



Transbay Transit Center

## TJPA Board Design Presentation

22 April 2010

Pelli Clarke Pelli Architects

# 100% Design Development Team comprised of 23 Consultants & 32 Disciplines

1354 Sheets of Drawings & 3 Volumes of Specifications

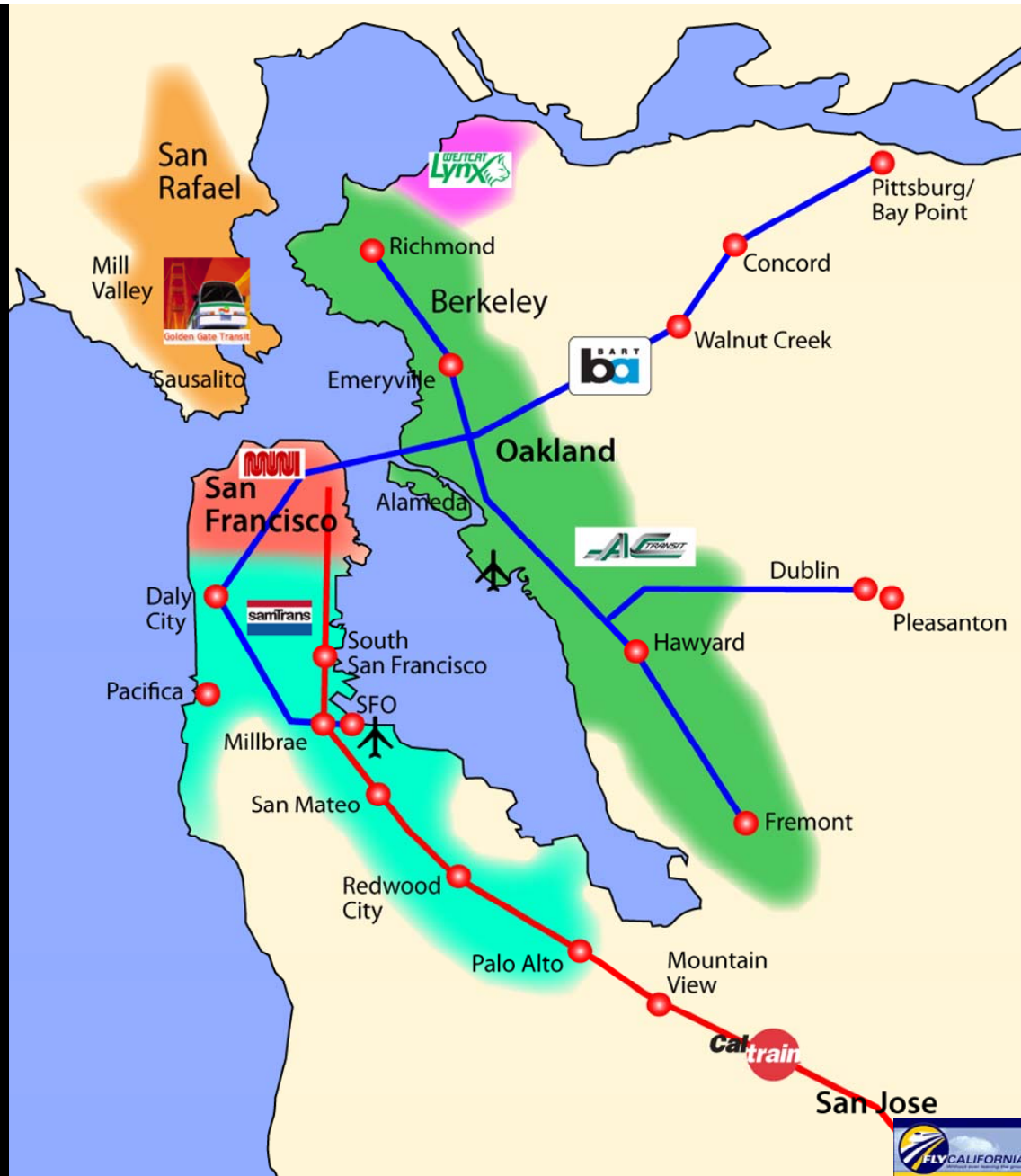
- Pelli Clarke Pelli Architects
- AAI Architects
- Arup
- Atelier Ten
- Auerbach Glasow French
- Buro Happold
- BVM Engineering
- Davis Langdon
- Edgett Williams
- Halcyon
- Henshell & Buccellato
- HMA Consulting
- Israel Berger & Associates
- Lerch Bates & Associates
- Peter Walker & Partners
- Rana Creek
- RWDI
- Schlaich Bergermann & Partners
- Shen Milson & Wilke
- Thorton Tomasetti
- Wilson Ihrig & Associates
- WRNS Studio
- WSP Flack + Kurtz

# 12 TRANSIT OPERATORS

- AC Transit
- Muni
- Golden Gate Transit
- SamTrans
- WestCAT Lynx
- BART
- Muni Metro
- ParaTransit
- Greyhound
- Amtrak Shuttle Bus
- Caltrain
- California High Speed Rail
- Possible Amtrak Coast Daylight

## DAILY USERS

- Daily - 114,000 weekday passengers for 2030
- Annual – up to 45 million visitors for 2030



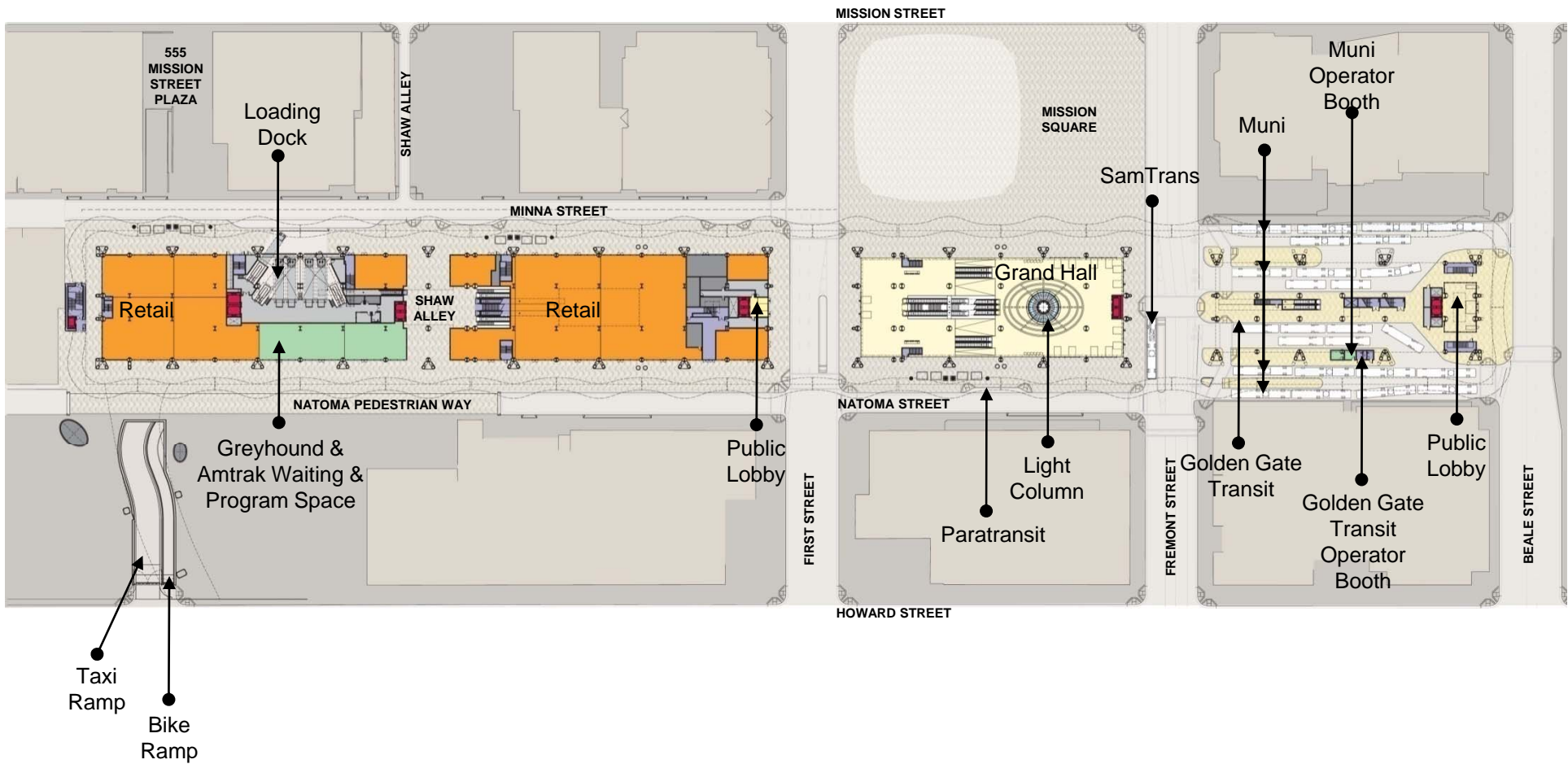
TRANSPORTATION SYSTEMS FOR TRANSBAY TRANSIT CENTER



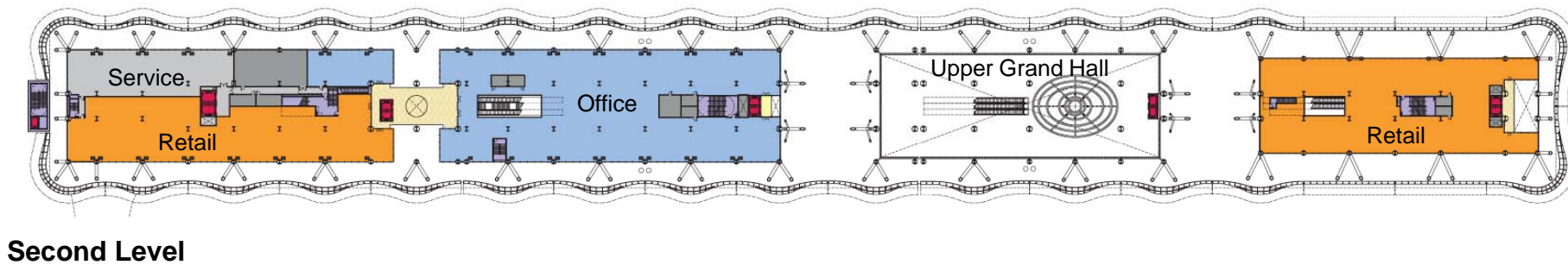
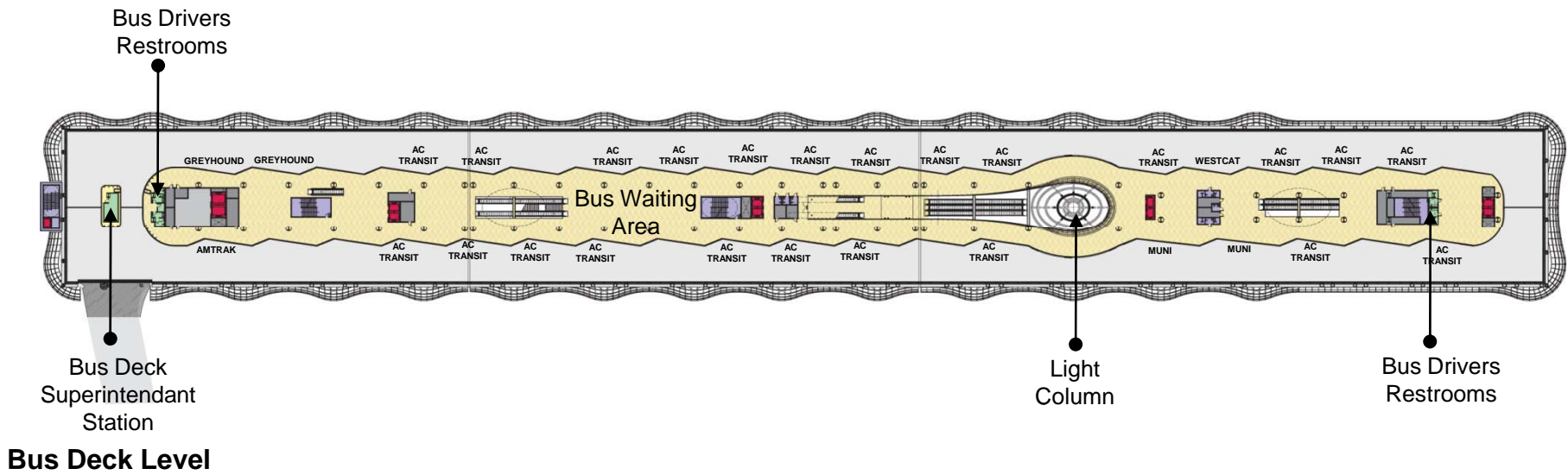
# FLOOR PLANS

# BUILDING SIZE

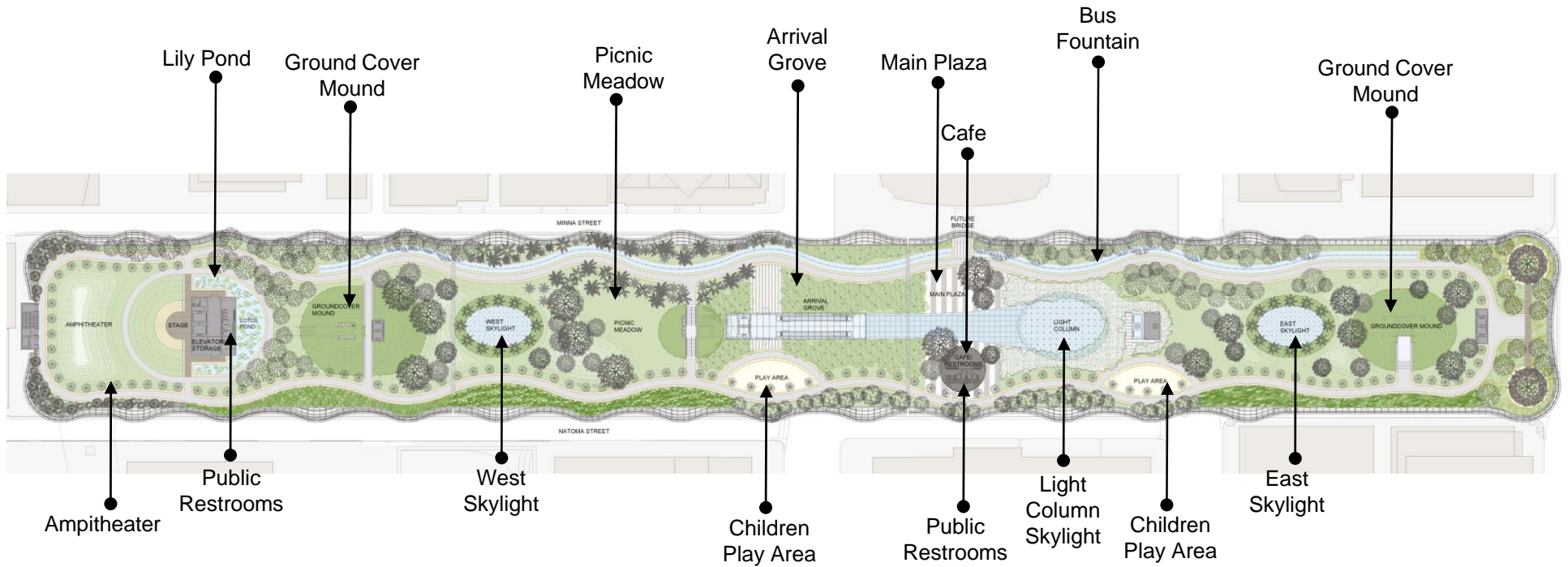
- Gross Area – over 1.4 million square feet
- Above Grade Area – over 700,000 square feet
  - 3 Levels Above
- Below Grade Area – over 700,000 square feet
  - 2 Levels Below
- 5.4 acre Urban Park



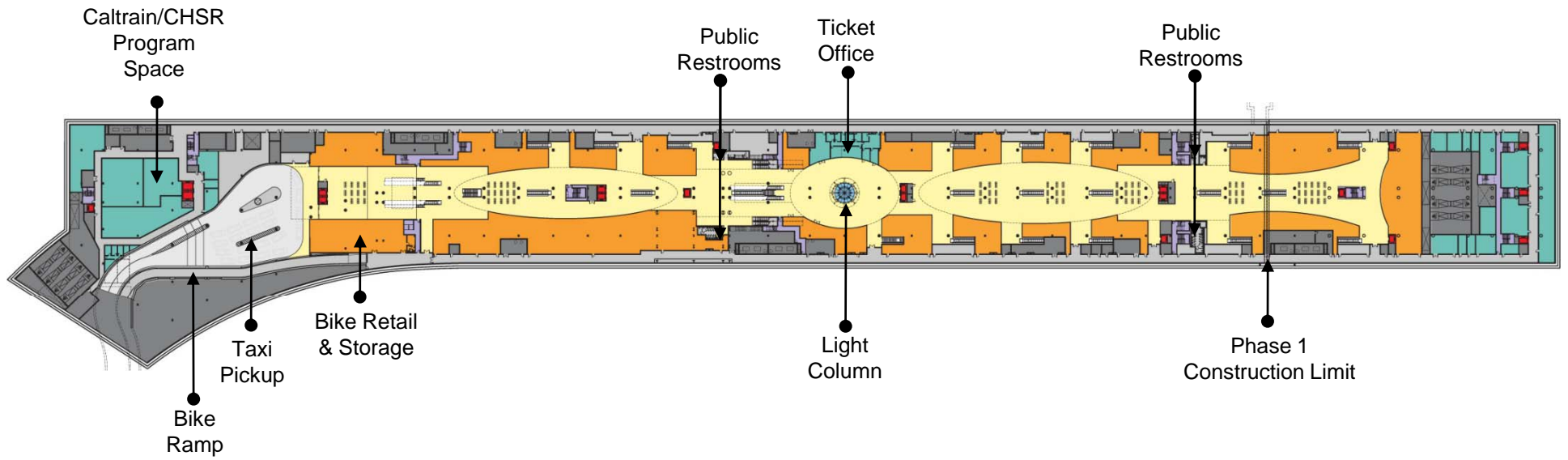
GROUND LEVEL PLAN



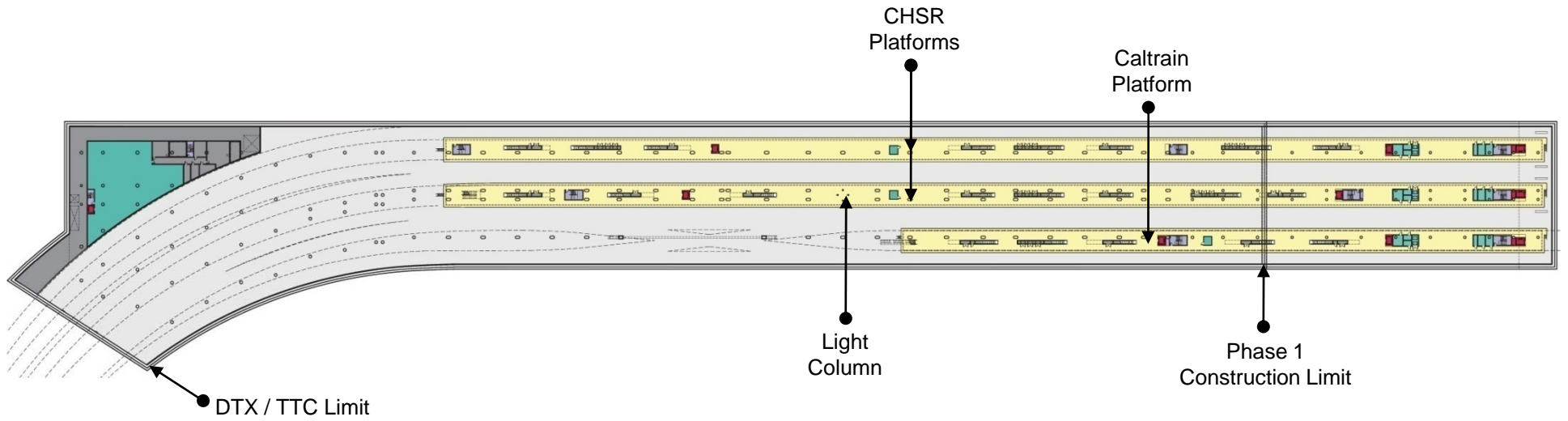




# ROOF PARK LEVEL PLAN



**Lower Concourse Level**

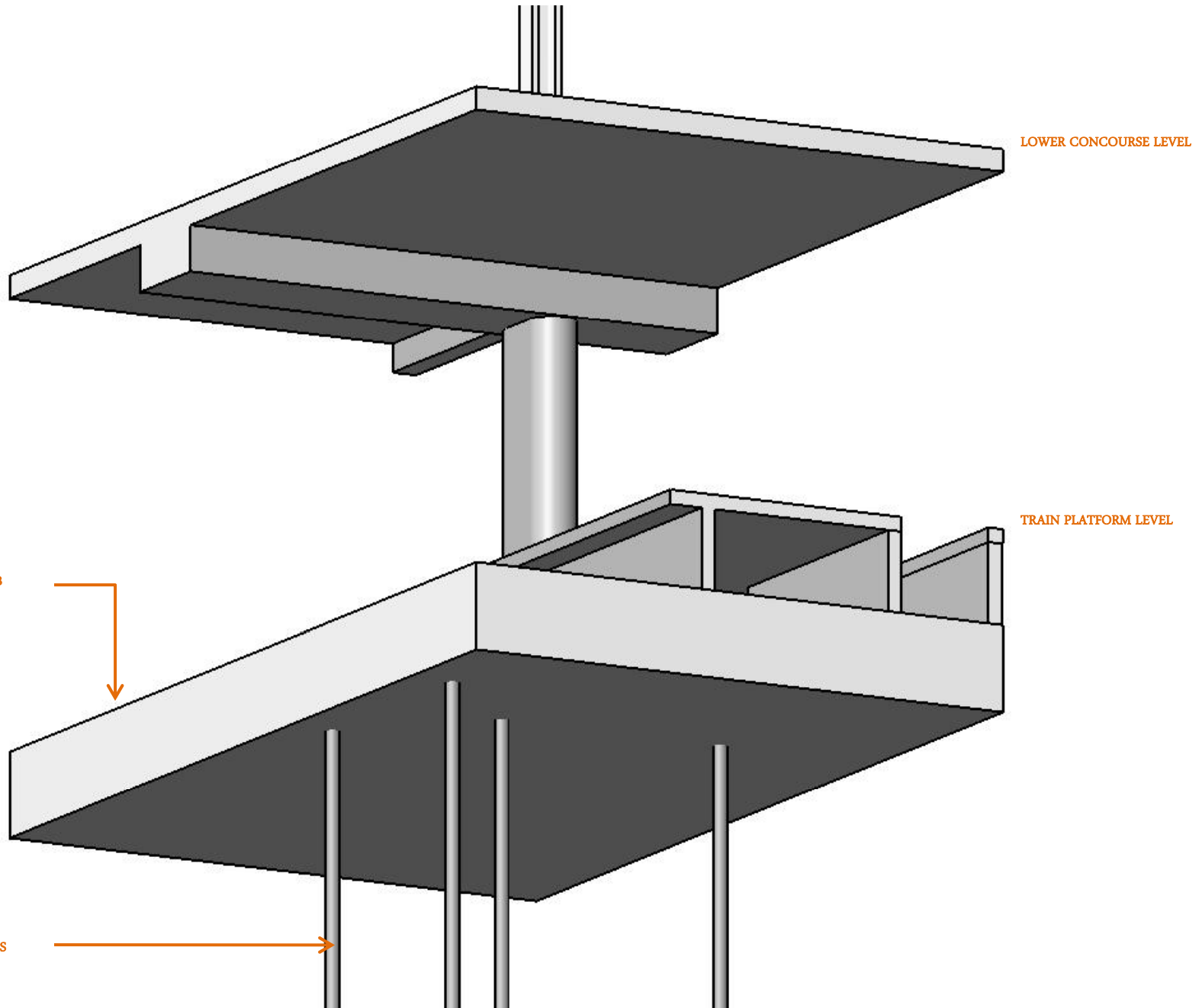


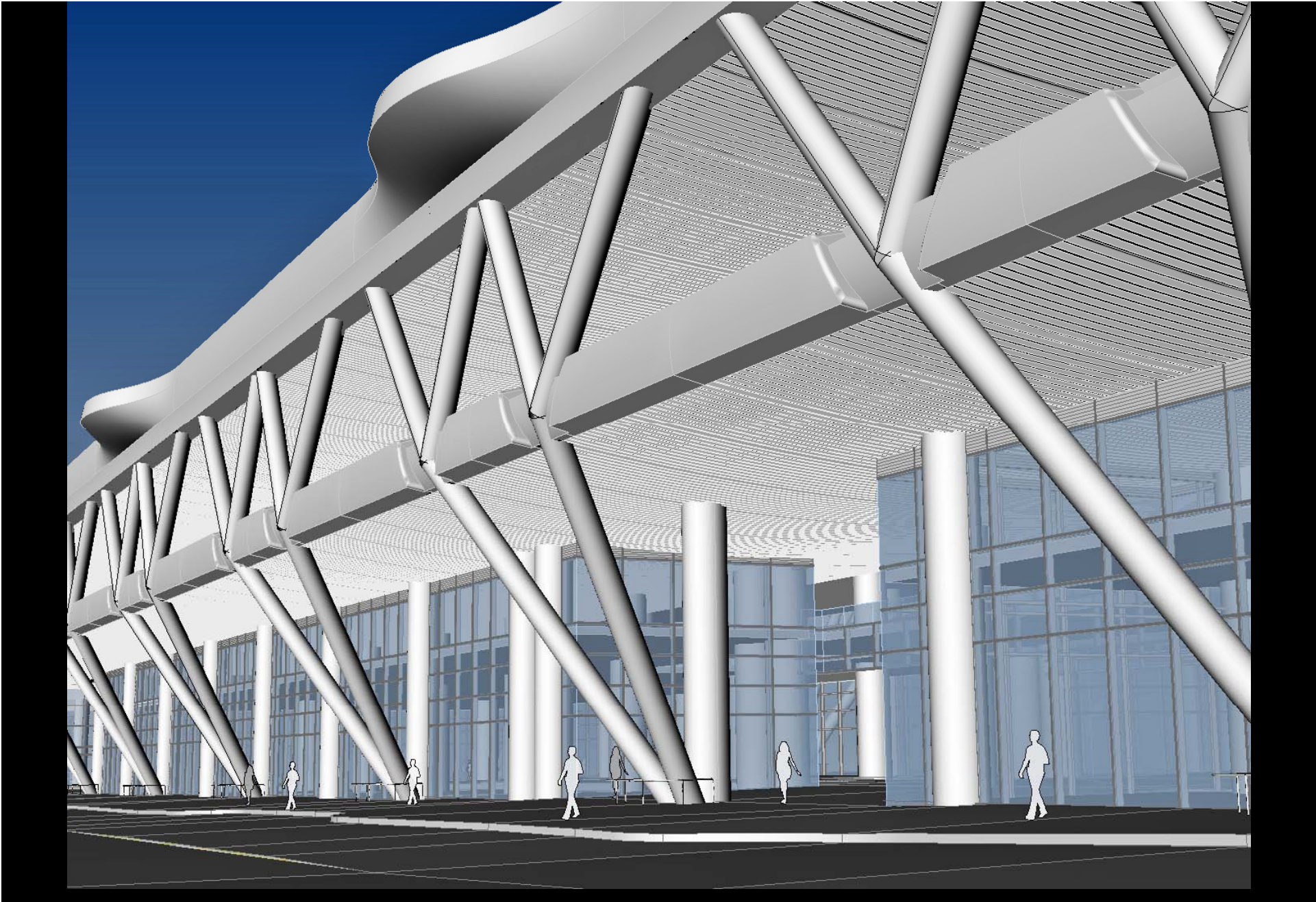
**Train Platform Level**

# STRUCTURE & EXTERIOR ENCLOSURE

# STRUCTURAL DESIGN

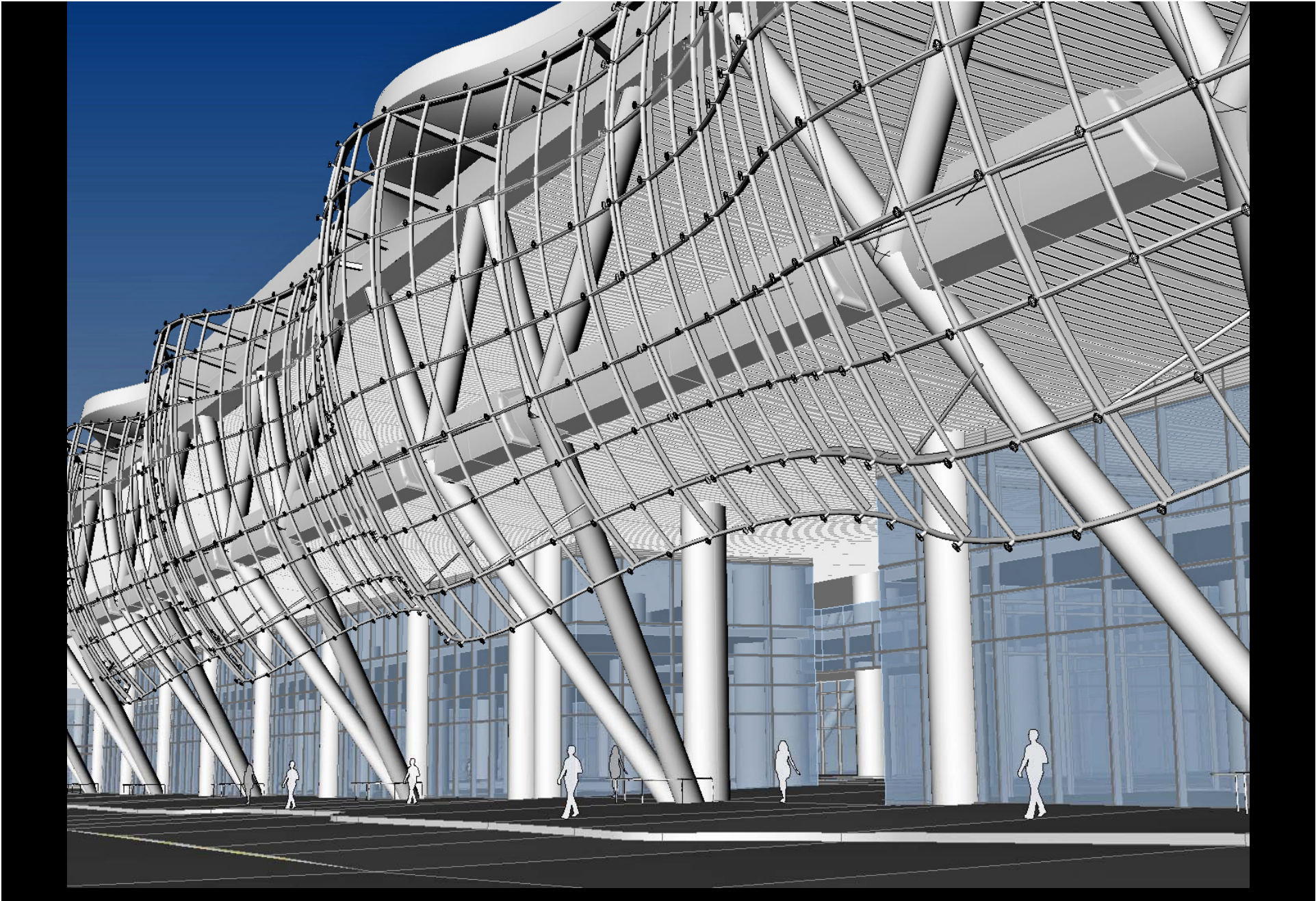
- Design to a performance objectives agreed with TJPA for TTC to exceed an Importance Factor 1.25
- 5 ft thick mat slab & approx. 1800 tie-downs



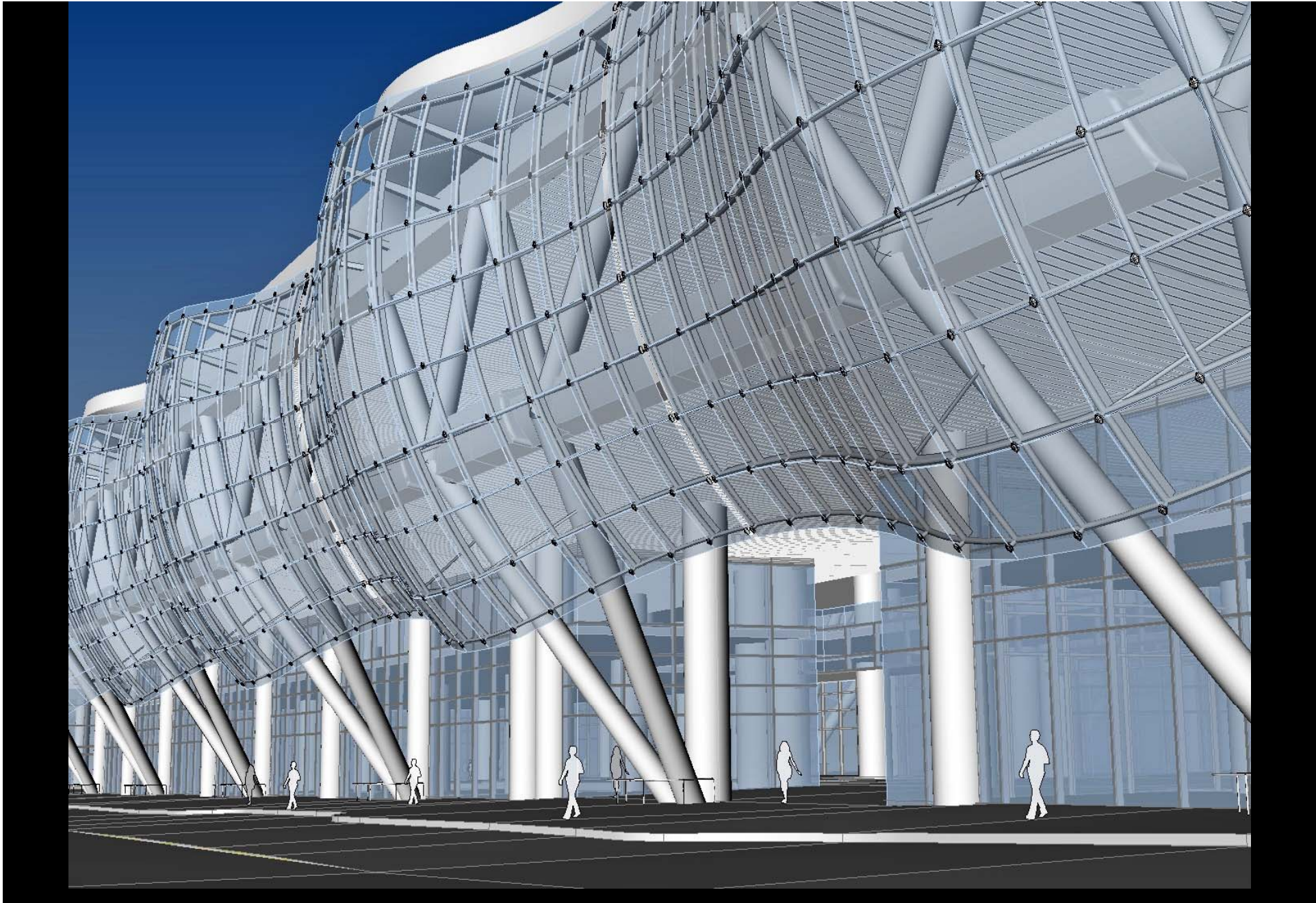


SUPERSTRUCTURE





AWNING SUBSTRUCTURE



AWNING GLAZING





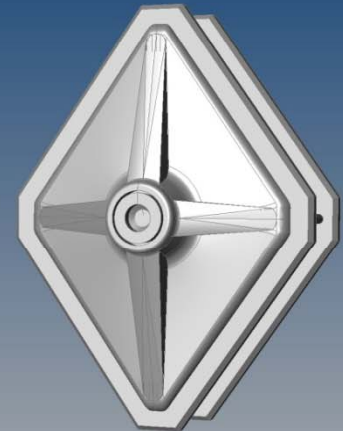
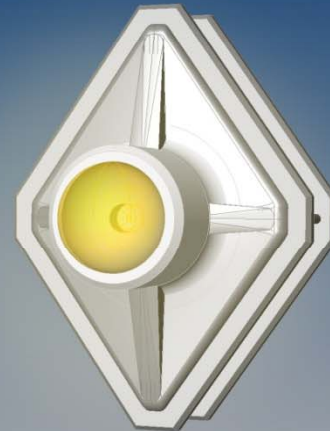
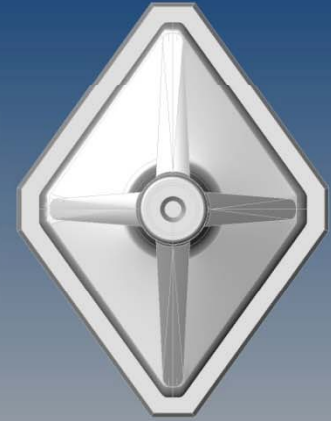
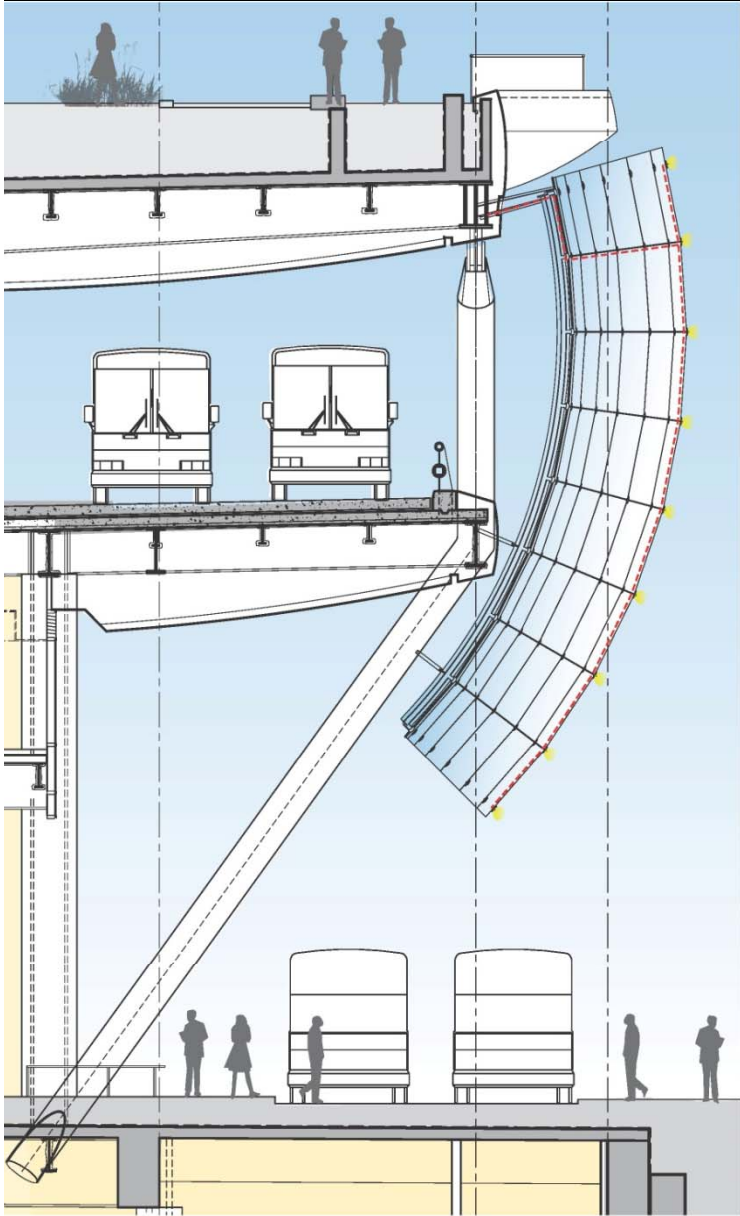
NATOMA STREET VIEW



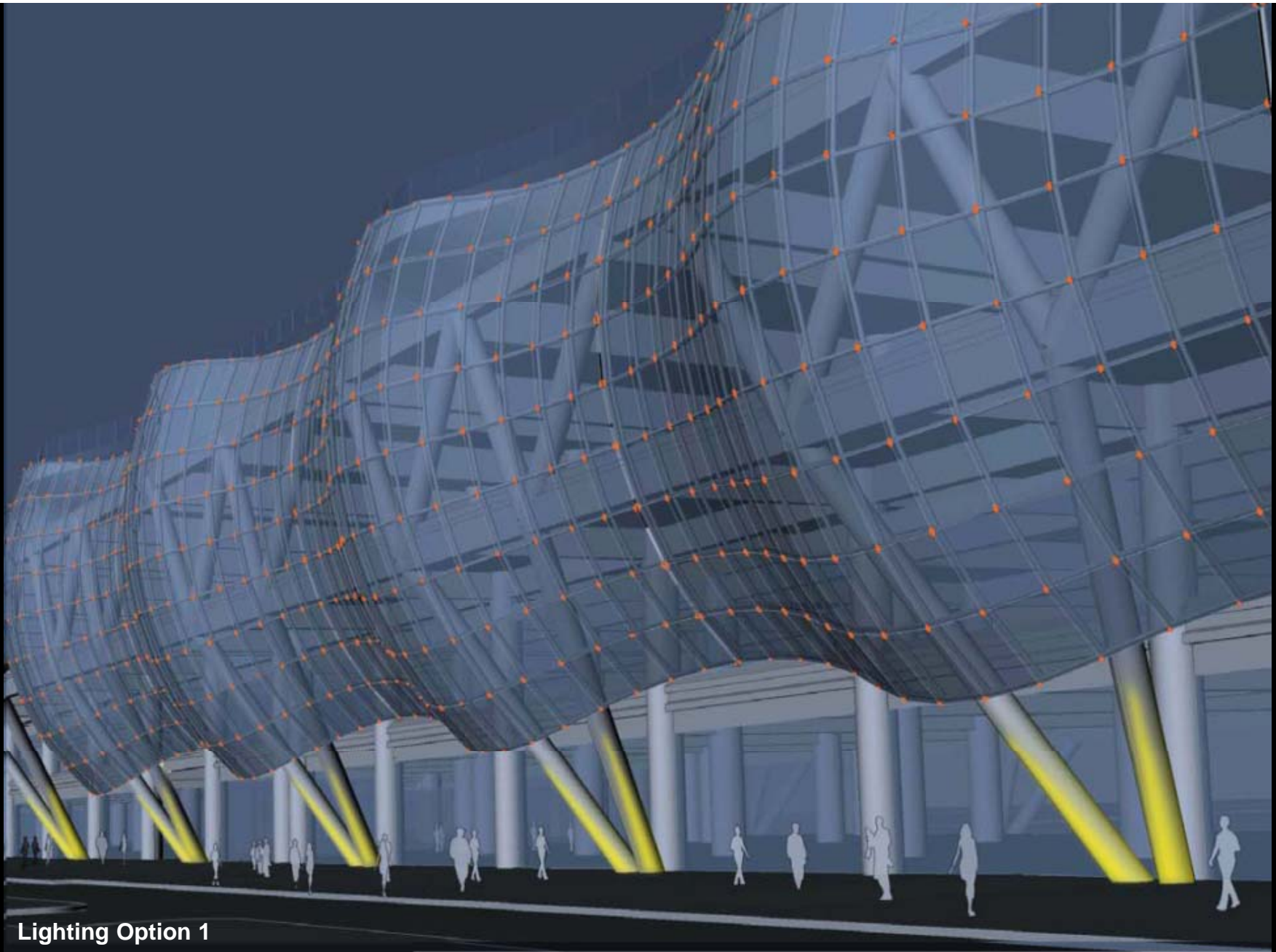
BEALE STREET VIEW



AWNING GLAZING DETAILED VIEW

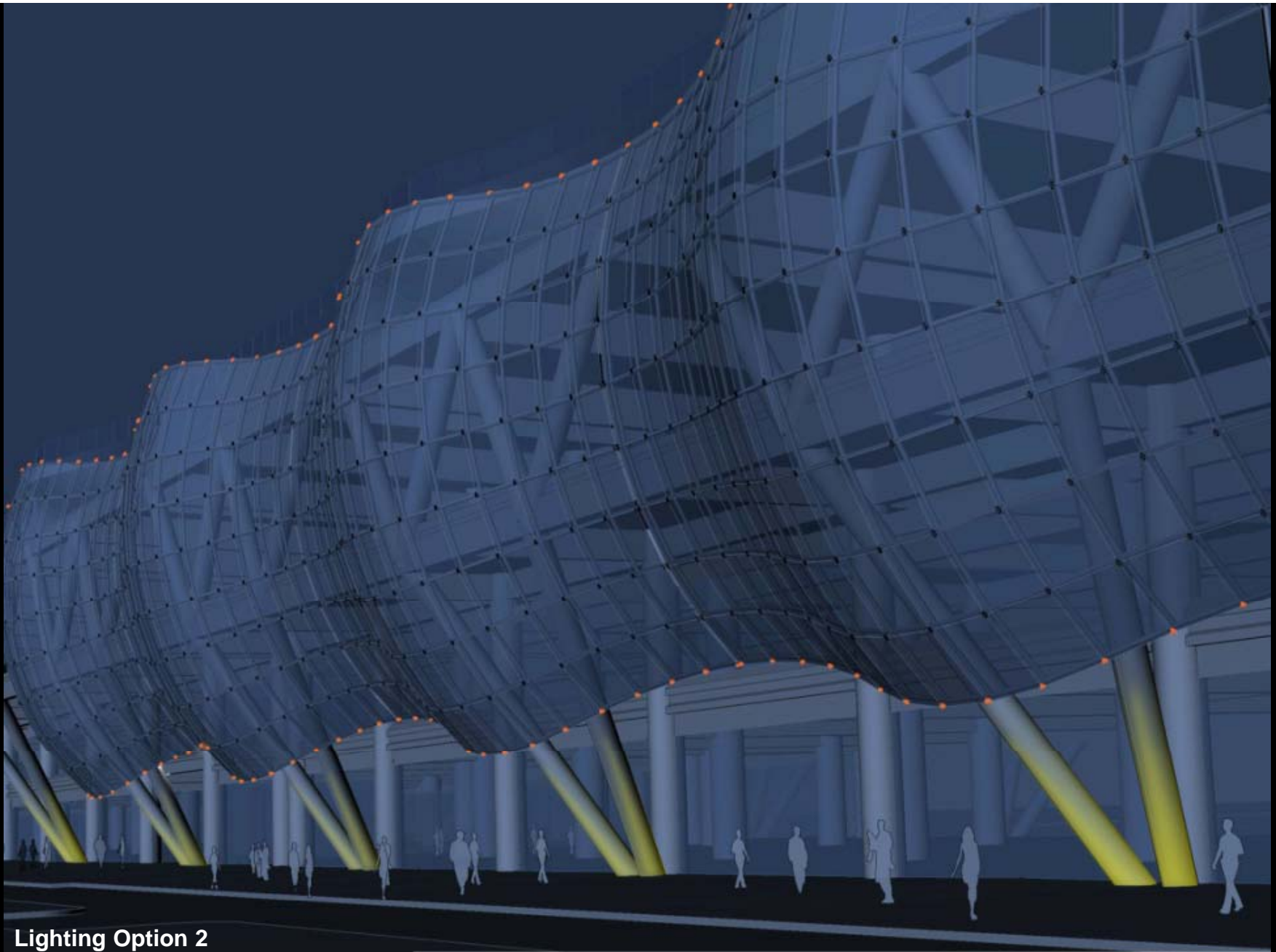


AWNING NODE



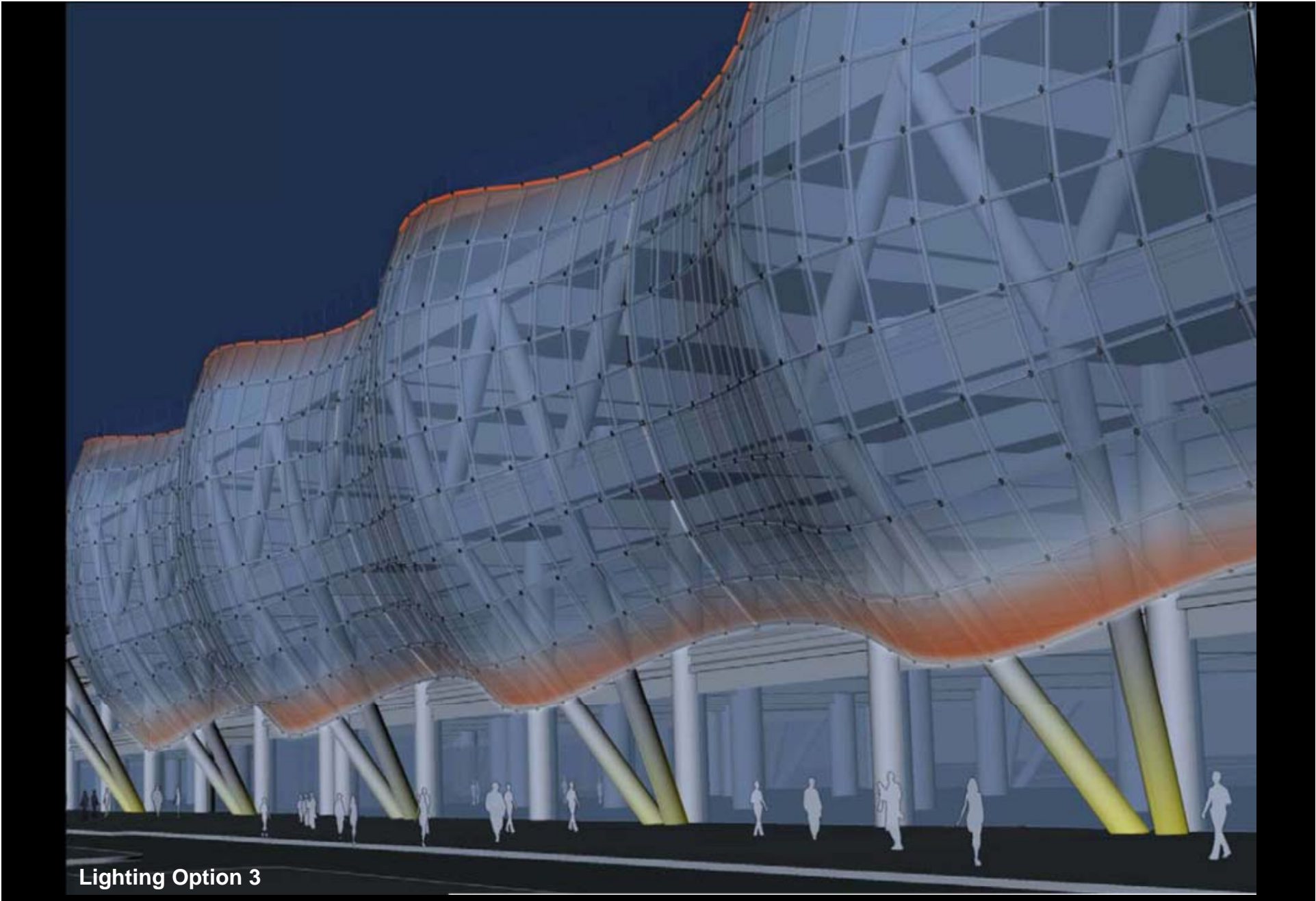
Lighting Option 1

## AWNING LIGHTING OPTIONS



Lighting Option 2

## AWNING LIGHTING OPTIONS



Lighting Option 3

AWNING LIGHTING OPTIONS

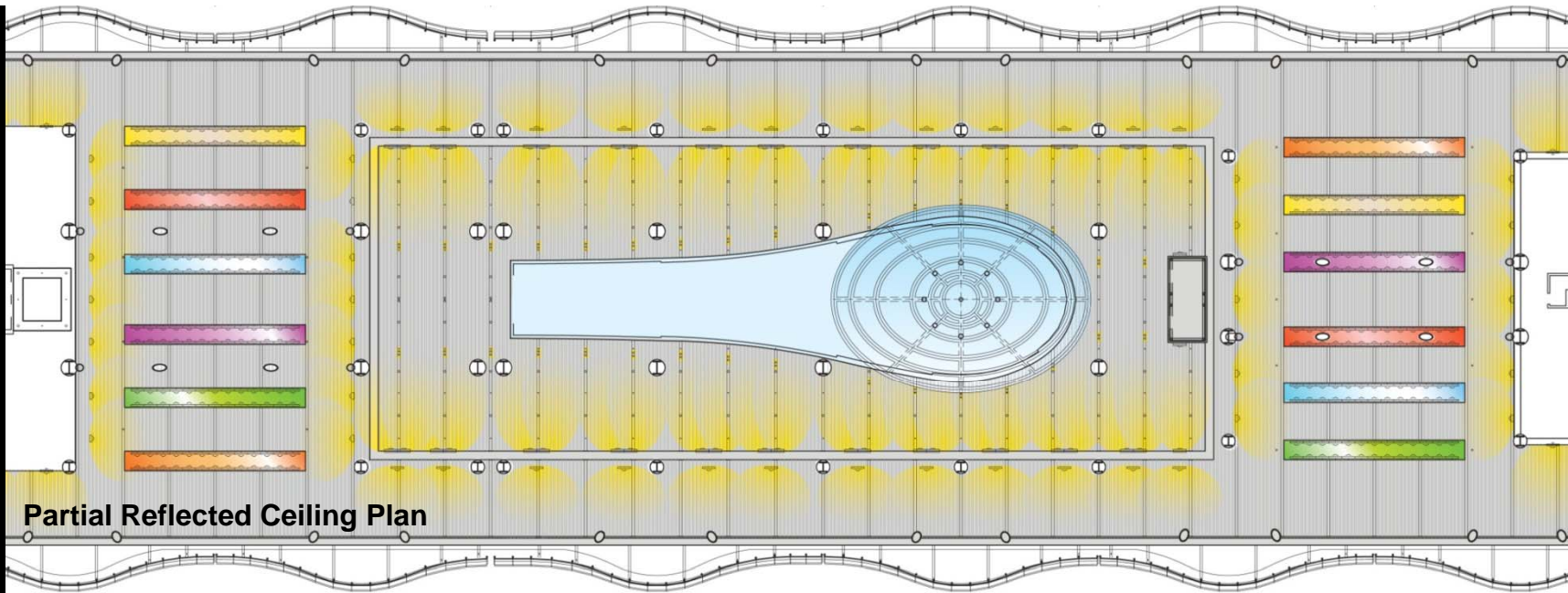


## AWNING LIGHTING OPTIONS





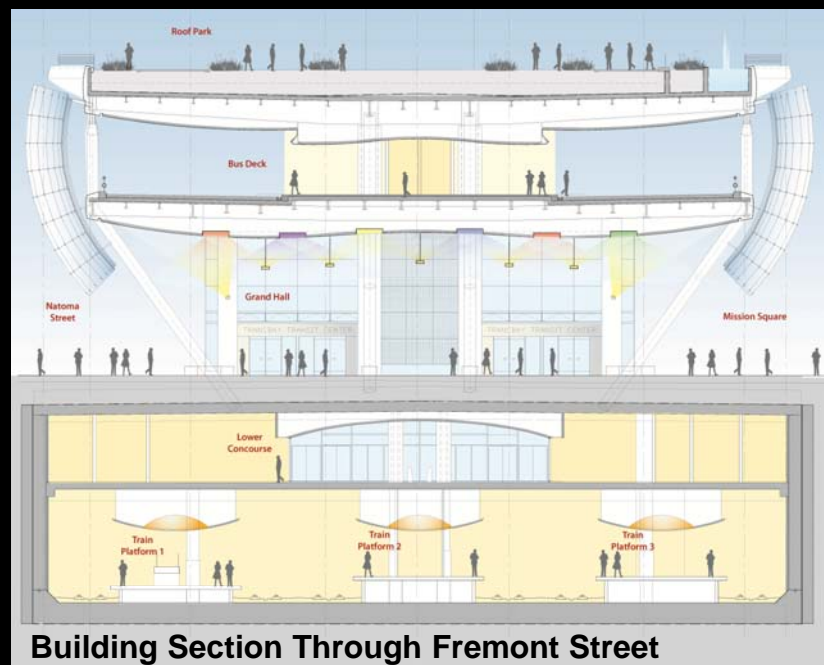
FIRST STREET VIEW



**Partial Reflected Ceiling Plan**



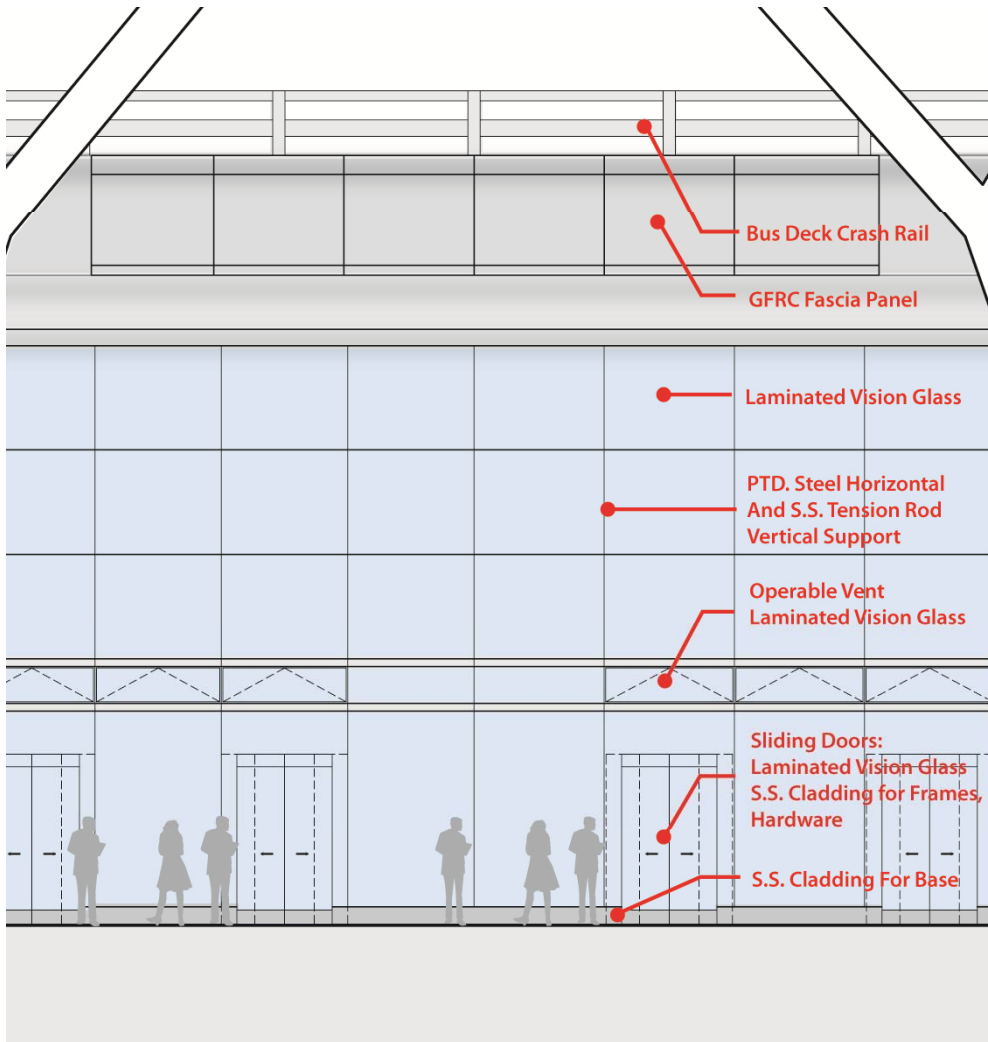
**Fremont Street Throughway View**



**Building Section Through Fremont Street**



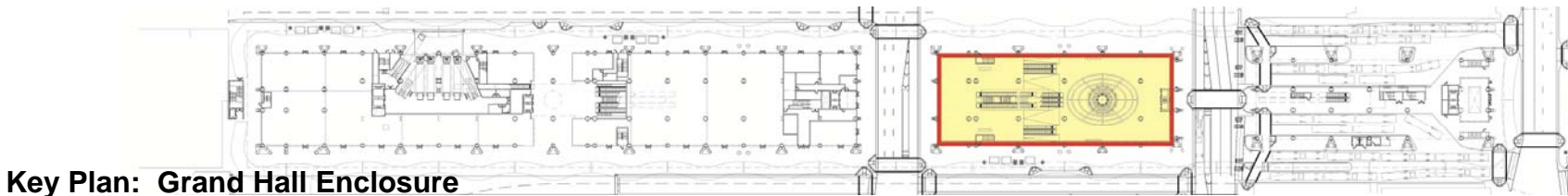
FREMONT STREET & MISSION SQUARE VIEW



**Elevation Detail: Grand Hall Enclosure**



**View Of Grand Hall Enclosure**

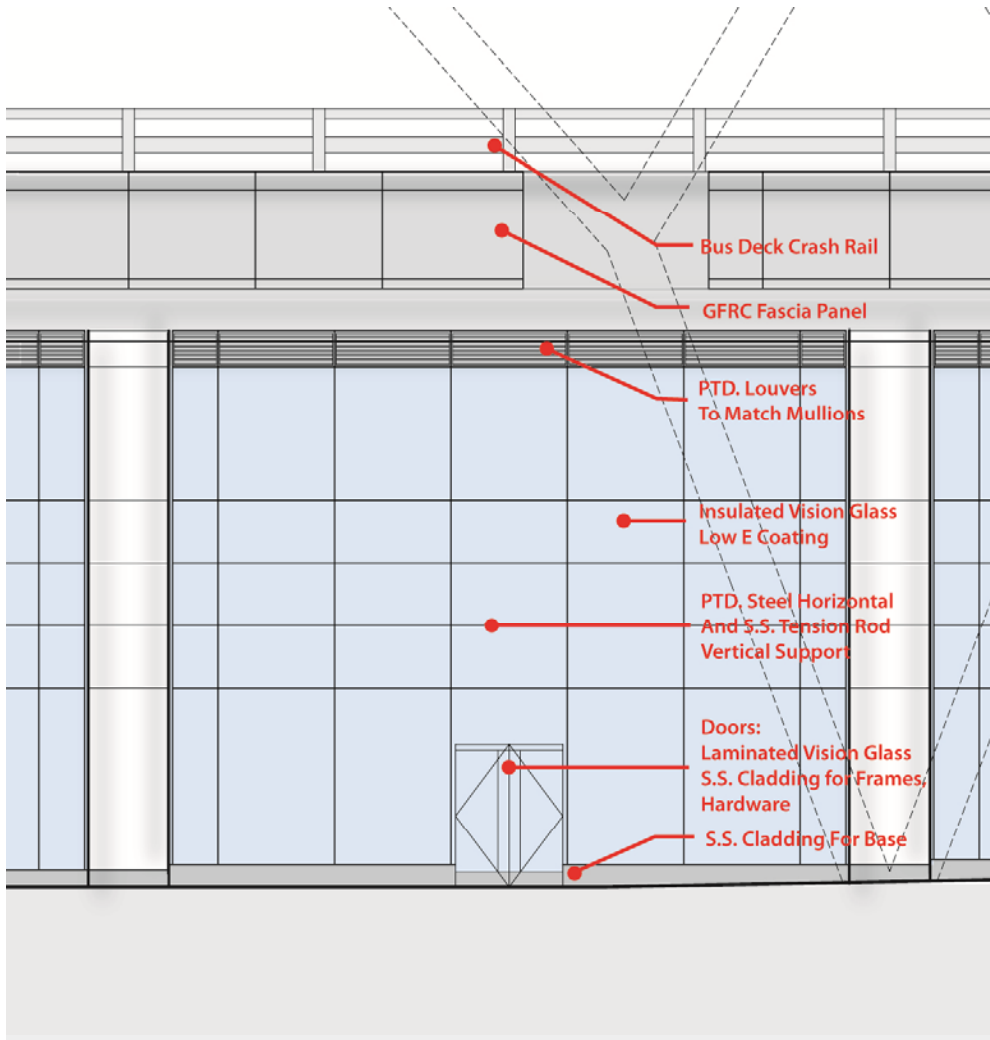


**Key Plan: Grand Hall Enclosure**

**GRAND HALL ENCLOSURE**



GRAND HALL DETAIL



**Elevation Detail: Retail Storefront**



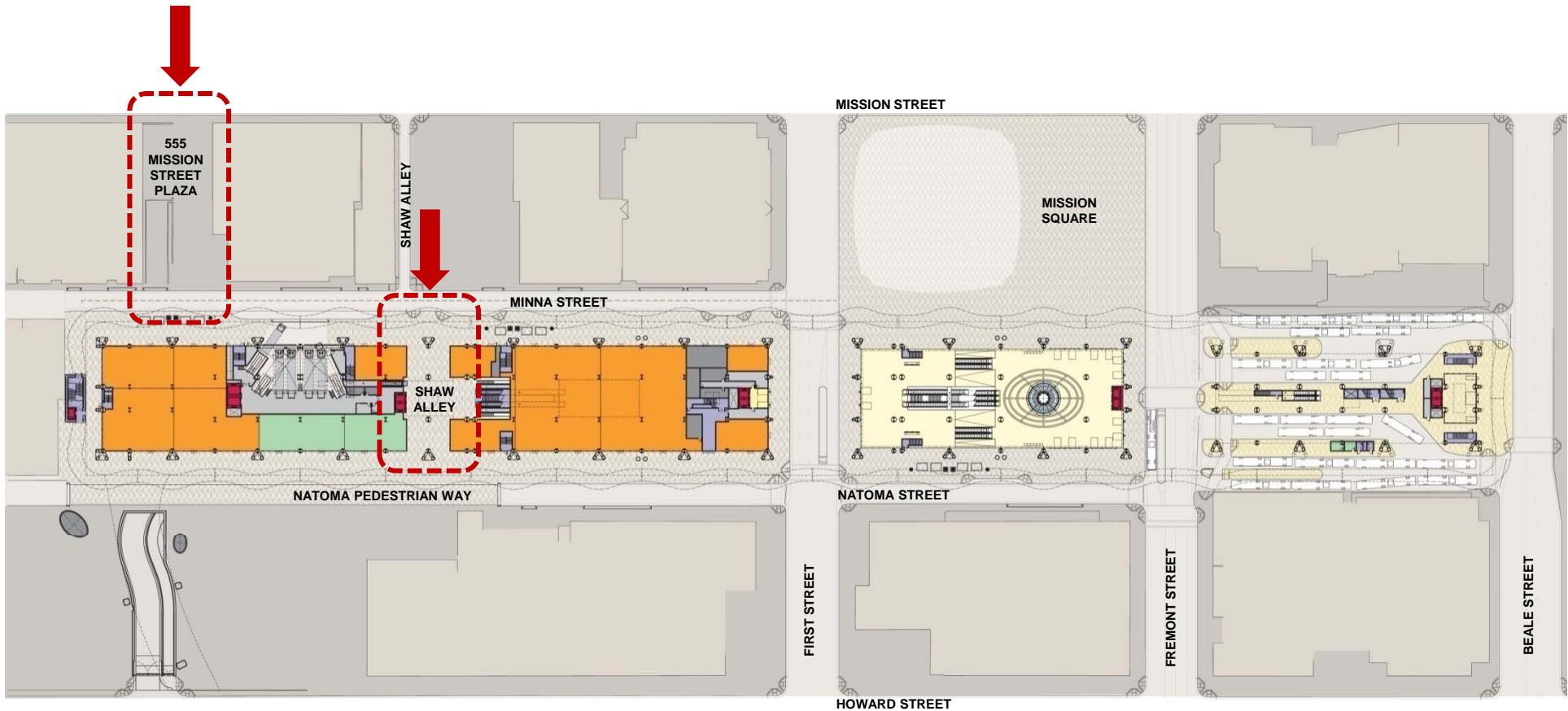
**View Of Retail Storefront**



**Key Plan: Retail Storefront**

**RETAIL STOREFRONT**

# URBAN PRESENCE

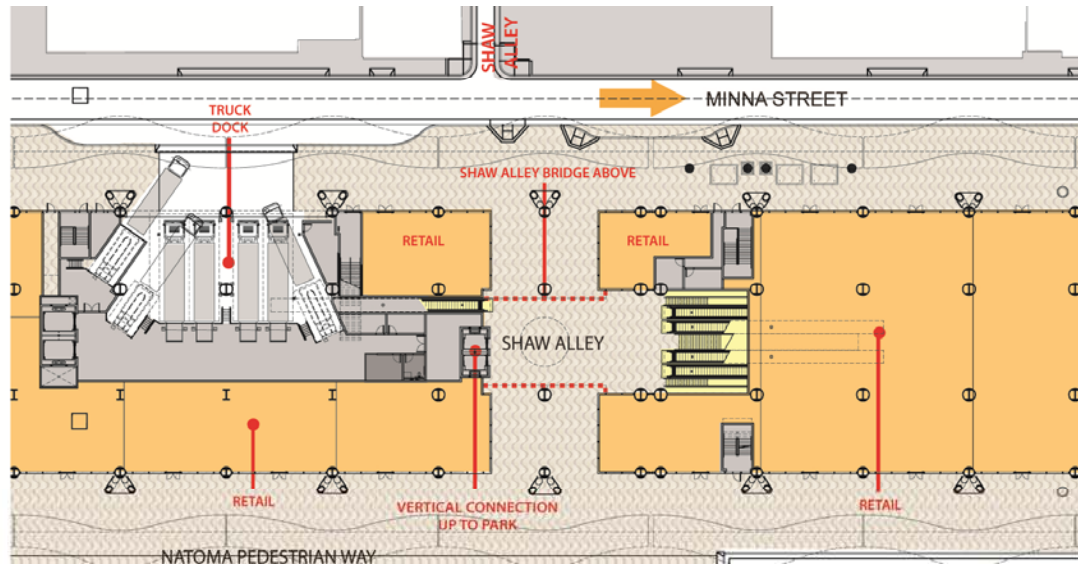
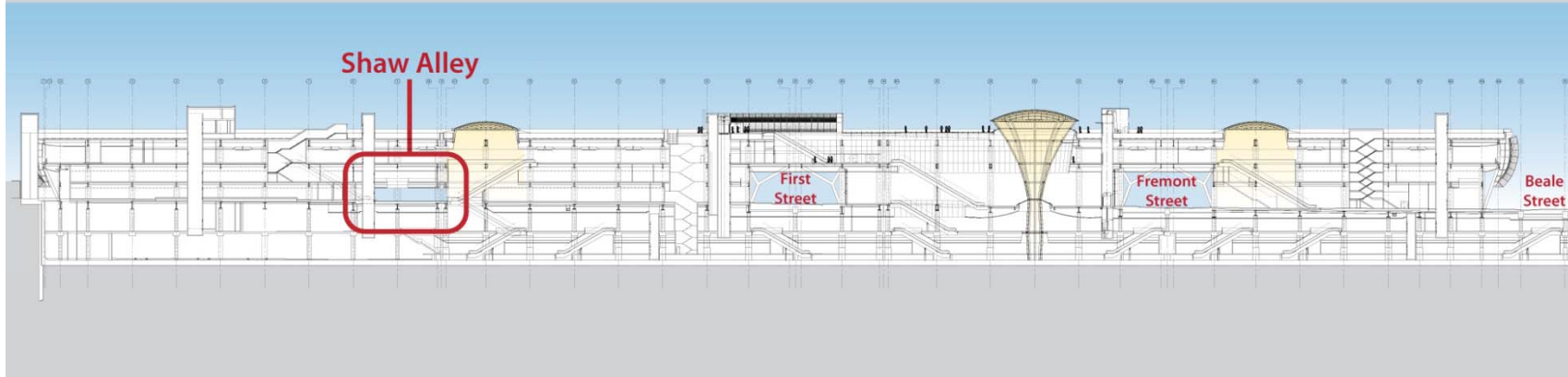
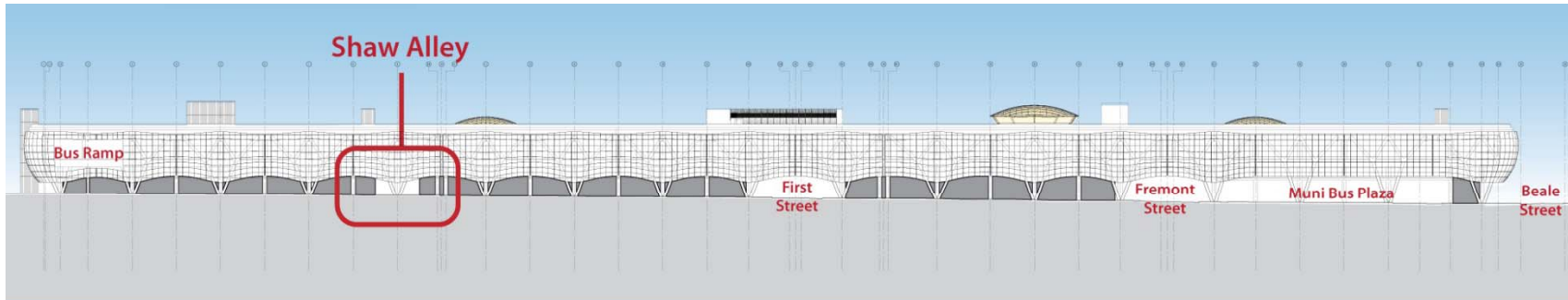


# GROUND LEVEL PLAN





555 MISSION STREET PLAZA VIEW



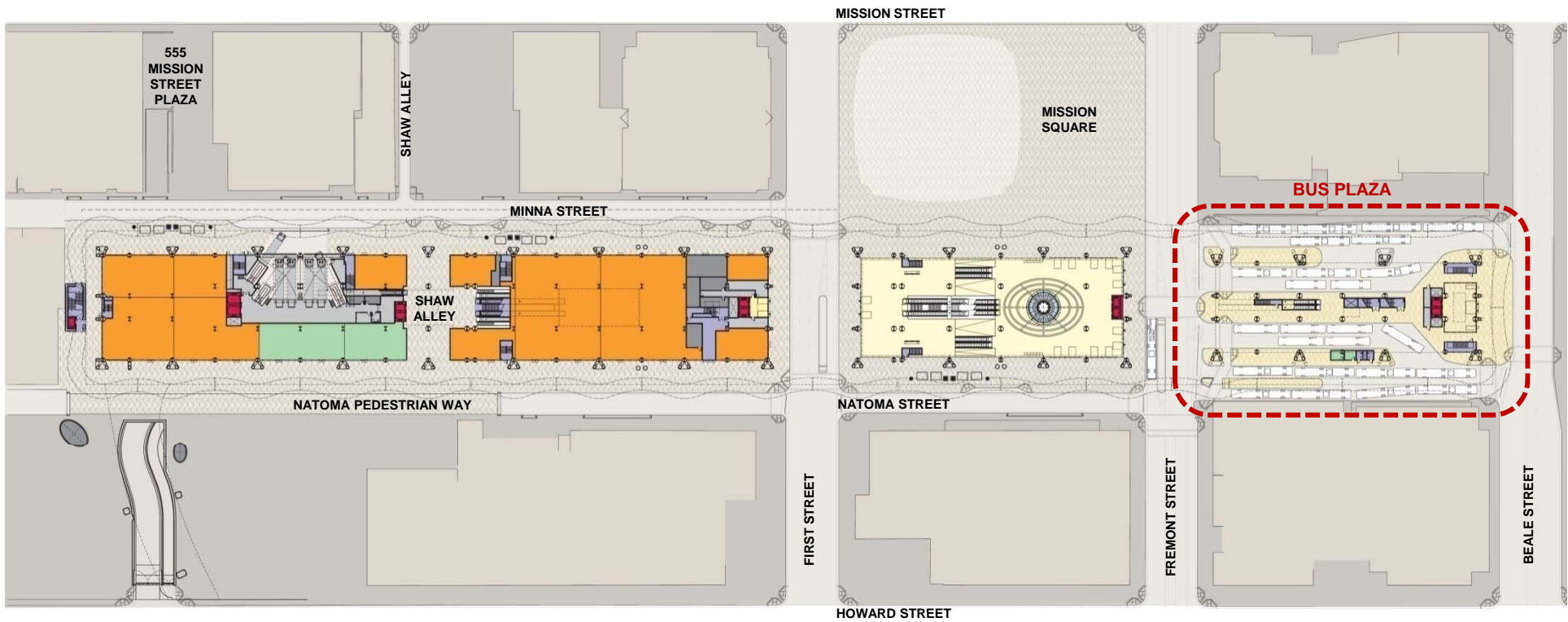


SHAW ALLEY PERSPECTIVE FROM MISSION STREET



SHAW ALLEY VIEW FROM NATOMA STREET

# BUS PLAZA



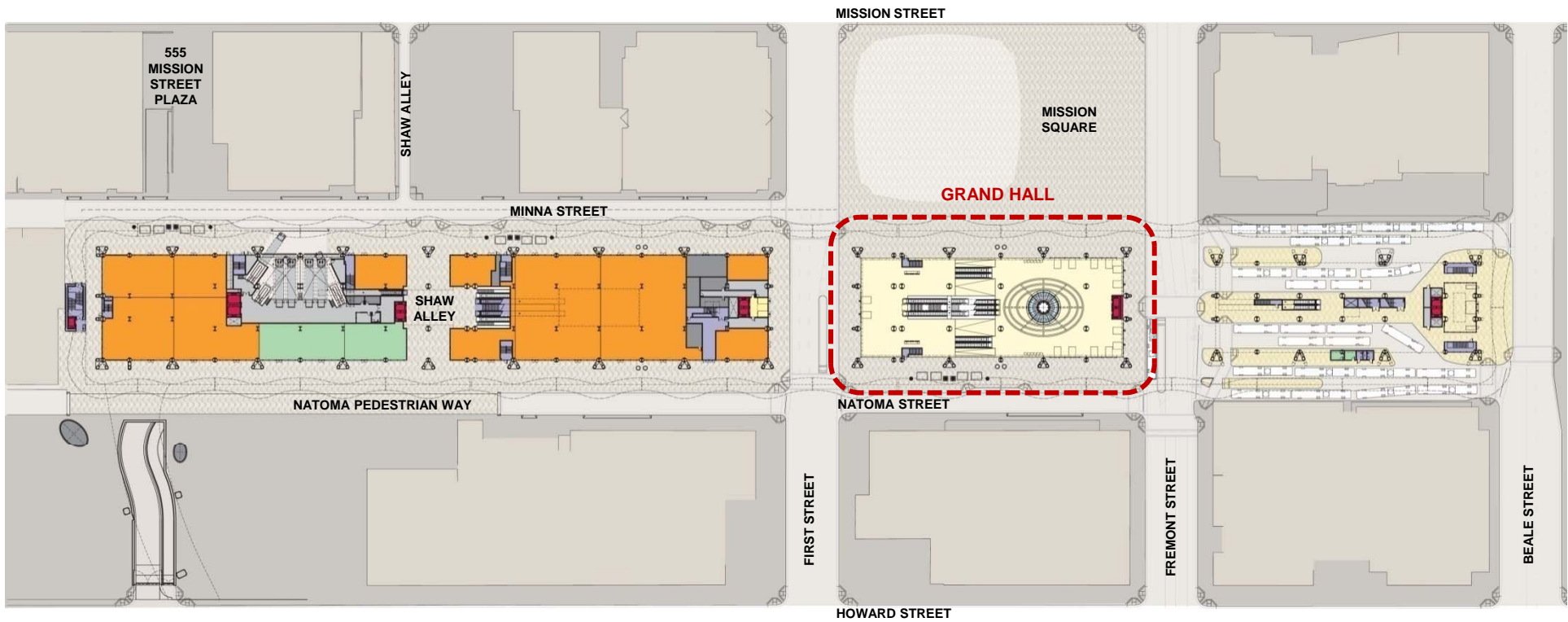
GROUND LEVEL PLAN



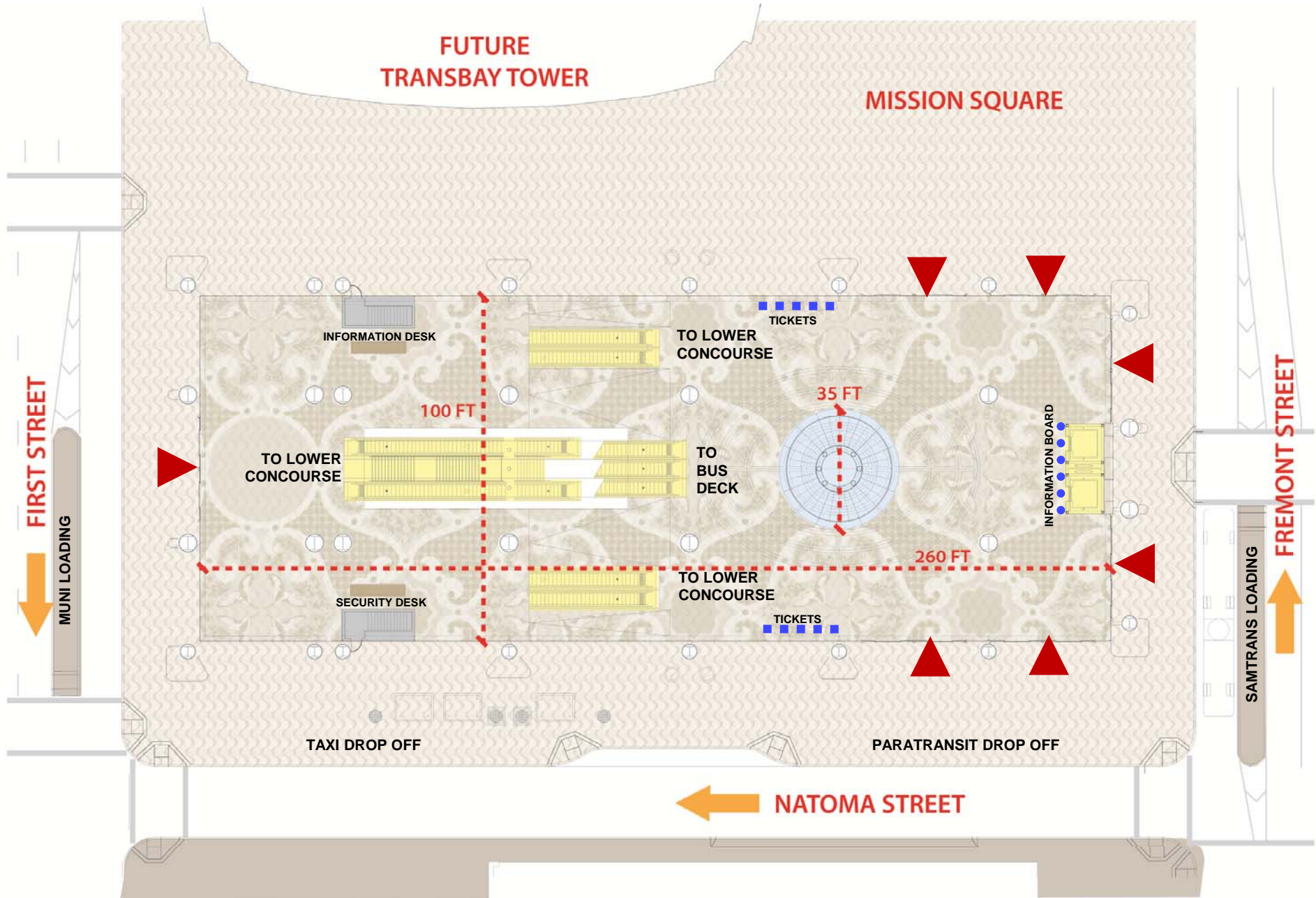
BEALE STREET VIEW

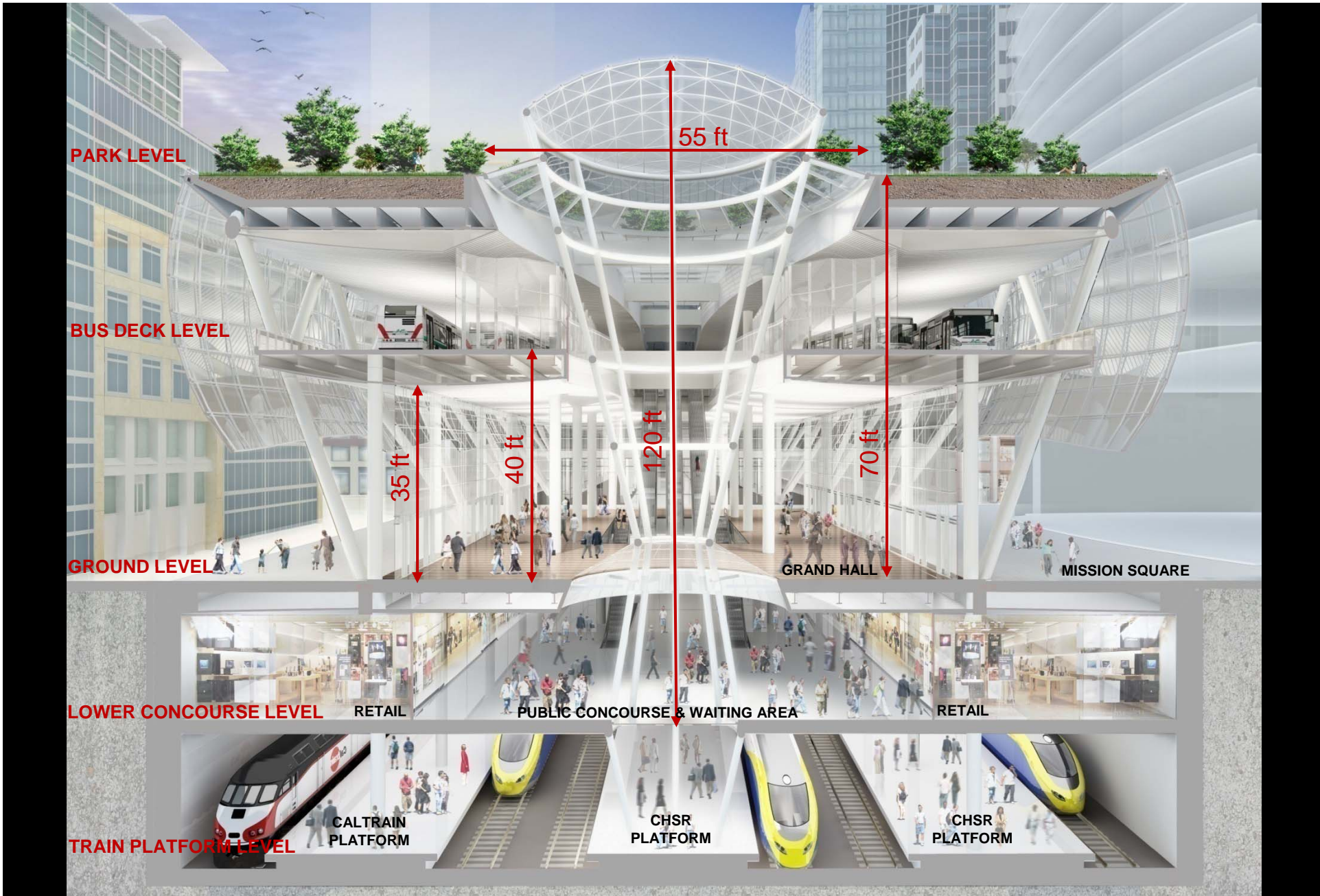
# GRAND HALL





# GROUND LEVEL PLAN





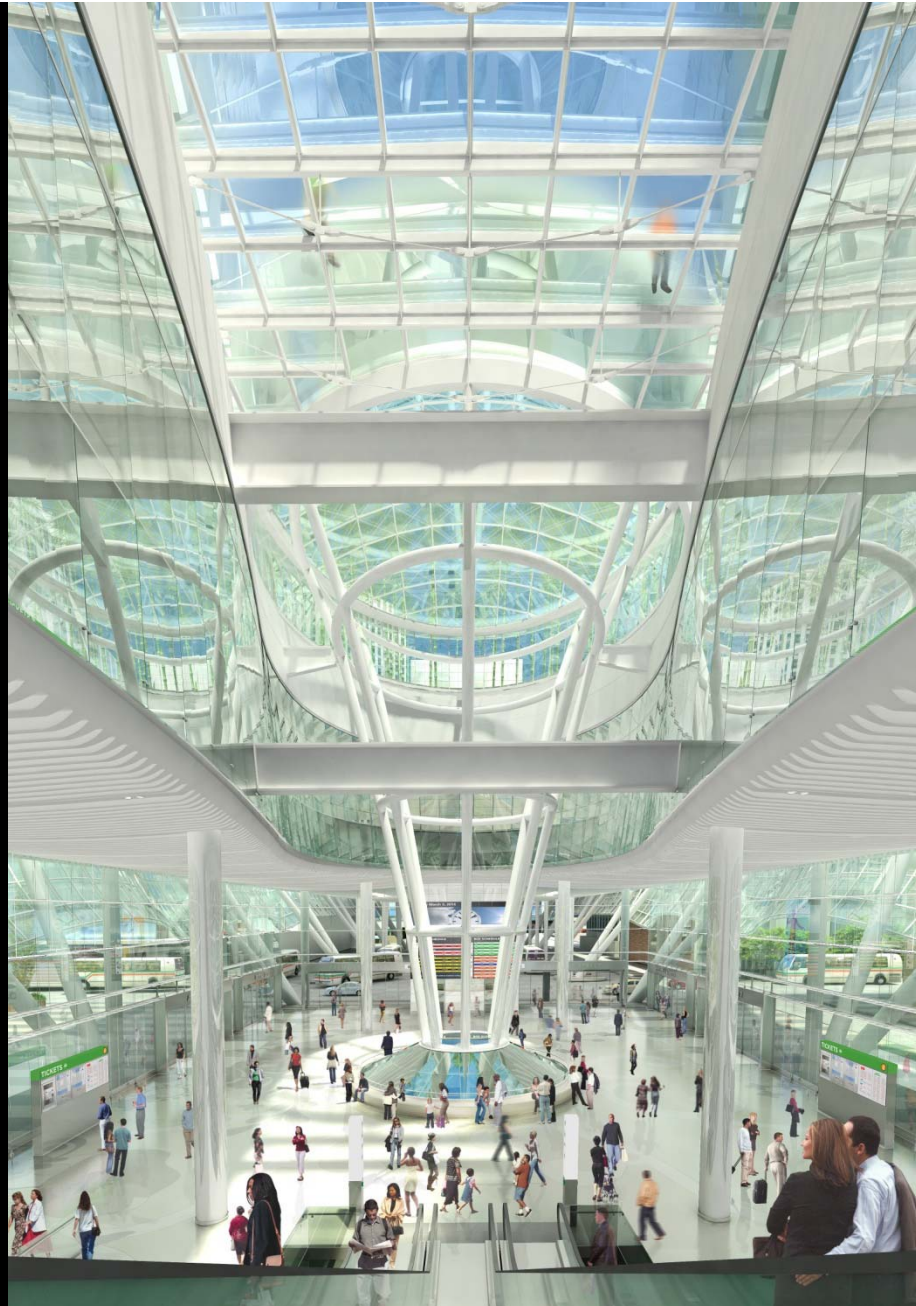
SECTION THROUGH GRAND HALL – Area of 25,000 square feet



GRAND HALL INTERIOR VIEW



Transbay Transit Center

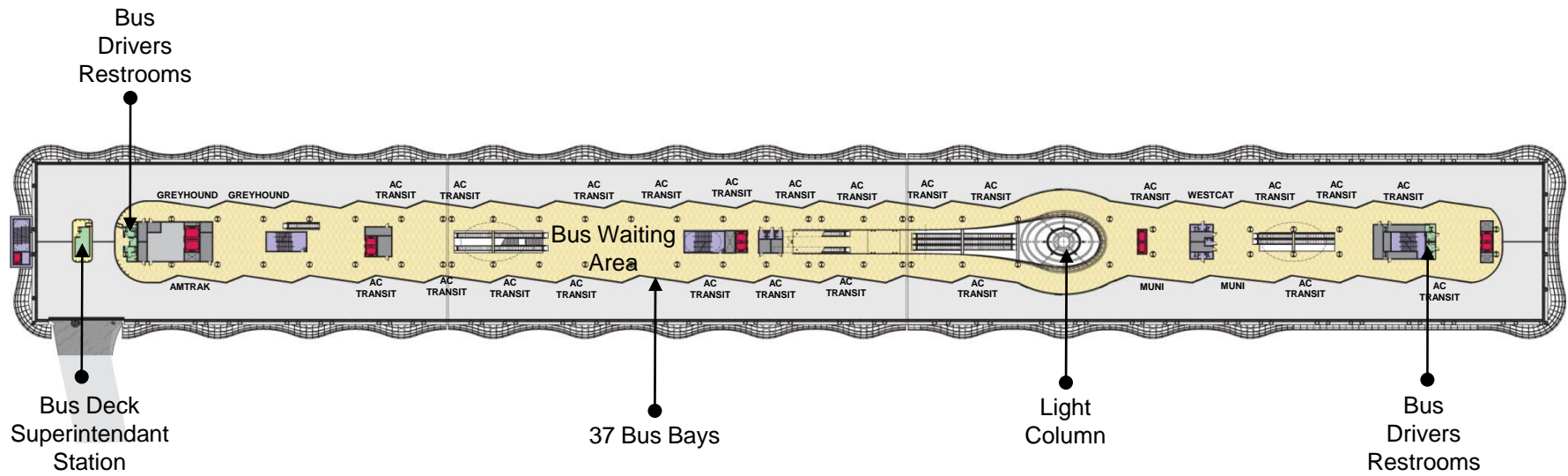


GRAND HALL INTERIOR VIEW FROM ESCALATORS UP TO BUS DECK



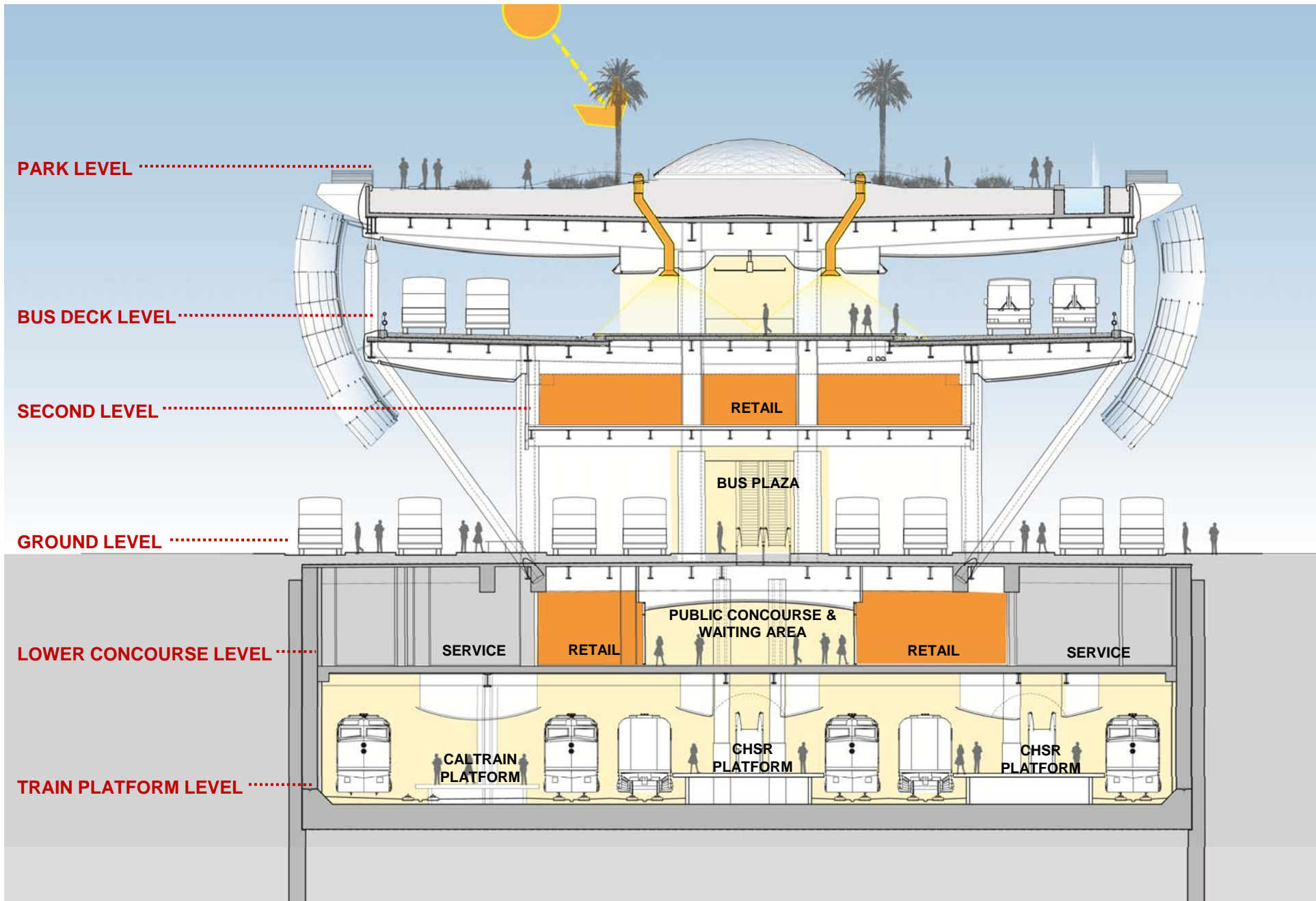
GRAND HALL INTERIOR VIEW FROM LIGHT COLUMN

# BUS DECK



BUS DECK LEVEL PLAN





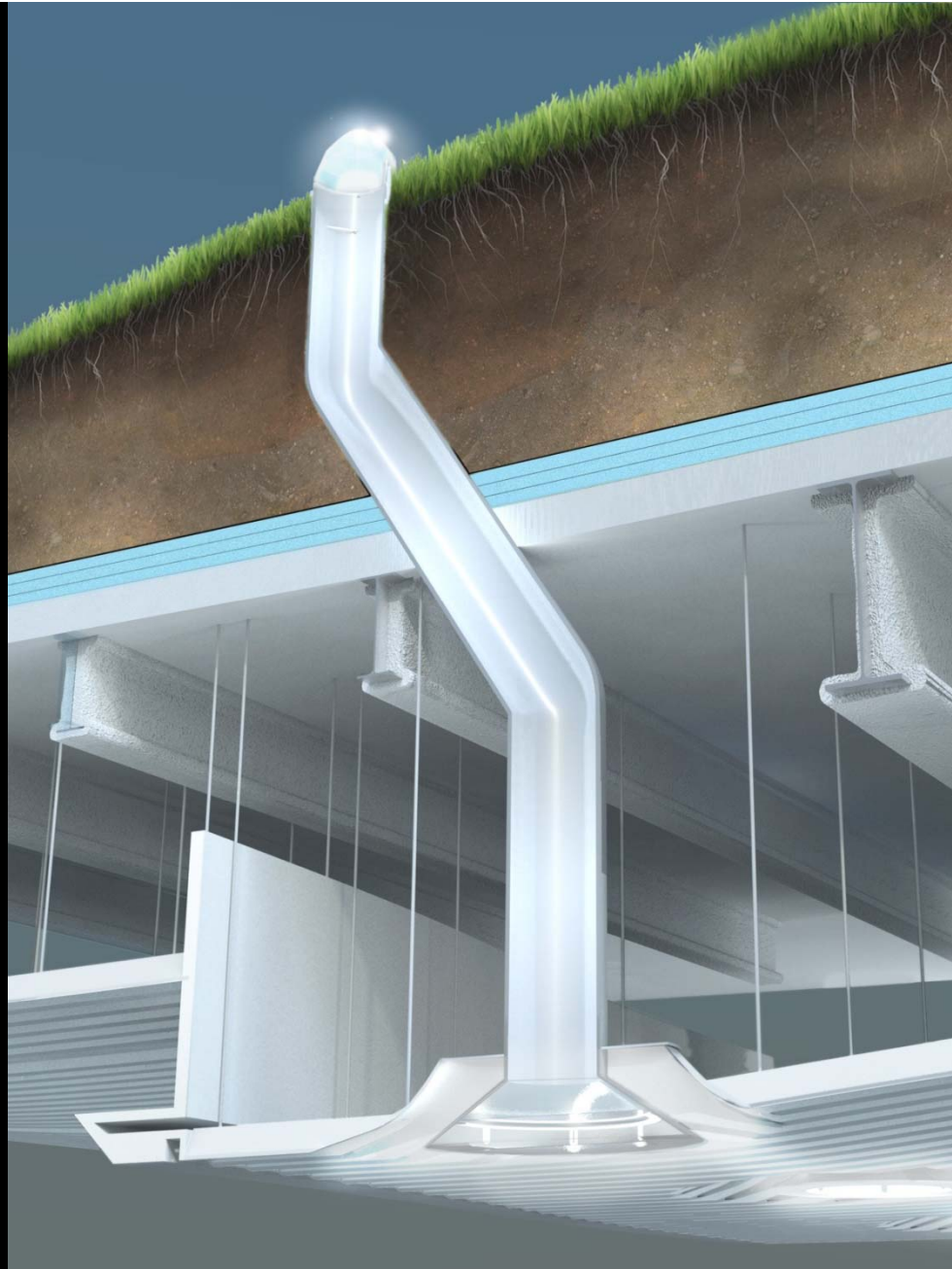
BUILDING SECTION



BUS DECK LEVEL VIEW



Transbay Transit Center

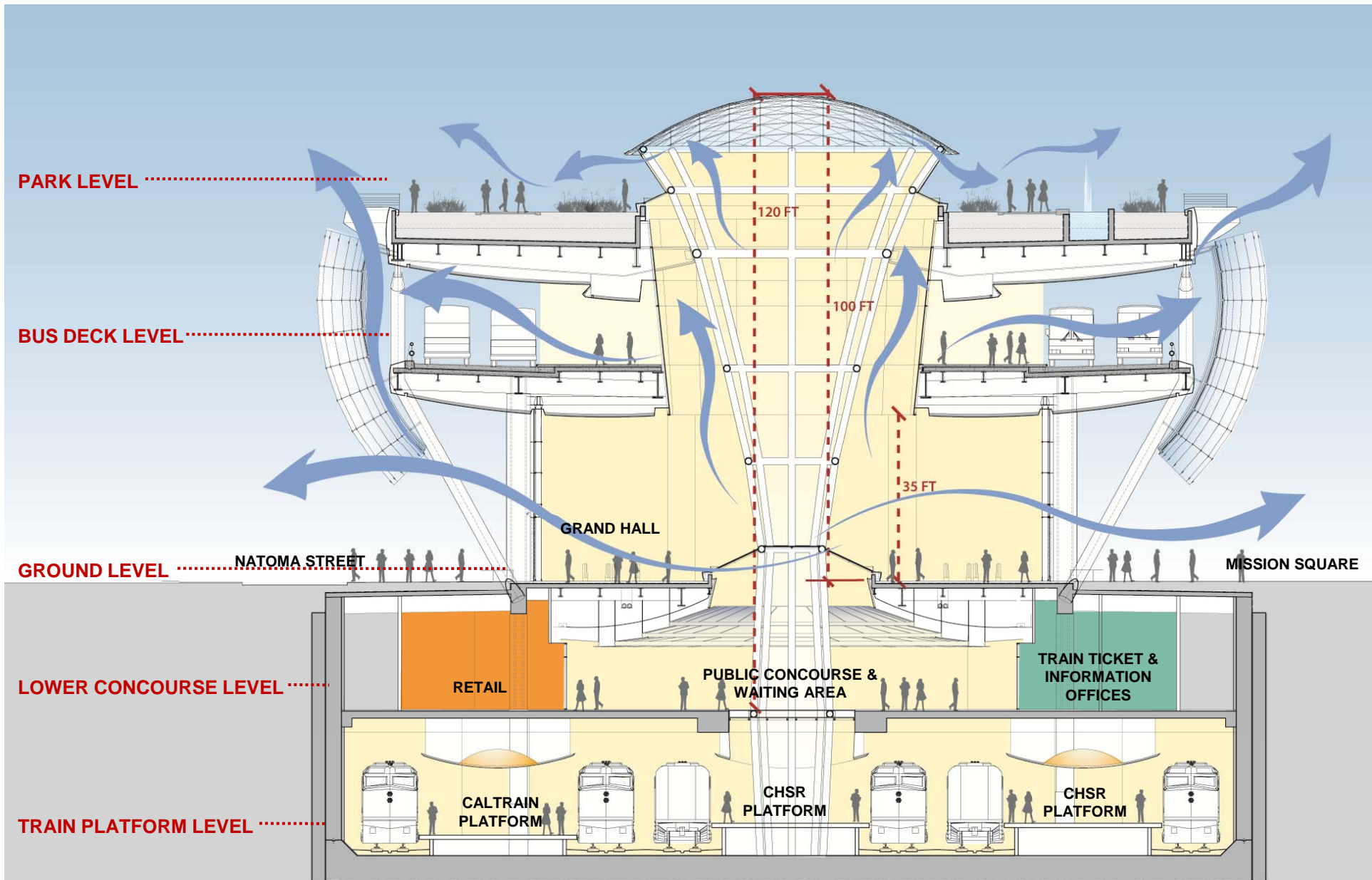


DAYLIGHTING FIXTURE SECTION DETAIL

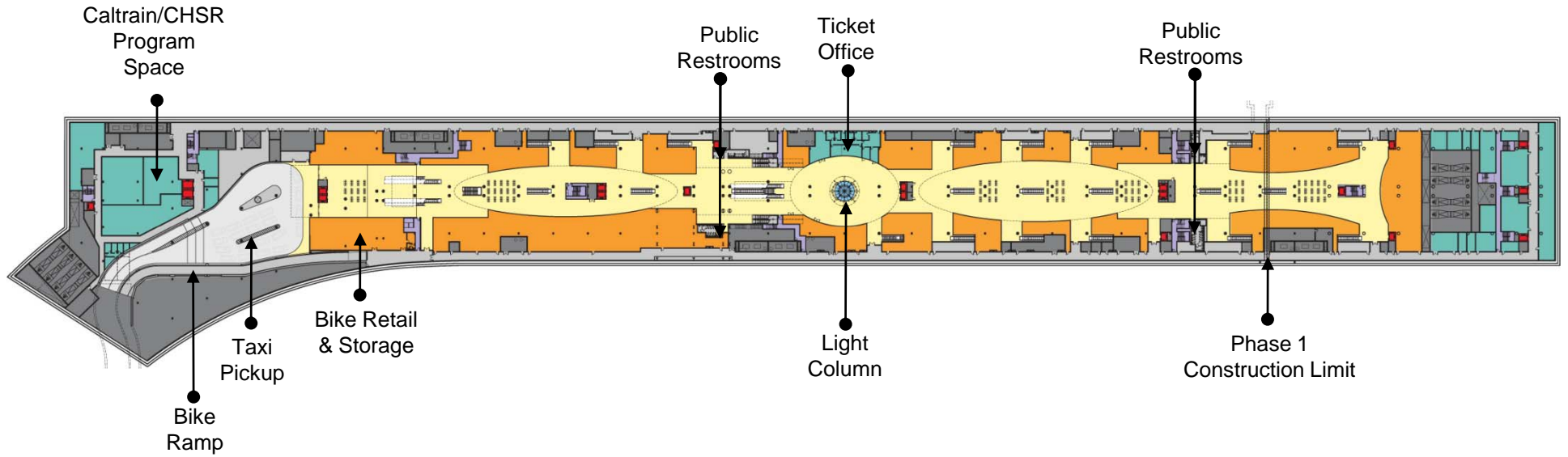


BUS DECK LEVEL VIEW

# LOWER CONCOURSE & TRAIN PLATFORM



BUILDING SECTION SHOWING NATURAL VENTILATION

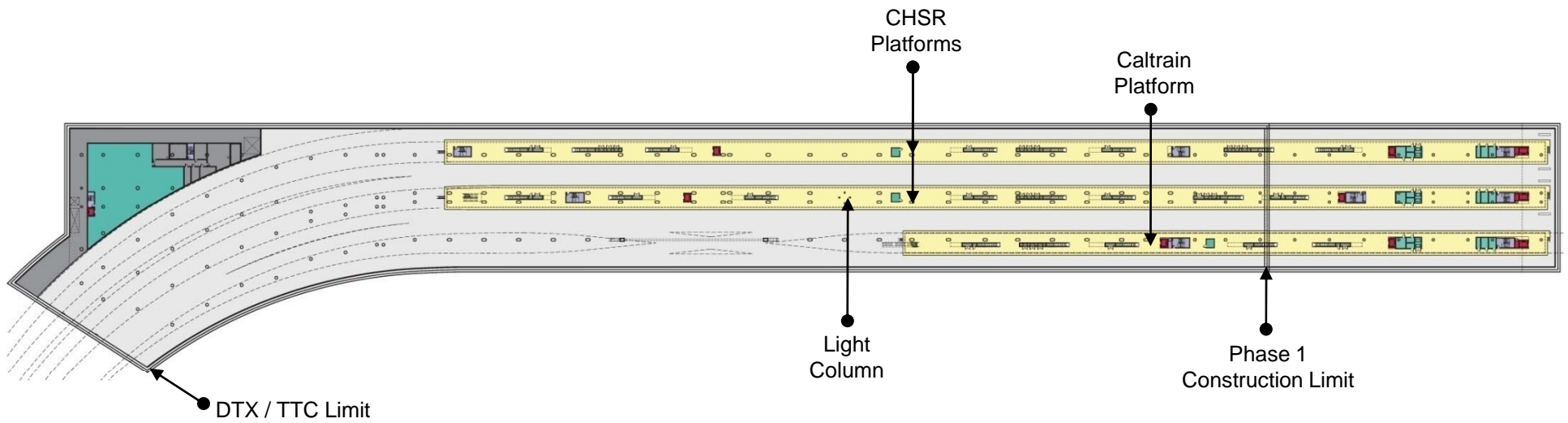


LOWER CONCOURSE LEVEL PLAN



LOWER CONCOURSE LEVEL VIEW





# TRAIN PLATFORM LEVEL PLAN

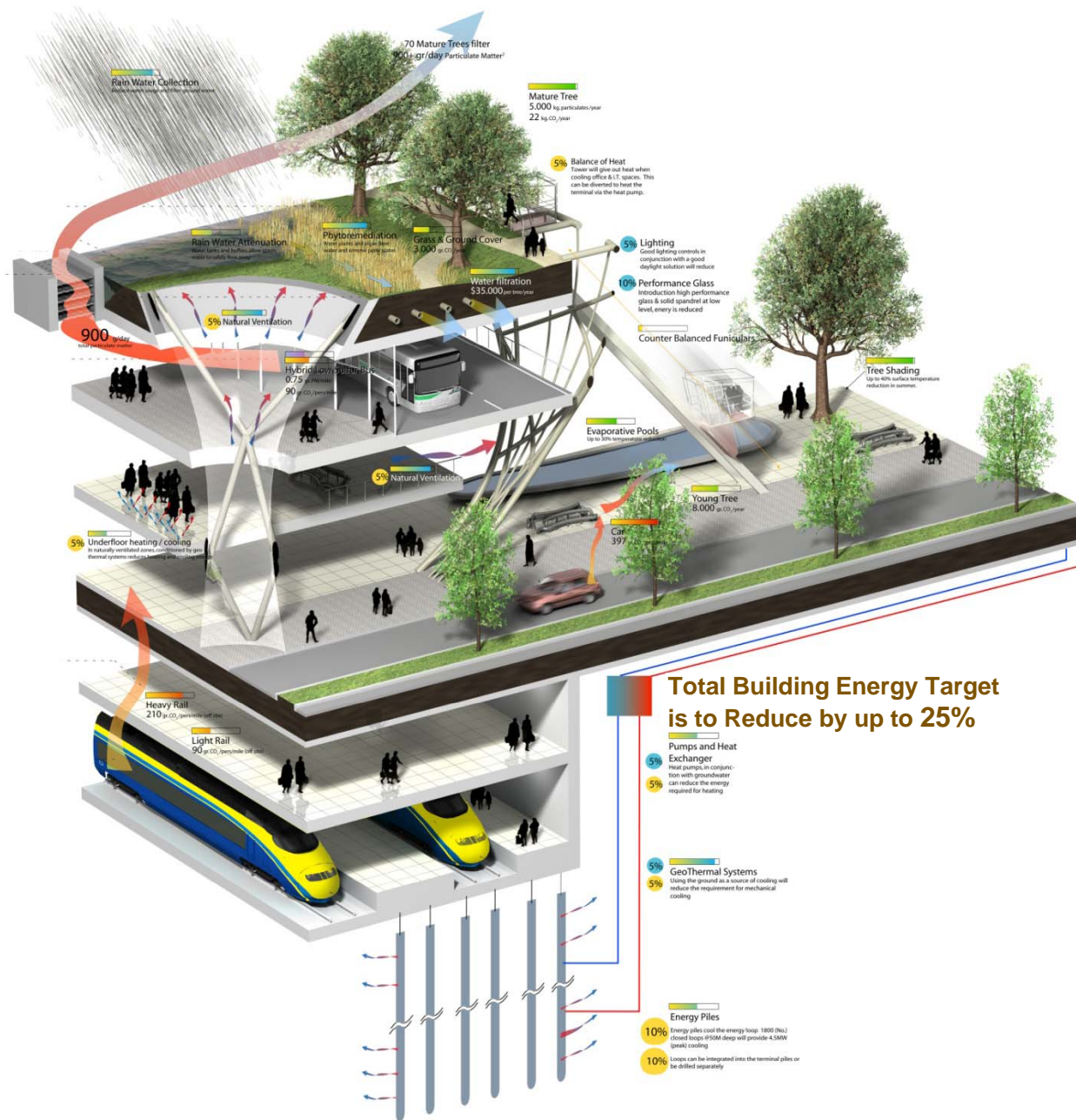


TRAIN PLATFORM LEVEL VIEW

# SUSTAINABILITY

# ENERGY MANAGEMENT

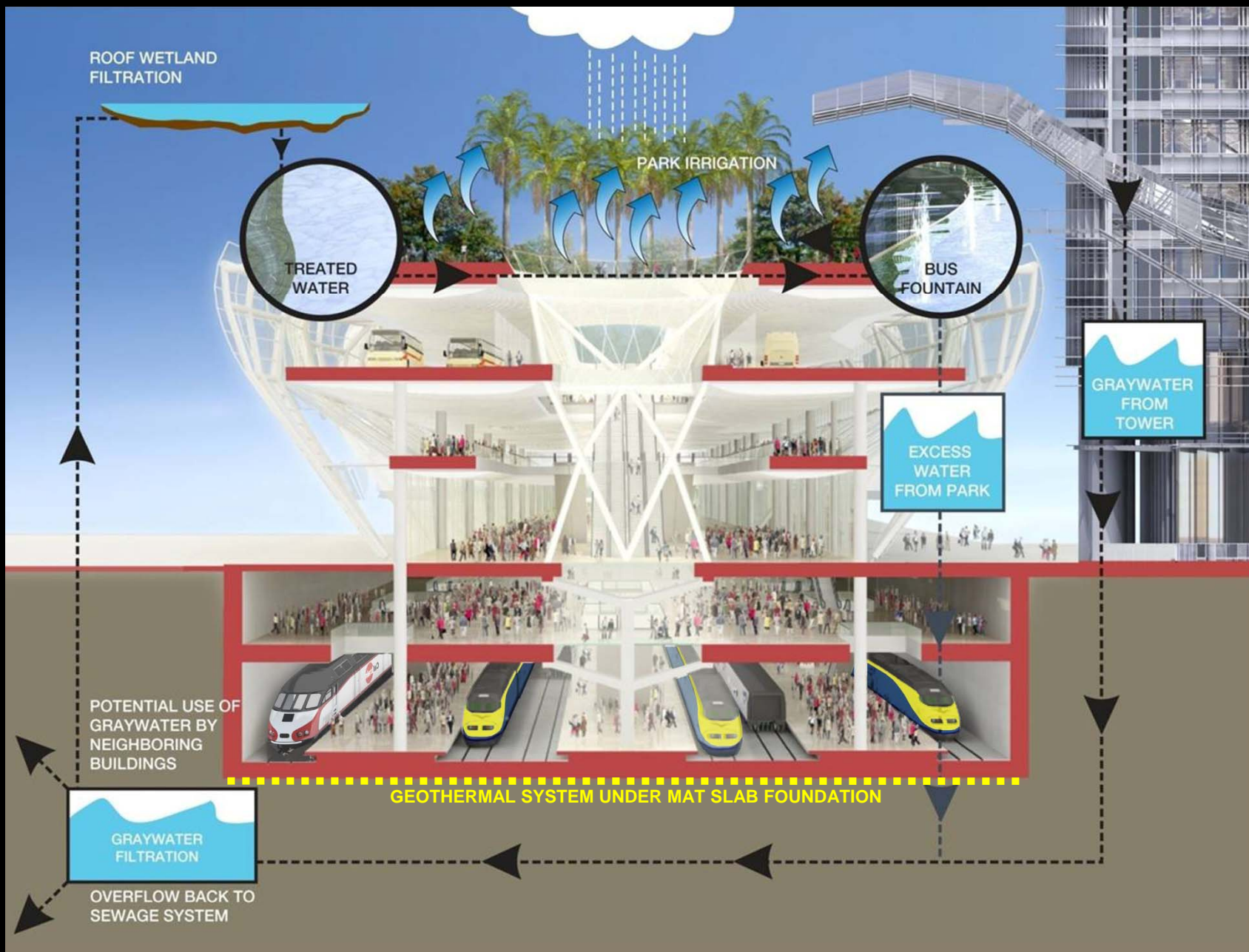
- On track for LEED Gold certification under LEED 2009 rating system.
- Building's annual energy consumption up to 25% lower than 2008 Title 24 California energy efficiency standards.
  - Energy efficient lighting design
  - Natural daylighting the Bus Deck and the Grand Hall
  - Self shading of the building (roof park, enclosure & overhangs)
  - Low-energy ventilation in the Bus Deck
  - Premium efficiency motors
- Natural ventilation of Grand Hall enhances the building's energy efficiency.
- Geothermal installation is one of the largest and most prominent in the world and contributes significantly to energy savings.
- Integration of greywater into geothermal heat transfer process is unique.



# ENERGY USE DIAGRAM

# WATER MANAGEMENT

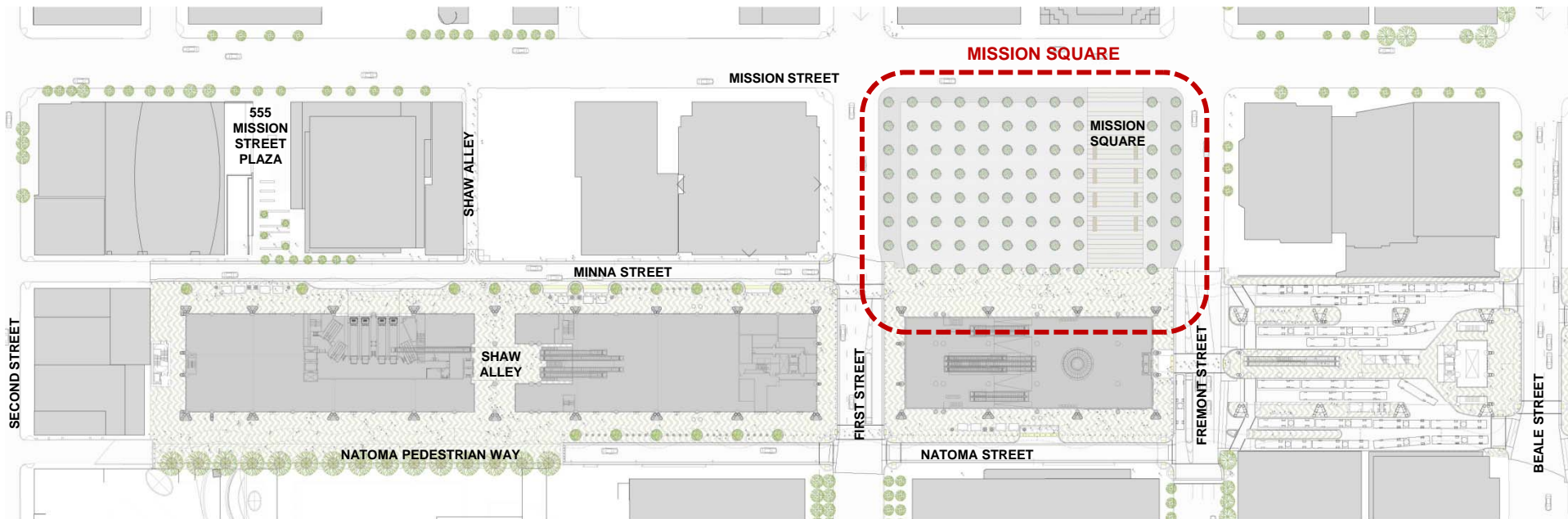
- Greywater recycling system is unique to San Francisco and the United States, and the biological recycling approach is very forward thinking.
- Water conservation & reuse system reduce potable water by 50% compared to LEED 2009 baseline building which is equal to 9,200,000 gallons per year saved or 19 Olympic swimming pools per year.
- First rooftop greywater filtration wetland in San Francisco & the United States.
- First stormwater and greywater reuse for toilets in San Francisco.
- Irrigation water use reduced by 50% through use of native & adaptive plant species and high-efficiency irrigation equipment.
- Stormwater runoff to city sewers reduced by 70% compared to current site; far exceeding San Francisco's new Stormwater Design Guidelines requirement of 25% reduction.



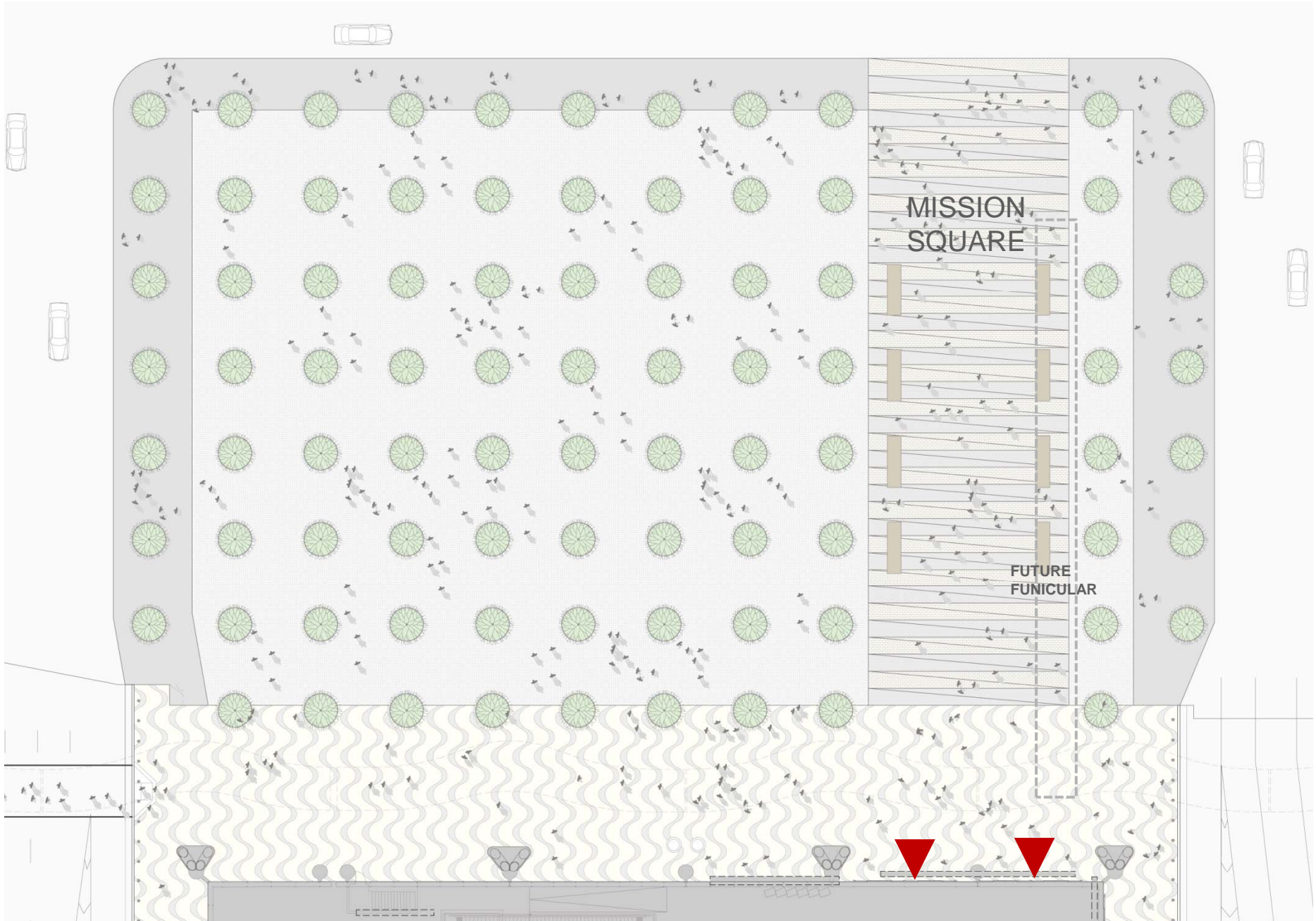
DISTRICT WATER MANAGEMENT DIAGRAM

# STREETSCAPE





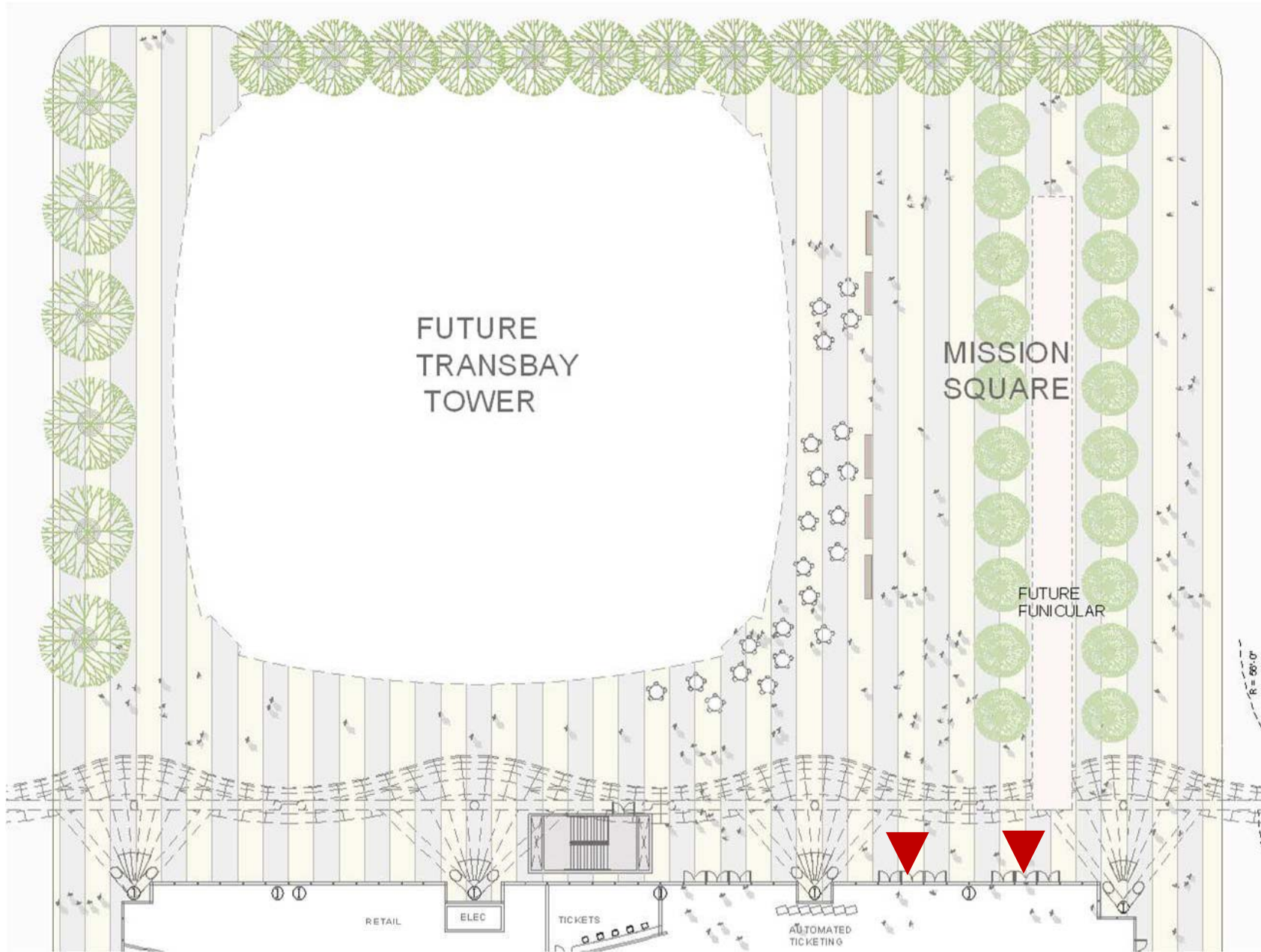
# GROUND LEVEL STREETSCAPE PLAN



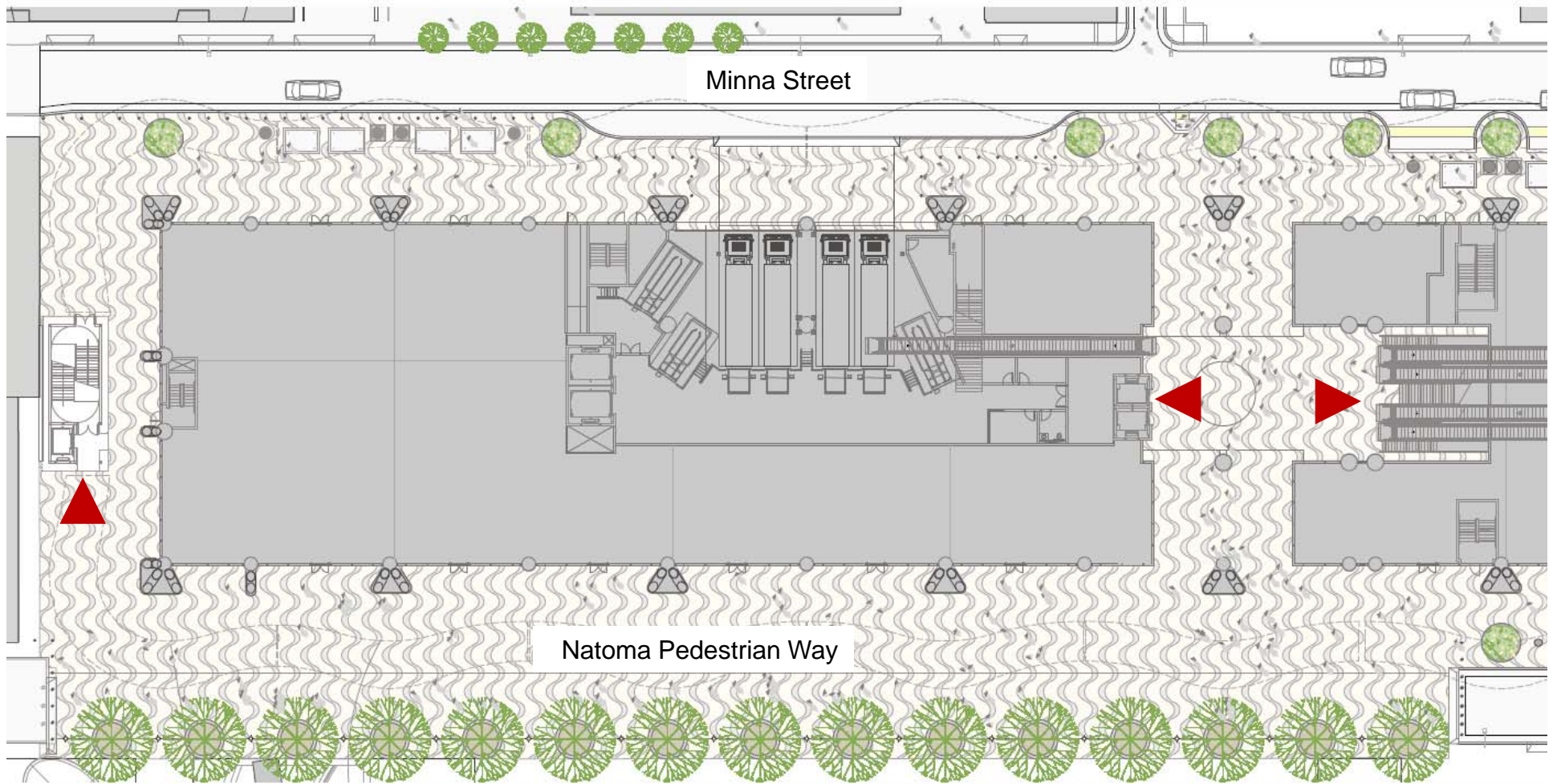
MISSION SQUARE \INTERIM PLAN

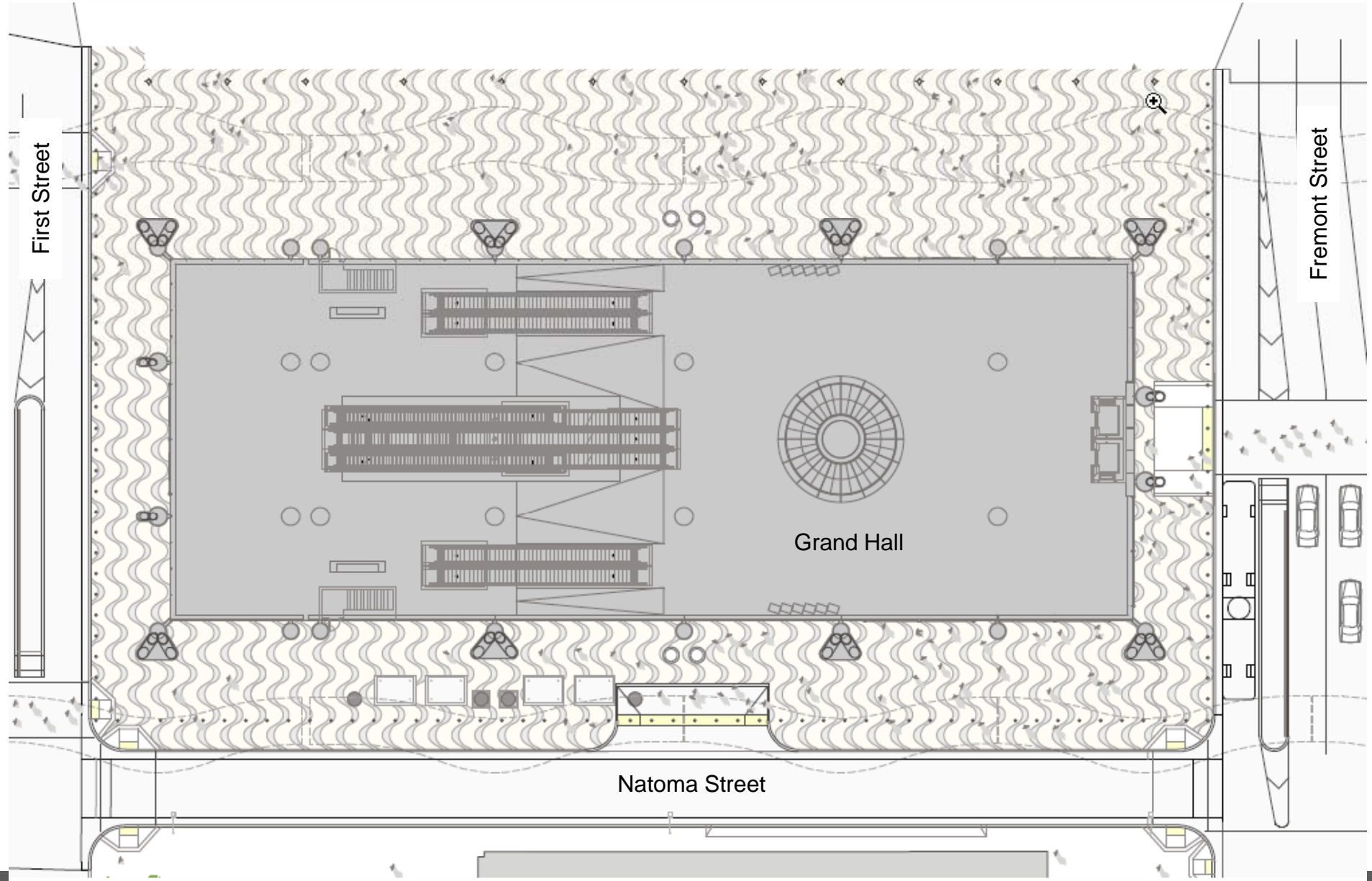


MISSION SQUARE TEMPORARY LANDSCAPE INSTALLATION CONCEPT

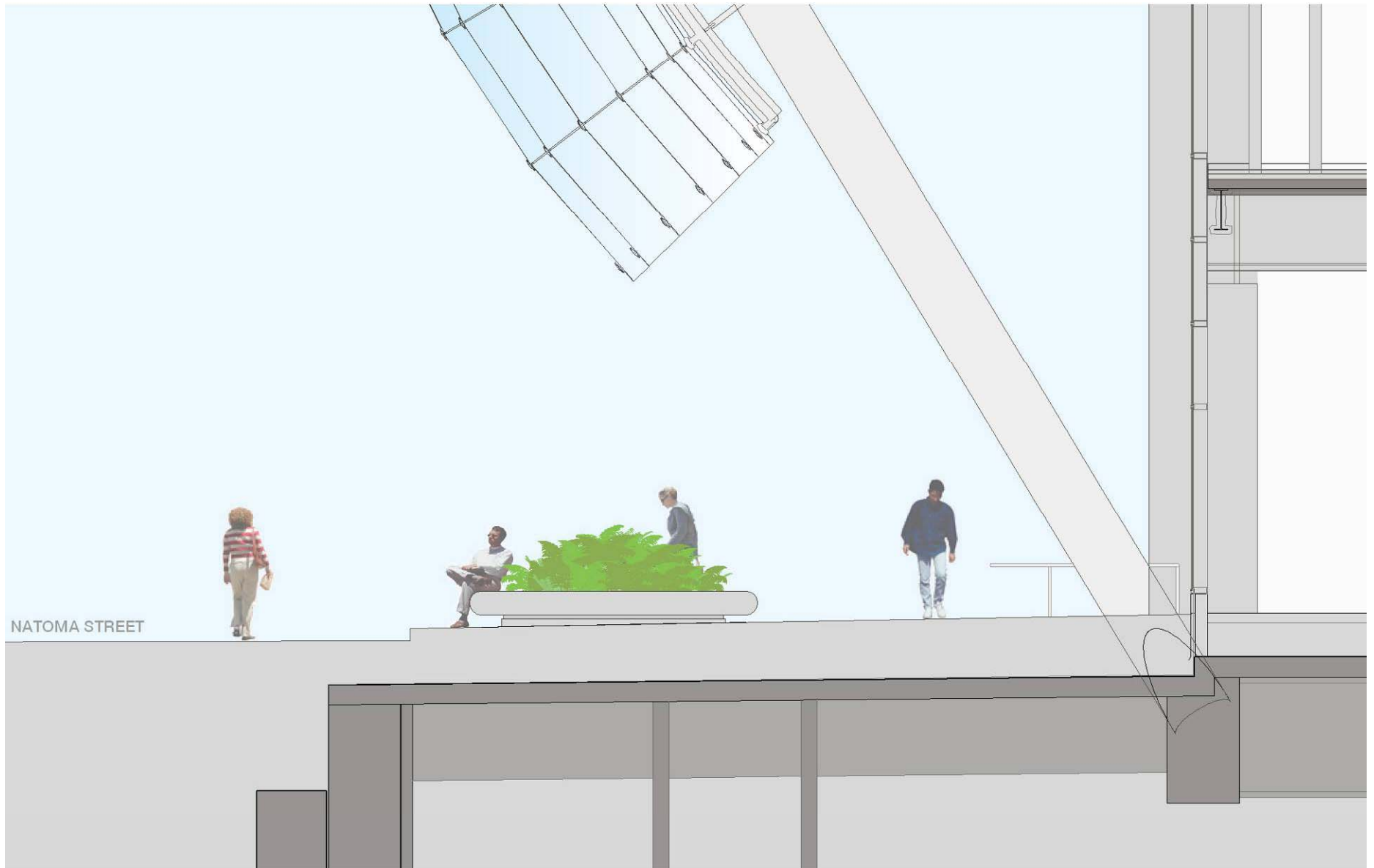


MISSION SQUARE ULTIMATE PLAN





GRAND HALL STREETScape PLAN



NATOMA STREET

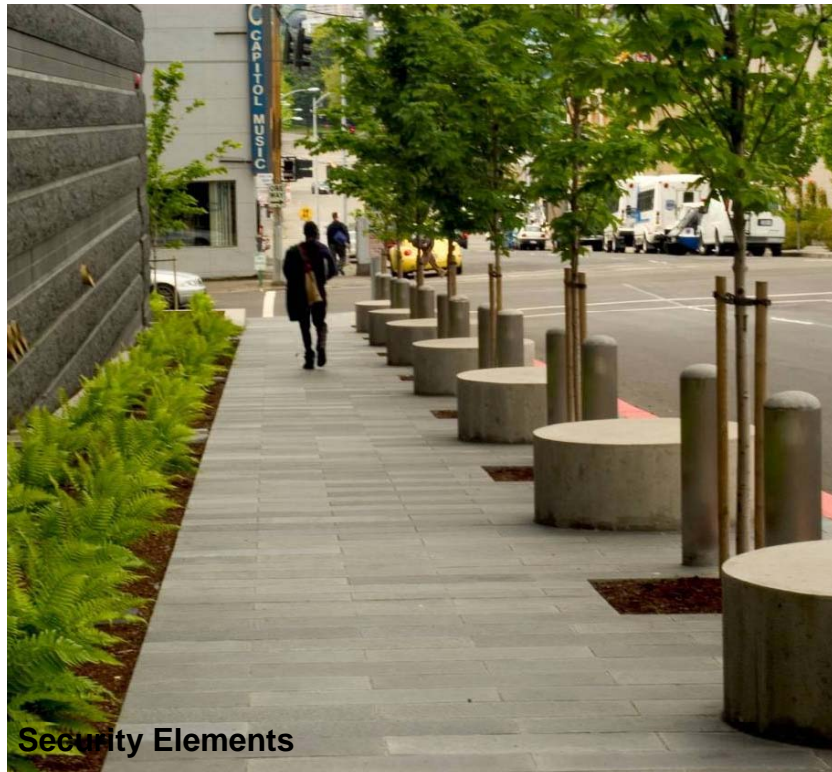
# GROUND LEVEL STREETSCAPE SECTION



**Security Bollards**



**Colored Concrete**



**Security Elements**

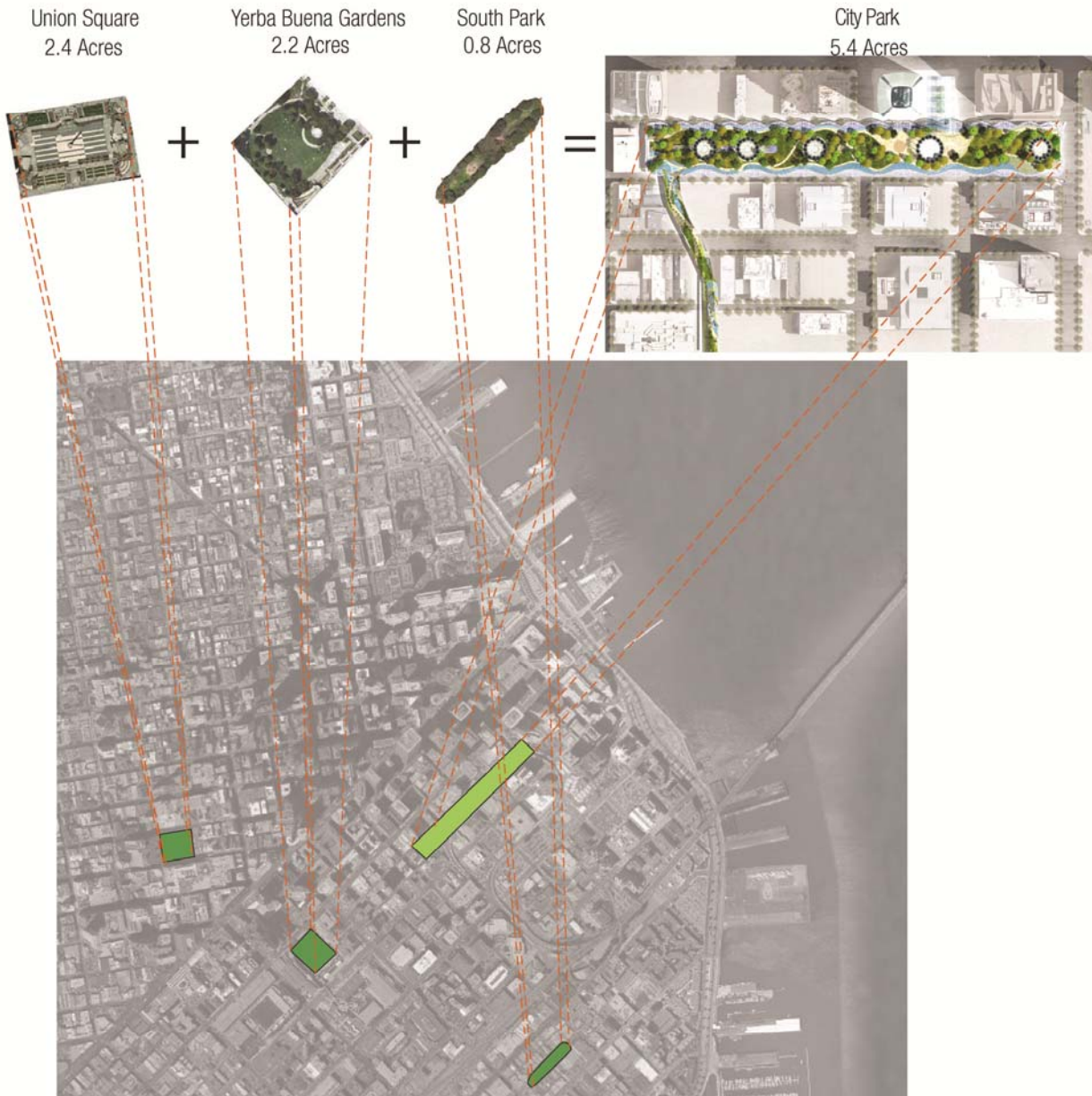


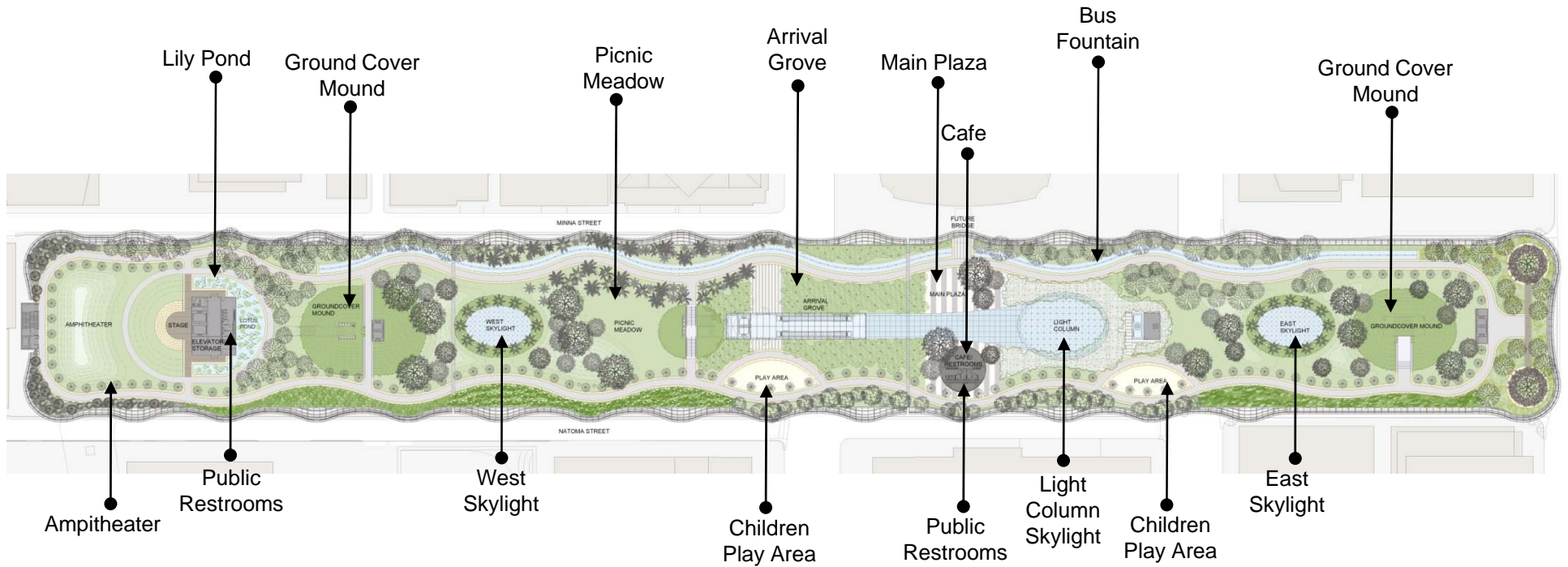
**Security Planters**



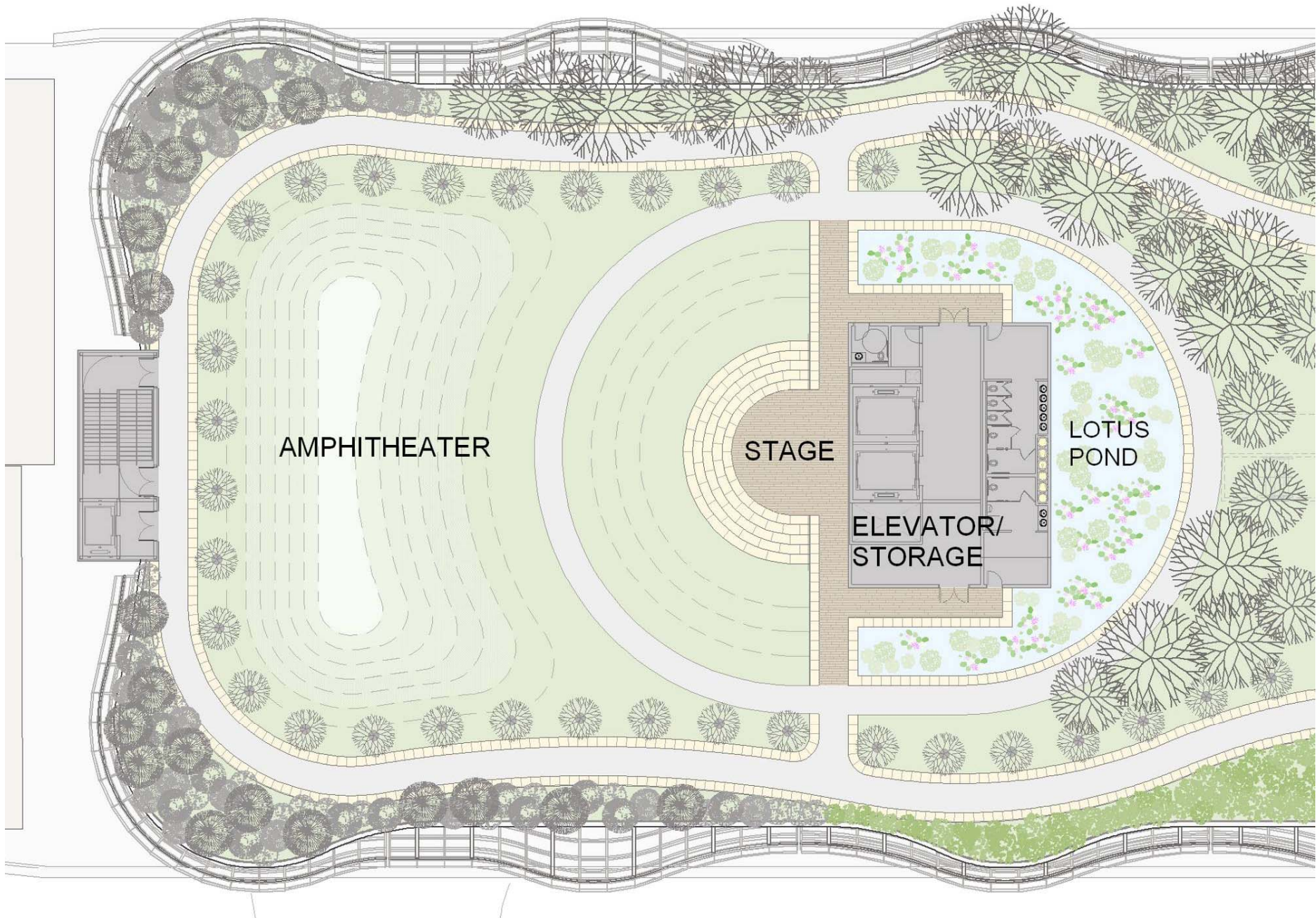
PARK

# CITY PARK for the Transbay Neighborhood



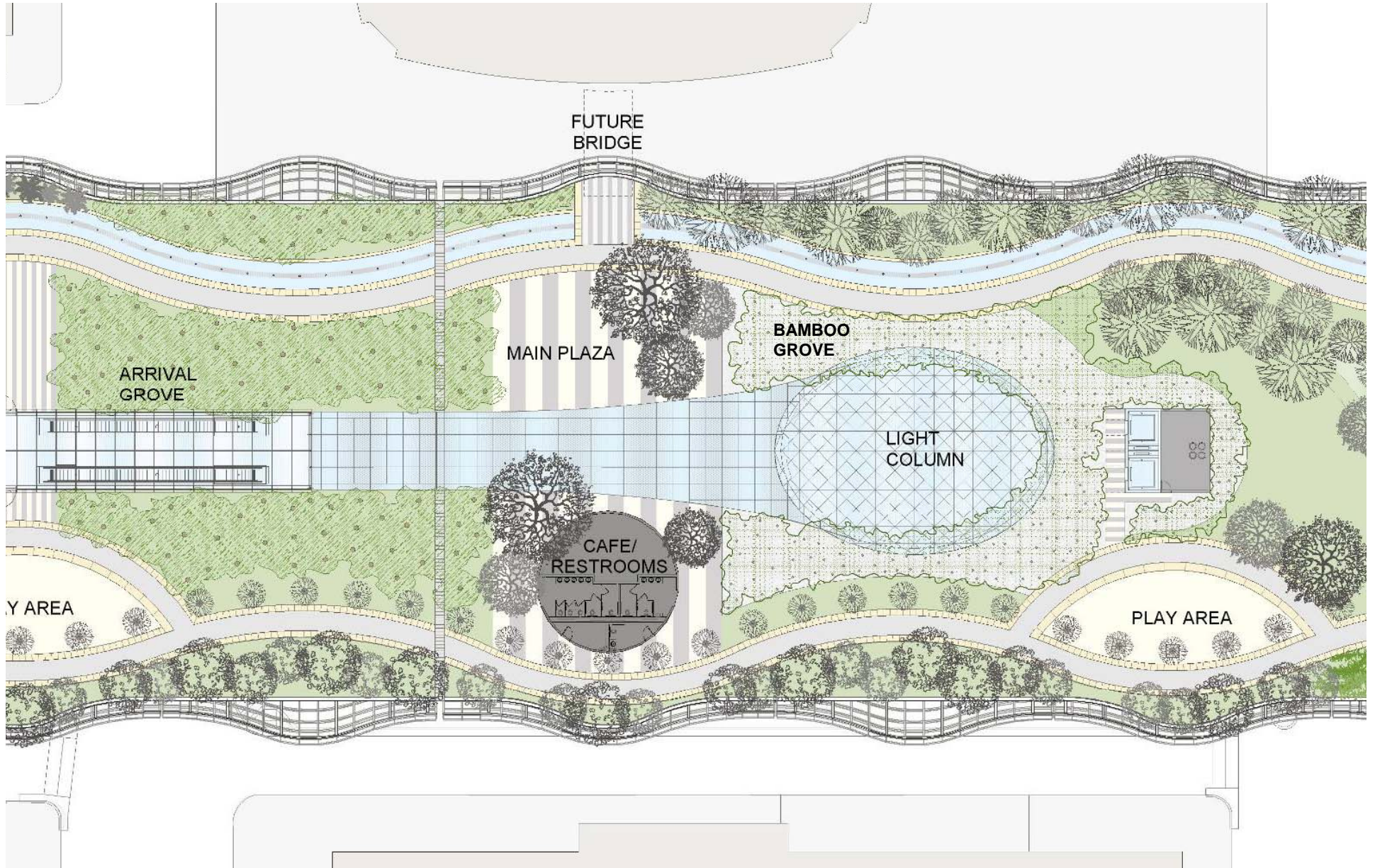


## ROOF PARK LEVEL PLAN





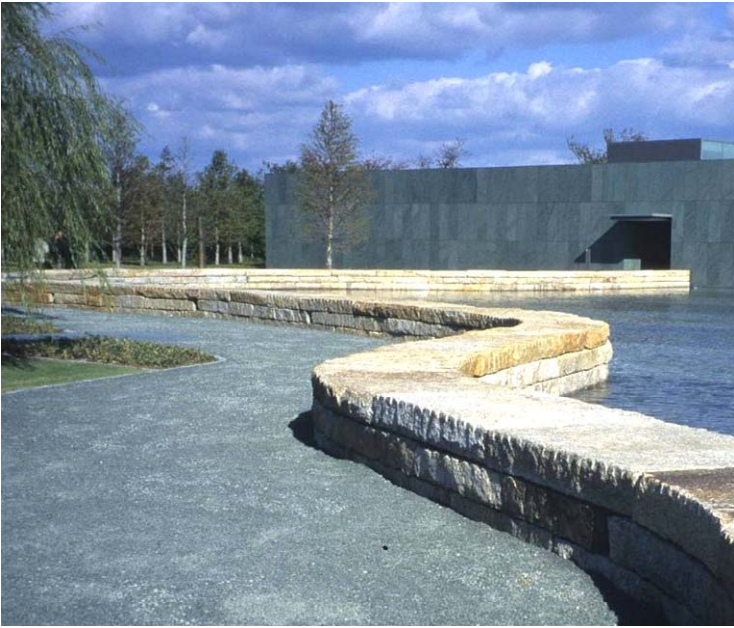
## SLOPED LAWN AMPHITHEATER



PARK PLAN ENLARGEMENT – ARRIVAL AREAS



PARK PLAZA – BAMBOO GROVE - GRANITE COBBLESTONE

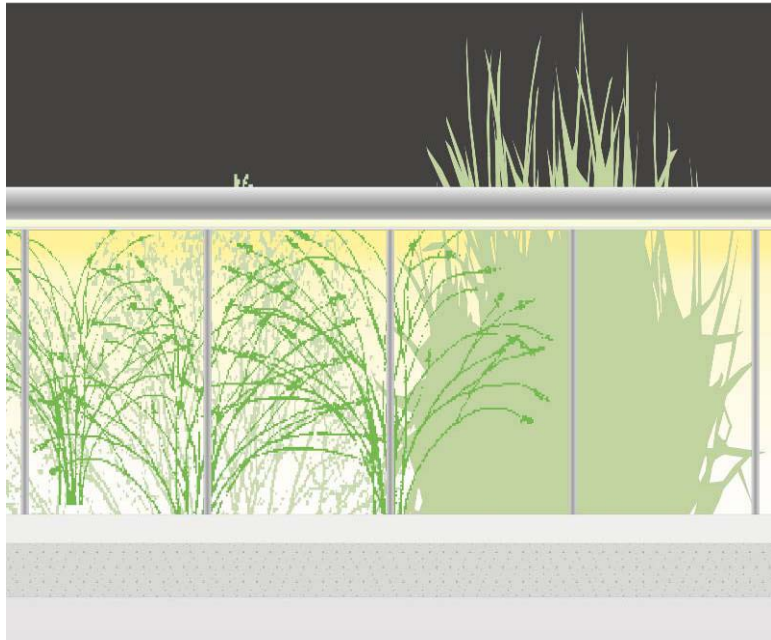


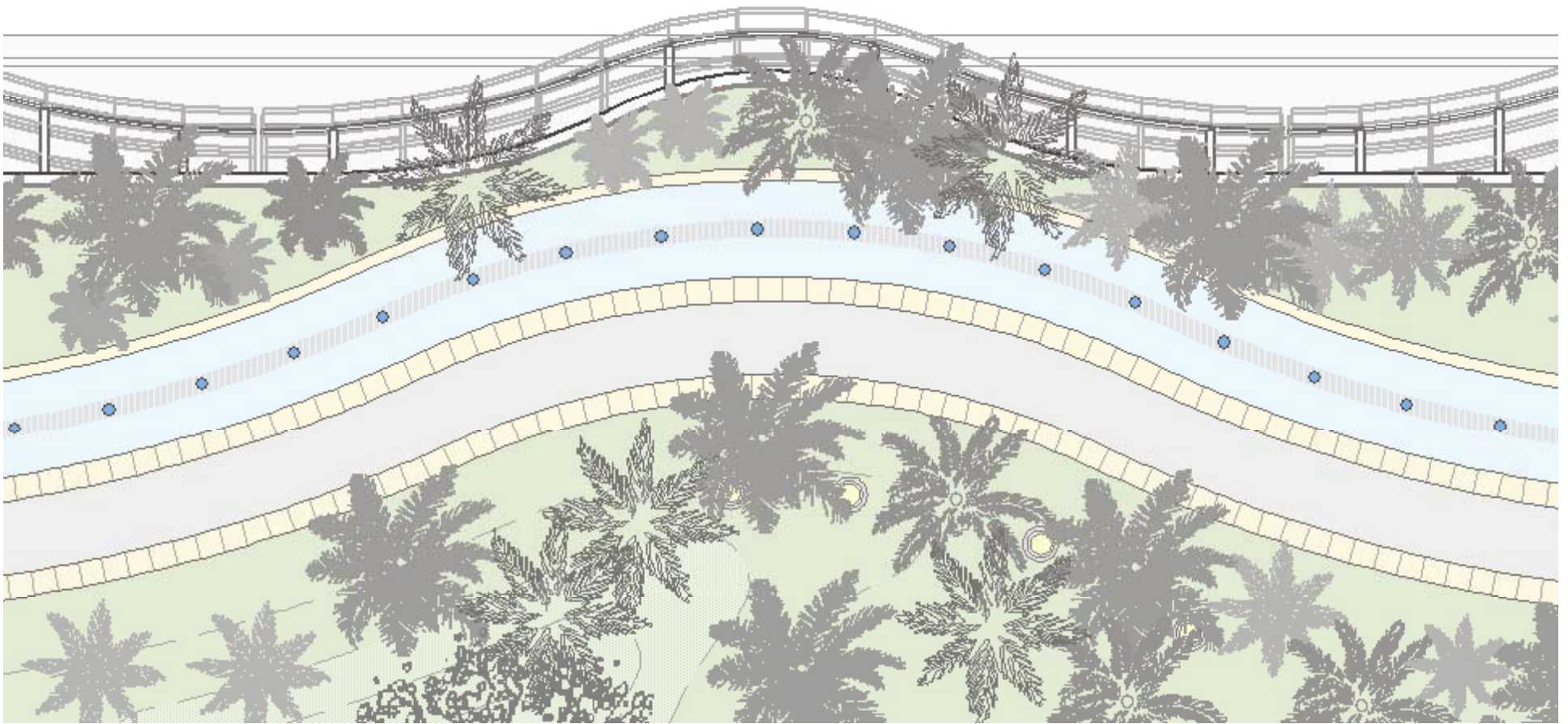
MATERIALS – PARK WALLS AND FLUSH PATH EDGE STONE AND INLAID OR ENGRAVED TEXT





MATERIALS – PLAY EQUIPMENT

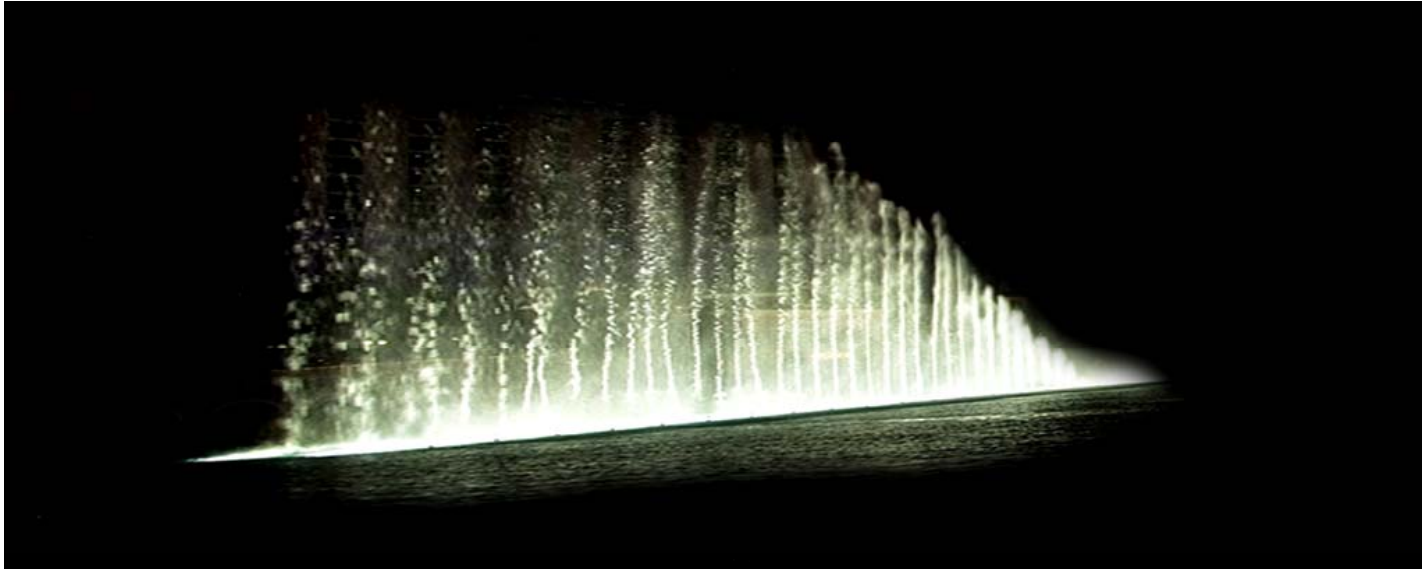




PARK PLAN ENLARGEMENT – WATER FEATURE



PARK – WATER FEATURE SECTION



WATER FEATURE



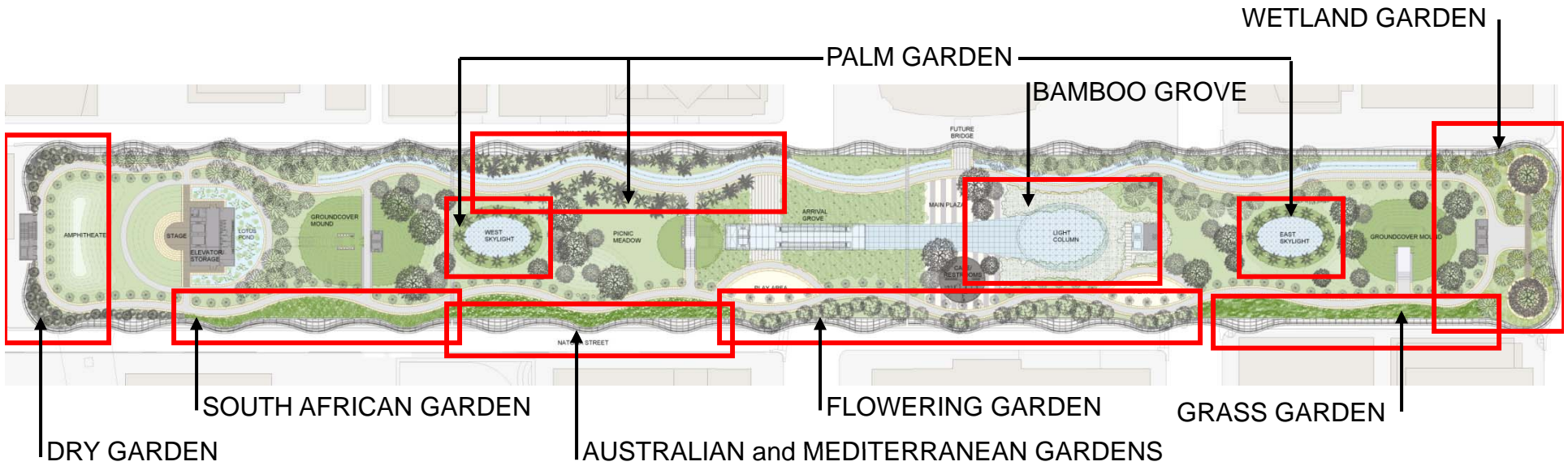
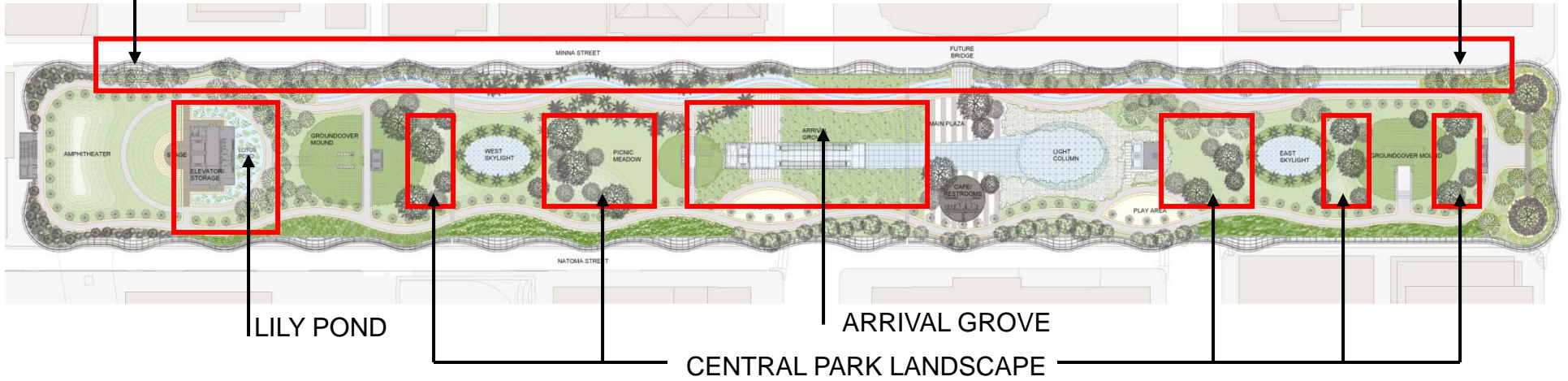


WATER FEATURE



MAIN PLAZA VIEW

'CALIFORNIA SEEP' TRANSITIONAL LANDSCAPE



PARK PLANTING – GARDENS WITHIN THE PARK





FREMONT STREET & MISSION SQUARE VIEW OF PARK



FIRST STREET VIEW OF PARK



BEALE STREET VIEW OF PARK



DAY AERIAL VIEW



NIGHT AERIAL VIEW

