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# BRE-BMR Middlesex LLC

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Assembly Innovation Park - Temporary Open Space Landscape Maintenance and Management Plan

## CONTACTS

### **Building Property Owner**

Name BioMed Realty - Michael Rosenberry  
Address 188 Assembly Park Drive  
Phone Number 857-998-1239  
Email [michael.rosenberry@biomedrealty.com](mailto:michael.rosenberry@biomedrealty.com)

### **Landscape Company**

Name BrightView Landscapes, LLC - Lyle Analetto  
Address 70 Ceylon Street Boston, MA, 02121  
Phone Number: 617-516-8126  
Email: [lyle.analetto@brightview.com](mailto:lyle.analetto@brightview.com)

Please note that we ask the City to contact BMR regarding any questions or concerns and do not contact our Landscape Company directly. BrightView will direct you back to BMR.

## LMMP OUTLINE

- A. Maintenance and Management Approach
- B. Landscape Maintenance and Management Areas
- C. Landscape Maintenance and Management Service Schedule
- D. Integrated Pest Management
- E. Water Service and Irrigation
- F. Important Feature Areas
- G. Replacement of Materials/Plantings

### **A. Maintenance and Management Approach**

The Assembly Innovation Temporary Open Space is a park that was designed and constructed as part of the Phase 1 Assembly Innovation Park laboratory project. The park area is fully privately owned and is available to public use subject to a maintenance and public access easement agreement. The park was designed with the following features:

- Orientation along Harold Cohen Avenue and Assembly Park Drive.
- New turf, trees planters, and landscaped areas that provide shading, and seasonal interest

- A variety of seating locations and options.
- Bike rack and drinking fountain feature.
- Sand filter storm water retention pond and pervious paving to increase onsite infiltration and promote sustainability.
- Basketball hoop, painted activities on hardscape, and a structure intended for play.

**B. Landscape Maintenance and Management Areas**



**C. Landscape Maintenance and Management Service and Schedule**

**C.1 - Schedule**

Maintenance	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Spring Clean-up												
Hardscaping frost heave repairs												
Fall Leave Removal												
Snow Clearing												
Irrigation				Start Up						Winterize		
Shrub and Other Pruning												
Mulch												
Planting Bed Maintenance												
Seasonal Planting												
Lawn Maintenance												
As Needed Plant Replacement												
Tree fertilization												
Tree pruning												

## **C.2 – Maintenance Detail**

### **1. Spring Clean Up**

- a. Rake all grass areas and remove leaves and debris from all planting beds and dispose of offsite.
- b. Clean, weed and remove loose and broken branches or twigs and edge all mulch beds.
- c. Sweep walkways of sand and debris. Sand to be removed from property.
- d. Blow/sweep out areas that cannot be street swept and remove debris from property.
- e. Power rake and de-thatch turf areas.
- f. Mechanical sweep all roads and parking areas.
- g. Dispose of all sand off site.
- h. Perform a final walkthrough with management to ensure quality and identify winter damage.

### **2. Mulch**

- a. Deliver and spread 2” of premium blend pine bark mulch to all bed areas throughout property.
- b. Mulch shall be high quality, premium coarse-grade bark mulch, 15 mm minimum length, consisting of clean organic plant material. Mulch shall conform to the specifications below. If mulch cannot be found that meets this specification, the new mulch product specifications can be submitted to PSUF for review and approval prior to use.
  - i. Must be a uniform, natural wood color, without dyes, which shall not exhibit a noticeable degree of color change characteristic when wet.
  - ii. Must not have an unpleasant odor.
  - iii. Must be free of dirt, insects, disease, and extraneous debris that would be harmful to the trees being planted.
  - iv. pH: between 4.0 and 8.0
  - v. Particle size: 100% passing through a 50mm (2 inch) screen.
  - vi. Soluble salt content: less than 4.0 mmhos/cm
- c. Mulched area shall be six feet in diameter around the trunk of the tree, unless otherwise specified by the City Tree Warden or Deputy Tree Warden. Apply a fresh layer of mulch in the spring of each year so that a three-inch layer exists of mulch (after settlement) around trees, tapering towards the trunk. Mulch shall NOT come in contact with the trunk of the plant or the root flare. No mulch should be placed within 2 to 3 inches from the trunk. “Volcano” mulching is strictly prohibited.
- d. Rake smooth as needed.

### **3. Weekly Lawn Maintenance (where applicable)**

- a. Mow all turf areas at the proper height for the time of year with appropriate sized equipment to ensure
- b. Ensure minimal damage to the turf, beds and irrigation system components.
- c. Remove all clippings as necessary from all walkways, parking areas and driveways.

- d. String trim all necessary areas including along edges of walks and curbs.
- e. All turf areas adjacent to paved surfaces or structural edges such as sidewalks, walkways, driveways, parking lots, curbing, header, retaining walls and other paved surfaces shall be edged with a mechanical edger each time the turf is mowed.
- f. All clippings to be bagged and disposed of to ensure a professionally maintained appearance and to help remove debris from turf areas and site. Vertical string trim curbs, walks and mulch areas on a monthly basis.

#### **4. Planting Bed Maintenance (where applicable)**

- a. The flower beds and tree beds shall be weeded during each mow. Undesirable plants should be removed by hand, the application of herbicides, pesticides, and fungicides is not allowed without written permission from PSUF. The property owner shall provide specifications and applicable applicator licenses to PSUF for review and approval.
- b. Weeds will be controlled all season along walkways, curbing, gravel, parking areas, mulch beds and drip edges through mechanical control methods.
- c. Maintain annual and perennial beds throughout the season removing debris and deadheading as needed as applicable.
- d. Maintenance supervisor and/or account manager will visit the Property no less than once a month to perform inspections and report concerns to the Management.

#### **5. Tree, Shrub & Ornamental Pruning**

- a. All pruning should be done with the supervision of an ISA Certified Arborist or Massachusetts Arborist Association (MAA) Certified Arborist.
- b. The management company shall notify the Public Space and Urban Forestry division of the City in writing fourteen (14) days prior to any tree maintenance, except in the case of an emergency. Tree maintenance must be approved by the Tree Warden or Deputy Tree Warden prior to beginning the work. Email [trees@somervillema.gov](mailto:trees@somervillema.gov) to obtain approval.
- c. In the case of an emergency related to trees please contact 311.
- d. In the case of tree death or need for removal please contact the Tree Warden or Deputy Tree Warden. Email [trees@somervillema.gov](mailto:trees@somervillema.gov) to obtain approval.
- e. Any shrub, tree, or ornamental plant found to be dead or missing shall be replaced with plant material of identical species at the building property owner's expense.
- f. Pruning to include all shrubs and ornamental trees less than (15) fifteen feet in height.
- g. All shrubs and ornamental trees shall have dead wood and crossing branches removed.
- h. Tip back plants from each other to create separation and thinning of the plant.
- i. The purpose of hand pruning is to enhance and promote natural growth habits while controlling the growth and health of the plant.

#### **6. Soil Amendments & Lawn Fertilization Program (where applicable)**

- a. Contractor will collect and submit soil samples in early spring from each planted area to an independent lab (ex. University of Massachusetts Amherst Soil and Plant Nutrient Laboratory, or similar) in order to determine soil fertility (pH, organic matter content and available plant nutrients) and soil texture. Samples should be submitted to the Public Space and Urban Forestry department of the City at least every 3 years for general care or as needed if required by site observations.
- b. Soil sampling protocol shall follow the instructions from the lab. Samples from various planted areas should be collected and analyzed separately.
- c. Types and amounts of soil amendments and additives should be determined from the laboratory results. Whenever suitable, organic materials should be used. Commonly used organic matter amendments include peat moss, ground bark, saw dust, compost, or manure. The benefits of these types of amendments will be maximized when the material is thoroughly mixed into the soil. When mixing in these amendments, Contractor shall take care not to damage any living tree roots. The City Tree Warden or Deputy Tree Warden shall approve fertilizer/ soil amendment application plans. Email [trees@somervillema.gov](mailto:trees@somervillema.gov) to obtain approval.
- d. Calculate the appropriate amount of fertilizer or other soil amendment to apply to a given area based on the results of the soil test and the nutrient concentration of the material. Do not over apply fertilizer. Any nitrogen-based fertilizer shall be in slow-release or natural organic form. Slow release fertilizer is defined as having more than 50% of the nitrogen in the water insoluble nitrogen form.
- e. Fertilizer and other soil amendments may be applied via liquid soil injection, drill hole, or radial trenching. Always take care not to damage roots during application. In rare circumstances foliar fertilization or tree trunk injection method will be considered, but only with approval by the City Tree Warden or Deputy Tree Warden. Email [trees@somervillema.gov](mailto:trees@somervillema.gov) to obtain approval.
- f. Fertilizer and other soil amendments shall comply with State and Federal Fertilizer Laws.
- g. Lawn fertilization schedule, when applicable based on soil tests.
  - i. Round 1 - (April – May) Apply balance fertilizer at a rate of 1-2 lbs. of Nitrogen per 1,000 sq/ft or as otherwise specified. Apply pre-emergent crab grass control.
  - ii. Round 2 – (June) Apply balance fertilizer at a rate of 1-2 lbs of Nitrogen per 1,000 sq/ft or as otherwise specified. Spot weed control and insect control as required. Grub control as needed.
  - iii. Round 3 – (August) Apply balance fertilizer at a rate of 1-2 lbs of Nitrogen per 1,000 sq/ft or as otherwise specified. Spot weed control, insect control and disease control as needed.
  - iv. Round 4 – (October) Apply balance fertilizer at a rate of 1-2 lbs of Nitrogen per 1,000 sq/ft or as otherwise specified. Broadleaf weed control as needed.
  - v. Round 5 – (Late fall) Apply lime to all turf areas.

## 7. Fall Cleanup

- a. In October and through November during business days and only during the hours of 9am to 5pm as weather permits: rake, vacuum, blow and remove all leaves from property to include: mulch beds, turf areas, around buildings and entrances throughout complex. All material to be disposed of offsite.
- b. Lower mowing height to 2-2 ½", remove all clippings.
- c. Mulched area shall be six feet in diameter around the trunk of the tree, unless otherwise specified by the City Tree Warden or Deputy Tree Warden. Apply a fresh layer of mulch in the spring of each year so that a three-inch layer exists of mulch (after settlement) around trees, tapering towards the trunk. Mulch shall NOT come in contact with the trunk of the plant or the root flare. No mulch should be placed within 2 to 3 inches from the trunk. "Volcano" mulching is strictly prohibited.

**8. Trash & Debris Cleanup**

- a. Day porter will check all trash cans in park twice daily. Any full trash barrels will be emptied and new liners installed. All trash disposal will be through the trash compactor located at 188 Assembly Park Drive. Recycling will be through the single sort program at 188 Assembly Park Drive.
- b. Day porter will clean all park walkways and plaza hardscape areas utilizing a walk behind electric sweeper once per day M-F. Grass areas will be visually inspected for trash and it will be collected if observed.
- c. Debris deposited by typical weather occurrences shall be cleaned up on scheduled service days.
- d. Major cleanup due to storms, tornadoes, hurricanes, etc. shall be performed as authorized through Time and Materials approved by property management.

**9. Seasonal Color Beds**

- a. Seasonal annual plantings are permitted but plantings must be on the approved Somerville Pollinator Action Plan species list.
- b. Contractor shall provide a seasonal color change to front beds twice per year, once in the spring (no later than June 21) and once in the fall (no later than Sept 30), using plants that will withstand the season and provide ample color.
- c. Seasonal annual plantings shall not compete with established perennial plantings and only be placed in areas where trees and perennial plantings have not been established.
- d. Contractor shall meet with property manager to discuss the seasonal flowers and plantings on the premises and agree upon the flowers needed to present a full and lush looking bed as per the attached property site plans.
- e. Beds shall be prepared to a depth of 8" - 10" with fertilizer added as necessary.
- f. All flowers shall be planted 8" on center to ensure full bed coverage of the rotation bed.
- g. Contractor shall guaranty plants and flowers and shall replace at no charge, if necessary, except for physical damage or improper watering.

**10. Snow Removal (upon inclement weather)**

- a. Contractor will arrive 1 hour prior to reported start of snow fall and remain on site throughout the storm.
- b. Contractor will ensure sidewalks are cleared of snow continuously.

- c. Contractor to apply appropriate deicing agent according to hardscaping installer’s recommendation.
- d. Contractor will execute cut through of the city plow banks allowing easy access to city roads and walks at all intersections and crosswalk areas.
- e. Snow hauling is scheduled for after the storm and will be considered for any storms exceeding 10”.

**D. Integrated Pest Management**

1. Weeding

- a. Weeds may need to be removed around trees to reduce competition and improve aesthetics of the site.
- b. The primary method of weeding be “hand-weeding”. However, spray treatment can be applied in areas where the weeding is persistent and reoccurring.
- c. Weeding in the lawn area will be primarily managed through pre-emergent treatments with additional hand weekend, and spray weeding in the cases of persistent reoccurring problem areas.

2. Pest and Rodent Control

- a. Trees shall be observed for pests.
- b. When necessary, samples of plant, insect, fungus, or other pests shall be sent to an independent laboratory for identification and treatment recommendations.
- c. Ensure that the open space remain devoid of rodents by minimizing access to food, water, and shelter. This includes reducing clutter, managing vegetation, and controlling waste effectively. Mechanical traps and other monitoring stations will be placed throughout the park and serviced monthly. Pesticides will only be used if large persistent issues arise and the approach will short in duration, a concisely defined treatment area, and focused on avoiding the general public’s exposure to any pesticides.

3. Chemicals

- a. Herbicides, pesticides and other chemicals shall be used in accordance with WELL standard guidelines. An integrated pest management plan will be provided to PSUF for review and approval before the use of Herbicides, pesticides and other chemicals.

**E. Water Service and Irrigation**

The open space includes a drip and spray irrigation systems with separate zones covering: planters (drip), trees (drip), and lawn (spray) areas. The following are the procedures for maintenance of the irrigation system:

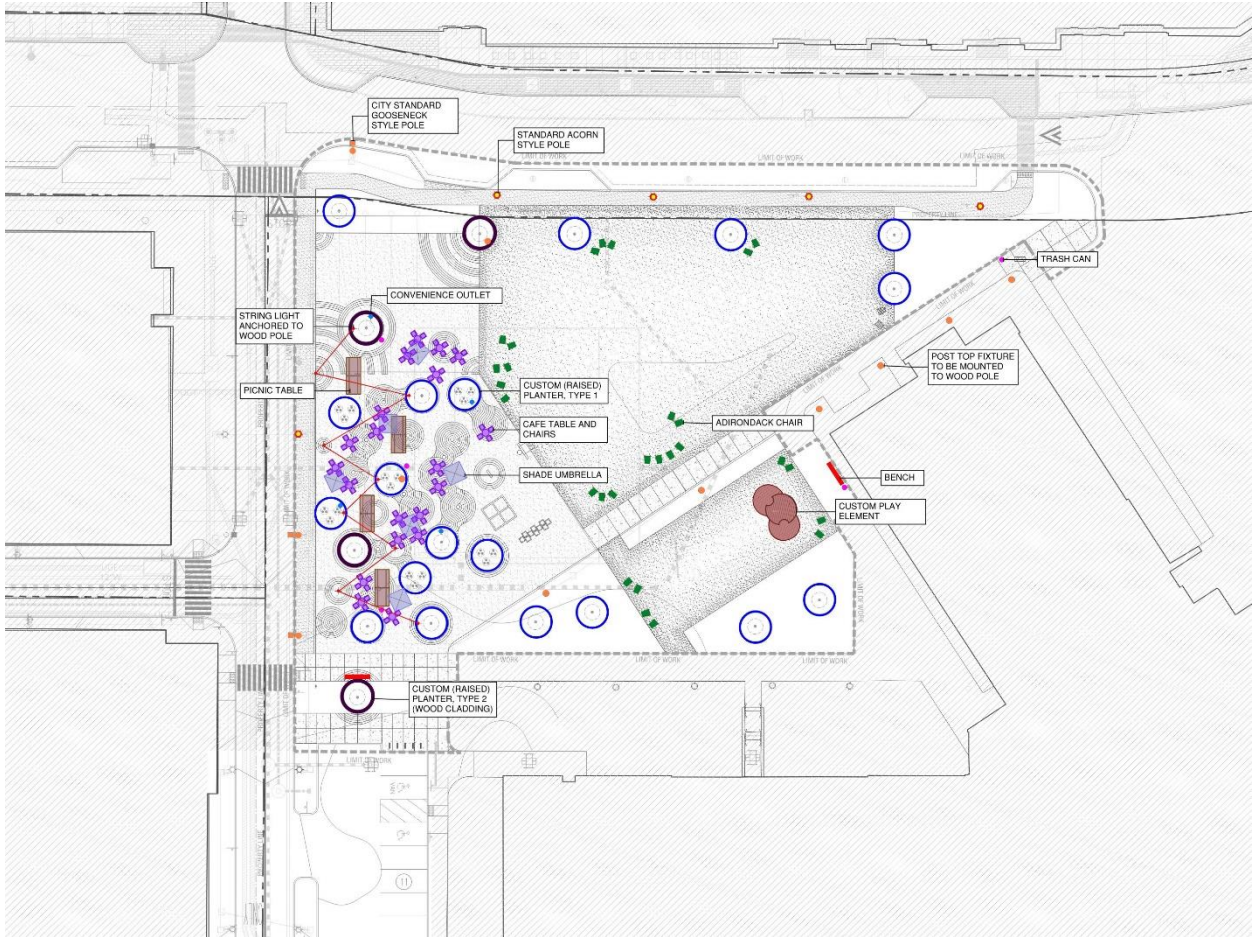
1. Opening System

- a. Open water main lines to all valve boxes in each building
- b. Test each watering zone via controller to ensure they are operating correctly.
- c. Mark any heads or leaks with marking flags.
- d. Upon opening completion, form a detailed evaluation of the system and notify management.



- e. All repairs will be performed on time and materials basis
- 2. Closing System
  - a. Remove all water from every line and backflow of the irrigation system using pressurized air.

**F. Important Feature Areas**



1. Turf Play Zone
2. Paved seating area with tree planter grove for shade
3. Main “lawn” zone with Adirondack style seating
4. Permeable asphalt to allow for proper operation of the sand filter storm water retention pond.

**G. Replacement of Materials/Plantings**

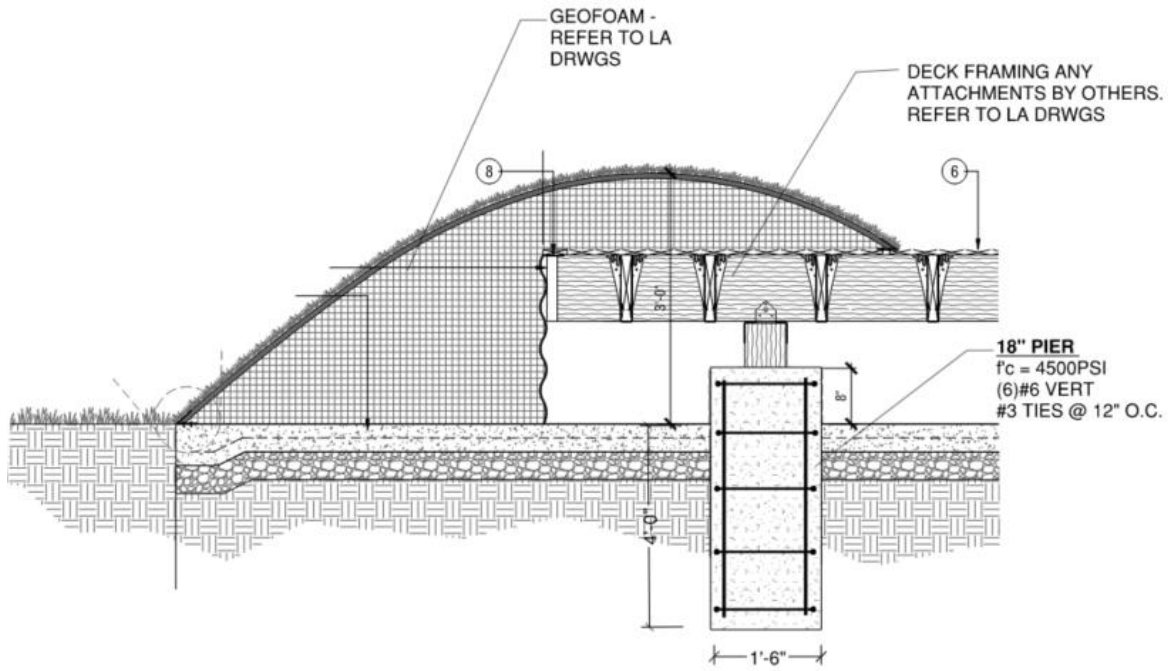
Any shrub, tree, or ornamental plant found to be dead or missing shall be replaced with plant material of identical species at the building property owner’s expense. Additional, in the event materials are damaged the owner shall make repairs/replacements at the building property owner’s expense.



Material List:

Item	Qty	Product Info	Supplier
PO-01 Graphic Paint	NA		
SF-06 Custom Planter, type 1	19	12' radius culvert	Metal Culverts, Inc.
SF-07 Custom Planter, type 2	4	12' radius culvert; cumaro wood cladding	Metal Culverts, Inc.
SF-11 Custom Play Element	1	Refer to Construction Documents	Custom
SF-12 Convenience Outlet	4	5x5 Hinge Top Outlet Box with integral Base (5P18HT-1)	Pedoc
SF-13 Bike Rack	5	Loop Bike Rack – Black	Dero
SF-15 Bench	2	Neoliviano Bench 118" with Back	Landscape Forms
SF-16 Trash Can	5	Universal Litter Stainless 30 Gallon Side Opening	Forms & Surfaces
SF-17 Picnic Table	8	Bond 6ft Teak & Stainless Picnic Table	Country Casual
MF-01 Café Table	20	Parc Center Table 30" Round	Landscape Forms
MF-02 Café Chair	80	Everyday Chair Armless	Landscape Forms
MF-04 Adirondack Chair	30	Loll Americana Lounge Chair	Landscape Forms
MF-05 Shade Umbrella	6	Tucci Ocean Master Max Classic, 10' Square; G-Max Square Triple Stack Combo	Landscape Forms
MF-07 Movable Basketball Hoop	1	Regulation 72 inch portable basketball hoop	Bear Platinum
Type YG1 Post Top Fixture	4	#UR20-192L-30-3K7-5W-UNV-ASQ-BLT-SF	Kim Lighting
Type YS1 String Light	225 LF	#24-Light 48 ft Indoor/Outdoor String Light with S14 Single Filament LED Bulbs	Hampton Bay

## SF-11 Custom Play Element



**6 SECTION @ PLAY STRUCTURE**

1.) COORDINATION LOCATIONS AND DIMENSIONS WITH LANDSCAPE ARCH DRWGS AND PLANTER SUPPLIER.

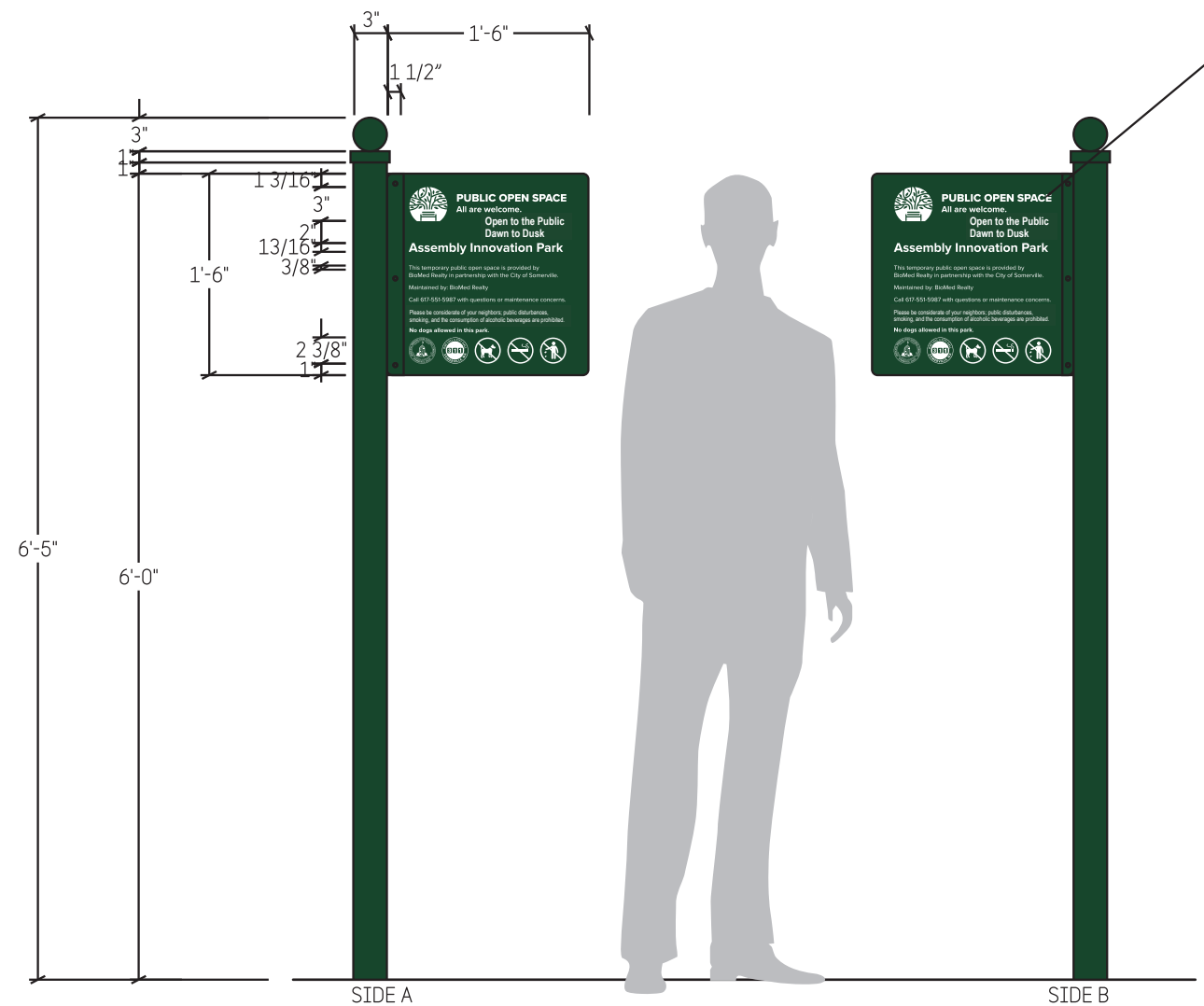
## Planting List:

### PLANTING SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	QUANTITY	CONDITION	SIZE	SPACING	REMARKS
	QP	QUERCUS PALUSTRIS / PIN OAK	17	BALL & BURLAP	4" CAL.	PER PLAN	STRONG CENTRAL LEADER; BRANCHING CONSISTENT WITH SPECIES; MATCHED SPECIMENS TO BE WRAPPED IN AIR-POT; RE: PLANTING DETAIL 01,1,7,01T
	BN	BETULA NIGRA / RIVER BIRCH	18	BALL & BURLAP	12'-14' HT	PER PLAN	MULTI-STEM; BRANCHING CONSISTENT WITH SPECIES; MATCHED SPECIMENS TO BE WRAPPED IN AIR-POT; RE: PLANTING DETAIL 01,1,7,01T
SHRUBS	CODE	BOTANICAL / COMMON NAME	QUANTITY	CONDITION	SIZE	SPACING	REMARKS
	PA1	20% FESTUCA RUBRA / RED FESCUE 40% SCHIZACHYRIUM SCOPARIUM / LITTLE BLUESTEM 40% SPOROBOLEUS HETEROLEPIS / PRAIRIE DROPSSEED	3,237	CONTAINER	4" POT	18" O.C.	FULL AND THICK TO BASE; MATCHED SPECIMENS
	PA2	20% ARONIA MELANOCARPA 'UCONNAMO12' / GROUNDHUG BLACK CHOKEBERRY 20% CLETHRA ALABRICA 'PINK SPIRE' / SWEET PEPPERCORN 20% VITEA VIRGINICA 'SMINVIM' / FIZZY MIZZY SWEETSPIRE 40% RHUS AROMATICA 'GRO LOW' / GRO LOW FRAGRANT SUMAC	452	CONTAINER	1 GALLON	18" O.C.	FULL AND THICK TO BASE; MATCHED SPECIMENS
	PA3	JUNIPERUS HORIZONTALIS 'BAR HARBOR' / BAR HARBOR CREEPING JUNIPER	400	CONTAINER	1 GALLON	18" O.C.	FULL AND THICK TO BASE; MATCHED SPECIMENS
	PA4	50% BOULTELLOJA GRACILIS 'BLONDE AMBITION' / BLUE GRAMA 10% ECHINACEA PURPUREA 'MAGNUS' / PURPLE CONEFLOWER 10% HELENIUM FLEXUOSUM / PURPLE-HEADED SNEEZEWEED 10% FRAGARIA VIRGINIANA / WILD STRAWBERRY 10% SOLIDAGO 'LITTLE LEMON' / LITTLE LEMON GOLDENROD 10% MONARDA FISTULOSA / WILD BERGAMOT	192	CONTAINER	4" POT	12" O.C.	FULL AND THICK TO BASE; MATCHED SPECIMENS
	PA5	RHUS AROMATICA 'GRO-LOW' / FRAGRANT SUMAC	59	CONTAINER	3 GALLON	36" O.C.	FULL AND THICK TO BASE; MATCHED SPECIMENS
	TA	BLUE GRASS / FESCUE SOD		ROLLED			

## End of Assembly Innovation Park LMMP

NOTE: PLEASE SEE SHOP DWGS FOR FABRICATION & MTD DETAILS



1/4" THK (DOUBLE SIDED) ALUMINUM PANEL + 3" x 3" SQUARE ALUMINUM POSTS, FINIAL + ALL VISIBLE HDW PTD TO MATCH: PMS 350C "HUNTER GREEN"  
FIRST SURFACE DIRECT PRINT GRAPHICS TO MATCH: "WHITE"

● SIGN TYPE: TEMPORARY OPEN SPACE  
ELEVATION VIEW  
QTY: 3



DESIGN COMMUNICATIONS LTD.

85 Bodwell Street phone 617.542.9620  
Avon, MA 02322 fax 617.951.0777

**Assembly Innovation  
Park, Building A Interior  
& Exterior**  
Cambridge, MA

TITLE	Sign Type: Temporary Open Space
ISSUE	For Approval 16 SEP 24 18 SEP 24



DRAWN BY LET

scale: 3/4" = 1' - 0"

(S.T. TOTAL: 3)

Graphic Layout  
27292- 13