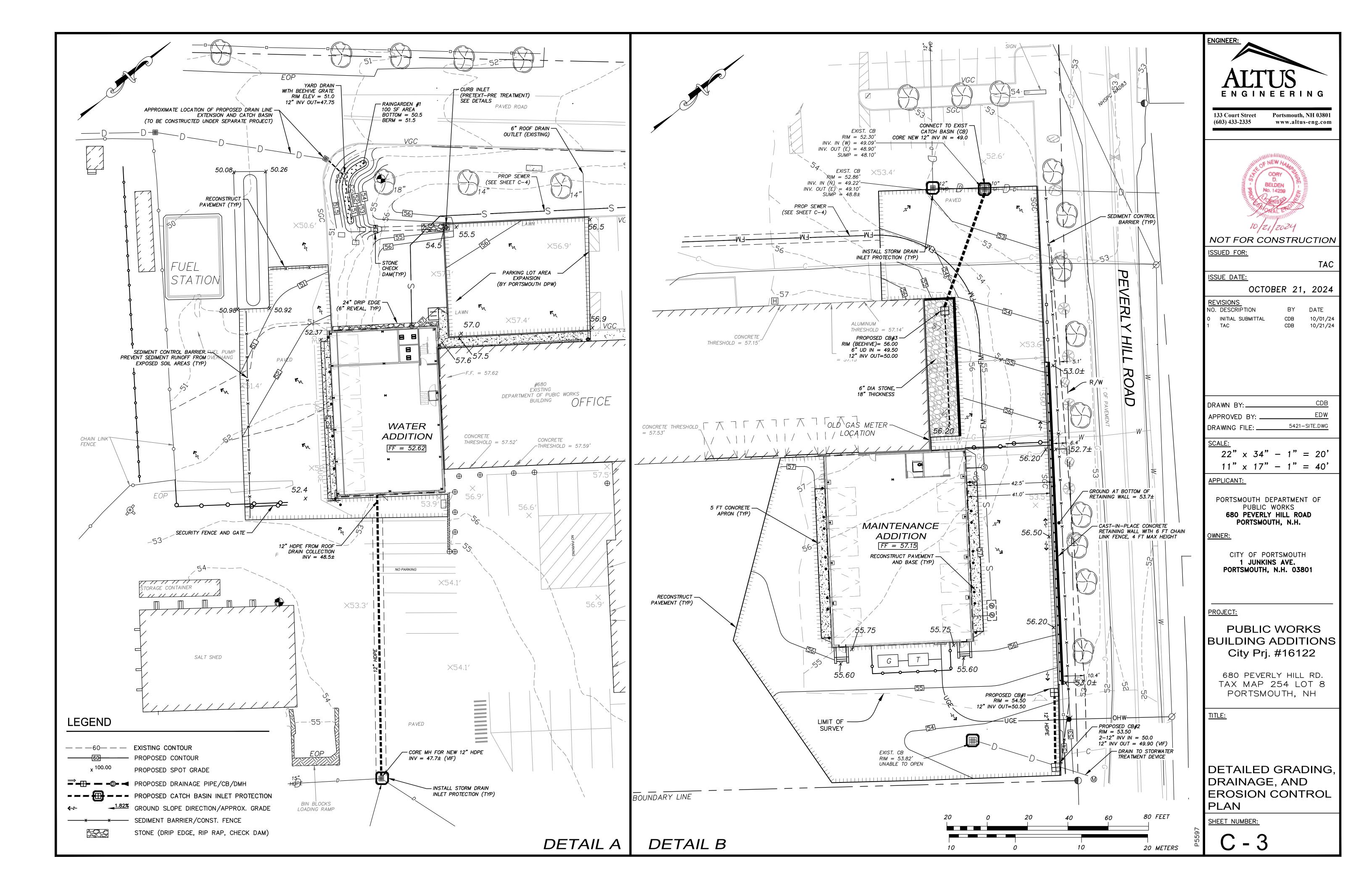
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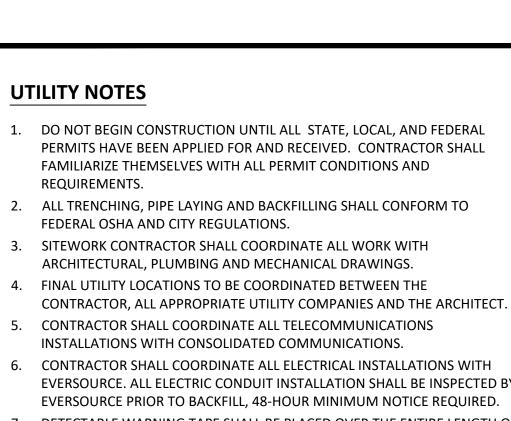
SEE SHEET S-1 FOR EXISTING FEATURES

LIMITS OF NEW PAVEMENT

CONSTRUCT CONCRETE SIDEWALK/APRON

PROPOSED FENCE AND GATE





- DETECTABLE WARNING TAPE SHALL BE PLACED OVER THE ENTIRE LENGTH O ALL BURIED UTILITIES, COLORS PER THE RESPECTIVE UTILITY PROVIDERS.
- 8. ELECTRICAL SERVICE LOCATION FROM PEVERLY HILL ROAD WILL BE COORDINATED WITH EVERSOURCE. POLE LOCATION MAY CHANGE DEPENDING ON EVERSOURCE REQUIREMENTS.
- NEW TRANSFORMER AND GENERATOR TO BE SIZED DURING DESIGN-BUILD PROCESS. INTERNAL EQUIPMENT SPECIFICATIONS ARE PENDING FOR DESIGN LOAD REQUIREMENTS. TRANSFORMER AND GENERATOR TO MEET OFFSET AND ACCESS REQUIREMENT. COORDINATE WITH EVERSOURCE.

LEGEND

SEE SHEET S-1 FOR EXISTING FEATURES

———— PROPOSED GAS

BUILDING REMOVAL

► W \*\* PROPOSED THRUST BLOCK/WATER/

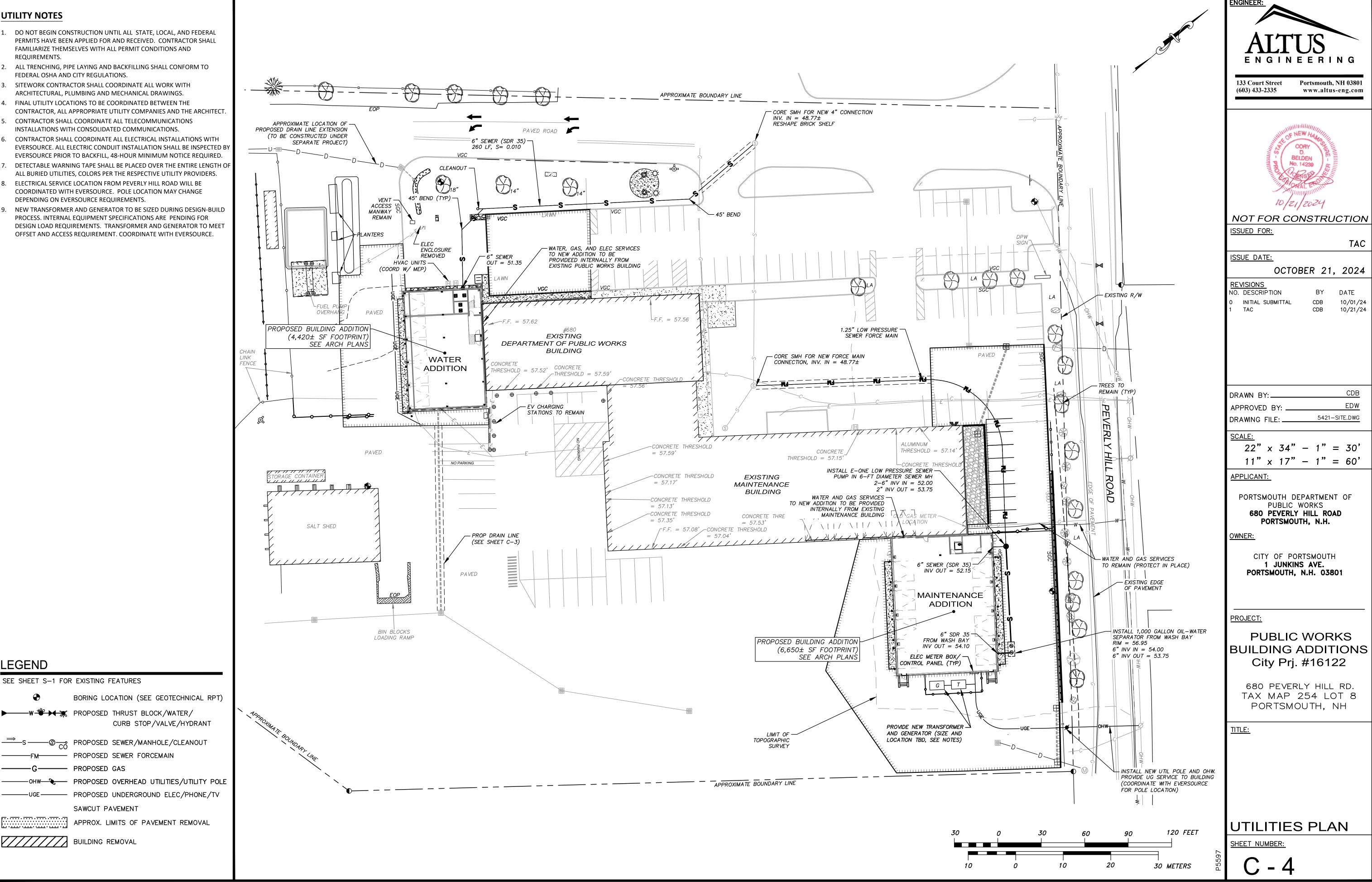
FM PROPOSED SEWER FORCEMAIN

⇒ S - ® PROPOSED SEWER/MANHOLE/CLEANOUT

SAWCUT PAVEMENT

APPROX. LIMITS OF PAVEMENT REMOVAL

CURB STOP/VALVE/HYDRANT



Portsmouth, NH 03801

No. 14239

OCTOBER 21, 2024

CDB

CDB

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TAC

DATE

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PUBLIC WORKS

680 PEVERLY HILL ROAD

PORTSMOUTH, N.H.

CITY OF PORTSMOUTH

1 JUNKINS AVE.

PORTSMOUTH, N.H. 03801

**PUBLIC WORKS** 

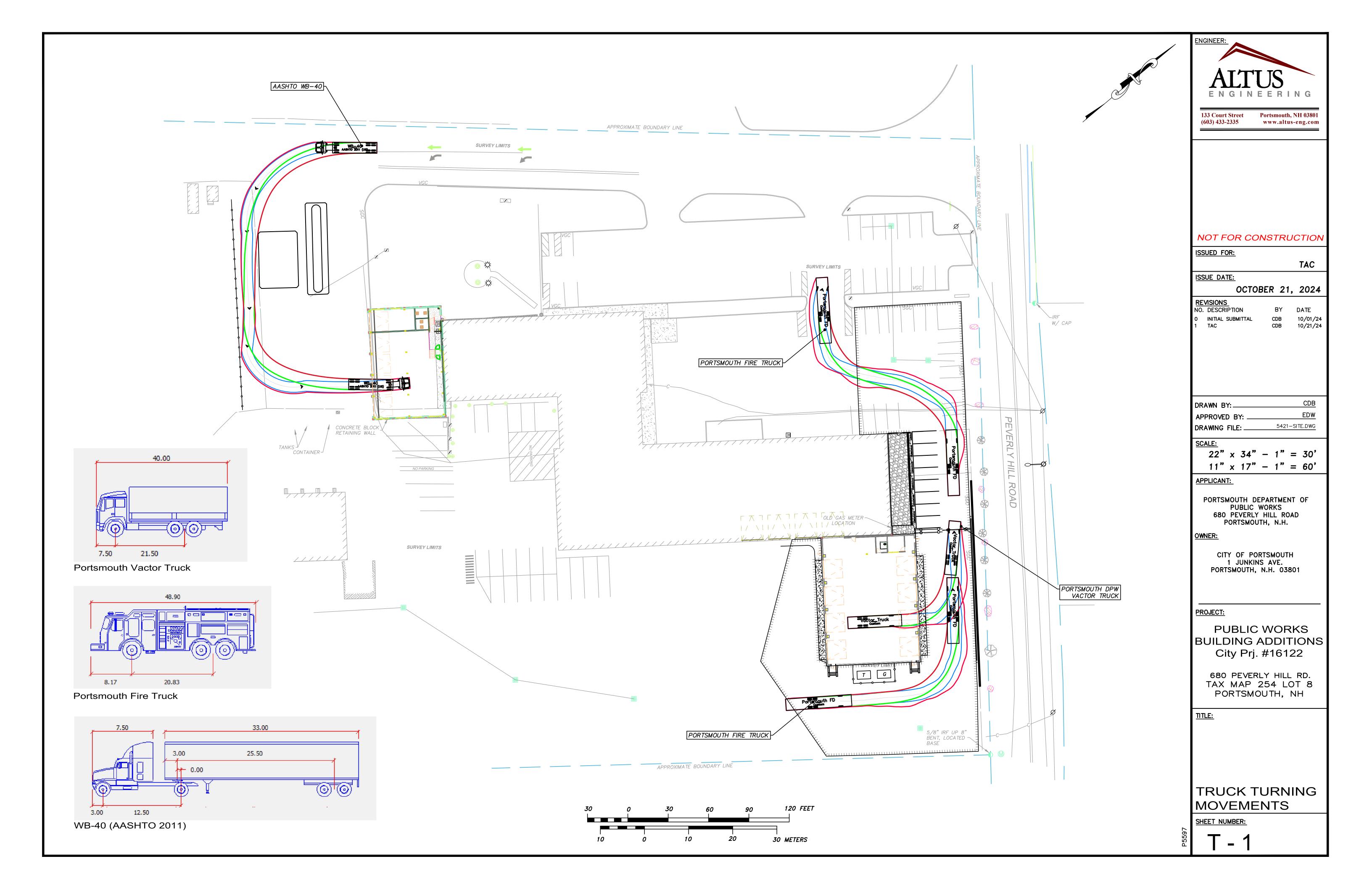
City Prj. #16122

680 PEVERLY HILL RD.

PORTSMOUTH, NH

10/01/24

10/21/24



## SEDIMENT AND EROSION CONTROL NOTES

#### PROJECT NAME AND LOCATION

PUBLIC WORKS BUILDING ADDITIONS (RFP #30-23)

CITY OF PORTSMOUTH, NH 680 PEVERLY HILL ROAD PORTSMOUTH, NH 03801

#### **DESCRIPTION**

The project consists of two additions to the existing Department of Public Works facility on Peverly Hill Road. The existing building Public Works and maintenance building will remain. See architectural drawings for building related items adjacent to the additions. Site improvements include underground utilities and parking and access items.

## DISTURBED AREA

The total area to be disturbed on the parcel and for the building additions, driveway, parking area, drainage, and utility construction is approximately 32,000 SF± (less than 1-acre). The combined disturbed area does NOT exceed 43,560 SF (1 acre), thus a SWPPP will NOT be required for compliance with the USEPA-NPDES Construction General Permit. All local requirements for stormwater and erosion control during construction are still required.

#### NPDES CONSTRUCTION GENERAL PERMIT— exempt

Site disturbance is less than one acre, therefore Contractor is NOT required to prepare a Stormwater Pollution Prevention Plan (SWPPP) or file an NOI (Notice of Intent) in accordance with federal storm water permit requirements under the USEPA-NPDES Construction General Permit.

#### SEQUENCE OF MAJOR ACTIVITIES

THE FOLLOWING PROVIDES AN ANTICIPATED SEQUENCE OF CONSTRUCTION ACTIVITIES. ACTUAL SEQUENCE WILL DEPEND ON CONTRACTOR MEANS AND METHODS AND PROPOSED WORK PLAN.

- 1. Hold a pre-construction meeting with City & stake holders.
- 2. Install temporary erosion control measures, including drain inlet protection, sediment barriers, and stabilized construction exit/entrance as necessary for the initial phase of construction. Erosion control measures shall be maintained throughout construction for various phases of work.
- 3. Remove payement and structures intended to be removed within the work limits.
- 4. Construct utility infrastructure. Rough grade lot to prepare for site development.
- 5. Construct Foundations.
- 6. Construct building addition framing.
- 7. Construct pavement to binder course
- 8. Complete building addition interiors.
- 9. Complete pavement wearing course
- 8. Loam and seed disturbed areas.
- 9. When all construction activity is complete and site is stabilized, remove all temporary erosion and sediment devices and all sediment that has been trapped by these devices.

#### NAME OF RECEIVING WATER

The site drainage discharges into a municipal closed drainage system outletting to Sagamore Creek.

#### TEMPORARY EROSION & SEDIMENT CONTROL AND STABILIZATION PRACTICES

All work shall be in accordance with state and local permits. Work shall conform to the practices described in the "New Hampshire Stormwater Manual, Volumes 1 - 3", issued December 2008, as amended. As indicated in the sequence of Major Activities, the silt fences shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity. Once construction activity ceases permanently in an area, silt fences and any earth/dikes will be removed once permanent measures are established.

During construction, runoff will be diverted around the site with stabilized channels where possible. Sheet runoff from the site shall be filtered through hay bale barriers, stone check dams, and silt fences. All storm drain inlets shall be provided with hay bale filters or stone check dams. Stone rip rap shall be provided at the outlets of drain pipes and culverts where shown on the drawings.

Stabilize all ditches, swales, stormwater ponds, level spreaders and their contributing greas prior to directing flow to them

Temporary and permanent vegetation and mulching is an integral component of the erosion and sedimentation control plan. All areas shall be inspected and maintained until vegetative cover is established. These control measures are essential to erosion prevention and also reduce costly rework of graded and shaped areas.

Temporary vegetation shall be maintained in these areas until permanent seeding is applied. Additionally, erosion and sediment control measures shall be maintained until permanent vegetation is established.

#### INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

#### A. GENERAL

These are general inspection and maintenance practices that shall be used to implement the plan:

- 1. The smallest practical portion of the site shall be denuded at one time, but in no case shall it exceed 5 acres at one time.
- 2. All control measures shall be inspected at least once each week and following any storm event of 0.25 inches or greater.
- 3. All measures shall be maintained in good working order; if a repair is necessary, it will be initiated
- within 24 hours. 4. Built-up sediment shall be removed from silt fence or other barriers when it has reached one-third the height of the fence or bale, or when "bulges" occur.
- 5. All diversion dikes shall be inspected and any breaches promptly repaired.
- 6. Temporary seeding and planting shall be inspected for bare spots, washouts, and unhealthy growth. 7. The owner's authorized engineer shall inspect the site on a periodic basis to review compliance with
- the Plans.
- 8. All roadways and parking lots shall be stabilized within 72 hours of achieving finished grade. 9. All cut and fill slopes shall be seeded/loamed within 72 hours of achieving finished grade.
- 10. An area shall be considered stable if one of the following has occurred:
  - a. Base coarse gravels have been installed in areas to be paved; b. A minimum of 85% vegetated growth as been established;
  - c. A minimum of 3 inches of non-erosive material such as stone of riprap has been installed:
- d. Erosion control blankets have been properly installed.
- 11. The length of time of exposure of area disturbed during construction shall not exceed 45 days.

Mulch shall be used on highly erodible soils, on critically eroding areas, on areas where conservation of moisture will facilitate plant establishment, and where shown on the plans.

- 1. Timing In order for mulch to be effective, it must be in place prior to major storm
- events. There are two (2) types of standards which shall be used to assure this: a. Apply mulch prior to any storm event. This is applicable when working within 100 feet of wetlands. It will be necessary to closely monitor weather predictions, usually by contacting the National Weather Service in Concord, to have adequate warning of
  - significant storms. b. Required Mulching within a specified time period. The time period can range from 21 to 28 days of inactivity on a area, the length of time varying with site conditions. Professional judgment shall be used to evaluate the interaction of site conditions (soil erodibility, season of year, extent of disturbance, proximity to sensitive resources, etc.) and the potential impact of erosion on adjacent areas to choose an appropriate time restriction.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (CON'T)

#### 2. Guidelines for Winter Mulch Application -

<u>Type</u> Hay or Straw	Rate per 1,000 s.f. 70 to 90 lbs. fro with planti	<u>Use and Comments</u> Must be dry and free om mold. May be used ings.
Wood Chips or Bark Mulch	460 to 920 lbs.	Used mostly with trees and shrub plantings.
Jute and Fibrous Matting (Erosion Blanket	As per manufacturer Specifications	Used in slope areas, water courses and other Control areas.
Crushed Stone 1/4" to 1-1/2" dia.	Spread more than 1/2" thick	Effective in controlling wind and water erosion.
Erosion Control Mix	are	* The organic matter content is between 80 and 100%, dry weight basis.  * Particle size by weight is 100% passing a 6"screen and a minimum of 70 %, maximum of 85%, passing a 0.75" screen.  * The organic portion needs to be fibrous delongated.  * Large portions of silts, clays or fine sands and acceptable in the mix.  * Soluble salts content is less than 4.0 mhos/cm.  * The pH should fall between 5.0 and 8.0.

- 3. Maintenance All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied.
- C. TEMPORARY GRASS COVER

1. 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.

#### 2. Seeding -

- a. Utilize annual rye grass at a rate of 40 lbs/acre.
- b. Where the soil has been compacted by construction operations, loosen soil to a depth of two (2) inches before applying fertilizer, lime and seed.
- c. Apply seed uniformly by hand, cyclone seeder, or hydroseeder (slurry including seed and fertilizer). Hydroseedings, which include mulch, may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

#### 3. Maintenance -

Temporary seedings 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.).

#### D. FILTERS

#### 1. Tubular Sediment Barrier

a. See detail. b. Install per manufacturer's requirements.

a. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester or ethylene yarn and shall be certified by the manufacturer or supplier as conforming to the following

requirements:		
Physical Property Filtering Efficiency	<u>Test</u> VTM-51	Requirements 75% minimum
Tensile Strength at 20% Maximum Elongation*	VTM-52	Extra Strength 50 lb/lin in (min) Standard Strength 30 lb/lin in (min)

\* Requirements reduced by 50 percent after six (6) months of installation.

Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizer to provide a minimum of six (6) months of expected usable construction life at a temperature range of 0 degrees F to 120° F.

0.3 gal/sf/min (min)

- b. Posts shall be spaced a maximum of ten (10) feet apart at the barrier location or as recommended by the manufacturer and driven securely into the ground (minimum of 16
- c. A trench shall be excavated approximately six (6) inches wide and eight (8) inches deep along the line of posts and upslope from the barrier.
- d. When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least one (1) inch long, tie wires or hog rings. The wire shall extend no more than 36 inches above the original ground surfaces.
- e. The "standard strength" filter fabric shall be stapled or wired to the fence, and eight (8) inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.
- f. When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric is stapled or wired directly to the posts with all other provisions of item (q) applying.
- a. The trench shall be backfilled and the soil compacted over the filter fabric.
- h. Silt fences shall be removed when they have served their useful purpose but not before the upslope areas has been permanently stabilized

## 3. Sequence of Installation -

Sediment barriers shall be installed prior to any soil disturbance of the contributing upslope drainage area.

#### 4. Maintenance -

- a. Silt fence barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be repaired if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water, the sediment barriers shall be replaced with a temporary stone check dam.
- b. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced
  - c. Sediment deposits must be removed when deposits reach approximately one—third (1/3) the height of the barrier.
  - d. Any sediment deposits remaining in place after the silt fence or other barrier is no longer required shall be removed. The area shall be prepared and seeded.

e. Additional stone may have to be added to the construction entrance, rock barrier and riprap lined swales, etc., periodically to maintain proper function of the erosion control structure.

#### E. PERMANENT SEEDING

- 1. Bedding stones larger than  $1\frac{1}{2}$ , trash, roots, and other debris that will interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil should be tilled to a depth of 5" to prepare a seedbed and mix fertilizer into the soil.
- 2. Fertilizer lime and fertilizer should be applied evenly over the area prior to or at the time of seeding and incorporated into the soil. Kinds and amounts of lime and fertilizer should be based on an evaluation of soil tests. When a soil test is not available, the following minimum amounts should be applied:
  - Agricultural Limestone @ 100 lbs. per 1,000 s.f. 10-20-20 fertilizer @ 12 lbs. per 1.000 s.f.

#### 3. Seed Mixture (See Landscape Drawings for additional information):

- 3.1. Lawn seed mix shall be a fresh, clean new seed crop. The Contractor shall furnish a dealer's quaranteed statement of the composition of the mixture and the percentage of purity and
- germination of each variety. 3.2. Seed mixture shall consist of
  - a. 1/3 Kentucky blue, b. 1/3 perennial rye, and
- c. 1/3 fine fescue. 3.1. Turf type tall fescue is unacceptable
- 4. Sodding sodding is done where it is desirable to rapidly establish cover on a disturbed area. Sodding an area may be substituted for permanent seeding procedures anywhere on site. Bed preparation, fertilizing, and placement of sod shall be performed according to the S.C.S. Handbook. Sodding is recommended for steep sloped areas, areas immediately adjacent to sensitive water courses, easily erodible soils (fine sand/silt), etc.

#### WINTER CONSTRUCTION NOTES

- 1. All proposed vegetated areas which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and elsewhere seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting. 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;
- 2. All ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions; and
- 3. After November 15th, incomplete road or parking surfaces where work has stopped for the winter season shall be protected with a minimum of 3 inches of crushed gravel per NHDOT Item 304.3.

#### WINTER CONSTRUCTION NOTES

WATER FLOW

TUBULAR

WORK AREA

2. ALL MATERIAL TO MEET MANUFACTURER'S SPECIFICATIONS.

REQUIREMENTS OF THE SPECIFIC APPLICATION.

FILTER

WORK AREA

PLAN VIEW

**SECTION** 

<u>NOTES:</u>
1. SILTSOXX OR APPROVED EQUAL SHALL BE USED FOR TUBULAR SEDIMENT BARRIERS.

4. ALL SEDIMENT TRAPPED BY BARRIER SHALL BE DISPOSED OF PROPERLY.

I. COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE

TUBULAR SEDIMENT BARRIER DETAIL NOT TO SCALE

— 2" × 2" WOODEN

REBAR W/ORANGE SAFETY

CAP MAY BE USED IN

PAVED SURFACE ONLY

- 1. All proposed vegetated areas which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and elsewhere seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting. 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;
- 2. All ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions; and

STAKE ON 10' LINEAR SPACING

AREA TO BE

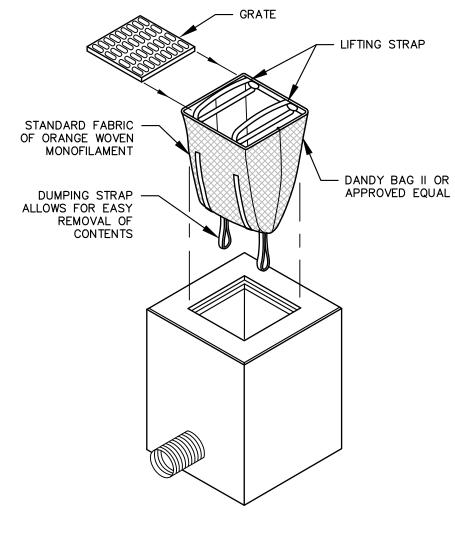
- FILTREXX®

 $SILT-SOXX^{TM}$ 

COMPOST

PROTECTED

3. After November 15th, incomplete road or parking surfaces where work has stopped for the winter season shall be protected with a minimum of 3 inches of crushed gravel per NHDOT Item 304.3.



#### **INSTALLATION AND MAINTENANCE:**

INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLOW IN UNIT. STAND GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO CATCH BASIN HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF THE UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE CATCH BASIN INSERT. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY THE UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL ABSORBENTS; REPLACE ABSORBENT WHEN NEAR SATURATION.

#### **UNACCEPTABLE INLET PROTECTION METHOD:**

A SIMPLE SHEET OF GEOTEXTILE UNDER THE GRATE IS NOT ACCEPTABLE.

STORM DRAIN INLET PROTECTION NOT TO SCALE

11" x 17" - NOT TO SCALE

PORTSMOUTH DEPARTMENT OF **PUBLIC WORKS** 680 PEVERLY HILL ROAD PORTSMOUTH, N.H. OWNER:

PROJECT:

PUBLIC WORKS BUILDING ADDITIONS City Prj. #16122

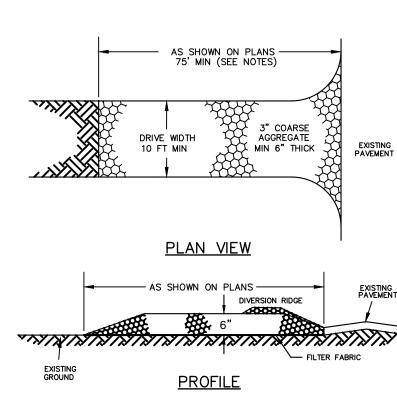
680 PEVERLY HILL RD. PORTSMOUTH, NH

EROSION CONTROL NOTES

SHEET NUMBER:

| ) \_

STABILIZED CONSTRUCTION EXIT NOT TO SCALE

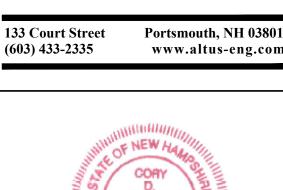


### CONSTRUCTION SPECIFICATIONS

- REFERENCE NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3 (LATEST EDITION), SECTION 4.2 "TEMPORARY CONSTRUCTION EXIT" REQUIREMENTS AND BMP DETAIL. STONE SIZE - 3" COARSE AGGREGATE
- THICKNESS SIX (6) INCHES (MINIMUM). LENGTH - 75 FOOT MINIMUM, OR 50 FOOT ALLOWED WHEN DIVERSION RIDGE IS PROVIDED.

REMOVED IMMEDIATELY.

- MDTH 1/2 OF DRIVEWAY (10 FOOT MINIMUM). FILTER FABRIC MIRAFI 600X OR APPROVED EQUAL. SURFACE WATER CONTROL - ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD HE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE
- SUBSTITUTED FOR THE PIPE. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT RACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE
- 9. WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.



ENGINEERING

BELDEN No. 14239

ISSUED FOR

REVISIONS

SSUE DATE:

DATE INITIAL SUBMITTAL CDB 10/21/24

OCTOBER 21, 2024

TAC

CDB DRAWN BY: EDW APPROVED BY: \_\_\_ 5421-SITE.DWG DRAWING FILE: \_\_

22" x 34" - NOT TO SCALE

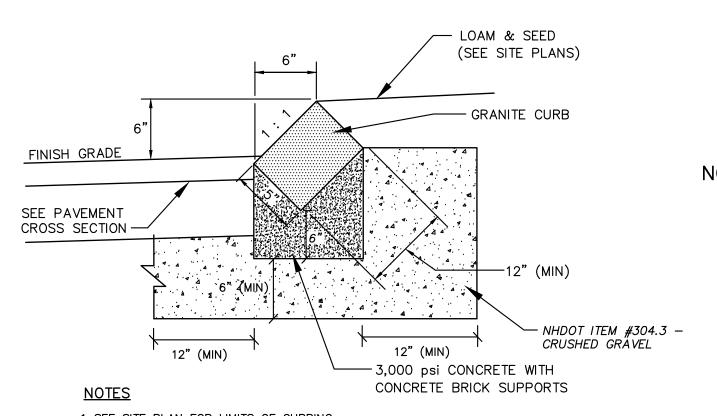
**APPLICANT:** 

CITY OF PORTSMOUTH 1 JUNKINS AVE. PORTSMOUTH, N.H. 03801

TAX MAP 254 LOT 8

TITLE:

& DETAILS

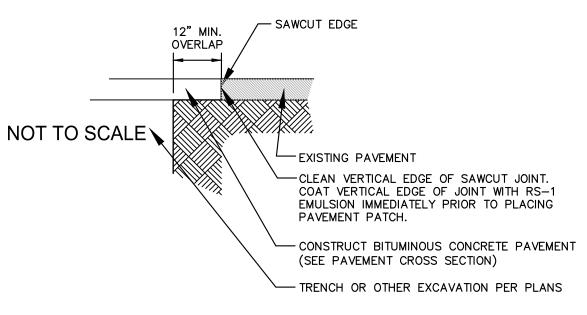


- 1. SEE SITE PLAN FOR LIMITS OF CURBING
- 2. ADJOINING STONES OF STRAIGHT CURB LAID ON CURVES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH
- 3. MINIMUM LENGTH OF STRAIGHT CURB STONES = 18"
- 4. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
- 5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES -
- SEE CHART

RADIUS FOR STONES	MAXIMUM
WITH SQUARE JOINTS	LENGTH
16'-28' 29'-41' 42'-55' 56'-68' 69'-82' 83'-96' 97'-110' OVER 110'	1'-6" 2' 3' 4' 5' 6' 7' 8'

**SLOPED GRANITE CURB** 

NOT TO SCALE

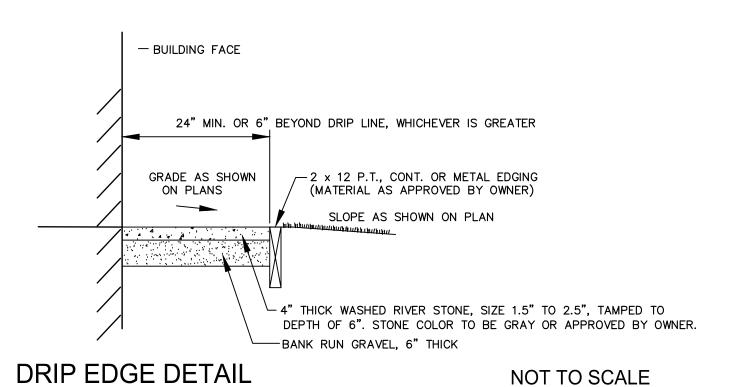


TYPICAL PAVEMENT SAWCUT

NOT TO SCALE

**BOLLARD** 

EXCAVATED UTILITY TRENCH



1/4-1/2" WIDE x 1' DEEP GROOVE

WITH 1/2" RADIUS TOOLED EDGES

CONTROL/TROWELED JOINT

(SAME DAY AS POUR) -

-6"ø GALVANIZED STEEL PIPE FILLED WITH 3,000 PSI CONCRETE WITH SMOOTH HDPE YELLOW SLEEVE. - FINISH GRADE COMPACTED NATIVE SUBGRADE (OR FILL WHERE REQUIRED) -3,000 psi CONCRETE FOOTING

NOT TO SCALE

PAVEMENT CROSS SECTION

NOT TO SCALE

— NON-WOVEN GEOTEXTILE 7 OZ/SY MIN.

DITCH OUTLET

NHDOT ITEM 403.12 - HOT

1-1/2" WEARING COURSE, (TYPE 12 mm)

3-1/2" BINDER COURSE, (TYPE 19 mm)

- NHDOT ITEM 304.3 - 6" CRUSHED GRAVEL

- NHDOT ITEM 304.2 - 12" GRAVEL

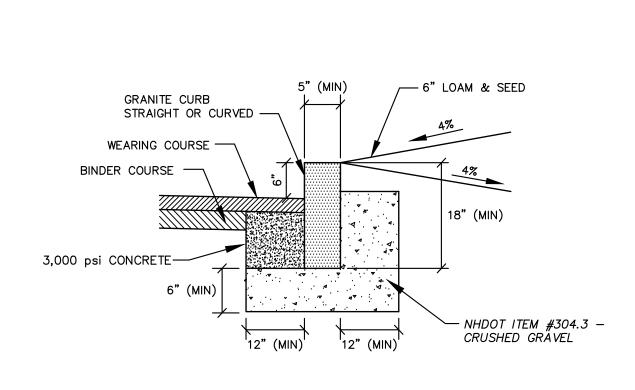
BITUMINOUS CONCRETE

PAVEMENT (5" NOMINAL)

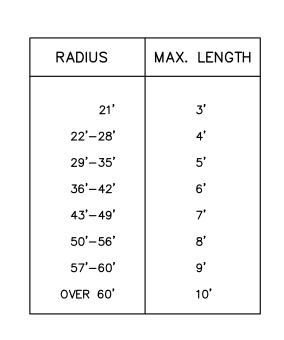
— SLOPE AS SHOWN ON PLANS

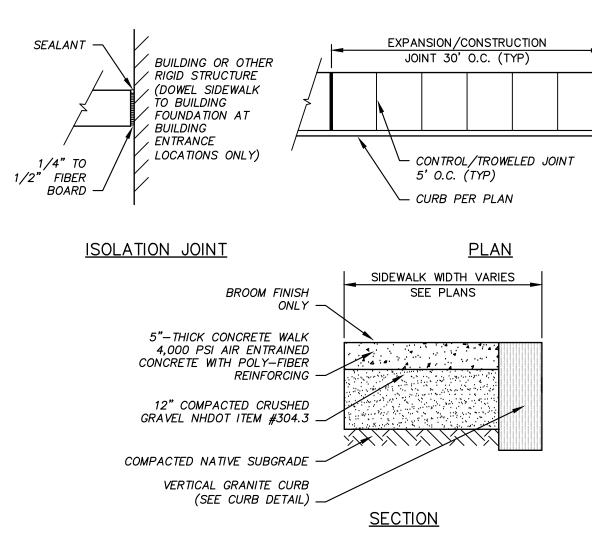
TACK COAT BETWEEN PAVEMENT COURSES

PENDING GEOTECH REPORT



- 1. SEE PLANS FOR CURB LOCATION.
- 2. SEE PLANS FOR PAVEMENT CROSS SECTION.
- 3. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
- 4. MINIMUM LENGTH OF CURB STONES = 4'.
- 5. MAXIMUM LENGTH OF CURB STONES = 10'.
- 6. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES — SEE CHART. 7. CURB ENDS TO ROUNDED AND BATTERED FACES TO BE
- CUT WHEN CALL FOR ON THE PLANS. 8. CURB SHALL BE INSTALLED PRIOR TO PLACEMENT OF TOP PAVEMENT COURSE.
- 9. JOINTS BETWEEN CURB STONES SHALL BE MORTARED.





- 1/4-1/2"-WIDE JOINT

EDGE

**EXPANSION/CONSTRUCTION JOINT** 

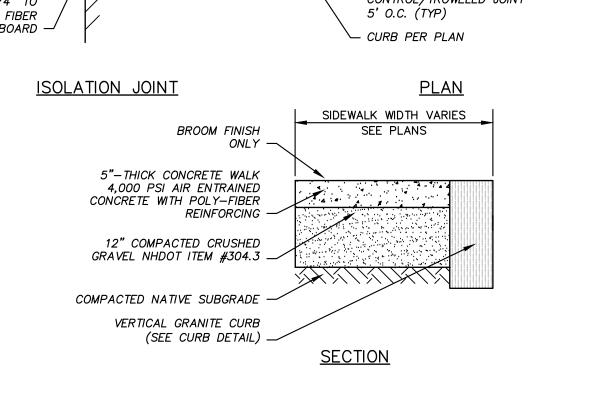
WITH 1/2" RADIUS TOOLED

- 1/4" TO 1/2" FIBER

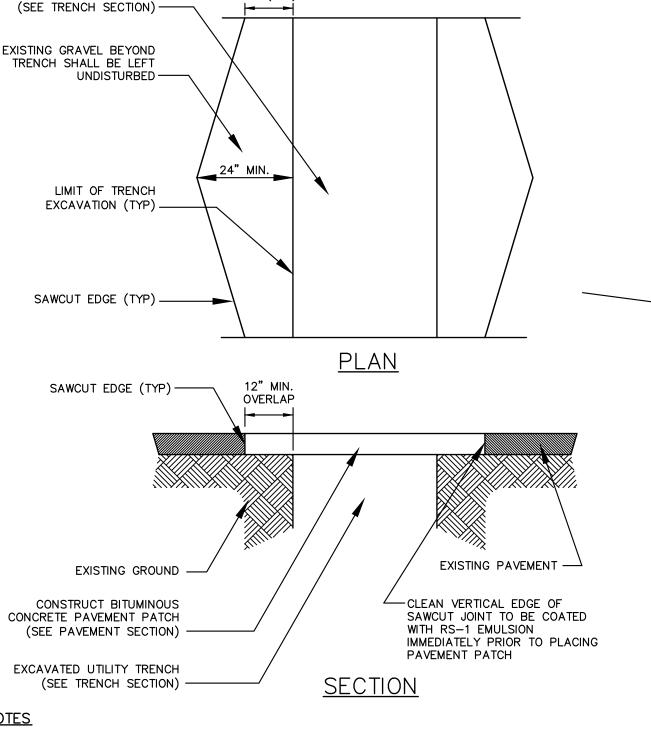
CITY OF DOVER REQUIREMENTS)

BOARD (MASTER FIBER

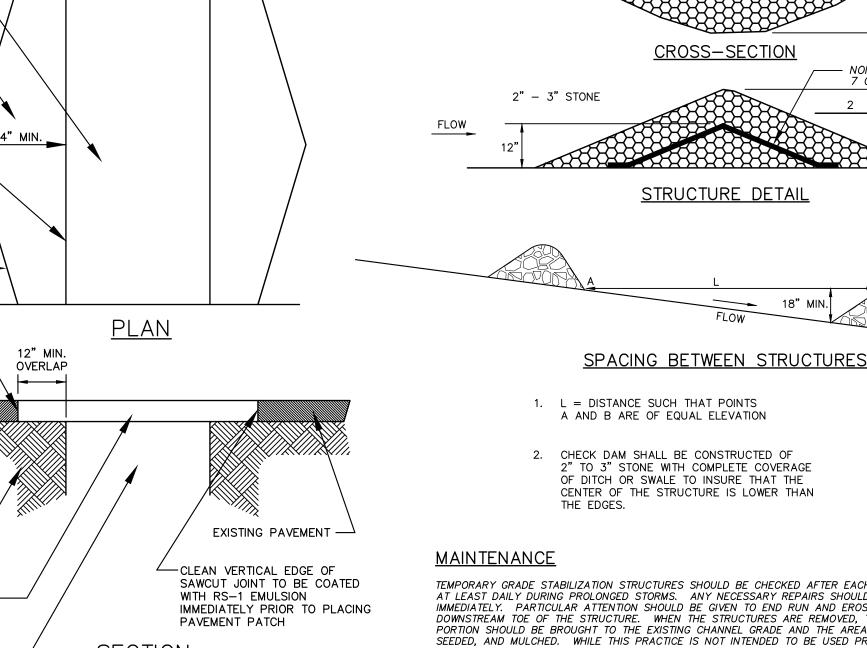
F100 CONFORMING TO



<u>NOTES</u> 1. MACHINE CUT EXISTING PAVEMENT. 2. ALL TEMPORARY, DAMAGED OR DEFECTIVE PAVEMENT SHALL BE REMOVED PRIOR TO PLACEMENT OF PERMANENT TRENCH REPAIRS. 3. DIAMOND PATCHES, SHALL BE REQUIRED FOR ALL TRENCHES CROSSING ROADWAY. DIAMOND PATCHES SHALL MEET NHDOT REQUIREMENTS. NOT TO SCALE



12" (MIN)

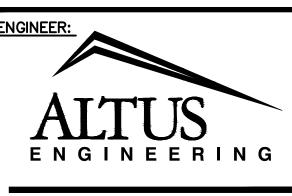


TEMPORARY GRADE STABILIZATION STRUCTURES SHOULD BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED STORMS. ANY NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE. WHEN THE STRUCTURES ARE REMOVED, THE DISTURBED PORTION SHOULD BE BROUGHT TO THE EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED, AND MULCHED. WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND THE STRUCTURES, SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE.

#### CONSTRUCTION SPECIFICATIONS

- 1. STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE
- PLANS AT THE APPROPRIATE SPACING. 2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION AND AIR AND WATER POLLUTION WILL BE MINIMIZED.
- 3. SEEDING, FERTILIZING, AND MULCHING SHALL CONFORM TO THE RECOMMENDATIONS IN THE APPROPRIATE VEGETATIVE BMP. 4. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.

STONE CHECK DAM



Portsmouth, NH 03801 133 Court Street (603) 433-2335 www.altus-eng.com



ISSUED FOR:

SSUE DATE: OCTOBER 21, 2024

REVISIONS DESCRIPTION

DATE CDB 10/21/24 INITIAL SUBMITTAL

TAC

CDB DRAWN BY APPROVED BY: 5421-SITE.DWG DRAWING FILE:.

 $2^{\text{NO}}$  × 34" - NOT TO SCALE 11" x 17" - NOT TO SCALE

## APPLICANT:

PORTSMOUTH DEPARTMENT OF PUBLIC WORKS 680 PEVERLY HILL ROAD PORTSMOUTH, N.H.

CITY OF PORTSMOUTH 1 JUNKINS AVE. PORTSMOUTH, N.H. 03801

## PROJECT:

# **PUBLIC WORKS BUILDING ADDITIONS** City Prj. #16122

680 PEVERLY HILL RD. TAX MAP 254 LOT 8 PORTSMOUTH, NH

TITLE:

**DETAIL SHEET** 

SHEET NUMBER:

D - 2

**VERTICAL GRANITE CURB** 

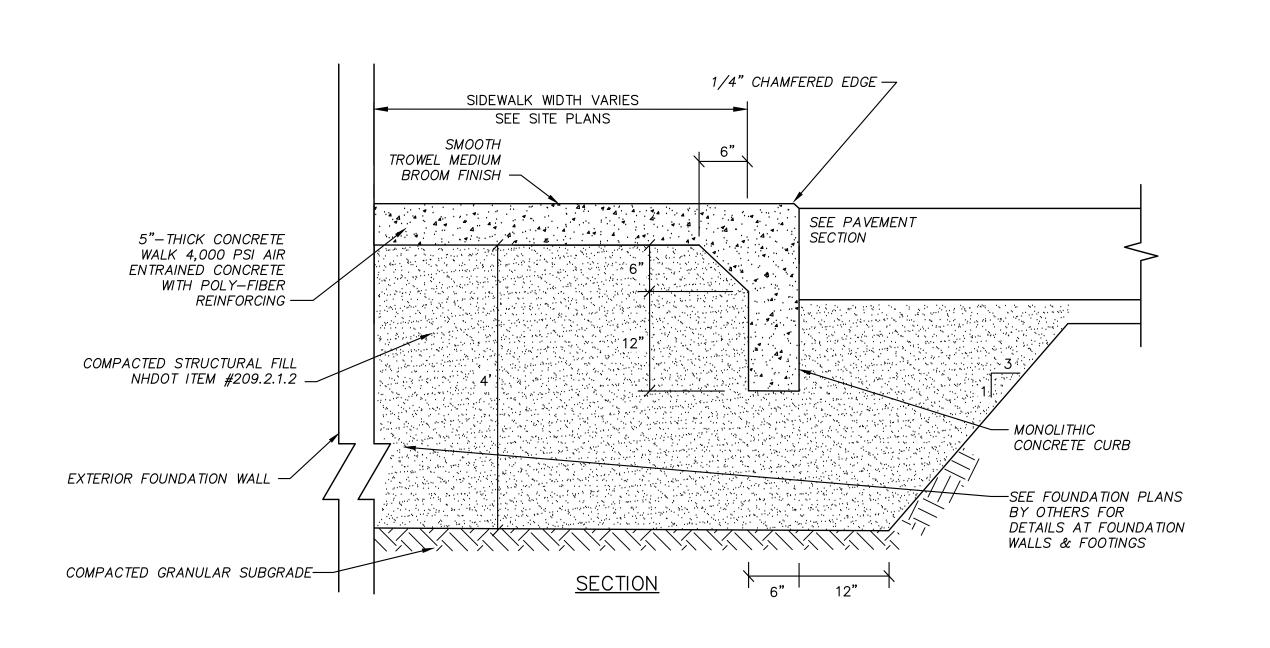
NOT TO SCALE

CONCRETE SIDEWALK DETAIL

TYPICAL TRENCH PATCH

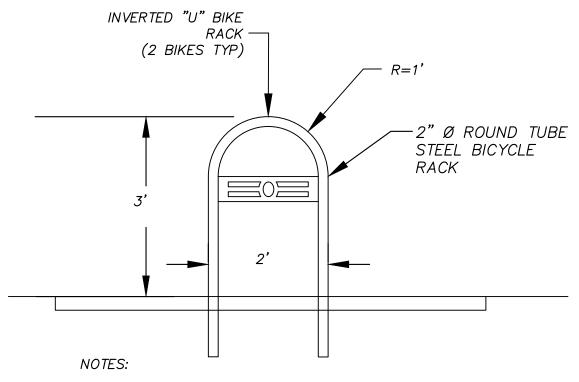
NOT TO SCALE

NOT TO SCALE



CONCRETE SLAB DETAILS @ BLDG. ENTRANCES

6' (TYPICAL) ÓR ROUNDED 3,000 PSI CONCRETE PAD 4 EDGES (SEE CROSS SECTION) PITCH TO DRAIN  $-6" \times 6" W.W.F.$  $(1.4 \times 1.4)$ 3,000 PSI CONCRETE w//BROOM FINISH \_ 6" x 6" W.W.F.  $(1.4 \times 1.4)$ 1/4" CHAMFER OR - 6" (MIN.) LOAM AND ROUNDED EDGES SEÈD AT VEGETATED AREAS FINISH PAVEMENT GRADE WHERE APPLICABLE CONCRETE HAUNCH (TYP ALL SIDES) -**SECTION** NHDOT ITEM #304.3 CRUSHED COMPACTED NATIVE SUBGRADE ' **CONCRETE PAD** NOT TO SCALE



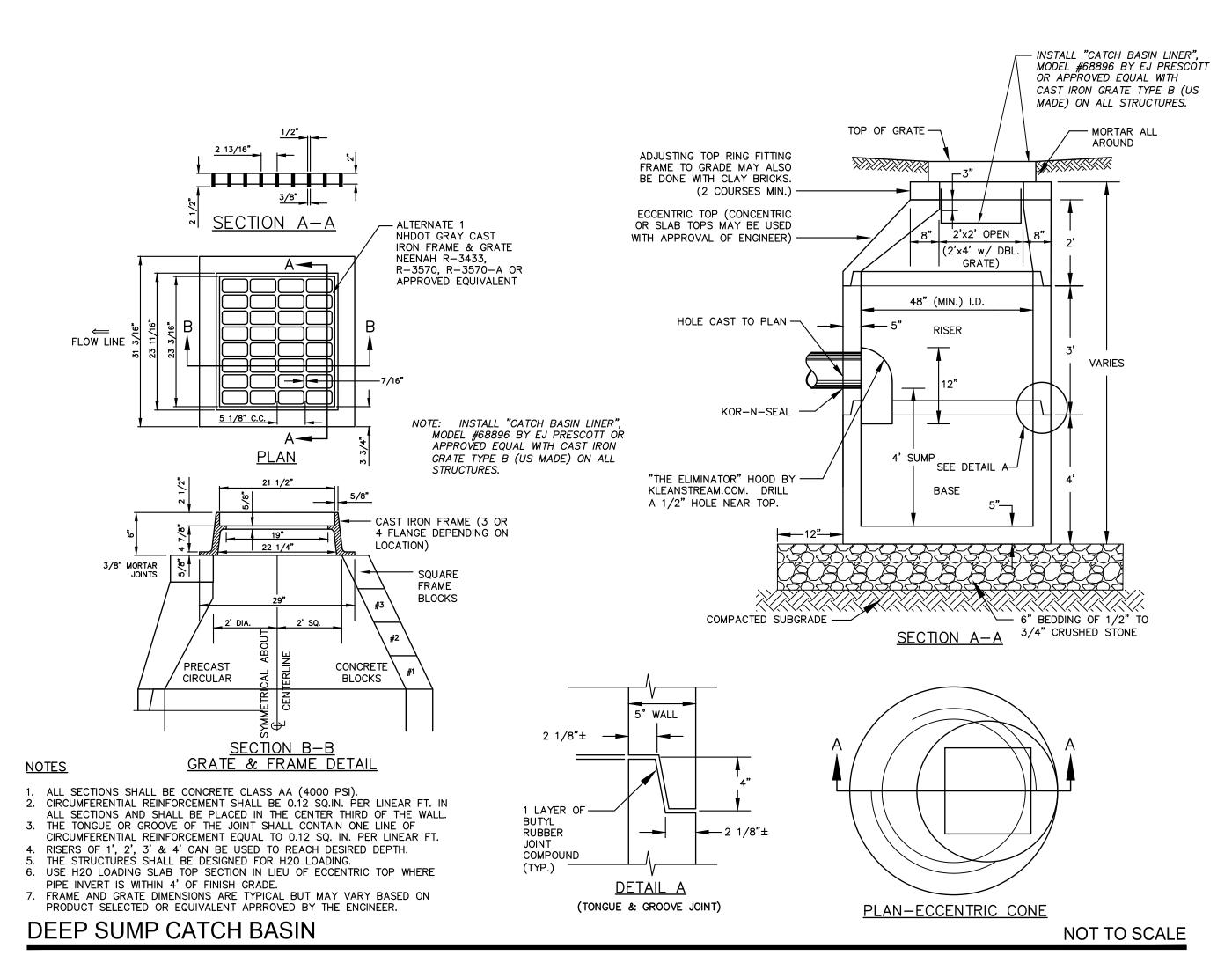
1. INSTALL BICYCLE RACK IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

2. DETAIL DEPICTS IN—GROUND MOUNT. USE SURFACE MOUNT BICYCLE RACK FOR INSTALLATIONS ON CONCRETE PADS.

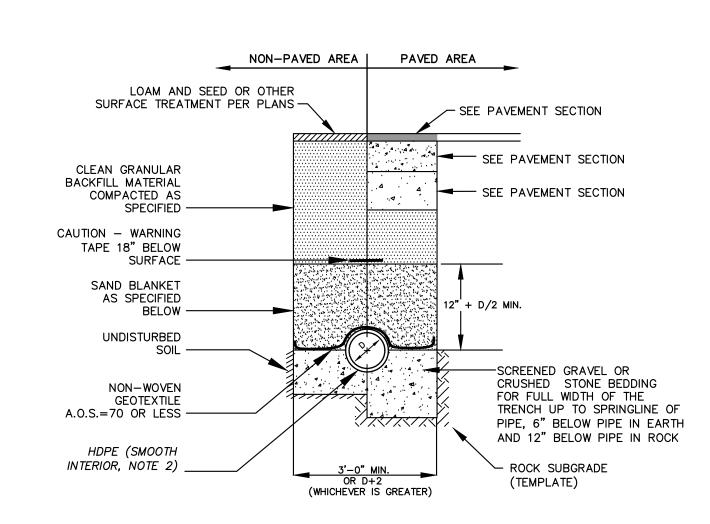
3. SEE SITE PLAN FOR FINAL CONCRETE PAD SIZE. PROVIDE SEVEN BIKE RACKS FOR 2 BICYCLES AND A MINIMUM OF 1.5 FEET TO EDGE OF CONCRETE PAD.

BICYCLE RACK DETAIL

NOT TO SCALE



NOT TO SCALE



NOTES:

1. BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND
BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C.
SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN
90% OF AASHTO T 99, METHOD C.

2. ALL PIPE SHALL BE HDPE WITH SMOOTH INTERIOR AND CORRUGATED EXTERIOR, ADS TYPE

SAND E	BLANKET/BARRIER	SCREENED GRAVEL OF	R CRUSHED STONE BEDDING
SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% PASSING BY WEIGHT
1/2" 200	90 — 100 0 — 15	1" 3/4" 3/8" # 4	100 90 - 100 20 - 55 0 - 10
		# 8	0 - 5

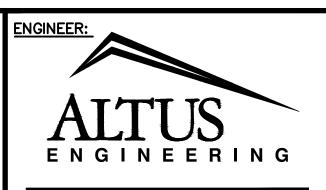
SECTION 703 OF NHDOT STANDARD SPECIFICATIONS

\* EQUIVALENT TO STANDARD STONE SIZE #67 -

STORM DRAIN TRENCH

N-12 OR APPROVED EQUAL.

NOT TO SCALE



133 Court Street Portsmouth, NH 03801 (603) 433-2335 www.altus-eng.com



ISSUED FOR:

ISSUE DATE:

OCTOBER 21, 2024

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REVISIONS

DESCRIPTION BY DATE
INITIAL SUBMITTAL CDB 10/21/24

DRAWN BY: \_\_\_\_\_\_ CDB

APPROVED BY: \_\_\_\_\_ EDW

DRAWING FILE: \_\_\_\_\_ 5421-SITE.DWG

SCALE

22" x 34" - NOT TO SCALE 11" x 17" - NOT TO SCALE

APPLICANT:

PORTSMOUTH DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD PORTSMOUTH, N.H.

OWNER:

CITY OF PORTSMOUTH

1 JUNKINS AVE.

PORTSMOUTH, N.H. 03801

PROJEC

PUBLIC WORKS
BUILDING ADDITIONS
City Prj. #16122

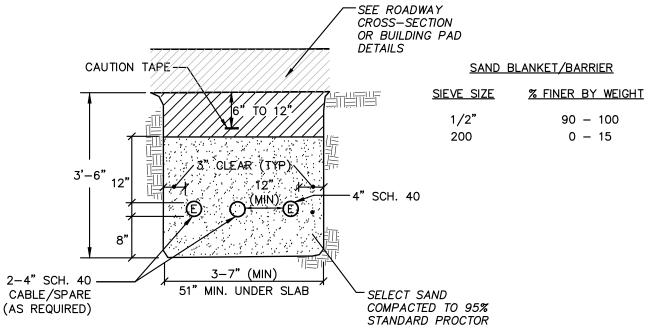
680 PEVERLY HILL RD.
TAX MAP 254 LOT 8
PORTSMOUTH, NH

TITLE:

DETAIL SHEET

SHEET NUMBER:

D - 3



- 1. ALL CONDUIT IS TO BE SCHEDULE 40 PVC, ELECTRICAL GRADE, GRAY IN COLOR AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. A 10-FOOT HORIZONTAL SECTION OF RIGID GALVANIZED STEEL CONDUIT WILL BE REQUIRED AT EACH SWEEP, UNLESS IN THE OPINION OF THE SERVICE PROVIDER DESIGNER, THE SWEEP-PVC JOINT IS NOT SUBJECT TO FAILURE DURING PULLING OF THE CABLE. ALL JOINTS ARE TO BE WATERTIGHT.
- 2. ALL 90 DEGREE SWEEPS WILL BE MADE WITH RIGID GALVANIZED STEEL WITH A MINIMUM RADIUS OF 36 INCHES FOR PRIMARY CABLES AND 24 INCHES FOR SECONDARY CABLES.
- 3. BACKFILL MAY BE MADE WITH EXCAVATED MATERIAL OR COMPARABLE, UNLESS MATERIAL IS DEEMED UNSUITABLE BY SERVICE PROVIDER. BACKFILL SHALL BE FREE OF FROZEN LUMPS, ROCKS, DEBRIS, AND RUBBISH. ORGANIC MATERIAL SHALL NOT BE USED AS BACKFILL. BACKFILL SHALL BE IN 6-INCH LAYERS AND THOROUGHLY COMPACTED.
- 4. A SUITABLE PULLING STRING, CAPABLE OF 300 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE SERVICE PROVIDER IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT. A MINIMUM OF TWENTY-FOUR (24") INCHES OF ROPE SLACK SHALL REMAIN AT THE END OF EACH DUCT. PULL ROPE SHALL BE INSTALLED IN ALL CONDUIT FOR FUTURE PULLS. PULL ROPE SHALL BE NYLON ROPE HAVING A MINIMUM TENSILE STRENGTH OF THREE HUNDRED (300#) LBS.
- 5. SERVICE PROVIDER SHALL BE GIVEN THE OPPORTUNITY TO INSPECT ALL CONDUIT PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS SHOULD SERVICE PROVIDER BE UNABLE TO INSTALL ITS CABLE IN A SUITABLE MANNER.
- 6. TYPICAL CONDUIT SIZES ARE 3-INCH FOR SINGLE PHASE PRIMARY AND SECONDARY VOLTAGE CABLES, 4-INCH FOR THREE PHASE SECONDARY, AND 5-INCH FOR THREE PHASE PRIMARY. HOWEVER, SERVICE PROVIDERS MAY REQUIRE DIFFERENT NUMBERS, TYPES AND SIZES OF CONDUIT THAN THOSE SHOWN HERE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CONDUIT SIZES, TYPES AND NUMBERS WITH EACH SERVICE PROVIDER PRIOR TO ORDERING THEM.
- 7. ROUTING OF CONDUIT, LOCATION OF MANHOLES, TRANSFORMERS, CABINETS, HANDHOLES, ETC., SHALL BE DETERMINED BY SERVICE PROVIDER DESIGN PERSONNEL. THE CONTRACTOR SHALL COORDINATE WITH ALL SERVICE PROVIDERS PRIOR TO THE INSTALLATION OF ANY CONDUIT.
- 8. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE. WHERE REQUIRED BY UTILITY PROVIDER, CONDUIT SHALL BE SUPPORTED IN PLACE USING PIPE STANCHIONS PLACED EVERY FIVE (5') FEET ALONG THE CONDUIT RUN.
- 9. UNDER A BUILDING SLAB THE CONDUIT SHALL BE ENCASED IN 8" OF CONCRETE ON ALL SIDES.
- 10. ALL CONDUIT TERMINATIONS SHALL BE CAPPED TO PREVENT DEBRIS FROM ENTERING CONDUIT.

ELECTRIC / COMMUNICATION TRENCH NOT TO SCALE

PAVED AREA

SEE PAVEMENT/PATH SECTION

SEE PAVEMENT SECTION

SEE PAVEMENT SECTION

+ D/2 MIN.

-INSTALL 2 LAYERS OF 2" THICK BY 2" WIDE RIGID EPS INSULATION, WHERE

COVER IS LESS THAN 6 FEET (TYP.)

-CRUSHED STONE BEDDING AS

" BELOW PIPE IN EARTH AND

CRUSHED STONE BEDDING \*

% PASSING BY WEIGHT

100

SPECIFIED FOR FULL WIDTH

OF THE TRENCH UP TO

12" BELOW PIPE IN ROCK

SPRINGLINE OF PIPE.

ROCK SUBGRADE

LOAM AREA

4" COMPACTED

CLEAN GRANULAR

BACKFILL MATERIAL

COMPACTED AS SPECIFIED-

CAUTION - WARNING TAPE 18" BELOW SURFACE ----

SAND BLANKET

AS SPECIFIED BELOW

UNDISTURBED SOIL

# SWING GATE POST ·3' SINGLE GATE SEE SITE PLAN -LINE POST LATCH (LOCKABLE) 3/8" ADJUSTABLE TRUSS RODS

- TUBULAR

·LEDGE LINE

COMPONENTS: 8' HIGH CHAIN LINK FENCE

1. CORNER POSTS: 2 7/8" O.D. STEEL 5.79 LBS/FT

2. LINE POSTS: 2 3/8" O.D. STEEL, 3.65 LBS/FT

SWING GATE POST

DOUBLE GATE

SEE SITE PLAN

3/8" ADJUSTABLE-

1. ALL SECTIONS OF FENCE ADJACENT TO GATES AND CORNER POSTS

SHALL HAVE ONE BRACE AND ONE ADJUSTABLE TRUSS ROD.

TRUSS RODS

SEE CONCRETE

FOOTING DETAIL

ELEVATION

15' OR 18'

SWING GATE POST: 4" O.D. STEEL, 9.11 LBS/FT 4. GATE FRAME: 1.90" O.D. STEEL,

2.72 LBS/FT 5. BRACE: 1.660" O.D. STEEL

CHAIN WITH-

LOCK

- TOP RAIL

TIE WIRES -

SPACED 24"

CHAIN LINK FENCE -

2" MESH NO. 9 GA.

1.660 O.D. STEEL

10'-0" MAX.

TYPICAL POST

-POST TO BE

3' DEEP (TYP.)

-TAMPED CRUSHED

GRAVEL ON ALL

LINE POSTS

SPACING

∕LINE POST

2.27 LBS/FT

COMPONENTS:

6' HIGH CHAIN LINK FENCE

1. END AND CORNER POSTS: 2 3/8" O.D. STEEL 3.65 LBS/FT

TIE WIRES

SPACED 14"

- SEE CONCRETE

NOT TO SCALE

FOOTING DETAIL

CORNER POST

GROUND LINE

2. LINE POSTS: 1.90" O.D. STEEL, 2.72 LBS/FT

3. BRACE: 1.660" O.D. STEEL

-SWING GATE POST

10'-0" MAX.

TYPICAL POST

SPACING

BRACE —

3/8" ADJUSTABLE

TRUSS ROD

CORY BELDEN No. 14239

ENGINEERING

Portsmouth, NH 03801

www.altus-eng.com

TAC

DATE

ISSUED FOR:

133 Court Street

(603) 433-2335

SSUE DATE:

OCTOBER 21, 2024

REVISIONS IO. DESCRIPTION

INITIAL SUBMITTAL CDB 10/21/24

APPROVED BY: 5421-SITE.DWG DRAWING FILE:.

22" x 34" - NOT TO SCALE 11" x 17" - NOT TO SCALE

PORTSMOUTH DEPARTMENT OF PUBLIC WORKS 680 PEVERLY HILL ROAD PORTSMOUTH, N.H.

CITY OF PORTSMOUTH 1 JUNKINS AVE. PORTSMOUTH, N.H. 03801

**PUBLIC WORKS** BUILDING ADDITIONS City Prj. #16122

680 PEVERLY HILL RD. TAX MAP 254 LOT 8 PORTSMOUTH, NH

DETAIL SHEET

SHEET NUMBER:

1) - 4

STANDARD TRENCH NOTES:

TUBULAR —

1. ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE: BACKFILL AS STATED IN THE TECHNICAL SPECIFICATIONS OR AS SHOWN OF THE DRAWING. 2. BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33, STONE SIZE NO. 67.

1'-0"

**EARTH** 

STRAIGHT FENCE RUNS

CHAINE LINK FENCE DETAIL

NOTES:

BE REQUIRED

-3000 PSI

CONCRETE

1. WHERE GROUND CONDITION PERMITS,

EPOXY-

GROUT

MIN. 1/2"

FORMS FOR FOOTINGS WILL NOT

GROUND LINE

PROVIDE AT ALL TERMINAL POSTS, CORNER POSTS

GATE POSTS AND AT 50' MAXIMUM SPACING ON

CONCRETE FOOTING DETAIL

PASSING 1 INCH SCREEN PASSING 3/4 INCH SCREEN 90 - 100% 20 – 55% PASSING 3/8 INCH SCREEN 0-10% PASSING #4 SIEVE PASSING #8 SIEVE 0-5%

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1-1/2 INCH TO 1/2 INCH SHALL BE USED.

- 3. SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER, SO GRADED THAT 90 - 100% PASSES 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE. BLANKET MAY BE OMITTED FOR CAST-IRON, DUCTILE IRON, AND REINFORCED CONCRETE PIPE PROVIDED HOWEVER, THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE.
- 4. SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS: PIECES OF PAVEMENT: ORGANIC MATTER: TOP SOIL: ALL WET OR SOFT MUCK. PEAT. OR CLAY; ALL EXCAVATED LEDGE MATERIAL; ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION; AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.
- 5. BASE COURSE AND PAVEMENT SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES — DIVISIONS 300 AND 400 RESPECTIVELY.
- 6. SHEETING, IF REQUIRED: WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION 1 FOOT ABOVE THE TOP OF PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAT 1 FOOT ABOVE THE TOP OF
- 7. W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES IN NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE OUTSIDE DIAMETER (O.D.) ALSO, W SHALL BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
- 8. FOR CROSS COUNTRY CONSTRUCTION, BACKFILL OR FILL SHALL BE MOUNDED TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE. CONCRETE FOR ENCASEMENT SHALL CONFORM TO THE NEW HAMPSHIRE
- DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS STANDARD SPECIFICATION REQUIREMENTS FOR CLASS A (3000#) CONCRETE AS FOLLOWS: WATER: 5.75 GALLONS PER CEMENT: 6.0 BAGS PER CUBIC YARD MAXIMUM SIZE OF AGGREGATE: 1 INCH CONCRETE ENCASEMENT IS NOT ALLOWED FOR PVC PIPE. 10. CONCRETE FULL ENCASEMENT: IF FULL ENCASEMENT IS UTILIZED, DEPTH OF
- CONCRETE BELOW PIPE SHALL BE 1/4 I.D. (4" MINIMUM). BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS. 11. NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES DESIGN STANDARDS
- REQUIRE TEN FEET (10') SEPARATION BETWEEN WATER AND SEWER. REFER TO CITY'S STANDARD SPECIFICATIONS FOR METHODS OF PROTECTION IN AREAS THAT CANNOT MEET THESE REQUIREMENTS.

DETERMINED BY FENCE VENDOR ENTRY GATE LENGTH -4" SCH. 40 GALV POST (TYP) -CATCH ASSEMBLY WITH REFLECTOR - ELECTRONIC EYE MOTOR CONTROL CABINET - DRIVE CHAIN (TYP)

24'-0" MIN.

IMPORTANT NOTE:

COUNTER BALANCE LENGTH AS

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF FENCING AND GATES FOR REVIEW. CONTRACTOR SHALL HIRE GC AAA FENCE AS MOTORIZED GATE VENDOR/INSTALLER. CONTRACTOR SHALL COORDINATE INSTALLATION OF FENCE AND MAN GATE WITH MOTORIZED GATE VENDOR. REFER TO ELECTRICAL SHEETS FOR ADDITIONAL WIRING REQUIREMENTS.

GATE VENDOR CONTACT INFORMATION: ATTN: MICHAEL CARPENTER GC/AAA FENCES, INC. 294 DURHAM RD **DOVER NH 03820** 1-800-660-0833

(FROM CITY OF PORTSMOUTH FUEL SYSTEM REPLACEMENT PROJECT, BY STANTEC)

3/4" 90 - 100 0 - 15 3/8" 20 - 55 0 - 10 0 - 5

BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET

SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T99, METHOD C. SUITABLE BACKFILL

MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99,

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

% FINER BY WEIGHT

90 - 100

SAND BLANKET

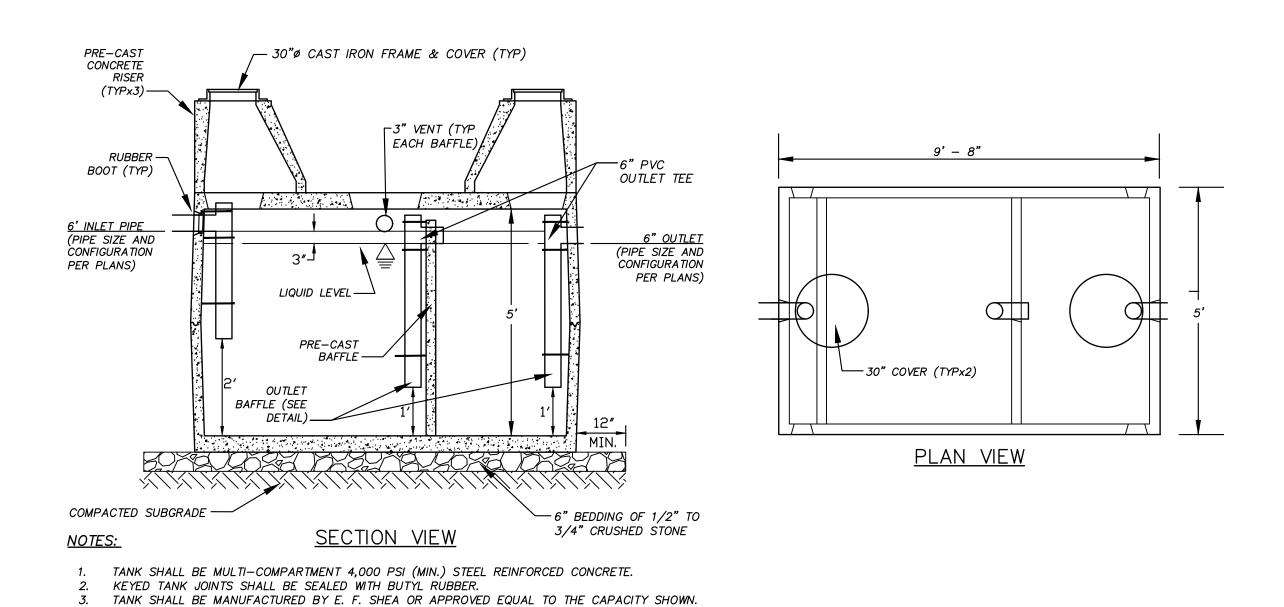
(WHICHEVER IS GREATER)

SEWER TRENCH SECTION

NOT TO SCALE

SECURITY GATE DETAIL

NOT TO SCALE

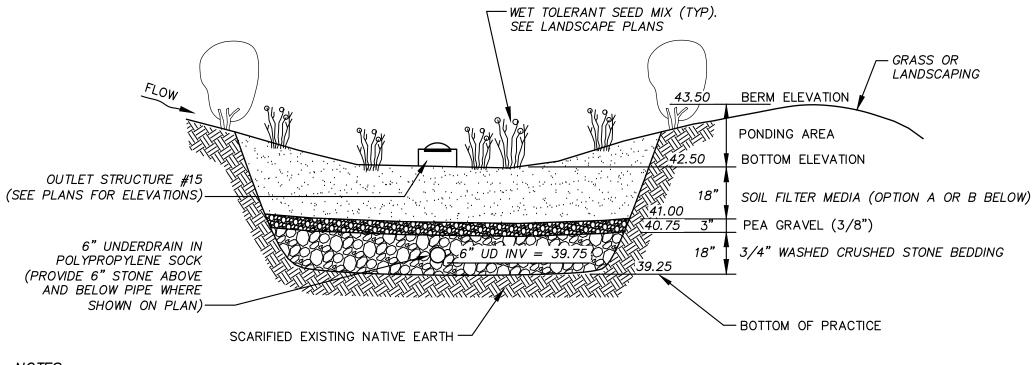


# 1,000 GALLON OIL SEPARATOR

TANK DIMENSIONS MAY VARY DEPENDING ON THE MANUFACTURER.

INLET AND OUTLET PIPE SIZES AND CONFIGURATION SHALL BE CONSTRUCTED PER THE PLANS.

NOT TO SCALE



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- 1. WHEN CONTRACTOR EXCAVATES RAIN GARDEN AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR
- 2. SOIL FILTER MEDIA SHALL BE EITHER OPTION A OR OPTION B AT CONTRACTOR'S DISCRETION. DO NOT PLACE THE RAIN GARDEN INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS
- CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- 4. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO THE RAIN GARDEN AREA DURING ANY STAGE OF CONSTRUCTION.
- 5. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS

#### MAINTENANCE REQUIREMENTS

- SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 2.5 INCHES IN A 24-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS A WARRANTED BY SUCH INSPECTION.
- PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.
- AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF BIORETENTION SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION (AS APPLICABLE), INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.
- VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING, PRUNING, REMOVAL, AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

#### **DESIGN REFERENCES**

UNH STORMWATER CENTER

TYPICAL RAINGARDEN

- EPA (1999A)
- NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.

#### CRUSHED STONE BEDDING \* % PASSING BY WEIGHT SIEVE SIZE 3/4" 90 - 100 3/8" 20 - 55 0 -10 0 - 5 EQUIVALENT TO STANDARD STONE SIZE #67 - SECTION 703 OF NHDOT NHDOT STANDARD SPECIFICATIONS

FILTER MEDIA MIXTURES					
Component Material	Percent of Mixture by Volume	Gradation of material			
		Sieve No.	Percent by Weight Passing Standard Sieve		
Filter Media Option A					
ASTM C-33 concrete sand	50 to 55				
Loamy sand topsoil, with fines as indicated	20 to 30	200	15 to 25		
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5		
Filter Media Option B					
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5		
	70 1- 80	10	85 to 100		
Loamy coarse sand		20	70 to 100		
Louiny Course suriu	70 to 80	60 15 to			
		200	8 to 15		

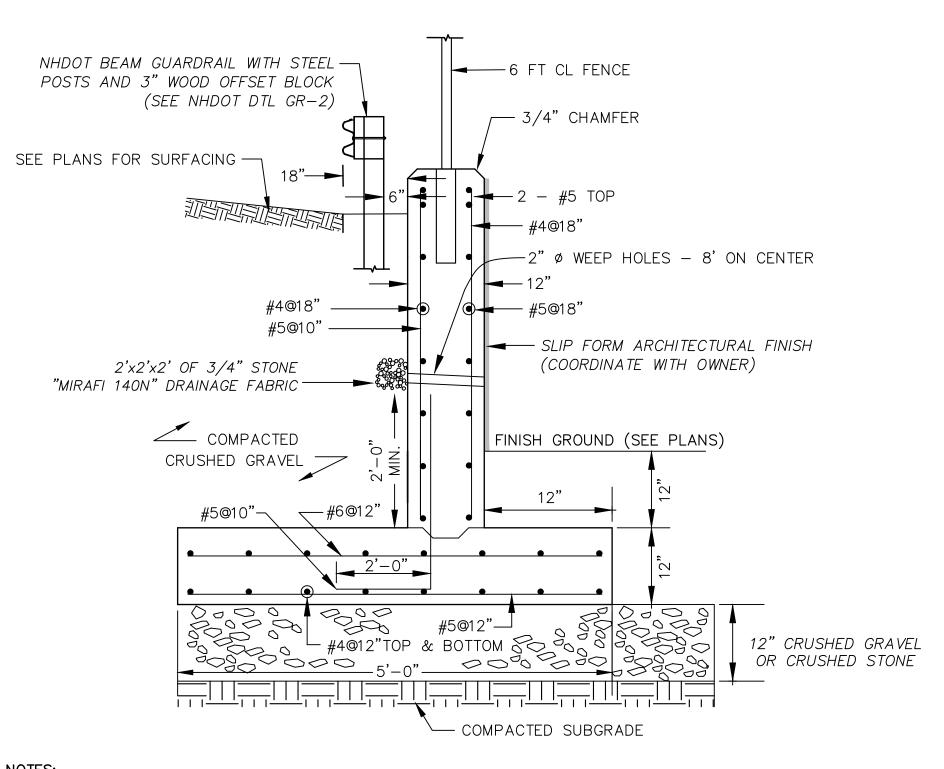
NOT TO SCALE

EXISTING -PER CODE EQUALIZER: ■ 100 FT MAX CABLE LENGTH — QUICK DISCONNECT (EQD) SUPPLY CABLE -6-12 INCH SETTLING LOOP -6 FT DIA DRAIN MH DISCHARGE -SLIDE FACE QUICK DISCONNECT LIFTING ROPE (NYLON) - DISCHARGE LINE DISCHARGE HOSE (AVAIL. L = 48\*-120\*) DISCHARGE FITTING INCOMING GRAVITY LINE ANTI-SYPHON-CHECK VALVE 1. PROVIDE VENT TO BUILDING ROOF INLET FITTING E-ONE PUMP STATION (IN 6 FT DIA DRAIN MANHOLE) NOT TO SCALE

ALARM PANEL

-EXISTING

JUNCTION BOX



# NOTES:

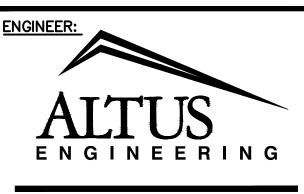
1. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DESCREPANCY BETWEEN PLAN AND FIELD CONDITION.

30" DIA SEWER-

MH COVER

- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD CONTROL
- 3. INSTALL 1/2 EXPANSION JOINT FILLER AT BUILDING 4. CONTRACTOR SHALL HAVE A STRUCTURAL ENGINEER STAMP ALL RETAINING WALLS

CONCRETE RETAINING WALL NOT TO SCALE



Portsmouth, NH 03801 133 Court Street (603) 433-2335 www.altus-eng.com



**ISSUED FOR:** 

SSUE DATE:

INITIAL SUBMITTAL

REVISIONS

OCTOBER 21, 2024

CDB

TAC

DATE

10/21/24

CDB

DRAWN BY 5421-SITE.DWG DRAWING FILE: .

22" x 34" - NOT TO SCALE 11" x 17" - NOT TO SCALE

**APPLICANT:** 

PORTSMOUTH DEPARTMENT OF PUBLIC WORKS 680 PEVERLY HILL ROAD PORTSMOUTH, N.H.

CITY OF PORTSMOUTH 1 JUNKINS AVE. PORTSMOUTH, N.H. 03801

PROJECT:

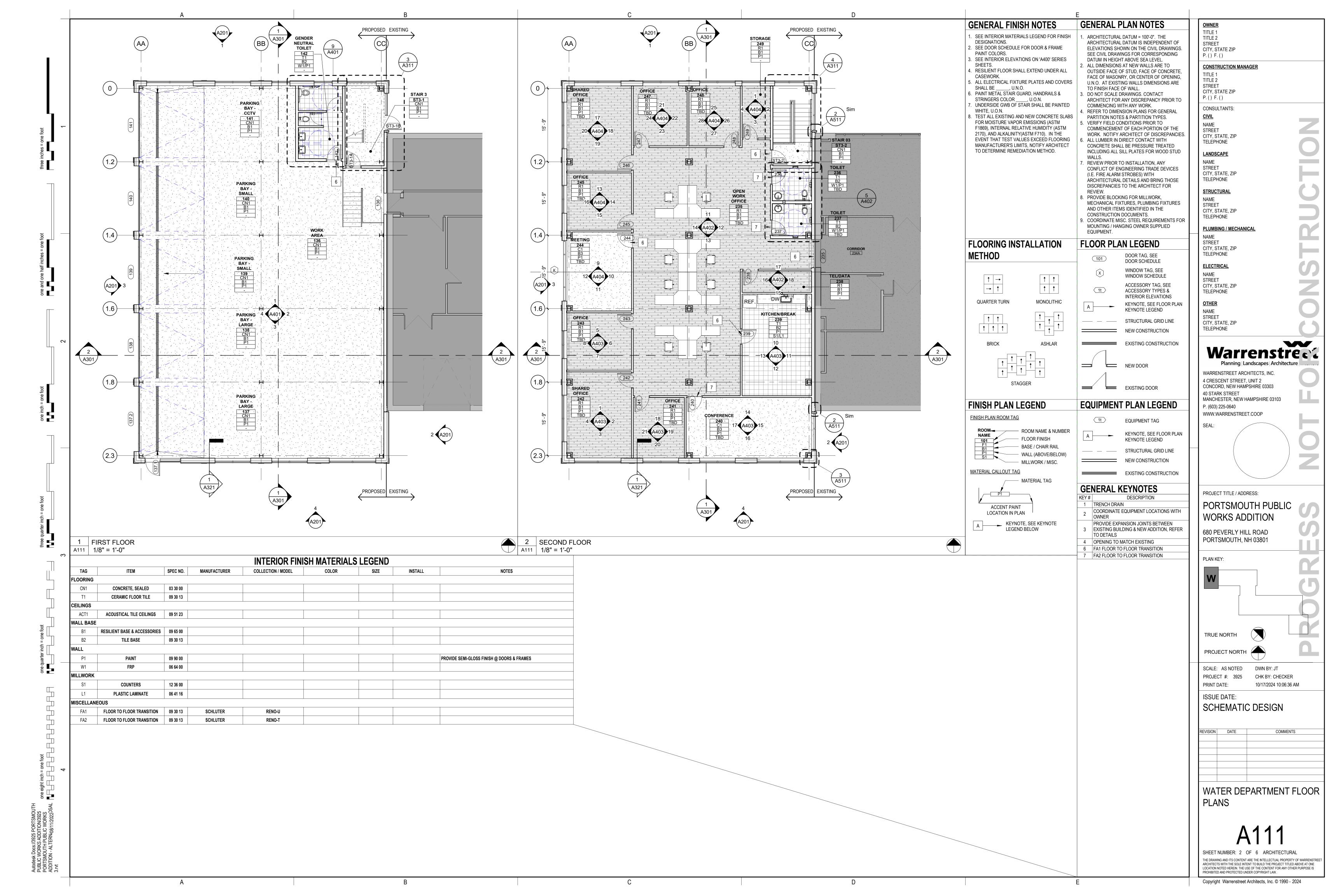
**PUBLIC WORKS** BUILDING ADDITIONS City Prj. #16122

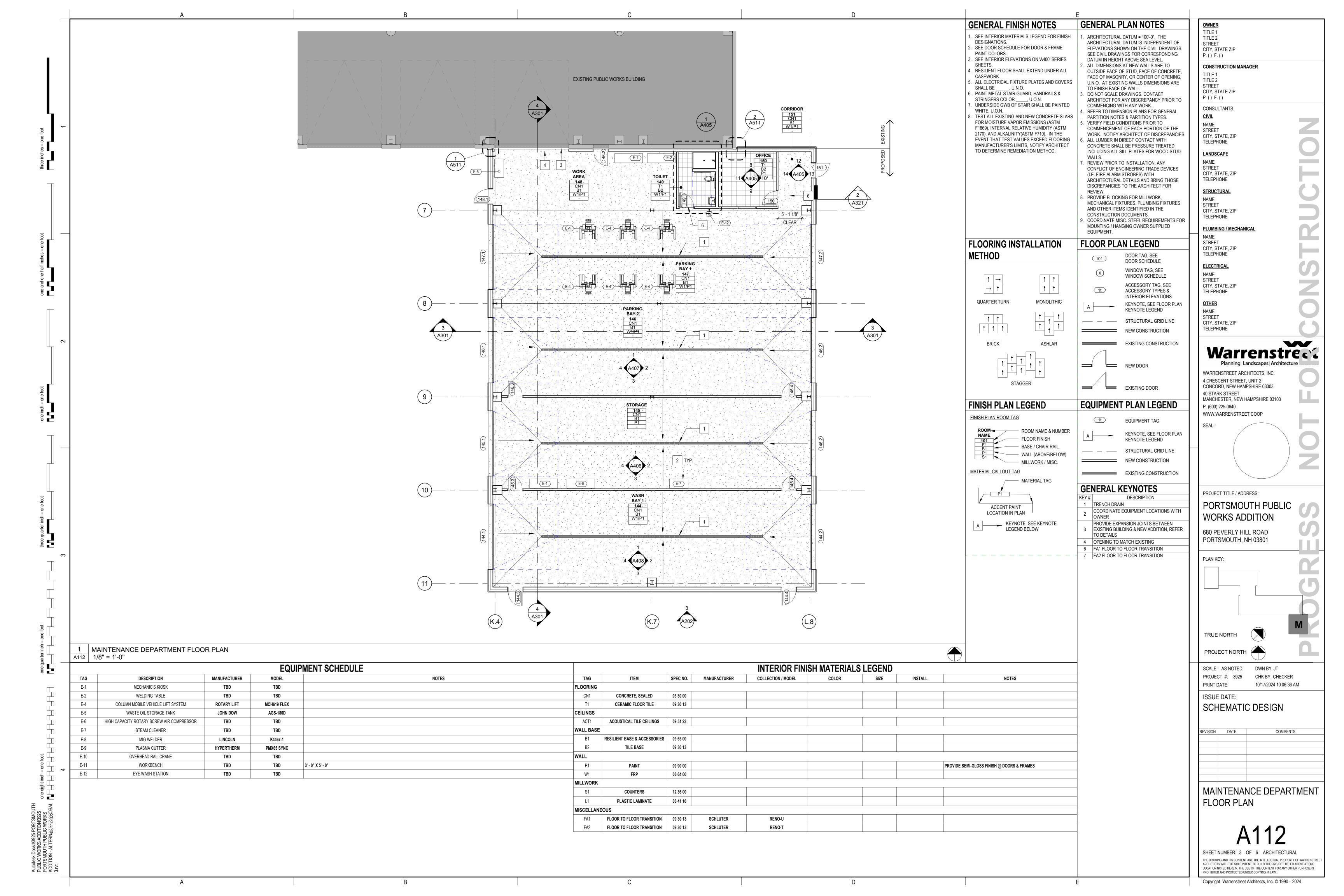
680 PEVERLY HILL RD. TAX MAP 254 LOT 8 PORTSMOUTH, NH

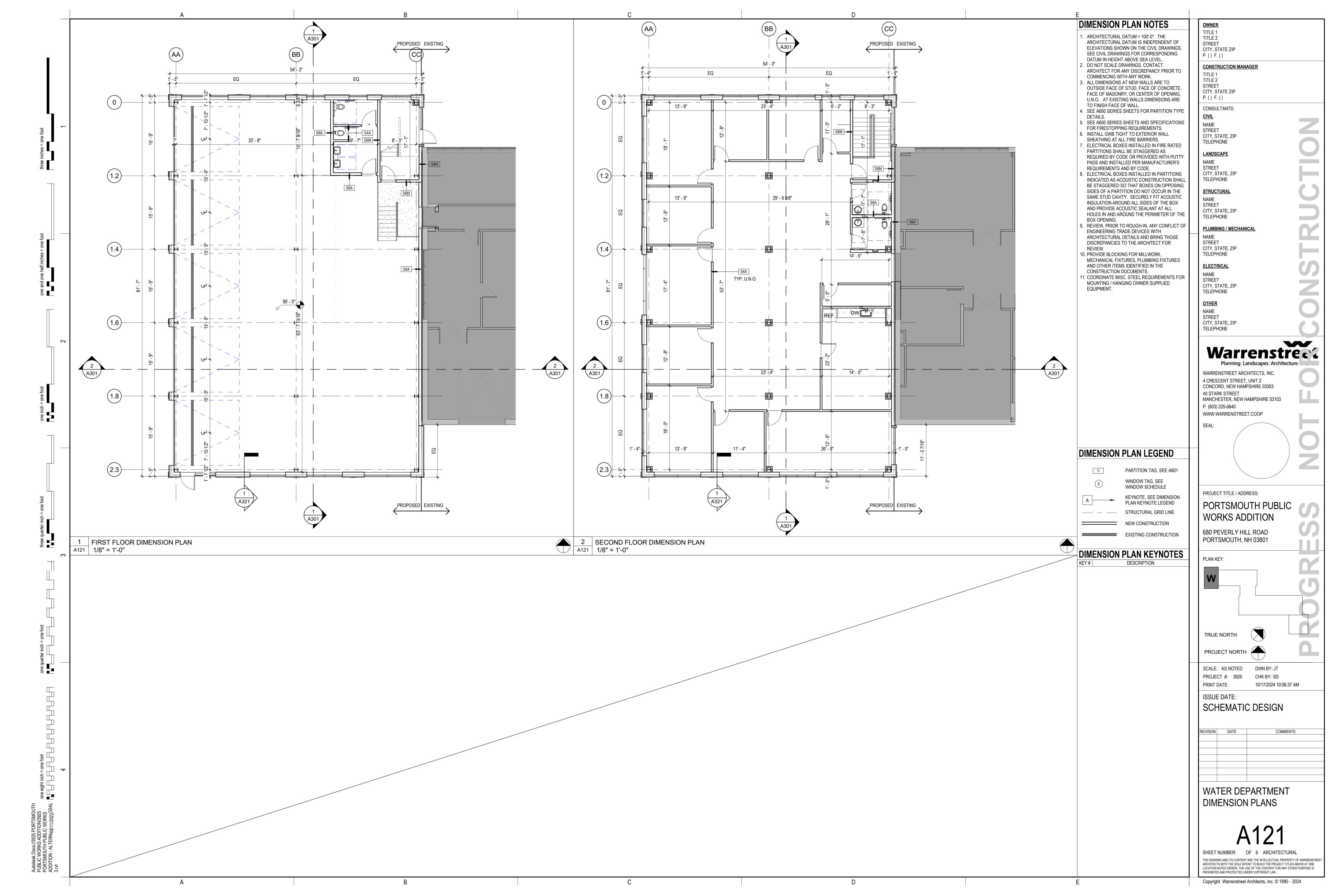
DETAIL SHEET

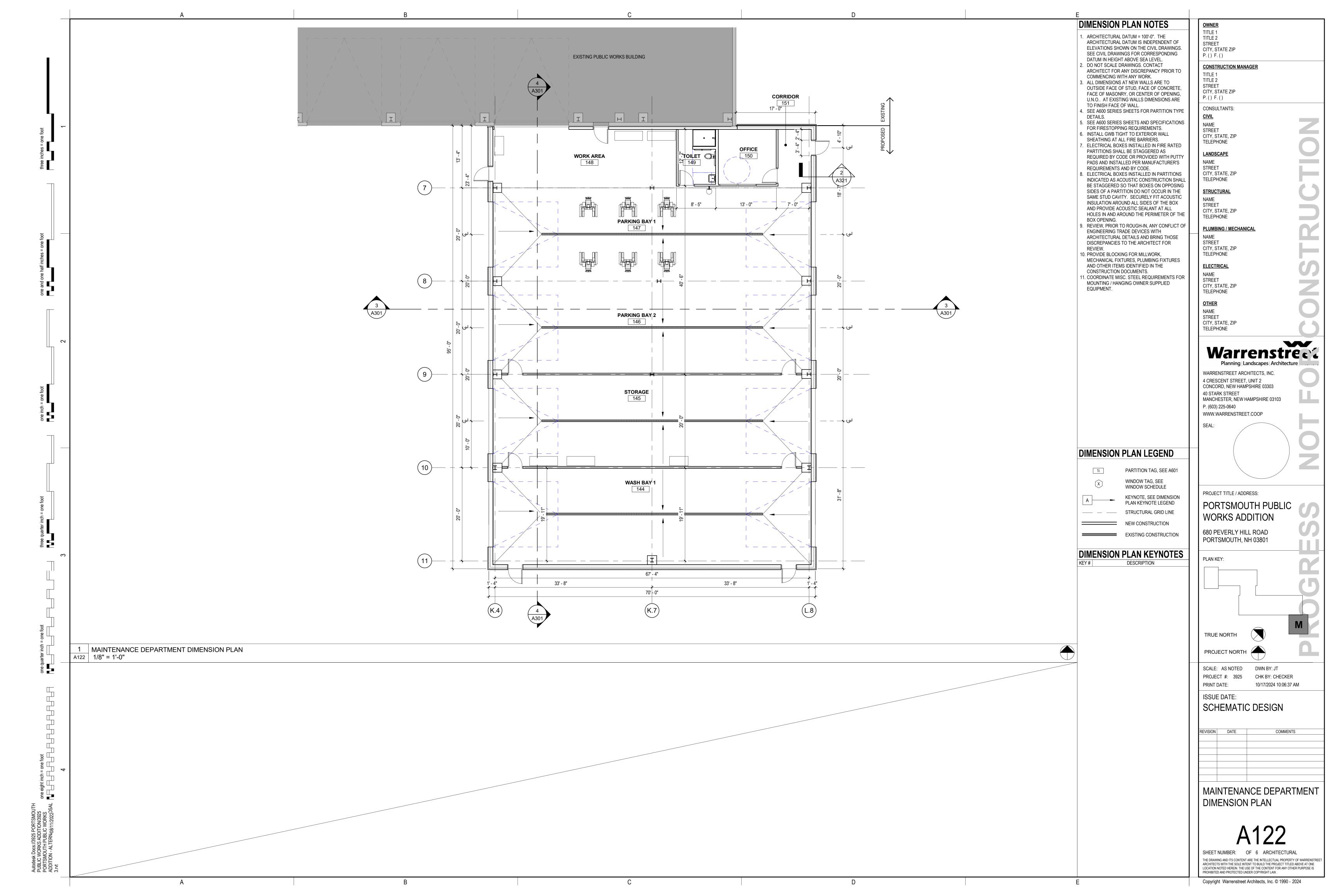
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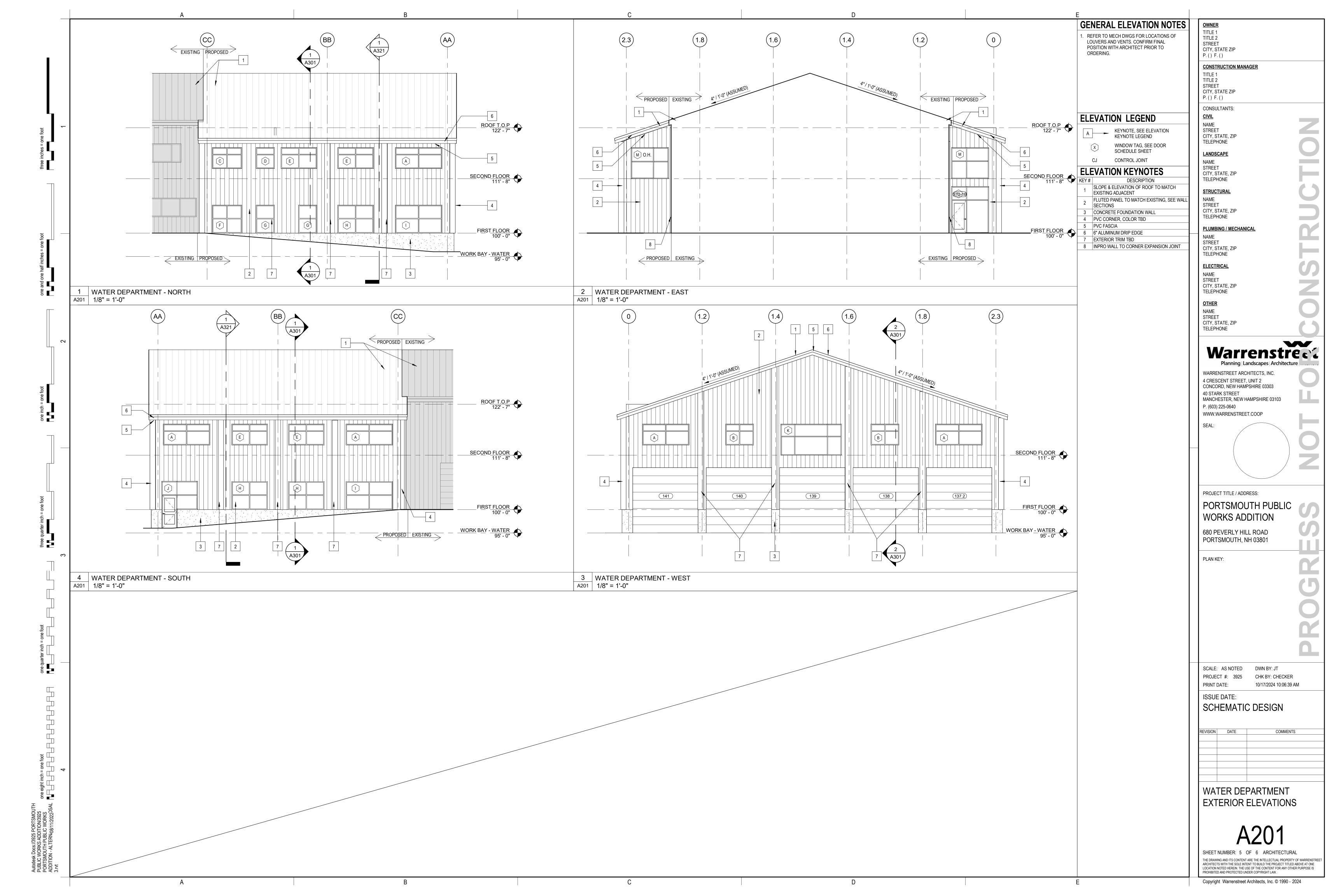
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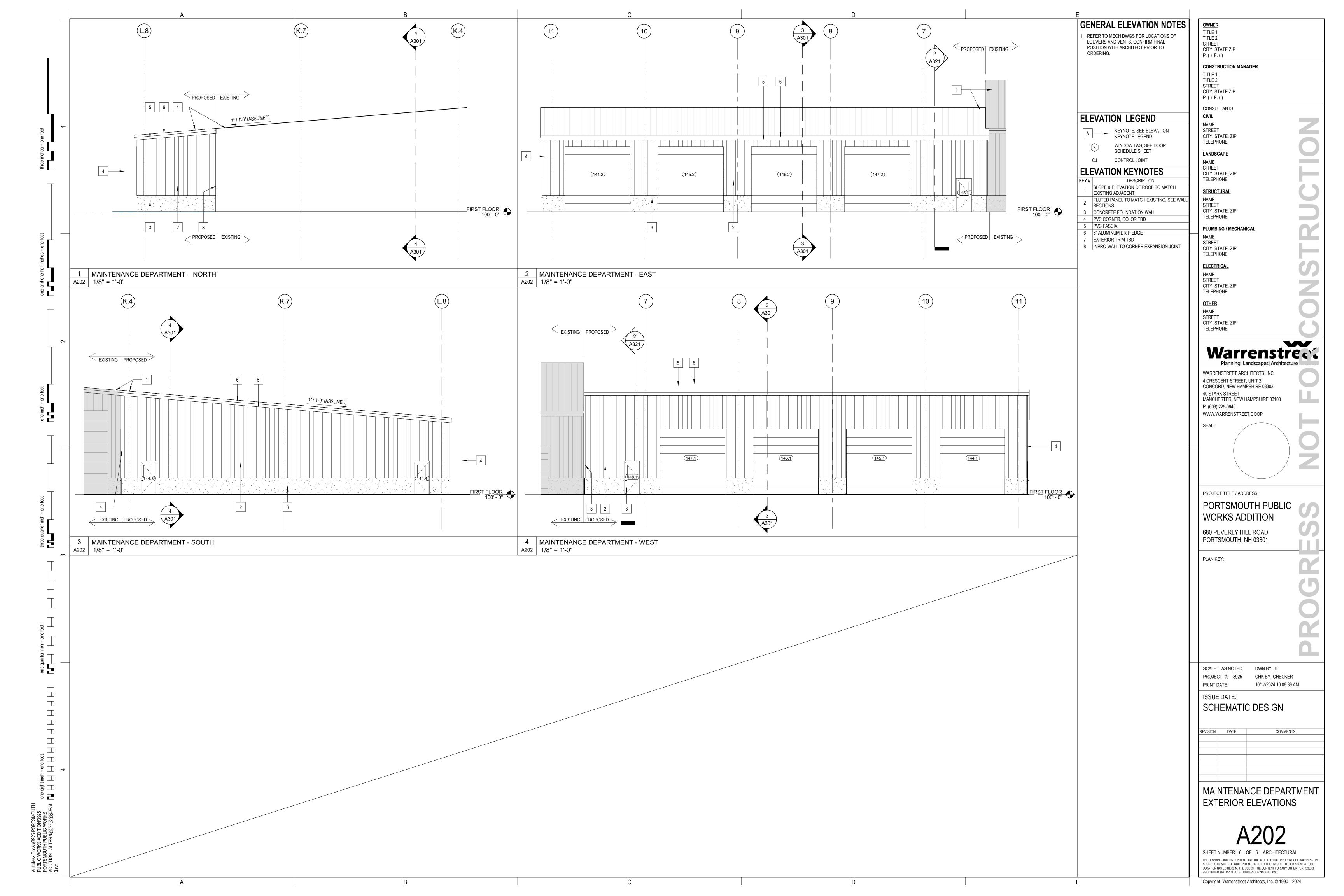














# PUBLIC WORKS DEPARTMENT

#### CITY OF PORTSMOUTH

680 Peverly Hill Road Portsmouth, NH 03801 (603) 427-1530

#### Letter of Authorization

Eric Weinrib, P.E.
Altus Engineering
133 Court Street
Portsmouth, New Hampshire

#### Eric

The City of Portsmouth, Department of Public Works, hereby authorizes Altus Engineering, LLC to represent the Department of Public Works as the Applicant in all matters concerning engineering and related permitting for the expansion of the Public Works facility on Tax Map 254, Lot 8 and located at 680 Peverly Hill Road in Portsmouth, New Hampshire. This authorization shall include representation at public hearings and other project-related meetings in addition to any signatures required for Federal, State and Municipal permit applications.

Signature

Peter Rice,

Date

Witness

Lori-Ann Dixe

Date

09/30/2024

9/30/24