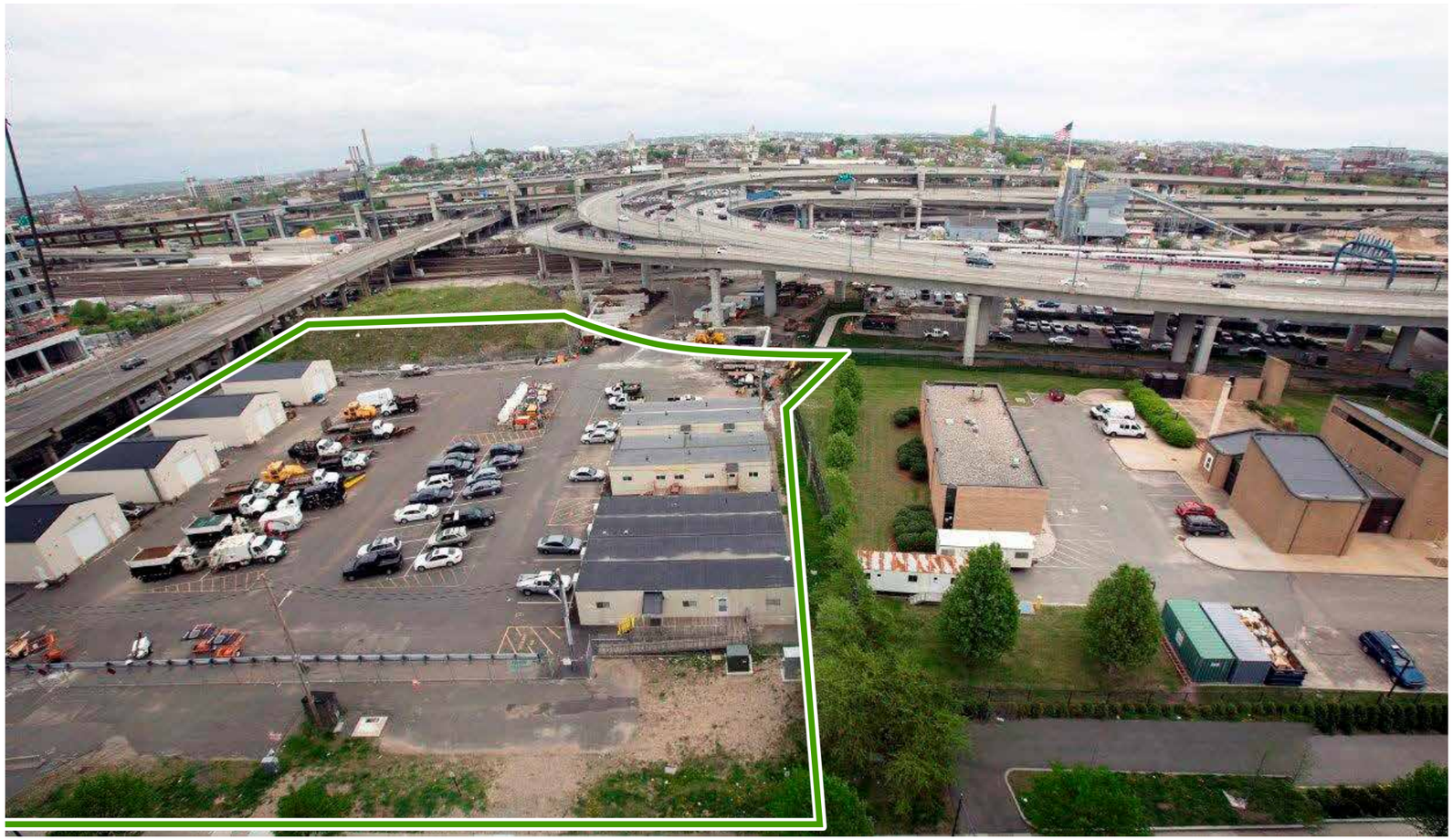


EF EDUCATION FIRST

Expansion Project at North Point (EF III)

Education First

SUPPLEMENT TO FINAL DEVELOPMENT PLAN APPLICATION

VOLUME 4

24 July 2017

COMMENTS FROM PLANNING BOARD

1 SITE PLANNING AND DESIGN
- 1.1 Alternatives to North Point Boulevard Multi-Use Path Configurationt
- 1.2 Fence Treatment
- 1.3 Benches and Flexible Seating
- 1.4 North Point Retail

2 BUILDING CONCEPT DESIGN
- 2.1 Entry-Way Column
- 2.2 Facade Materials
- 2.3 Rooftop Screen
- 2.4 North Corner Design
- 2.5 Facade Design
- 2.6 Window Size in Residential Units
- 2.7 Roof Terrace Parapet

3 TRANSPORTATION
- 3.1 Vehicles and Bicycles Conflict Near Garage Entrance
- 3.2 Pedestrian and Bicycles Conflict at Multi-Use Path

4 SUSTAINABILITY
- 4.1 LEED Certification

5 OPEN SPACE
- 5.1 Synthetic Turf For Multi-Use Field
- 5.2 Details Of Public Realm And Landscape Treatments

COMMENT 1.1:

Consider alternative design approaches in order to minimize the amount of paved area along North Point Boulevard.

RESPONSE:

EF has been working closely with City staff to review and analyze the various options for the configuration of the multi-use path, sidewalk and landscape frontage along North Point Boulevard. The goal of this effort has been to minimize pavement and create an emerald necklace effect between North Point Park and the development west of the Gilmore Bridge.

Our analysis starts with an overview of the entire North Point area to identify the various dimensions and path configurations along North Point Boulevard. As illustrated here, there are inconsistent treatments to the multi-use path throughout North Point – some areas have a single path system and others have a separated sidewalk and multi-use path (See Image 1).

The western side of the Gilmore Bridge (Northpoint Project) has a 13-foot single path along North Point Boulevard. However, in front of the MWRA property and to the east of the EF III Project Site, there is a separated path system with a 12-foot multi-use path and a separate 9'-7" sidewalk.

EF's original proposal based on meetings and site walks with CDD was to extend the treatment in front of the MWRA to across the EF III site (a two-path system consisting of a 12-foot multi-use path and a separate sidewalk). See Option A drawings and rendered view.

The Planning Board asked us to study an alternative design with a single path (consistent with the western side of the Gilmore Bridge) that would combine the sidewalk and multi-use path. Option B here shows this alternative. Although it is not in compliance with CDD's current design preference, it is consistent with the configuration on the western side of the Gilmore Bridge. After analyzing this option, we see several benefits of the single-path design, including more green space and a consistent pathway configuration for bikers and pedestrians along the longest stretch of North Point Boulevard. If the Planning Board prefers a single-path system, we would need to decide if the path is designed to CDD's current requirements or designed to be consistent with the existing conditions on the western side of the Gilmore Bridge.

We defer to the Planning Board on whether we build Option A (a two-path system) or Option B (a single path system).

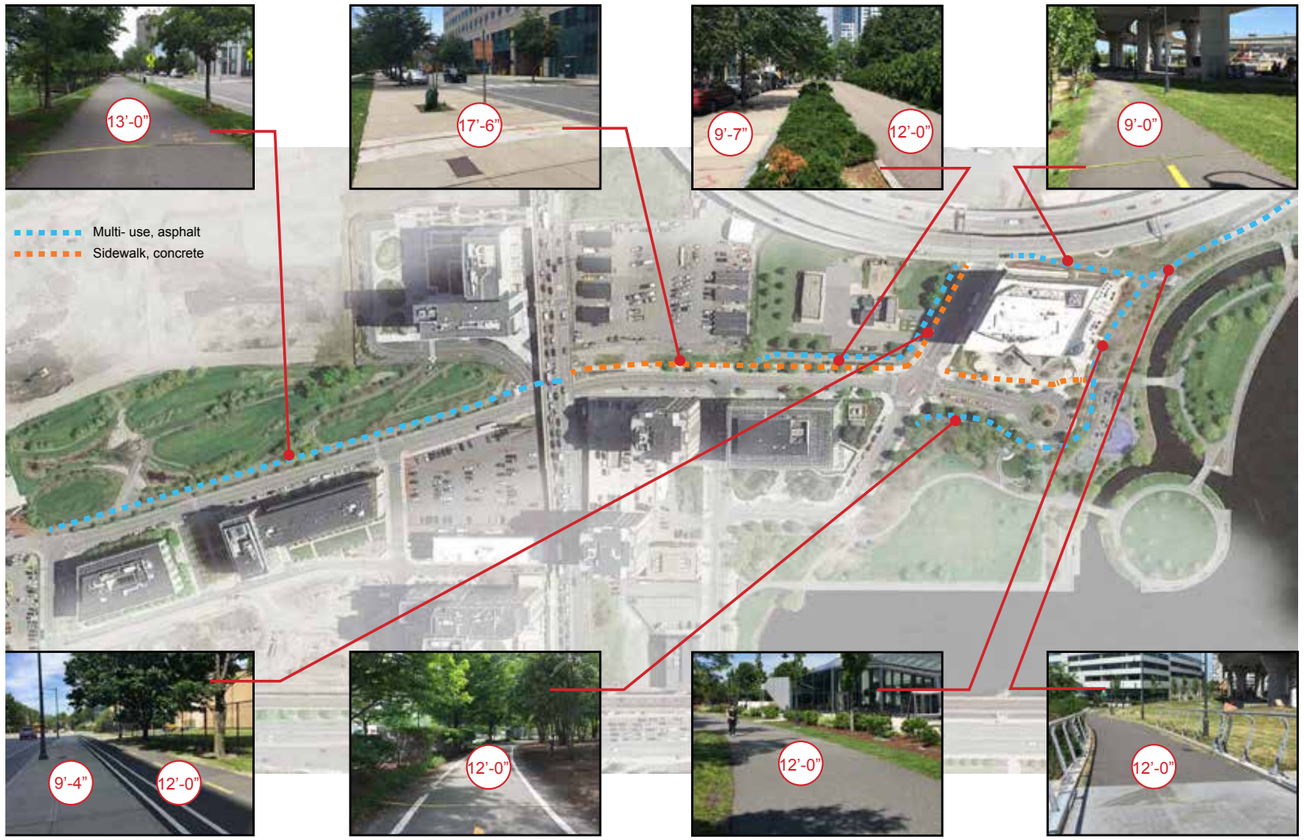


Image 1 - Existing Sidewalk Analysis

COMMENT 1.1:

Consider alternative design approaches in order to minimize the amount of paved area along North Point Boulevard.

RESPONSE (CONTINUED):

Option A - Multi-use path and sidewalk separated by planted buffer

Option B - Multi-use path adjacent to existing concrete

COMMENT 1.2:

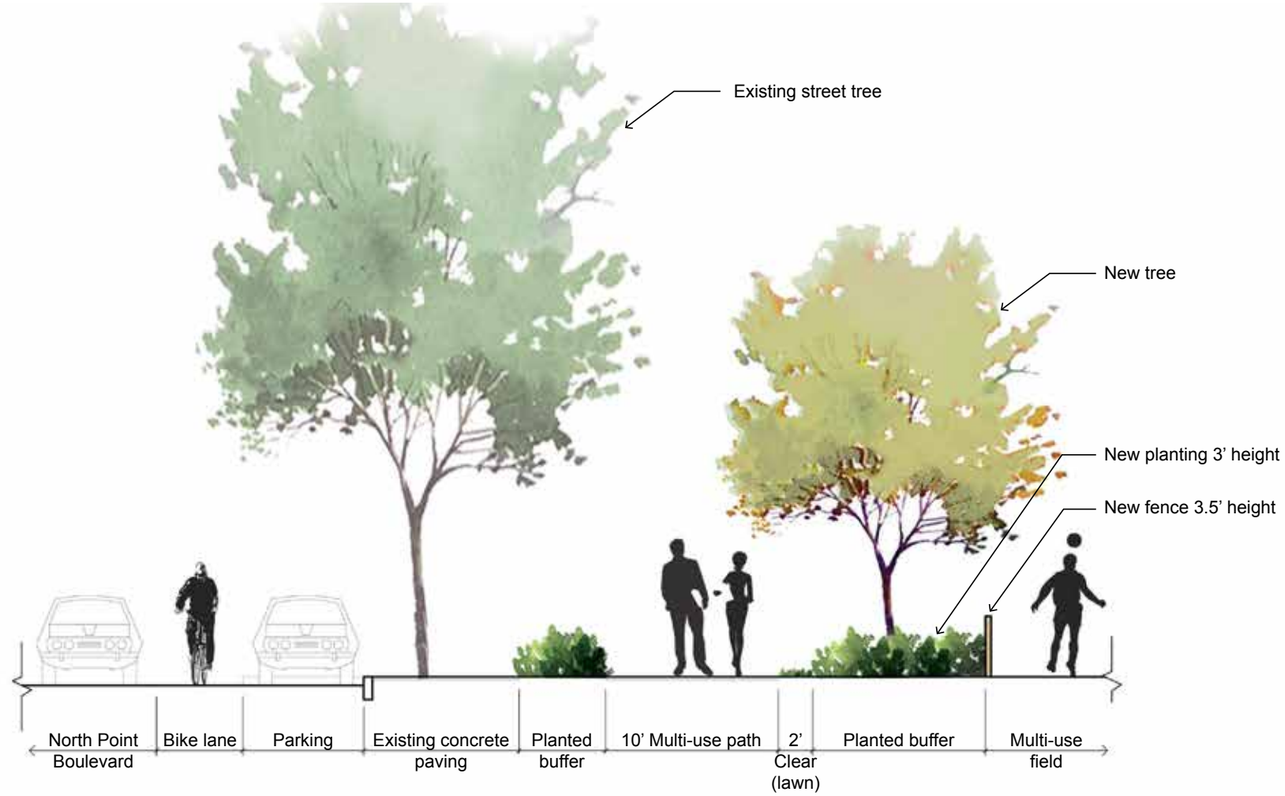
Provide details of the proposed fence treatment around the multi-use field.

RESPONSE:

There are two main fences on the EF III site in close proximity to the multi-use field.

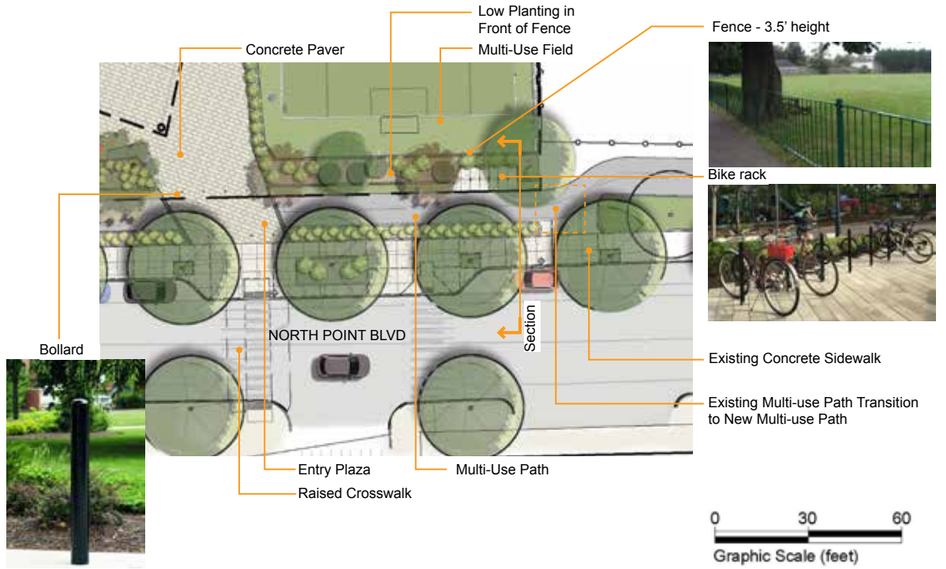
The first fence is located along the MWRA property line and abuts the multi-use field. It is an existing chain link fence that will remain to provide a boundary between the MWRA and EF III sites. As suggested in Public Comment at the Planning Board Hearing, EF will plant flowers and ivy along the existing MWRA fence.

The second fence has been the result of trying to activate the outdoor public realm (specifically the multi-use field) while also protect passersby and park users from game balls. After studying various options, EF proposes a 3.5-foot metal fence that will be installed along North Point Boulevard in front of the multi-use field and then extend along the western side of the multi-use field to the Central Plaza area. It will have nicely landscaped plantings on one sides and blend in with the overall look and feel of the outdoor public realm. EF agrees to work closely with CDD on the final design and configuration of the multi-use field fence in a design-review process.



Option A- Section

Scale: 3/16" = 1'-0"



COMMENT 1.3:

Consider the arrangement of benches and flexible seating options, including movable outdoor furniture.

RESPONSE:

EF is proposing a robust outdoor seating area with many flexible options for park users and members of the public. The main seating areas will be the Central Plaza area overlooking the multi-use field and the West Park area that provides a shaded passive recreation area.

Seating options include colorful benches, seating with and without backs and movable table-chair furniture pieces, some of which are illustrated here.

Bench with back

Table- 5-seater

Bench without back

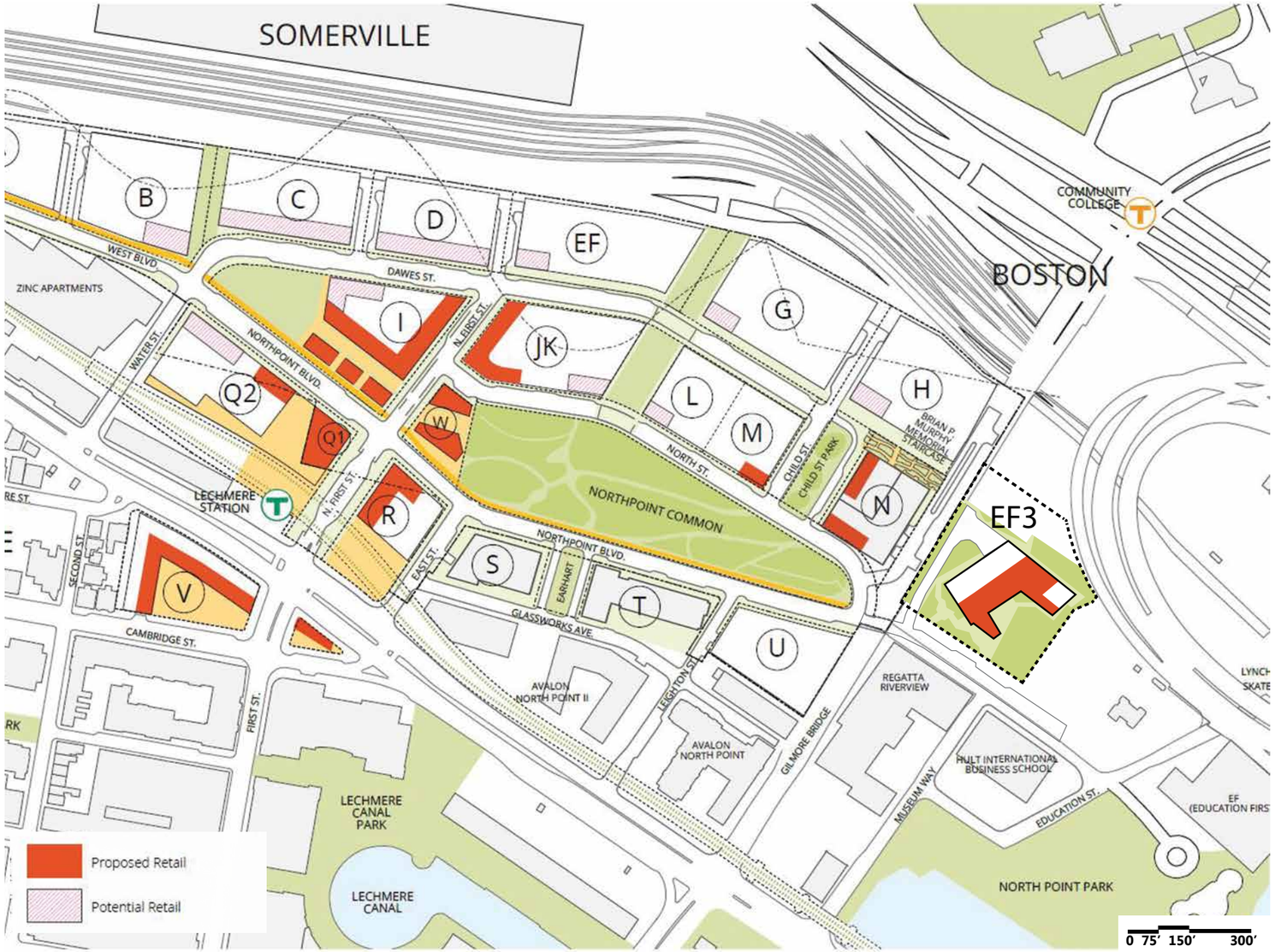
Table- 2-seater

COMMENT 1.4:

Update context rendering to show the proposed retail at North Point .

RESPONSE:

EF has included the EF3 project and its ground floor retail in the attached context plan, which shows the Northpoint Project's proposed and potential retail planned.



COMMENT 2.1:

Explore alternative sizes, shapes and architectural treatment of the exterior support column in the front façade

RESPONSE:

The dimension of the corner column along North Point Boulevard has been adjusted from a diameter of 2'-0" to 3'-9" as to provide stronger visual support of the building mass above. Additionally, the color and surface of the column has been developed to match the precast at the building base, with an inset reveal at the top and bottom, to give it a stronger visual interest.

BEFORE

AFTER

BEFORE

AFTER

COMMENT 2.2:

Investigate alternative materials for the façade other than precast concrete.

RESPONSE:

The design team explored a range of building façade materials during the conceptual design phase of the project and selected precast exterior wall panels as the best fit for the building type and site context.
A stronger sense of campus and connection is created by relating EF III's precast color, texture, and patterning to the that of the fritted panels of the EF II building. The precast color, texture and patterning also tie effectively to the existing palette of building materials and façade design within the North Point area. This can be seen on buildings such as Regatta Riverview, Twenty/20, and Sierra at North Point.
Precast also allows us to elegantly differentiate the base from the middle of the building within the same material. Form liners can be used to impart a wood grain within the base; recalling the park datum of the surrounding public space. Subtle color variation can be achieved in precast through surface treatment. This shift of exposed aggregate communicates a more stone-like feel.

COMMENT 2.3:

Improve the design of the rooftop mechanical screen so as to completely screen all the mechanicals if possible.

RESPONSE:

The penthouse roof and rooftop screen wall are 16'-6" in height. The screen wall design consists of a painted corrugated metal panel with 23% perforation to promote ventilation. Perforation also helps reduce the load from the wind needed for the support structure. The open percentage can be achieved through a variety of means. The perforation will be chosen to minimize the transparency by studying the stagger and size of the holes. Corrugating the panels help provide rigidity and greater opacity.

All rooftop mechanical equipment is lower in height and will be screened from view. The exception to this is the cooling tower which is 20'-0" tall. The cooling tower remains screened from view at grade as demonstrated in the range of on grade images.

In order to minimize the mechanical unit views, we have elected to paint the units the same color as the screen.

23% Open area 3/16" Diameter

23% Open area 1/10" Diameter

Image 1 - Museum Way View

Image 2 - South Elevation View

COMMENT 2.4:

Improve the visual character of the blank wall at the north corner of the building.

RESPONSE:

We have studied a range of options for creating more design interest at the NW corner of the building. We think the most effective solution is to let the accent color and material of the penthouse wall extend down to the roof transition above the base, effectively reducing the visual mass of the building. This also alludes to the original concept for the EF II project, where the color pool of the penthouse appears to spill down the façade. Keeping the end wall as solid allows us to not only maintain the braced frames, but express the residential volume of the north façade.

The difference between base, tower and penthouse is expressed through different pre-cast finishes and metal cladding to the penthouse. This separation is about making the building legible, expressing differing functions inside as you view the building from street to sky. The small break in the elevation as viewed from the highway provides a different vertical articulation of the building volumes and is highlighted by a metal clad reveal.

View from the Gilmore Bridge - Original Proposed View

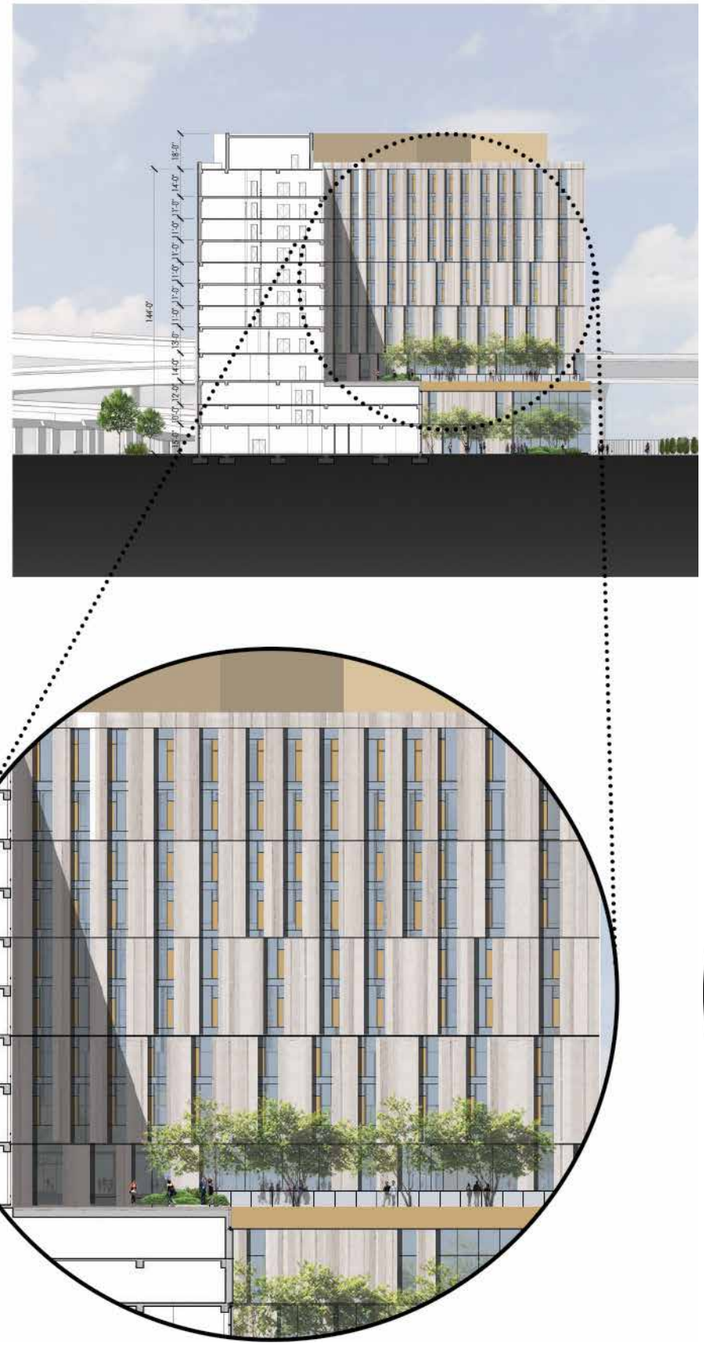
View from the Gilmore Bridge - Current Proposed View

COMMENT 2.5:

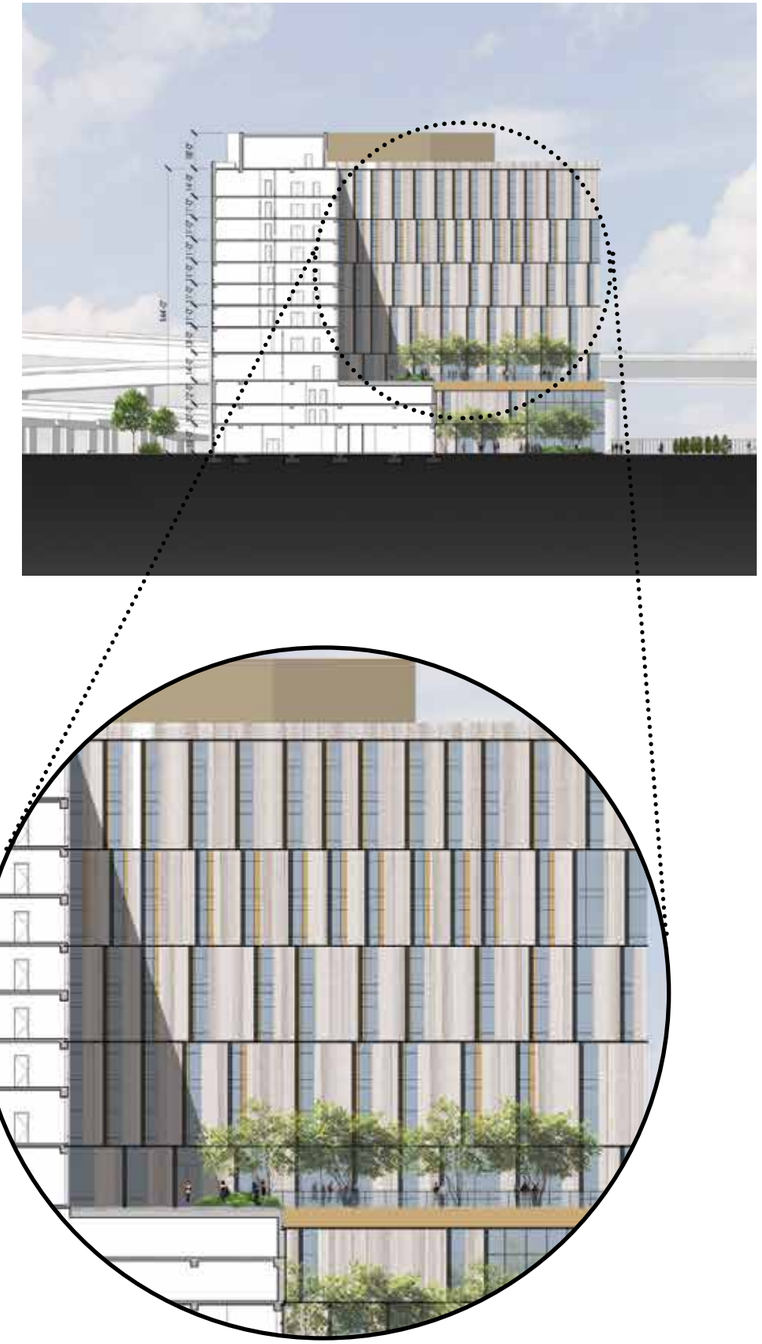
Explore using a similar façade treatment for both the internal elevations and the front elevations of the building, with an emphasis on doing more with publicly visible façades.

RESPONSE:

We agree with your comment and have adjusted the facade treatment of the internal building elevations to match the exterior building elevations by creating more floor to floor stagger in window location.



BEFORE



AFTER

COMMENT 2.6:

Consider if there is adequate width of windows in the residential areas of the building, and provide an interior rendering of a dorm room.

RESPONSE:

The windows within the residence units are 4’-6” W 8’-3”H. As illustrated in the rendered interior view we believe the size is appropriate the room function and give plentiful access to natural light, views, and ventilation.

Image 1 - Dorm Room Interior

COMMENT 2.7:

Provide details of the roof terrace parapet/balustrade.

RESPONSE:

We modified our original glass balustrade at the terrace to an ornamental metal one. The bronzy tone provides additional color for the façade. Vertical metal posts pick-up on the cadence of the precast paneling and mullions below. The vertical pickets are far more transparent than their glass and mesh counterparts. Reflections can make glass tends to read almost opaque. We want to make sure the railing feels light and doesn't add to the overall mass of the building base.

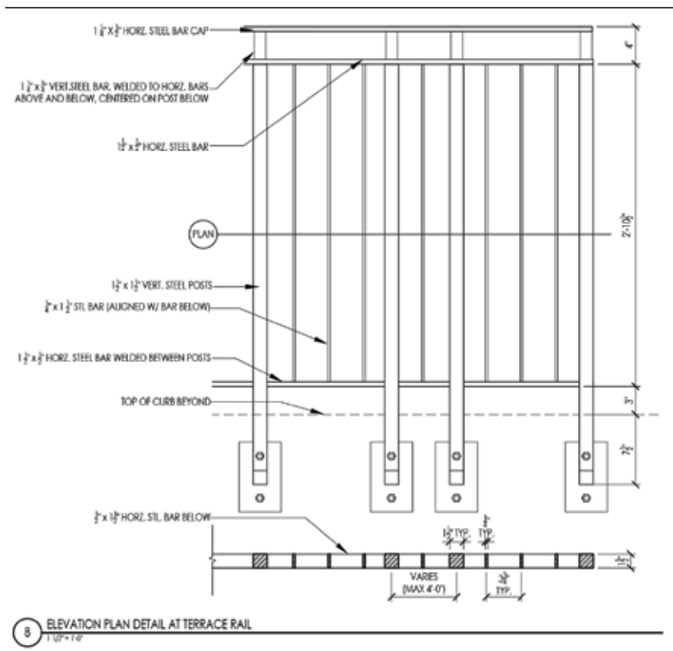


Image 1 - Glass Railings

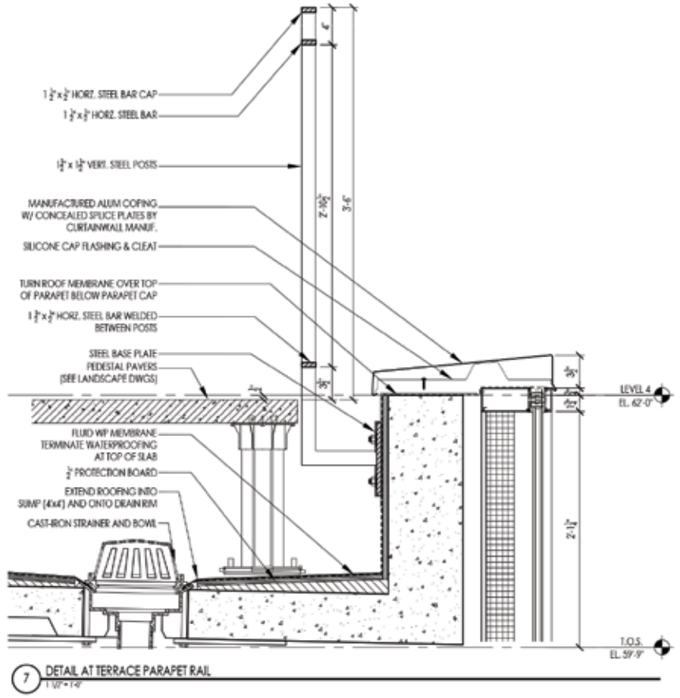


Image 2 - Steel Railings.

COMMENT 3.1:

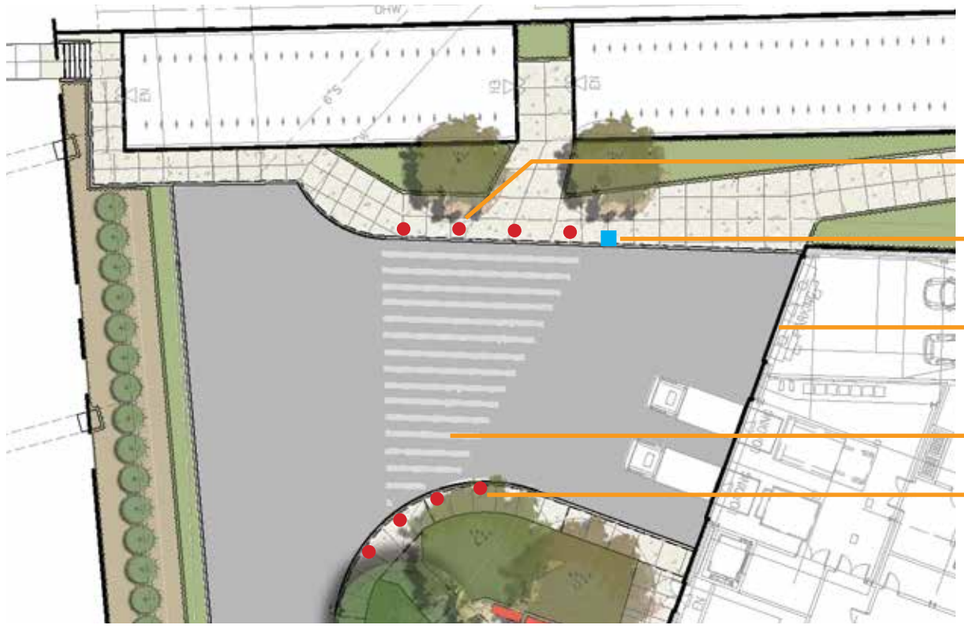
Provide details for reducing conflict between vehicles and bicycles near the garage entrance and bike sheds.

RESPONSE:

EF is proposing a number of methods to reduce conflict between vehicles and bicycles near the garage entrance and bike sheds, including:

- Audible signals to pedestrians and bikers when vehicles are entering/exiting the building
- Safety lighting to ensure proper visibility at night
- Mirrors for drivers exiting the garage to see pedestrians and bikers on either side of the building
- Bollards installed at the crosswalks to signal to pedestrians and bikers that the use is changing

Please see image for further clarification.

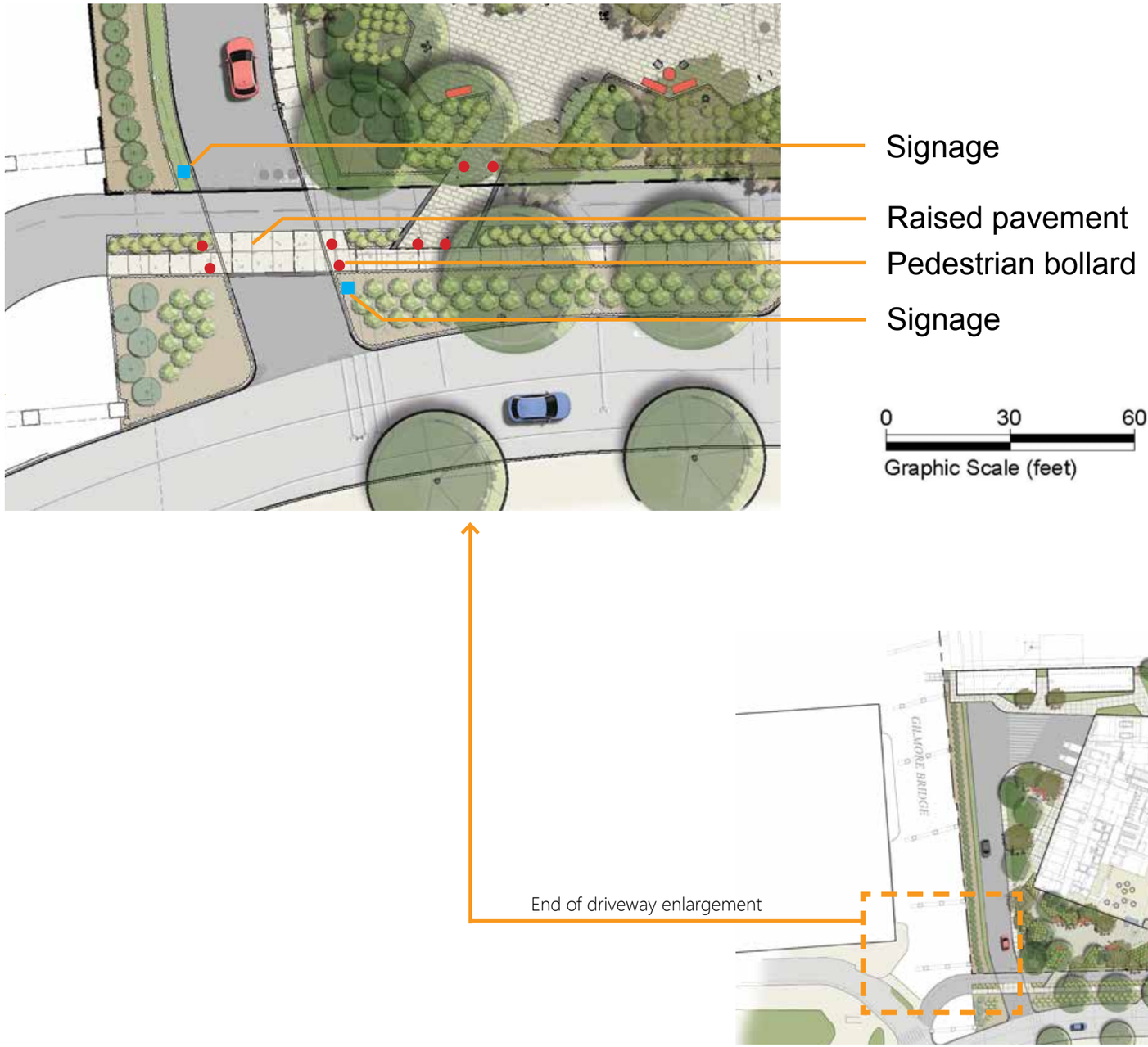


COMMENT 3.2:

Consider potential conflicts between pedestrians accessing the building from the sidewalk and bicyclists on the multi-use path.

RESPONSE:

In order to reduce conflict between the pedestrians (and vehicles) exiting the building driveway and the bicyclists and pedestrians on the multi-use path, EF is proposing signage on either side of the driveway, a raised pavement treatment for the multi-use path over the driveway area, plus bollards on either end of the multi-use path.



COMMENT 4.1:

Consider seeking full LEED certification of the building.

RESPONSE:

Since 1996 when EF first broke ground at North Point, the company has been committed to building its properties with a number of energy efficiencies and environmental sustainability components in mind. As an owner/operator, it is in our own best interest to keep energy costs low and to continue to find ways to improve our energy use. Our ultimate goal is to be as carbon neutral as possible in our operation of our buildings.

EF I (One Education Street) was constructed prior to the modern day LEED certification program, but still put a number of environmental sustainability initiatives into action. In 2006, EF won the Cambridge Green Cities Award for reducing its energy costs by $1,000,000 annually. Since its renovation in 2013, the entire EF I building (including the garage and restaurant) has been fitted with LED lights, water reduction measures in the toilets and fountains, and light harvesting systems. "Little Lingo" restaurant uses biodegradable materials and has a robust composting and recycling program on-site.

EF II was designed to achieve LEED 2009 for Core and Shell Development as Silver certifiable. The design team optimized the mechanical systems for the building and site to take advantage of a range of sustainable opportunities, demonstrating greater than the 50 LEED credits required for this level of sustainable design. EF II is lit with LEDs and includes additional energy use reduction strategies that will yield an estimated 33% savings in energy over the relevant national building standards. EF II's Lingo Restaurant utilizes composting, recycling, and biodegradable materials. EF II has a grey water recycling program to reduce water consumption throughout the campus. Rainwater harvesting is incorporated to capture roof runoff for site irrigation use in order to further reduce water consumption. The landscaping includes rain gardens underground retention for optimal stormwater treatment prior to discharging offsite onto the Charles River. The stormwater management system also reduce more than 20% of the annual amount and peak rate of runoff discharging off-site as comparing to the pre-development conditions.

Recently EF acquired 17 Monsignor O'Brien Highway and plans to renovate the building to incorporate LED lighting and more efficient mechanical systems. With respect to EF III, despite the requirement to only build to a LEED Silver level, EF has agreed to design the building to a LEED v4 Gold standard per the request of the Cambridge Community Development Department. To that end, EF plans to incorporate the following sustainability and energy saving measures into the design of the building:

- Water: Site will be designed to meet the 95th percentile of local rainfall events using low-impact development (LID) and green infrastructure; the project will not use any potable water for landscape irrigation; and indoor water use will show a 40% reduction from a calculated baseline.

- Energy: The project will achieve at least a 14% energy cost savings under LEED v4 (ASHRAE 90.1-2010).

- Lighting: The project will include LED lighting through the building as well as lighting control sensors. The perimeter areas of the public spaces will contain local daylight harvesting controls that will automatically dim or turn off lighting fixtures based on the available lighting levels of natural daylight. In addition, the project will meet the uplight and light trespass requirements for exterior lighting, using the backlight-uplight-glare (BUG) method.

- Materials: The project will divert at least 75% of the total construction and demolition material and at least four material streams from landfill; products that have valid Environmental Product Declarations will be specified; and materials that meet both the VOC content requirements and the Emissions Criteria will be specified for at least two product categories.

In addition, the Project will achieve all points in the **Location and Transportation** credit category

EF has a long-term commitment to energy savings and environmental sustainability throughout its North Point campus, and we have every intention to continue this effort for the future. At this time, since we are a user/operator, we would prefer to not seek full LEED certification and instead invest in our continued efforts to maximize energy efficiency in our day to day operations.

COMMENT 5.1:

Consider alternatives to synthetic turf for the multi-use field.

RESPONSE:

In designing the multi-use flex field, EF considered a number of material options, including both turf and natural grass. EF has proposed a synthetic turf field to maximize the hours of operation and ensure that the field is accessible throughout the year. As the flex field is a key component of the new outdoor public realm, EF's goal is to make the field as accessible as possible. Natural grass can be damaged easily and may be off limits during rain and snow. Additionally, synthetic turf reduces water requirements and maintenance costs.

COMMENT 5.2:

Provide details of all public realm and landscape treatments.

RESPONSE:

Existing Conditions - The EF III site is currently comprised of asphalt, limited vegetation and no public access. Along the public sidewalk in front of the property along North Point Boulevard are a series of street trees which will remain. Within the site are three Betula Nigra (River Birch) which are approximately 50' height, and are a total of 75" caliper – these will be removed as part of the project.
EF has met with David Lefcourt, the arborist for the City of Cambridge, to review the existing trees on the site and within the public sidewalk.

Public realm and landscape treatment - The EF III landscaping plan will transform the existing site into a beautiful green park surrounding the EF III building. Along North Point Boulevard EF is creating an 'emerald necklace' effect with green space that connects the North Point Park area to the North Point Common. This will be accomplished by preserving and extending the street trees along North Point Boulevard, and adding additional plantings along the sidewalk and new section of the multi-use path. These plantings will be comprised of masses of durable and hardy plants that are selected to provide year-round interest with foliage color and texture, branching pattern and color, fragrance, and flower.

Amenities provided for public use include a multi-use flex field on the east half of the site, which will be used for soccer, Frisbee and other active sports, as well as special community events. A 3.5' height fence between the multi-use field and North Point Boulevard will contain the southern end of the field and keep soccer balls from leaving the field. An extensive plant bed will occupy the area between the fence and the multi-use path, providing an attractive buffer for pedestrians and vehicles travelling along North Point Boulevard. The fence and planting treatment will extend north toward the Central Plaza area in order to buffer the pedestrian Entry Plaza from the multi-use field. Colorful benches will be located along the edge of the multi-use field, and lighting will provide safety and extend use of the multi-use field throughout the season.

Another amenity provided for public use includes a series of outdoor fitness stations located around the site. The public will be able to make use of a single station, or will be able to connect one or more stations in a circuit.A Sports Track at the rear of the site will be available for public use as well, and could be used in conjunction with the fitness station circuit, or as its own amenity. Paved walkways will connect the sports track to the multi-use field and the bike parking areas. The Sports Track perimeter will be lined with canopy tree plantings.

COMMENT 5.2:

Provide details of all public realm and landscape treatments.

RESPONSE (CONTINUED):

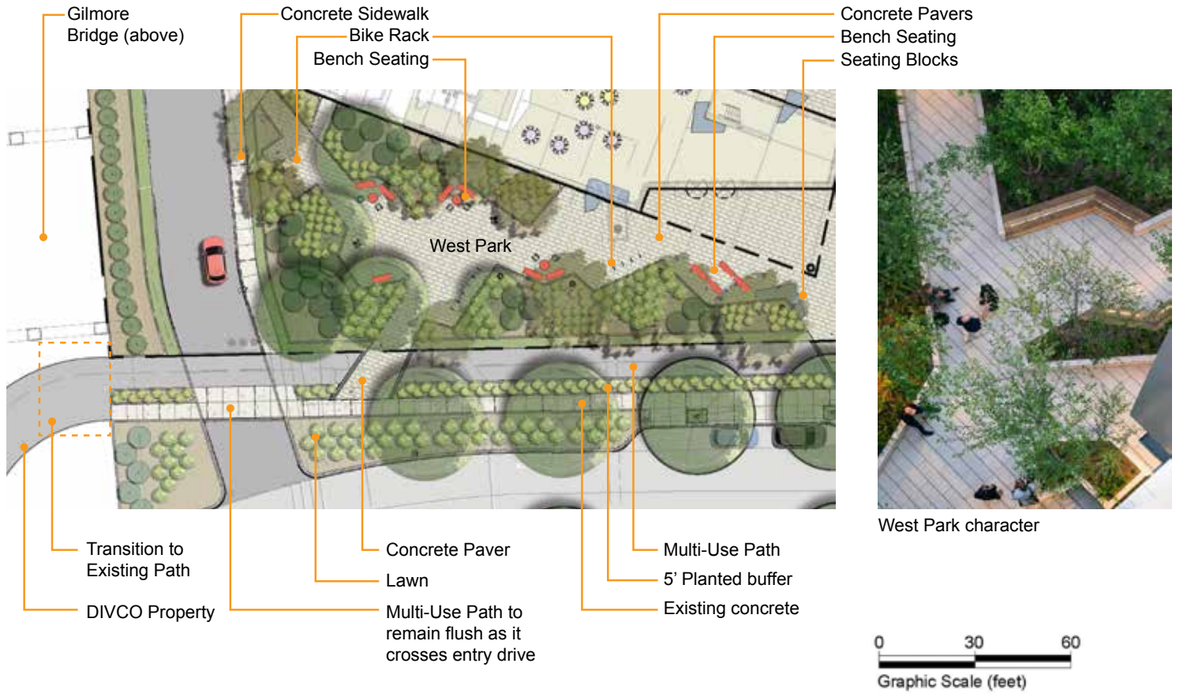
West Park occupies the area between North Point Boulevard and the proposed building, and is intended to serve as a gateway to the project from the Gilmore Bridge side. It will provide shaded passive recreational areas with benches, seating and bike parking, all available for public use. Signage will be displayed to inform the community of the public services available on the site and in the building.

Central Plaza occupies the area between the building and the multi-use field, and is entirely available for public use. Tables and benches are provided in this paved plaza, and shade will be provided by canopy tree plantings and a shade structure. Access to Central Plaza is provided by a paved walkway from the main building entrance area, and is accessible from the building.

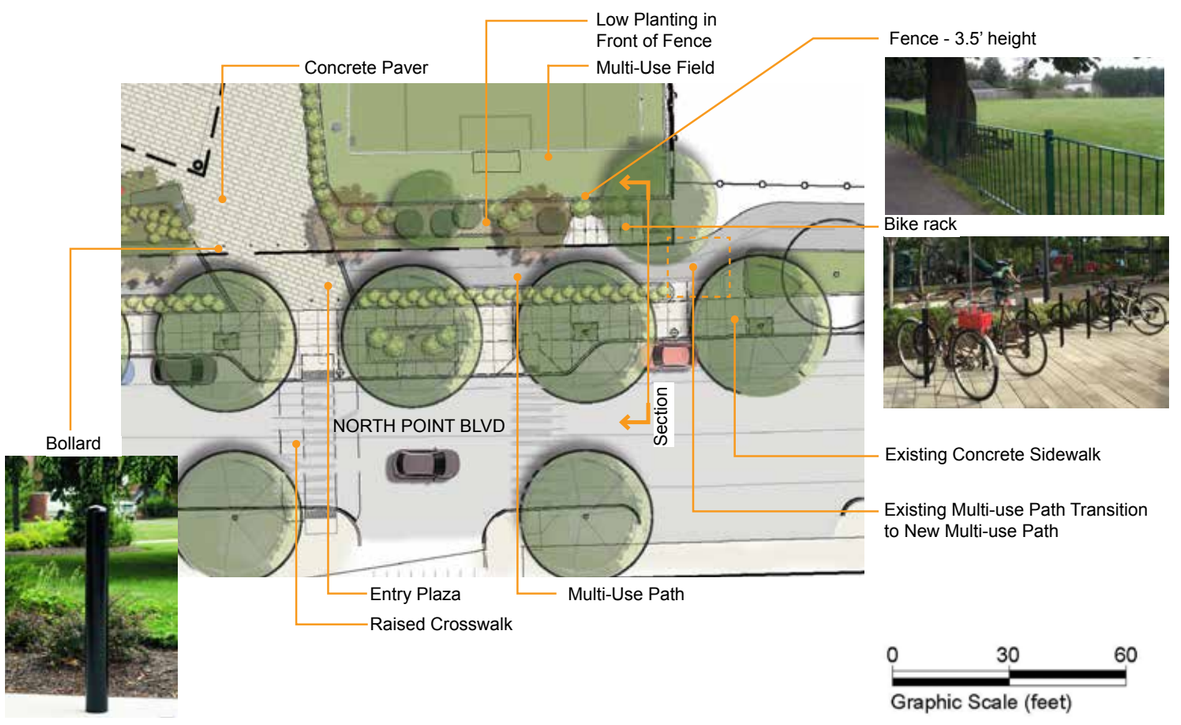
Other landscape treatments include tree planting between the building and driveway to provide a green canopy along Gilmore Bridge, as well as a hedge along the property boundary adjacent to the Gilmore Bridge.

Lighting - The project will make use of several fixture types to provide safe and modest illumination for all terraces and paths surrounding the site, as well as the driveway and the multi-use field. The fixtures will be spaced such that there will be sufficient lighting for safe use of the spaces, and will take into consideration the current street lights and lighting from the building.

Where possible, small directional flood fixtures will be mounted on the building illuminating egresses, paths, fields and terrace spaces. The fixtures will incorporate shields to reduce glare and will be mounted approximately 25' above ground level to maximize the light spread and minimize light source visibility.
There will be 2 post lights at the multi-use field, between the field and the adjacent MWRA property. These post lights will be approximately 18' tall, and will contain cut-off shields.
All fixtures will conform to the requirements of the Dark Sky Initiative. EF is in the process of reviewing an illumination study to maximize the overlap of the different light sources surrounding the site.



West Park character



COMMENT 5.2:

Provide details of all public realm and landscape treatments.

RESPONSE (CONTINUED):

Multi-use field

Fitness stations

Sports track

Shade canopy

Central Plaza character

Concrete paving - cast in place

Concrete paver

COMMENT 5.2:

Provide details of all public realm and landscape treatments.

RESPONSE (CONTINUED):

Proposed Planting Plan - EF proposes to plant in excess of 37 new shade trees with an installed total caliper of over 100" on the EF III site, along with another 7 understory trees with an installed total caliper of 20". The tree species with be selected from the list of recommended shade trees provided by the Committee on Public Planting. We intend to present the proposed Planting Plan for review by the Committee on Public Planting at the next scheduled hearing.

Plant List

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING
TREES						
21	AR	Acer rubrum	Red Maple	3" CAL.	B&B	AS SHOWN
3	AC	Amelanchier canadensis	Shadblow Serviceberry	3" CAL.	B&B	AS SHOWN
3	CK	Cladrastis kentukea	American Yellowwood	3" CAL.	B&B	AS SHOWN
4	MH	Malus 'Harvest Gold'	Harvest Gold Crabapple	3" CAL.	B&B	AS SHOWN
5	NS	Nyssa sylvatica	Black Gum	3" CAL.	B&B	AS SHOWN
2	TC	Tilia cordata	Littleleaf Linden	3" CAL.	B&B	AS SHOWN
44	TO	Thuja occidentalis 'Nigra'	Dark American Arborvitae	6'-8' HT.	B&B	6' O.C.
6	UA	Ulmus americana	American Elm	3" CAL.	B&B	AS SHOWN
SHRUBS						
25	FG	Fothergilla gardenii 'Suzanne'	Suzanne Fothergilla	2'-2.5' HT.	B&B	
41	HQ	Hydrangea quercifolia 'Munchkin'	Munchkin Oakleaf Hydrangea	2.5'-3' HT.	CONT.	
8	IG	Ilex glabra 'Compacta'	Compact Inkberry	2.5'-3' HT.	CONT.	
102	JCG	Juniperus chinensis 'Sargentii Glauca'	Blue Sargent Juniper	1 GAL.	CONT.	
48	JCS	Juniperus conferta 'Silver Mist'	Silver Mist Juniper	1 GAL.	CONT.	
66	SJ	Spirea japonica 'Lemon Princess'	Lemon Princess Spirea	1 GAL.	CONT.	
10	TCN	Taxus cuspidata 'Nana'	Dwarf Japanese Yew	2'-2.5' HT.	B&B	
34	VC	Viburnum carlesii 'Compacta'	Dwarf Mayflower Viburnum	4' HT.	B&B	
12	WF	Weigela florida 'Minuet'	Minuet Weigela	#3	CONT.	
GRASSES						
90	HM	Hakonechloa macra 'All Gold'	All Gold Japanese Forest Grass	1 GAL.	CONT.	
30	MS	Miscanthus sinensis 'Gracillimus'	Maiden Grass	1 GAL.	CONT.	
VINES						
20	HP	Hydrangea anomala subsp. Petiolaris	Climbing Hydrangea	1 GAL.	CONT.	
20	PT	Parthenocissus tricuspidata	Boston Ivy	1 GAL.	CONT.	

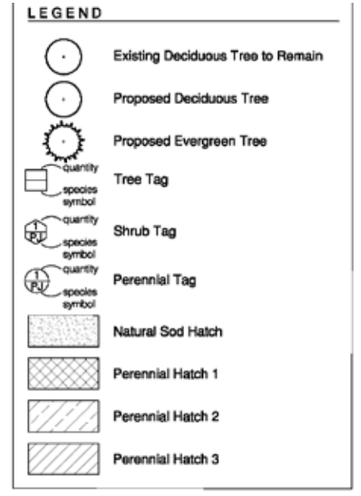
Planting Notes:

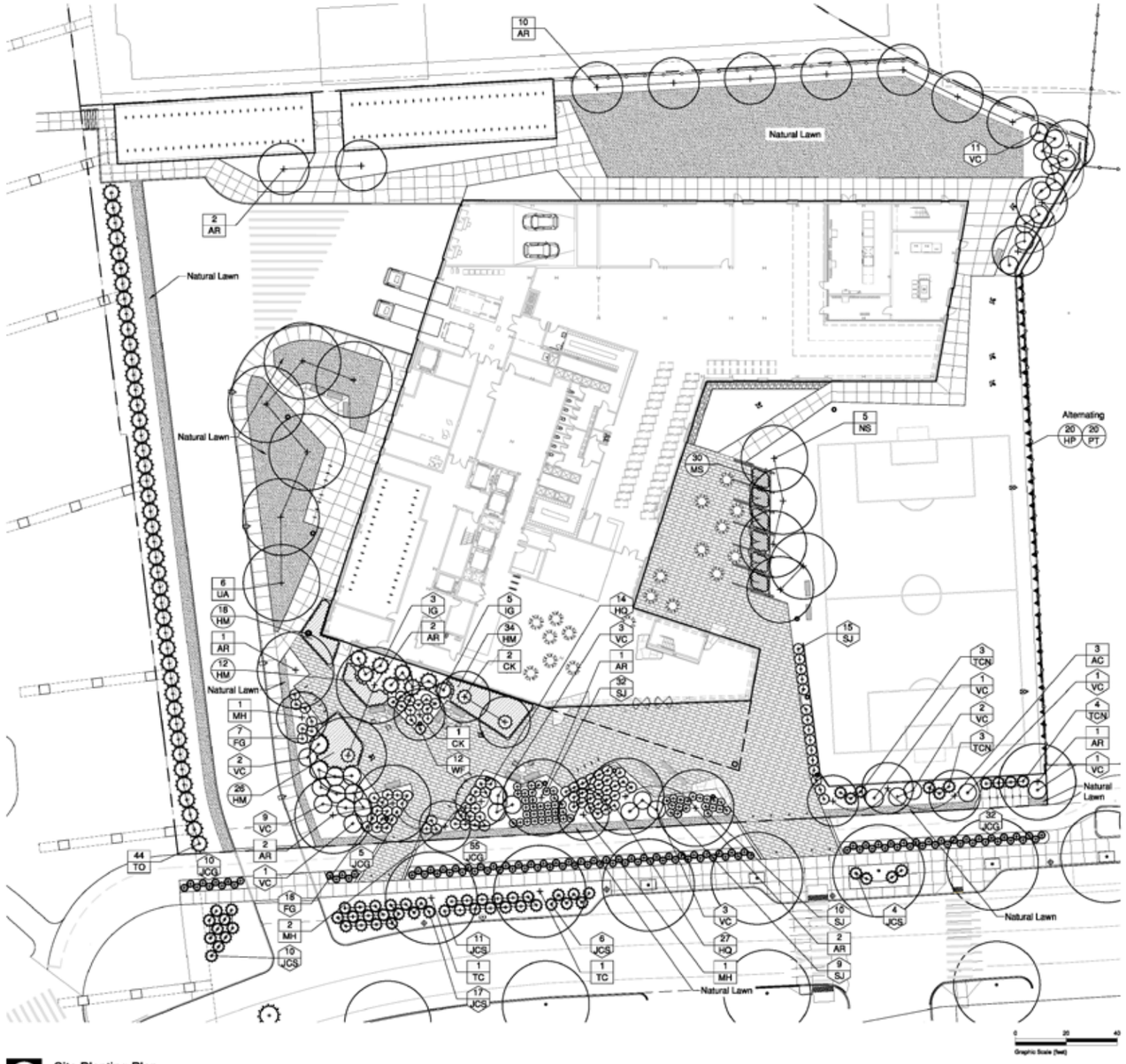
Planting Soil

1. Subgrades and any subsurface drainage systems shall be approved by the Landscape Architect prior to placing and spreading loam.
2. Loam shall be uniform in composition, free of stones larger than 1/4", shall not contain toxic substances harmful to plant growth, and shall not be frozen.
3. Loam shall have a minimum 5% organic matter content. Add 2 inches of compost with 35%-60% organic matter per 8 inches of existing topsoil and incorporate by rototilling or mixing.
4. The Contractor is responsible for supplying loam as required to meet proposed grades. Tamp loam to eliminate air pockets and to control settling. Do not over compact; soil to drain properly. Overfill deep placements to allow for settlement.
5. Proposed lawn areas to receive 6" minimum planting soil depth; planting beds to receive 18" minimum planting soil depth, or as otherwise stated on the drawings.

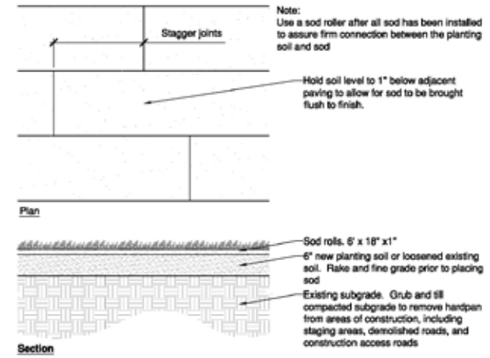
Planting

1. The Contractor shall confirm that all planting soil preparation has been completed per the Subgrade Preparation and Planting Soil notes.
2. The Contractor shall supply all plant materials in quantities sufficient to complete the planting shown in the drawings.
3. All plant materials shall conform to the guidelines established by the American Standard for Nursery Stock published by the American Association of Nurserymen, Inc.
4. Branches shall be tied with rope or twine in such a manner that no damage will occur to the bark or branches.
5. During transportation of plant material, the Contractor shall exercise care to prevent injury and drying out of the trees. Should the roots be dried out, large branches broken, balls of earth broken or loosened, or areas of bark torn, the Landscape Architect may reject the injured tree(s) and order them replaced at no additional cost to the Owner. All loads of plants shall be covered at all times with tarpaulin or canvas. Loads that are not protected will be rejected.
6. The Contractor shall provide labor to care for trees, shrubs, perennials, ornamental grasses, and lawn areas until site is ready for installation. Plants that cannot be planted immediately after delivery shall be kept in the shade, well protected with soil, wet mulch, or other acceptable material, and kept well watered. Plants shall not remain unplanted any longer than three days after delivery. Plants shall be lifted and handled with suitable support of the soil ball to avoid damage.
7. See planting details for tree, shrub, perennial, bulb planting, and lawn specifications.
8. All plant material to be set plumb. Remove all girdling roots. The root flare of all trees shall be visible; the Contractor is to take great care in exposing the root flare of all trees, if the root flare is not visible upon inspection.
9. The top third of all burlap, string, rope, and wire baskets shall be removed during installation. Care shall be taken not to break or disturb the root ball of plants.
10. All plant tying material, tags, and marking tape shall be removed .
11. All plants shall be watered immediately after planting. Flood plants twice during the first 24 hour period of planting.
12. 3" of mulch shall be spread over all plant beds unless otherwise noted. Mulch shall not touch trunk of shrubs and trees. Mulch shall be aged pine bark.
13. The Contractor shall maintain all plants for thirty days after the completion of plant installation. Maintenance shall consist of keeping all plants in a healthy growing condition.
14. Plants shall be guaranteed for a period of 1 year after acceptance of the project and shall be alive and in satisfactory growth at the end of the guarantee period. The Contractor shall be responsible to remove all dead plant materials, and replace them with the same kind and size of material as specified in the plant list. The Contractor shall not be responsible for guaranteeing transplanted plants, or for defects resulting from neglect by the Owner, abuse or damage by others or incidents which are beyond the Contractor's control.

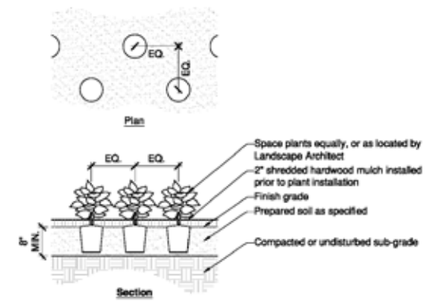




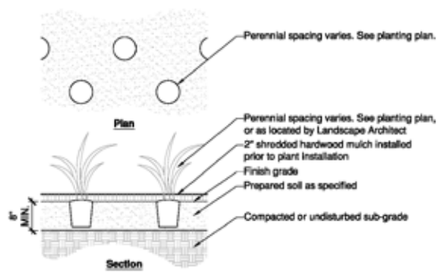
1 Site Planting Plan
Scale: 1"=20'



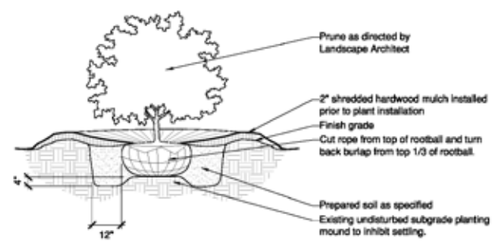
2 Natural Turf
Scale: $\frac{3}{4}$"=1'-0"



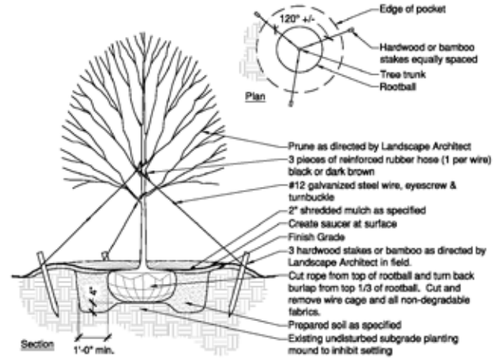
3 Groundcover
Scale: $\frac{3}{4}$"=1'-0"



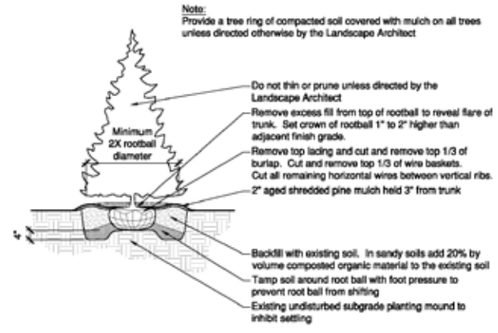
4 Perennial
Scale: $\frac{3}{4}$"=1'-0"



5 Shrub
Scale: $\frac{3}{4}$"=1'-0"



6 Deciduous Tree
Scale: $\frac{1}{2}$"=1'-0"



7 Evergreen Tree
Scale: $\frac{1}{2}$"=1'-0"