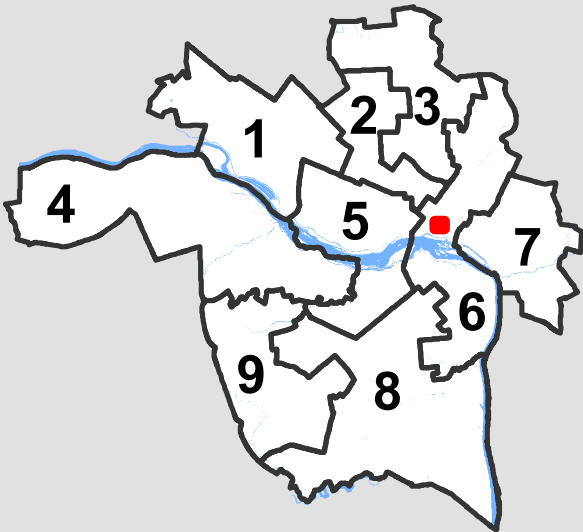




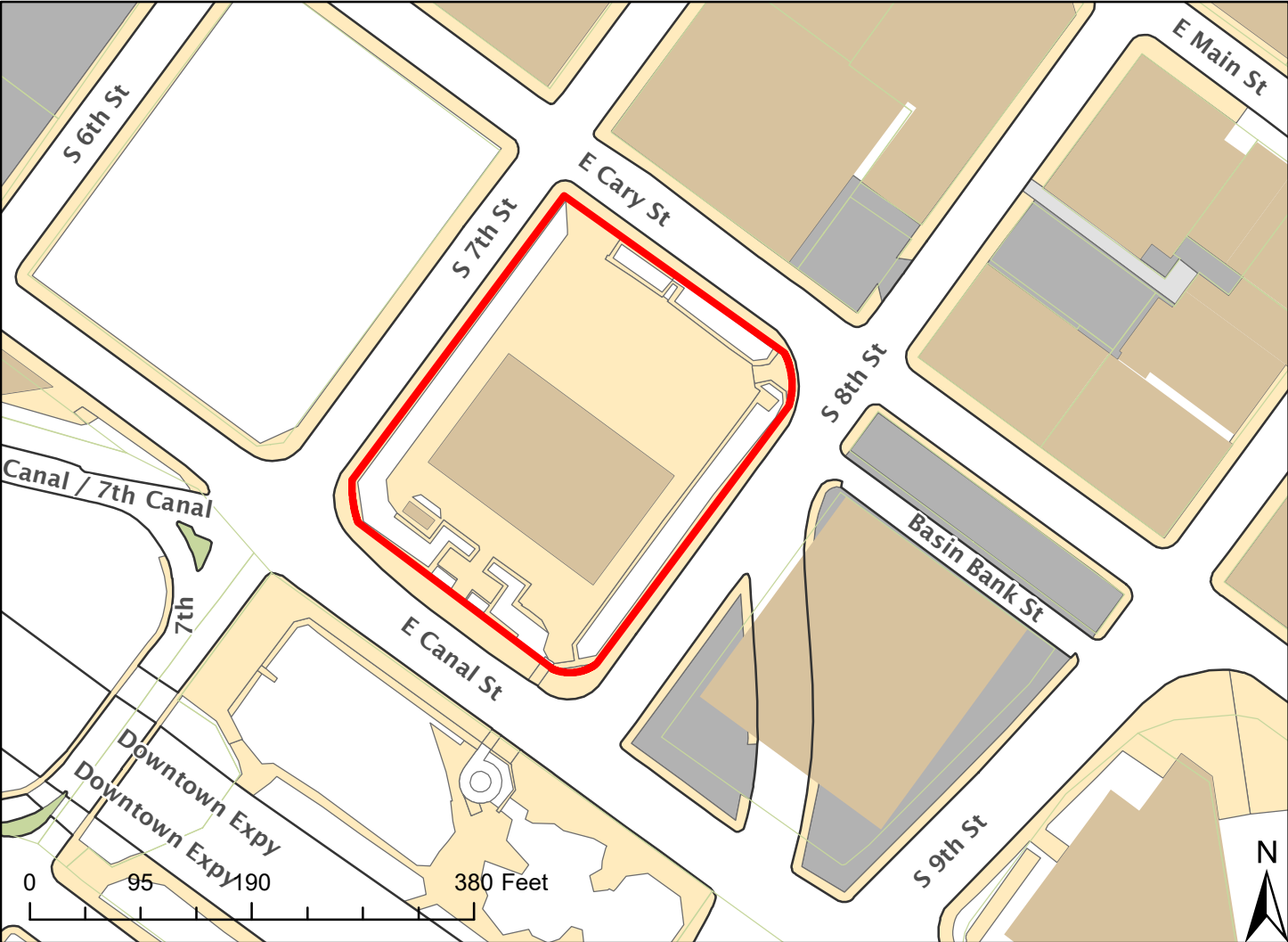
**City of Richmond  
Department of Planning  
& Development Review**

**Encroachment**

**LOCATION:** 701 E. Cary Street  
**COUNCIL DISTRICT:** 6  
**PROPOSAL:** Review of streetscape improvements and encroachments for Dominion Workplace Tower II located at 701 E. Cary Street.



*For questions, please contact Josh Son  
at 646-3741 or [joshua.son@richmondgov.com](mailto:joshua.son@richmondgov.com)*







## Application for URBAN DESIGN COMMITTEE Review

Department of Planning and Development Review  
Planning & Preservation Division  
900 E. Broad Street, Room 510  
Richmond, Virginia 23219  
(804) 646-6335

<http://www.richmondgov.com/CommitteeUrbanDesign>

### Application Type

☐ Addition/Alteration to Existing Structure  
☐ New Construction  
☐ Streetscape  
☐ Site Amenity

☒ Encroachment  
☐ Master Plan  
☐ Sign  
☐ Other

### Review Type

☐ Conceptual  
☒ Final

Project Name: Dominion Workplace – Tower 2

Project Address: 701 E. Cary Street (Future address: 700 Canal Street)

Brief Project Description (this is not a replacement for the required detailed narrative) : \_\_\_\_\_

Tower 2 is the potential second tower for the Dominion Workplace project (Tower 1 is currently under construction). If built, Tower 2 will replace One James River Plaza and will include an enhanced streetscape and other features requiring approval of encroachments by DPU.

### Applicant Information

(on all applications other than encroachments, a City agency representative must be the applicant)

Name: Dominion Energy, Inc.

E-mail: bjackson@hf-law.com

c/o Brian K. Jackson, Esq.

Phone: 804-771-9545

Address: 2100 E. Cary Street, Richmond, VA 23223

Main Contact (if different from Applicant): Brian K. Jackson, Esq.

Company: Hirschler Fleischer

Phone: 804-771-9545

Email: bjackson@hf-law.com

### Submittal Deadlines

All applications and support materials must be filed no later than 21 days prior to the scheduled meeting of the Urban Design Committee (UDC). Please see the schedule on page 3 as actual deadlines are adjusted due to City holidays. **Late or incomplete submissions will be deferred to the next meeting.**

### Filing

Applications can be mailed or delivered to the attention of "Urban Design Committee" at the address listed at the top of this page. **It is important that the applicant discuss the proposal with appropriate City agencies, Zoning Administration staff, and area civic associations and residents prior to filing the application with the UDC.**

### UDC Background

The UDC is a ten member committee created by City Council in 1968 whose purpose is to advise the City Planning Commission on the design of projects on City property or right-of-way. The UDC provides advice of an aesthetic nature in connection with the performance of the duties of the Commission under Sections 17.05, 17.06 and 17.07 of the City Charter. The UDC also advises the Department of Public Works in regards to private encroachments in the public right-of-way.





## Application for URBAN DESIGN COMMITTEE Review

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900 E. Broad Street, Room 510  
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### Submission Requirements

- 10 copies of the application cover sheet and all support materials (see below), unless the application is for an encroachment, in which case only 6 copies are required. Plan sheets should be 11" x 17", folded to 8 1/2" x 11". If it is not possible to scale plans to these dimensions, please provide one set of larger, scaled plans.
- An electronic copy (PDF preferred) of all application materials, which can be burned to disc, emailed, or delivered by FTP.

All applications must include the attached cover sheet and the following support materials, as applicable to the project:

#### For Conceptual Review

- A detailed project narrative which includes the following: purpose of the project, project background, project budget and funding sources, description of construction program and estimated construction start date (description should also provide information on the surrounding area to provide context).
- A site plan for the project indicating site characteristics which include: building footprints, parking areas, pedestrian routes, recreation areas, open areas and areas of future expansion.
- A set of floor plans and elevations, as detailed as possible.
- A landscaping plan which shows the general location and character of plant materials and notes any existing tree to be removed.

#### For Final Review

- A detailed project narrative which includes the following: purpose of the project, project background, project budget and funding sources, description of construction program and estimated construction start date (description should also provide information on the surrounding area to provide context).
- A site plan for the project indicating site characteristics which include: building footprints, parking areas, pedestrian routes, recreation areas, open areas and areas of future expansion.
- A set of floor plans and elevations, as detailed as possible.
- A landscaping plan that includes a complete plant schedule, the precise location of all plant materials, and a landscape maintenance analysis. The plant schedule must show number, size and type of each planting proposed. If existing trees are to be removed, their size, type and location must be noted on the landscape plan.
- The location of all lighting units should be noted on a site plan, including wall-mounted, site and parking lot lighting. Other site details, such as benches, trash containers and special paving materials, should also be located. Include specification sheets for each item.
- Samples of all proposed exterior building materials, including but not limited to brick, mortar, shingles, siding, glass, paint and stain colors. When an actual sample cannot be provided, a product information sheet that shows the item or a photo of an existing item may be substituted.

### Review and Processing

Once an application is received, it is reviewed by staff, who compiles a report that is sent to the UDC. A copy of the report and the meeting agenda will be sent to the applicant prior to the meeting. The applicant or a representative should be present at the UDC meeting or the application may be deferred to the next regularly scheduled meeting. It is also strongly suggested that a representative of the City Agency which will have final responsibility for the item be present at the meeting (if the applicant and the representative are not the same). Once the UDC recommends action on the application, it is automatically placed on the agenda for the next City Planning Commission (CPC) meeting. An exception to this is encroachment applications, recommendations for which are forwarded to the Department of Public Works. The applicant or a representative must be present at the CPC meeting or the application may be deferred to the next regularly scheduled meeting.





## Application for URBAN DESIGN COMMITTEE Review

Department of Planning and Development Review  
 Planning & Preservation Division 900 E. Broad  
 Street, Room 510 Richmond, Virginia 23219 (804)  
 646-6335

<http://www.richmondgov.com/CommitteeUrbanDesign>

### MEETING SCHEDULE 2015-2016

UDC Meetings	UDC Submission Deadlines	Anticipated Date of Planning Commission Following the UDC Meeting
<b>December 10, 2015</b>	November 12, 2015*	January 4, 2016
<b>January 7, 2016</b>	December 10, 2015**	January 19, 2016 <sup>1</sup>
<b>February 4, 2016</b>	January 14, 2016	February 16, 2016 <sup>2</sup>
<b>March 10, 2016</b>	February 18, 2016	March 21, 2016
<b>April 7, 2016</b>	March 17, 2016	April 18, 2016
<b>May 5, 2016</b>	April 14, 2016	May 16, 2016
<b>June 9, 2016</b>	May 19, 2016	June 20, 2016
<b>July 7, 2016</b>	June 16, 2016	July 18, 2016
<b>August 4, 2016</b>	July 14, 2016	September 6, 2016 <sup>3</sup>
<b>September 8, 2016</b>	August 18, 2016	September 19, 2016
<b>October 6, 2016</b>	September 15, 2016	October 17, 2016
<b>November 10, 2016</b>	October 20, 2016	November 21, 2016
<b>December 8, 2016</b>	November 10, 2016*	January 3, 2017 <sup>4</sup>

<sup>1</sup> Monday, January 18<sup>th</sup> is a City of Richmond Holiday

<sup>2</sup> Monday, February 15<sup>th</sup> is a City of Richmond Holiday

<sup>3</sup> Monday, September 5<sup>th</sup> is a City of Richmond Holiday

<sup>4</sup> Monday, January 2<sup>nd</sup>, 2017 is a City of Richmond Holiday

\* Moved forward to account for Thanksgiving Holiday Schedule

\*\*Moved forward to account for Winter Holiday Schedule

For further information or assistance, please contact the Planning and Preservation Division by phone at (804) 646-6335 or by email at [DCDCCompPlan@RichmondGov.com](mailto:DCDCCompPlan@RichmondGov.com).

Information about the UDC along with the application and meeting schedule is available at the City of Richmond website, <http://www.richmondgov.com/CommitteeUrbanDesign>



August 15, 2018

**BY HAND**

City of Richmond Urban Design Committee  
**Attention: Joshua Son**  
Senior Planner & Secretary to the Urban Design Committee  
Planning & Development Review (PDR)  
City of Richmond  
City Hall  
900 East Broad Street, Suite 511  
Richmond, VA 23219

**RE: *Applicant's Project Narrative for Urban Design Committee Review -  
Application for Dominion Energy, Inc. ("Dominion Energy"), Seeking  
approval of Encroachments in connection with the Potential Development of a  
New Building on the Current Site of One James River Plaza at 701 E. Cary  
Street***

Ladies and Gentlemen:

The undersigned submits this Project Narrative in connection with Dominion Energy's Application for Urban Design Committee Review ("UDC Application") of certain right-of-way encroachments proposed in the Applicant's Plan of Development ("POD") for the Building Site. The pending POD application, the UDC Review and approval of encroachments by the Department of Public Works are part of the previously announced Dominion Workplace Project, potentially including two new office towers. The Site that is the subject of this UDC Application will house the proposed Dominion Workplace Tower 2. This application includes the required application supporting plans and specifications including a description of encroachments, civil site plan, elevation plans, floor plans, landscape plan, lighting plan and summary of exterior building materials.

**1. BACKGROUND**

**(a) Site and Facility Location**

The applicant, Dominion Energy, Inc. ("Dominion Energy") is the landowner for the 700 Canal Place site, which is located in the City of Richmond, at 700 Canal Street (the "Site").<sup>1</sup> The site is approximately 86,370 square feet and located on the city block bounded by East Canal Street, East Cary Street, South 7<sup>th</sup> Street, and South 8<sup>th</sup> Street. The site currently houses One James River Plaza, an existing 21-story office building and associated 3-story below grade parking

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<sup>1</sup> The current address for the property is 701 E. Cary Street.



deck. The area surrounding the Building Site consists of a mix of urban commercial and office uses with the adjacent area dominated by high-rise office buildings.

**(b) The Dominion Workplace Project**

If the 700 Canal Place project receives the necessary approvals, the proposed development would involve the construction of a new 17-story workplace for Dominion Energy, comprised of approximately 577,711 square feet of Class A office space and amenities. Additionally, a 4-story below grade parking deck comprised of approximately 331,398 square feet with 807 spaces is provided. Retail space is provided at the northeast and northwest corners of the building comprised of approximately 2,400 and 8,300 square feet respectively at street level. A pedestrian bridge connection over 7<sup>th</sup> Street to 600 Canal Place, is envisioned for the Dominion downtown campus and was approved under UDC 2016-36.

The project will be privately funded, with construction, if approved, estimated to begin in - 2019 with substantial completion anticipated approximately three years after the start of construction.

**2. EXISTING VEGETATION AND TOPOGRAPHY**

Vegetation: There are existing street trees located within the right-of-way.

Topography: The Site is generally sloping from the north to the south. There is a 16 foot drop in elevation from the East Cary and South 7<sup>th</sup> Street intersection to the East Canal and South 8<sup>th</sup> Street intersection. East Cary and South 7<sup>th</sup> Streets are generally sloping at 3%-6% towards the south, East Canal and South 8<sup>th</sup> Streets are generally .5%-2%. Drainage is conveyed to existing curb inlets within the Right-Of-Way.

**3. EXISTING SITE CONDITIONS**

The site is currently developed as One James River Plaza, which, if the proposed project moves forward will be demolished. One James River Plaza is a 21-story office building, fronting East Canal and East Cary Streets, along with portions of South 7<sup>th</sup> and South 8<sup>th</sup> Streets. There is also a 3-story below grade parking deck located under the entire city block, which is accessed from South 8<sup>th</sup> Street with an egress ramp to South 7<sup>th</sup> Street. There are existing street trees and concrete sidewalks within the City Right-Of-Way, overland drainage is conveyed to existing inlets within the Right-of-Way. City streetlight and Traffic signal mast arms at South 7<sup>th</sup> and East Cary Streets, South 8<sup>th</sup> and East Cary Streets and South 8<sup>th</sup> and East Canal Streets are also present on site. On-street parking is permitted on South 7<sup>th</sup> and East Cary Streets, with metered parking.

Across East Canal Street to the south is Kanawha Plaza and the downtown expressway. A concrete sidewalk with recently planted street trees are present within the Right-of-Way.

Across South 7<sup>th</sup> Street to the west is 600 Canal Place, which is currently under construction and is the first phase of Dominion's new downtown campus. Concrete and paver sidewalks,



City streetlight and street trees with on street metered parking will be present within the Right-of-Way when construction is complete.

Across East Cary Street to the north is surface parking and a parking deck. Concrete sidewalk with City streetlight, on street metered parking and mature street trees are present within the Right-of-Way.

Across South 8<sup>th</sup> Street to the east is the Gateway Plaza building and surface parking. Concrete sidewalk with City streetlight, on street metered parking and street trees are present within the Right-of-Way.

#### **4. PROPOSED SITE IMPROVEMENTS**

700 Canal Place as envisioned proposes a new office tower encompassing a full block of improvements. Improvements include the development of a new streetscape, entry plaza, 4-levels of below grade parking, several podium levels and a 17-story office tower and a roof garden located on top of the podium level.

Garage entries will be located on Cary and 7<sup>th</sup> Streets. The building loading and service docks will be accessed from 8<sup>th</sup> Street. The loading service dock will include 3-loading bays and 1-compactor bay. A lay-by auto drop-off is proposed at the tower entry along 8<sup>th</sup> Street. The lay-by drop-off will be flush with the adjacent sidewalk and building and will be separated with a row of bollards.

Streetscape improvements anticipate new curb lines for all streets, with a re-alignment of the right turn lane on East Canal with tighter radii being provided at intersections for enhanced pedestrian safety. On-street parking will be maintained along Cary and South 7<sup>th</sup> Streets during non-peak periods. The pedestrian realm will include a clearly identified amenity zone that includes special paving, street trees in planting, street lights, pedestrian scale lighting and some planting at various locations around the building perimeter.

The building lobby is located at the south east corner of the block along 8<sup>th</sup> Street. The lobby entry faces Canal Street and can be accessed by either a set of stairs or an accessible walk.

The amenity deck or roof garden anticipates a modest program to include outdoor dining, pathway system with plantings to include trees, shrubs, grasses and ground covers. The perimeter of the roof garden will be held by a low parapet wall with guard rail. Low level lighting is anticipated at the key gathering locations and along the primary and exiting routes.

Hardscape materials anticipate stone at the building lobby entry, concrete unit pavers near the lay-by and along the tower lobby space and secondary entry along 7<sup>th</sup> Street. The streetscape perimeter anticipates the use of some concrete unit pavers and concrete paving. The building entries for the parking garage and loading service docks will be a thickened concrete paved surface with painted bollards at key locations.

Additional site amenities will include fixed and flexible seating depending on the location.



**5. PROPOSED ENCROACHMENTS ON THE PUBLIC RIGHT-OF-WAY**

In connection with the development of the Building Site, the Applicant is seeking City approval of various right-of-way encroachments that will enhance the accessibility, traffic, pedestrian flow and aesthetic nature of the project. Generally, the 700 Canal Place encroachments include site hardscaping, site walls, landscaping, lighting, bollards and egress door swings. Detailed descriptions of the encroachments is attached hereto as “**Exhibit A – Encroachment Descriptions**”. The materials specified are identical to the materials approved by the Urban Design Committee and the Department of Public Works for 600 Canal Place (Tower 1).

**6. PLANTING MATERIALS**

It is anticipated that a combination of natives and adaptive trees, shrubs, grasses and ground covers will be used for the streetscape improvements, building perimeter and roof garden amenity deck.

The streetscape will be planted with street trees and ground cover. The building perimeter planting will include a mixture of shrubs, perennials and ground covers of various container sizes. Plant material at grade will be placed in a premium topsoil mix. Plants on planting palette will be selected considering existing and proposed plants for the Gateway and Kanawha Plazas. Selected plants will be the same if not similar (in height, form or color) to establish relationship and visual contiguity between the Dominion Workplace streetscape and adjacent plazas.

The roof garden amenity deck will be planted with trees anchored to the structure, shrubs, grasses and perennials. The roof garden amenity deck planting will be planted in a light-weight soil system.

Plant materials have been preliminarily selected utilizing the City of Richmond Urban Design Guidelines, Appendix 5, adopted in December of 2011 and the Native Plants for Northern Virginia a reference prepared by plantnovanative.org.

**7. LANDSCAPE IRRIGATION**

An automatic controlled irrigation system will be utilized to water the plant material on grade and at the roof garden amenity level. It is anticipated that a mixture of bubblers for trees and drip irrigation with sensors in planting beds. The roof garden will be irrigated utilizing a drip irrigation system that will be zoned by plant species.

**8. PROPOSED CONTOURS / DRAINAGE**

The proposed grades will follow existing road grades and match existing drainage patterns to the maximum extent possible. Streetscape areas will be graded to drain away from the building in all areas, drainage will be conveyed to inlets within the Right-of-Way and on-site yard drains.



9. **STREETLIGHT**

Initial design intent for this project was to provide a full LED lit streetscape, however during POD review the City of Richmond DPU Streetlight Division indicated we must use City standard HPS cobrahead fixtures. Extensive coordination was conducted with the streetlight division to allow an all LED streetscape, ultimately culminating in a meeting on July 8, 2016 with the Director and Operations Manager. During the meeting it was confirmed that this project will be required to provide City standard cobrahead fixtures for street lighting with the division allowing smaller pedestrian scale LED fixtures.

Based on our coordination efforts streetlight for this project will consist of City standard HPS cobrahead fixtures on City standard aluminum poles, to be maintained by City of Richmond. Additional pedestrian scale lighting for sidewalk areas will be provided by a Bega 77954 LED fixture mounted on a 15' pole, to be maintained by Dominion. The lighting design for this project will mimic the installed lighting at the 600 Canal Place and the Gateway Plaza building, which includes a City cobra head and a Bega LED pedestrian fixture. LED fixtures will have a color temperature of no greater than 3,000K.

Respectfully submitted,



Brian K. Jackson



# 700 CANAL PLACE

## EXHIBIT A

### ENCROACHMENT DESCRIPTIONS

Page 1

700 Canal Place encroachments include site hardscaping, seat walls, stairs, landscaping, lighting, bollards and door swings. The materials specified are identical to the materials approved by the Urban Design Committee and the Department of Public Works for 600 Canal Place (Tower 1).

#### 1. Hardscaping

Hardscaping will consist of eight (8) paving materials, per the included site materials palette and hardscape encroachment drawings. Hardscape encroachments will consist of the following:

Encroachment 1 – Vehicular Colored Concrete: Provided within the lay-by drop-off along S. 8<sup>th</sup> Street and will consist of a thickened reinforced pavement section. There will be 624.83 square feet of vehicular colored concrete.

Encroachment 2 – Natural Gray Concrete: Provided at entries to the parking garage and loading docks, installed per City standards, a CG-9D entry with pedestrian zone. There will be 1,488.81 square feet of CG-9D.

Encroachment 3 – Stone Header Course: Provided as a visual separation between pavers along Canal Street header course will consist of granite stone pavers and installed on a reinforced concrete base. There will be 38.67 square feet of stone header course.

Encroachment 4 – Stone Pavers: Provided at the main entry to the building the pavers will consist of pietra cardosa granite stone pavers. Pavers will be dark grey in color and installed on a reinforced concrete base. There will be 1160.24 square feet of stone pavers.

Encroachment 5 – Concrete Unit Pavers: Provided along 7<sup>th</sup>, Canal and 8<sup>th</sup> Streets extending north to the parking garage and loading entries. The unit paver will consist of a Hanover architectural concrete prest paver, in a dark grey color, to be installed on a reinforced concrete base. There will be 5,548.62 square feet of concrete unit pavers.

Encroachment 6 – Colored Concrete Sidewalk: Provided north of the 7<sup>th</sup> Street parking garage and 8<sup>th</sup> Street loading entry the concrete will be an integral colored concrete with selected color Scofield Chromix C-24 Charcoal, the concrete section will be 5" thick. There will be 4036.39 square feet of colored concrete sidewalk.

Encroachment 7 – Concrete ADA ramp: Provided at each roadway crossing per VDOT standards. There will be 422.27 square feet of ADA ramps.

Encroachment 8 – Detectable Warning Plate: Provided at ADA ramps at each roadway crossing consisting of Neenah Foundry cast iron plates or Hanover detectable warning pavers, there will be 67.88 square feet of detectable warning plates.



**2.     Seat Walls**

Seat walls will be provided along Canal Street and at the northwest corner of the site at the Cary & 8<sup>th</sup> Street intersection. The seat walls are being installed to provide separation from the public walk and Dominion plaza, and makeup grade from the adjacent street to the building. The seat walls will be granite stone cladding. Seat wall locations can be found on the encroachment drawing.

**3.     Stairs**

Seat walls will be provided along Canal Street to provide separation from the public walk and Dominion plaza, and makeup grade from the adjacent street to the building. The stairs will be granite stone and are denoted as Encroachment 9. There will be 30.13 square feet of stair, locations can be found on the hardscape encroachment drawing.

**4.     Landscaping**

Street trees and groundcover plantings will be provided within the right-of-way. There will be a total of 28 street trees, the species will be swamp white oak. Within the planting beds, beneath the street trees, groundcover will be provided using dwarf mondo grass, there will be 2,892.00 square feet of planting as shown on the hardscape encroachment drawing. Additionally, trees and planting will be installed along Canal Street between the public walk and Dominion plaza. Tree planting areas will consist of a planting soil mix and will be irrigated with two bubblers per tree. Tree and bubbler locations are shown on the planting palette and irrigation diagram respectively.

**5.     Street Lights**

Streetlight and pedestrian scale lighting and tree up-lighting will be installed within the right-of-way. Streetlight will meet City DPU standards, and consist of a cobrahead fixture mounted at 30' on an aluminum pole. A total of 8 streetlights will be provided with this project. Pedestrian scale lighting will consist of a Bega 77954 on a 15' pole, lighting will be provided along each adjacent Street. A total of 11 pedestrian lights will be installed with this project, specific locations of the lights can be found on the included lighting plan and encroachment drawing. Tree up-lighting will be provided by BK lightings Delta Star fixture, and will be provided at each tree within the right-of-way. A total of 28 tree up-lights will be provided.

**6.     Bollards**

Bollards will be installed adjacent to the drop off loop along 8<sup>th</sup> Street to provide pedestrian protection. Calpipe stainless steel bollards in brushed finish and Forms+Surfaces light column lighted bollards will be provided, bollards will be K4 rated. Four of each type of bollard will be installed, specific locations of the bollards can be found on the encroachment drawing.

**7.     Doors**

Doors for code required building egress will encroach into the right-of-way along 7<sup>th</sup> and Cary Streets. Door encroachments will allow for continued pedestrian movement along the adjacent sidewalks. The specific locations of the door swing encroachments are denoted on the encroachment drawing.

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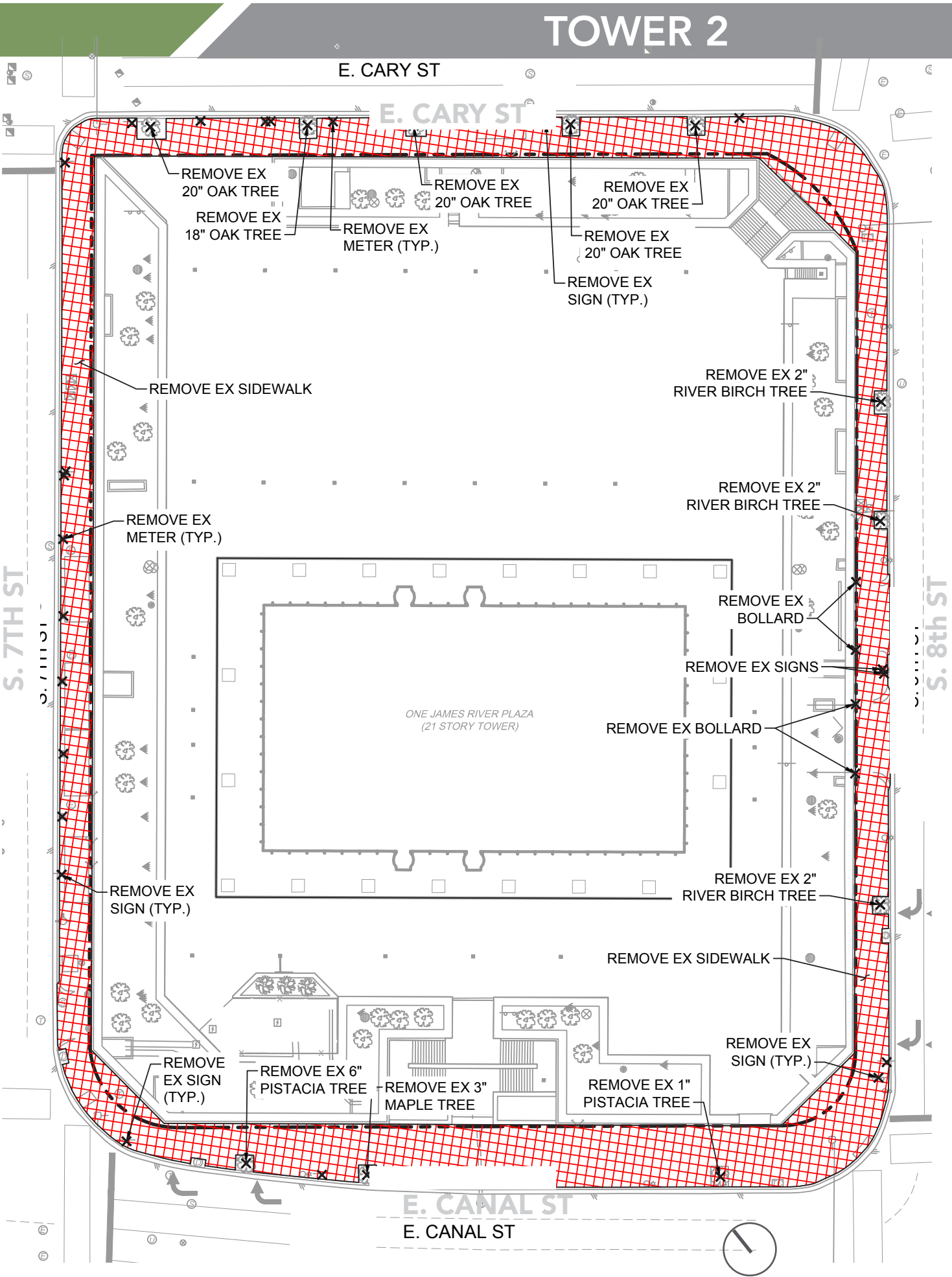


DEMO PLAN

- 

**PEDESTRIAN PAVING**  
GRANITE STONE PAVERS
- 

**ELEMENTS TO BE REMOVED**  
GRANITE STONE TREADS AND RISERS WITH HANDRAIL

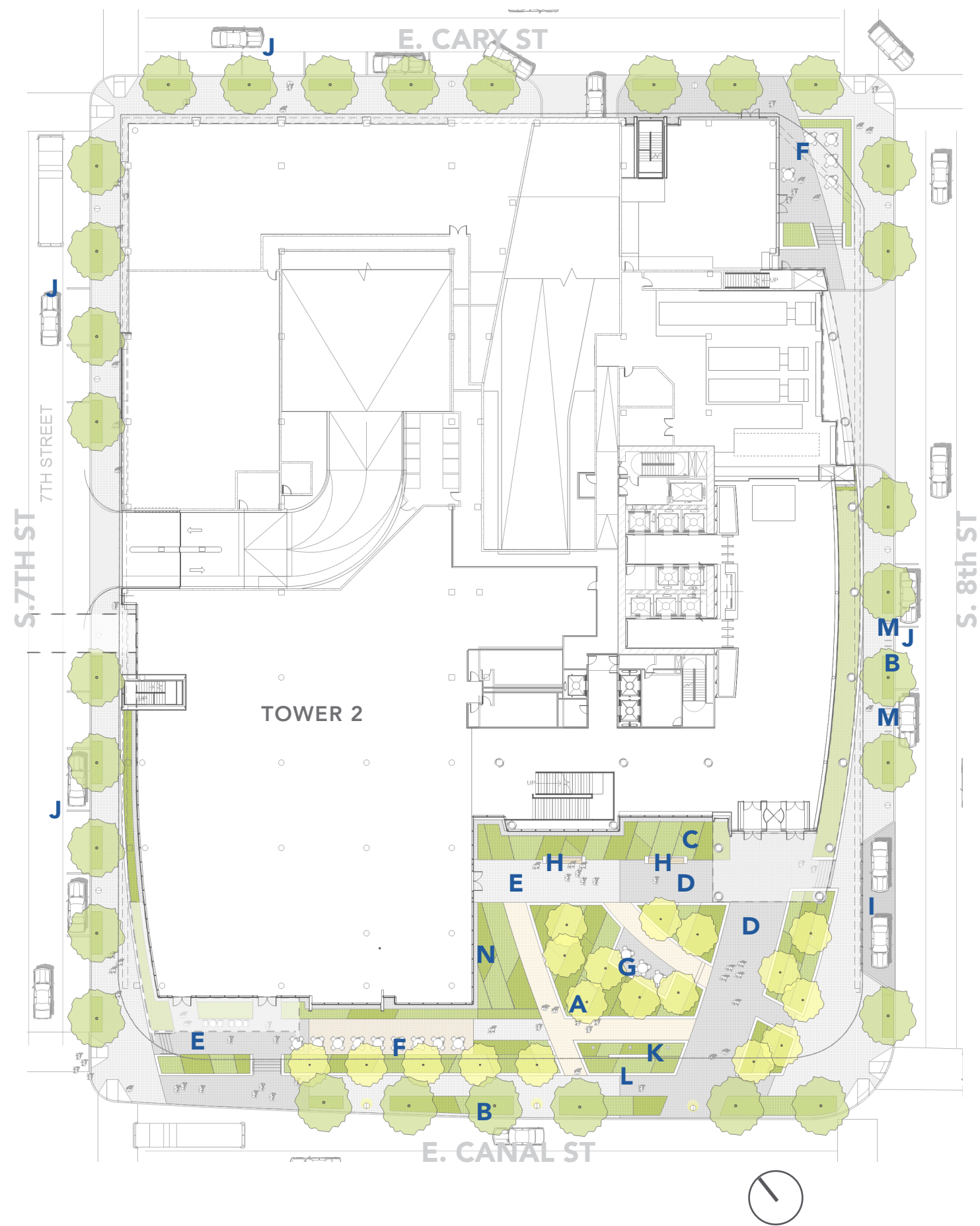




# SITE PLAN

# TOWER 2

- A** CANOPY TREES
- B** STREET TREES
- C** ORNAMENTAL PLANTING
- D** STONE PAVING
- E** CONCRETE UNIT PAVING
- F** DINING TERRACE
- G** MOVABLE SEATING
- H** SEAT WALL
- I** LAY-BY DROP-OFF
- J** ON-STREET PARKING
- K** FLAG POLES
- L** MONUMENT SIGN
- M** BIKE PARKING - 10 RACKS
- N** HERB GARDEN

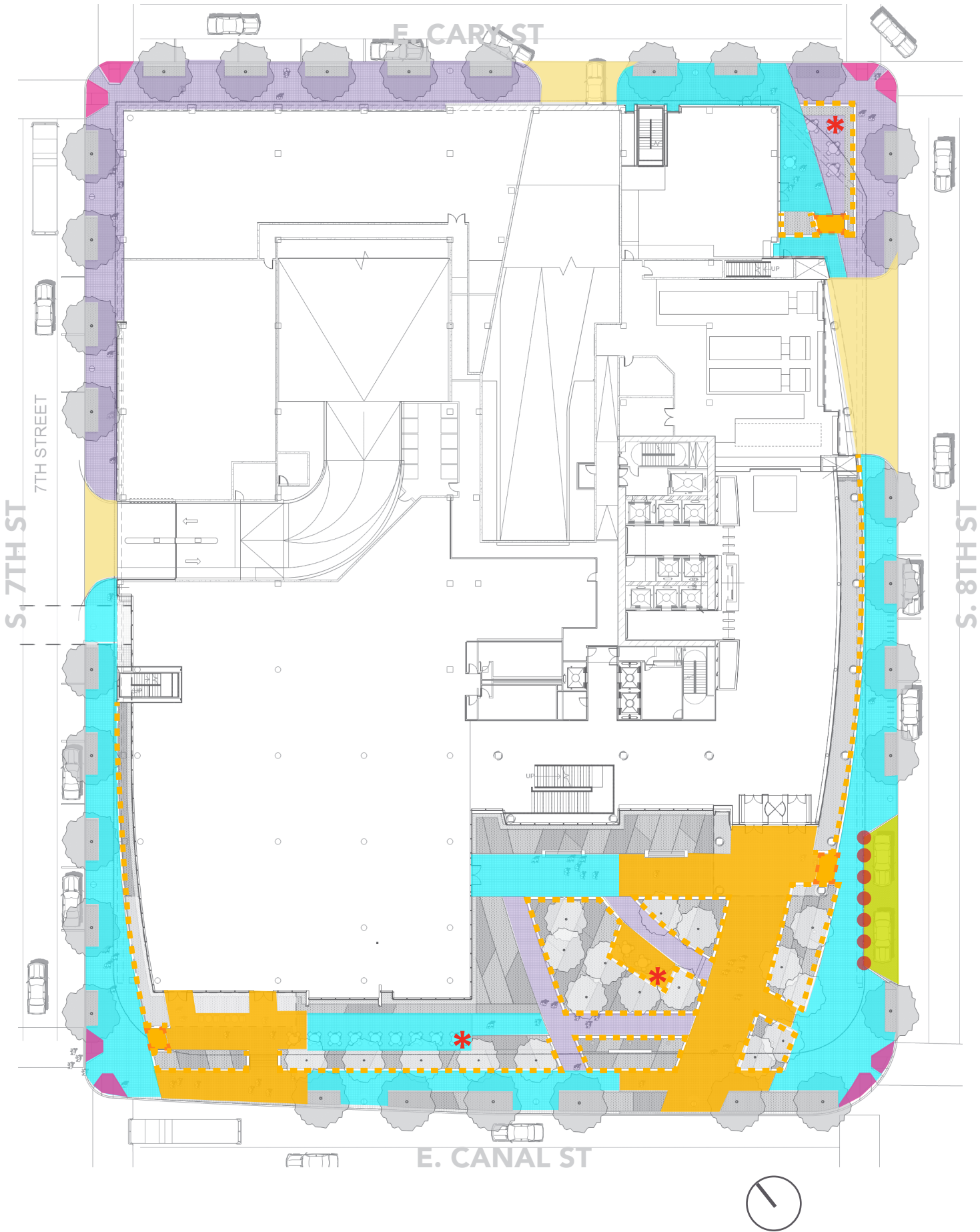




SITE MATERIALS PALETTE

TOWER 2





- GRANITE STONE PAVERS
- STAIRS  
GRANITE STONE TREADS AND RISERS WITH HANDRAIL
- RAMP  
GRANITE STONE PAVERS
- WALL  
CLAD IN GRANITE STONE
- CONCRETE UNIT PAVERS
- COLORED CONCRETE 1
- COLORED CONCRETE 2
- NATURAL GRAY CONCRETE
- CURB RAMP WITH DETECTABLE WARNING PAVERS  
CITY STANDARD RAMP
- BOLLARD
- LITTER RECEPTACLE





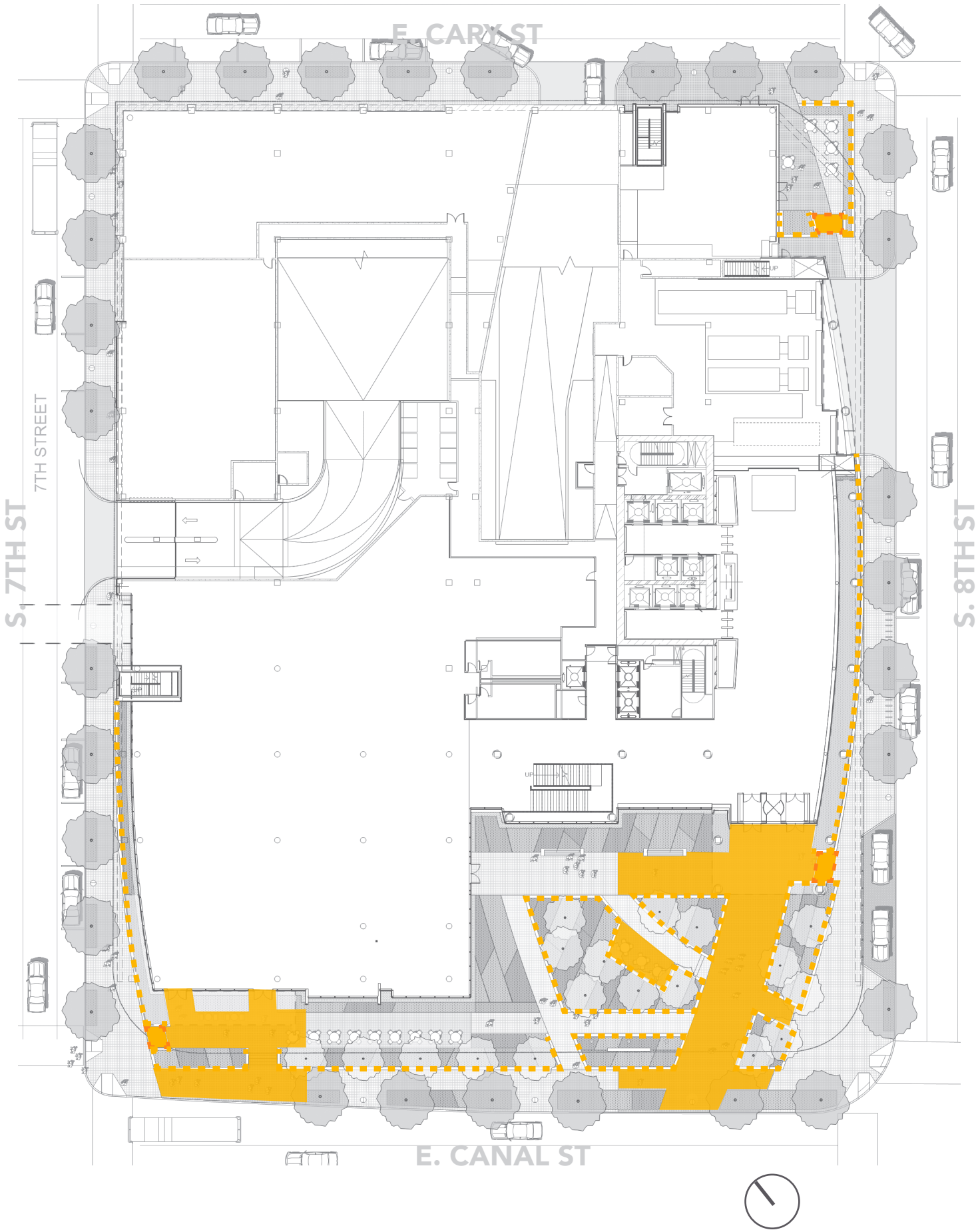
# SITE MATERIALS PALETTE

# TOWER 2

-  **GRANITE STONE PAVERS**
-  **STAIRS**  
GRANITE STONE TREADS AND RISERS WITH HANDRAIL
-  **RAMP**  
GRANITE STONE PAVERS
-  **WALL**  
CLAD IN GRANITE STONE



- PIETRA CARDOSA GRANITE STONE OR TO MATCH ARCHITECTURE INTERIOR PAVING
- DARK GRAY IN COLOR
- TEXTURED, DIAMOND FINISH
- FINISH TO BE SLIP-RESISTANT
- MODULE TO MATCH 30" X 60" INTERIOR PAVING
- SIZE OPTIONS:
  - 7-1/2" X 15"
  - 15" X 30"

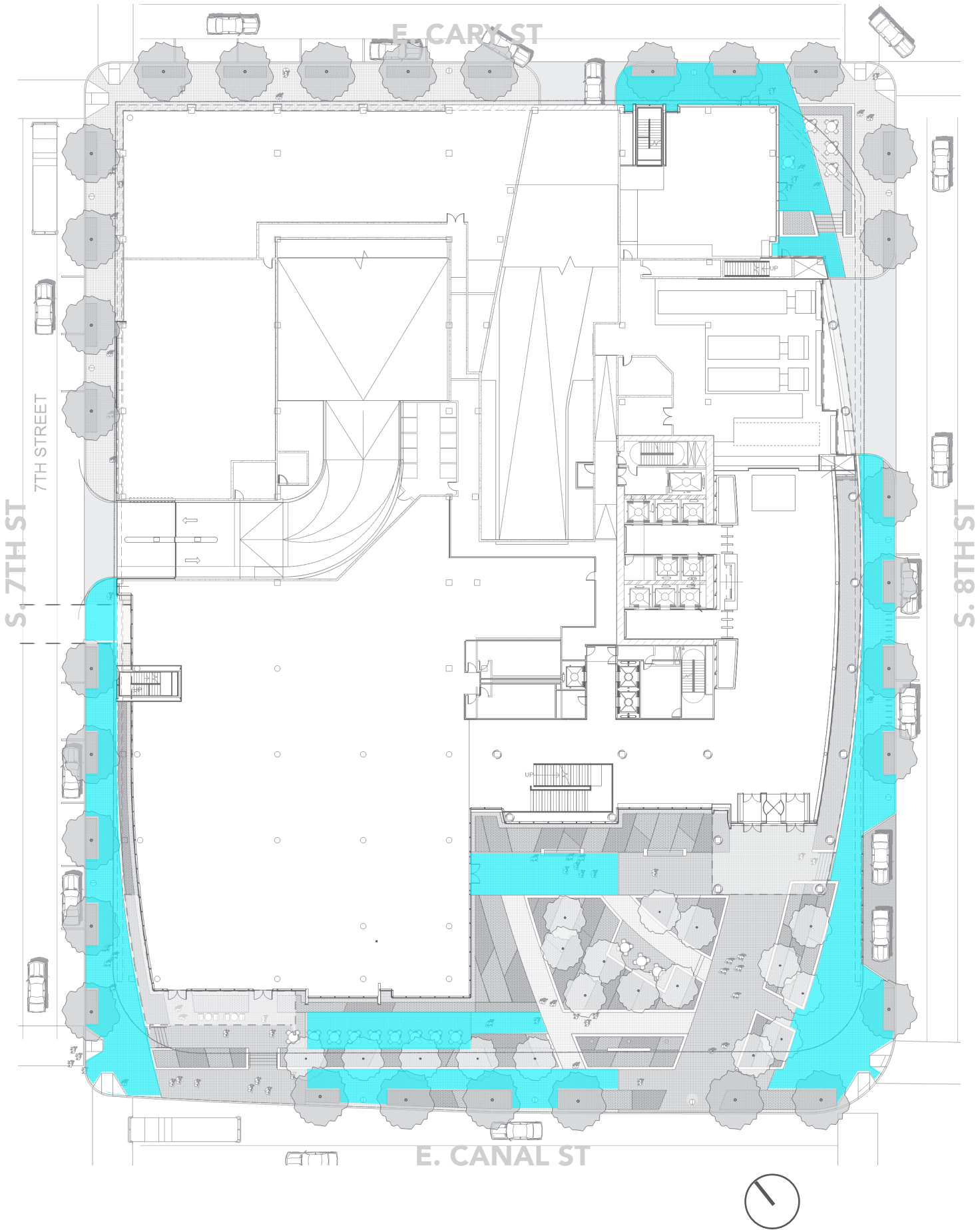




CONCRETE UNIT PAVERS



- HANOVER ARCHITECTURAL PREST PAVERS
- COLORS TO MATCH OR COMPLEMENT ARCHITECTURE INTERIOR PAVING (DARK GRAY)
- TUDOR FINISH
- MODULE TO MATCH 30" X 60" INTERIOR PAVING
- SIZE OPTIONS:
  - 4" X 6"
  - 5" X 12"
  - 6" X 6"
  - 12" X 12"
  - 15" X 15"
  - 30" X 30"





# SITE MATERIALS PALETTE

# TOWER 2



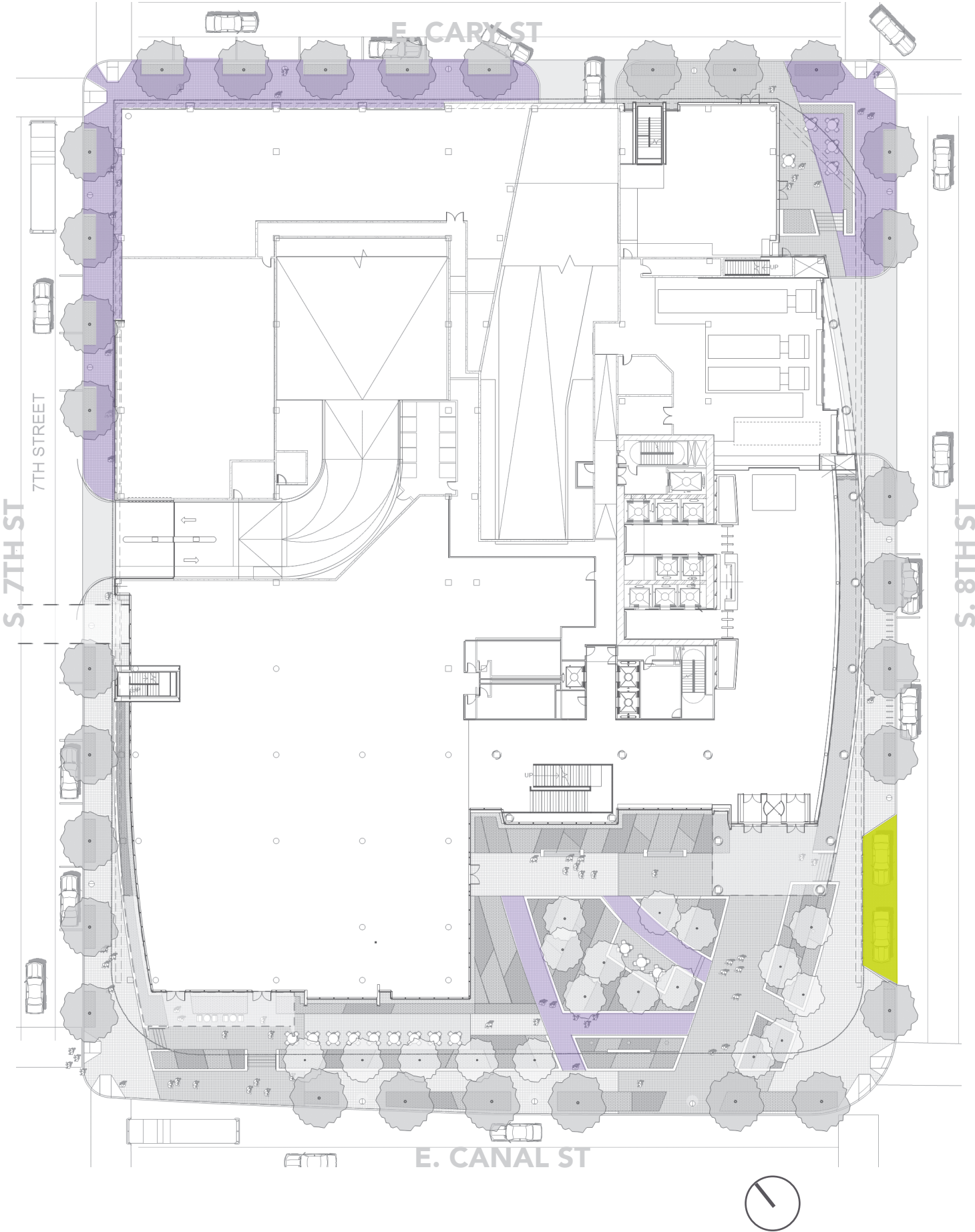
VEHICULAR RATED COLORED CONCRETE



PEDESTRIAN RATED COLORED CONCRETE



- SCOFIELD CHROMIX COLOR C-24 CHARCOAL
- BROOM FINISH
- EXPANSION JOINTS AND CONTROL JOINT / SCORING BASED ON ARCHITECTURE





# SITE MATERIALS PALETTE

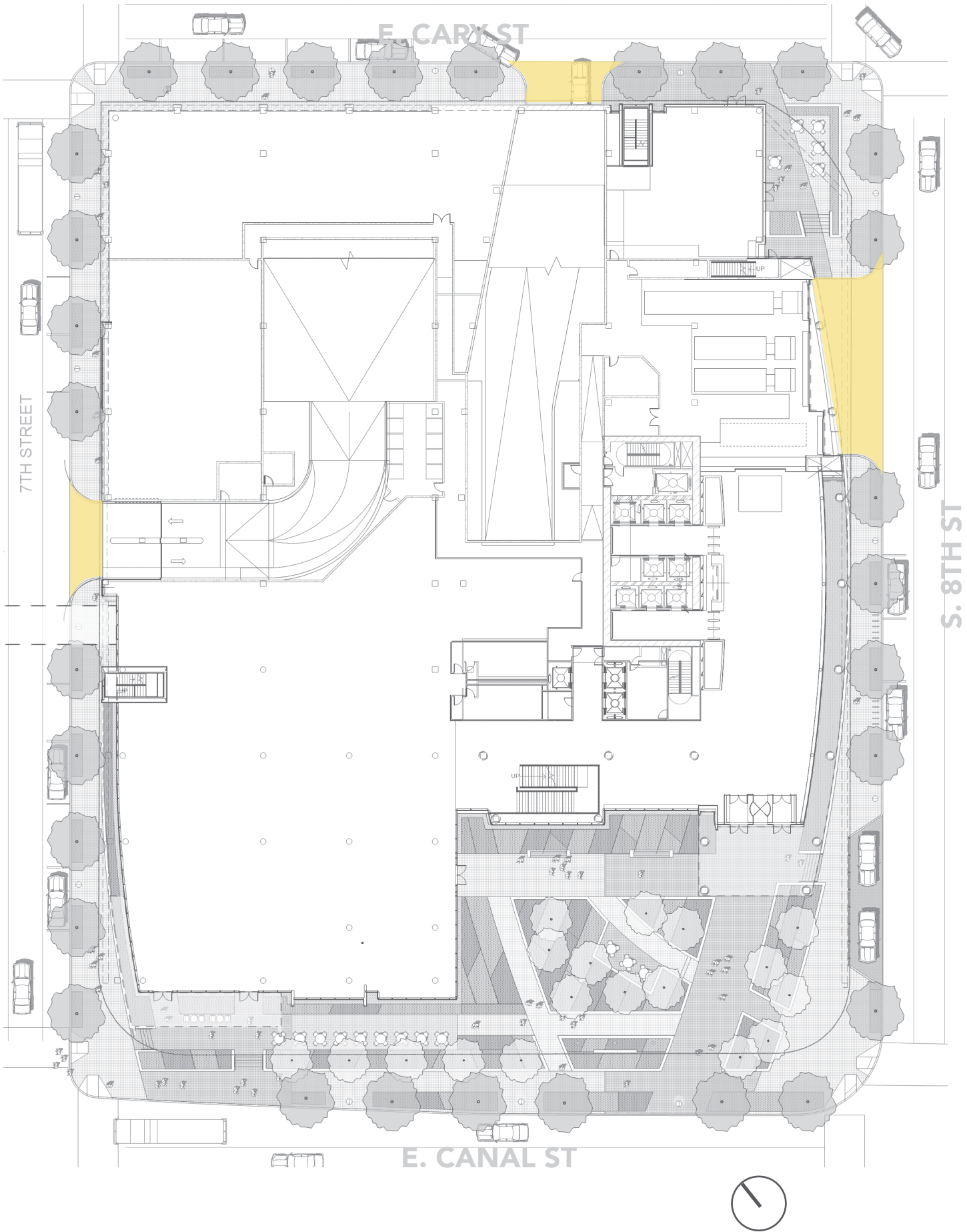
# TOWER 2



NATURAL GRAY CONCRETE



- BROOM FINISH
- EXPANSION JOINTS AND CONTROL JOINT / SCORING BASED ON ARCHITECTURE

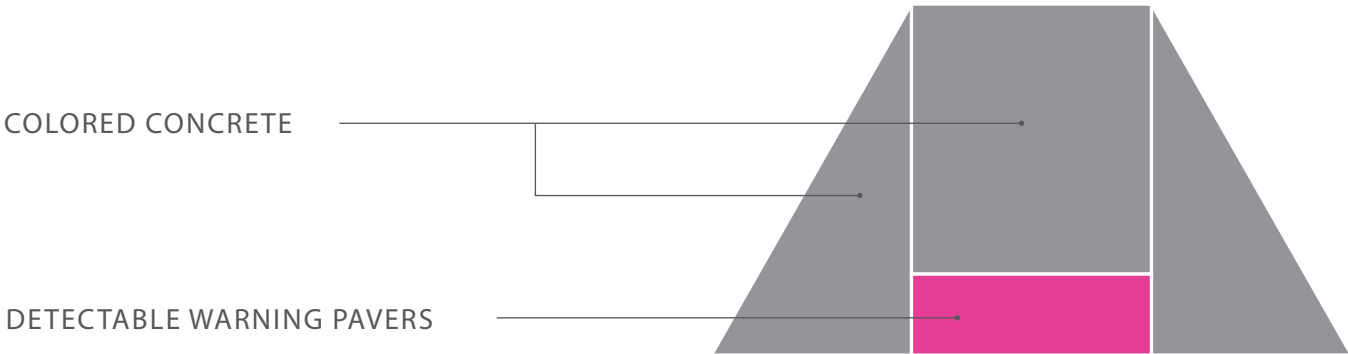




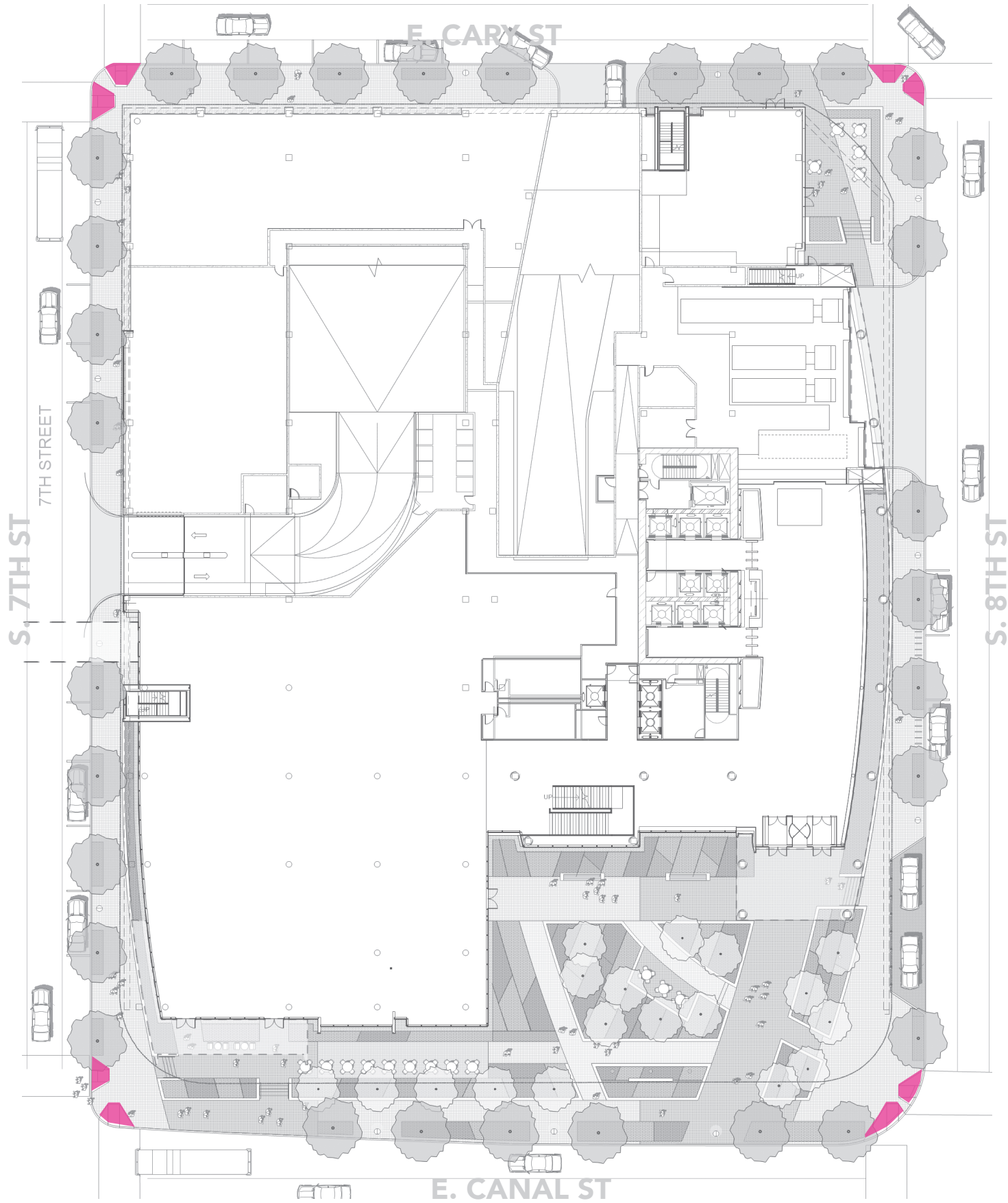
# SITE MATERIALS PALETTE

# TOWER 2

**DETECTABLE WARNING PAVERS**  
CAST IRON DETECTABLE WARNING PLATE OR PAVER



- COLORED CONCRETE RAMP WITH DETECTABLE WARNING PLATE OR PAVER BASED ON CITY OF RICHMOND STANDARD
- BROOM FINISH
- EXPANSION JOINTS AND CONTROL JOINT / SCORING BASED ON ARCHITECTURE





- BOLLARD
- ✱ LITTER + RECYCLING RECEPTACLES



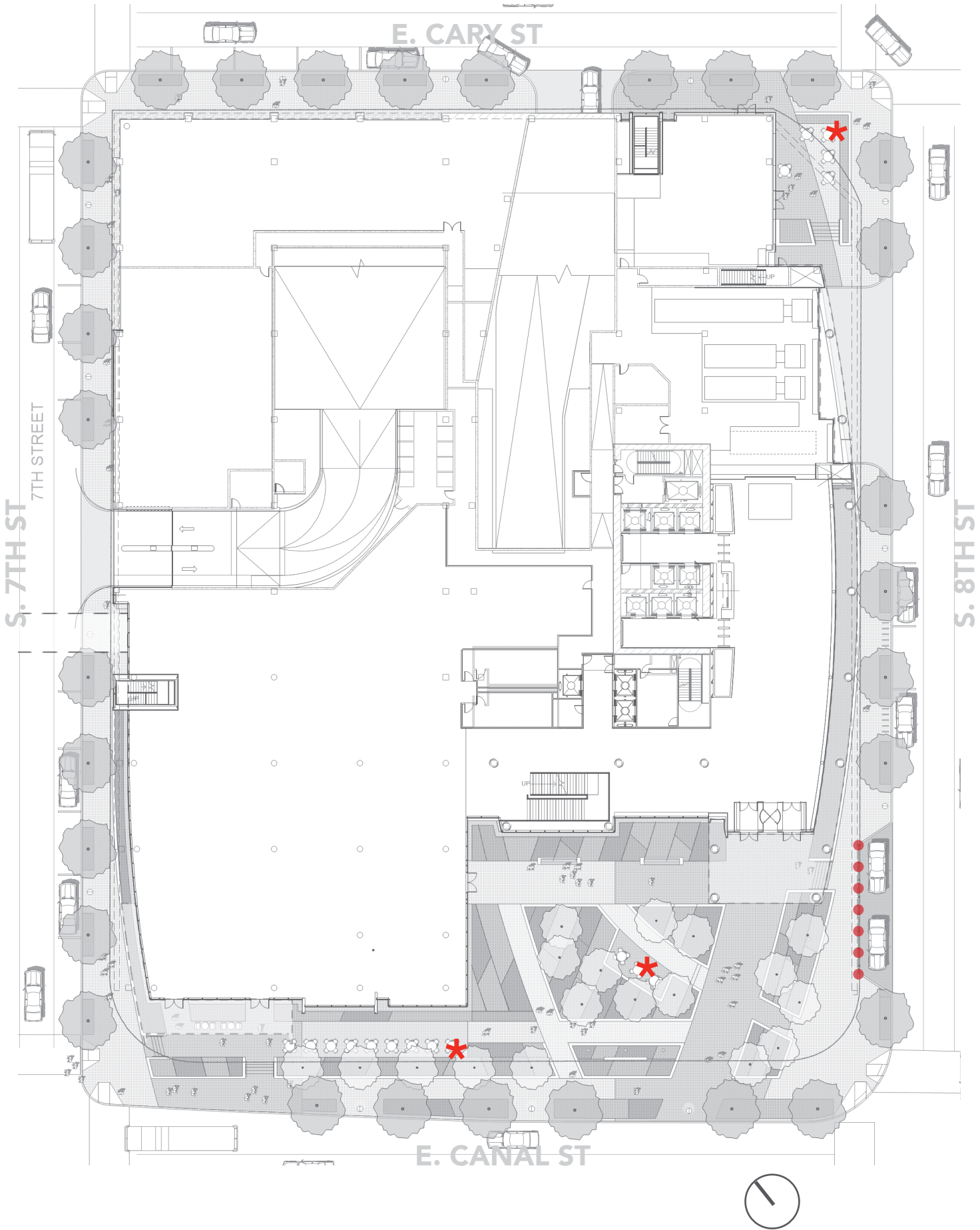
**CALPIPE STAINLESS STEEL BOLLARD**

- BRUSHED STAINLESS STEEL FINISH
- K8 RATED

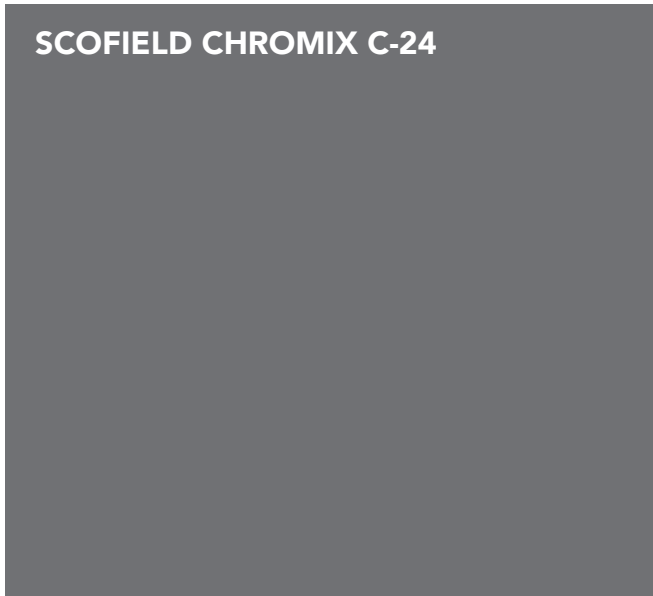


**LANDSCAPE FORMS STEELY CAN**

- BRUSHED STAINLESS STEEL FINISH
- SIDE OPENINGS







**GRANITE PAVERS**

Colored concrete with locally seeded aggregate, reinforced with sawcut pattern or per plan.

**CONCRETE UNIT PAVERS**

Concrete unit pavers sand set on concrete base.

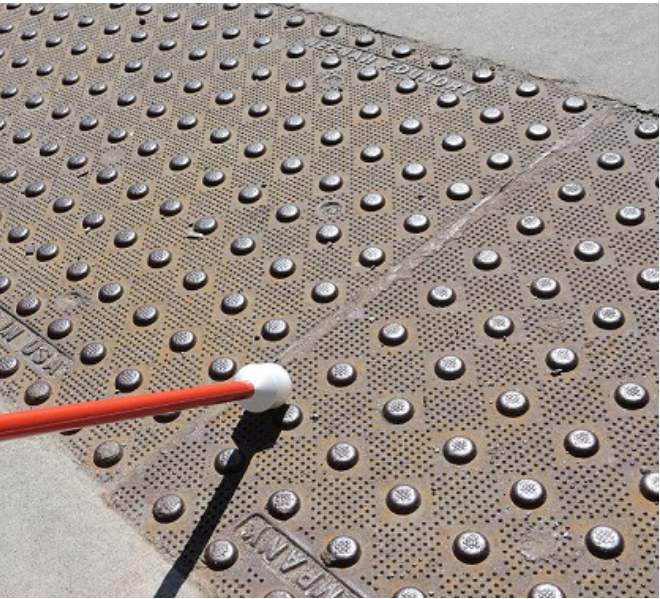
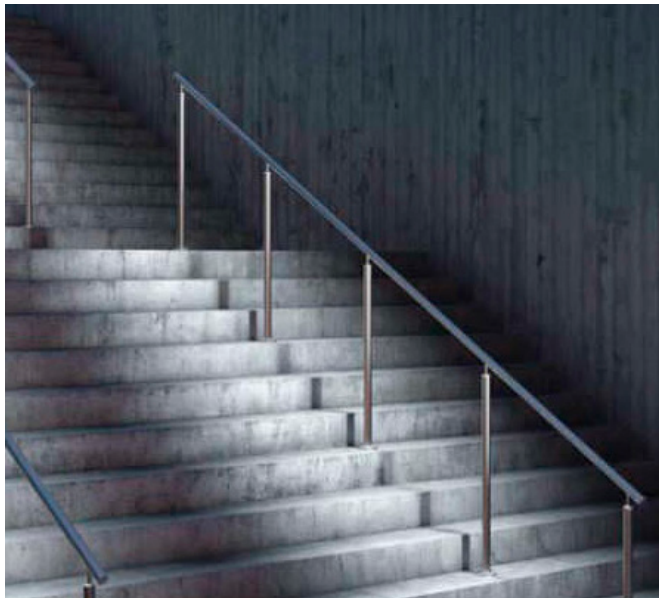
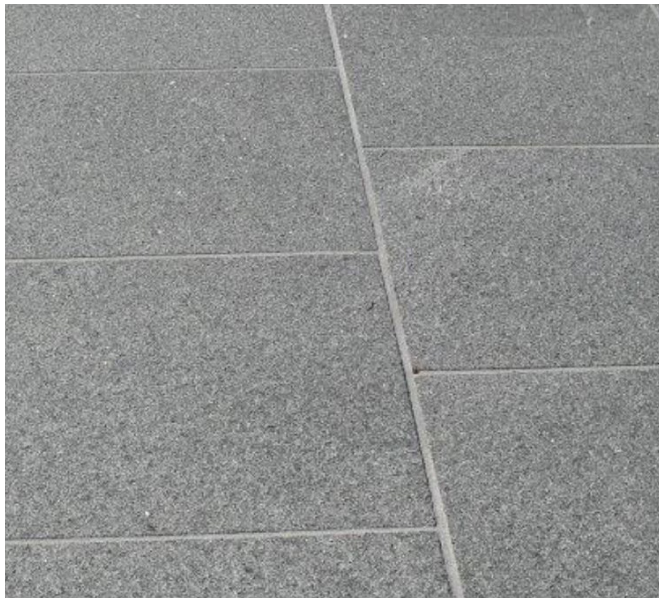
**INTEGRAL COLORED CONCRETE**

Colored concrete with locally seeded aggregate, reinforced with sawcut pattern or per plan.

**NATURAL GRAY CONCRETE**

Light Broom finish. Sawcut control joints.





**STAIRS WITH HANDRAIL**

Granite stone tread and stone riser cladding, mortar set with handrails.

**RAMP**

Granite stone pavers to match architecture interior paving module.

**SECURITY BOLLARD**

Calpipe K8 rated bollard. Brushed stainless steel.

**DETECTABLE WARNING PAVERS**

Neenah Foundry cast iron detectable warning plates or Hanover detectable warning pavers.



DOMINION RESOURCE  
Owner

**HOURIGAN | CLAYCO**  
Design-Build Contractor

**PICKARD CHILTON ARCHITECTS INC.**  
Design Architect

**PLANNING DESIGN RESEARCH CORP.**  
Interior Design Architect

**KENDALL/HEATON ASSOCIATES, INC.**  
Architect Of Record

**THE OFFICE OF JAMES BURNET**  
Landscape Architecture

**MAGNUSSON KLEMENCIC ASSOCIATE**  
Structural Engineer

**ALVINE ENGINEERING**  
Mechanical, Electrical, Plumbing, Fire Protection  
& Building Management & Control Systems

CLINE BETTRIDGE BERNSTEIN

## Architectural Lighting Design

Civil Engineer

Security &amp; Parking Systems Consultant

**FACADE ACCESS CONSULTING**  
Building Maintenance Access Consulta

**CERAMI & ASSOCIATES**  
Audiovisual, Information Technology & Acoustics

[illegible]

## HARDSCAPE ENCROACHMENT

KHA PROJECT NO. <b>17005</b>	DRAWING NUMBER
------------------------------	----------------

700 CANAL PLACE  
C8.01







# PLANTING PALETTE

# TOWER 2



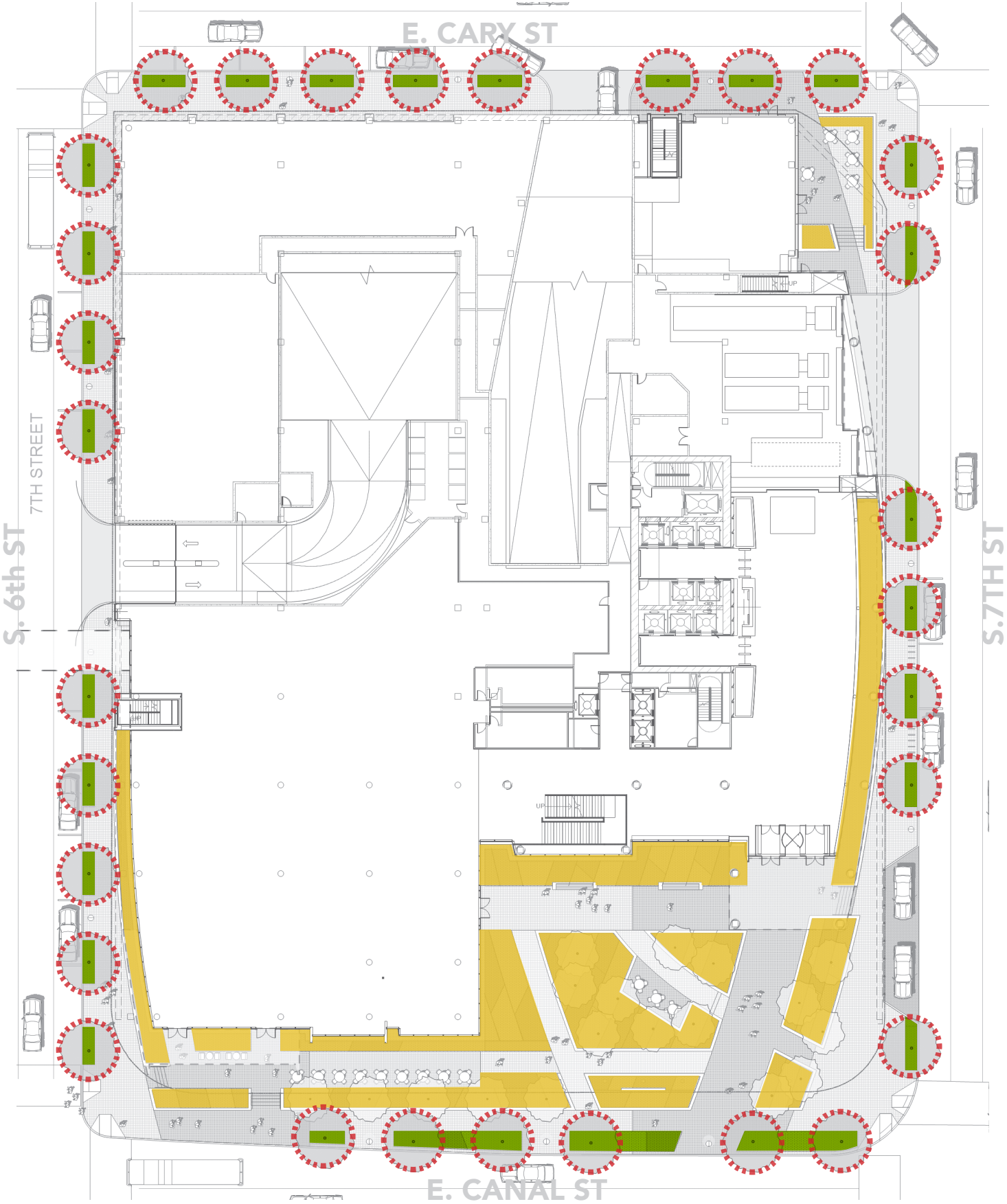
STREET TREES



ORNAMENTAL PLANTING AREA A  
BENEATH STREET TREES



ORNAMENTAL PLANTING AREA B  
MAIN ENTRANCE, SOUTH PERIMETER OF BUILDING, NORTH RETAIL





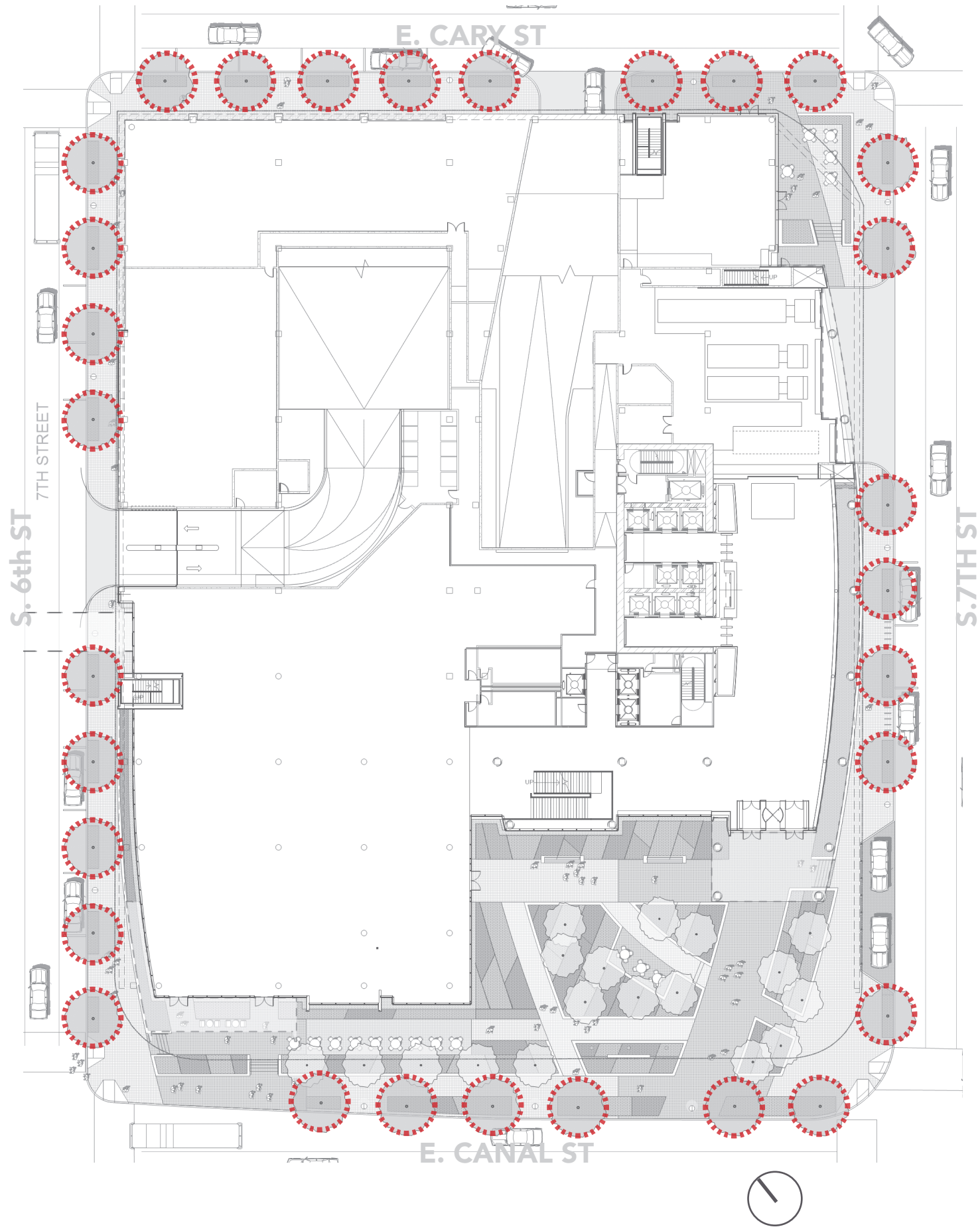
PLANTING PALETTE

TOWER 2

 STREET TREES



Nuttall Oak  
*Quercus nuttallii*  
30 total





PLANTING PALETTE

TOWER 2

ORNAMENTAL PLANTING AREA A  
BENEATH STREET TREES



Pachysandra, Gro-low sumac or similar low groundcover

Rhus aromatica 'Gro-low'

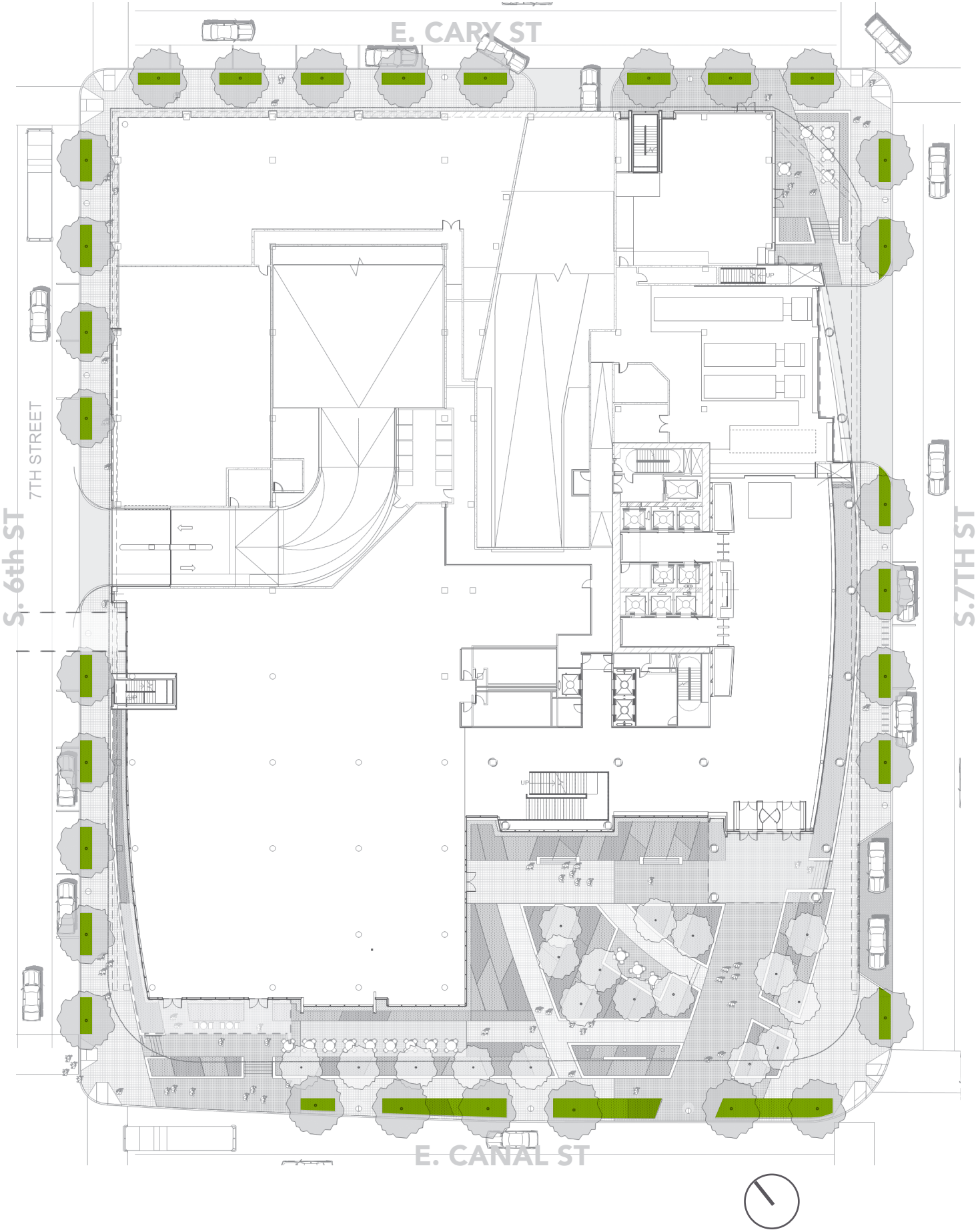
Pachysandra sp.

Liriope

Cotoneaster sp.

Euonymus sp.

Height 12-18"





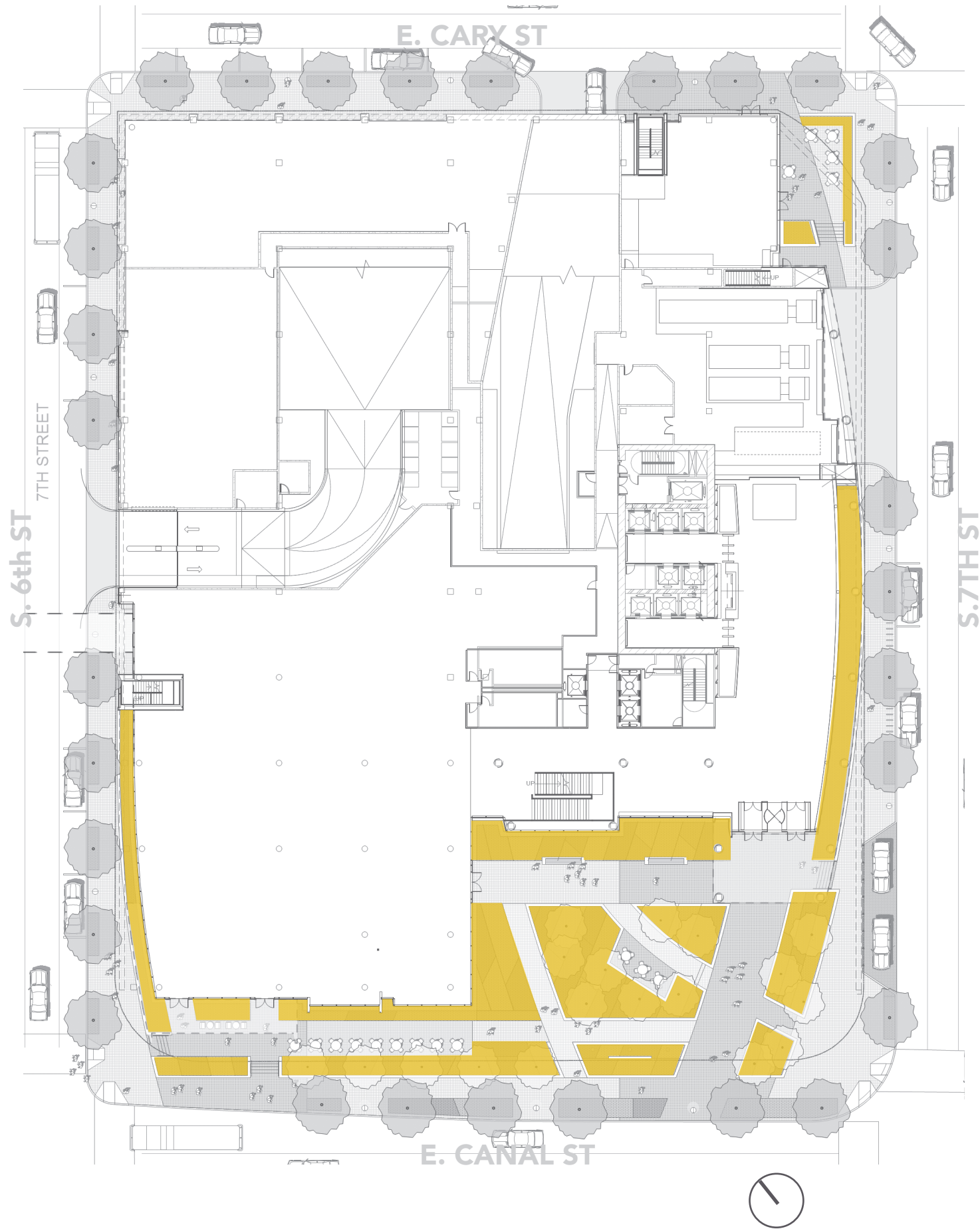
# PLANTING PALETTE

# TOWER 2

**ORNAMENTAL PLANTING AREA B**  
MAIN ENTRANCE, SOUTH PERIMETER OF BUILDING, NORTH RETAIL

**ORNAMENTAL GRASSES, SHRUBS AND  
GROUNDCOVERS**  
Height 24" to 36"

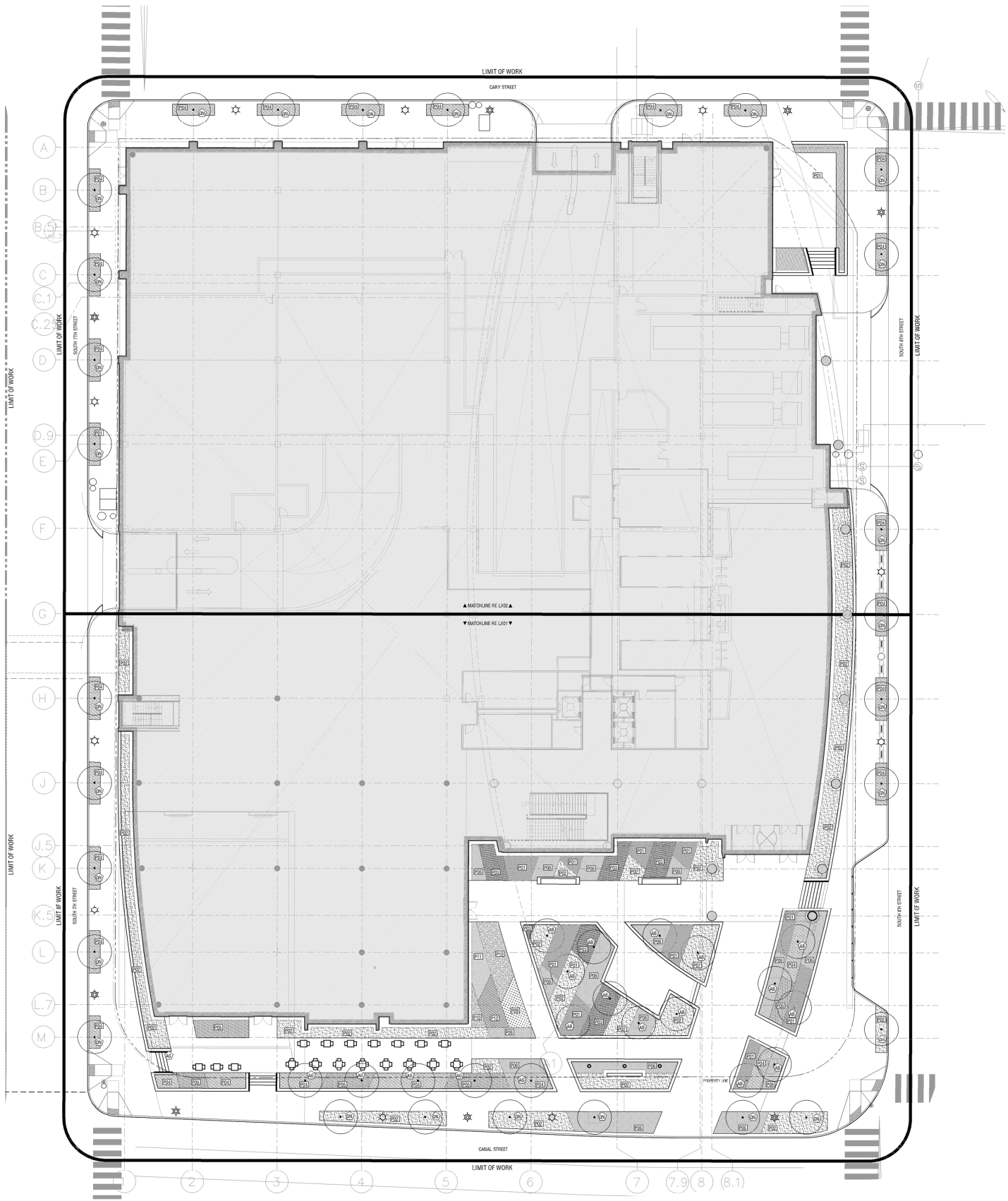
- Plants will be selected in consideration of -
- Security, height
  - Visual interest
  - Texture
  - Seasonal color, blooms
  - Deep shade conditions at sunken garden





PLANTING PALETTE

TOWER 2



TREE SCHEDULE

TREES									
CODE	SYMBOL	BOTANICAL NAME / COMMON NAME	CONTAINER	CALIPER	HEIGHT	SPREAD	REQUIRED	COMMENTS	
ON		NUTTALL OAK QUERCUS NUTTALLI	200 GAL	5" CALIPER	25'	10'	STRONG CENTRAL LEADER, 7' CLEAR HEIGHT FROM MEASURED GRADE	SOURCE ALL TREES FROM SAME SUPPLIER FOR CONSISTENCY. LANDSCAPE ARCHITECT TO REVIEW, APPROVE AND TAG TREES IN FIELD PRIOR TO SHIPMENT. LOCATIONS TO BE STAKED OUT FOR LAYOUT AND APPROVAL BY LANDSCAPE ARCHITECT. PROVIDE 42" MIN. HEIGHT TREE ROOT BARRIER ALONG ALL HARDSCAPE WITHIN 10' ANY TREE.	
AG		PAPERBARK MAPLE ACER GRISEUM	200 GAL	5" CALIPER	20'	8'-10'	STRONG CENTRAL LEADER, 7' CLEAR HEIGHT FROM MEASURED GRADE	SOURCE ALL TREES FROM SAME SUPPLIER FOR CONSISTENCY. LANDSCAPE ARCHITECT TO REVIEW, APPROVE AND TAG TREES IN FIELD PRIOR TO SHIPMENT. LOCATIONS TO BE STAKED OUT FOR LAYOUT AND APPROVAL BY LANDSCAPE ARCHITECT. PROVIDE 42" MIN. HEIGHT TREE ROOT BARRIER ALONG ALL HARDSCAPE WITHIN 10' ANY TREE.	
AR		AERYN TRIDENT MAPLE AERYN BUERGERIANUM AERYN	200 GAL	4" CALIPER	20'	8'-10'	STRONG CENTRAL LEADER, 7' CLEAR HEIGHT FROM MEASURED GRADE	SOURCE ALL TREES FROM SAME SUPPLIER FOR CONSISTENCY. LANDSCAPE ARCHITECT TO REVIEW, APPROVE AND TAG TREES IN FIELD PRIOR TO SHIPMENT. LOCATIONS TO BE STAKED OUT FOR LAYOUT AND APPROVAL BY LANDSCAPE ARCHITECT. PROVIDE 42" MIN. HEIGHT TREE ROOT BARRIER ALONG ALL HARDSCAPE WITHIN 10' ANY TREE.	

PLANTING SCHEDULE

ORNAMENTAL PLANTING, SOD & SEED									
CODE	SYMBOL	COMMON NAME / BOTANICAL NAME	CONTAINER	SPACING	AREA	QUANTITY	REQUIRED	COMMENTS	
P01		BIG BLUE GIANT LIRIOPE LIRIOPE MUSCARI 'BIG BLUE'	1 GAL	18" O.C. TRIANGULAR	815 SF	418	FULLY ROOTED IN CONTAINER SIZE, DENSE GROWTH	SUBMIT IMAGES AND PRODUCT DATE FOR APPROVAL BY LANDSCAPE ARCHITECT AND OWNER, PRIOR TO PURCHASE. PRODUCT DATA TO INCLUDE NAME OF NURSERY OR FARM AND CONTACT INFORMATION.	
P02		CREeping LIRIOPE LIRIOPE SPICATA	4" CUPS	6" O.C. TRIANGULAR	3180 SF	14687	FULLY ROOTED IN CONTAINER SIZE, DENSE GROWTH	SUBMIT IMAGES AND PRODUCT DATE FOR APPROVAL BY LANDSCAPE ARCHITECT AND OWNER, PRIOR TO PURCHASE. PRODUCT DATA TO INCLUDE NAME OF NURSERY OR FARM AND CONTACT INFORMATION.	
P03		BRANDYWINE FOAMFLOWER TIARELLA CORDIFOLIA BRANDYWINE	1 GAL	12" O.C. TRIANGULAR	515 SF	594	FULLY ROOTED IN CONTAINER SIZE, DENSE GROWTH	SUBMIT IMAGES AND PRODUCT DATE FOR APPROVAL BY LANDSCAPE ARCHITECT AND OWNER, PRIOR TO PURCHASE. PRODUCT DATA TO INCLUDE NAME OF NURSERY OR FARM AND CONTACT INFORMATION.	
P04		INBERRY HOLLY ILEX GLABRA 'DENSE'	3 GAL	12" O.C. TRIANGULAR	1870 SF	2159	FULLY ROOTED IN CONTAINER SIZE, DENSE GROWTH	SUBMIT IMAGES AND PRODUCT DATE FOR APPROVAL BY LANDSCAPE ARCHITECT AND OWNER, PRIOR TO PURCHASE. PRODUCT DATA TO INCLUDE NAME OF NURSERY OR FARM AND CONTACT INFORMATION.	
P05		UPRIGHT JAPANESE PLUM YEW CEPHALOTAXUS HARRINGTONIA FASTIGIATA	15 GAL	36" O.C. TRIANGULAR	720 SF	92	FULLY ROOTED IN CONTAINER SIZE, DENSE GROWTH	SUBMIT IMAGES AND PRODUCT DATE FOR APPROVAL BY LANDSCAPE ARCHITECT AND OWNER, PRIOR TO PURCHASE. PRODUCT DATA TO INCLUDE NAME OF NURSERY OR FARM AND CONTACT INFORMATION.	
P06		GRO-LOW SUMAC RHUS AROMATICA GROW-LOW	3 GAL	12" O.C. TRIANGULAR	1445 SF	1668	FULLY ROOTED IN CONTAINER SIZE, DENSE GROWTH	SUBMIT IMAGES AND PRODUCT DATE FOR APPROVAL BY LANDSCAPE ARCHITECT AND OWNER, PRIOR TO PURCHASE. PRODUCT DATA TO INCLUDE NAME OF NURSERY OR FARM AND CONTACT INFORMATION.	
P09		BASIL OCIMUM BASILICUM	4" CUPS	6" O.C. TRIANGULAR	370 SF	1708	FULLY ROOTED IN CONTAINER SIZE, DENSE GROWTH	SUBMIT IMAGES AND PRODUCT DATE FOR APPROVAL BY LANDSCAPE ARCHITECT AND OWNER, PRIOR TO PURCHASE. PRODUCT DATA TO INCLUDE NAME OF NURSERY OR FARM AND CONTACT INFORMATION.	
P10		THYME THYMUS VULGARIS	4" CUPS	6" O.C. TRIANGULAR	485 SF	2240	FULLY ROOTED IN CONTAINER SIZE, DENSE GROWTH	SUBMIT IMAGES AND PRODUCT DATE FOR APPROVAL BY LANDSCAPE ARCHITECT AND OWNER, PRIOR TO PURCHASE. PRODUCT DATA TO INCLUDE NAME OF NURSERY OR FARM AND CONTACT INFORMATION.	
P11		COMMON SAGE SALVIA OFFICINALIS	4" CUPS	6" O.C. TRIANGULAR	380 SF	1755	FULLY ROOTED IN CONTAINER SIZE, DENSE GROWTH	SUBMIT IMAGES AND PRODUCT DATE FOR APPROVAL BY LANDSCAPE ARCHITECT AND OWNER, PRIOR TO PURCHASE. PRODUCT DATA TO INCLUDE NAME OF NURSERY OR FARM AND CONTACT INFORMATION.	
P12		ROSEMARY ROSMARINUS OFFICINALIS	6" CUPS	12" O.C. TRIANGULAR	115 SF	132	FULLY ROOTED IN CONTAINER SIZE, DENSE GROWTH	SUBMIT IMAGES AND PRODUCT DATE FOR APPROVAL BY LANDSCAPE ARCHITECT AND OWNER, PRIOR TO PURCHASE. PRODUCT DATA TO INCLUDE NAME OF NURSERY OR FARM AND CONTACT INFORMATION.	
		BED EDGING	N/A	N/A			ALL CURVES TO BE SMOOTH AND CONTINUOUS	STEEL EDGING, COLOR: BLACK; RE PLANS AND DETAILS FOR LOCATIONS	
		PLANT DIVIDER (FOR GRAPHIC PURPOSES ONLY)	N/A	N/A			RE: PLANTING PLANS	NO MATERIAL OR COST ASSOCIATED. FOR INFORMATIONAL / GRAPHIC PURPOSES ONLY	


PLANTING NOTES


- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED TO DAMAGE OF SAID UTILITIES OR STRUCTURES IF PROPER VERIFICATION BY CONTRACTOR WAS NOT PERFORMED.
- DO NOT WILLFULLY PROCEED WITH PLANTING OPERATIONS AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING THE DESIGN PROCESS. SUCH CONDITIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ALL NECESSARY DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH HIS PLANTING OPERATIONS.
- THE CONTRACTOR IS TO RECEIVE THE ON-GRADE PORTION OF THE SITE WITHIN .1 OF AN INCH. THE CONTRACTOR SHALL OBTAIN A LETTER OF GRADE CERTIFICATION FROM THE OWNER PRIOR TO BEGINNING WORK.
- REFER TO THE SPECIFICATIONS FOR PLANTING REQUIREMENTS, MATERIALS, AND EXECUTION.
- ALL TREES SHALL BE TAGGED BY THE LANDSCAPE ARCHITECT AND THE OWNER'S REPRESENTATIVE.
- FINAL LOCATION OF ALL PLANT MATERIALS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE. CONTRACTOR IS TO DO THE FOLLOWING BEFORE BEGINNING PLANTING OPERATIONS.
  - SHRUBS - LAY OUT THE ACTUAL CONTAINERS ONSITE PRIOR TO DIGGING HOLES.
  - TREES - STAKE THE LOCATIONS PRIOR TO DIGGING HOLES. ANY TREE PLANTED WITHOUT ITS FINAL LOCATION APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE MAY BE REQUESTED TO BE RELOCATED AT THE SOLE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL NOTIFY THE OWNER'S AUTHORIZED REPRESENTATIVE AT LEAST 48 HOURS IN ADVANCE PRIOR TO COMMENCEMENT OF WORK TO COORDINATE PROJECT OBSERVATION SCHEDULE.
- IF CONFLICTS ARISE BETWEEN THE ACTUAL SIZE OF THE AREAS ON THE SITE AND THE DRAWINGS THE CONTRACTOR SHALL CONTACT THE OWNER'S AUTHORIZED REPRESENTATIVE FOR RESOLUTION. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- IT IS THE CONTRACTORS RESPONSIBILITY TO FURNISH PLANT MATERIAL FREE OF PEST OR PLANT DISEASES. PRE-SELECTED "TAGGED" PLANT MATERIAL MUST BE INSPECTED BY THE CONTRACTOR AND BE CERTIFIED PEST AND DISEASE FREE. IT IS THE CONTRACTORS OBLIGATION TO WARRANTY THE PLANT MATERIAL PER SPECIFICATIONS.
- GROUND COVERS AND SHRUBS ARE TO BE TRIANGULARLY SPACED UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL TREES WITHIN A SPECIES SHALL HAVE MATCHING FORM UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- ALL SHRUB AND GROUND COVER AREAS (EXCLUDING TURF AND SLOPE AREAS) ARE TO BE MULCHED WITH WOOD PER SPECIFICATIONS. REFER TO THE DRAWINGS FOR SPECIFIC LOCATIONS.
- AFTER FINISH GRADES HAVE BEEN ESTABLISHED FOR ALL ON-GRADE PLANTING AREAS, THE CONTRACTOR SHALL HAVE SOIL SAMPLES TESTED BY A QUALIFIED SOILS TESTING LABORATORY FOR SOIL FERTILITY, AGRICULTURAL SUITABILITY, AND SOIL PREPARATION RECOMMENDATIONS. THE CONTRACTOR MAY BE REQUESTED TO AMEND THE SOIL TO CONFORM TO THE RECOMMENDATIONS HOWEVER ANY AMENDMENT THAT MIGHT BE REQUESTED OF THE CONTRACTOR SHALL ONLY BE UPON RECEIPT OF A WRITTEN CHANGE ORDER FROM THE OWNER.



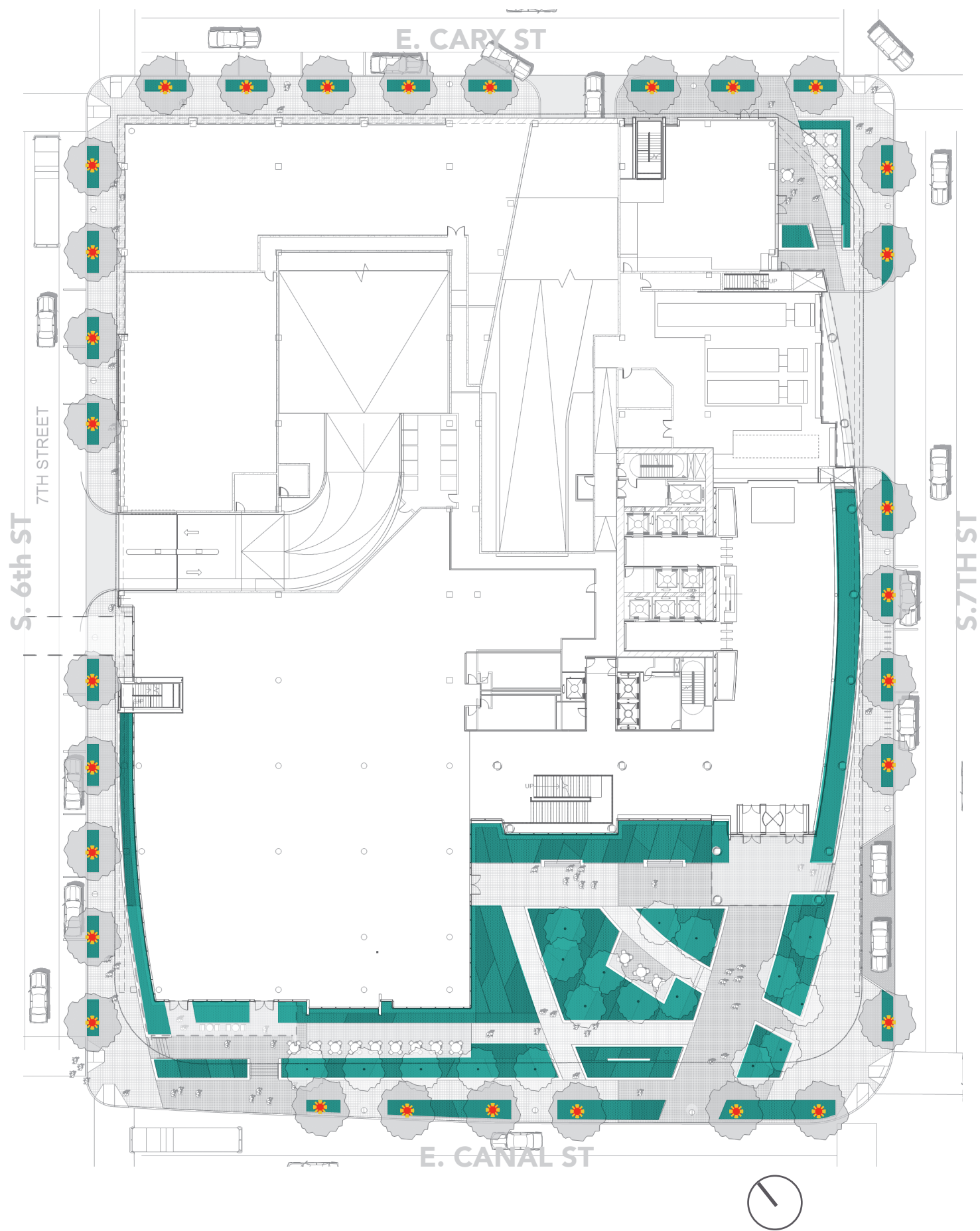
# IRRIGATION DIAGRAM

# TOWER 2

**DRIP IRRIGATION**  
12" O.C.

**DRIP IRRIGATION - BUBBLERS**  
TWO (2) BUBBLERS PER TREE

**IRRIGATION GENERAL NOTES**  
ALL PLANTING AREAS AND NEW TREES TO RECEIVE 100% AUTOMATIC IRRIGATION SYSTEM WITH CENTRAL CONTROL AND RAIN SENSOR.  
  
TREES SHALL BE ON SEPARATE ZONE FROM OTHER PLANTING AREAS.  
  
PROVIDE MAINLINE, AS REQUIRED.





## SECTION 32 01 90 00 – LANDSCAPE MAINTENANCE

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes requirements for 90 day landscape maintenance for the following:
  - 1. Watering trees and grass.
  - 2. Monitoring adjustment and minor repair of the landscape irrigation system.
  - 3. Mowing, edging and trimming of lawn areas.
  - 4. Monitoring, fertilizing, weeding, and cultivating of lawn areas.
  - 5. Pruning and trimming of plant material.
  - 6. Weed, cultivating and cleaning of planting beds.
  - 7. Application of fertilizers, insecticides, and herbicides.
  - 8. General site clean up; removal of trash and products of maintenance.
  - 9. Replacement of trees, shrubs, groundcovers, sod and hydromulch.
  - 10. Sediment removal from bayou high water.
  - 11. Extra services as needed.
- B. Related Sections
  - 1. Turfs and Grasses - Section 329200
  - 2. Trees, Shrubs, and Ground Covers - Section 329313
  - 3. Planting Irrigation Systems – Section 328400

#### 1.2 DEFINITIONS

- A. Backfill: The earth used to replace or the act of replacing earth in an excavation.
- B. Finish Grade: Elevation of finished surface of planting soil.
- C. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- D. Planting Soil: Native or imported topsoil, manufactured topsoil, or surface soil modified to become topsoil; mixed with soil amendments.
- E. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill, before placing planting soil. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.



**1.3 EXTRA SERVICES**

- A. All services not covered under this contract shall be considered "extra services" and will be charged for separately according to the nature of the item of work. The consent and authorization of the Owner or their authorized representative must be obtained prior to the performance or installation of such "extra services" items and prior to purchase of any chargeable materials.
- B. Plant replacements as a result of flood damage.

**1.4 MAINTENANCE REQUIREMENTS**

- A. Begin maintenance after each plant and lawn portion is installed.
- B. Maintenance period shall begin upon inspection and approval at Substantial Completion by phase and shall be for ninety (90) days.
- C. Sprinkler Irrigation System: Maintenance of the sprinkler irrigation system shall consist of monitoring and adjustment of the duration and frequency of the watering schedule, adjustment of heads for coverage and elevation, repair of leaks in both mains and lateral lines and all other work required to establish a complete working sprinkler irrigation system.
- D. Trees, Shrubs, Groundcovers and Vines: Maintenance of new planting shall consist of watering, cultivating, weeding, mulching, re-staking, tightening and repairing of guys, resetting plants to proper grades or upright position, restoration of the planting saucer, and furnishing and applying such sprays and invigorants as are necessary to keep the plantings free of insects and disease and in thriving condition.
- E. Lawns: Maintenance of new lawns shall consist of mowing, edging, raking, watering, weeding, fertilizing, and repair of all erosion, reseeding and resodding as necessary, to establish a uniform stand of the specified grasses.

**1.5 PROTECTION**

- A. Protect planting areas and lawns at all times against damage of all kinds for duration of maintenance period. Maintenance includes temporary protection fences, barriers and signs as required for protection. If any plants become damaged or injured, because sufficient protection was not provided, treat or replace as directed by Owner at no additional cost to Owner.

**1.6 NEGLECT AND VANDALISM**

- A. Turf, shrubs, trees or plants that are damaged or killed due to contractors' operations, negligence or chemicals shall be replaced at no expense to the Owner. If plant damage or



death is caused by conditions beyond the contractor's control, replacement shall be at the Owner's expense.

- B. Sprinklers or structures that are damaged due to the contractor's operations must be replaced by the contractor promptly. Likewise, damage to the irrigation system by others shall be corrected immediately by the contractor, at the Owner's expense.
- C. All man made water damage, resulting from Contractor's neglect shall be corrected at Contractor's expense.
- D. All damage to or thefts of landscaping and irrigation installations not caused or allowed by the contractor shall be corrected by the contractor at the Owner's expense upon receipt of written authorization to proceed.

## 1.7 EMERGENCIES

- A. Answer emergency or complaint calls regarding conditions in landscaped areas regarding fallen trees or branches or shrubs or trees that obstruct the trail or other pavement within 1 hour and correct the problem or place warning signs and advise the Owner of the need for major work to be performed within 4 hours of the initial contact.
- B. Answer emergency calls regarding the landscape irrigation system failure or need of repair.

## 1.8 FINAL ACCEPTANCE

- A. Work under this Section will be accepted by Owner's representative upon satisfactory completion of all work, including maintenance, but exclusive of the required guaranteed sprinkler irrigation obligations, replacement of plant materials and lawns under the Warranty Period. Upon Final Acceptance, the Owner will assume responsibility for maintenance of the work.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Fertilizers, soil amendments, equipment, or other materials required for installed items shall match those already in use.
- B. Samples of all materials not specified under other Sections of these Specifications shall be submitted for review by Owner's representative prior to use.



## PART 3 - PRODUCTS

### 3.1 REQUIRED EQUIPMENT

- A. Employ the necessary maintenance equipment.

### 3.2 WATERING

- A. It shall be the responsibility of the Contractor to assure that the correct watering of plant materials is being accomplished through the following irrigation services:
  - 1. Regular deep watering to all new trees until there are definite signs that the trees have established themselves and new growth is apparent. Deep watering shall be accomplished with hoses and water truck equipment.
  - 2. Frequent watering to the lawn areas to insure against drying. This may be accomplished as above, by hand watering or portable sprinklers.

### 3.3 LANDSCAPE IRRIGATION SYSTEM

- A. Monitor and program the automatic controlling devices to provide optimum moisture levels in all planted areas.
  - 1. Irrigation cycles shall be set to take place prior to sunrise (usually 4:00 - 5:00 am) unless otherwise instructed by the Owner, except during visits of grounds maintenance personnel; during such visits the irrigation system may be operated as desired by those personnel.
  - 2. If there is more than one irrigation controller, do not program to water during the same time period as over-draft of water meters will result. Set controllers so that one finishes watering cycle before next starts watering cycle. During periods of high rainfall, set controllers to "dry mode" until irrigation is needed. Do not switch controller to "off", as this will stop time clock.
  - 3. Complete sprinkler system servicing shall be performed as required to maintain sprinklers in correct operating condition, including all required labor. Operation of sprinklers shall be monitored on a bi-monthly basis to assure proper cover and operation.
  - 4. Adjust sprinklers to avoid damage to windows and buildings. Make repairs and alterations to the sprinkling system and water lines. All sprinklers repairs such as cleaning of heads or breaks caused by the Contractor shall be the Contractor's responsibility.
  - 5. Perform minor additions, subtractions and/or adjustments to irrigation equipment (i.e., addition of spray head or riser extension) as may be required in order to conform to the irrigation requirements herein specified. Such additions, subtractions and/or realignments to irrigation system equipment shall not materially reduce the extent or value of the irrigation system equipment, and shall be accomplished after securing approval of the Owner.



6. Supplemental irrigation beyond that which can be provided by the irrigation system shall be provided by the grounds maintenance firm as required in order to assure optimum moisture levels.
7. Sediment removal from project site as a result of bayou tide rising and receding by use of project stand pipes.

### 3.4 MAINTENANCE OF TURF AREAS

- A. Mowing lawn/grass areas shall be accomplished with sharp, properly adjusted mowers of the correct size for the various areas.
- B. B. Mowing frequency shall be as per the Landscape Maintenance Program. Blade heights shall be set according to the following schedule:
  1. 2 Inches Initial Mowing
  2. 2-1/2 Inches April - November
- C. C. In the event of a prolonged rainy period and a surge of leaf growth is anticipated, the mower height may be re-adjusted to prevent "scalping" or skinning of lawn on preceding cuts.
- D. D. Lawn shall be edged evenly at all walks, headers and other structures as per Landscape Maintenance Program.
- E. E. Until the establishment of the turf, the Contractor will be responsible for replacing soils that have eroded onto the paved areas. Residual soils on paving will be removed and if not mingled with objectionable materials, may be re-used in eroded areas.
- F. F. Immediately upon observing any lawn grass spreading into shrub or groundcover areas, the Contractor shall initiate a program of mechanical removal and maintain this program throughout the maintenance period.
- G. G. Any lawn grass appearing in paved areas shall receive an application of soil sterilant according to manufacturer's direction. The sterilant shall be approved and will not be detrimental structurally to paved areas.
- H. H. Special effort shall be given to the control of fire ants infesting the site. After control is accomplished, the ant mounds shall be lowered and tamped to the existing grade.
- I. I. Removal of debris from the site unrelated to horticultural maintenance (paper, bottles, cans, "Pirate" signs, etc.) shall be the responsibility of the maintenance Contractor and limited to areas designated.

### 3.5 MAINTENANCE OF TREES, SHRUBS AND GROUNDCOVERS

- A. Contractor shall adjust and tighten as required all tree staking and guying. Removal as directed by Owner's Representative.



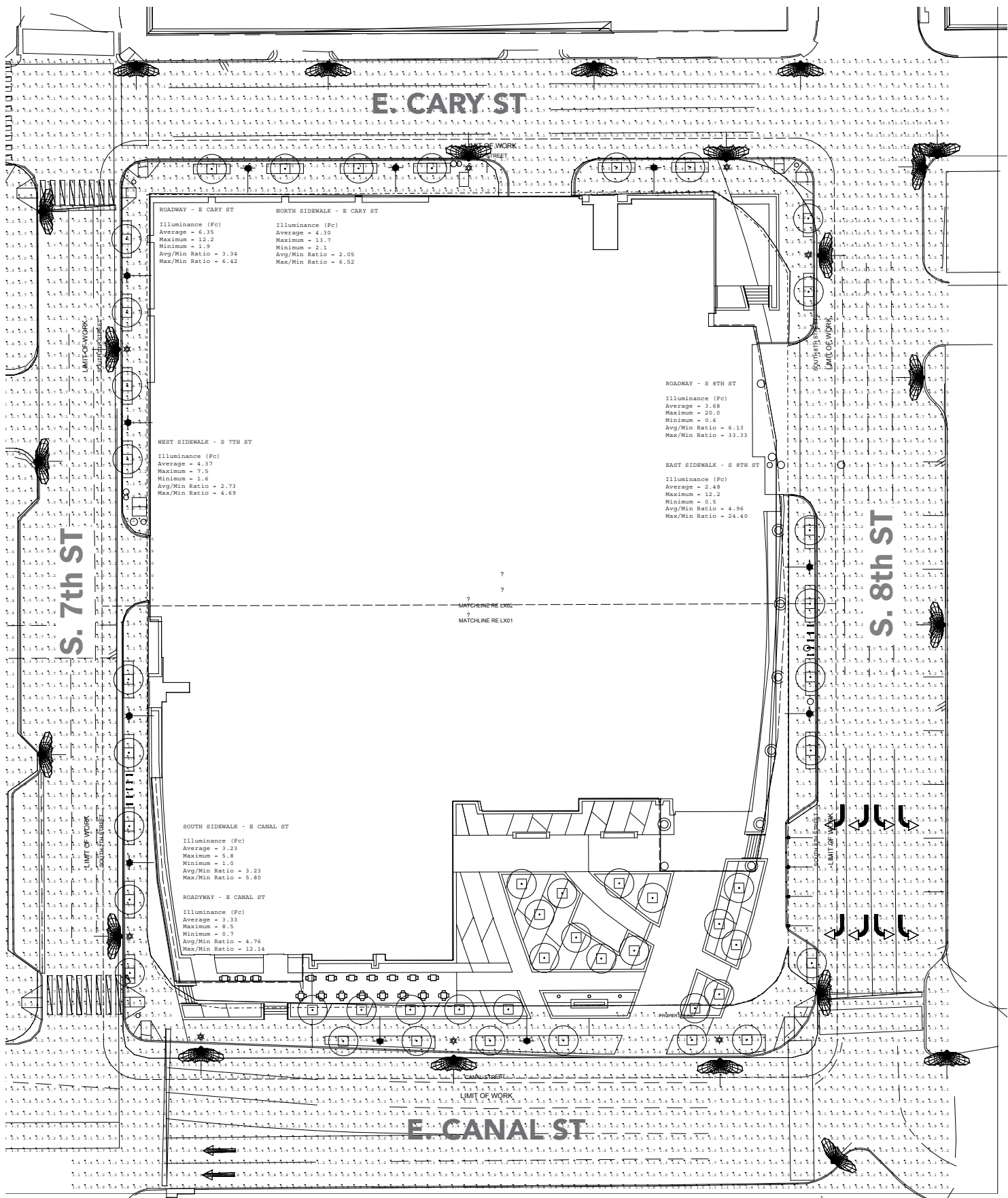
- B. Contractor shall deep water all new trees until there are definite signs the trees have established themselves and are pushing out new growth.
- C. Watering basins shall be removed by Contractor after the trees have established themselves or as directed by Owner's representative. Basins are normally removed one year from time of planting.
- D. Contractor shall be continuously alert for signs of insect presence or damage or the presence or damage from plant fungi. Upon locating such evidence, the Contractor shall report it to the Owner's representative and take action as directed.

**3.6 MAINTENANCE FREQUENCY SCHEDULE**

- A. Mowing, Edging, Trimming, Litter Cleanup, and Watering Monitoring: Four visits per month for 12 months.
- B. Top-dress Fertilizer: Thirty days after seeding and/or sodding.
- C. Mulching, Weeding, Weed Control, and Guying Adjustment: As required each visit.
- D. Reseeding: As required upon notice.
- E. Tree and Plant Replacement: As required each visit.
- F. Trash and Debris Removal: Collect all trash and debris at each visit and dispose of off-site.

**END OF SECTION 320190.13**







# Lighting PLAN

● STREET LIGHT



City of Richmond Standard  
Cobrahead Roadway Series 115

● LIGHT BOLLARD



Forms+Surfaces Lighted Bollard  
LBLC-504 LED

● PEDESTRIAN LIGHT



Bega Single Pole-Top Luminaire  
80W LED 77954

▼ TREE UPLIGHT



BK Lighting  
Denali Series

# TOWER 2

