

DENVER UNION STATION | PUBLIC REALM DESIGN
DENVER, CO | OCTOBER 1, 2009

HARGREAVES ASSOCIATES · AECOM · SOM

PRELIMINARY

PRESENTATION SCHEDULE

08.07.08

- CONCEPTUAL FRAMEWORK: PUBLIC MEETING #1

09.04.08

- CONCEPTUAL FRAMEWORK: PUBLIC MEETING #2

09.23.08

- CONCEPTUAL FRAMEWORK: PUBLIC MEETING #3

10.30.08

- CONCEPTUAL FRAMEWORK: PUBLIC MEETING #4

09.17.09

- PRESENTATION TO DUSPA

10.01.09

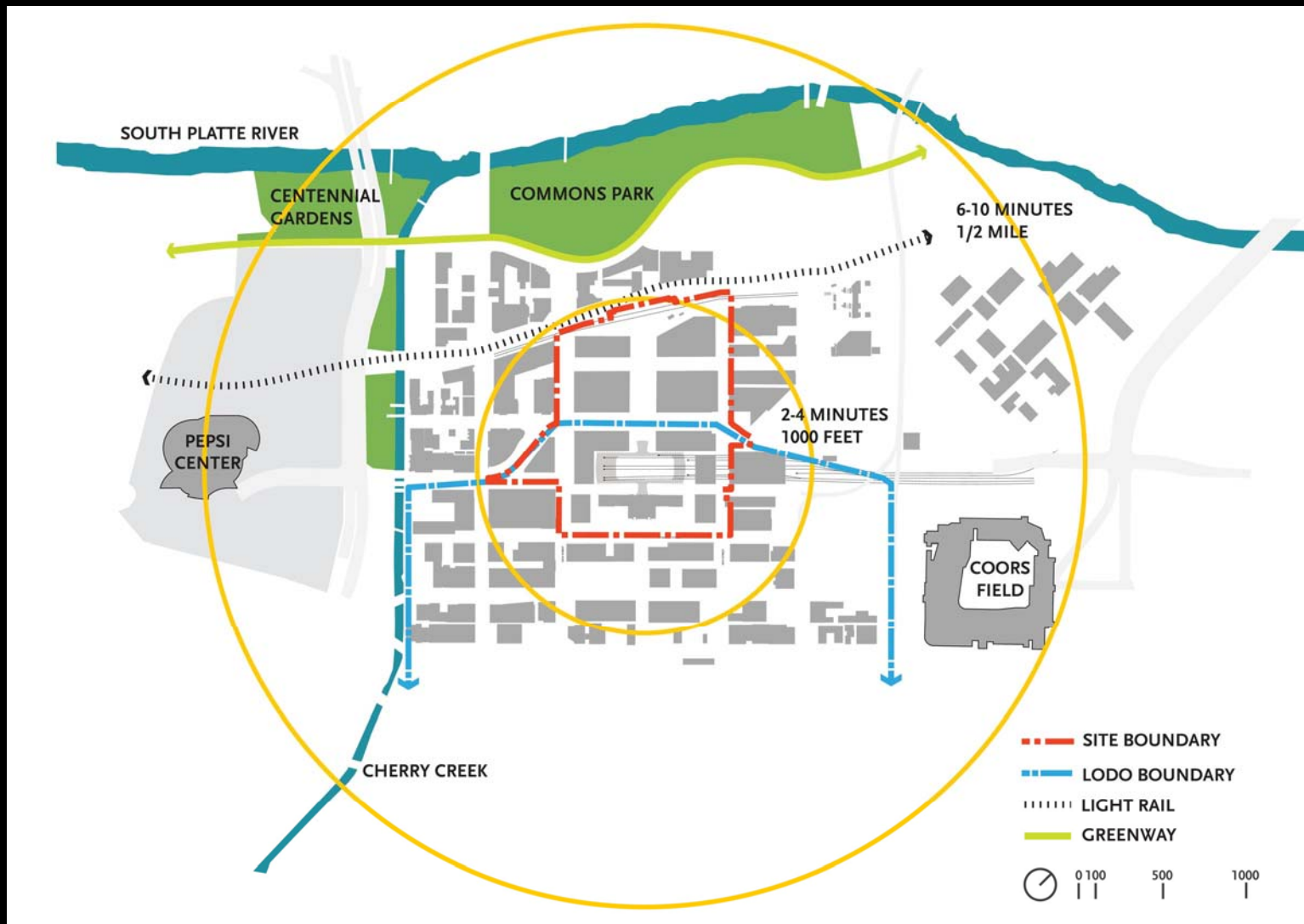
- PEER REVIEW MEETING #5 – 8:00 – 10:30 am
- PUBLIC MEETING #2 – 5:30-7:00 pm

11.05.09

- PEER REVIEW MEETING #6 – 8:00 – 10:30 am
- PUBLIC MEETING #3 – 5:30-7:00 pm

PRESENTATION TOPICS – 10.01.09

- Recap concept framework principles
- Light Rail Plaza Concept
- 17th Street Gardens Concept
- Wewatta Plaza Concept
- Paving Concept



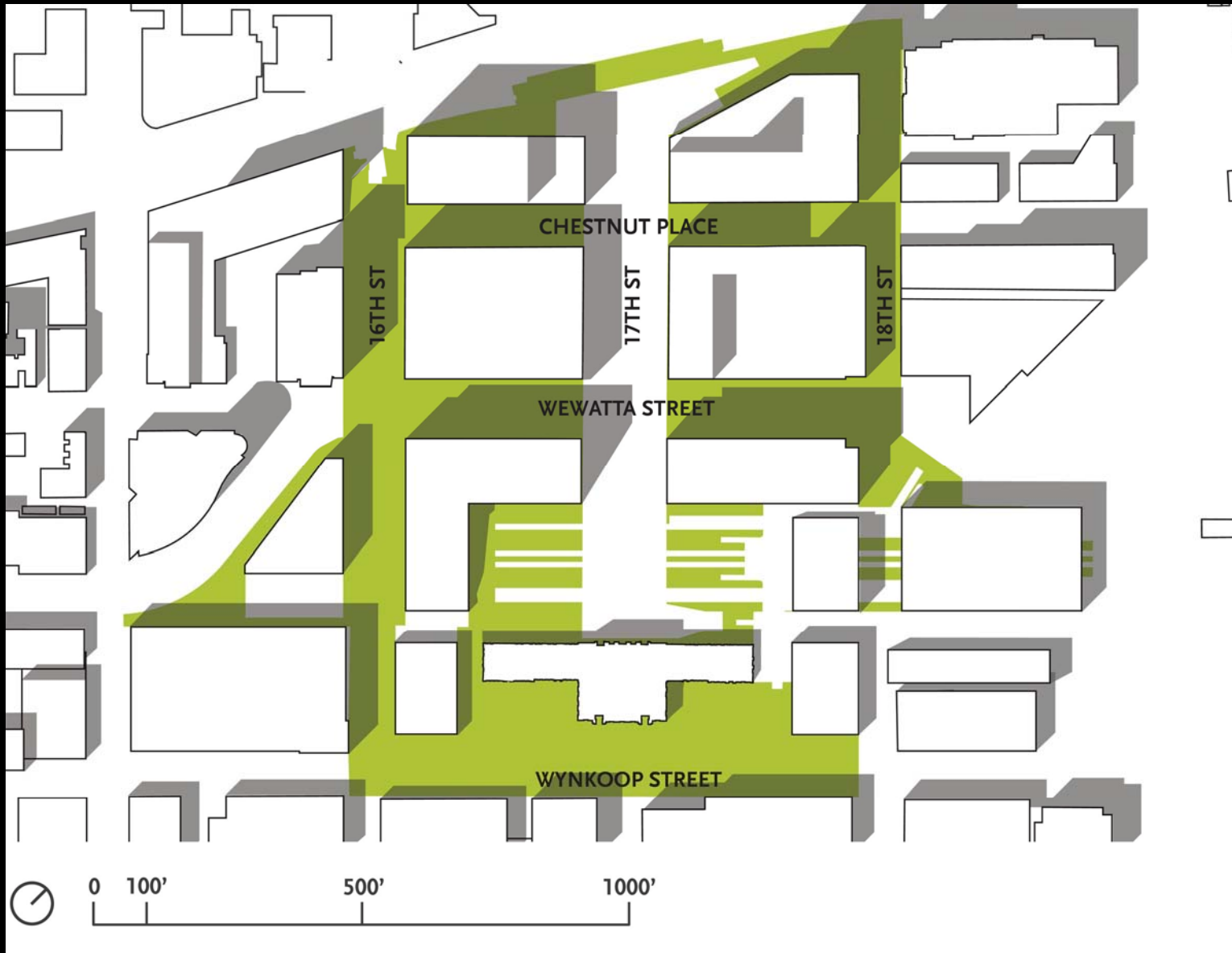
CONTEXT

- Walking distance to Major Stadia, Cherry Creek, South Platte River and Downtown



OPEN SPACE CONTEXT

1. Denver City Park
2. Denver Civic Center and City Hall Plaza
3. Centennial Gardens
4. Confluence Park
5. Commons Park
6. Denver Skate Park
7. City of Cuernavaca Park
8. 16th Street Mall
9. Skyline Park
10. Gates-Crescent Park



SITE

ON DIRT

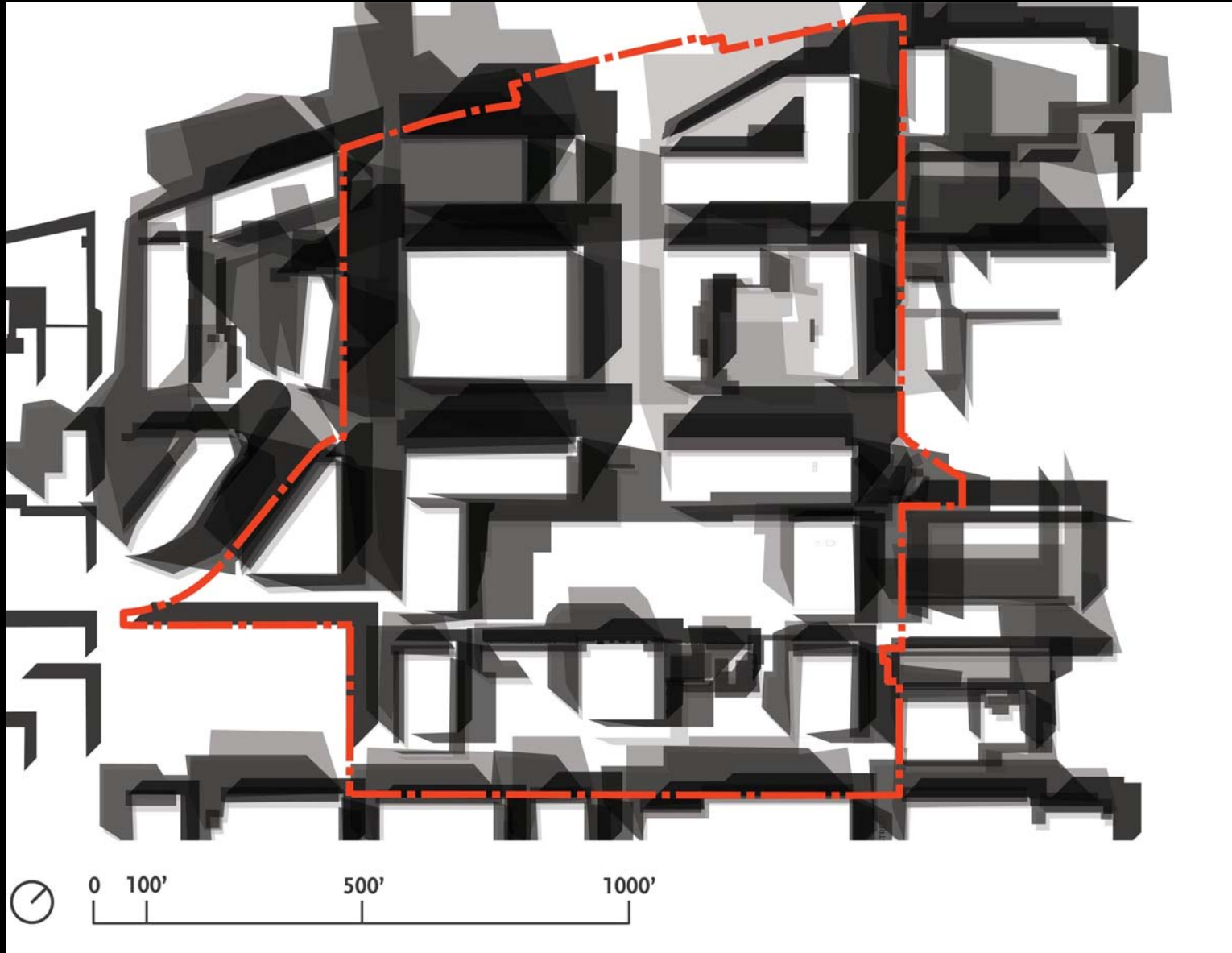
PRELIMINARY

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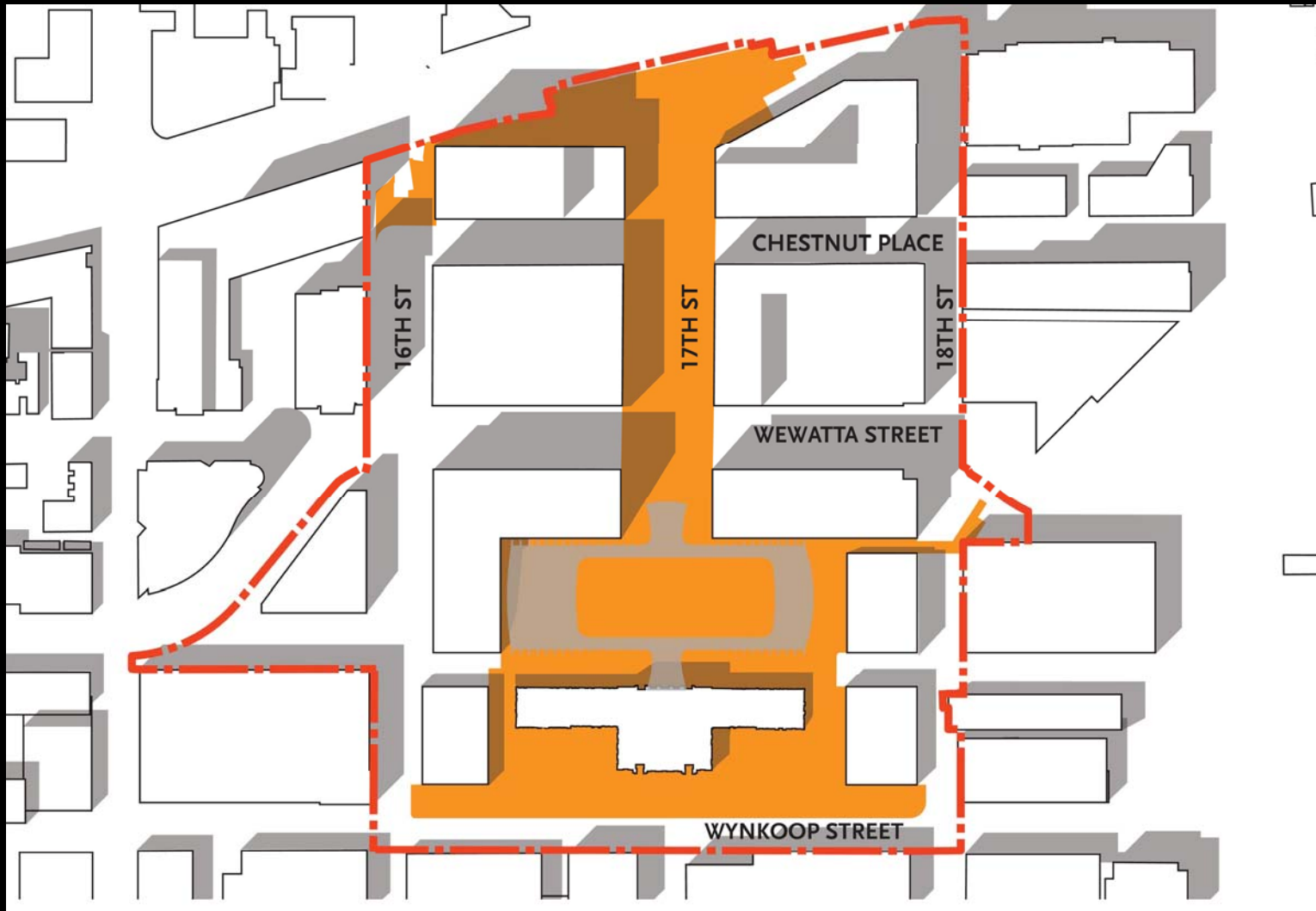


SITE

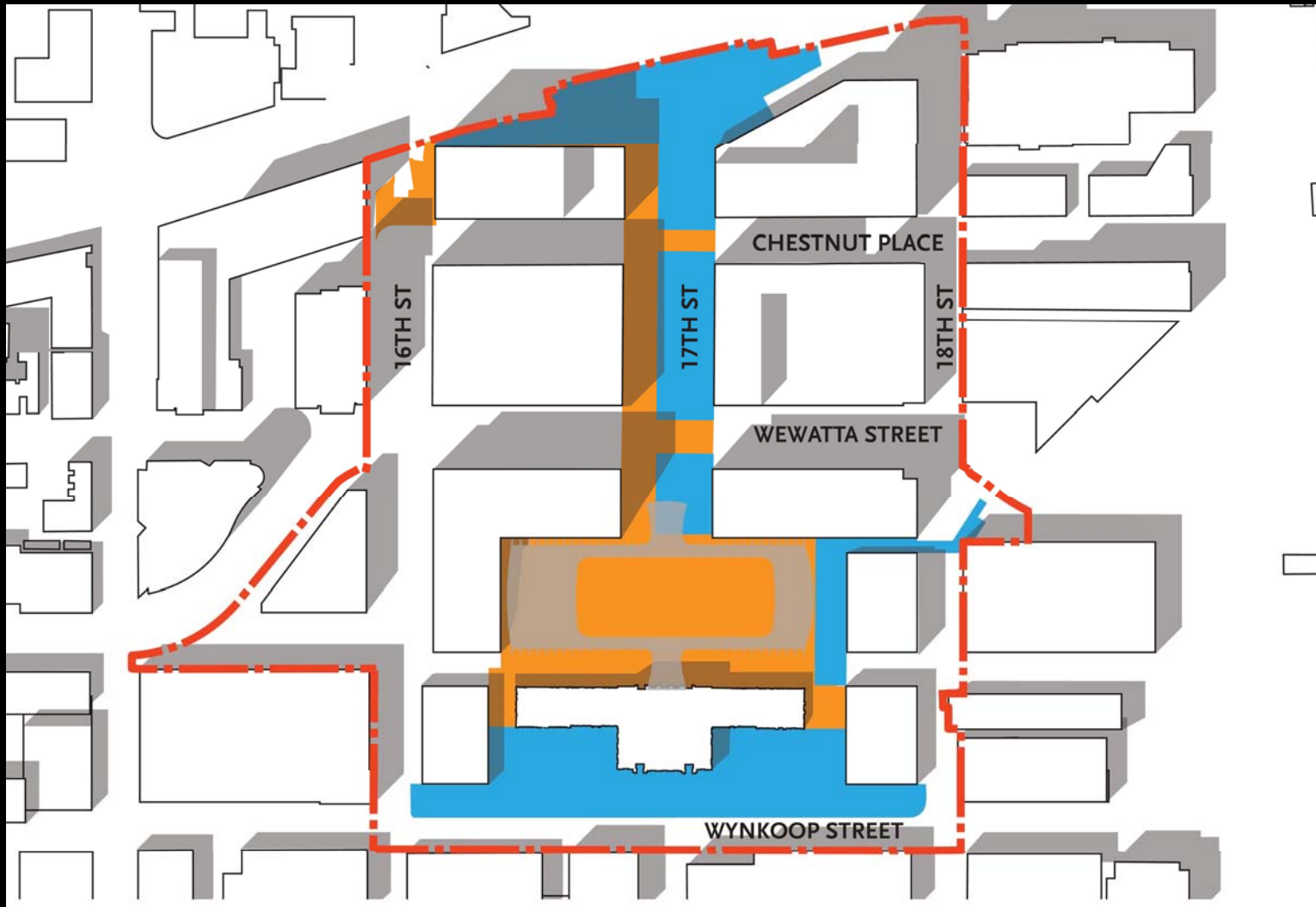
ON STRUCTURE



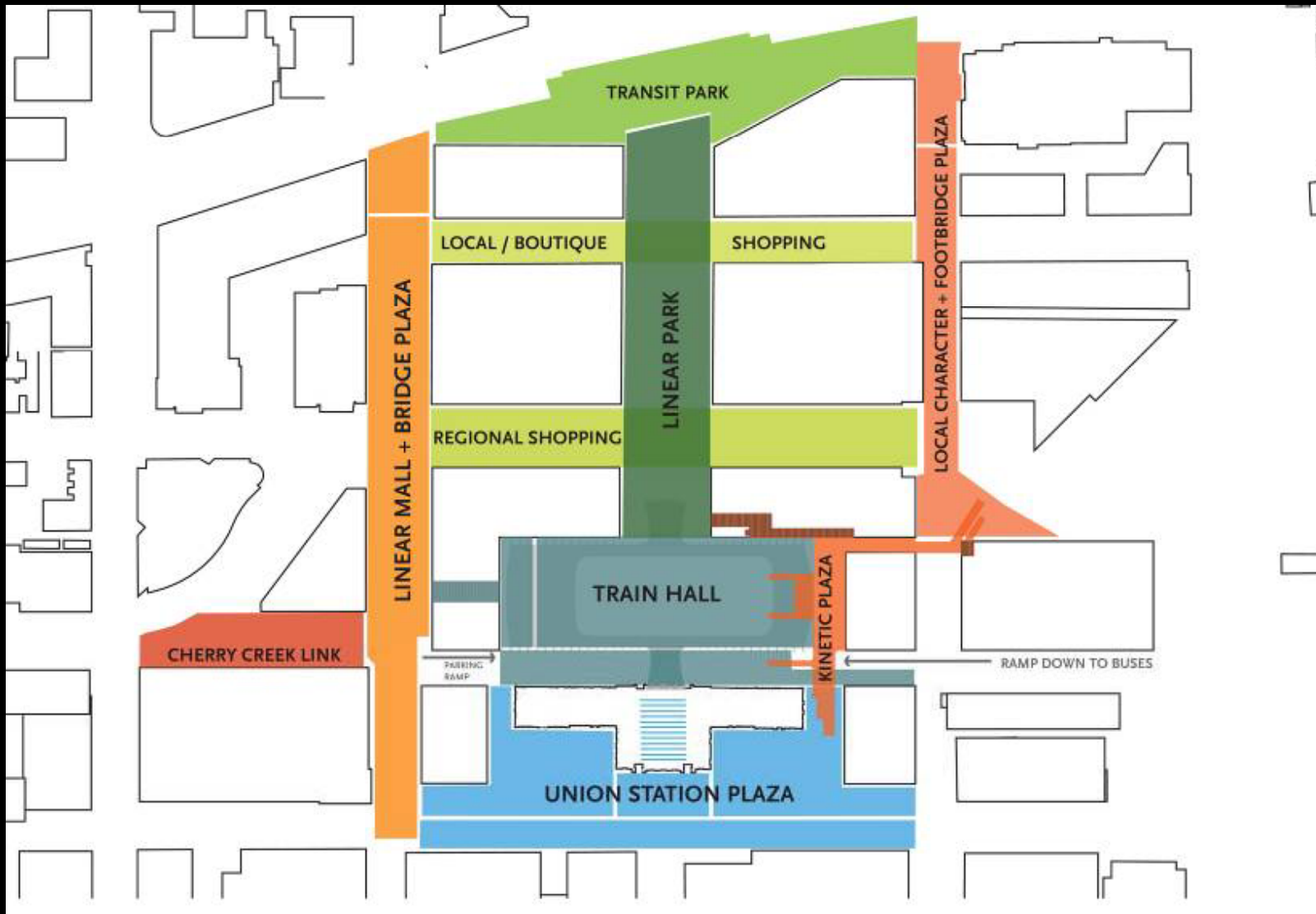
SUN AND SHADOW COMPOSITE



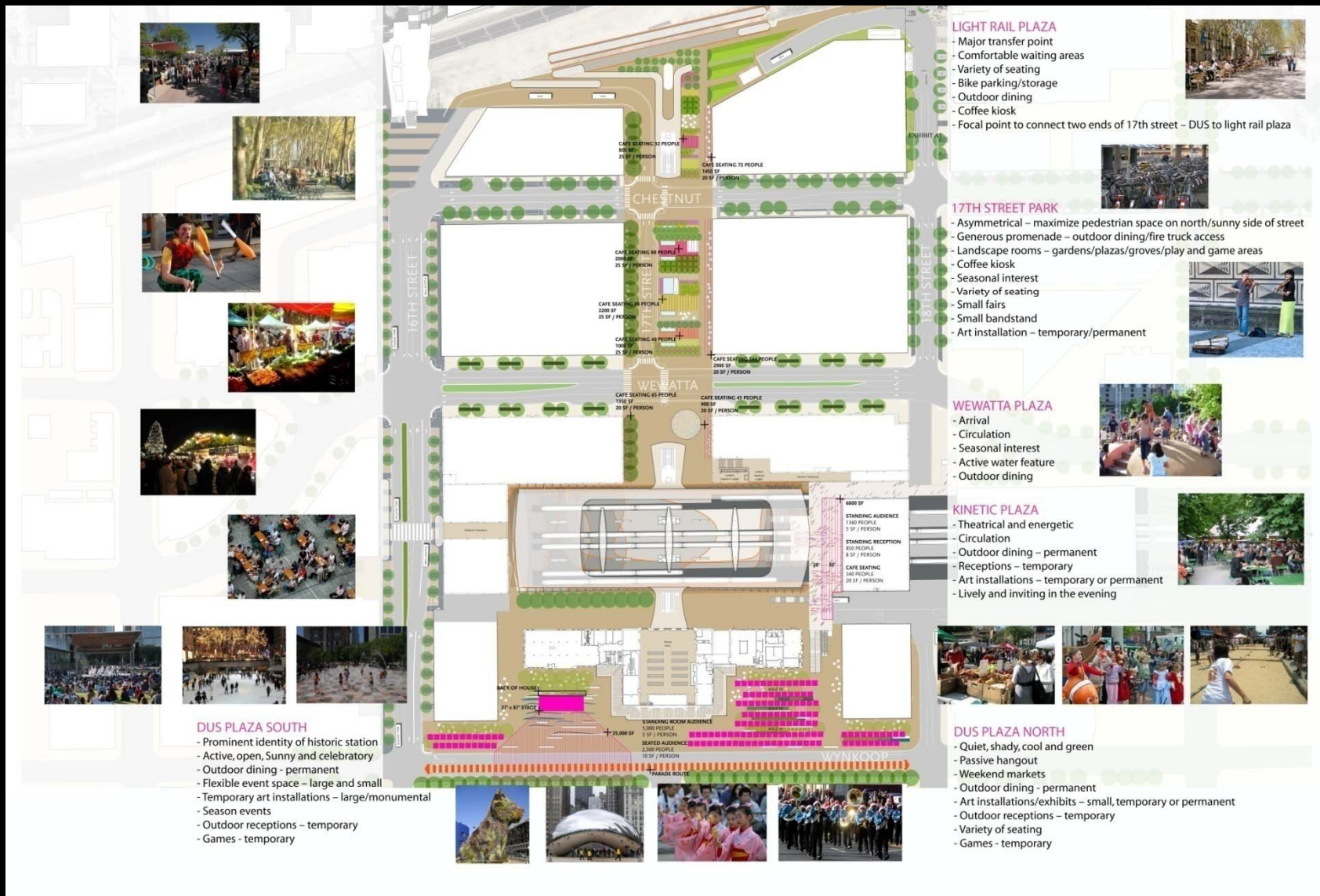
TRANSIT REALM



TRANSIT REALM ROOMS



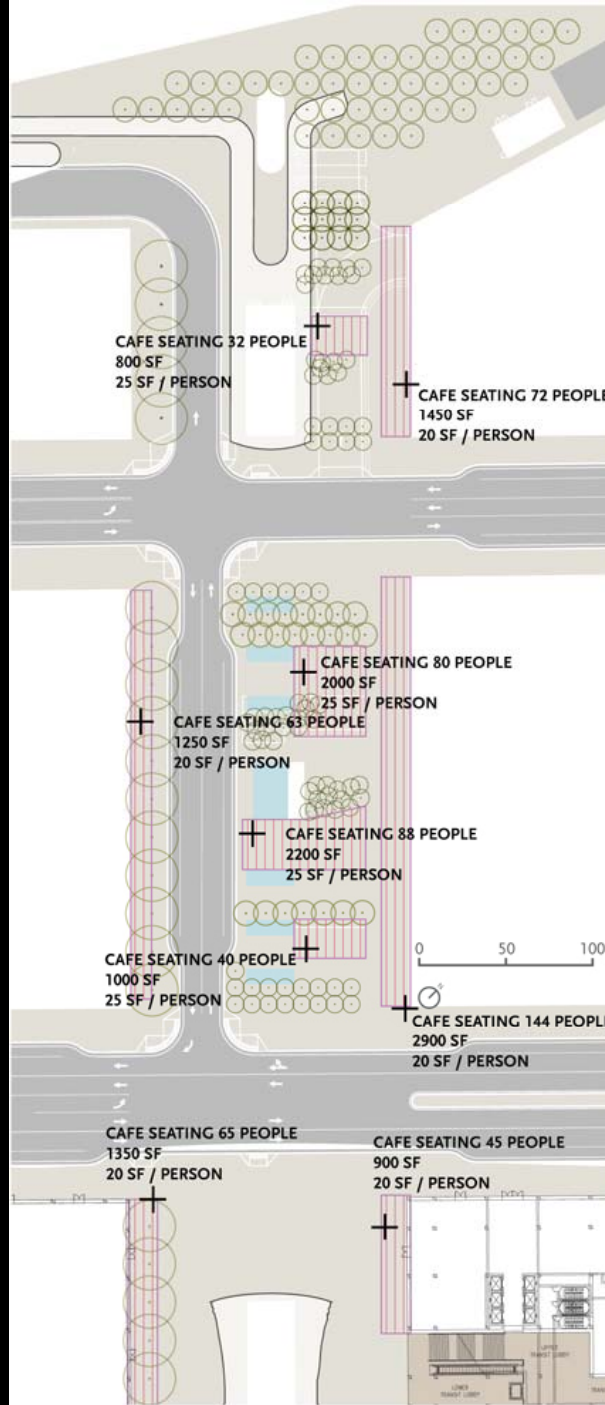
CHARACTER ZONES



PROGRAMMING

- Composite Program Plan

17th STREET DINING



PROGRAM OPTIONS:
Cafe
Restaurant
Coffeestand
Loose Chairs

COUNTS:
Seating for 629 People
1 Person / 20-25 SF

DIMENSIONS:
~9,700 SF

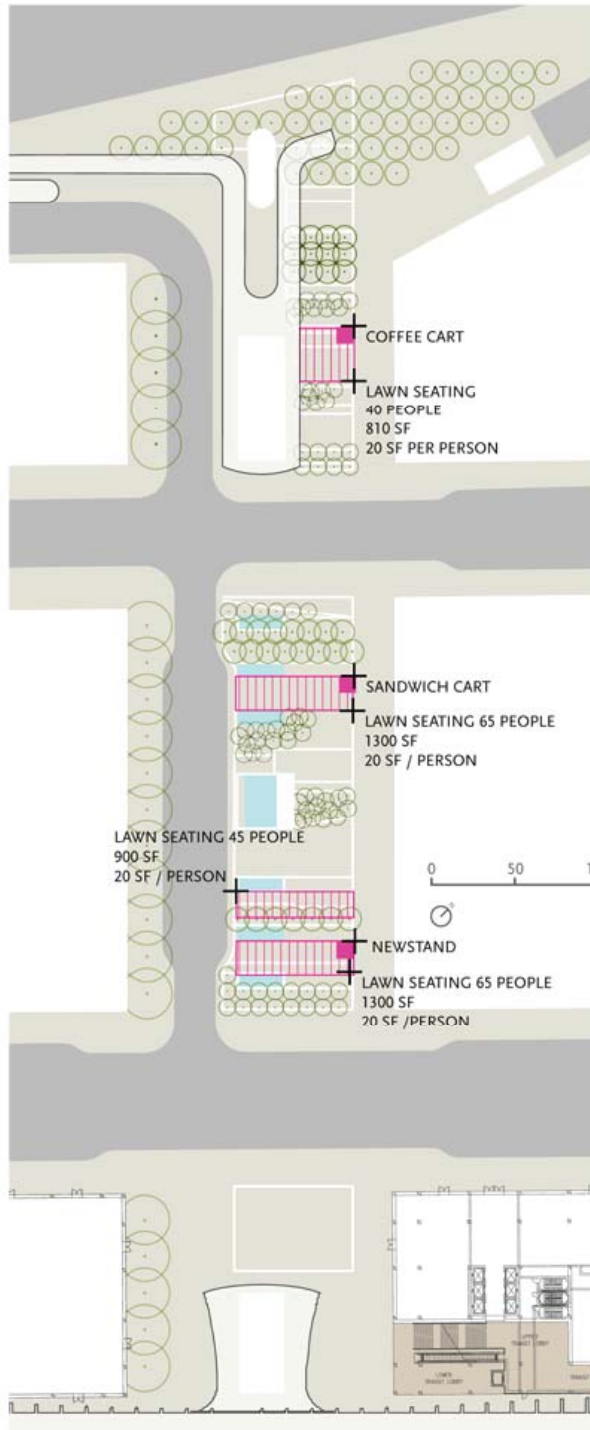
REQUIREMENTS:
Adjacent In-Building Restaurant or Cafe



PRELIMINARY

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17th STREET PICNIC



PROGRAM OPTIONS:

Picnic
Kiosks

COUNTS:

Lawn Seating for 215 People
3 Kiosks

DIMENSIONS:

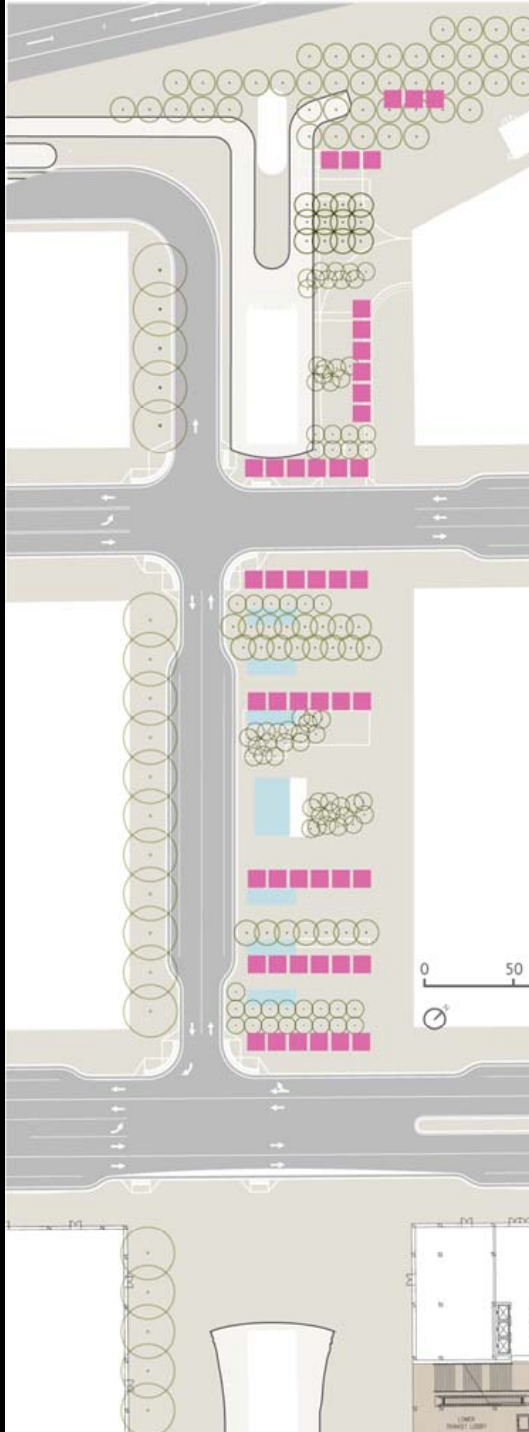
~4310 SF
10' x 10' vendors



PRELIMINARY

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17th STREET FAIR



PROGRAM OPTIONS:
Semi Permanent Festival
Craft Market

COUNTS:
48 Tents

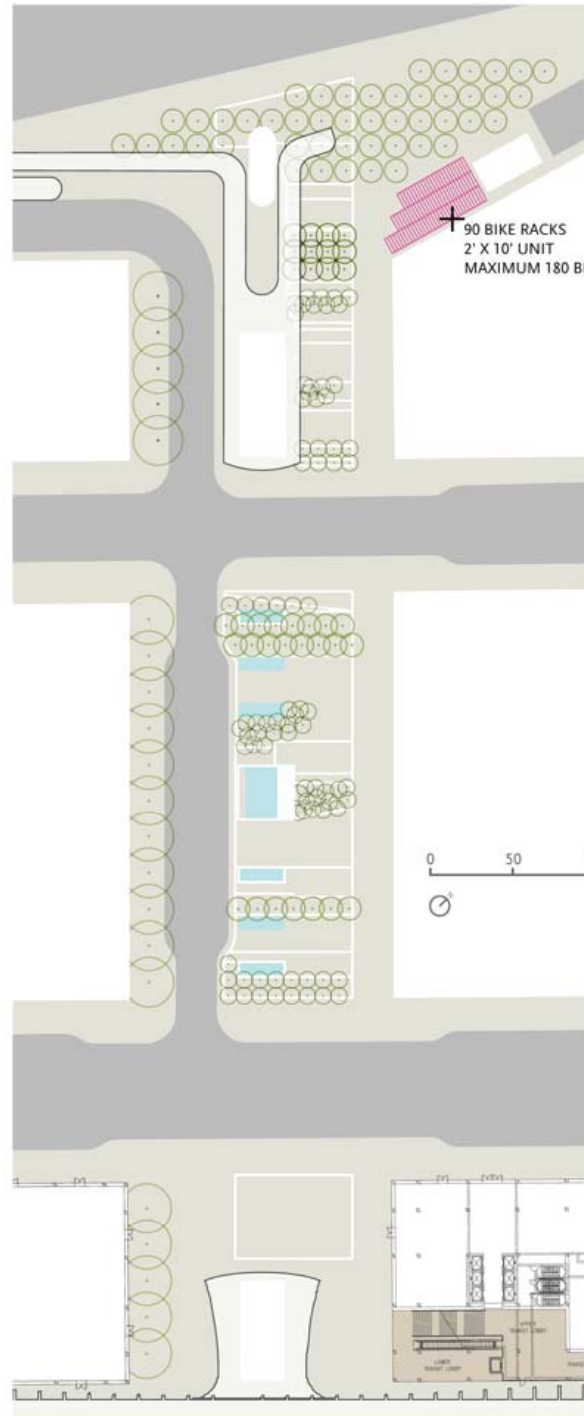
DIMENSIONS:
10' x 10' vendors



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17th STREET BIKE



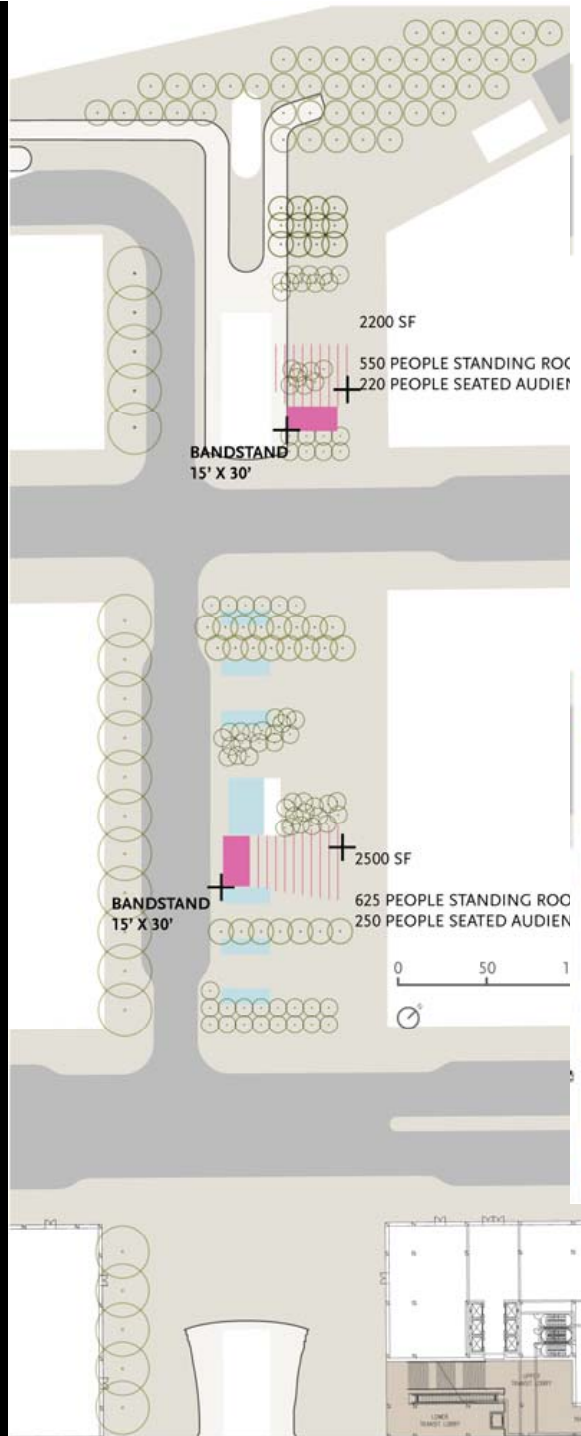
PROGRAM OPTIONS:
Bike Racks

COUNTS:
90 Bike Racks
180 Bikes

DIMENSIONS:
2 x 10' Racks Module



17th STREET BANDSTAND



PROGRAM OPTIONS:
 Readings
 Buskers
 Small Concerts & Performances
 Puppet Shows
 Small Theater
 Speeches

COUNTS:
 2 Small Bandstands

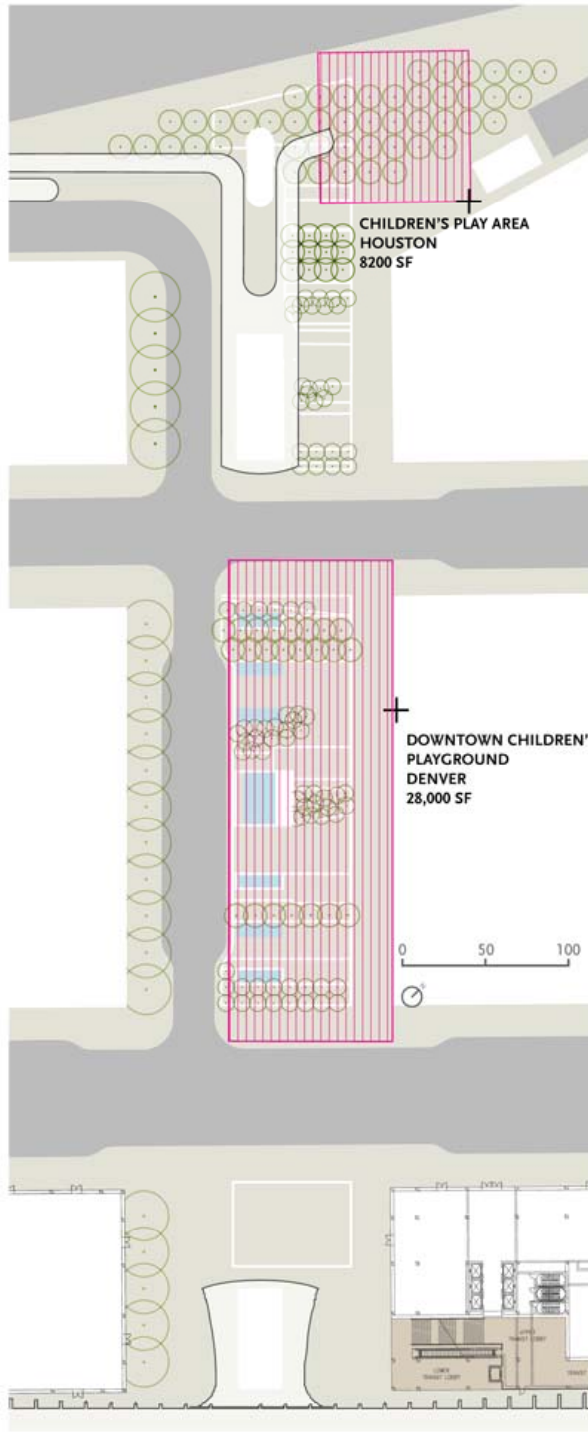
DIMENSIONS:
 15' x 30' Each



PRELIMINARY

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17th STREET PLAY



PROGRAM OPTIONS:
Play Area

COUNTS:
pLAY

DIMENSIONS:
Houston Downtown Park
8200 sf

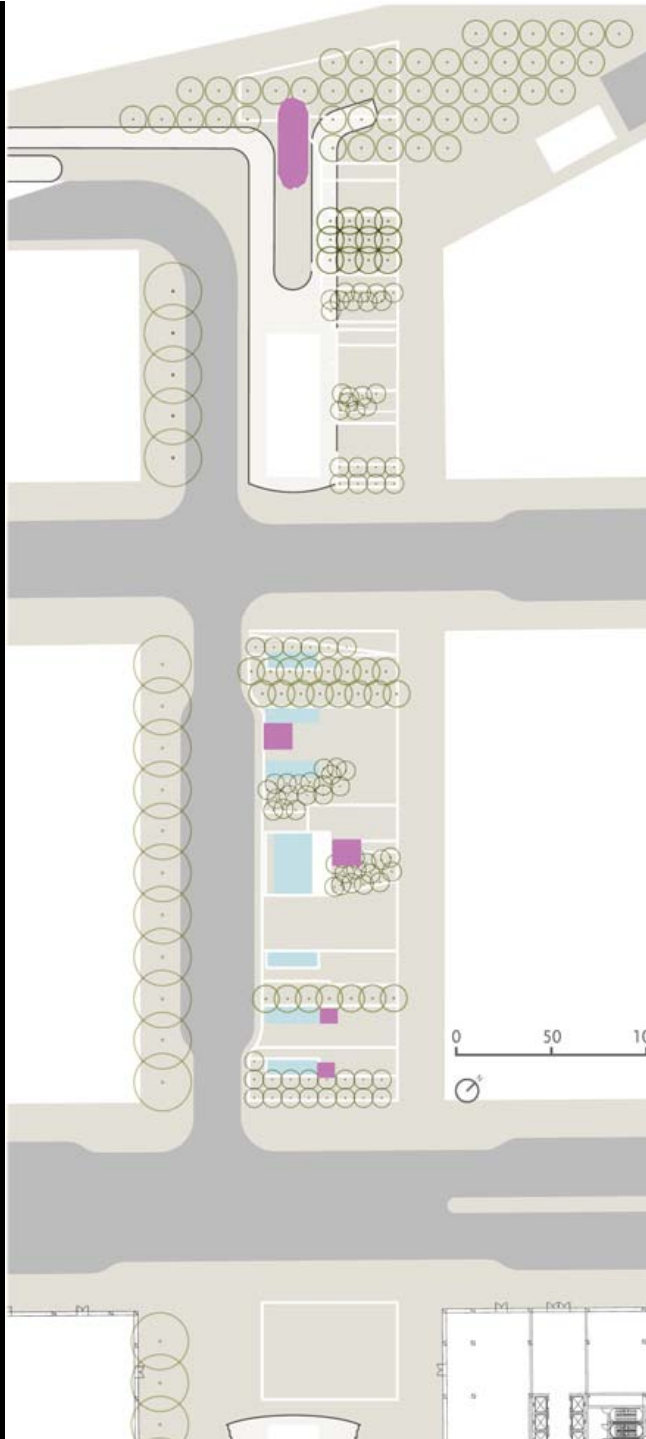
Denver Downtown Playground
21,400 SF



PRELIMINARY

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17th STREET ART



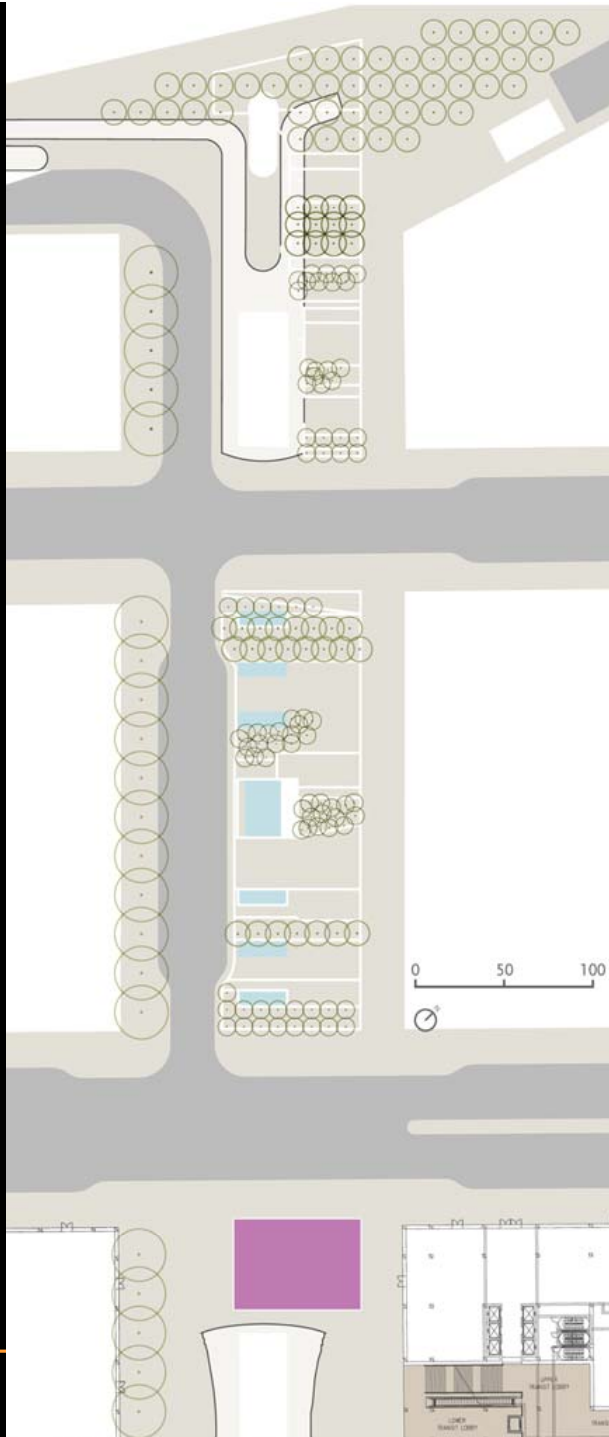
PROGRAM OPTIONS:
Art Installations
Rotating Sculpture
Sculptural Infrastructure



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PRELIMINARY

17th STREET SEASONAL INTEREST



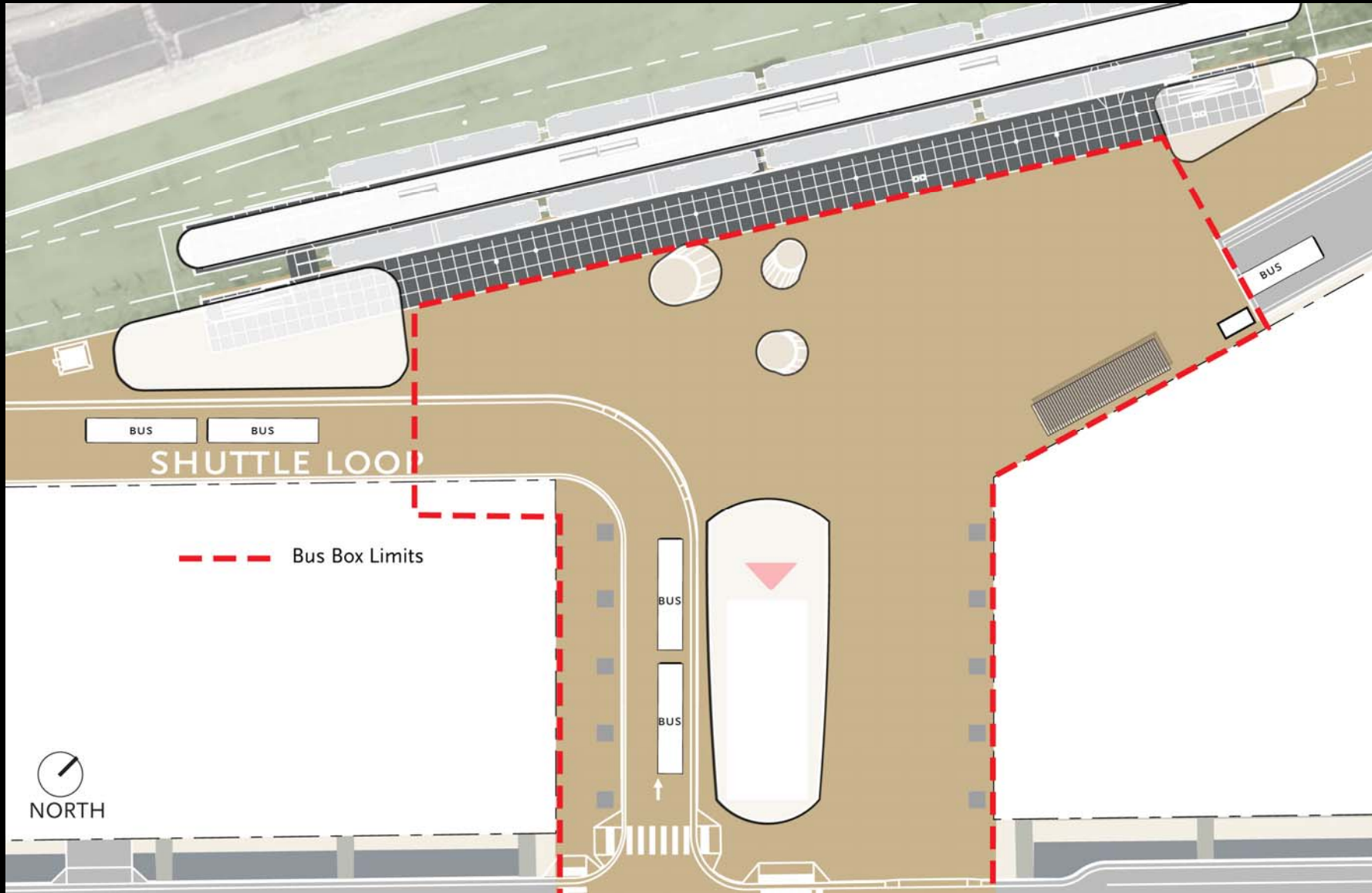
PROGRAM OPTIONS:
Seasonal Interest
Seating Locations
Visual Flair



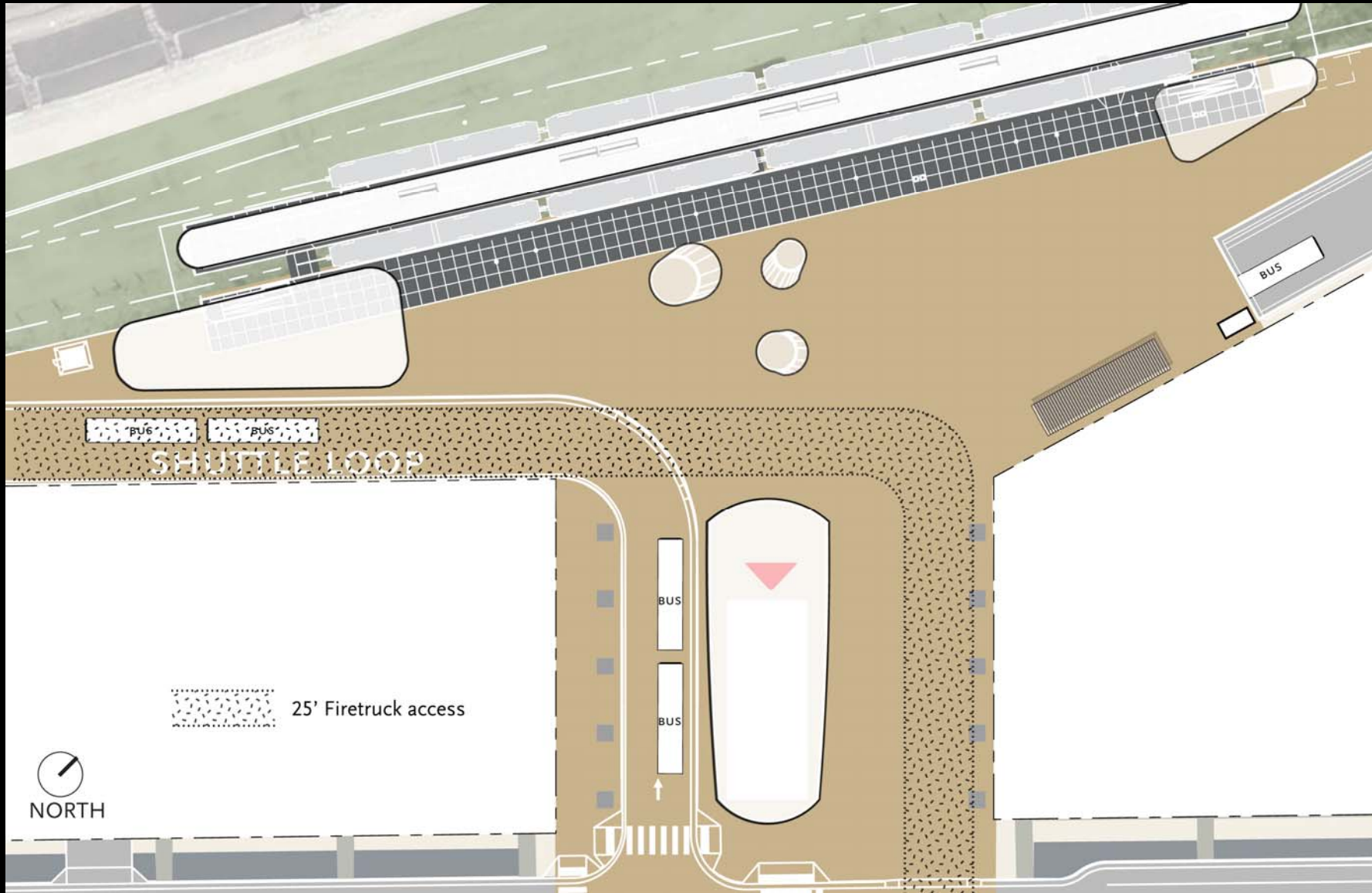
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LIGHT RAIL PLAZA



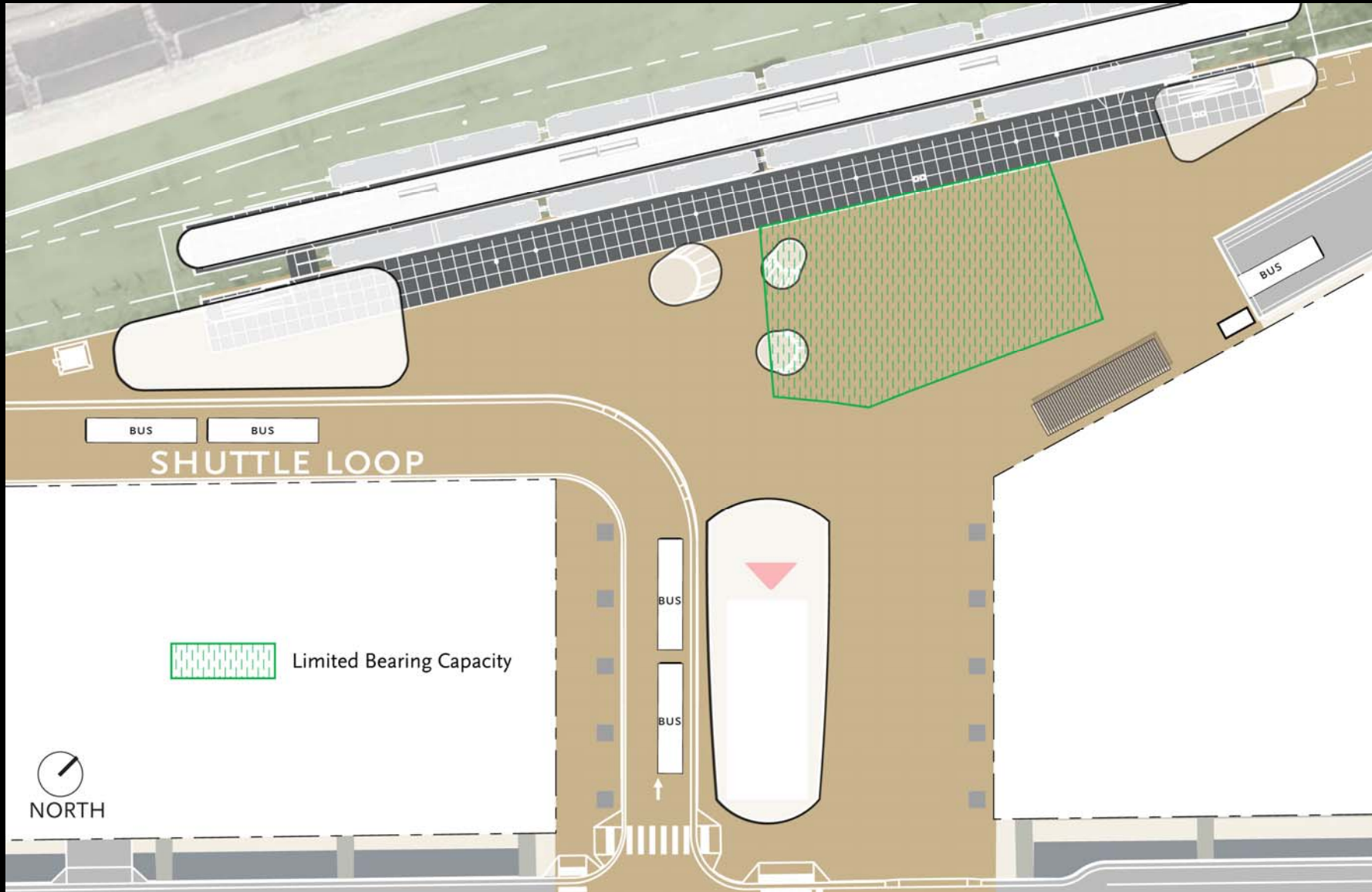
LIGHTRAIL PLAZA BUS BOX LIMITS



LIGHTRAIL PLAZA
25' FIRETRUCK ACCESS

PRELIMINARY

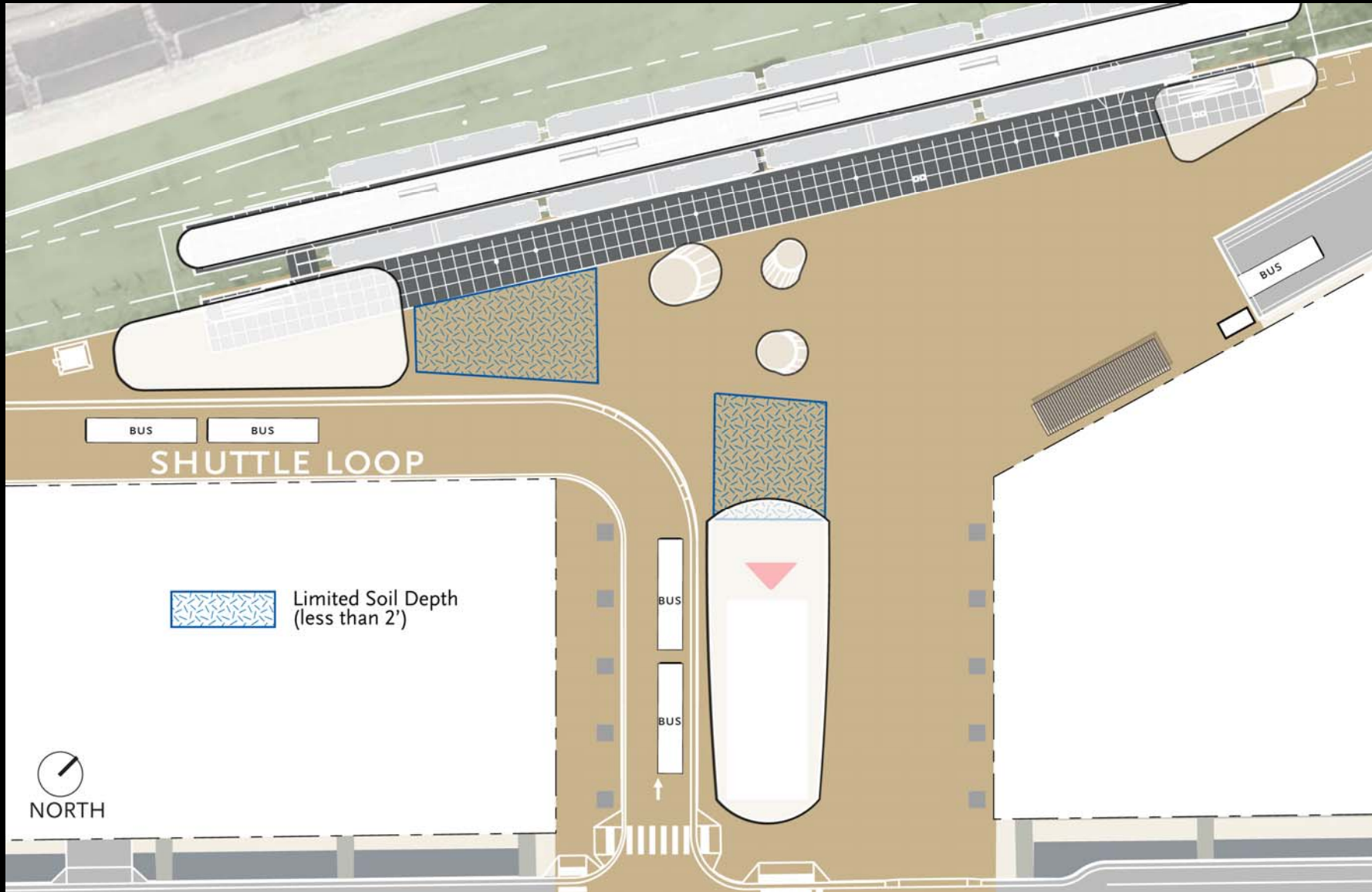
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LIGHTRAIL PLAZA LIMITED BEARING CAPACITY

PRELIMINARY

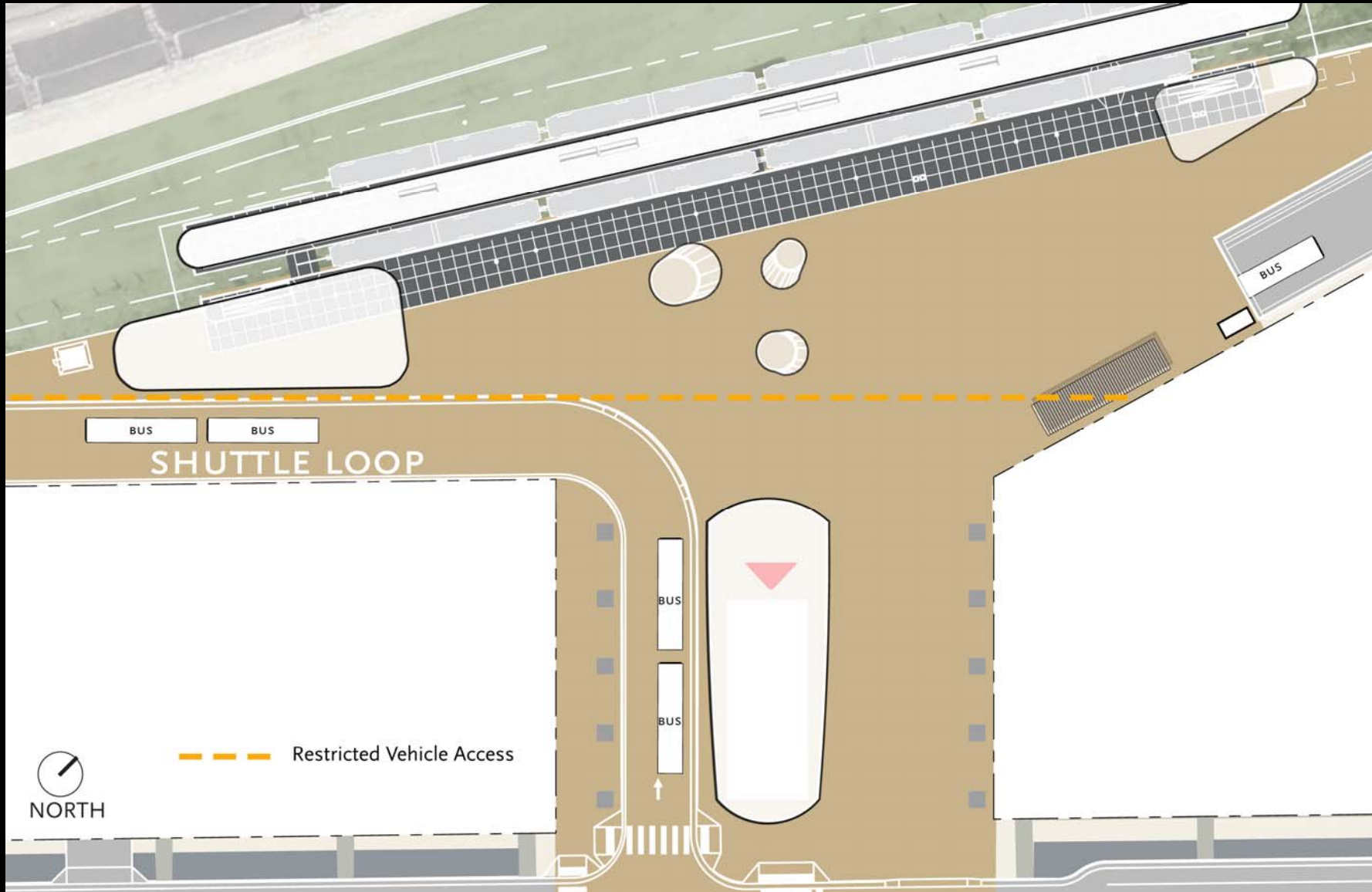
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LIGHTRAIL PLAZA LIMITED SOIL DEPTH

PRELIMINARY

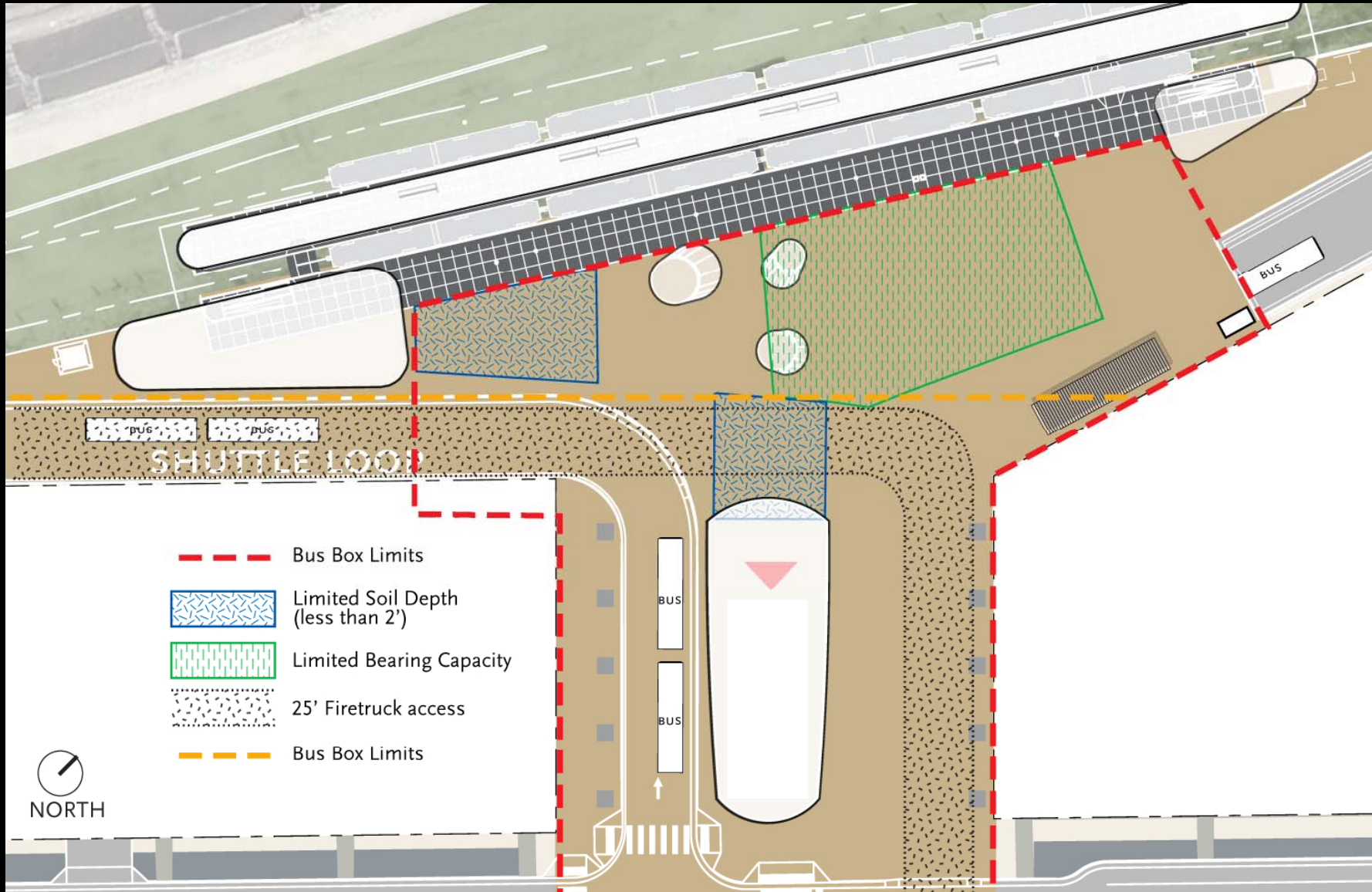
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LIGHTRAIL PLAZA RESTRICTED VEHICLE ACCESS

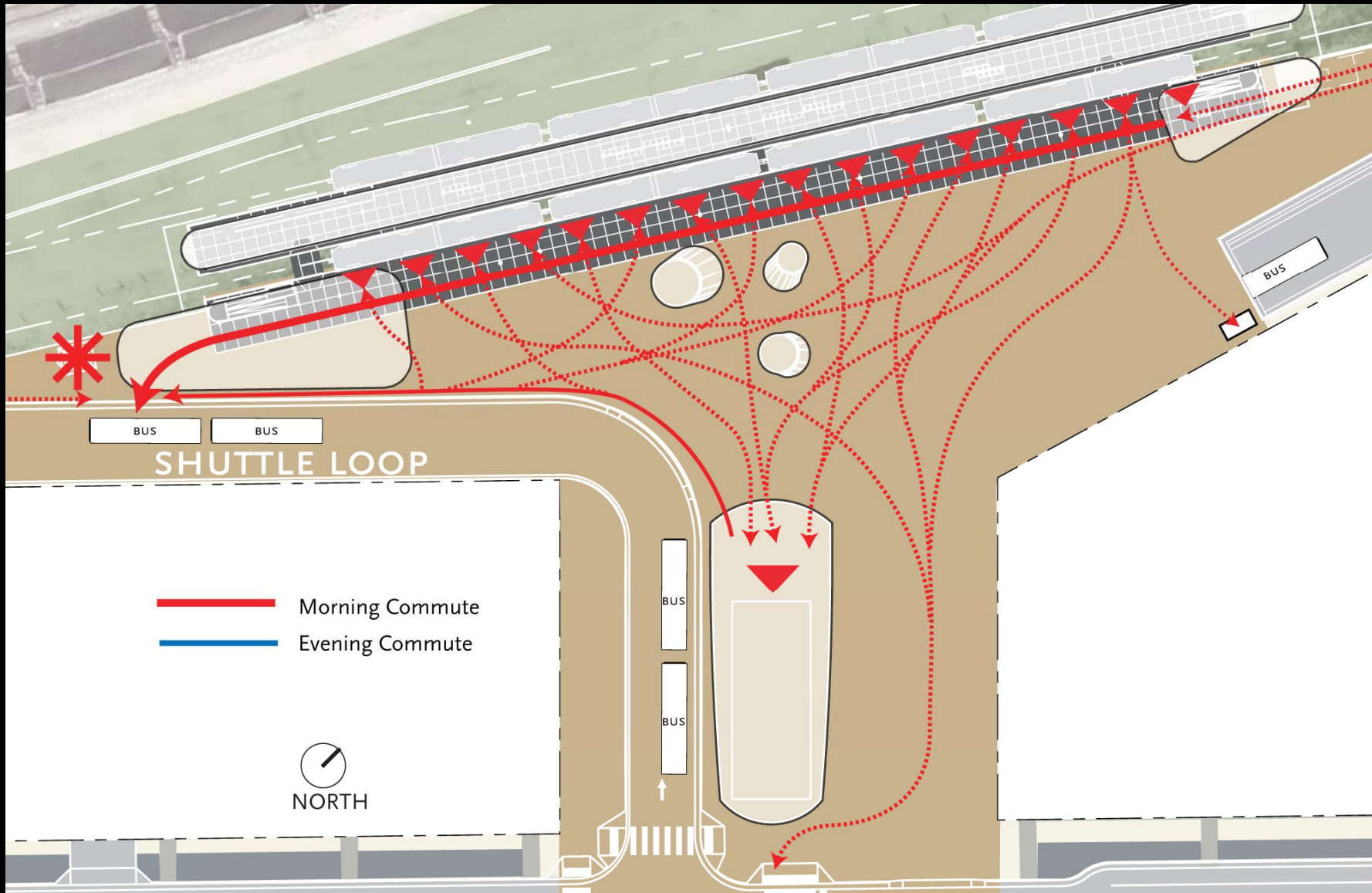
PRELIMINARY

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LIGHTRAIL PLAZA

STRUCTURAL/ACCESS CONSTRAINTS

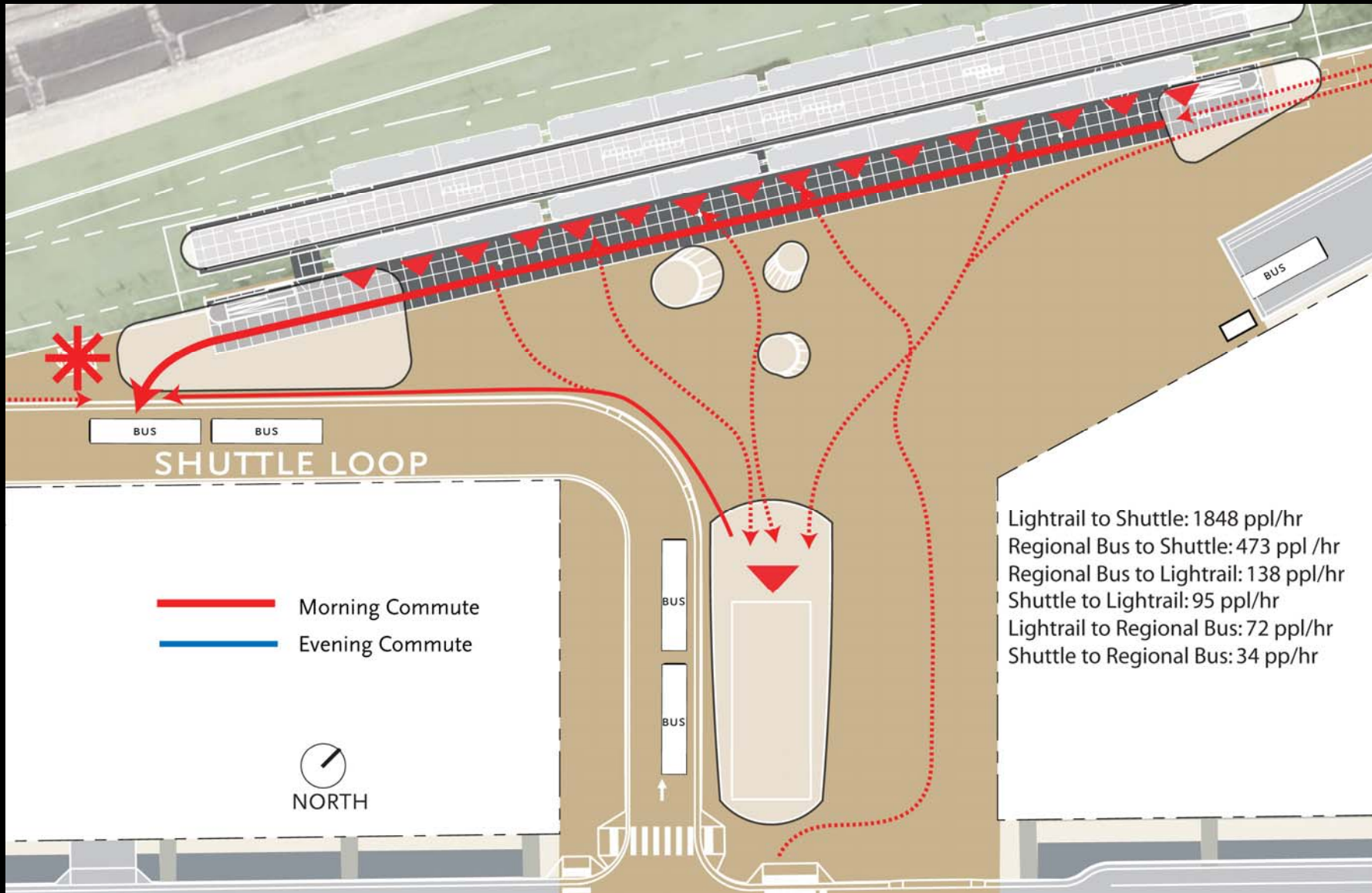


LIGHTRAIL PLAZA

MORNING PEDESTRIAN CIRCULATION

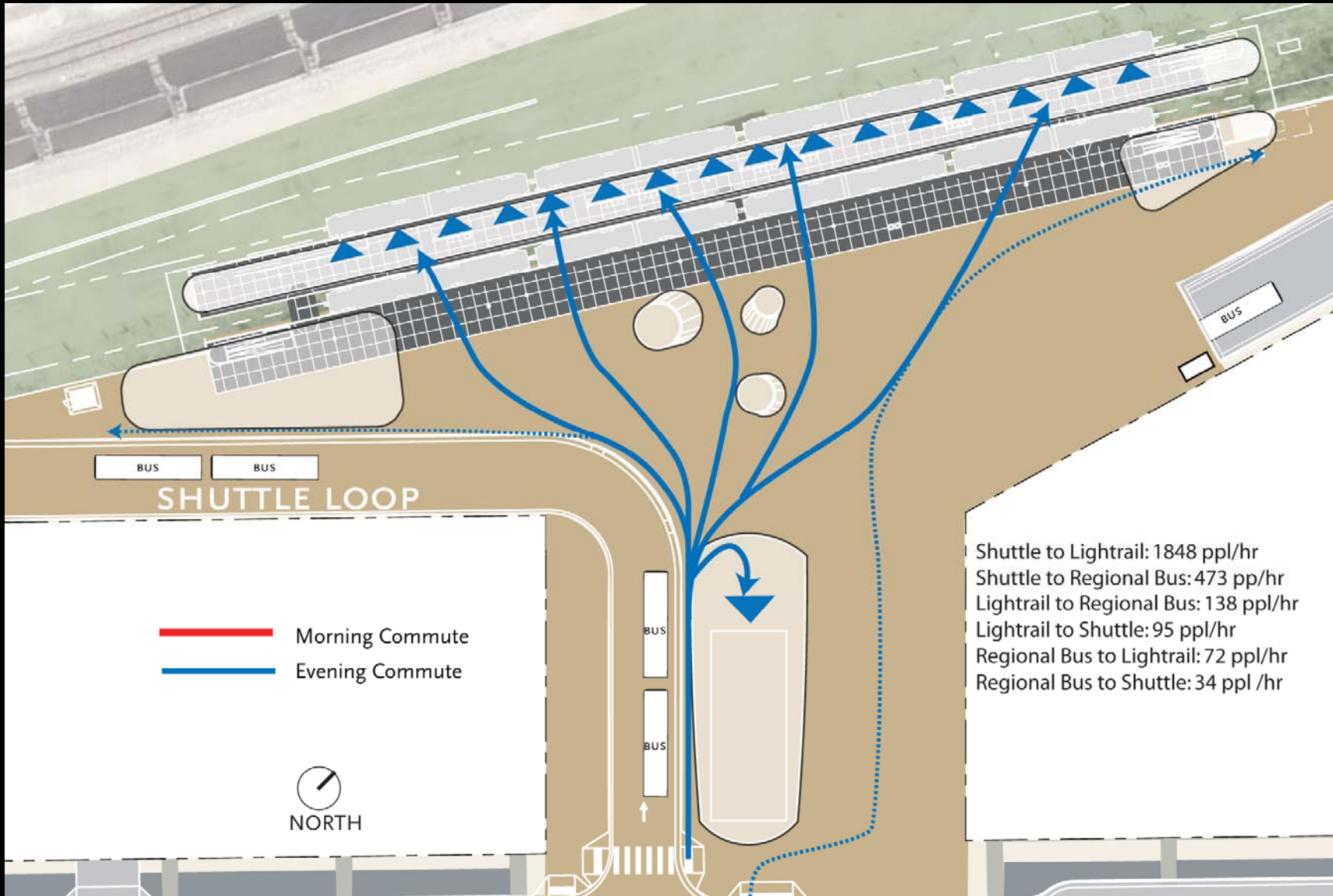
PRELIMINARY

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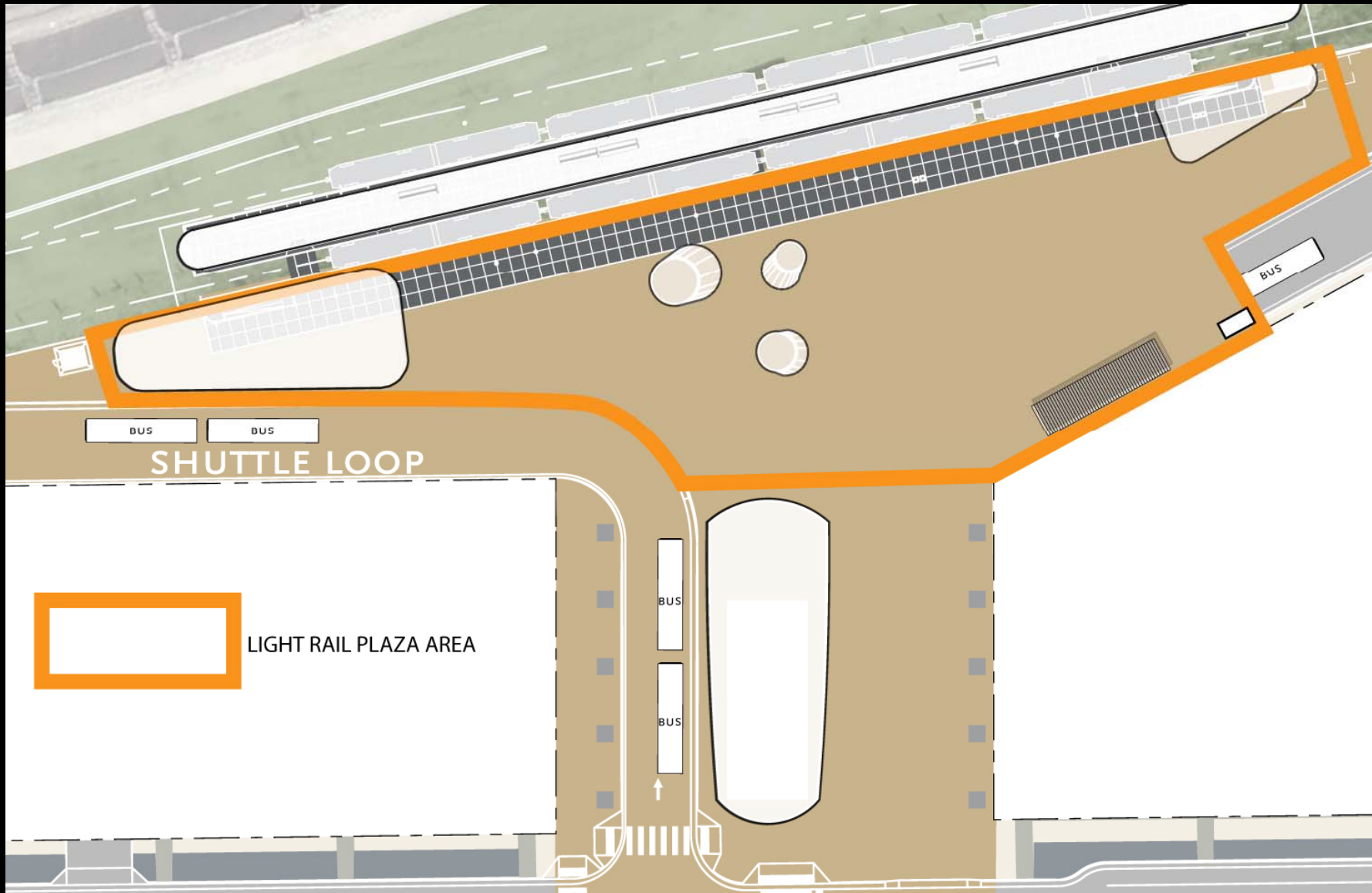
LIGHTRAIL PLAZA

MORNING PEDESTRIAN CIRCULATION

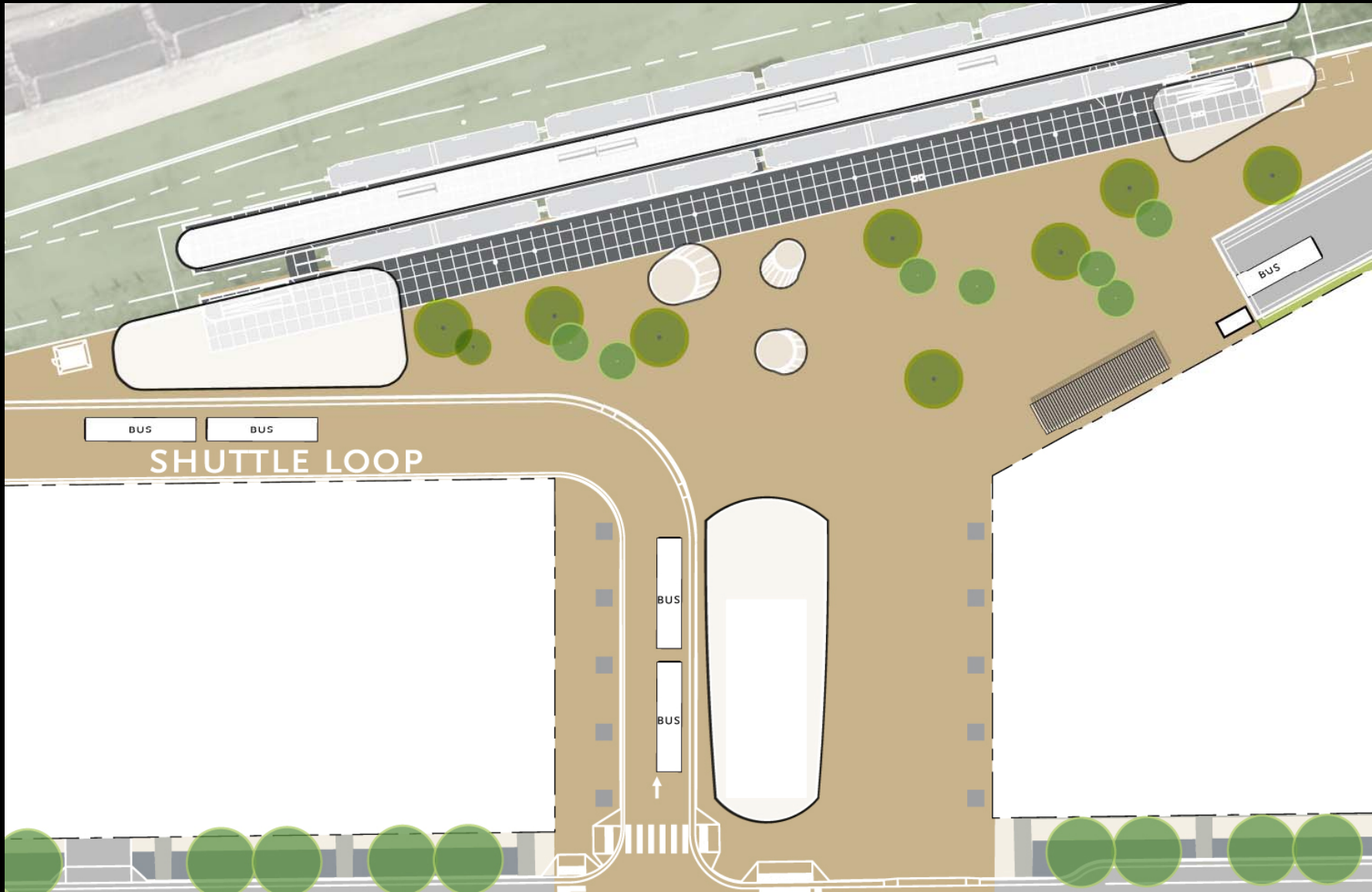


LIGHTRAIL PLAZA

EVENING PEDESTRIAN CIRCULATION



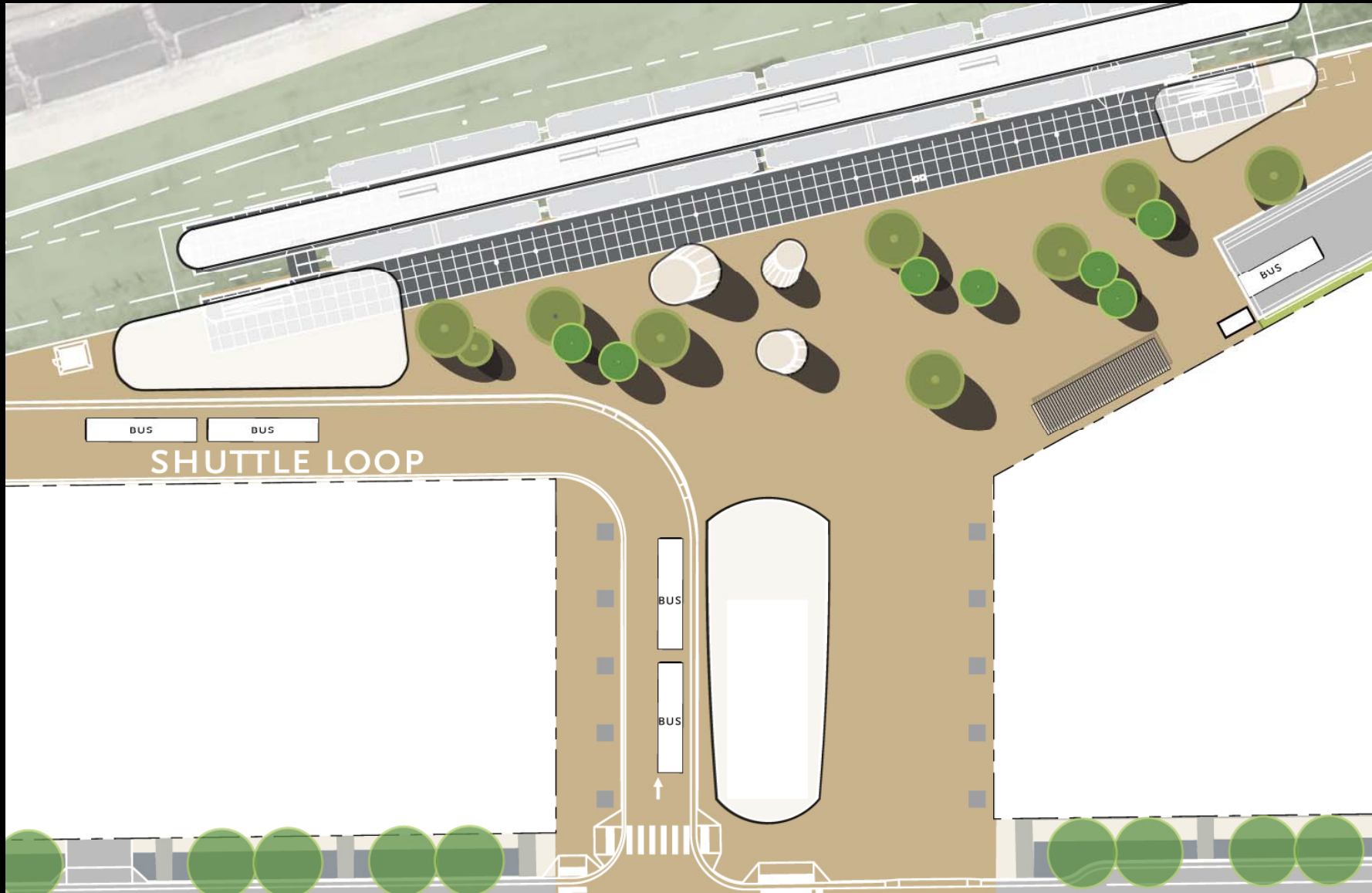
HOW CAN WE MAKE A PLACE AT LIGHT RAIL PLAZA?
AND HOW CAN WE MAKE THE TUBES A PART OF THAT
PLACE?



CANOPY TREES GROUND TUBES IN LARGER
LANDSCAPE SYSTEM

PRELIMINARY

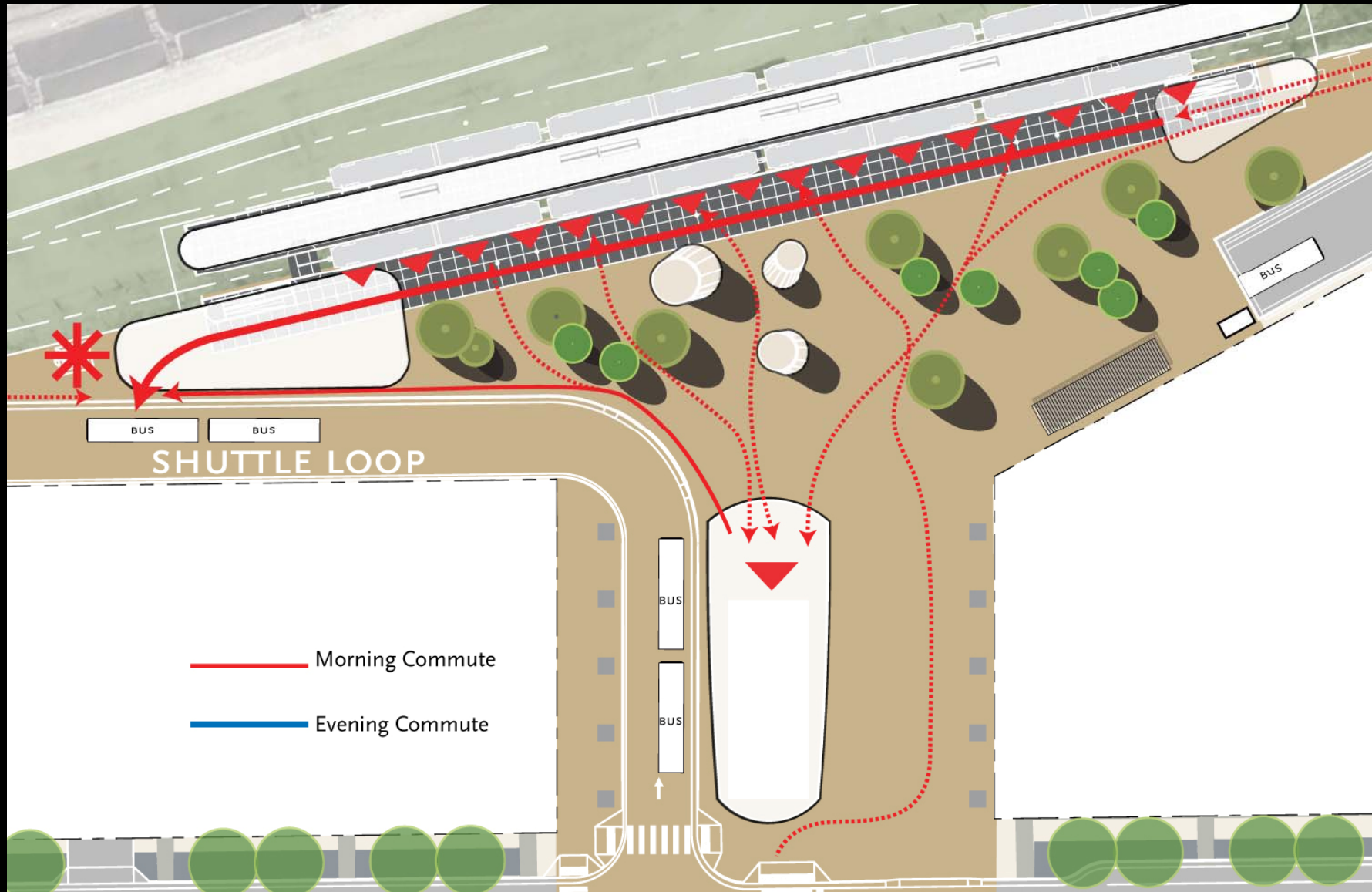
HARGREAVES ASSOCIATES · AECOM · SOM



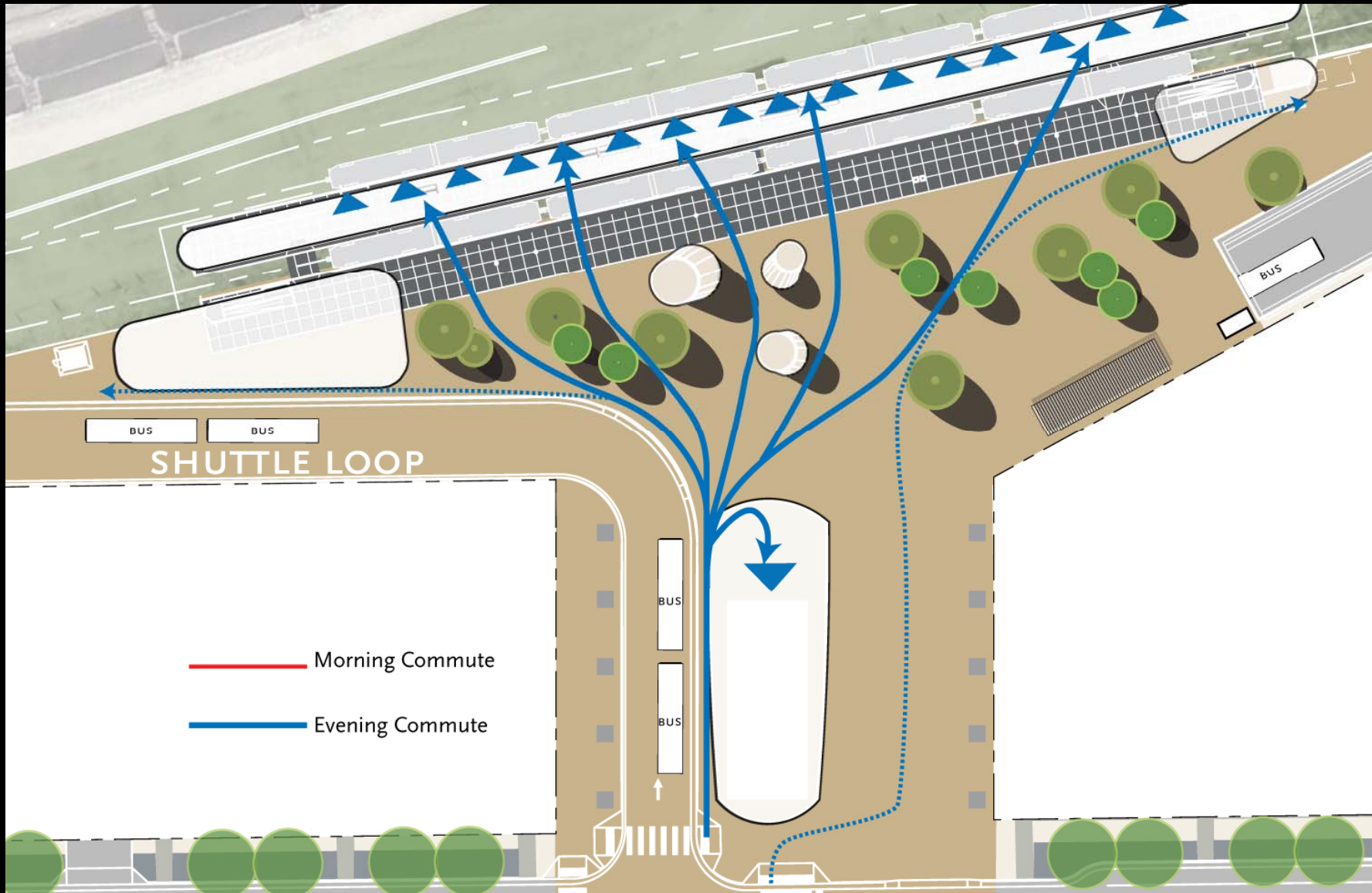
DRAMATIC LATE AFTERNOON SHADOWS GENERATE
GROUND PLANE THEME

PRELIMINARY

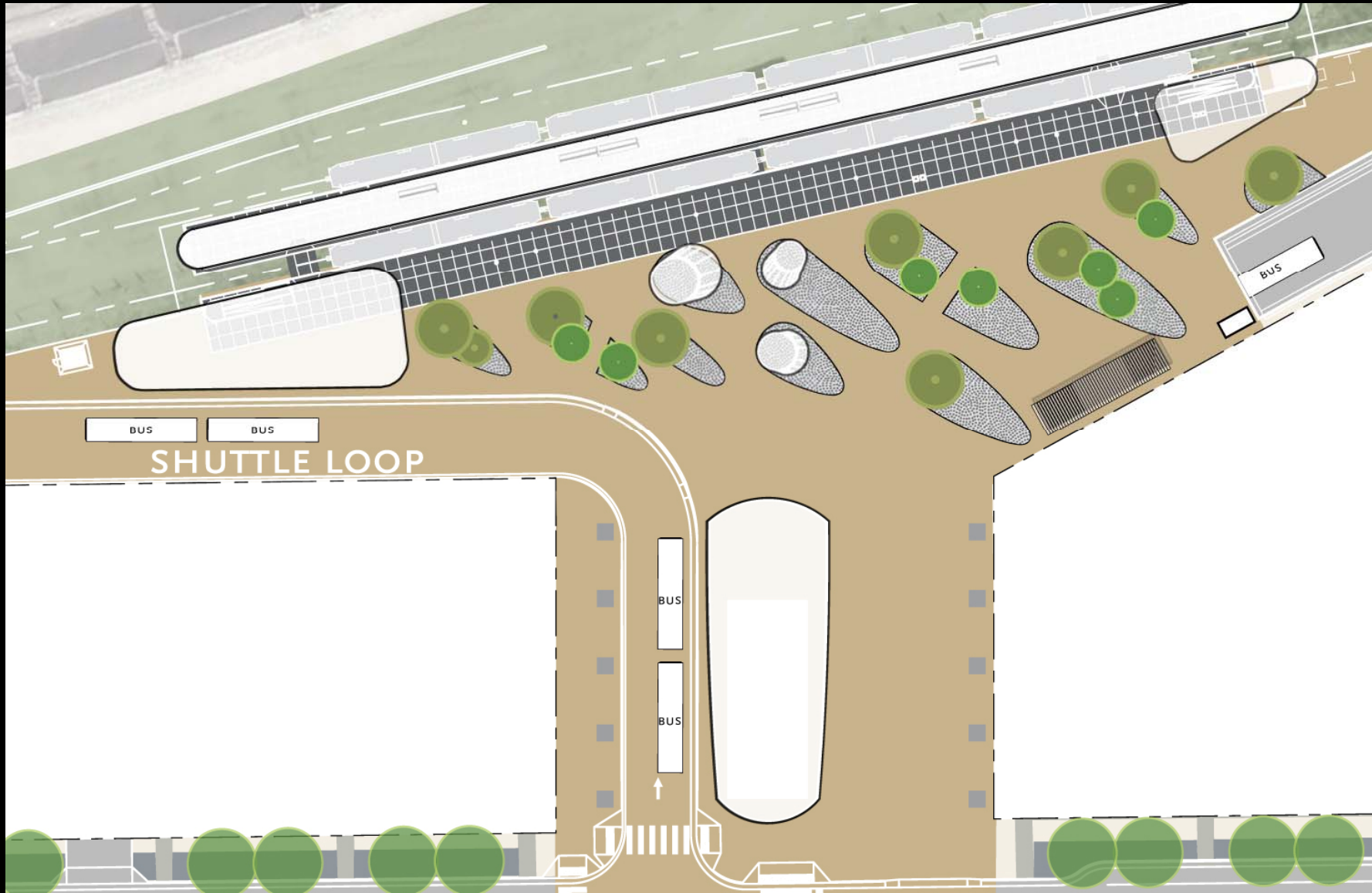
HARGREAVES ASSOCIATES · AECOM · SOM



DRAMATIC LATE AFTERNOON SHADOWS GENERATE
GROUND PLANE THEME



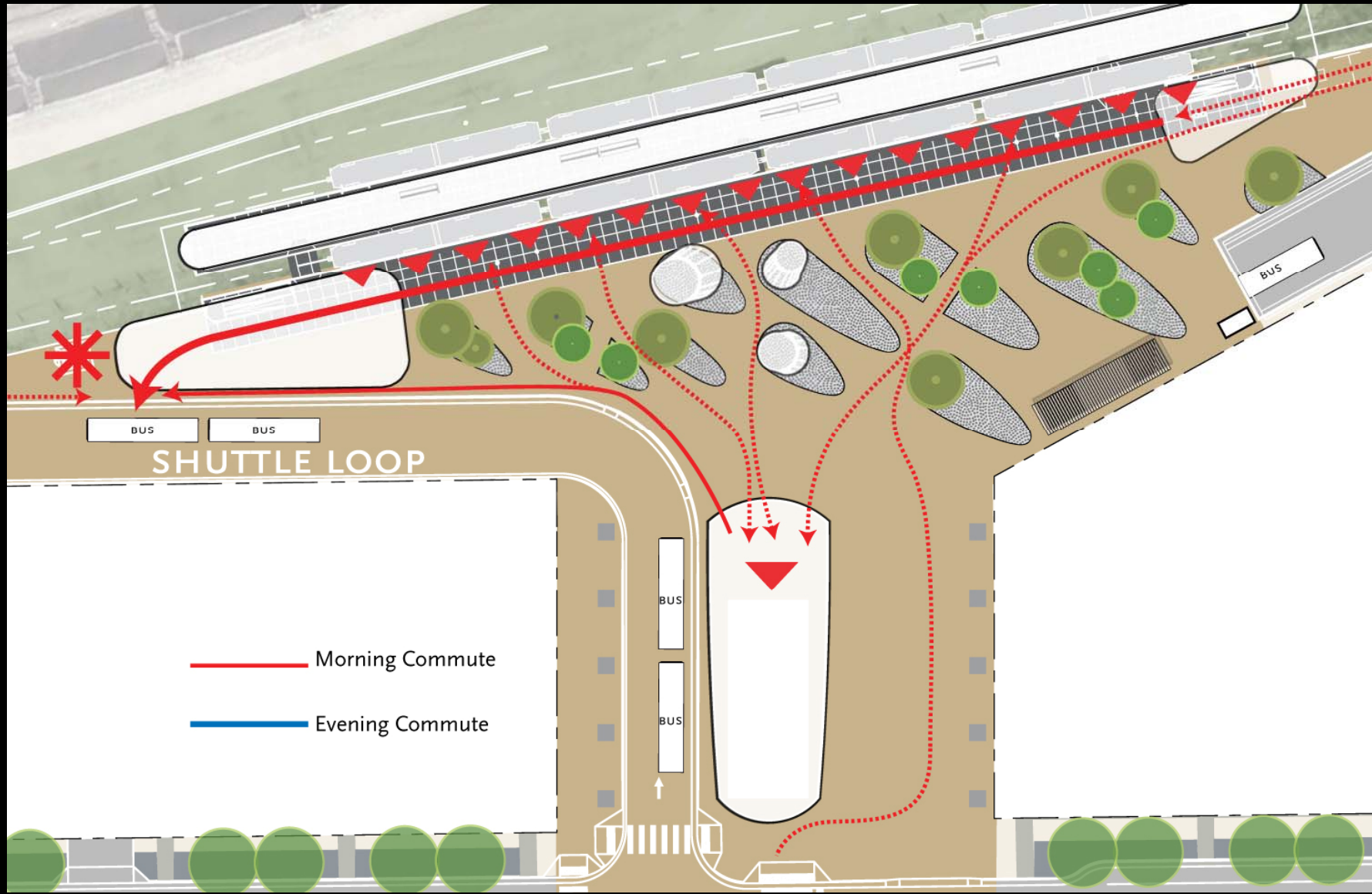
DRAMATIC LATE AFTERNOON SHADOWS GENERATE
GROUND PLANE THEME



ABSTRACTED SHADOWS CREATE DISTINCTIVE
"SHADOW ISLANDS"

PRELIMINARY

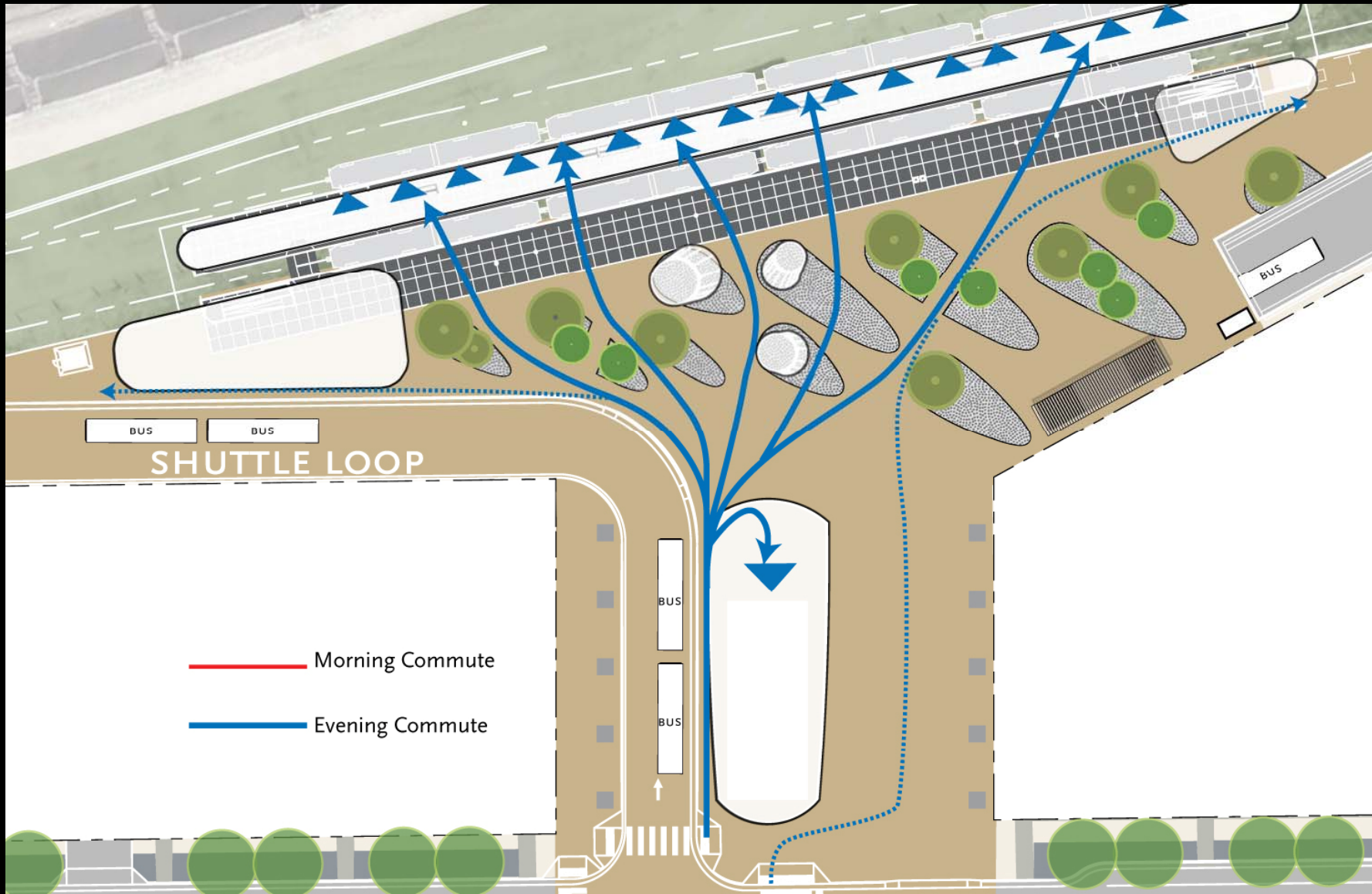
HARGREAVES ASSOCIATES · AECOM · SOM



ABSTRACTED SHADOWS CREATE DISTINCTIVE "SHADOW ISLANDS"

PRELIMINARY

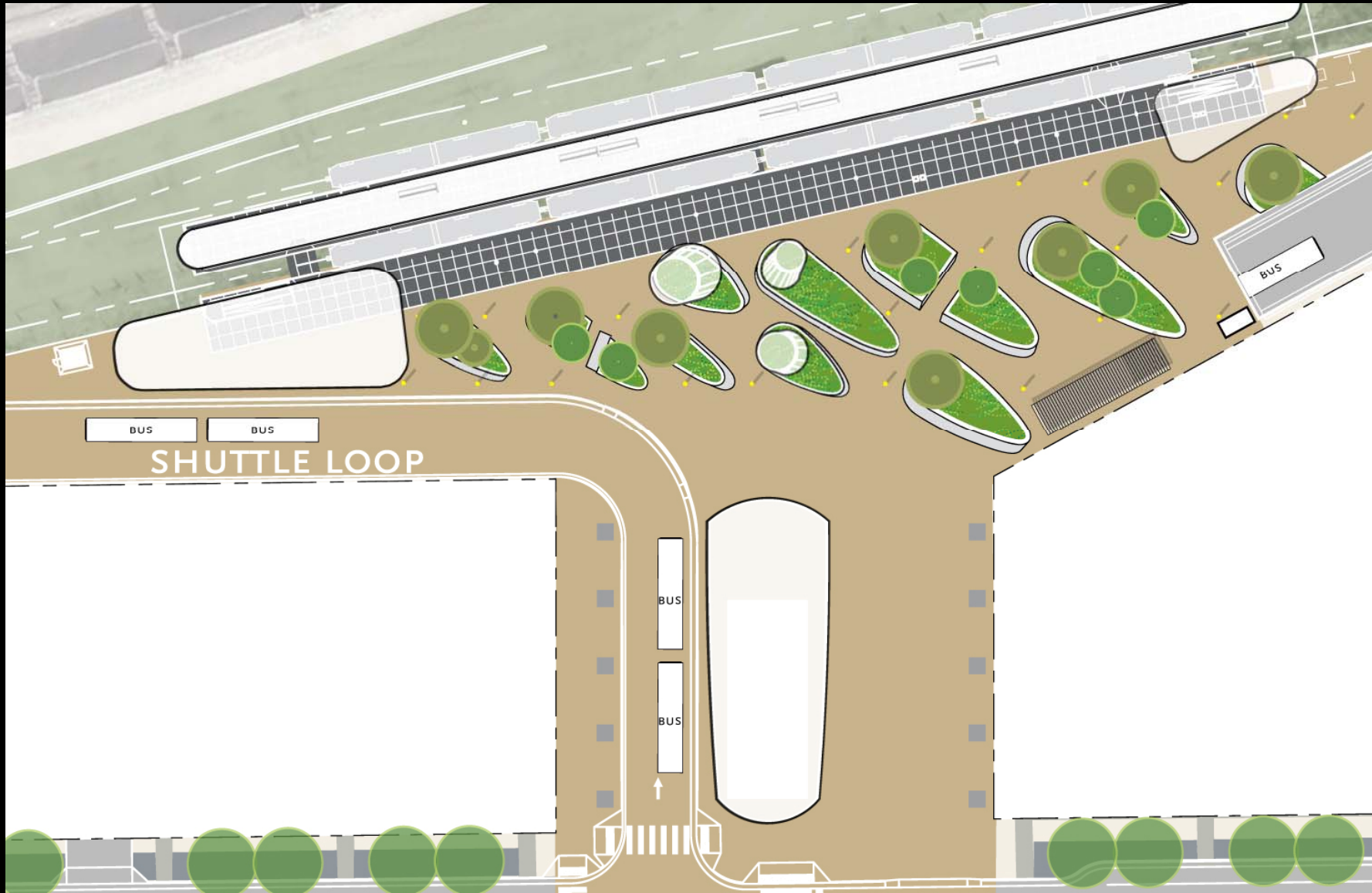
HARGREAVES ASSOCIATES · AECOM · SOM



ABSTRACTED SHADOWS CREATE DISTINCTIVE
"SHADOW ISLANDS"

PRELIMINARY

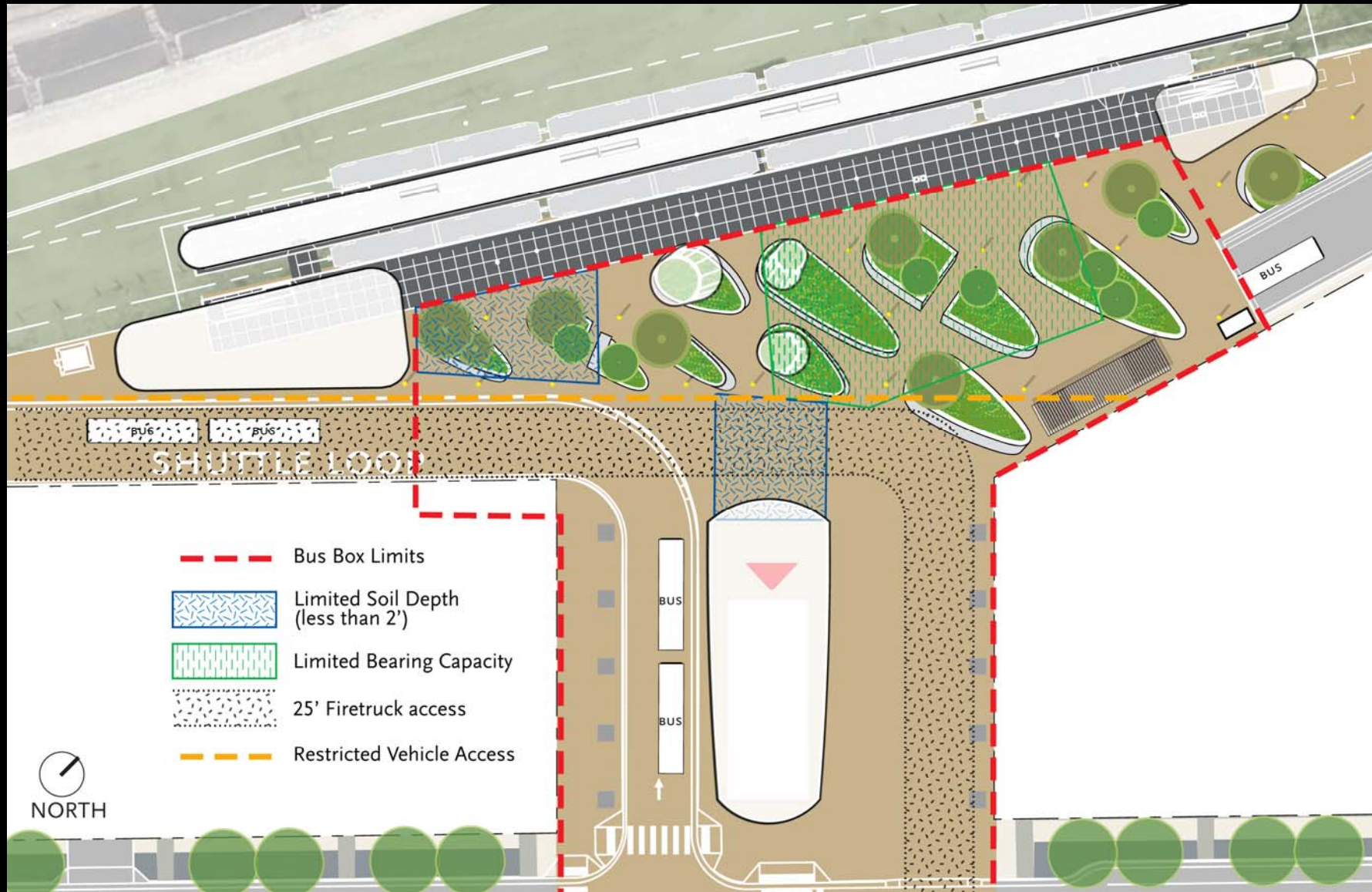
HARGREAVES ASSOCIATES · AECOM · SOM



EXTRUDED SHADOW ISLANDS CREATE SHADOW
LANDSCAPES W/SEATING – ALT 1

PRELIMINARY

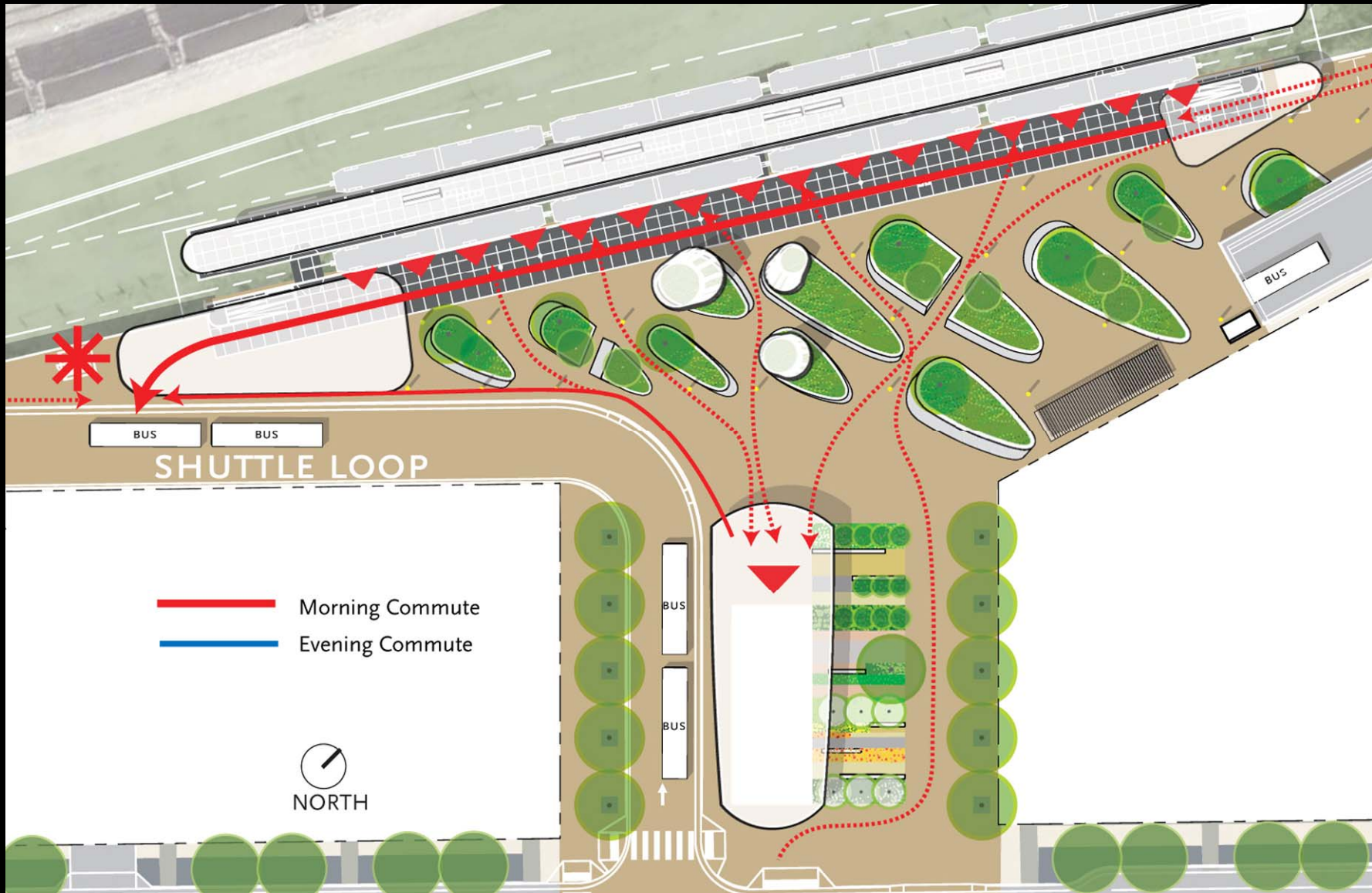
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SHADOW GARDENS ACCOMMODATE PRIMARY MOVEMENTS AND CONTROL VEHICULAR ACCESS

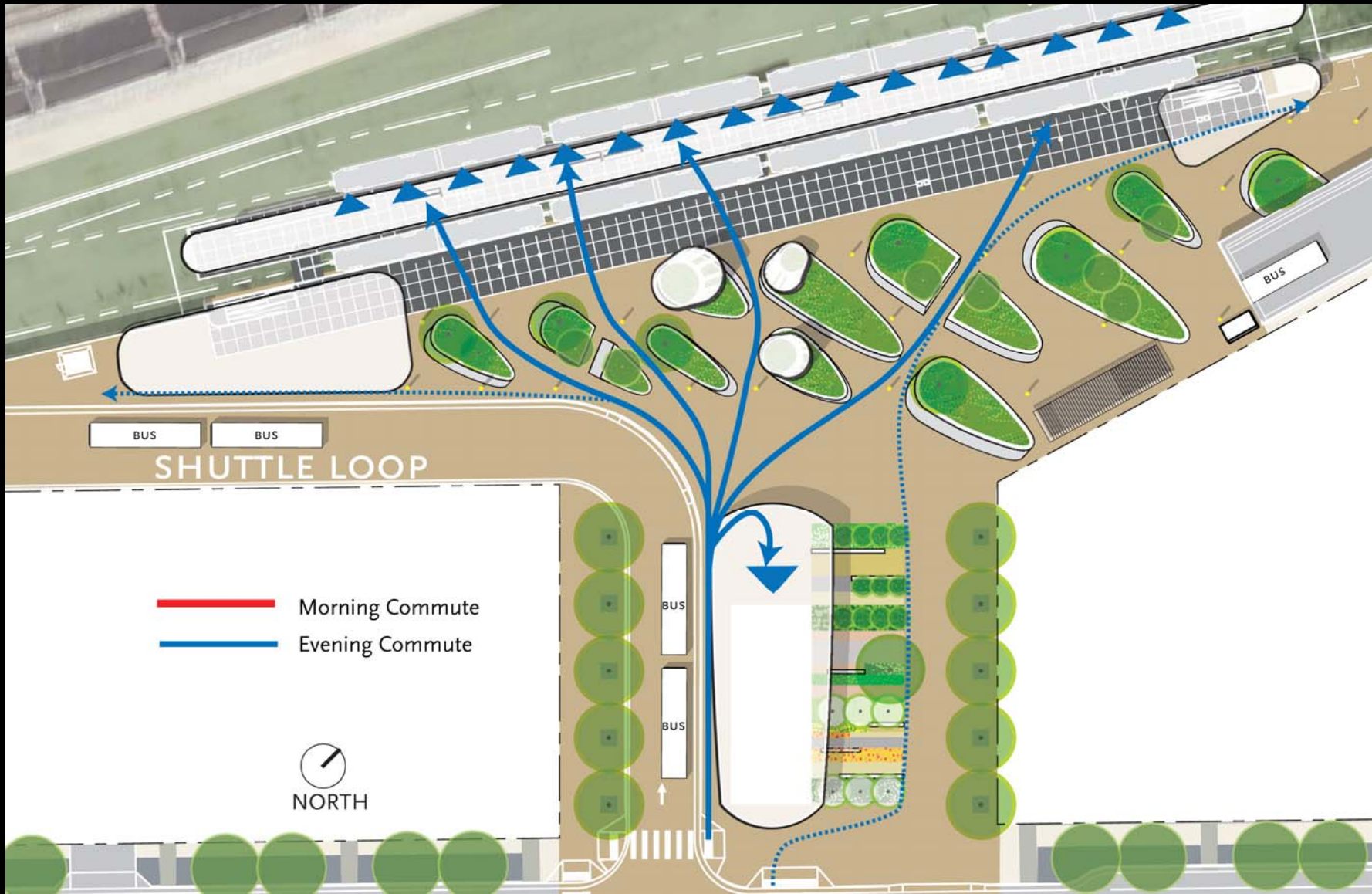
PRELIMINARY

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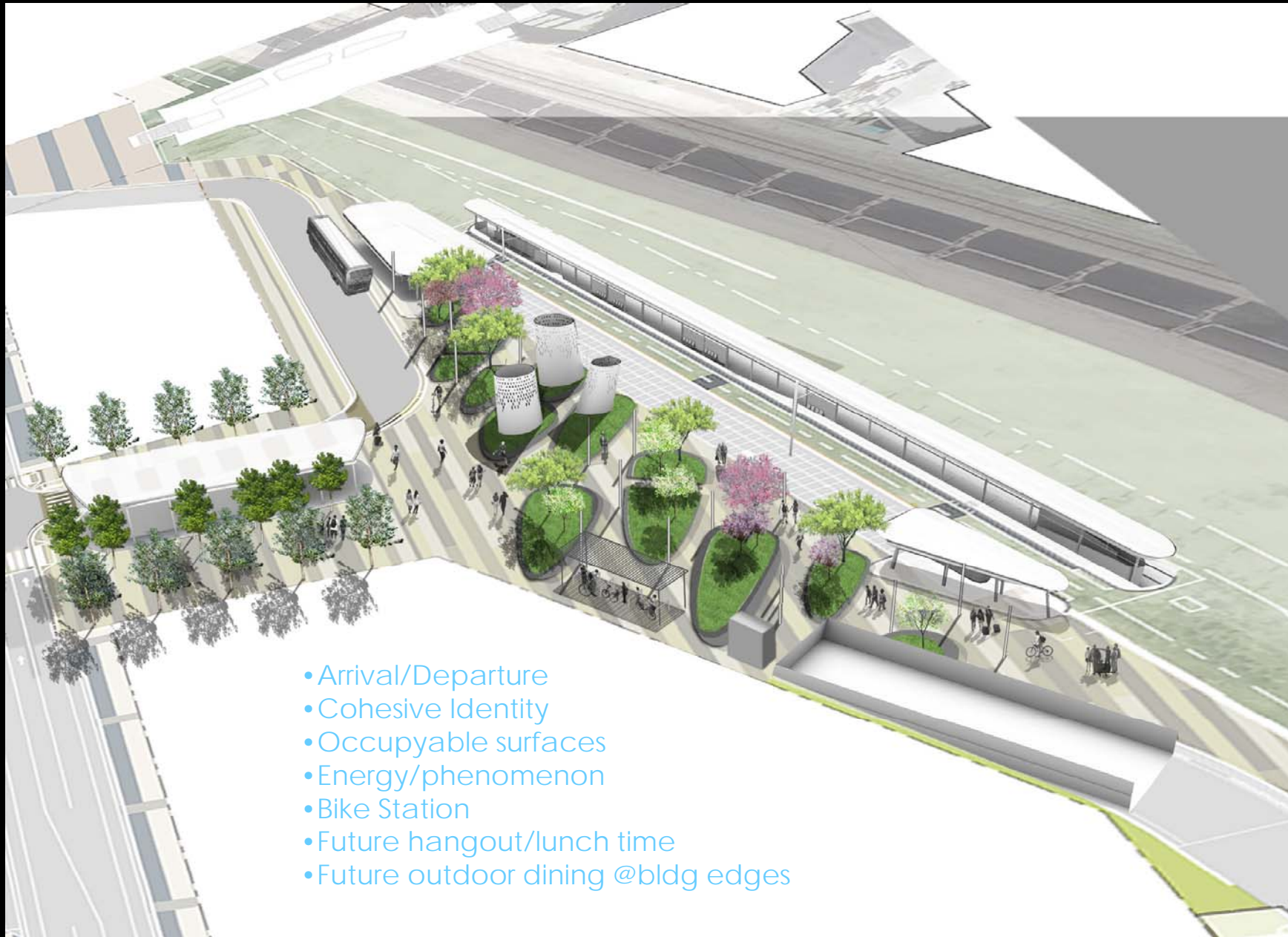
LIGHTRAIL PLAZA

SHADOW ISLANDS W/MORNING CIRCULATION – ALT 1



LIGHTRAIL PLAZA

SHADOW ISLANDS W/EVENING CIRCULATION – ALT 1



- Arrival/Departure
- Cohesive Identity
- Occupiable surfaces
- Energy/phenomenon
- Bike Station
- Future hangout/lunch time
- Future outdoor dining @bldg edges

LIGHTRAIL PLAZA DESIGN – ALT 1



LIGHTRAIL PLAZA LOOKING EAST – ALT 1

PRELIMINARY

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PRELIMINARY

HARGREAVES ASSOCIATES · AECOM · SOM

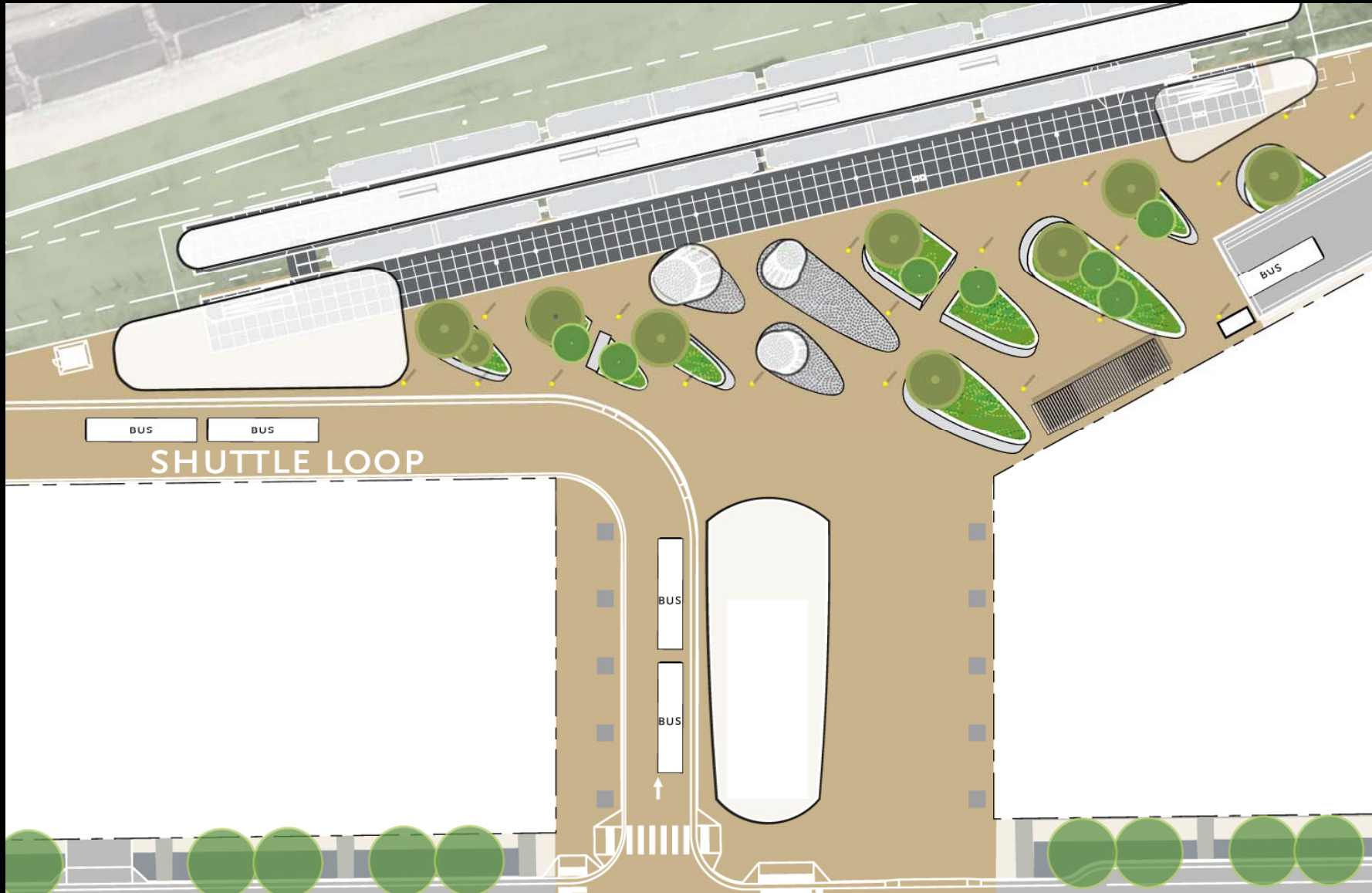
LIGHTRAIL PLAZA LOOKING EAST – ALT 1 NIGHT



LIGHTRAIL PLAZA LOOKING WEST – ALT 1

PRELIMINARY

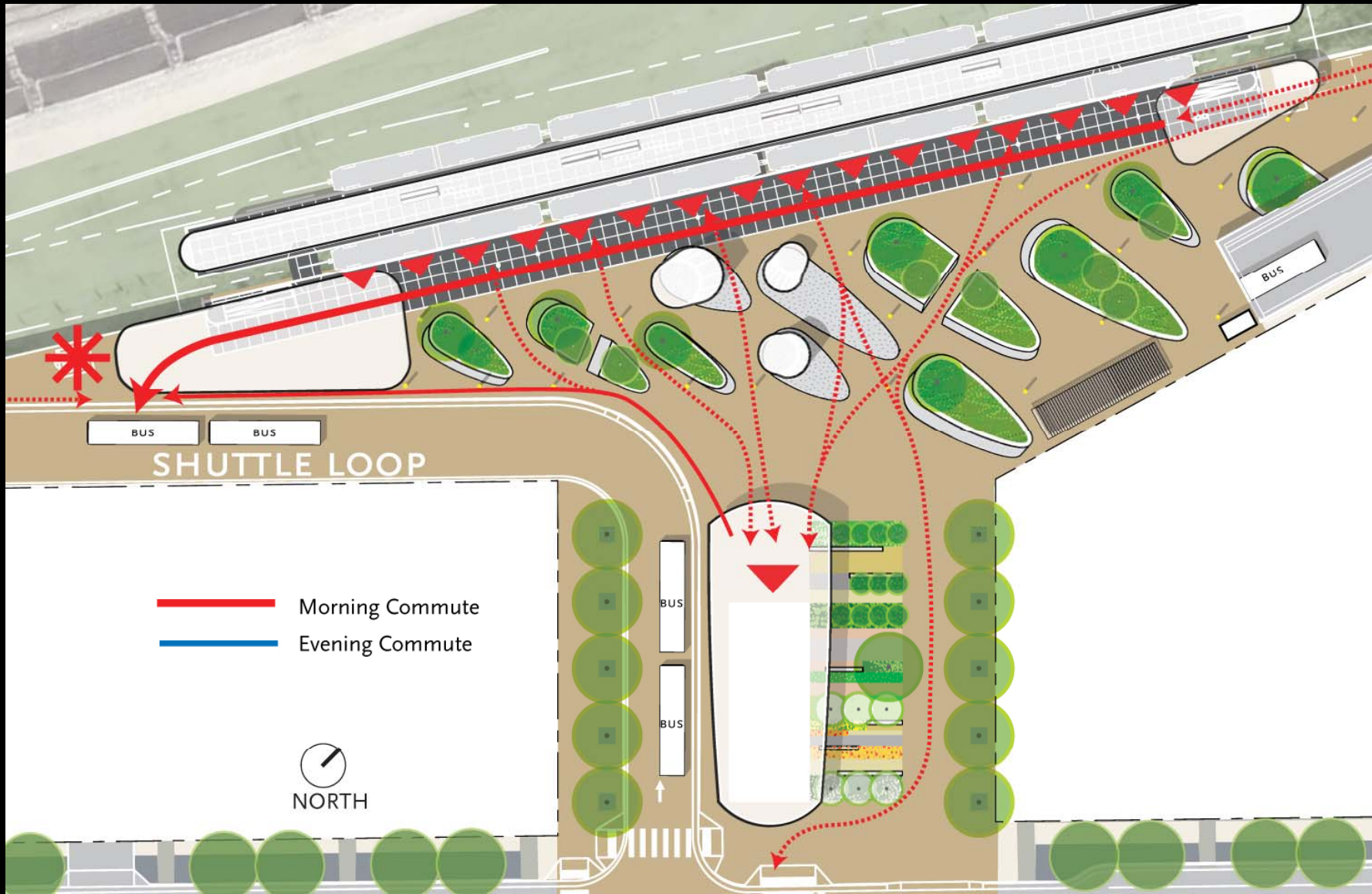
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EXTRUDED SHADOW ISLANDS CREATE SHADOW LANDSCAPES W/SEATING – ALT 2

PRELIMINARY

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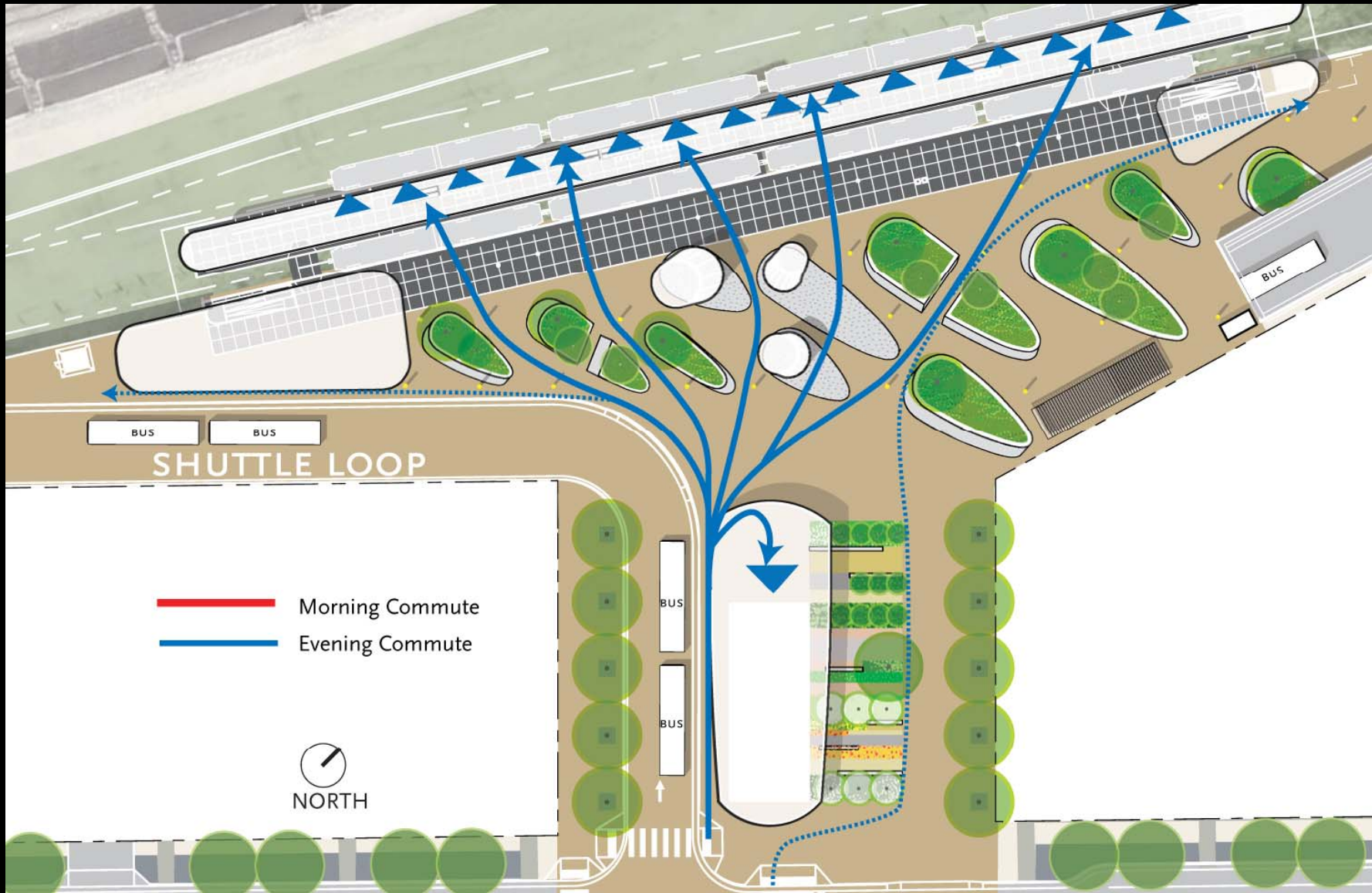


LIGHTRAIL PLAZA

SHADOW ISLANDS W/MORNING CIRCULATION – ALT 2

PRELIMINARY

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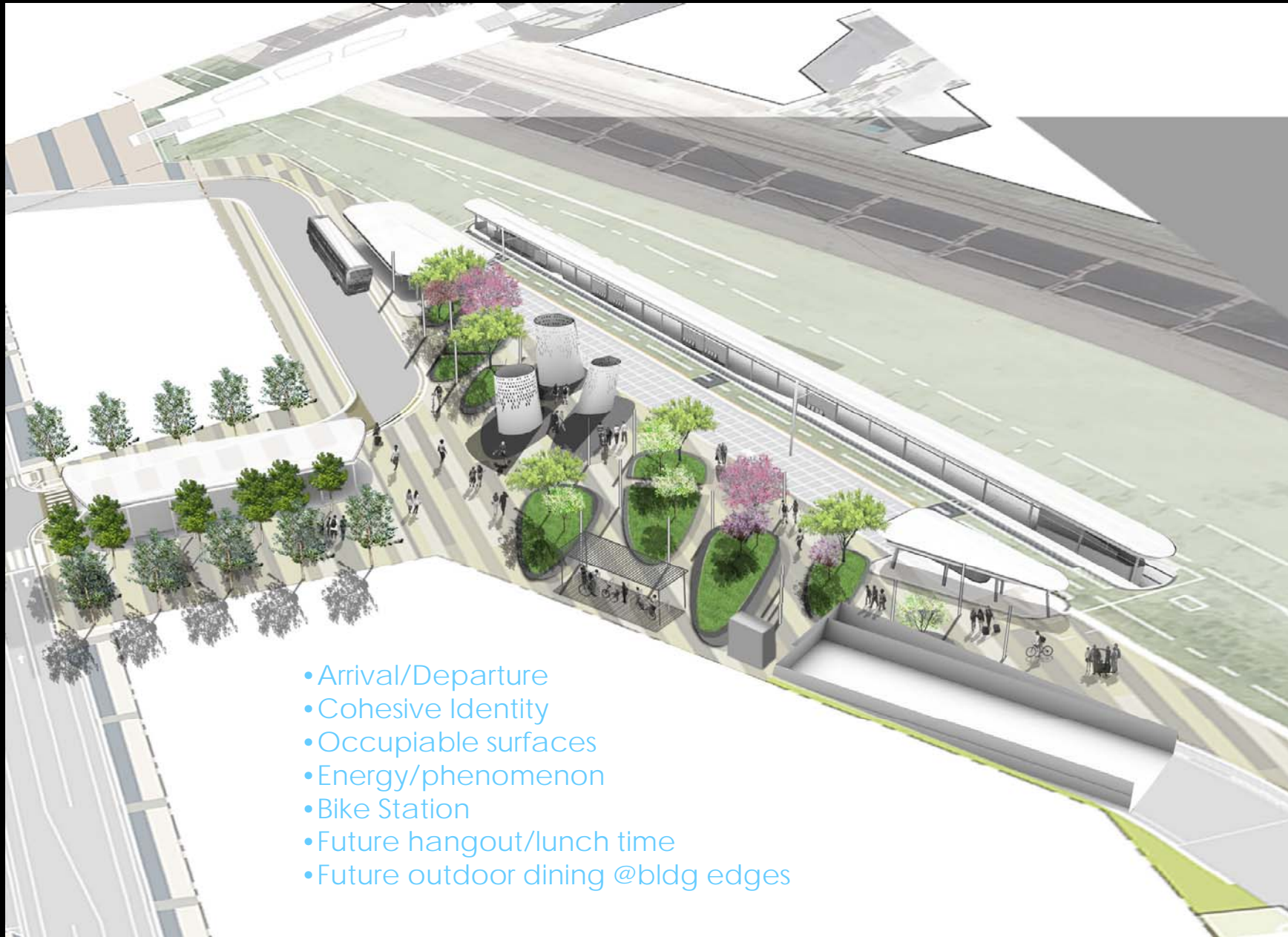


LIGHTRAIL PLAZA

SHADOW ISLANDS W/EVENING CIRCULATION – ALT 2

PRELIMINARY

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- Arrival/Departure
- Cohesive Identity
- Occupiable surfaces
- Energy/phenomenon
- Bike Station
- Future hangout/lunch time
- Future outdoor dining @bldg edges

LIGHTRAIL PLAZA DESIGN – ALT 2

PRELIMINARY

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LIGHTRAIL PLAZA LOOKING EAST – ALT 2

PRELIMINARY

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LIGHTRAIL PLAZA LOOKING WEST – ALT 2

PRELIMINARY

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QUAKING ASPEN IN NATIVE GRASSES

- Many Trunks
- Striking Yellow Fall Color
- Movement and Sound of Leaves

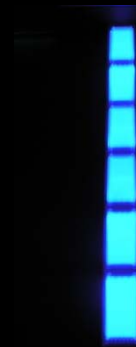
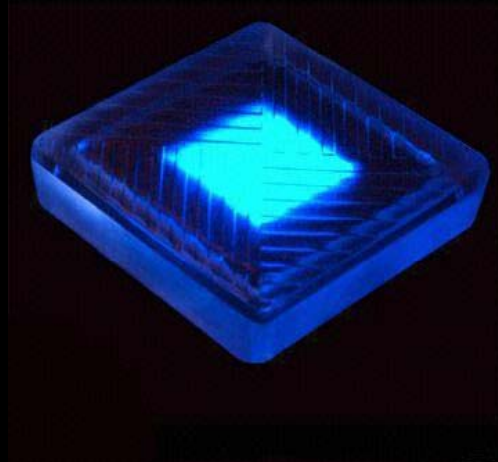
LIGHTRAIL PLAZA PLANTING – ALT 2



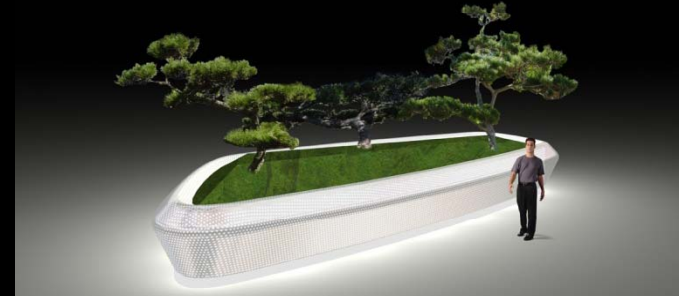
PONDEROSA PINE IN NATIVE GRASSES

- Evergreen
- Striking Silhouette and Shadows
- Textured Bark

LIGHTRAIL PLAZA PLANTING – ALT 2



LIGHTRAIL PLAZA - LIGHTING PRECEDENTS



LIGHTRAIL PLAZA - LIGHTING & SEATING PRECEDENTS

PRELIMINARY

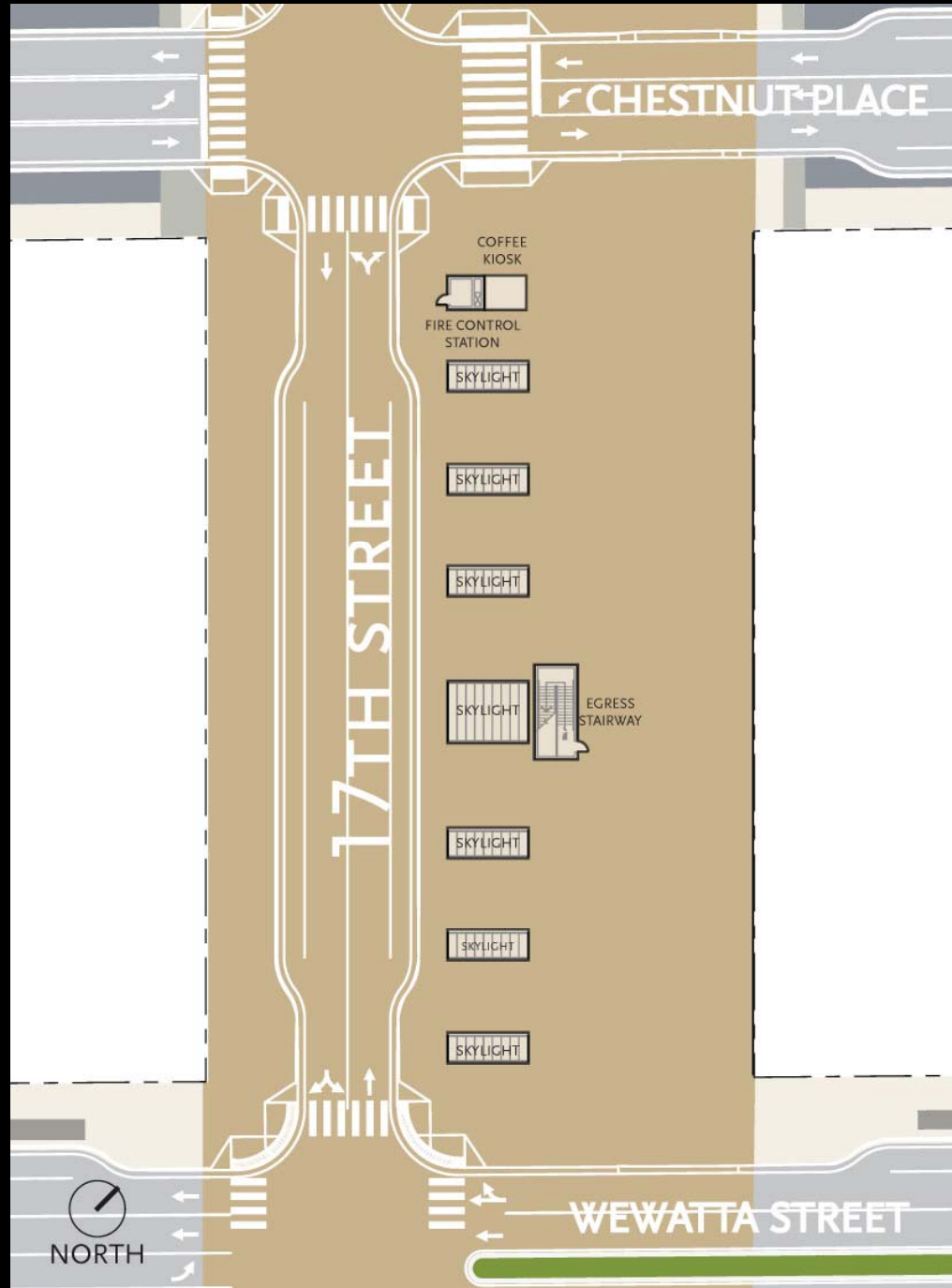
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17th STREET GARDENS

HARGREAVES ASSOCIATES · AECOM · SOM

PRELIMINARY

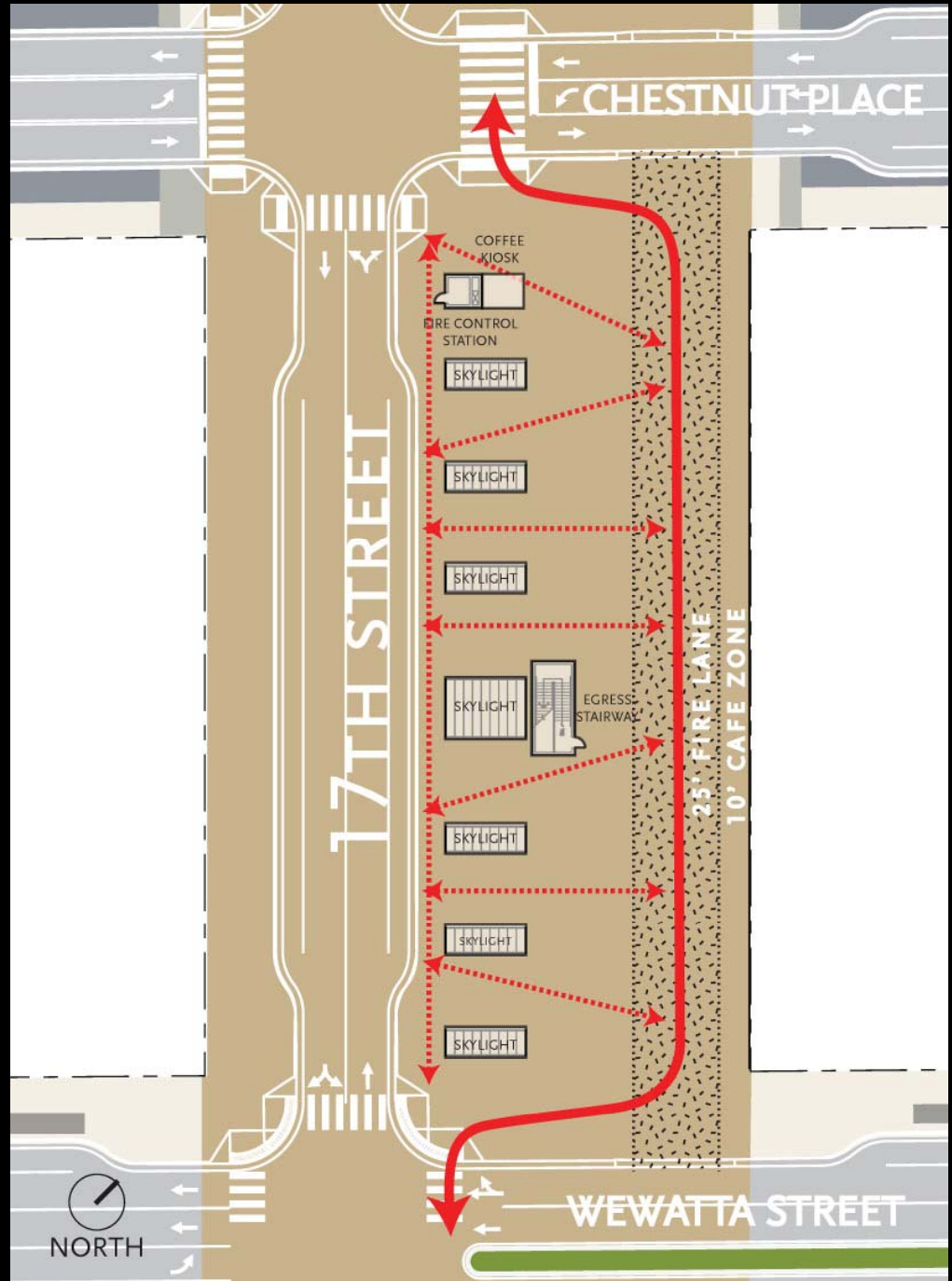
17th STREET GARDENS COMPONENTS



PRELIMINARY

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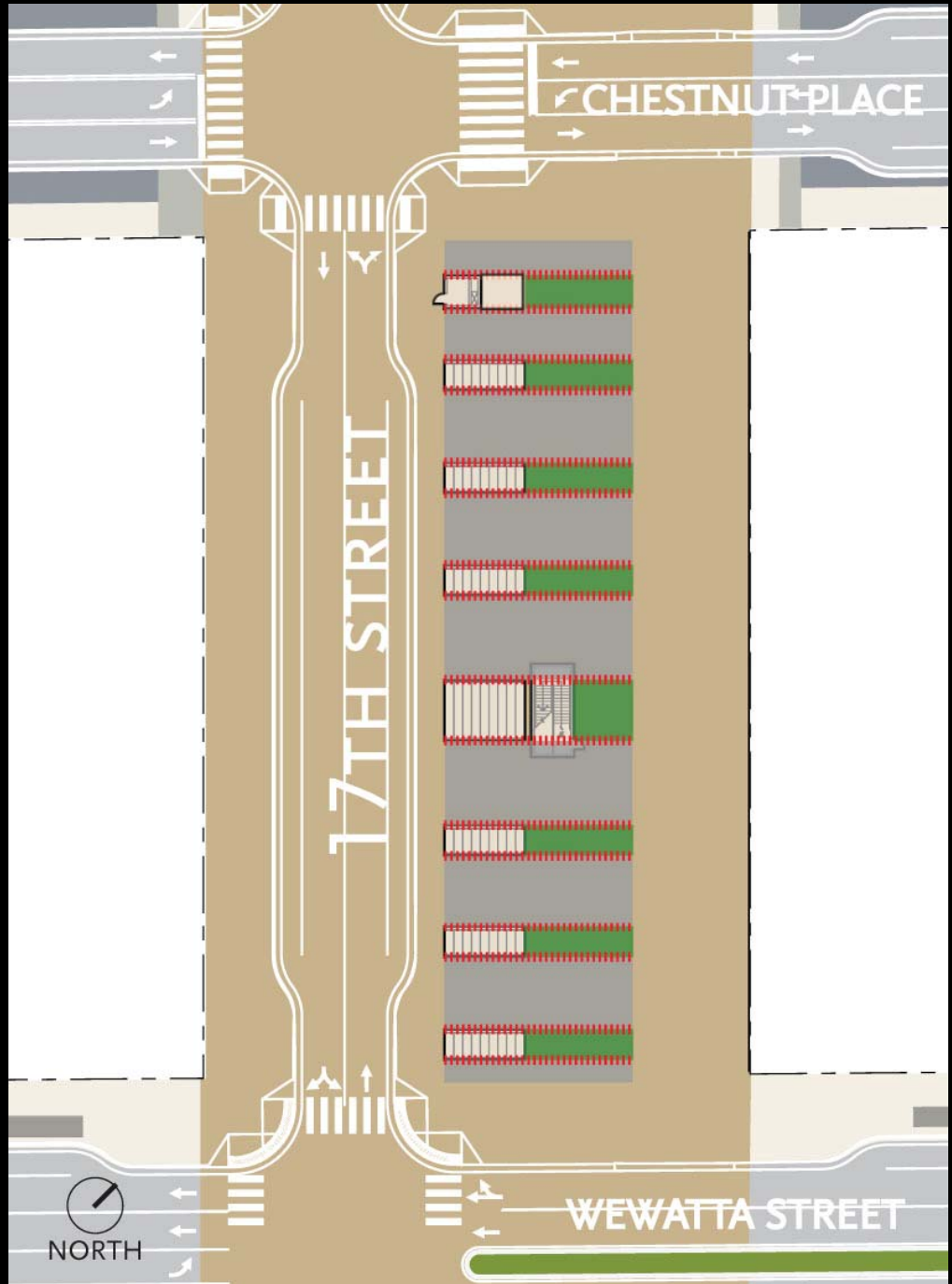
17th STREET GARDENS CIRCULATION



PRELIMINARY

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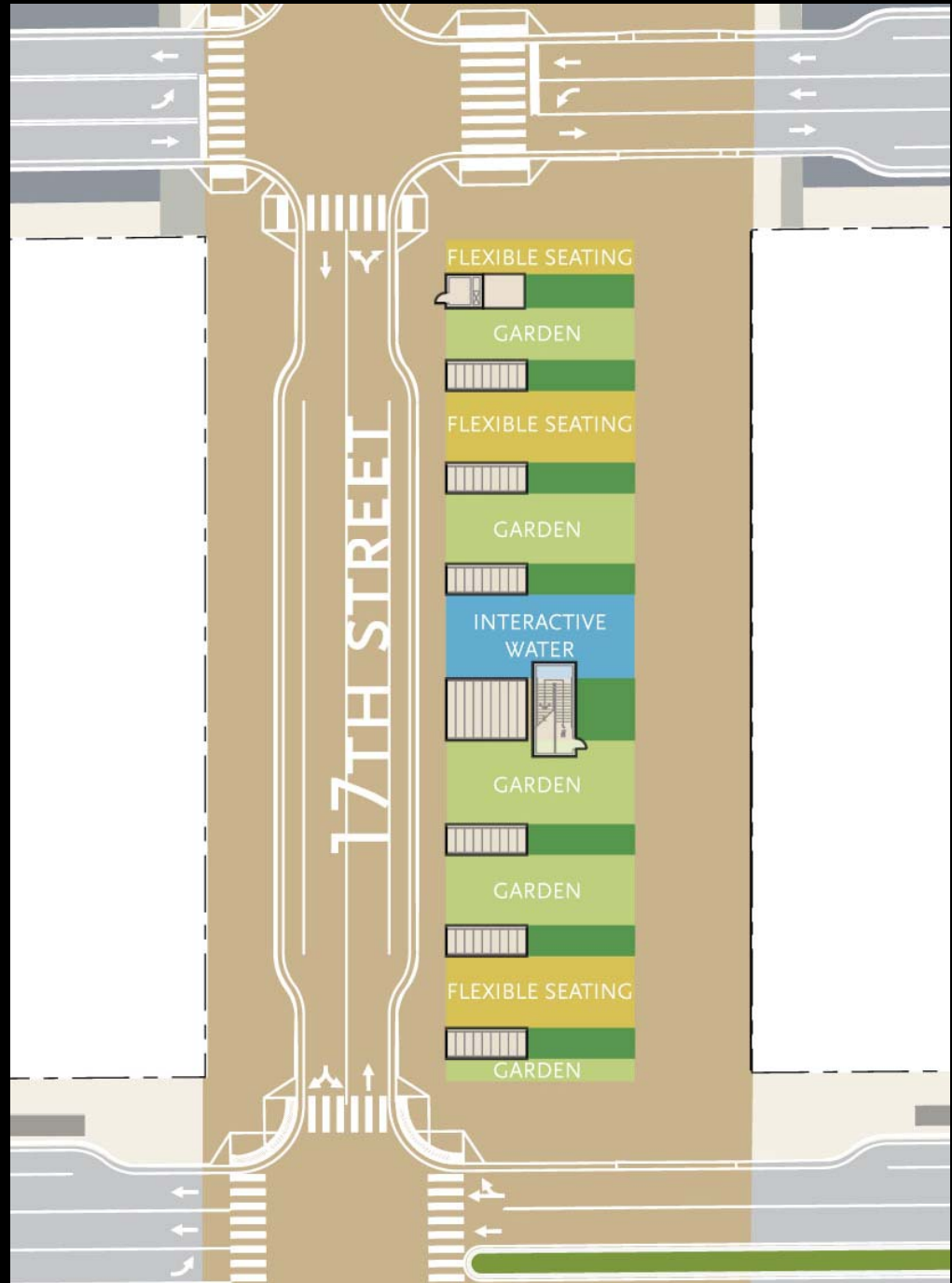
17th STREET GARDENS GARDEN ROOMS



PRELIMINARY

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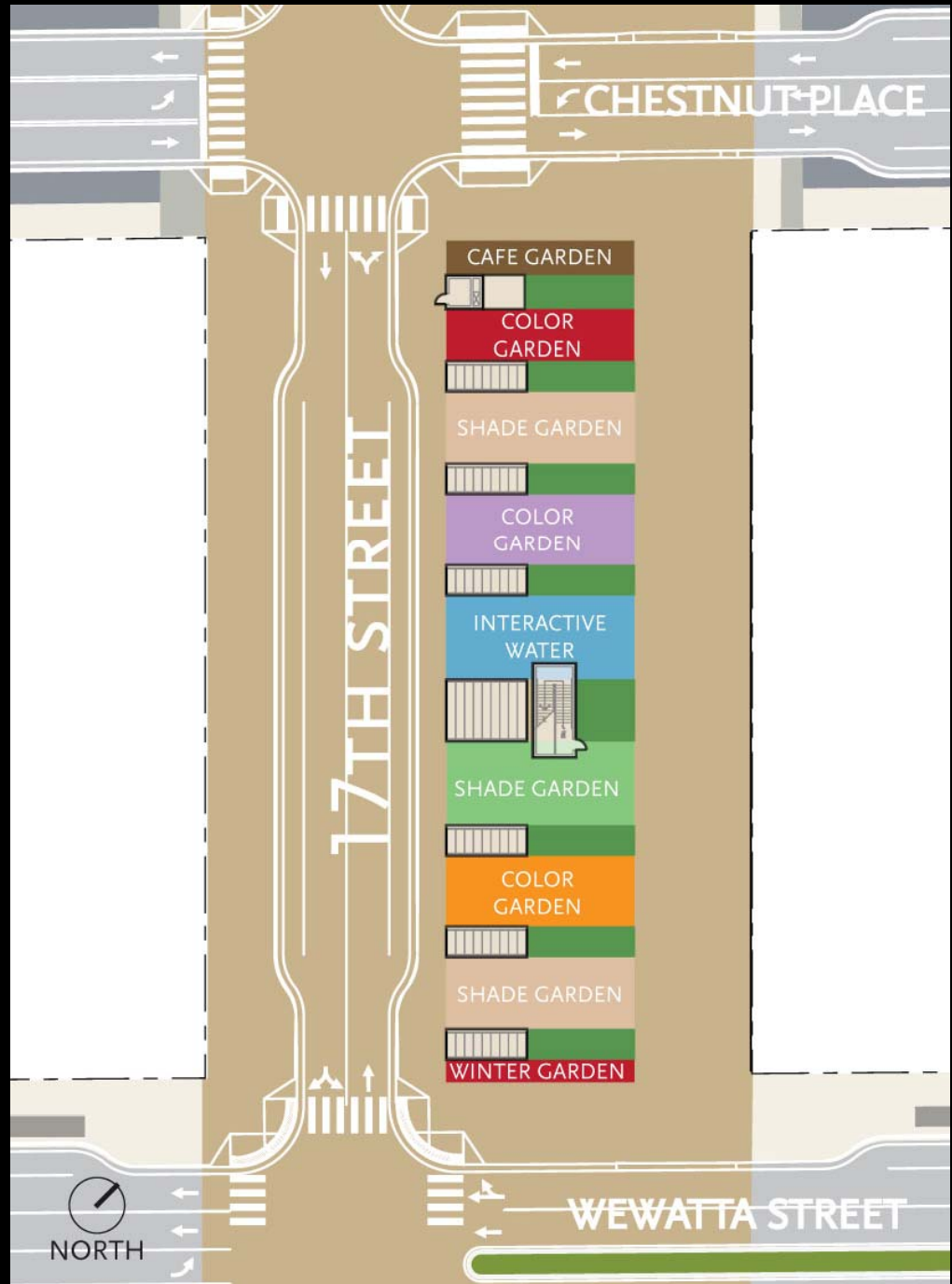
17th STREET GARDENS PROGRAM



PRELIMINARY

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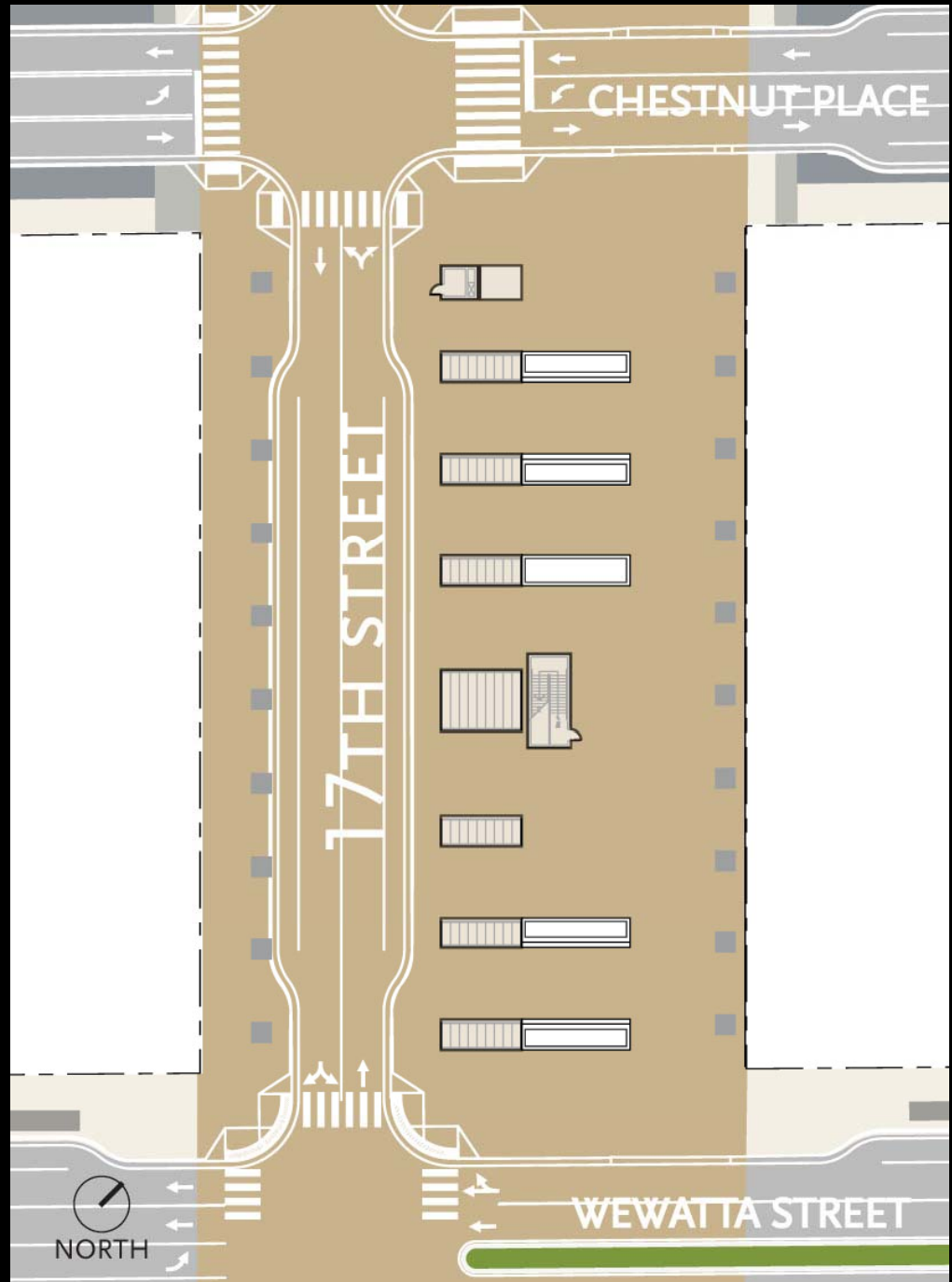
17th STREET GARDENS CHARACTER



PRELIMINARY

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17th STREET GARDENS
PLANTERS + SEATING



PRELIMINARY

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Amelanchier



Malus snowdrift



Cercis canadensis

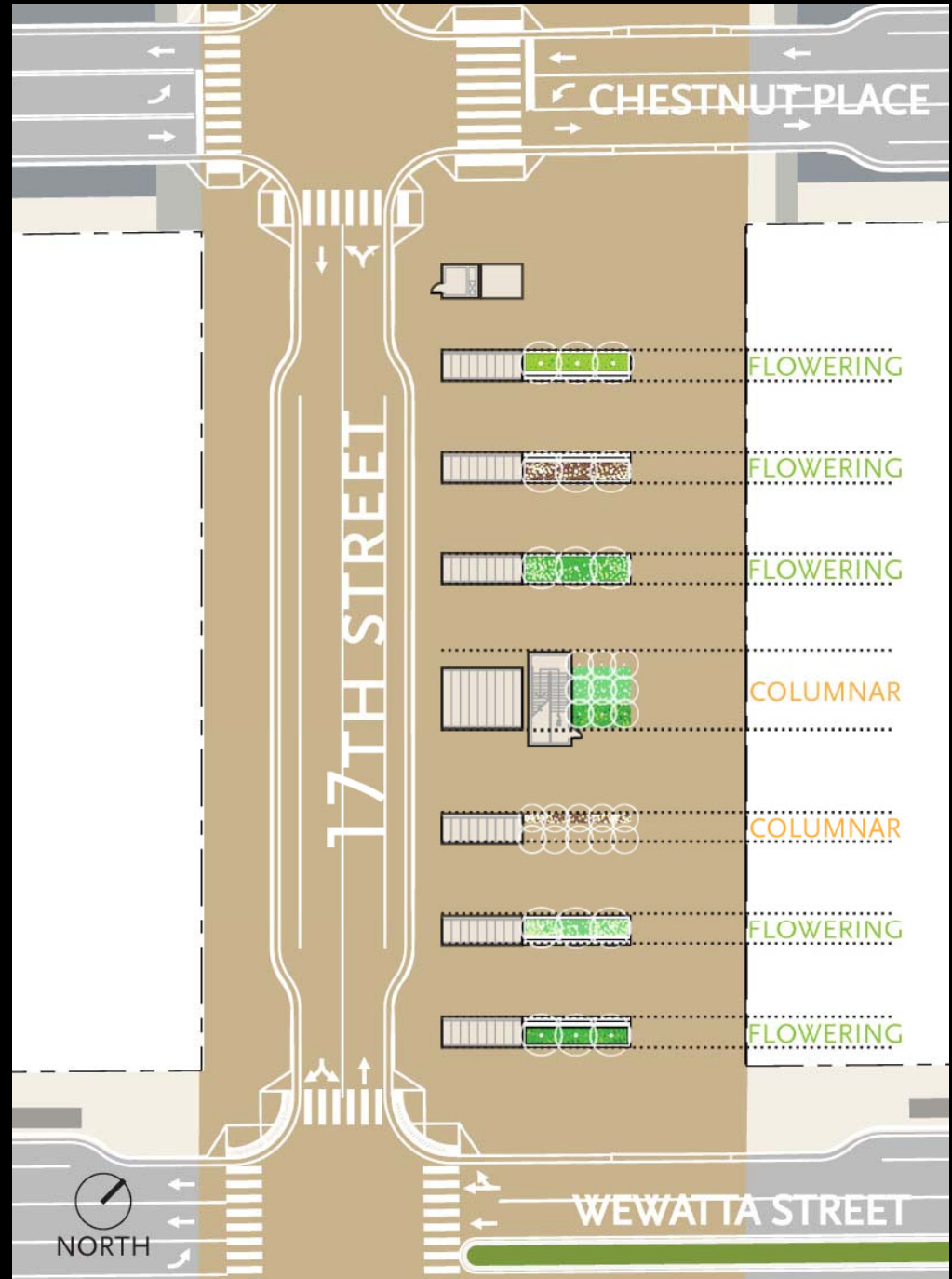


Malus snowdrift

PLANTING

17th STREET GARDENS

RAISED GARDENS



PRELIMINARY

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Euonymus fortunei Emerald



Ephedra equisetina



Juniperus sabina



Cytisus purgans



Mahonia aquifolium

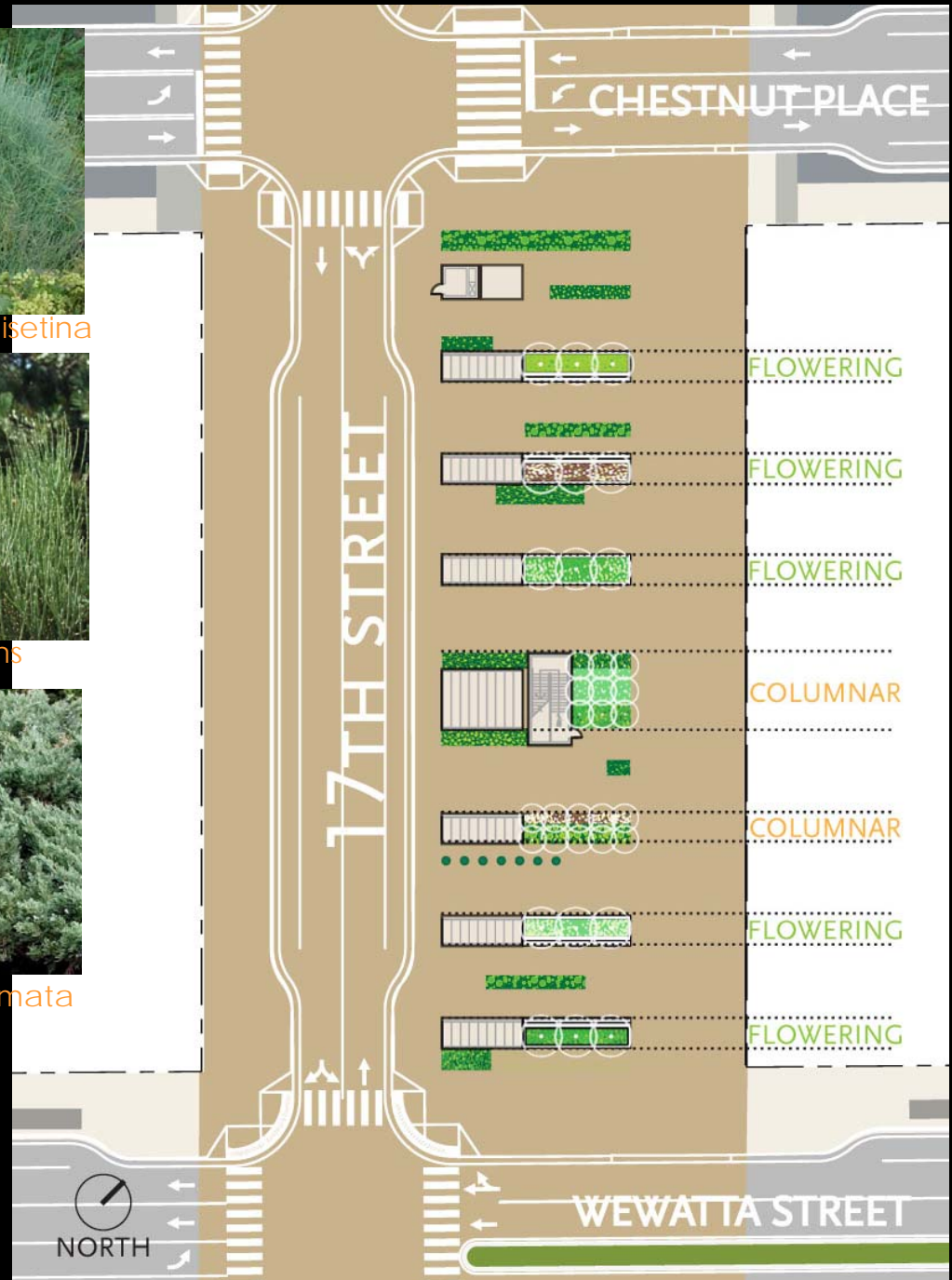


Juniperus squamata

PLANTING

17th STREET GARDENS

EVERGREEN





Convallaria majalis



Heuchera



Galium odoratum



Arctostaphylos uva-ursi



Cimicifuga racemosa

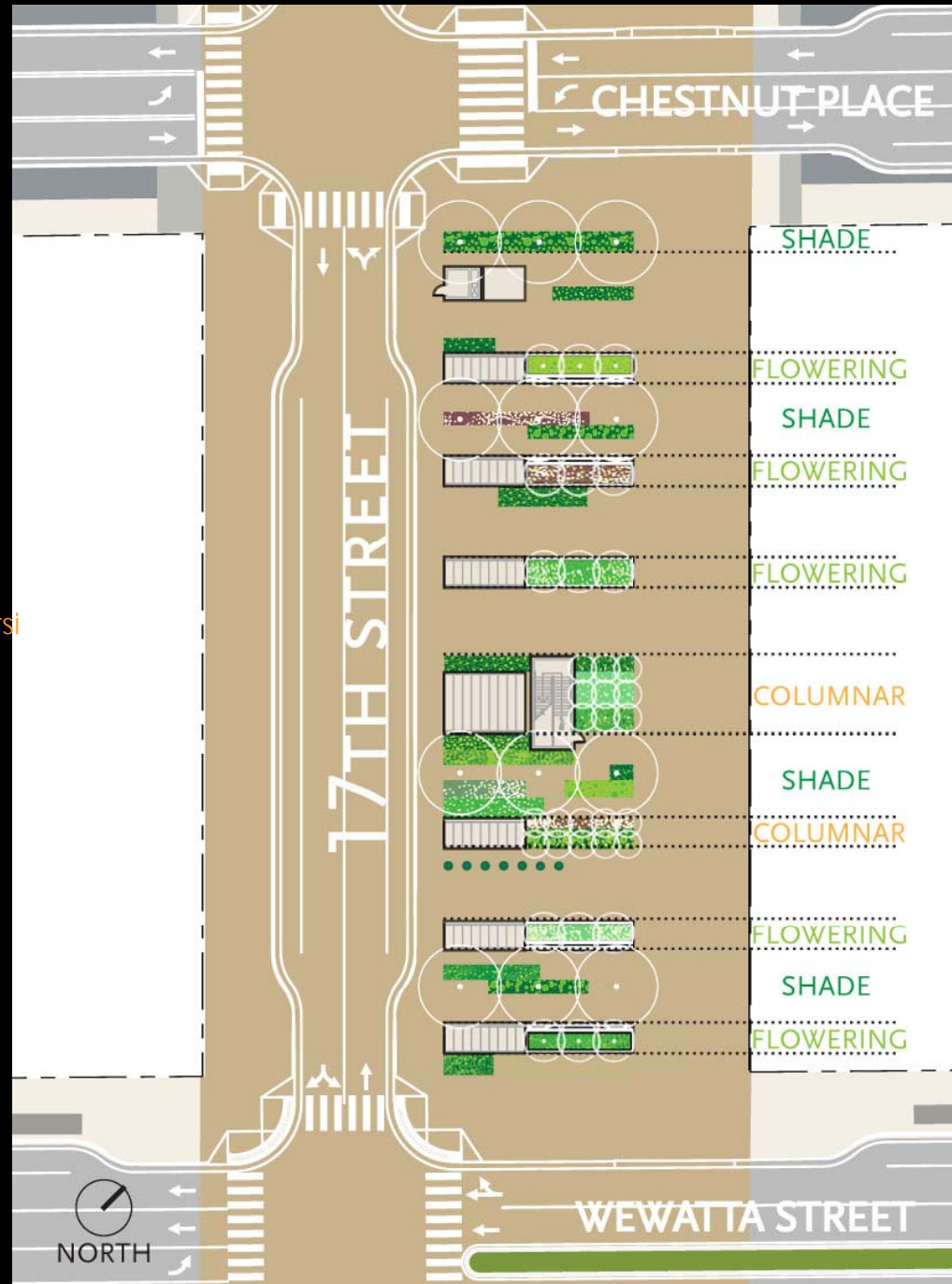


Helleborus

PLANTING

17th STREET GARDENS

SHADE GARDENS



PRELIMINARY

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Monardia



Diascia integerrima



Achillea



Agastache rupestris



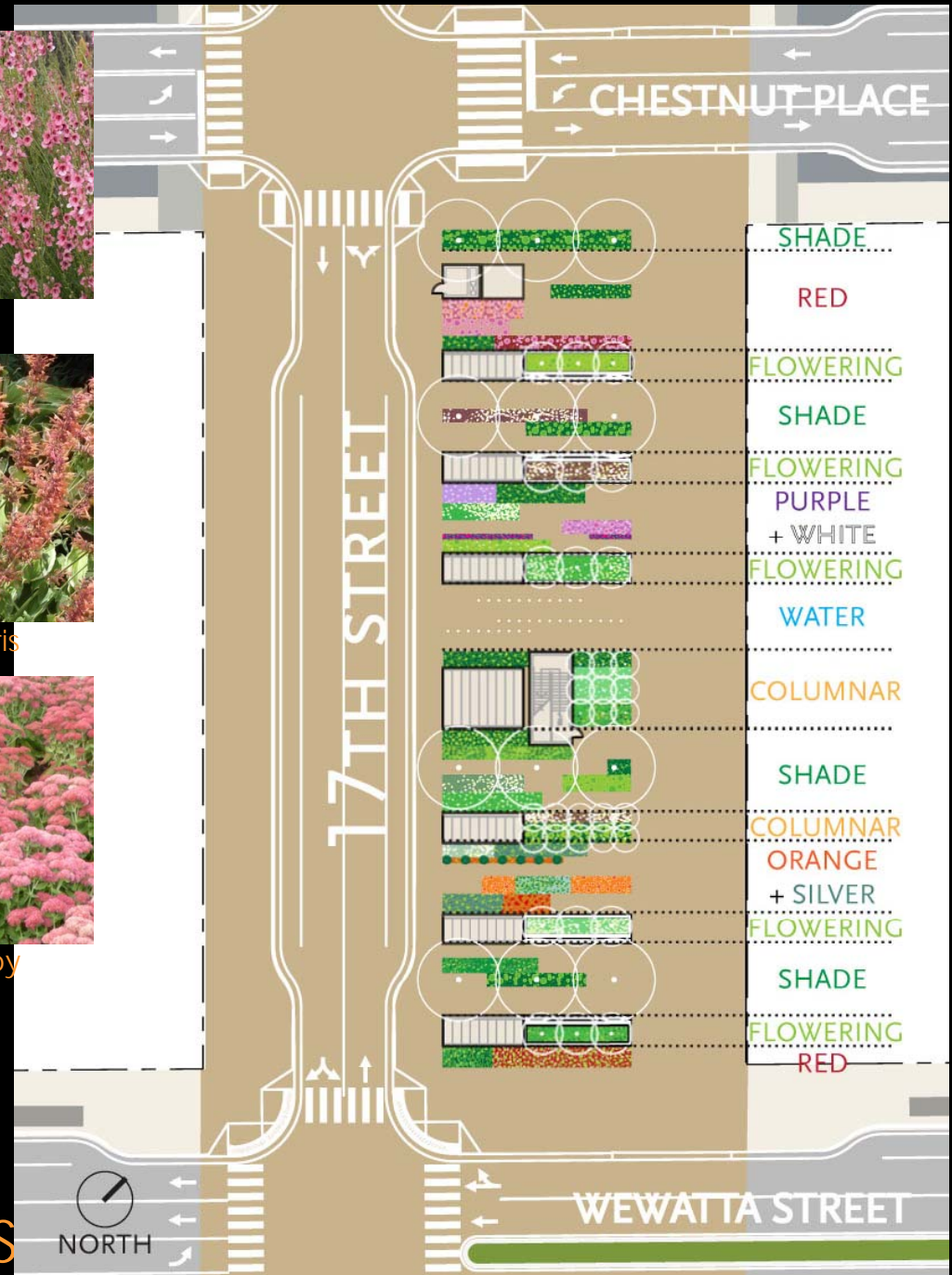
Echinacea purpurea



Sedum Autumn Joy

PLANTING RED

17th STREET GARDENS SUN/COLOR GARDENS





Perovskia 'Little Spire'



Rosa Seafoam



Salvia Pachyphylla



Spirea japonica



Lupine



Cystisus scoparius moonlight

PLANTING WHITE + PURPLE

17th STREET GARDENS SUN/COLOR GARDENS



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Agastache aurantica



Artemisia frigida



Asclepias tuberosa



Salvia argentea



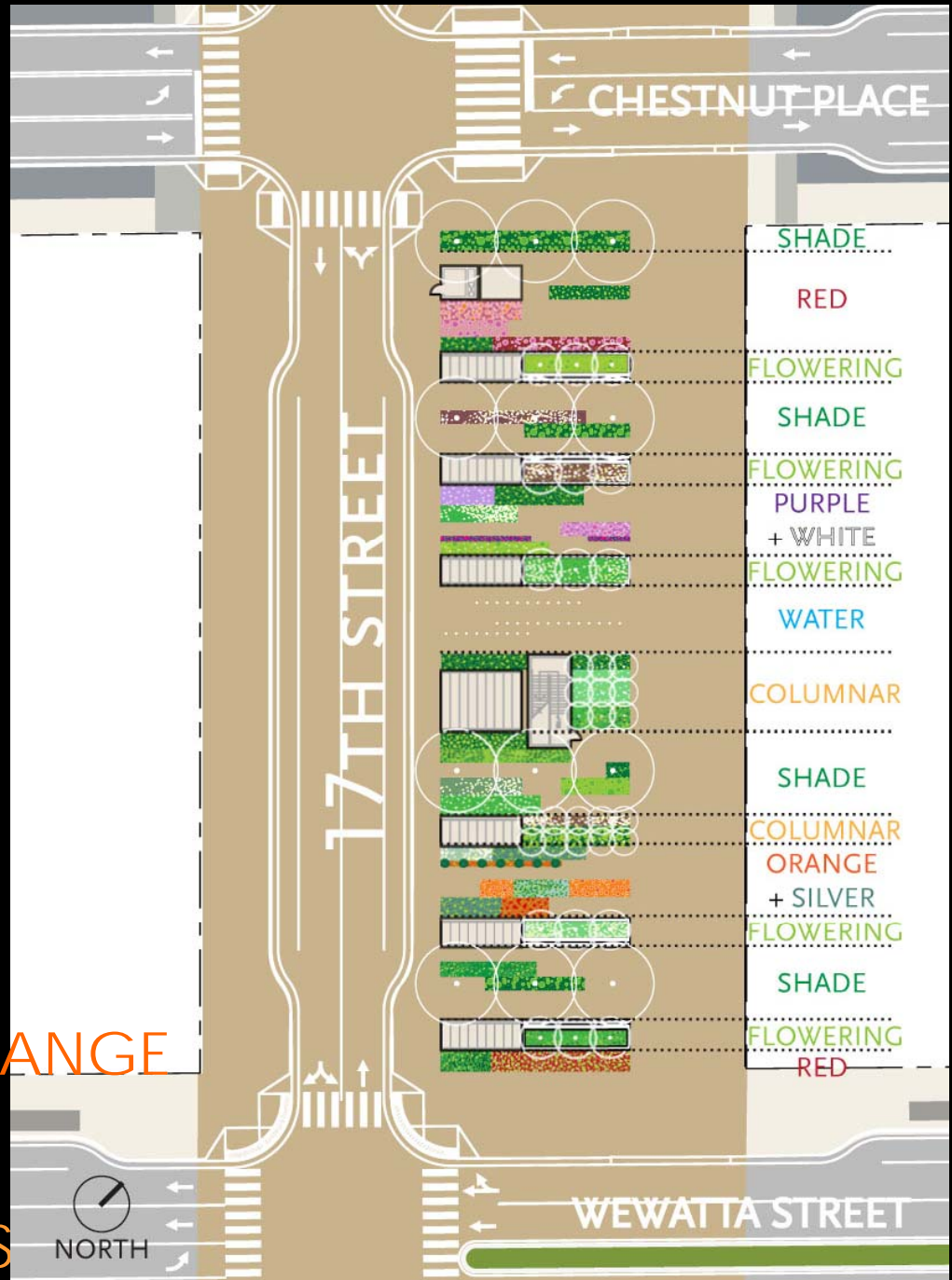
Knautia macedonica



Ephedra equisetina

PLANTING SILVER + ORANGE

17th STREET GARDENS
SUN/COLOR GARDENS

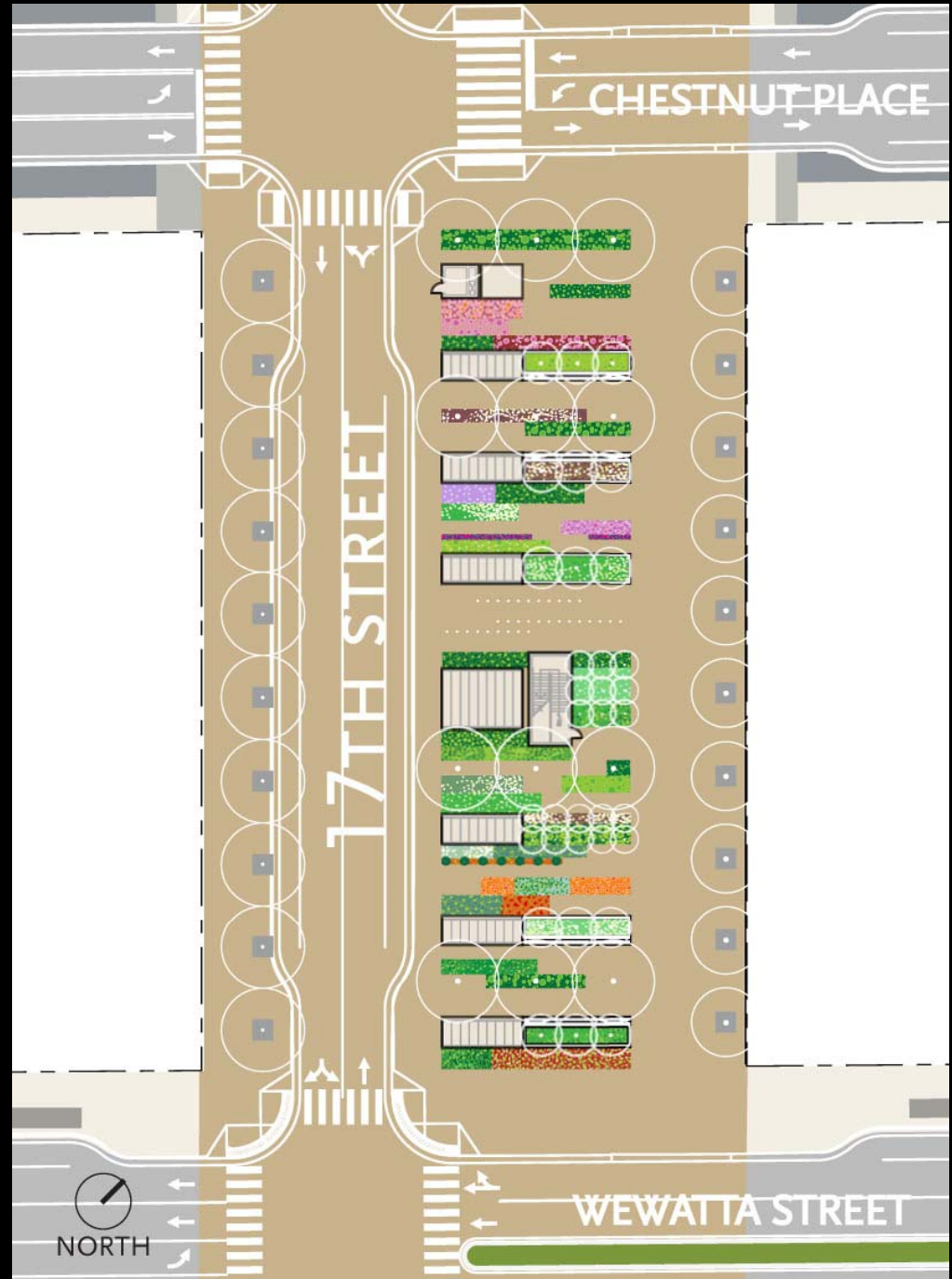


PRELIMINARY

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PLANTING

17th STREET GARDENS
PROMENADE TREES



PRELIMINARY

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17th STREET GARDENS SEATWALLS



17th STREET GARDENS PAVING MATERIALS



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17th STREET GARDENS PROMENDE PAVING





SIDEWALK CAFÉ SEATING

17th STREET GARDENS PROGRAM ALTERNATIVES

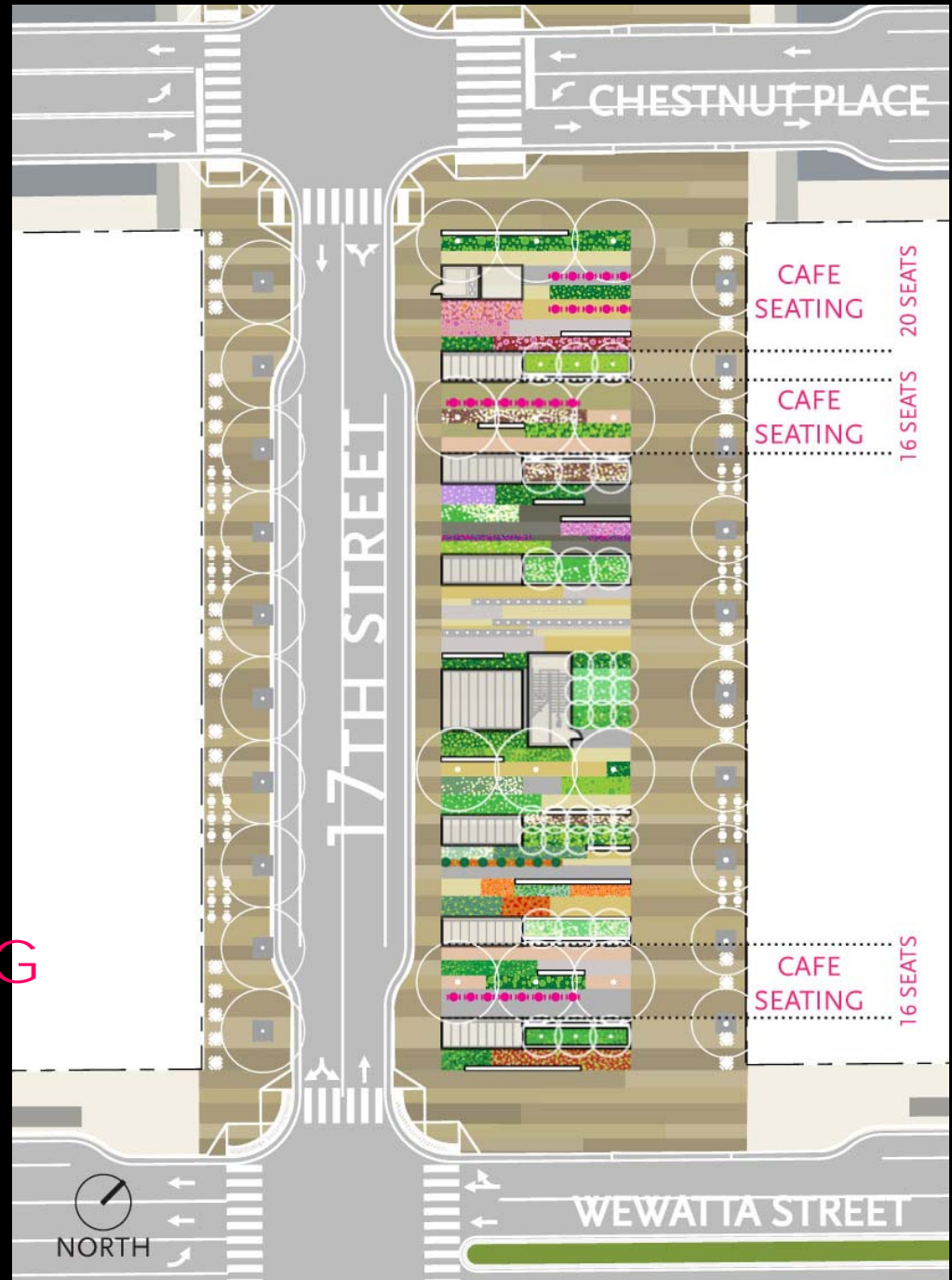


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GARDEN CAFÉ SEATING
17th STREET GARDENS
PROGRAM
ALTERNATIVES

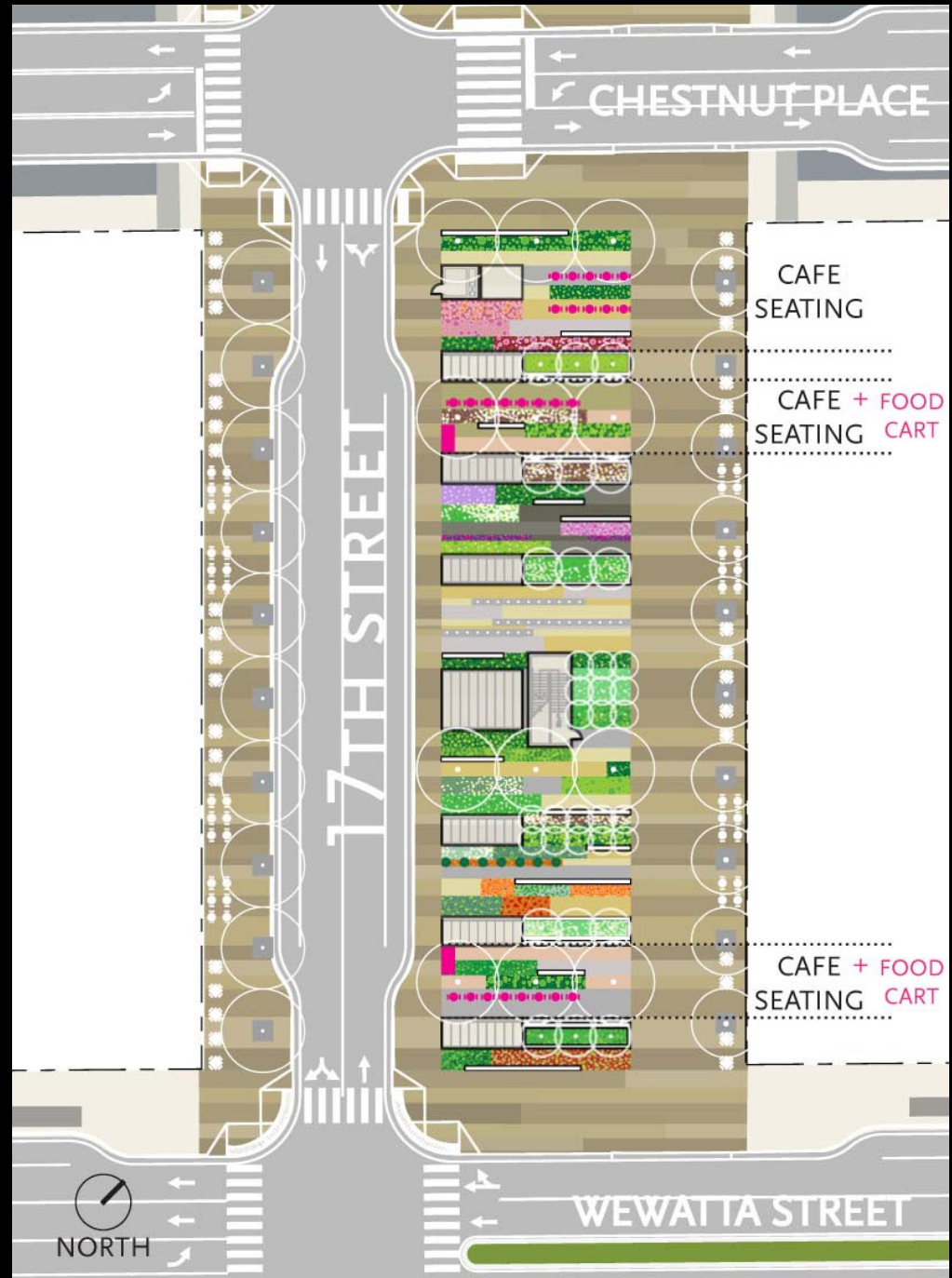


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FOOD CARTS
 17th STREET GARDENS
 PROGRAM
 ALTERNATIVES

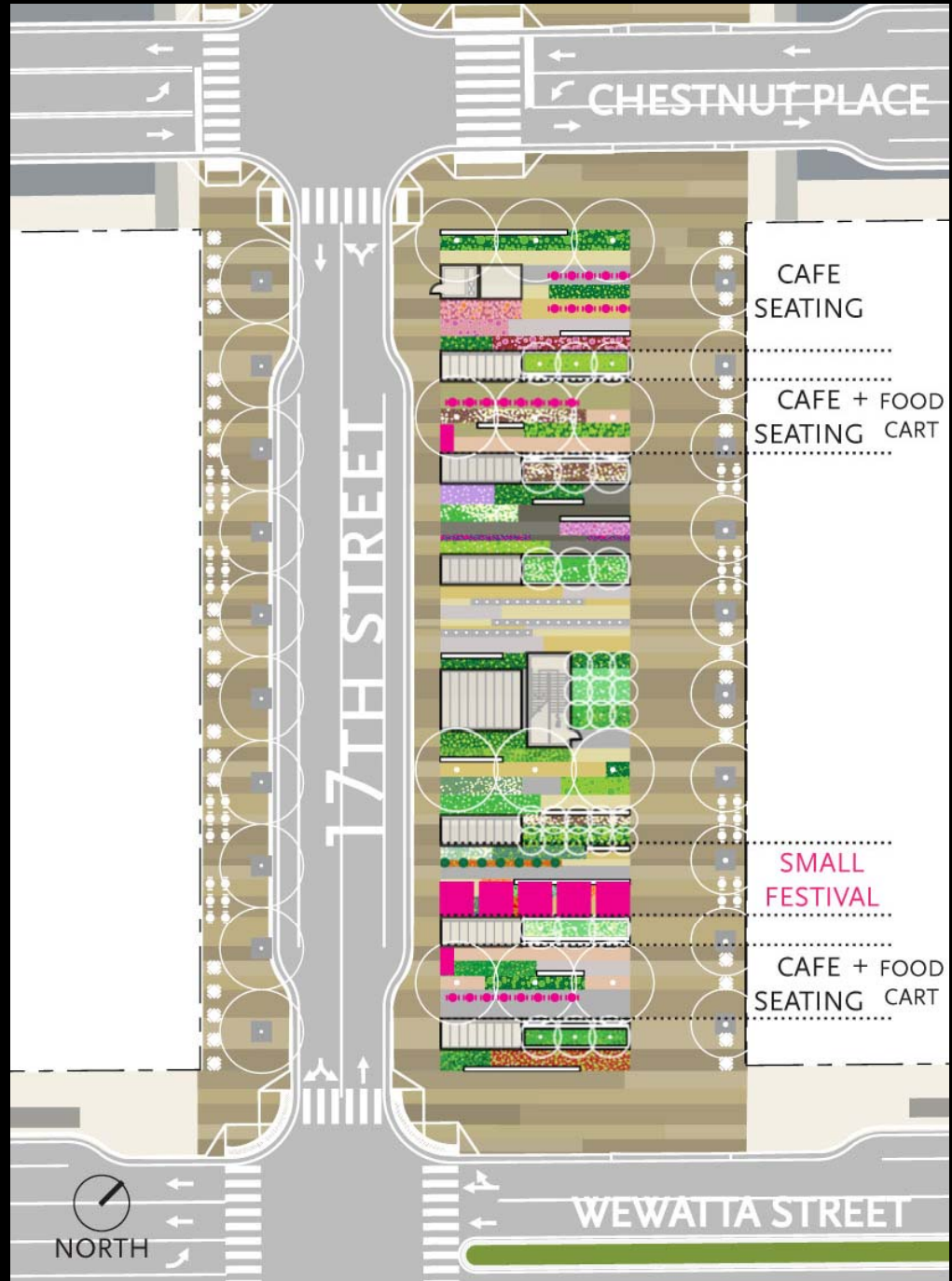


PRELIMINARY

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SMALL FESTIVAL
 + CRAFT MARKET
 10' X 10' VENDORS
 17th STREET GARDENS
 PROGRAM
 ALTERNATIVES

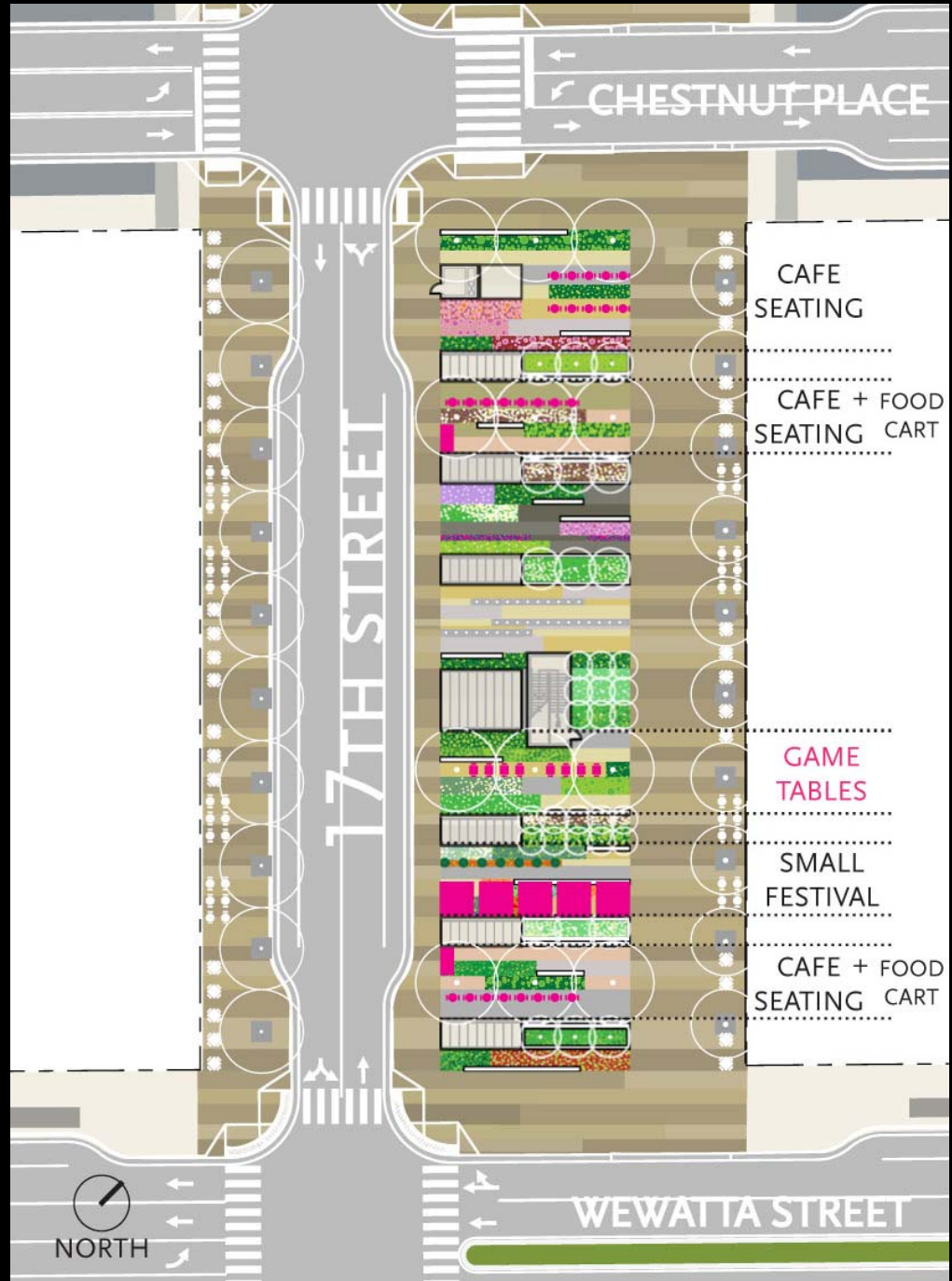


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GAME TABLES
 17th STREET GARDENS
 PROGRAM
 ALTERNATIVES

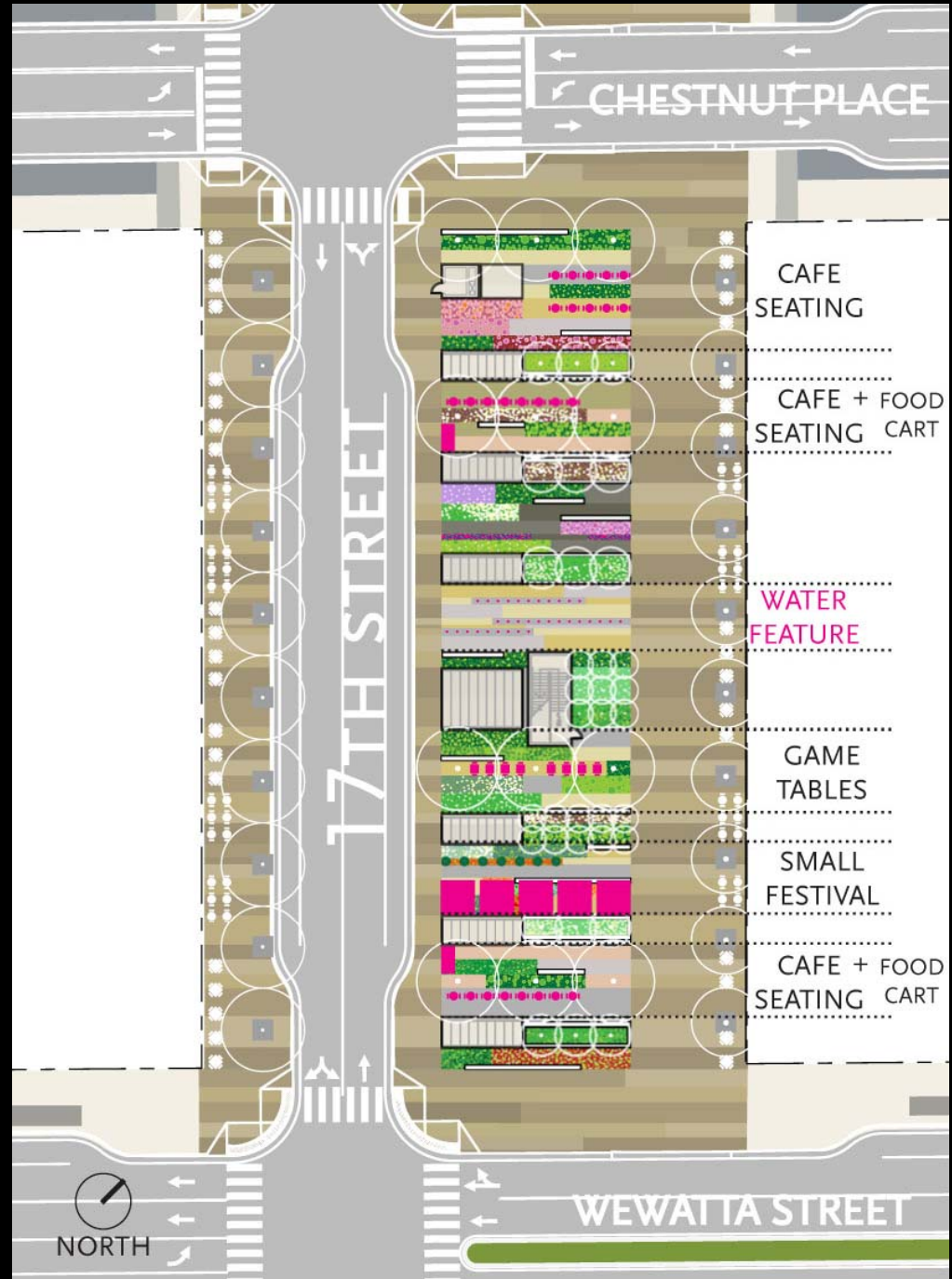


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INTERACTIVE WATER
17th STREET GARDENS
PROGRAM
ALTERNATIVES

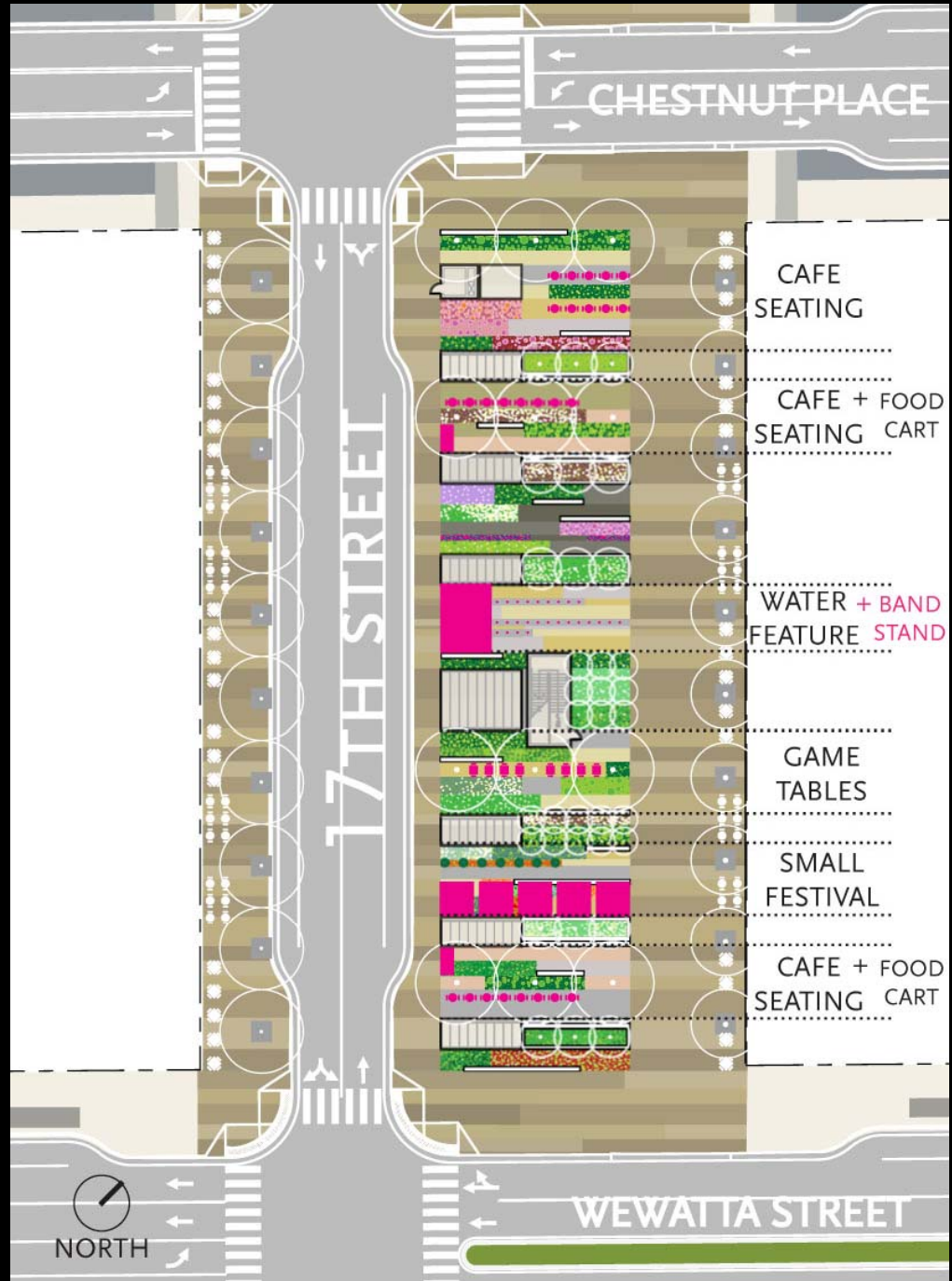


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BAND STAND
15' X 25' STAGE
17th STREET GARDENS
PROGRAM
ALTERNATIVES



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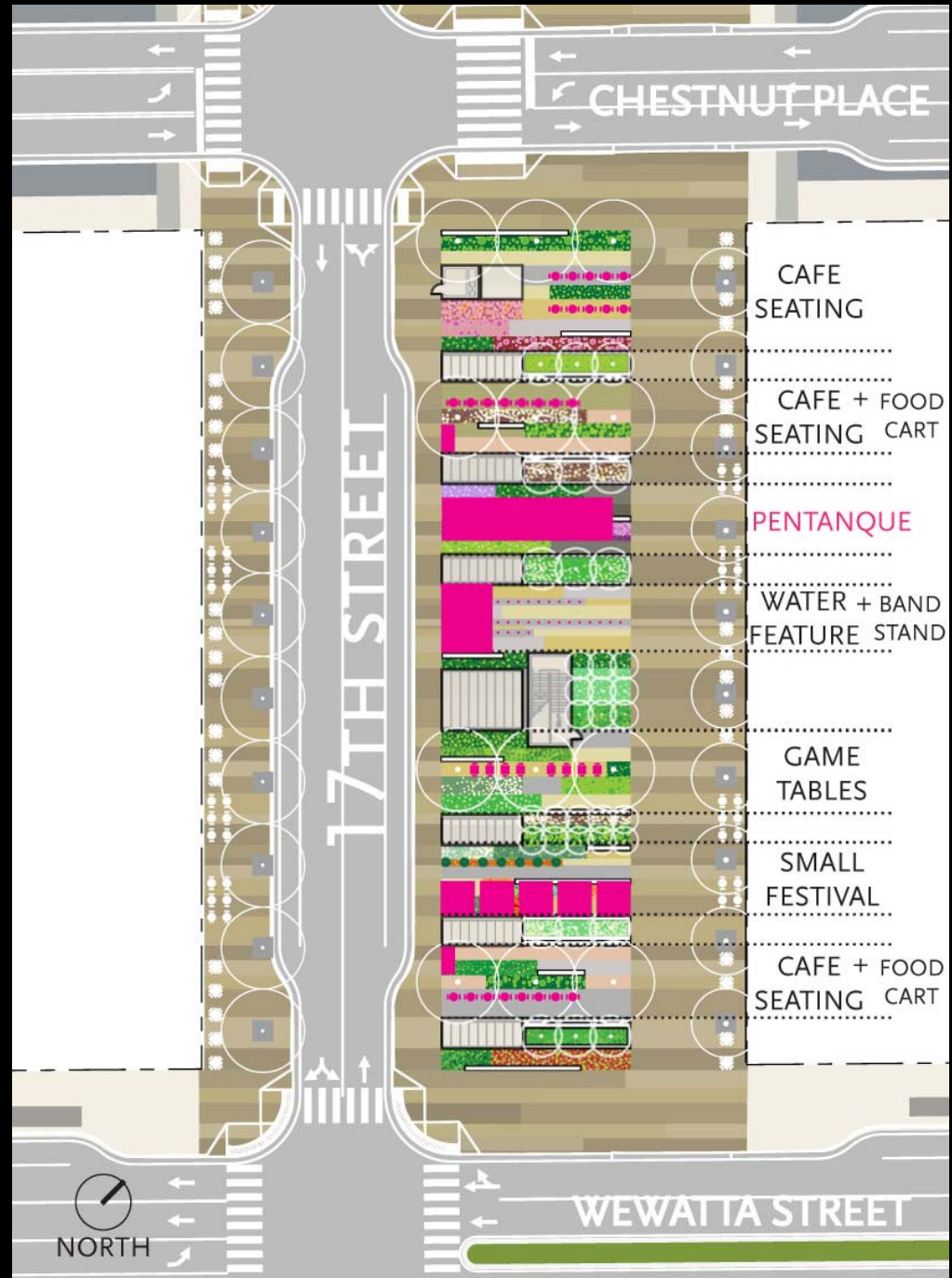
PENTANQUE

13' X 30' COURT

17th STREET GARDENS

PROGRAM

ALTERNATIVES

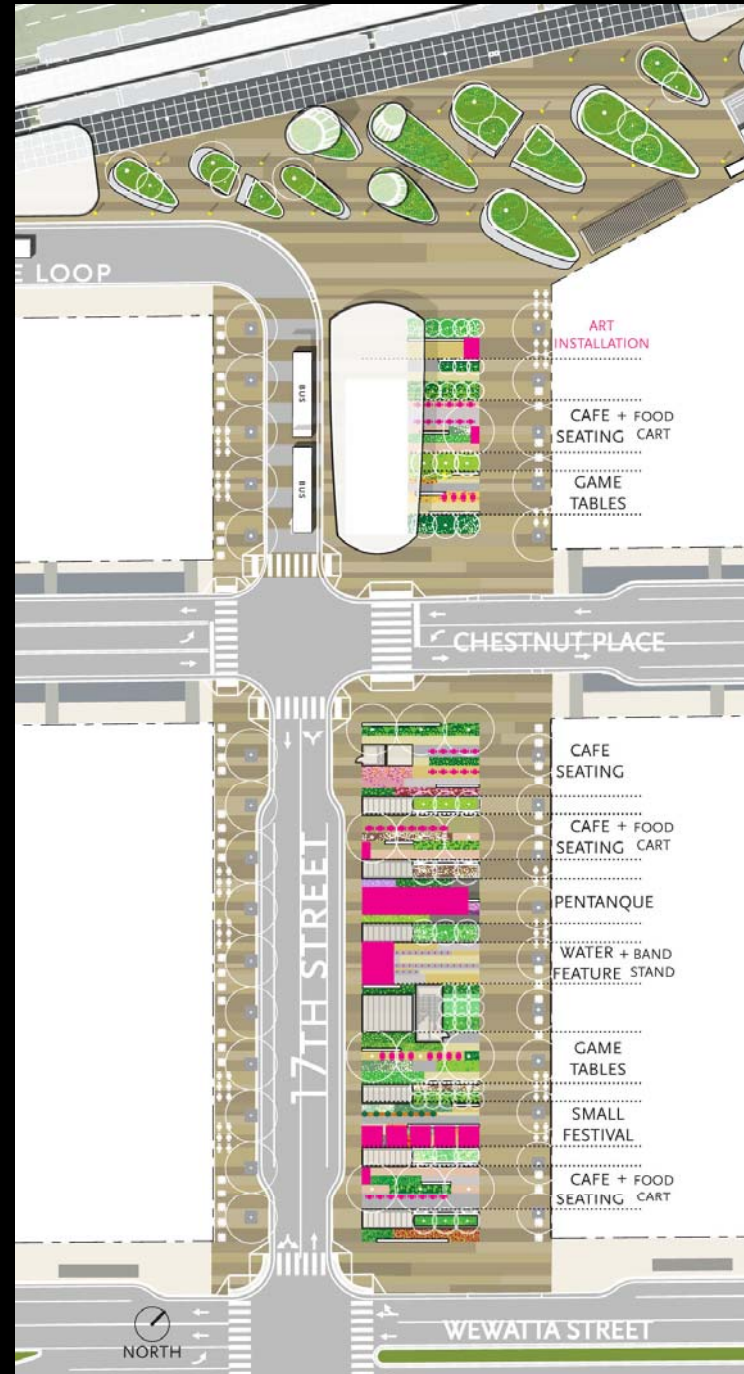


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ART INSTALLATION
17th STREET GARDENS
PROGRAM
ALTERNATIVES



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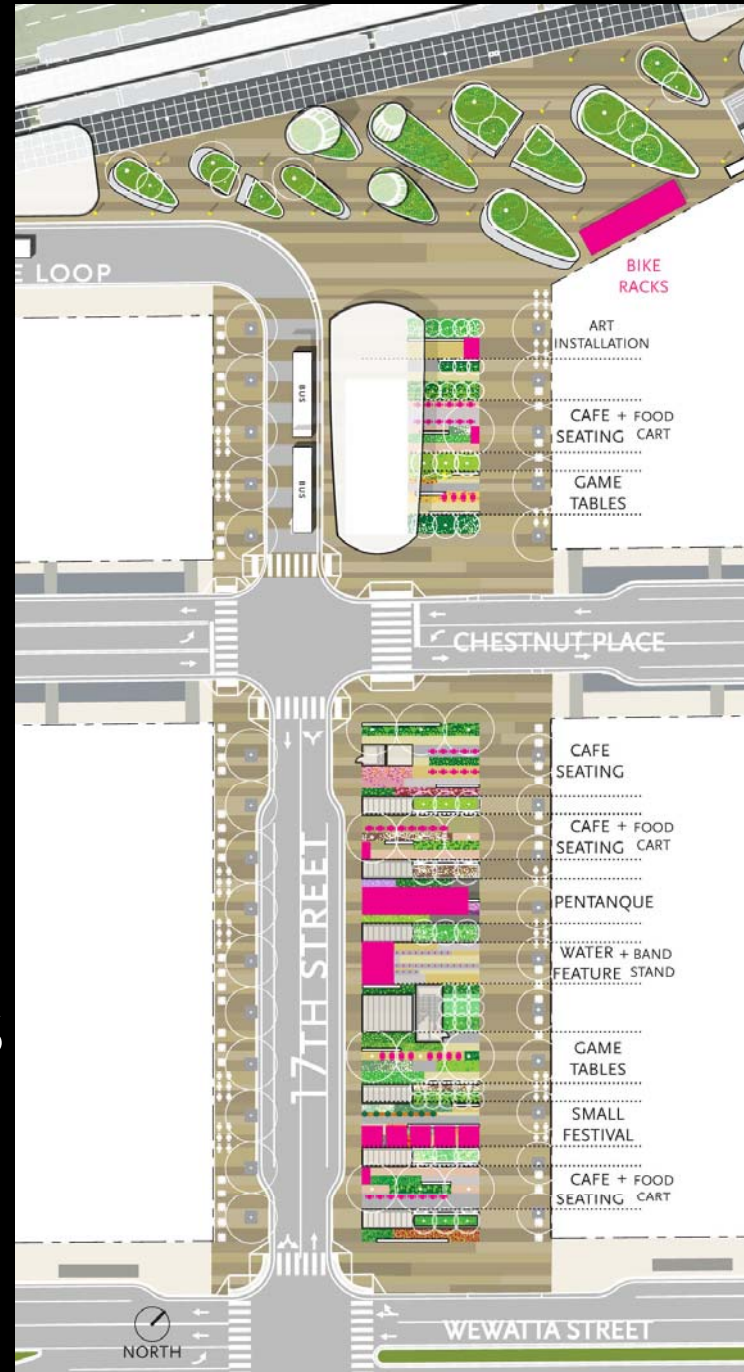
BIKE RACKS

2' X 10' MODULE – 50 BIKES

17th STREET GARDENS

PROGRAM

ALTERNATIVES



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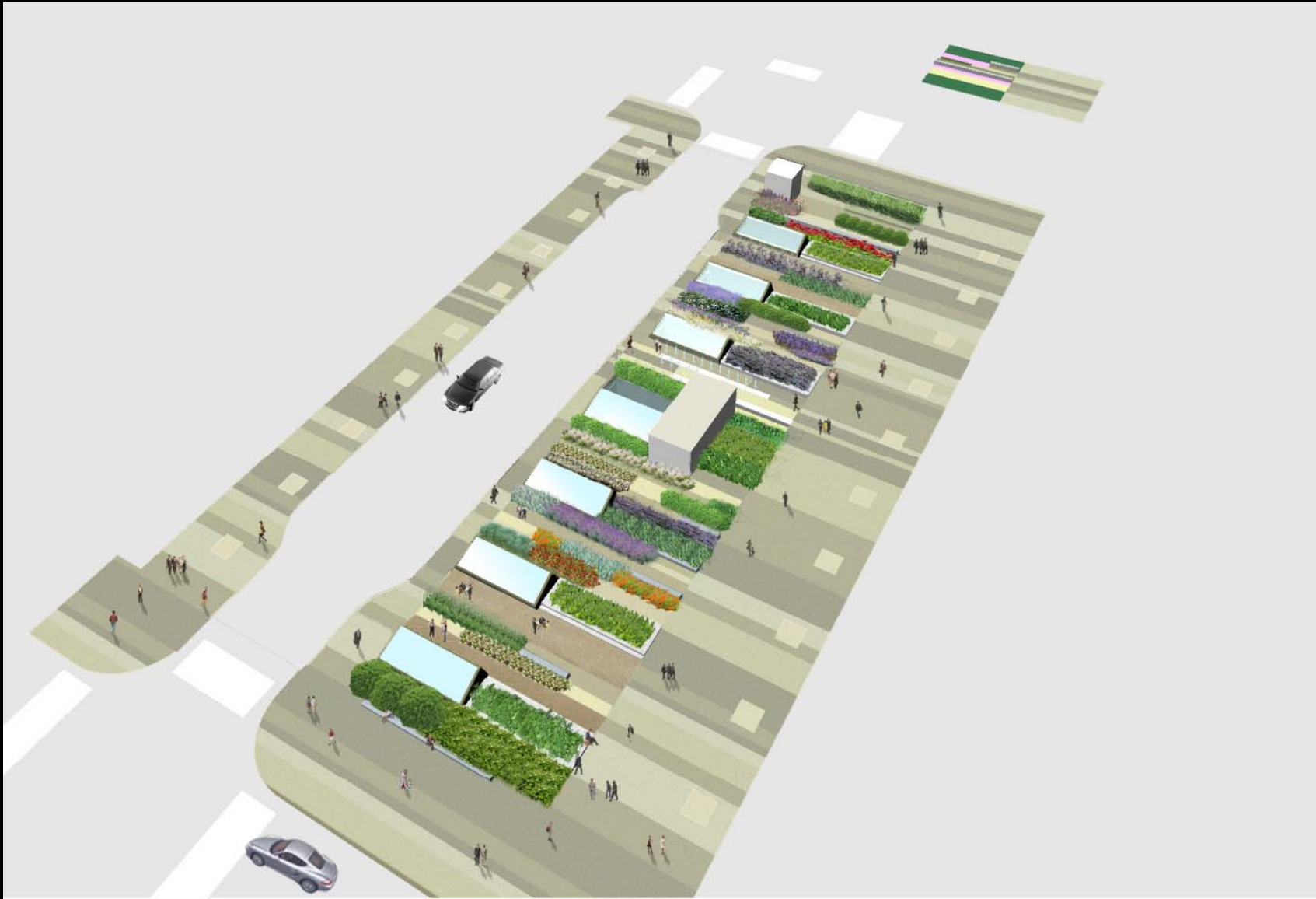
- Maximizes contiguous pedestrian space
- Responds to climate
- Allows for additional program
- Variety of green elements – color/texture/seasonal
- Variety of seating – fixed and movable
- Interactive children's element
- Small events/programs
- Future outdoor dining

17th STREET GARDENS



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17th STREET AXON WITHOUT TREES

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17th STREET AXON WITH TREES



17th STREET GARDEN

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17th STREET SHADE GARDEN

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17th STREET WATER GARDEN

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17th STREET PROMENADE

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17th STREET PROMENADE

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17th STREET FOUNTAIN PRECEDENTS

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17th STREET PRECEDENTS

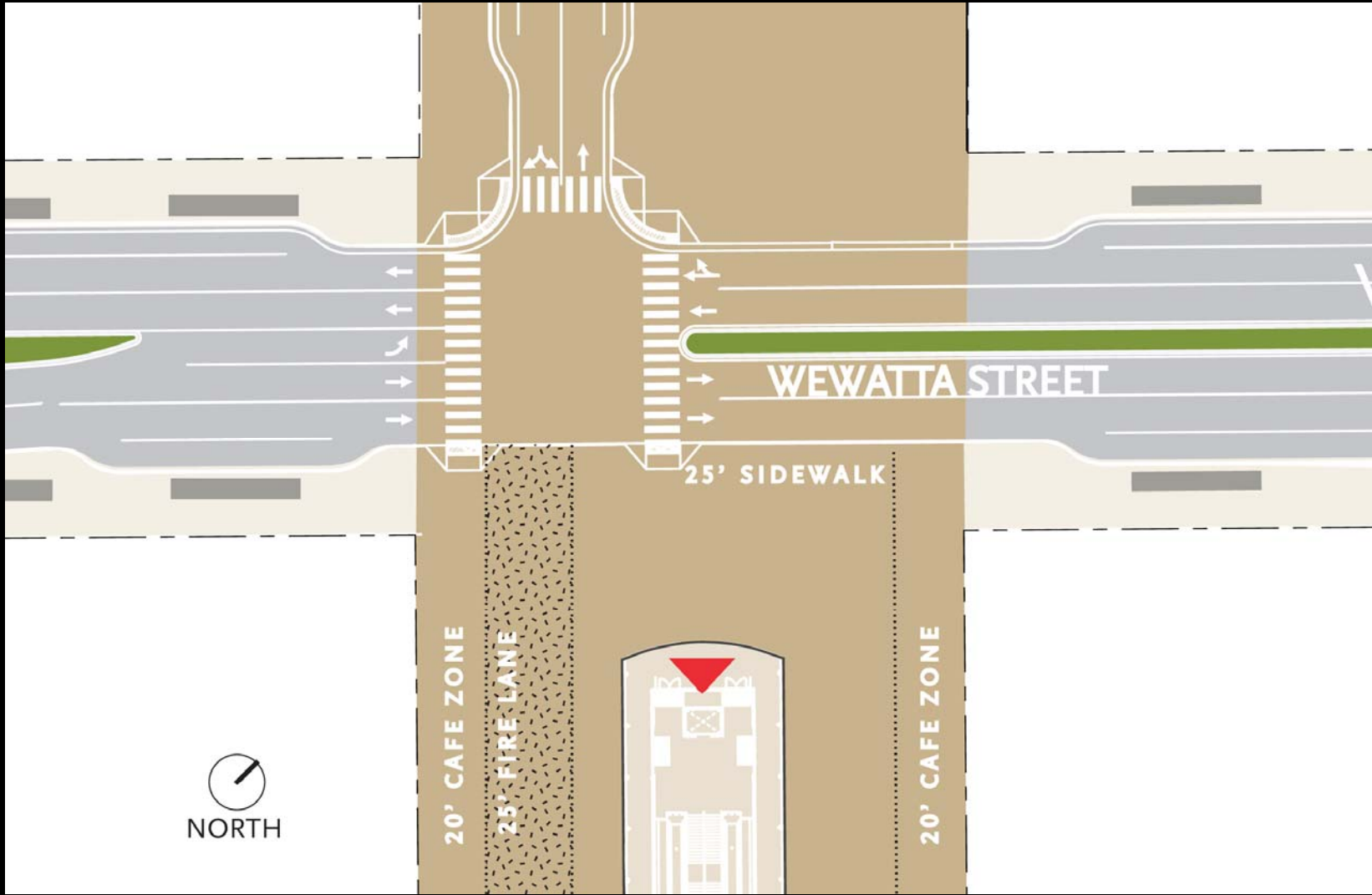
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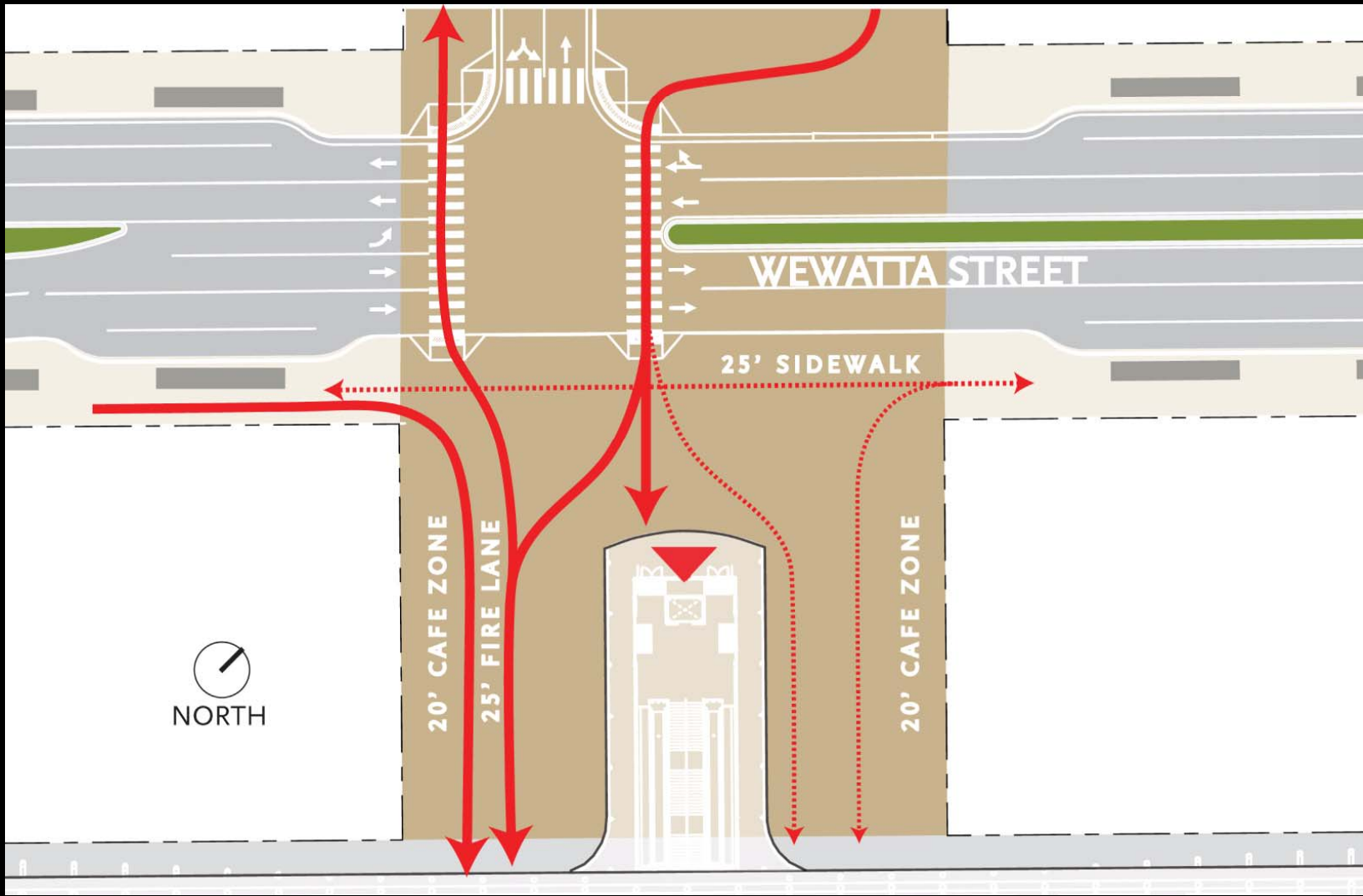
WEWATTA FOUNTAIN

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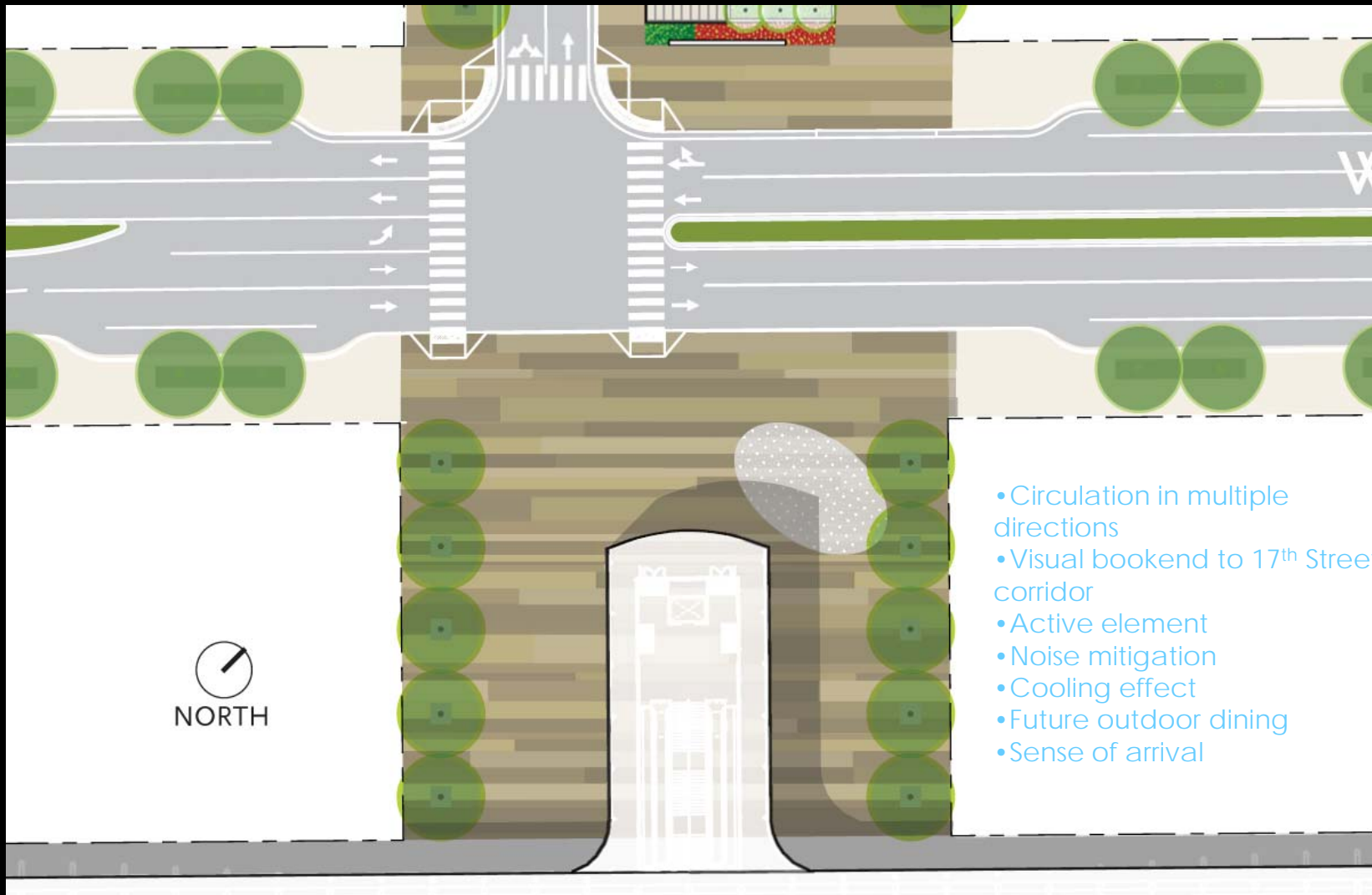
WEWATTA PLAZA CONSTRAINTS



WEWATTA PLAZA CIRCULATION

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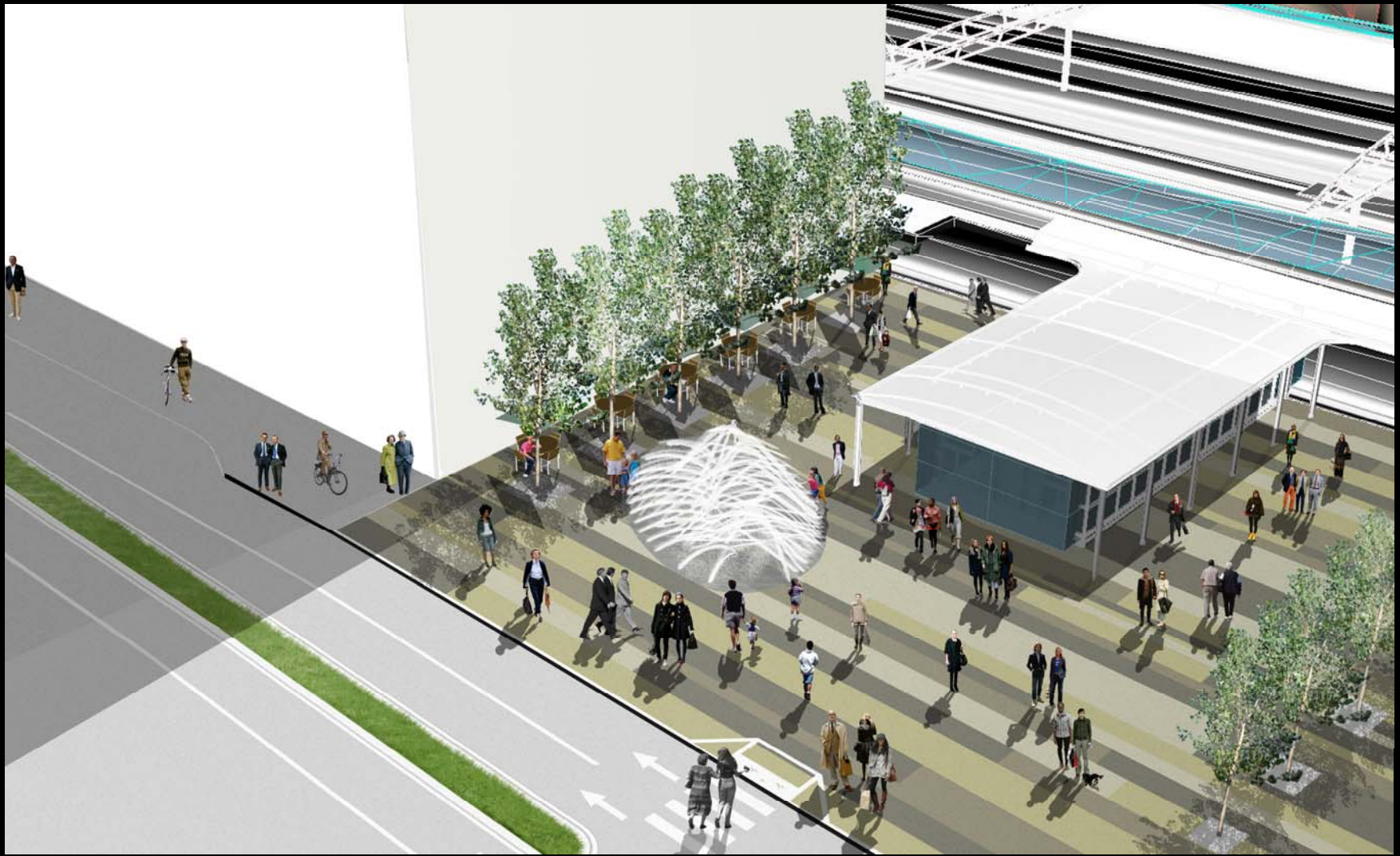


- Circulation in multiple directions
- Visual bookend to 17th Street corridor
- Active element
- Noise mitigation
- Cooling effect
- Future outdoor dining
- Sense of arrival

WEWATTA PLAZA PLAN

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WEWATTA PLAZA AXON

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WEWATTA PLAZA GROUND VIEW

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WEWATTA PLAZA GROUND VIEW

PRELIMINARY

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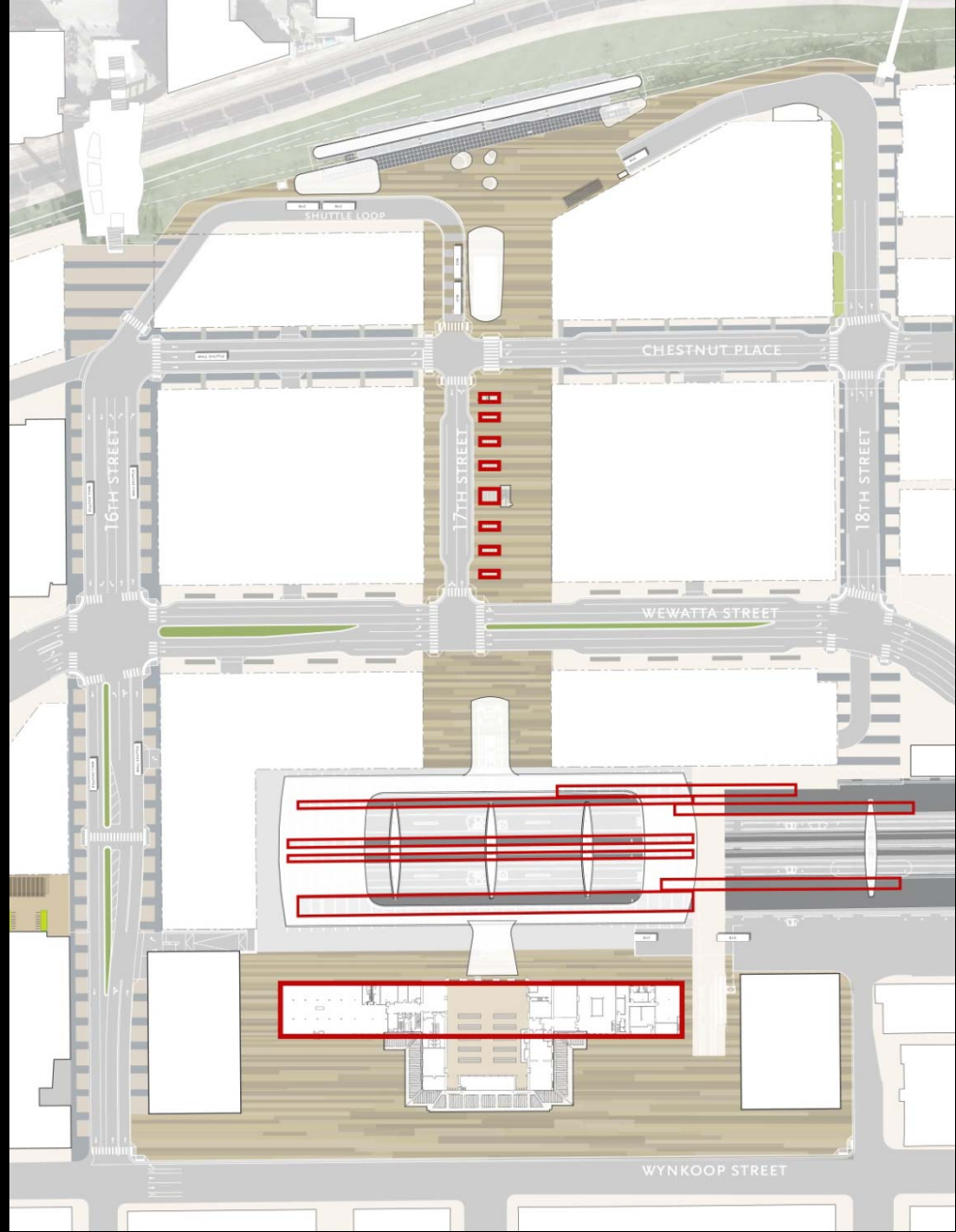


WEWATTA PLAZA FOUNTAIN PRECEDENTS

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PAVING STRATEGY



- Reinforce transit realm
- Create distinct district identity
- Relate to CRT platform geometry
- Create pedestrian scale/rhythm
- Provide way-finding and orientation device

PAVING OPTION A



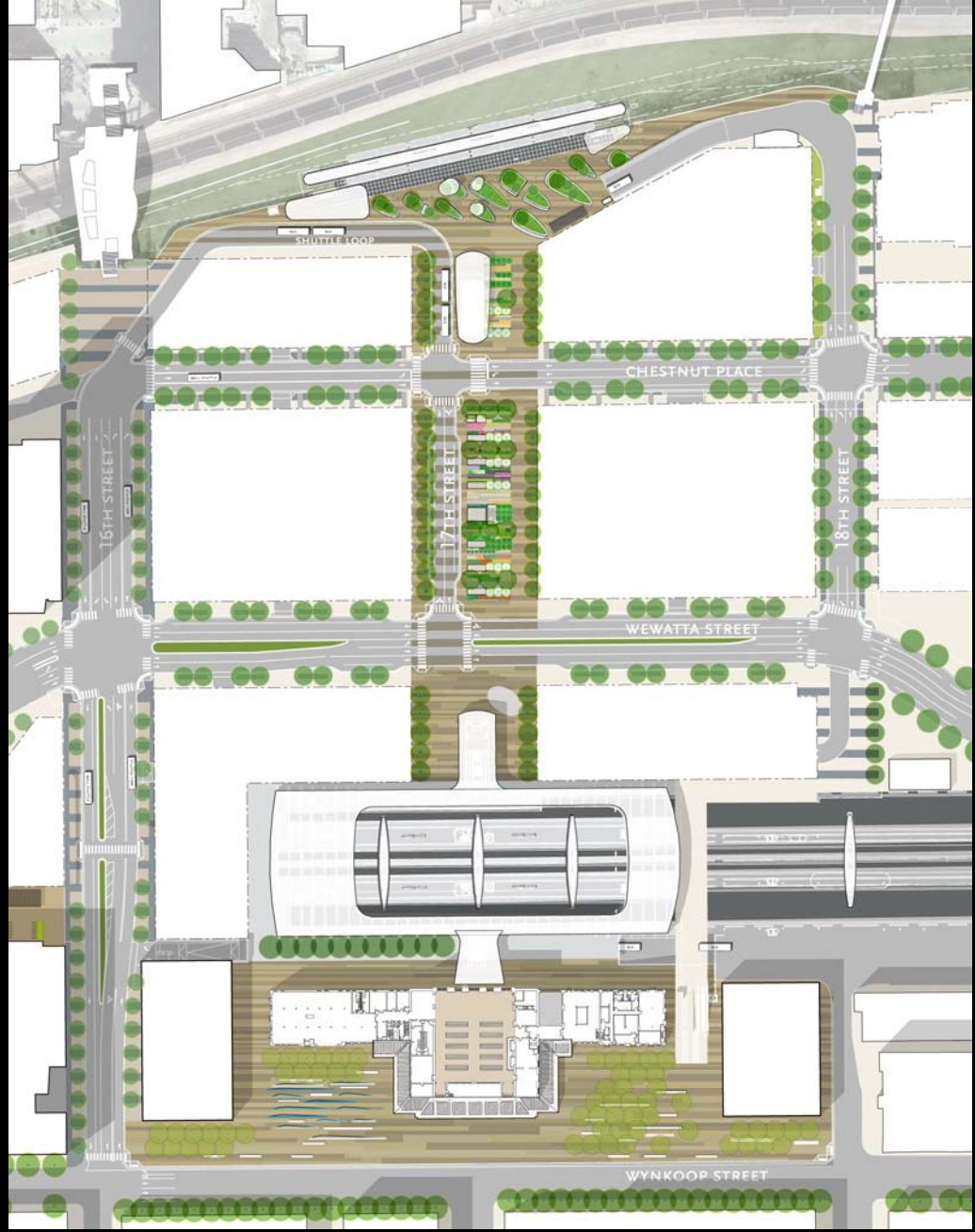
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PAVING PRECEDENT

PAVING OPTION B



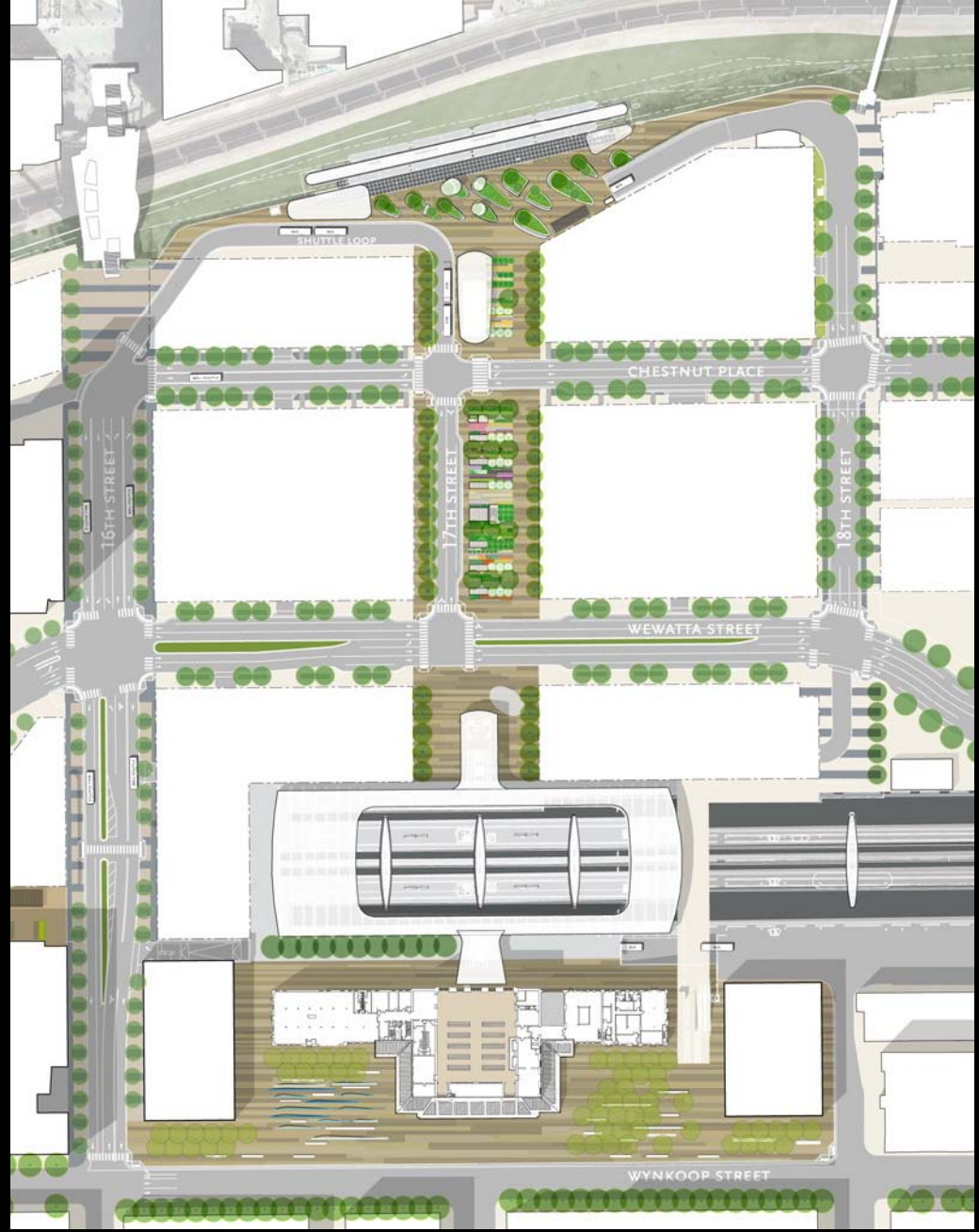
PAVING PRECEDENT



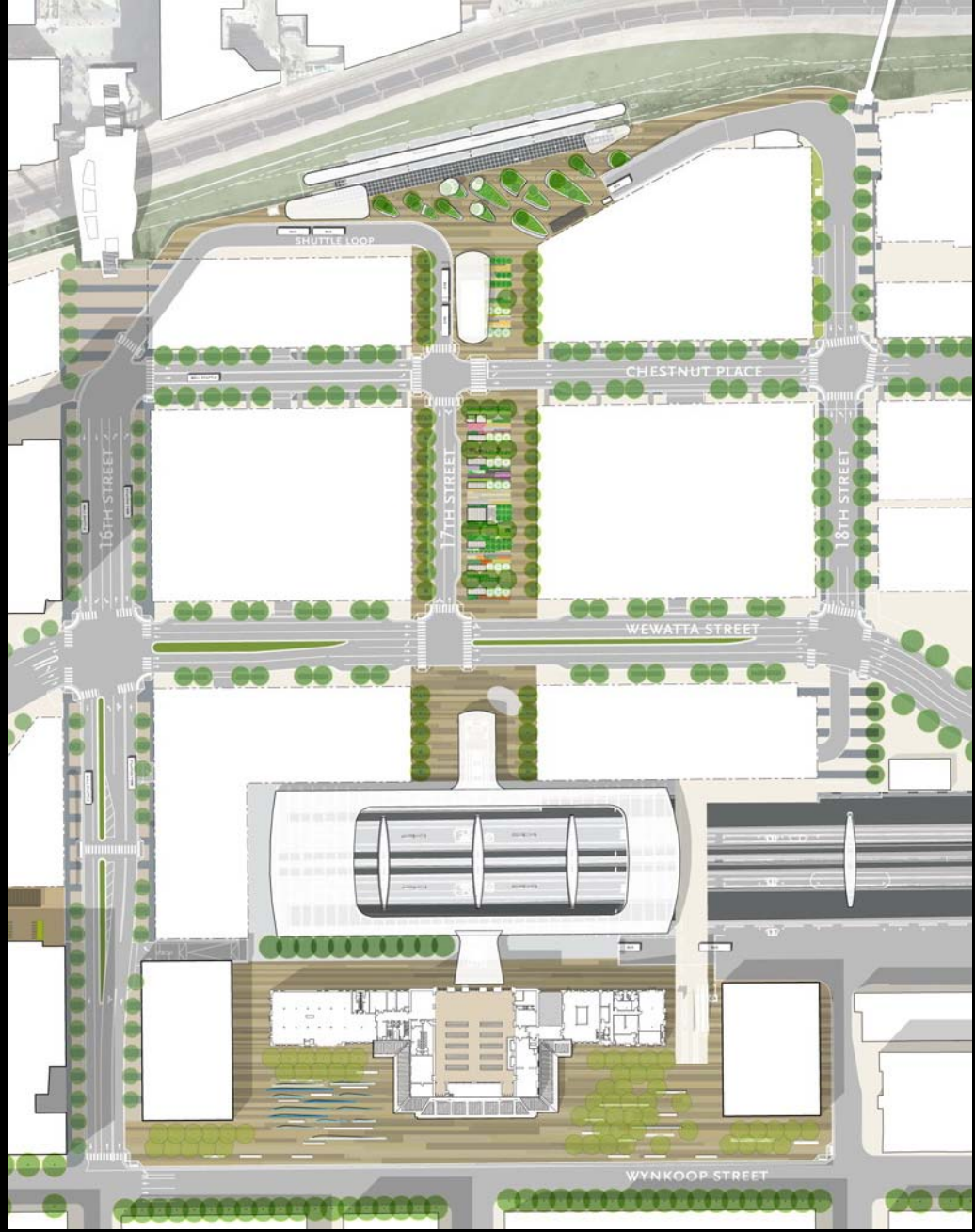
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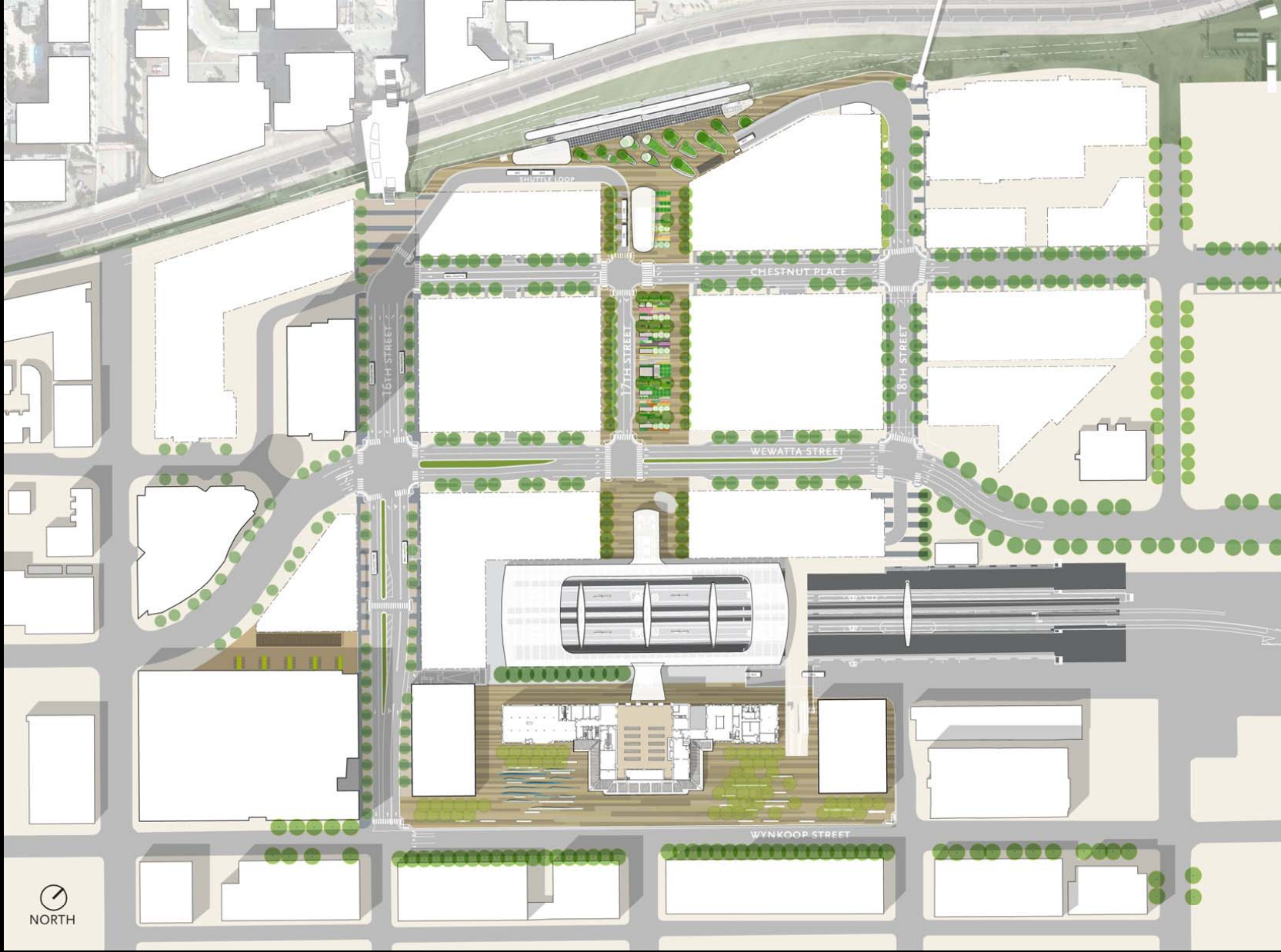
PRELIMINARY

PAVING OPTION C



PREFERRED PAVING

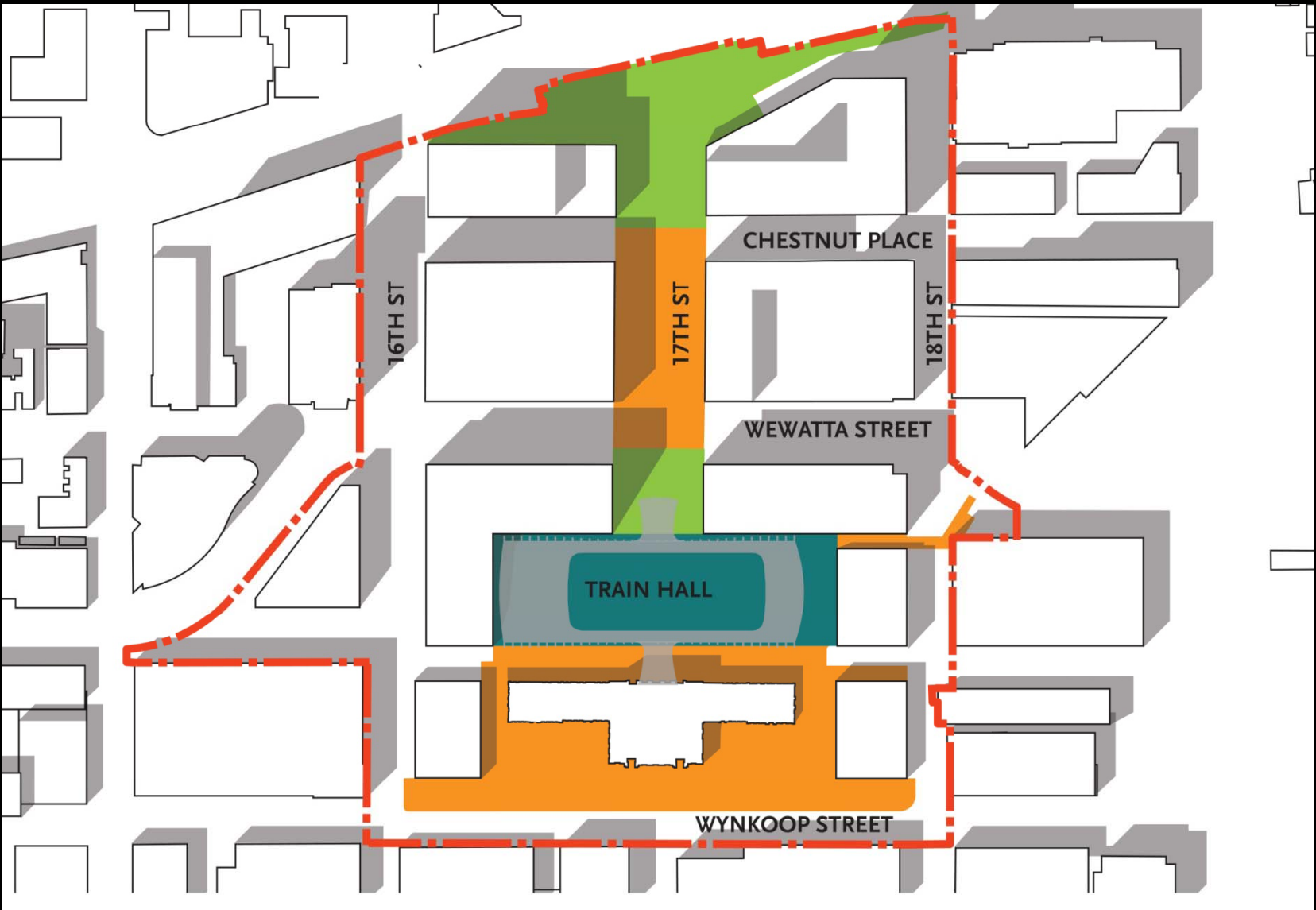




PLAN

PRELIMINARY

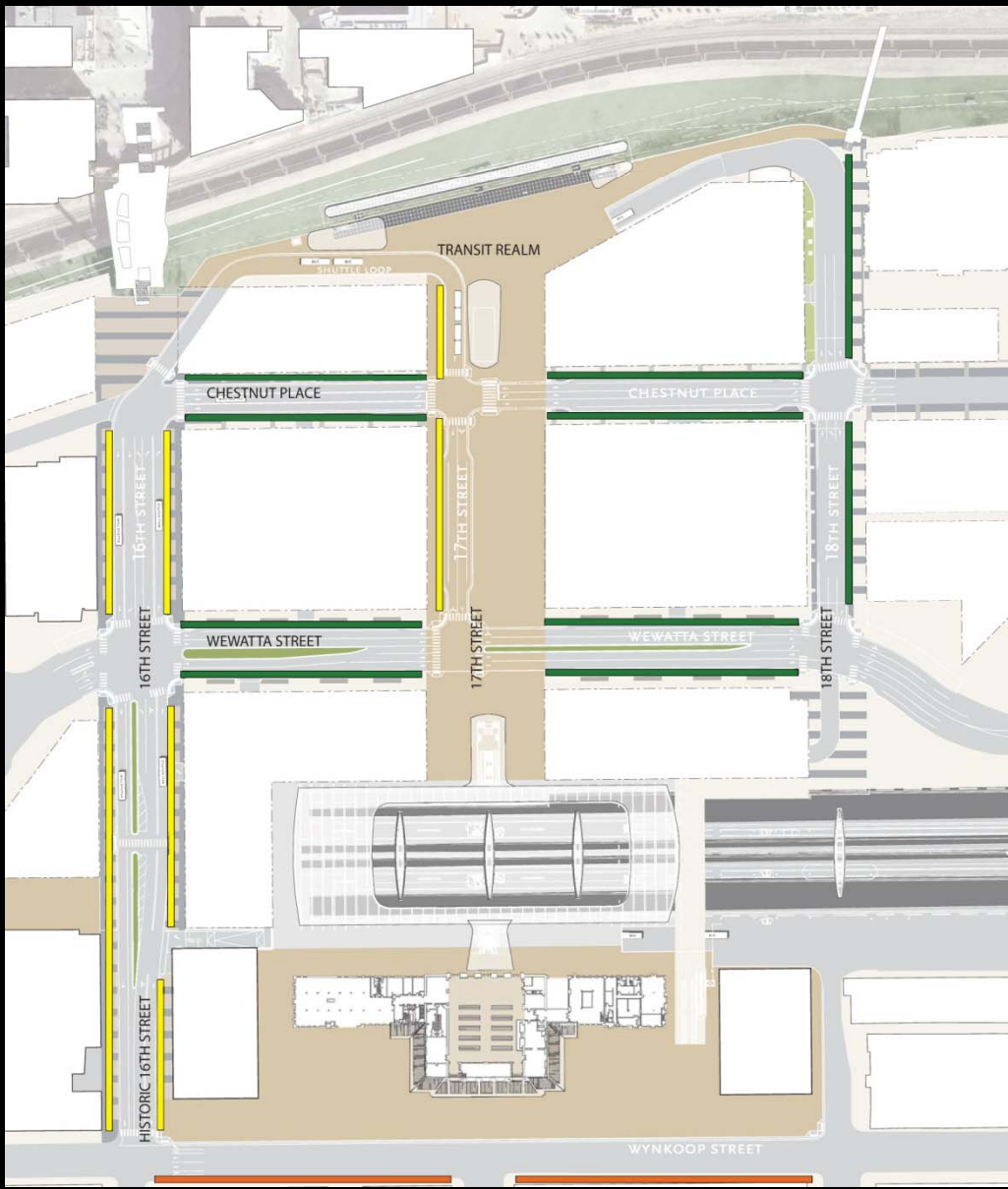
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GATEWAYS/ARRIVAL

PRELIMINARY

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16th STREET, 17th STREET
Contemporary to match existing Millennium Bridge White Light



CHESTNUT PLACE, WEWATTA STREET, 18TH STREET



Existing Fixtures that match Denver Lighting Masterplan White Light



WYNKOOP STREET
Existing Fixtures that match Denver Lighting Masterplan Yellow Light

STREET LIGHTING CONCEPT