

Seaside Rehabilitation and Healthcare Center  
Phase II Lobby/ Rehab Renovation  
Portland, Maine  
Issued for Construction  
July 18, 2014

EXTERIOR IMPROVEMENTS

**PART I – GENERAL**

1.1 SCOPE OF WORK

- A. The Contractor shall Furnish equipment labor, materials and service necessary for the Removals, Site Preparation, Earthwork, Concrete Pads for HVAC, Permeable, Interlocking Concrete Pavers; Trellis Installation, Aluminum Landscape Edging, , Landscape Removal and Transplanting, Sod Edging, and Loam and Seed as indicated on the Drawings as summarized below:
1. Site Clearing and Grubbing
    - a. Remove grass, topsoil, mulch and vegetation as indicated. Stockpile loam on-site
    - b. Remove existing concrete walk as indicated.
    - c. Protect existing trees as indicated.
    - d. Remove existing plants and transplant as indicated; harden in as required for later transplanting.
    - e. Remove and reinstall existing fence sections as required to gain access to rear courtyard.
    - f. Protect existing site pavements and landscaping from damage by construction; replace and repair in-kind if damaged.
    - f. Maintain erosion control measures including silt fence or erosion control mulch.
  2. Structural Excavation
    - a. Excavate for building foundation insulation and other structures.
    - b. Shore and brace excavations.
    - c. Dispose properly of unsuitable material off-site.
    - d. Protect natural and man-made features to remain.
    - e. Protect above and below-grade utilities to remain.
  3. Structural Backfill
    - a. Backfill building perimeter to subgrade elevations.
    - b. Backfill under concrete slabs for HVAC units.
    - c. Place structural fill at egress doors for new landings and walkways.
  4. Common Excavation
    - a. Place, grade and compact base, subbase and aggregate materials to receive finish pavement attaining specified compaction requirements.
    - b. Materials and Procedures to conform to MDOT Standards Specifications.
  5. Unit Permeable, Interlocking Concrete Pavers
    - a. Install precast concrete permeable paver units of interlocking design laid on approved choker course and aggregate base as detailed.
    - b. Permeable Interlocking Concrete Paver Units by Genest Concrete shall be Stormwater Brick; meeting ASTM C 936; Color to match existing (verify if Natural or Granite Blend) Color Pigment Material Standard shall comply with ASTM C 979. Unit Size shall be 4" x 8" x 3-1/8" (102mm x 229mm x 80mm).
  6. Portland Cement Concrete Pad (HVAC Units)
    - a. Excavation, placement and removal of forms, placement and finishing of concrete and backfill for HVAC pads.
    - b. See drawings for thickness, reinforcing and strength.
  7. Underground Irrigation System, Power Supply and Water Supply.
    - a. No new work is required. The project site includes existing irrigation piping; water and power

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supply for the adjacent water feature and site lighting. The Contractor shall inspect the site and maintain the existing irrigation piping and sprinkler heads; power and water distribution systems.  
b. The Contractor shall repair or replace any existing irrigation, power or water supply damaged during construction. Contact the Architect regarding potential conflicts with the Work.

8. Ornamental Fencing Removal and Reinstallation for Site Access.

- a. Remove existing aluminum fence section at 4 ft. height fence (Front Street) and 6 ft. height fence section (courtyard enclosure). Store and protect for re-installation at completion of work as required to maintain site security.
- b. Reinstall respective fence sections true to line and grade using original factory (Jerith Fence Co.) hardware. Replace any damaged sections with Jerith Industrial Fence 101 original components to match existing.

9. Trellis (outside Wing-1)

- a. Supply and install Trellis as located and detailed on the drawings.
- b. Trellis construction shall be white cedar or cellular PVC.
- b. Trellis color shall be white.
- c. Maintain clearance from existing concrete pad and HVAC units to allow maintenance access and air circulation.

10. Landscaping.

- a. Remove and harden-in existing shrub and perennials for transplanting.
- b. Prepare subsoil, place and fine grade topsoil.
- c. Provide and place sod edging along new walks and disturbed perennial beds.
- d. Provide and place permanent seeding in disturbed areas no sodded or otherwise landscaped.
- e. Install shrub and perennials. If electing not to transplant existing plant materials; provide and install replacement shrub and perennials of equal size and species.
- f. Provide and place well-rotted bark mulch and fertilizer per manufacturer recommendation for existing soil conditions.
- g. Water as required until acceptance of construction by Owner.
- h. Install Aluminum Edging 3/16" x5-1/2" "Cleanline" by Permaloc as detailed on the drawings associated with work adjacent to Existing HVAC Units outside Wing-1.
- i. Provide and install crushed stone associated with work adjacent to Existing HVAC Units outside Wing-1.
- j. Install site accessories incidental to the Work.

1.2 WARRANTY

- A. The Landscape Contractor shall warrantee landscape work including labor, materials, and expenses for 12 months following final acceptance. Any materials requiring replacement during warranty period shall be replaced with new and installed at no cost to the Owner.
- B. Landscape and lawn areas shall be maintained by the Contractor until final acceptance unless otherwise negotiated with the Owner. Scheduled maintenance must be performed to assure healthy grow-in of turf and sod areas and healthy plant materials.

1.3 SUBMITTALS

- A. Product Data

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1. After award of contract and before proceeding with the purchase of site improvements, The Contractor shall submit submittals for the following:
  - a. Unit Permeable Precast Concrete pavers and edging.
  - b. Trellis
  - c. Aluminum Edging
  - d. Seed mix and sod specification.
  - e. Mulch sample
  - f. Fertilizer
2. Submit location of Nursery Stock for inspection and approval by the Architect prior to installation.
3. The Contractor shall provide as-built drawings for field changes during construction.

## **PART II – PRODUCTS**

### **2.1 Permeable Interlocking Concrete Pavers “System”**

- A. Manufacturer: Genest Concrete Works, Inc.
  1. Contact: Genest Concrete Works, Inc. 36 Wilson Street, Sanford, Maine 04073, phone: 1-800-332-4773, fax: 1-207-490-5076, [www.GenestConcrete.com](http://www.GenestConcrete.com). Email: [sales@genest-concrete.com](mailto:sales@genest-concrete.com).
  2. Provide interlocking concrete pavers from a manufacturer using a fine aggregate “face-mix” manufacturing process.
- B. Permeable Interlocking Concrete Paver Units:
  1. Paver Type: Stormwater Brick
    - a. Material Standard: Comply with ASTM C 936.
    - b. Color Granite Blend to match existing pavers.
    - c. Color Pigment Material Standard: Comply with ASTM C 979.

*Note: Concrete pavers may have spacer bars on each unit. Spacer bars are recommended for mechanically installed pavers. Manually installed pavers may be installed with or without spacer bars. Verify with manufacturers that overall dimensions do not include spacer bars.*

- d. Size: 4” x 8” x 3-1/8” (102mm x 229mm x 80mm).

- C. Aggregate Base
  1. Open-graded aggregate, ¾” crushed drainage fill.
  2. Bedding Course No. 8 aggregate.

- D. Edging. Continuous Rigid PVC “Industrial Pave Edge” or equal. Edge .

### **2.2 Trellis**

- A. Posts, rails and lattice clear, white cedar or cellular PVC by Ron Forest and Sons, Scarborough, ME or Walpole Woodworkers, Walpole, MA or Equal.

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B. Color white; stain on wood or paint on PVC per manufacturer's recommendation.

2.3 Aluminum Edging

A. Edging 3/16" x5-1/2" "Cleanline" by Permaloc

B. Stakes 12" aluminum by Permaloc.

2.4 Plant Materials

A. Nursery Stock shall conform to ANSI Z60.1 American Nursery & Landscape Association Standards.

B. Transplanted Shrub & Perennials

2.5 Crush Stone – Drip Edge

A. Crushed stone used for drip edge or around the existing HVAC concrete pad shall be ¾" crushed granite, light gray in color (not bluestone).

**PART III – EXECUTION**

3.01 PLANTING:

A. Removal of Existing Trees and Shrubs for Transplanting (if required):

1. Inspection: Prior to removal of any existing Trees or Shrubs, the Architect/Engineer or his representative will inspect, with the Contractor, any Plant materials scheduled to be transplanted; the Contractor shall suitably and uniquely flag any such plant materials deemed suitable for transplanting. Such unique flagging shall subsequently be maintained on each Plant during transplanting and throughout the project, to identify and differentiate transplanted Plant materials from new materials. The Architect/Engineer will inventory the number, type and species of each plant scheduled for transplanting; such inventory shall serve as a basis for consideration of any subsequent adjustment in the Contract Price that may ultimately be requested by the Contractor or the Owner, due to damage or loss of existing Plants during or after construction.
2. Removal and Storage: Following completion of the above inspection and inventory, the Contractor may remove any Plant materials scheduled for transplanting; however, plants shall be left undisturbed in their original locations until ready to be transplanted wherever possible, or else removed and satisfactorily protected and stored for as short a time period as possible prior to replanting. The Contractor shall retain a fully qualified Nursery Service to properly remove, protect, and if necessary, temporarily store Plant materials scheduled to be transplanted.
3. Replanting: Any Plant materials thus removed shall be replanted in their new locations immediately, or else at the earliest possible time, in accordance with the Details on the Plans and the procedures specified below for new Plant materials. Any transplanted materials which subsequently fail to thrive despite completion of all specified and necessary measures for

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fertilization, watering and maintenance, shall be replaced with new, equal Plant materials in accordance with Part D below, when directed by the Architect/Engineer.

B. Installation and Workmanship:

1. Layout: Take necessary field measurements to locate shrubs and plants where shown. Should obstructions above or below ground dictate, alternate locations will be designated by the Architect/Engineer.
2. Planting Pits: Dig pits and prepare soil prior to moving Plants to respective locations. Excavate circular pits with vertical sides unless plants are designated to be planted in beds. Diameter of pit to be 2 ft. greater than size of ball or spread of roots. Depth of pit to allow 6" of prepared topsoil in tree pits.
3. Soil Preparation: Mix topsoil to be used as follows: Five parts topsoil, one part peat humus, one part manure fertilizer; except that for ericaceous Plants, very acid soils (pH less than 6) are to be mixed with sufficient lime to produce a pH of 6 to 6.5.
4. Setting Plants: Plant vertically, faced to give best appearance or relationship to adjacent areas. Leave burlap in place, untie from crown and bury edges of burlap. Cut off all frayed or broken roots cleanly. Place prepared soil and carefully compact, avoiding injury to roots and filling all voids. Add water when hole is 3/4 full and allow to drain away. Fill hole to finished grade and form a shallow saucer around each Plant. Later, add additional soil as needed.

3.02 SOD:

- A. At least seven (7) days shall lapse after the application of lime and fertilizer, before sodding shall begin.
  1. Properly fine grade the sod bed to the satisfaction of the Architect/Engineer.
  2. The soil shall be irrigated within 12-24 hours of sod placement, and permitted to dry sufficiently to allow the use of mechanical equipment on the sod bed.
  3. Sod shall be furnished and installed in either of the following dimensions, to be selected by the Contractor: In rectangular sod strips measuring 12 inches or 16 inches in width, and from 4 feet or 6 feet in length, stored in rolls with the grass top side inverted so that the topsoil side is to the exterior.
  4. Water: Water Sod thoroughly to full root depth and topsoil depth. Continue to water as conditions require to maintain healthy turf.

3.03 ORNAMENTAL FENCE PANEL REMOVAL AND REPLACEMENT:

- A. Remove and Install fence panels in accordance with the manufacturer's instructions.
- B. Insert notched horizontal rails in pre-punched holes in post and fasten in place.
- C. Install post caps and other accessories to complete fence re-installation.

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- D. If necessary, clean fence system with mild household detergent and clean water. Replace dented or damaged components or sections.

PERMEABLE INTERLOCKING CONCRETE PAVERS “SYSTEM”

3.01 PERMEABLE INTERLOCKING CONCRETE PAVERS “SYSTEM”

Note: The use of Permeable Pavers under this particular project is not part of a storm water management system. The use is intended for a limited area and ease of construction in an existing, confined site location.

A. ACCEPTABLE INSTALLERS

1. Engage an experienced installer who has successfully completed paver installations similar in design, material, and extent indicated for this project.

B. EXAMINATION

1. General Contractor shall inspect, accept and confirm with the paver installation subcontractor that site conditions meet specifications for subgrade, compaction and line and grade prior to installation of interlocking concrete pavers.
2. Do not proceed with installation of bedding and interlocking concrete pavers until subgrade soil conditions are corrected by the General Contractor or designated subcontractor.

C. PREPARATION

1. Verify that the soil subgrade is free from standing water.
2. Stockpile joint/opening filler, base and subbase materials such that they are free from standing water, uniformly graded, free of any organic material or sediment, debris, and ready for placement.
3. Edge Restraint Preparation: Install edge restraints per the drawings at the indicated elevations.

D. INSTALLATION

1. Geotextiles
  - a. Place on [bottom and] sides of soil subgrade. Secure in place to prevent wrinkling from vehicle tires and tracks.
  - b. Overlap a minimum of [0.3 in (12 in.)] [0.6 m (24 in.)] in the direction of drainage.
2. Open-graded subbase and base
  - a. Moisten, spread and compact the No. 2 subbase in 4 to 6 in. (100 to 150 mm) lifts [without wrinkling or folding the geotextile. Place subbase to protect geotextile from wrinkling under equipment tires and tracks.]
  - b. For each lift, make at least two passes in the vibratory mode then at least two in the static mode with a minimum 10 t (10 T) vibratory roller until there is no visible movement of the No. 2 stone. Do not crush aggregate with the roller.
  - c. The surface tolerance of the compacted No. 2 subbase shall be  $\pm 2 \frac{1}{2}$  in. ( $\pm 65$ mm) over a 10 ft. (3 mm) straightedge.
  - d. Moisten, spread and compact No. 57 base in 100 mm (4 in.) lift over the compacted No. 2 subbase with a minimum 10 t (10 T) vibratory roller until there is no visible movement of the No. 57 stone. Do not crush aggregate with the roller.
  - e. The surface tolerance the compacted No. 57 base should not deviate more than.  $\pm 1$  in. (25 mm) over a 10 ft. (3 m) straightedge.

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3. Bedding layer
  - a. Moisten, spread and screed the No. 8 stone bedding material.
  - b. Fill voids left by removed screed rails with No. 8 stone.
  - c. The surface tolerance of the screeded No. 8 bedding layer shall be  $\pm 3/8$  in (10 mm) over a 10 ft. (3 m) straightedge.
  - d. Do not subject screeded bedding material to any pedestrian or vehicular traffic before paving unit installation begins.
4. Permeable interlocking concrete pavers and joint/opening fill material
  - a. Lay the pavers [paving slabs] in the pattern(s) and joint widths shown on the drawings. Maintain straight pattern lines.
  - b. Fill gaps at the edges of the paved area with cut units. Cut pavers subject to tire traffic shall be no smaller than 1/3 of a whole unit.
  - c. Cut pavers and place along the edges with a [double-bladed splitter or] masonry saw.
  - d. Fill the openings and joints with [No. 8] stone.

*Note: Some paver joint widths may be narrow and not accept most of the No. 8 stone. Use joint material that will fill joints such as washed ASTM No. 9 or No. 10 stone. These smaller stone sizes are recommended for filling joints in pedestrian applications that use 2 3/8 in. (60 mm) thick pavers.*

- e. Remove excess aggregate on the surface by sweeping pavers clean.
- f. Compact and seat the pavers into the bedding material using a low-amplitude, 75-90 Hz plate compactor capable of at least 4,000 lbs. (18 kN) centrifugal compaction force. This will require at least two passes with the plate compactor.
- g. Do not compact within 6 ft. (2 m) of the unrestrained edges of the paving units.
- h. Apply additional aggregate to the openings and joints, filling them completely. Remove excess aggregate by sweeping then compact the pavers. This will require at least two passes with the plate compactor.
- i. All pavers within 6 ft. (2 m) of the laying face must be left fully compacted at the completion of each day.
- j. The final surface tolerance of compacted pavers shall not deviate more than  $\pm 3/8$  (10 mm) under a 10 ft. (3 m) long straightedge.
- k. The surface elevation of pavers shall be 1/8 to 1/4 in. (3 to 6 mm) above adjacent drainage inlets, concrete collars or channels.

E. FIELD QUALITY CONTROL

1. After sweeping the surface clean, check final elevations for conformance to the drawings.
2. Lippage: No greater than 1/8 in. (3 mm) difference in height between adjacent pavers.

*Note: The minimum slope of the finished pavement surface should be 1%. The surface of the pavers may be 1/8 to 1/4 in. (3 to 6 mm.) above the final elevations after compaction. This helps compensate for possible minor settling normal to pavements.*