

# Portland Downtown Waterfront Development, Volume 2

## Appendix: Site Analysis and Logistics

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COLLEGE OF DESIGN

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Urbanism  
Design Studio

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Sustainable  
Urbanism  
Seminar

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Keith Jones (Green Loop)  
Sean Suib (New Avenues for Youth)  
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## About SCI

The Sustainable Cities Institute (SCI) is an applied think tank focusing on sustainability and cities through applied research, teaching, and community partnerships. We work across disciplines that match the complexity of cities to address sustainability challenges, from regional planning to building design and from enhancing engagement of diverse communities to understanding the impacts on municipal budgets from disruptive technologies and many issues in between.

SCI focuses on sustainability-based research and teaching opportunities through two primary efforts:

1. Our Sustainable City Year Program (SCYP), a massively scaled university-community partnership program that matches the resources of the University with one Oregon community each year to help advance that community's sustainability goals; and

2. Our Urbanism Next Center, which focuses on how autonomous vehicles, e-commerce, and the sharing economy will impact the form and function of cities.

In all cases, we share our expertise and experiences with scholars, policymakers, community leaders, and project partners. We further extend our impact via an annual Expert-in-Residence Program, SCI China visiting scholars program, study abroad course on redesigning cities for people on bicycle, and through our co-leadership of the Educational Partnerships for Innovation in Communities Network (EPIC-N), which is transferring SCYP to universities and communities across the globe. Our work connects student passion, faculty experience, and community needs to produce innovative, tangible solutions for the creation of a sustainable society.

## About SCYP

The Sustainable City Year Program (SCYP) is a yearlong partnership between SCI and a partner in Oregon, in which students and faculty in courses from across the university collaborate with a public entity on sustainability and livability projects. SCYP faculty and students work in collaboration with staff from the partner agency through a variety of studio projects and service-learning courses to

provide students with real-world projects to investigate. Students bring energy, enthusiasm, and innovative approaches to difficult, persistent problems. SCYP's primary value derives from collaborations that result in on-the-ground impact and expanded conversations for a community ready to transition to a more sustainable and livable future.

## Faculty

Nico Larco, Professor  
Lora Lillard, Instructor  
Mark Raggett, Instructor

## Course Participants

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Adel Makboul  
Emma Paget  
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Jacob Schaeperkoetter-Cochran  
Sergey Tkachenko  
Samantha Vetter

This report represents original student work and recommendations prepared by students in the University of Oregon's Sustainable City Year Program for the City of Portland. Text and images contained in this report may not be used without permission from the University of Oregon.

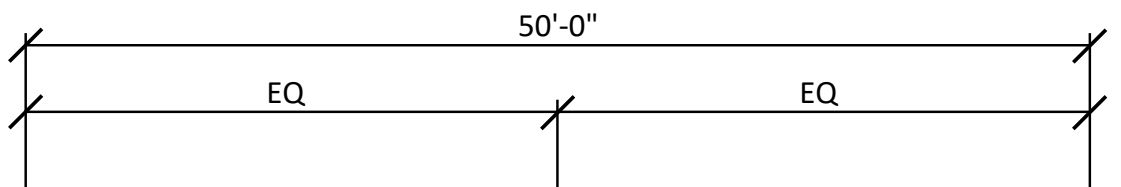
# **DOWNTOWN PORTLAND URBAN DESIGN STUDIO**

## **SITE ANALYSIS AND LOGISTICS**

SPRING 2023  
LARCO/LILLARD/RAGGETT  
UNIVERSITY OF OREGON

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# TYPOLOGIES/DIMENSIONS



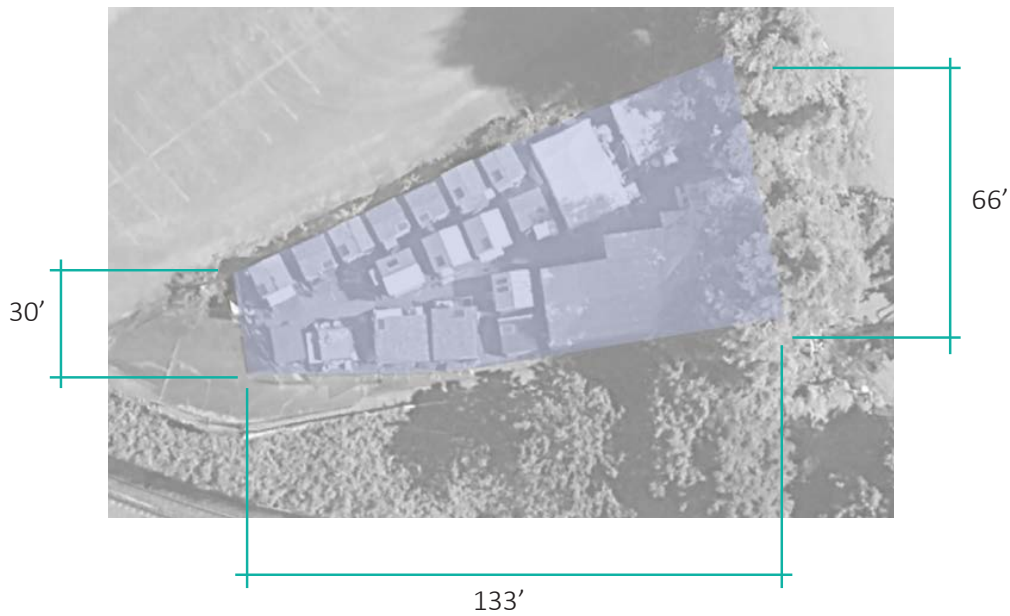
# TPOLOGIES/DIMENSIONS

## RESIDENTIAL

### SHELTERS

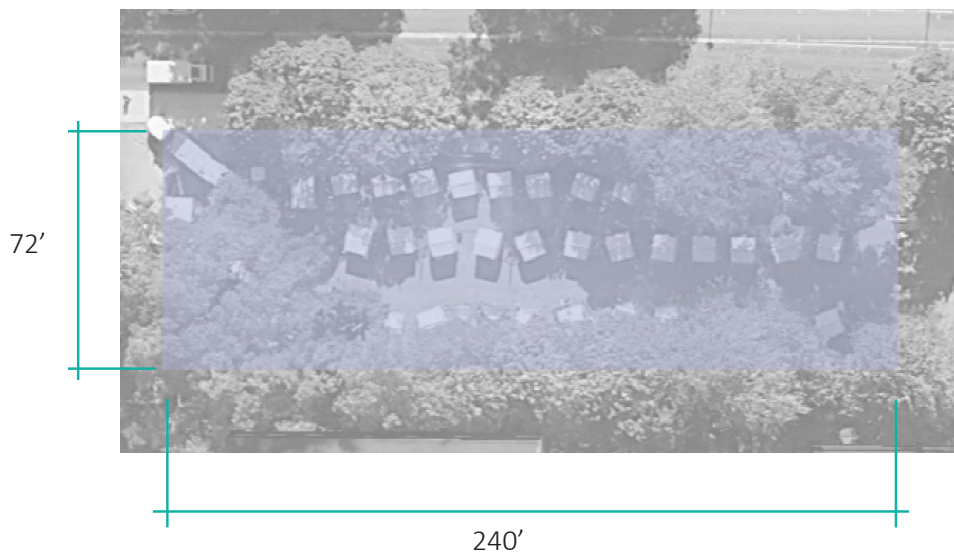
Right 2 Dream Too (999 N Thunderbird Way)

- ~135 residents
- Combination of tiny homes and floor space
- Tiny homes are for members only



Queer Affinity Village (2185 SW Naito Parkway)

- Designed for up to 60 residents
- Shared restrooms/showers/laundry and kitchenette



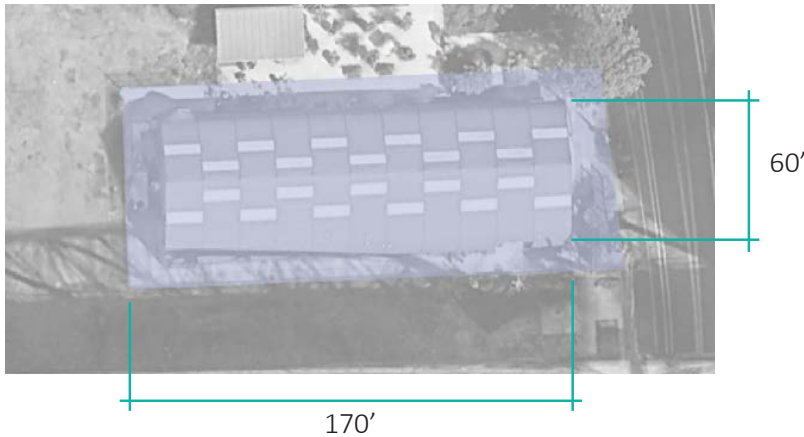
# TPOLOGIES/DIMENSIONS

## RESIDENTIAL

### SHELTERS

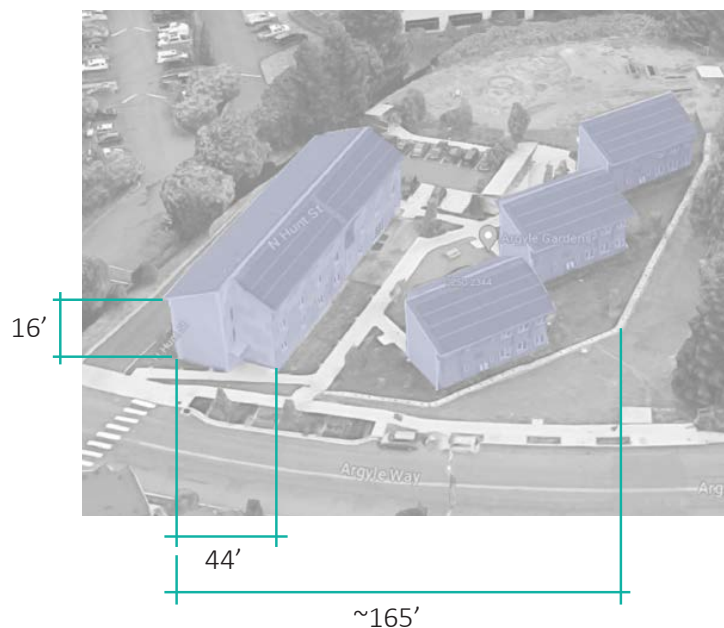
River District Navigation Center (1111 NW Naito Pkwy)

- 100 adults
- Sleeping area with bunk beds
- Laundry, showers, restrooms
- Meeting rooms for case management and service partners



### SRO (Single Room Occupancy)

Also known as efficiency units or residential hotels. 80-140 Square feet per unit. Very small single room units with a bed, desk, and potentially a microwave. Usually, bathrooms and kitchens are shared.



Argyle Gardens (8550 N Argyle Way)

- Modular system that can be configured as formerly homeless, workforce, or student housing, or to house intergenerational families together
- Largest building contains 35, 220 square foot studios. A large community room, laundry facilities, and support service offices, serve as a central hub.
- The three cohousing buildings feature two, 6 bedroom units with two shared bathrooms and a large kitchen.

# TYOLOGIES/DIMENSIONS

## RESIDENTIAL

### TOWNHOUSES

Attached units, each on a separate lot, and each with its own entry from a public or shared street or common area.

Density: 20- 45 per acre

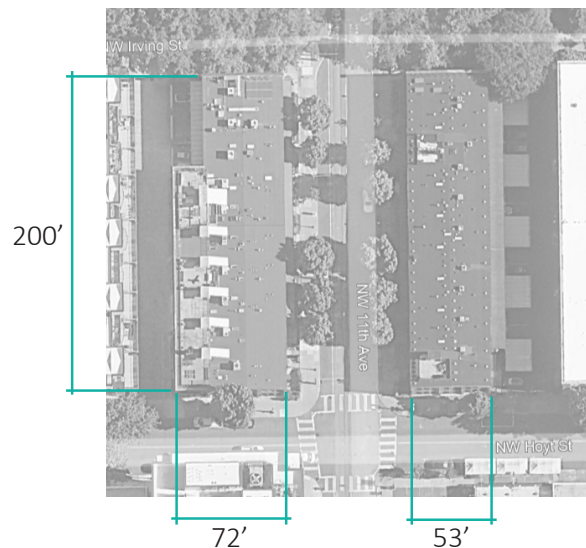
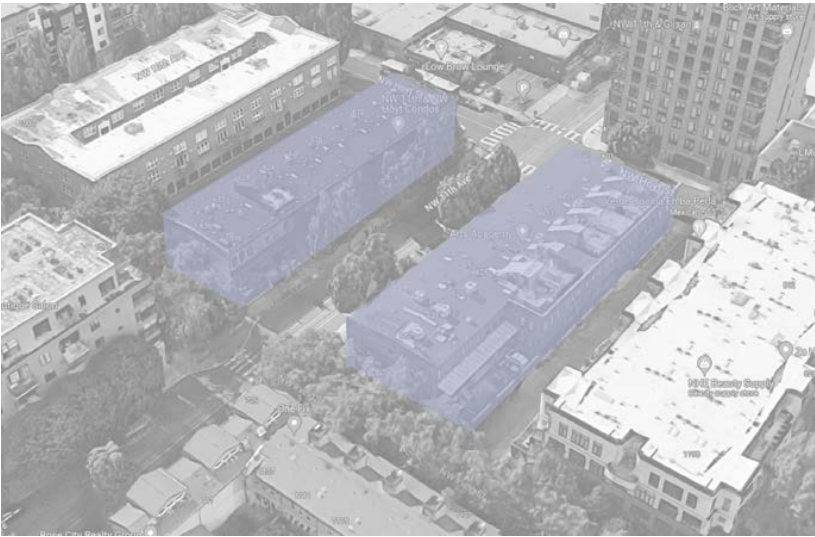
Lot size: 1,800 – 3,500 sq ft

Pearl Townhomes (NW 11th and Hoyt)

- 1990s renovation
- 20 (2-3bed) units
- 2 bed, 2 bath (2000 sq ft)
- 3 bed, 2.5 bath (2420 sq ft)

Common variations

- Rowhouse over a flat
- terrace rowhouse
- above retail block
- over structured parking
- on the roof of a building
- with a walled-in, private backyard
- with private garage on the ground floor (front or back)
- live-work rowhouse

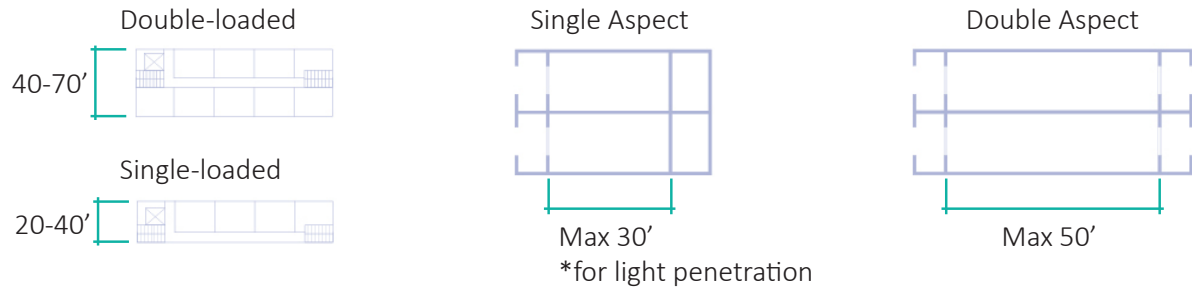


# TYOLOGIES/DIMENSIONS

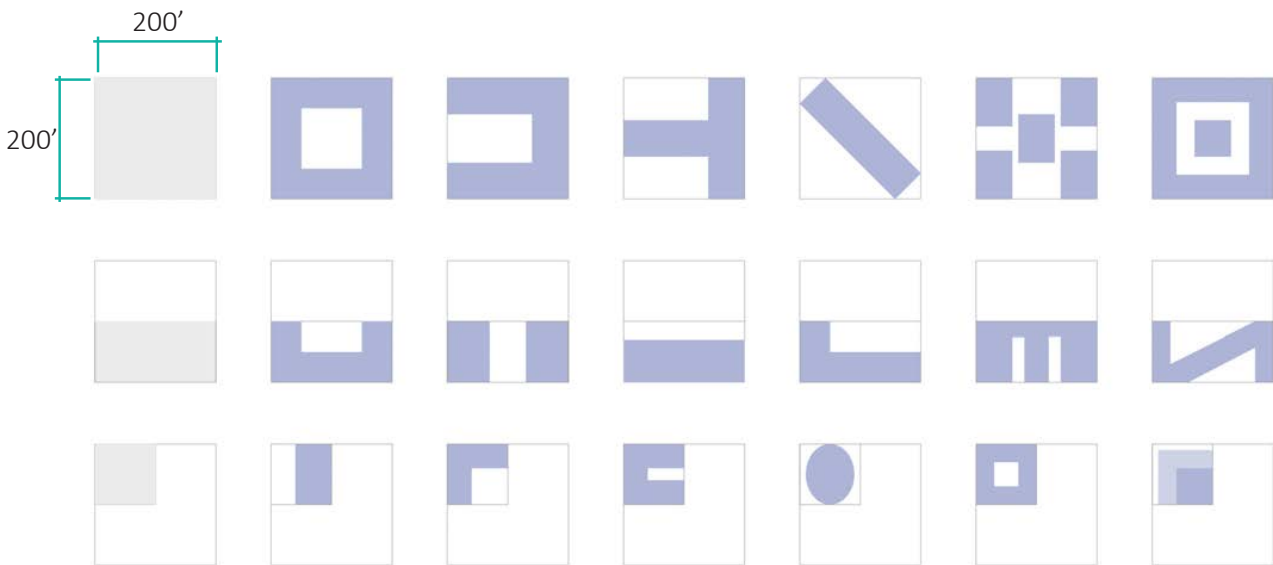
## RESIDENTIAL

### APARTMENTS

CORRIDOR LOCATION	CORRIDOR TYPE	BUILDING FORM	UNIT ASPECT
Side corridor or balcony	Single-loaded corridor on one side of a row of apartments	Narrow slab block	Intermediate double aspect
Central corridor	Double-loaded corridor in the middle of two rows of apartments	Wide slab block	Intermediate single aspect
Central lobby	Apartments off of central lobby at each floor	Tower block	Corner units
Alternate floor corridors	Single-loaded corridor on one side of a row of two-story apartments or maisonettes	Narrow slab block	Double aspect
Scissor corridor	Double-loaded corridor in the middle of two rows of two double-story apartments or maisonettes	Narrow slab block	Double aspect



### POTENTIAL CONFIGURATIONS



# TYPOLOGIES/DIMENSIONS

## APARTMENTS

### Unit Types

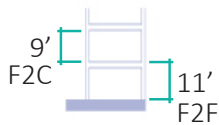
- Efficiency Unit (Compact Studio): 300-350 sq ft
- Studio: 500-600 sq ft
- 1 BR: 680-780 sq ft
- 2 BR: 1,000-1,300 sq ft
- 3 BR: 1,300-1,400 sq ft
- 4 BR: 1,400-1,600 sq ft

### Floor to Ceiling

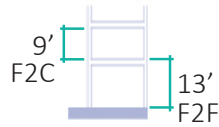
- Usually 8-9 foot floor to ceiling height
- 1 to 2' floor thickness

### Variations

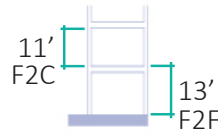
- Mixed use
- Generally ground floor retail taller floor to ceiling height: 11-15
- Office space floor to ceiling height average of 10'
- Double height lobby: 18-22' floor to ceiling



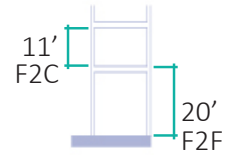
RESIDENTIAL



RESIDENTIAL OVER  
RETAIL GROUND FLOOR



OFFICE OVER RETAIL



OFFICE W/ LOBBY

# TYOLOGIES/DIMENSIONS

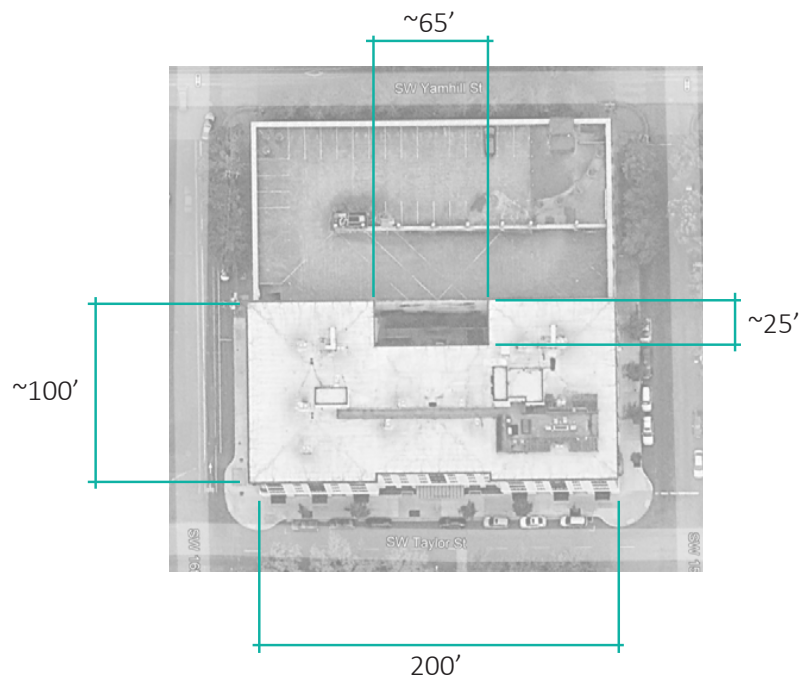
## RESIDENTIAL

### APARTMENTS

#### Low-rise (1-6 stories, 15'- 70')

North Hollow (1551 SW Taylor St)

- Built 2017
- 121 units
- 6 stories (70')
- One 900 sq ft retail space



SPENCER DAIGLE AND ANDY KREITER

# TYOLOGIES/DIMENSIONS

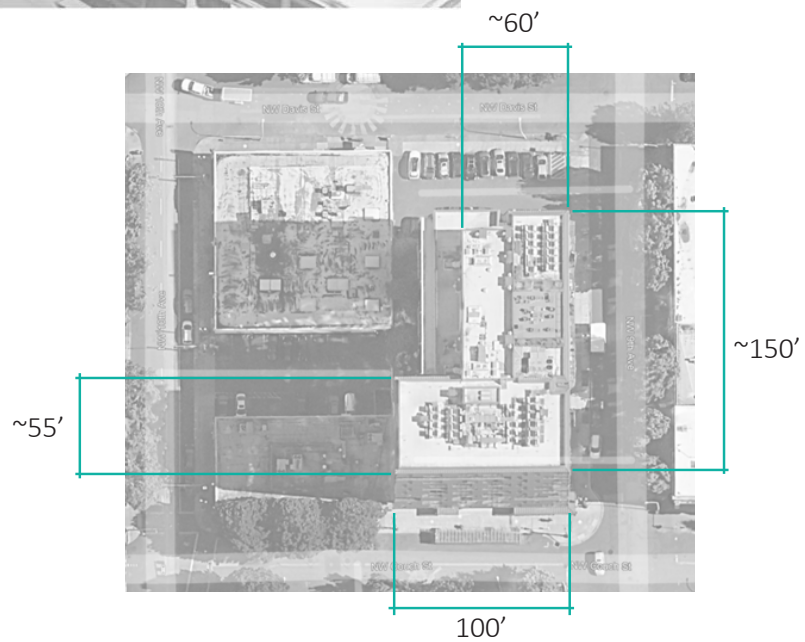
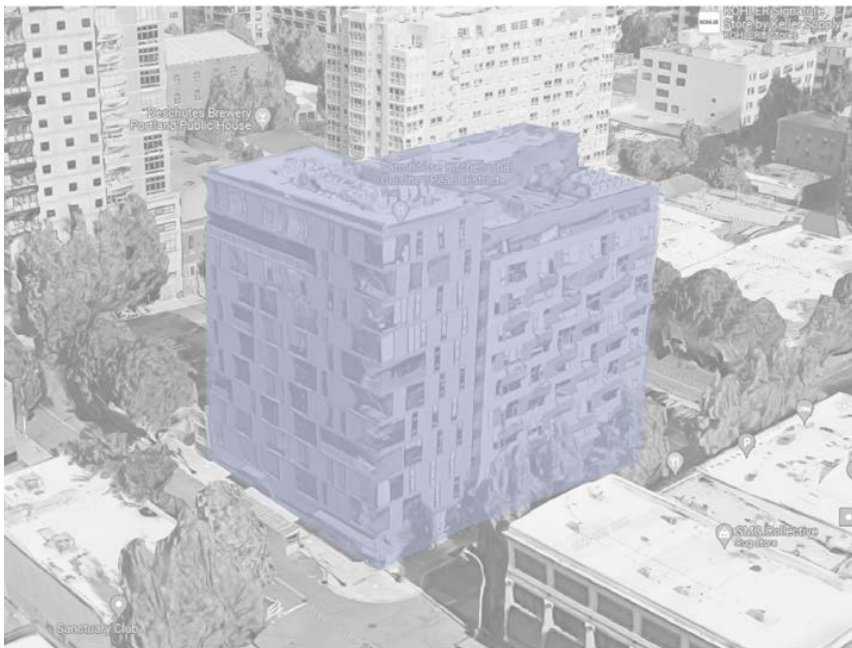
## RESIDENTIAL

### APARTMENTS

#### Mid-rise (7-12 stories, 80' - 130')

Couch 9 (135 NW 9th Ave)

- Built 2017
- 137 residential units
- 11 stories (126'-8")
- 8,000 sq ft of retail



# TYOLOGIES/DIMENSIONS

## RESIDENTIAL

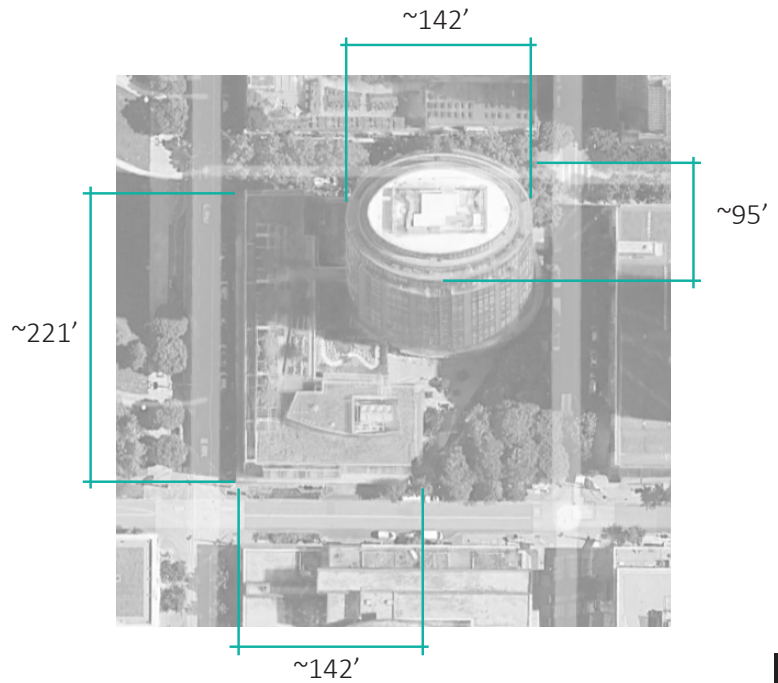
### APARTMENTS

#### High-rise (13 stories and above, 140' - ...)

Max Building Height in Portland is 460'

John Ross Tower (3601 S River Pkwy)

- Built 2007
- 31 floors (325')
- 303 units (243 condominiums in tower, 39 flats in podium)
- Point tower combined with 3 story mixed-use base
- 3 levels of below grade parking and a 9,700 sq ft public plaza
- 576,816 sq ft total

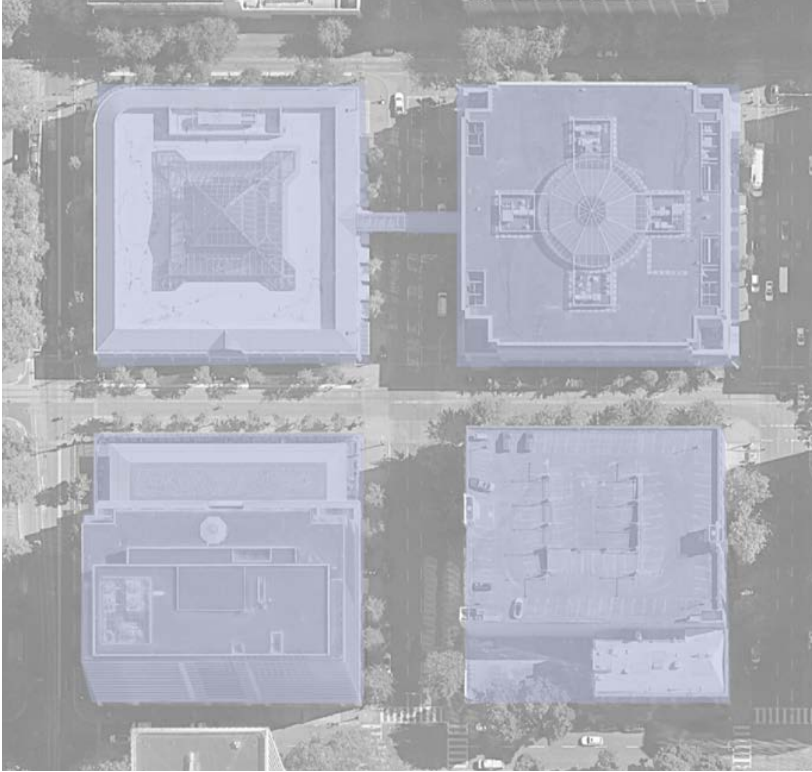




# TYOLOGIES/DIMENSIONS

## RETAIL

### MALL



Pioneer Place Mall (700 SW 5th Ave)

- Built 1990
- Four buildings interconnected by skywalks and underground sections over four full city blocks
- 356,154 sq ft
- 66 retail units
- Pioneer Place I and II contain four levels, including a basement level
- Underground food court and connected parking garage
- Anchor tenants = H&M, ZARA, Regal Cinemas

# TYOLOGIES/DIMENSIONS

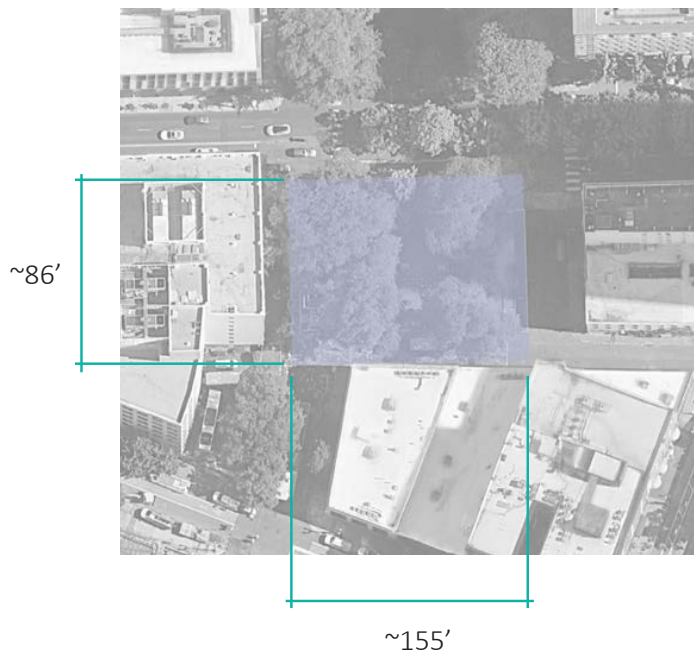
## RETAIL

### FOOD CART PODS



Hawthorne Asylum  
(SE 10th Ave &, 1080 SE Madison St)

- 21 food carts
- Occupies half of a city block



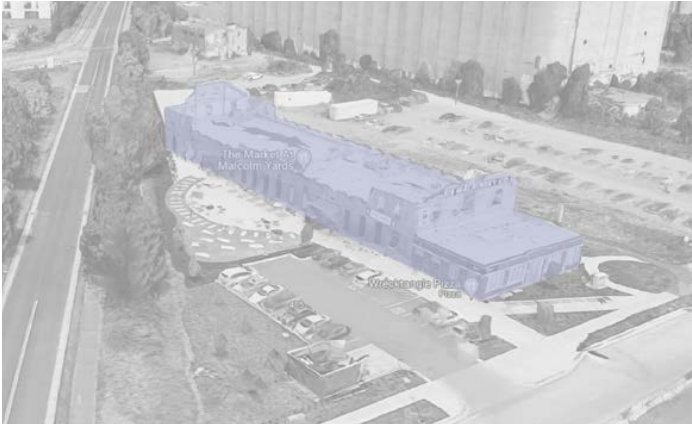
Cart Blocks (770 W Burnside St)

- 10 Vendors
- Sited on pre-existing park

# TYOLOGIES/DIMENSIONS

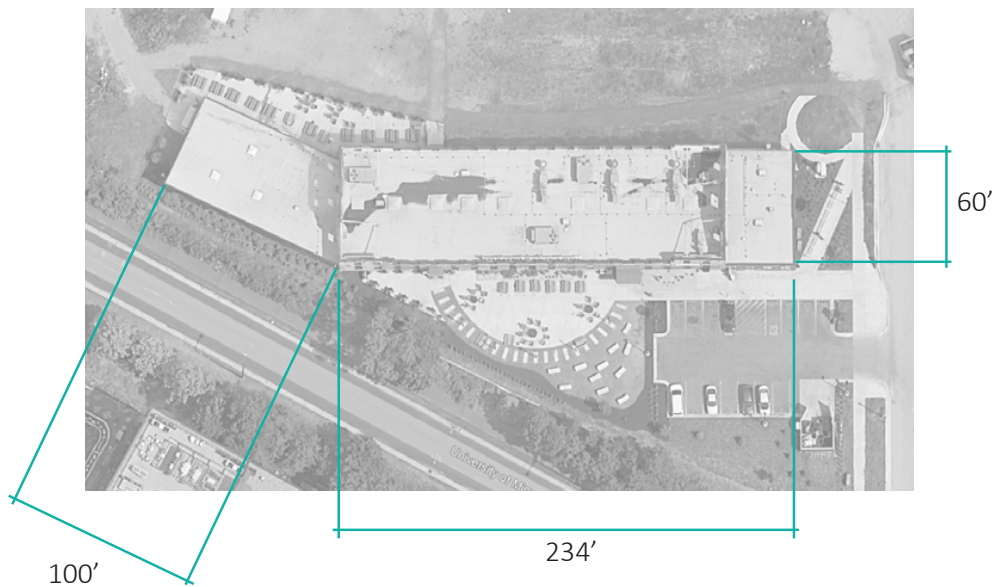
## RETAIL

### FOOD HALL



The Market at Malcolm Yards (Minneapolis, MN)

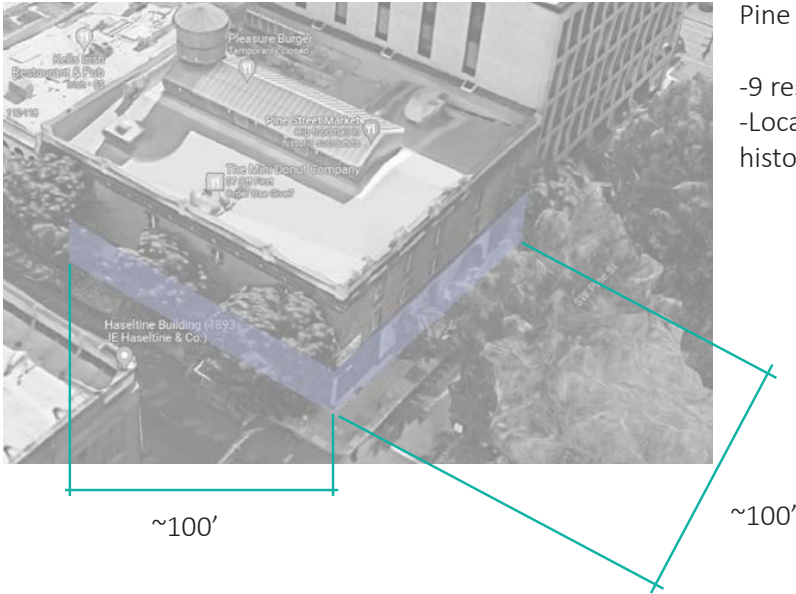
- Housed in historic Harris Machinery Building
- First development in soon to be expanded district
- 9 vendors (9 Food, 1 Bar)
- 16,000 sq ft
- Total seating 510 (310 interior, 200 exterior)



# TYOLOGIES/DIMENSIONS

## RETAIL

### FOOD HALL

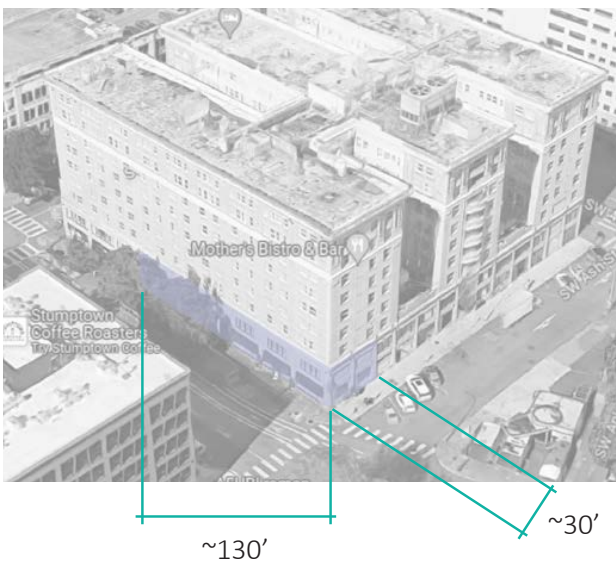


Pine Street Market (126 SW 2nd Ave)

- 9 restaurant booths, 5 vendors currently
- Located on ground floor of mixed-use historic building

### RESTAURANT

Typical restaurant dimensions: 20'x 40' to 75'x120'. Restaurants are typically between 40'-70' in depth.



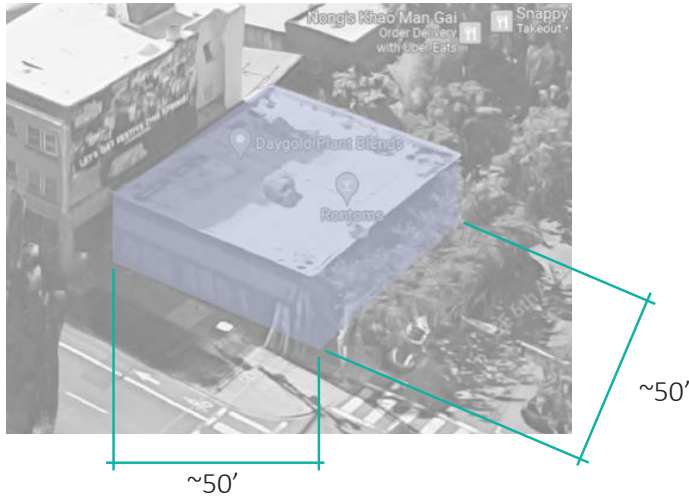
Mother's Bistro (121 SW 3rd Ave)

- 7,900 square feet
- 200 person seating capacity
- Located on ground floor of Embassy Suites

# TYOLOGIES/DIMENSIONS

## RETAIL

### BAR



Rontoms (600 E Burnside St)

- 5,700 sq ft (2,700 sq ft of interior space)
- Bar and venue for private events
- 172 person capacity

### COFFEE SHOP/CAFE

The average size coffee shop is between 1,000 – 1,750 sq. feet.

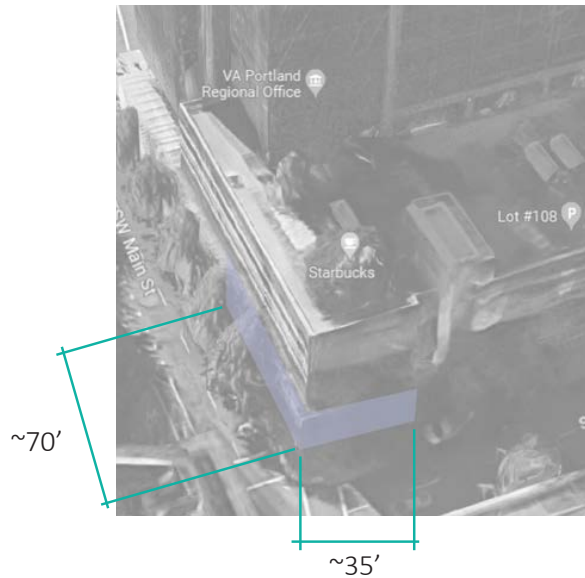
Deadstock Coffee (408 NW Couch St Suite 408)

- 410 sq ft
- Small, independent shop in Chinatown
- Located in older industrial type building



Starbucks (100 SW Main St)

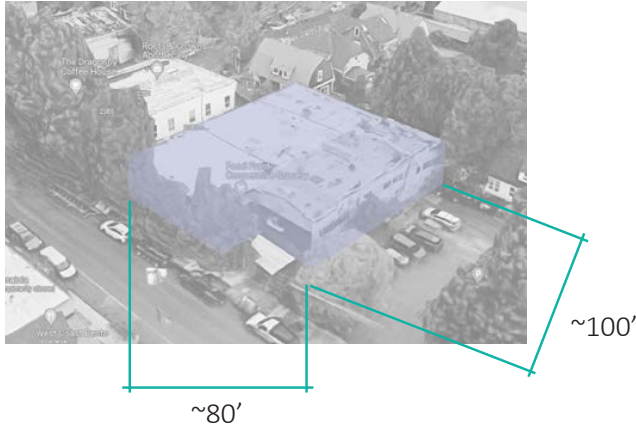
- ~1,600 sq ft
- Multinational chain
- Located in base of tower in CBD



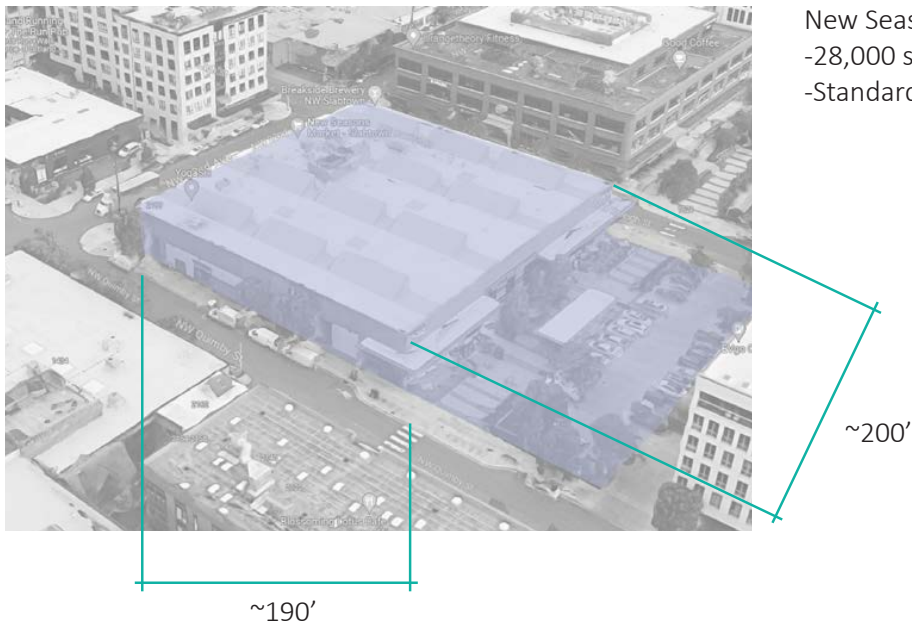
# TYOLOGIES/DIMENSIONS

## RETAIL

### GROCERY STORE



Food Front Cooperative (2375 NW Thurman St)  
-9,000 sq ft  
-Standard departments  
-Closing April 2023



New Seasons Market (2170 NW Raleigh St)  
-28,000 sq ft  
-Standard departments

# TYOLOGIES/DIMENSIONS

## RETAIL

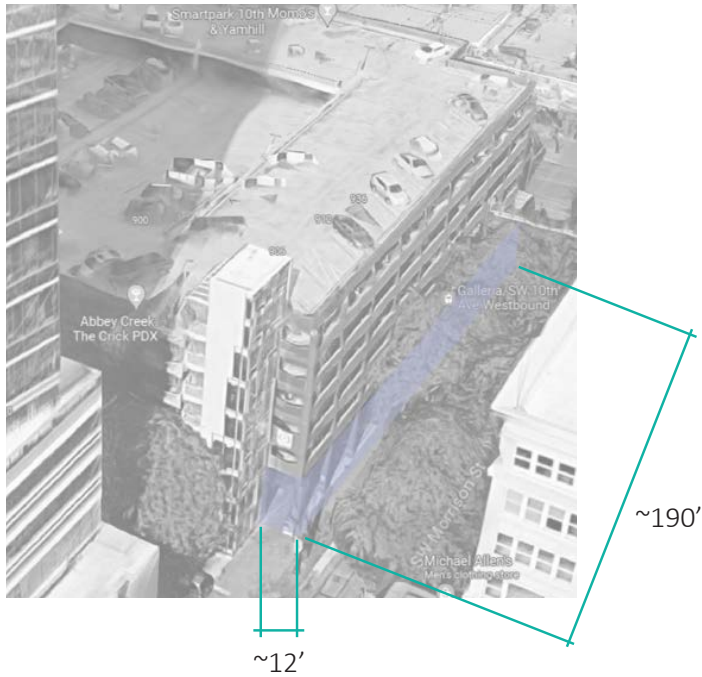
### SMALL RETAIL

Parking Garage Ground Floor Retail Units (SW 10th and Yamhill)

-651 to 2,757 sq ft

-10 retail units total, 8 in arcade

-35' to 54' unit depth



*Arcade with storefronts*

# TYOLOGIES/DIMENSIONS

## RETAIL

### 'BIG BOX' RETAIL AND FLAGSHIP STORES



REI (1405 NW Johnson St)

- ~28,000 sq ft
- Located on first two floors of mixed-use building
- Buildings contains 30,000 sq ft of retail, 360 parking stalls and 125 loft units ranging from 850 sq ft to 2,550 sq ft
- Opened in 2004
- Building completed 2004
- Closing in early 2024

~100'

~150'



MUJI (621 SW 5th Ave)

- 11,000 sq ft ground floor retail space in historic Meier and Frank Building
- Building covers entire city block, contains 14,000 sq ft of tenant amenities space, 15,000 sq ft of retail space, ~600,000 sq ft of office space
- MUJI opened in 2018
- Building completed 1909

~50'

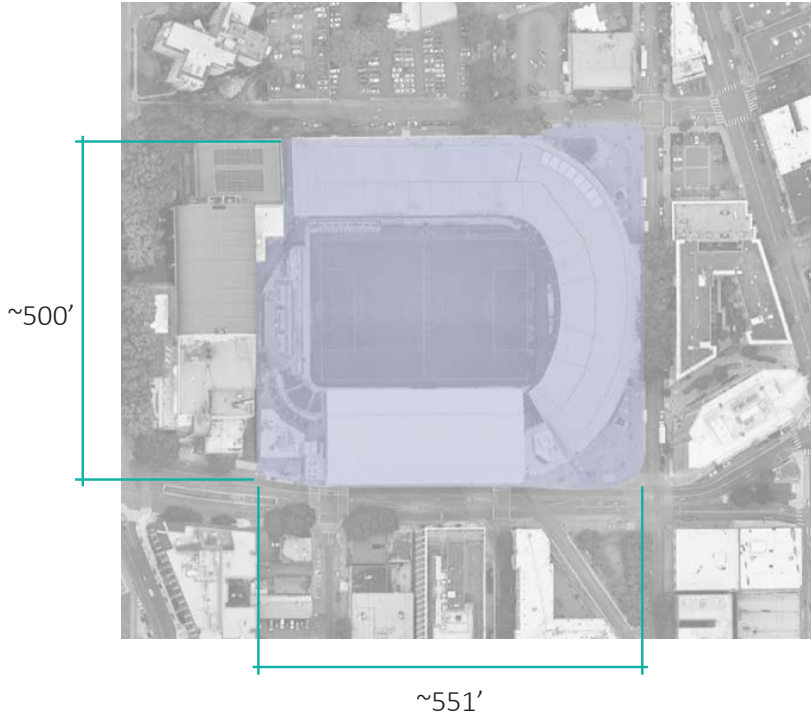
~190'



# TPOLOGIES/DIMENSIONS

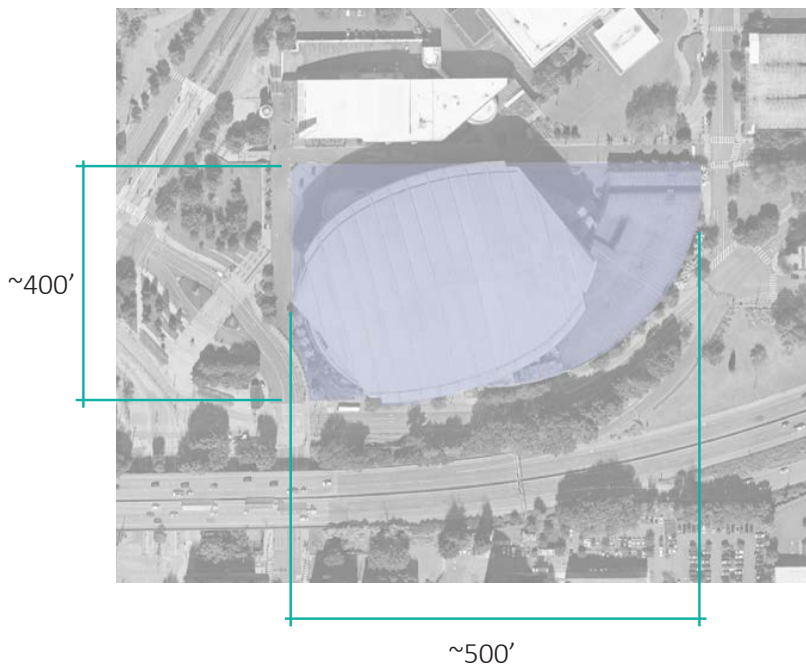
## LARGE PROGRAM

### STADIUMS



Providence Park (1844 SW Morrison St)

- Seating Capacity: 25,218
- Field Size: 110x75 yards
- Height: ~93' above street



MODA Center (1 N Center Ct St)

- Seating Capacity: 19,393 seated and 20,796 with standing room
- 785,000 sq ft on eight levels
- Building Height: 140'

# TPOLOGIES/DIMENSIONS

## LARGE PROGRAM

### PERFORMANCE HALLS



Arlene Schnitzer Concert Hall  
(1037 SW Broadway)

- Seating for 2,776 (includes lower orchestra level and upper balcony seats)
- Dressing rooms for 90
- Opened 1928
- Renovated 1984



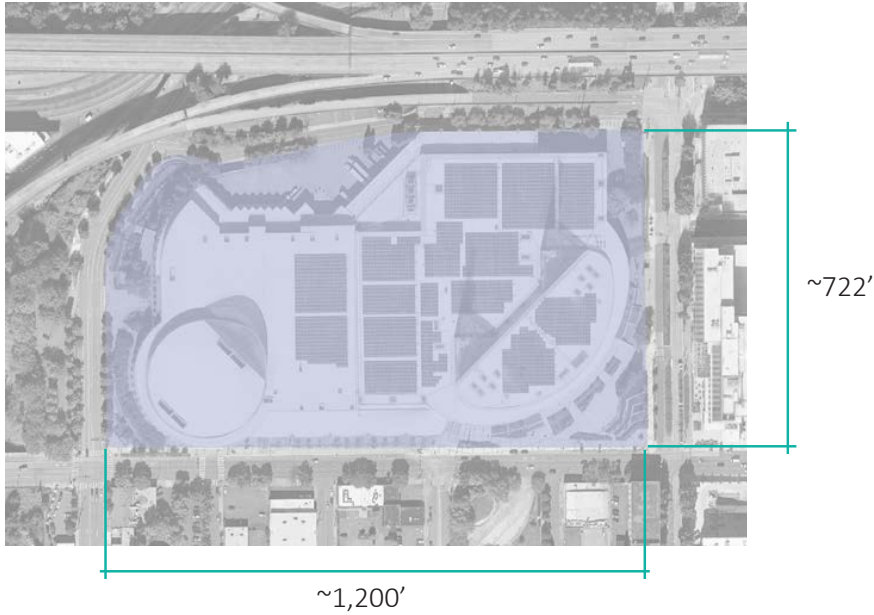
Keller Auditorium (222 SW Clay St)

- 200'x200' footprint
- Seating for 2,992
- Opened 1917
- Renovated 1968

# TYOLOGIES/DIMENSIONS

## LARGE PROGRAM

### CONVENTION CENTER



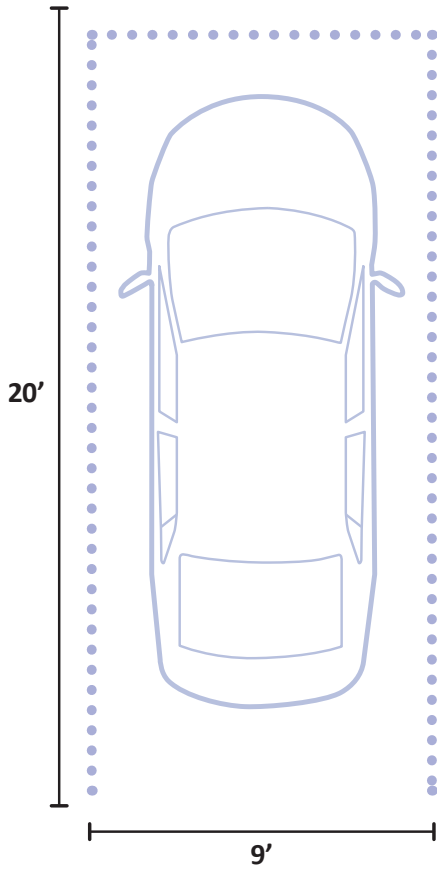
Oregon Convention Center (777 NE Martin Luther King Jr Blvd)

- ~1,200 x 722 footprint
- Nearly 1 million square feet in total
- 255,000 sq ft of exhibit space
- 35,000sq ft ballroom
- Opened 1990
- Renovated 2003

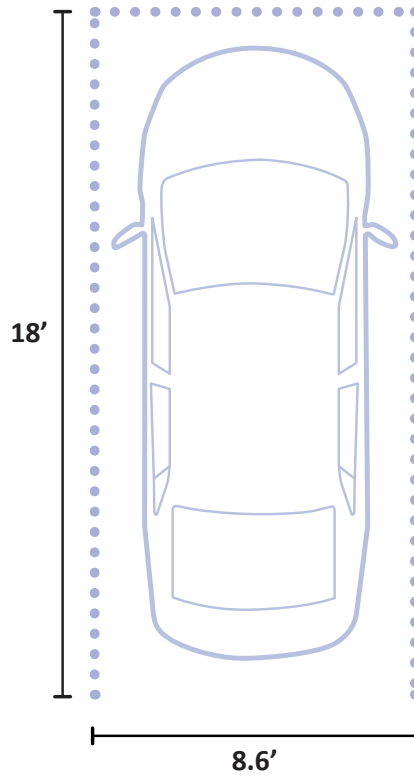
# TYOLOGIES / DIMENSIONS

## STANDARD PARKING SPOT DIMENSIONS

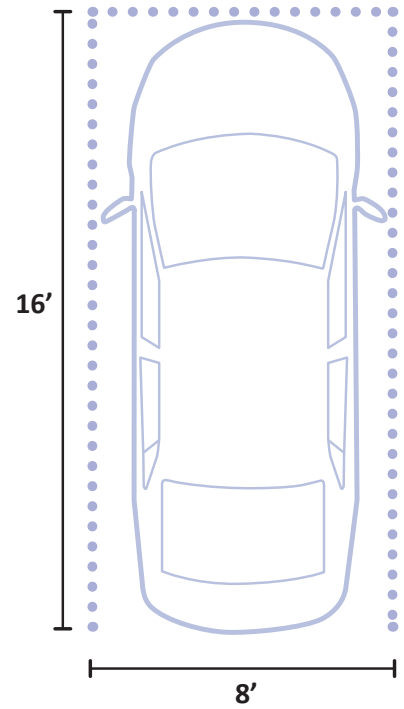
LARGE  
9' x 20'



STANDARD  
8.6' x 18'

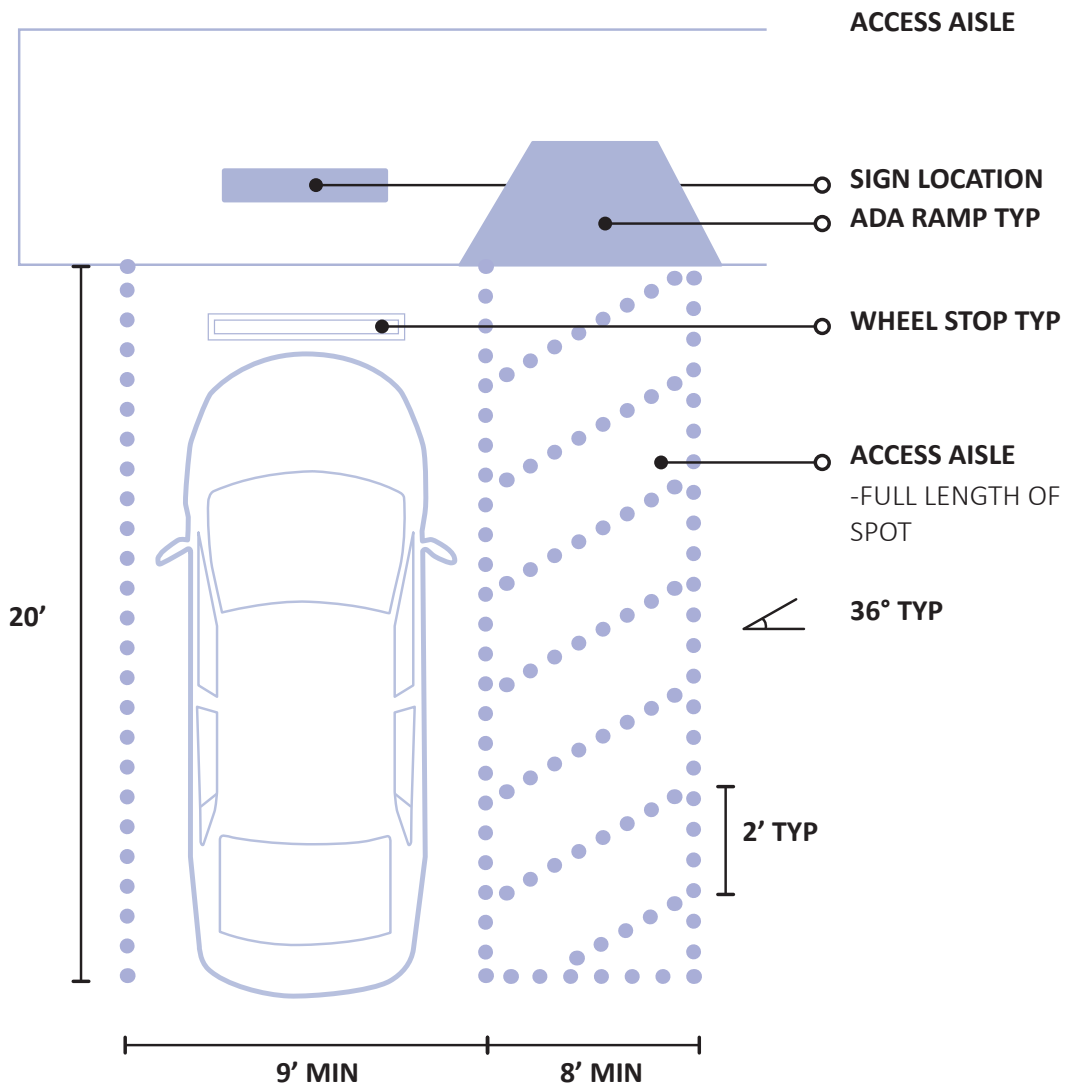


COMPACT  
8' x 16'



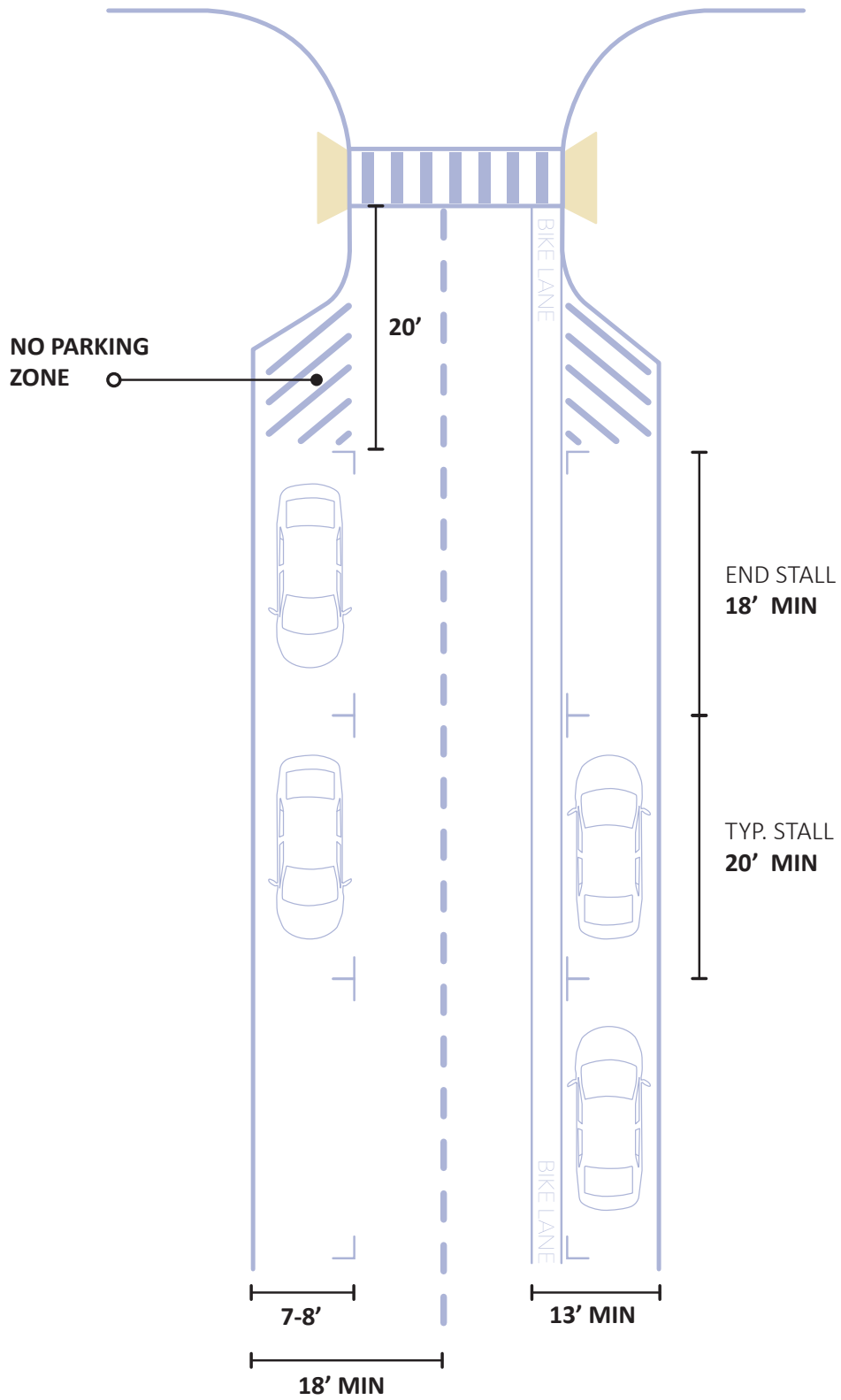
# TPOLOGIES / DIMENSIONS

## ADA PARKING SPOT DIMENSIONS



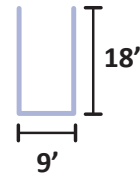
# TYOLOGIES / DIMENSIONS

## STREET PARKING DIMENSIONS

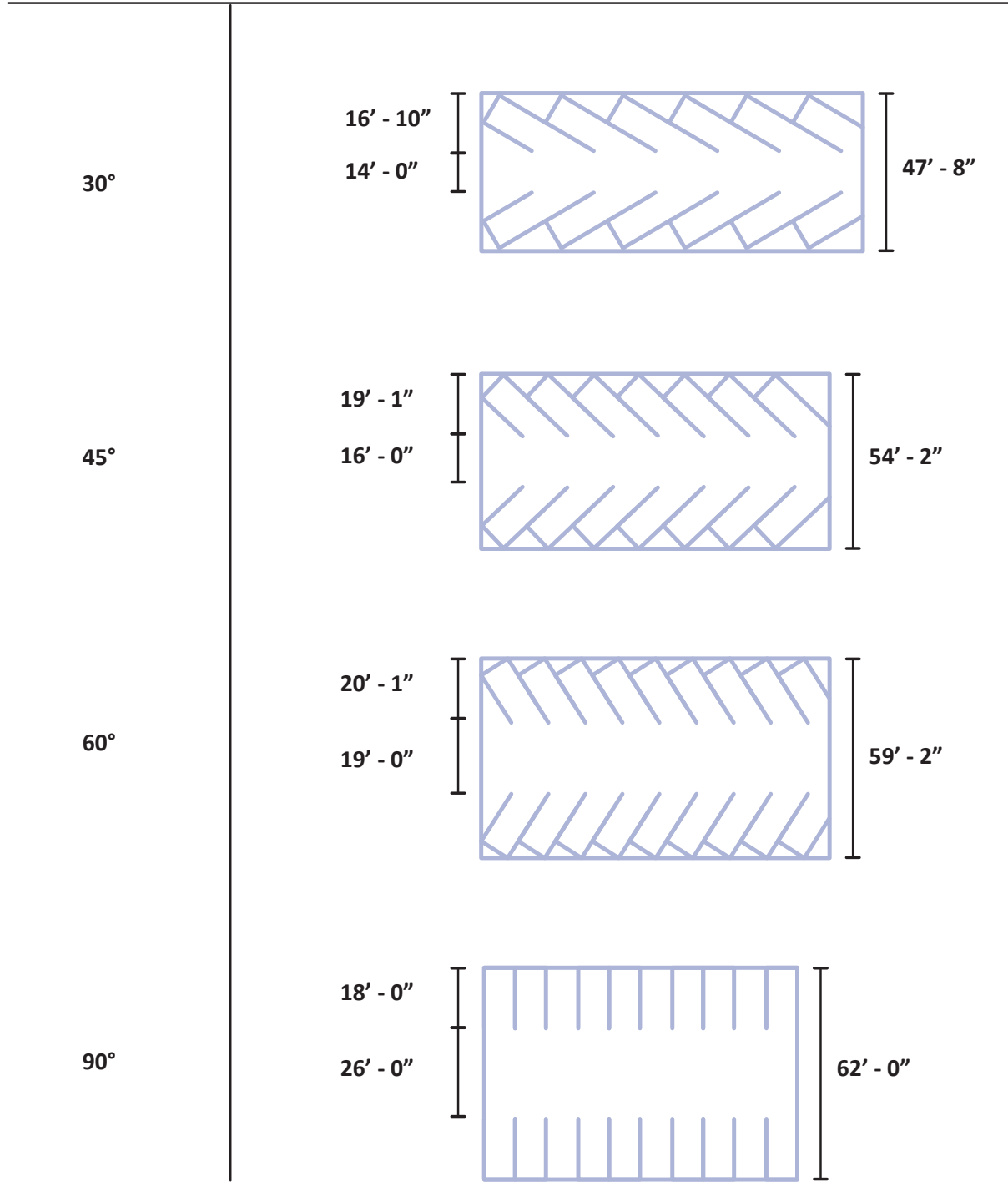


# TYOLOGIES / DIMENSIONS

## PARKING LOT LAYOUTS- DOUBLE ROW

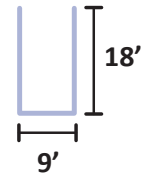


### DOUBLE ROW

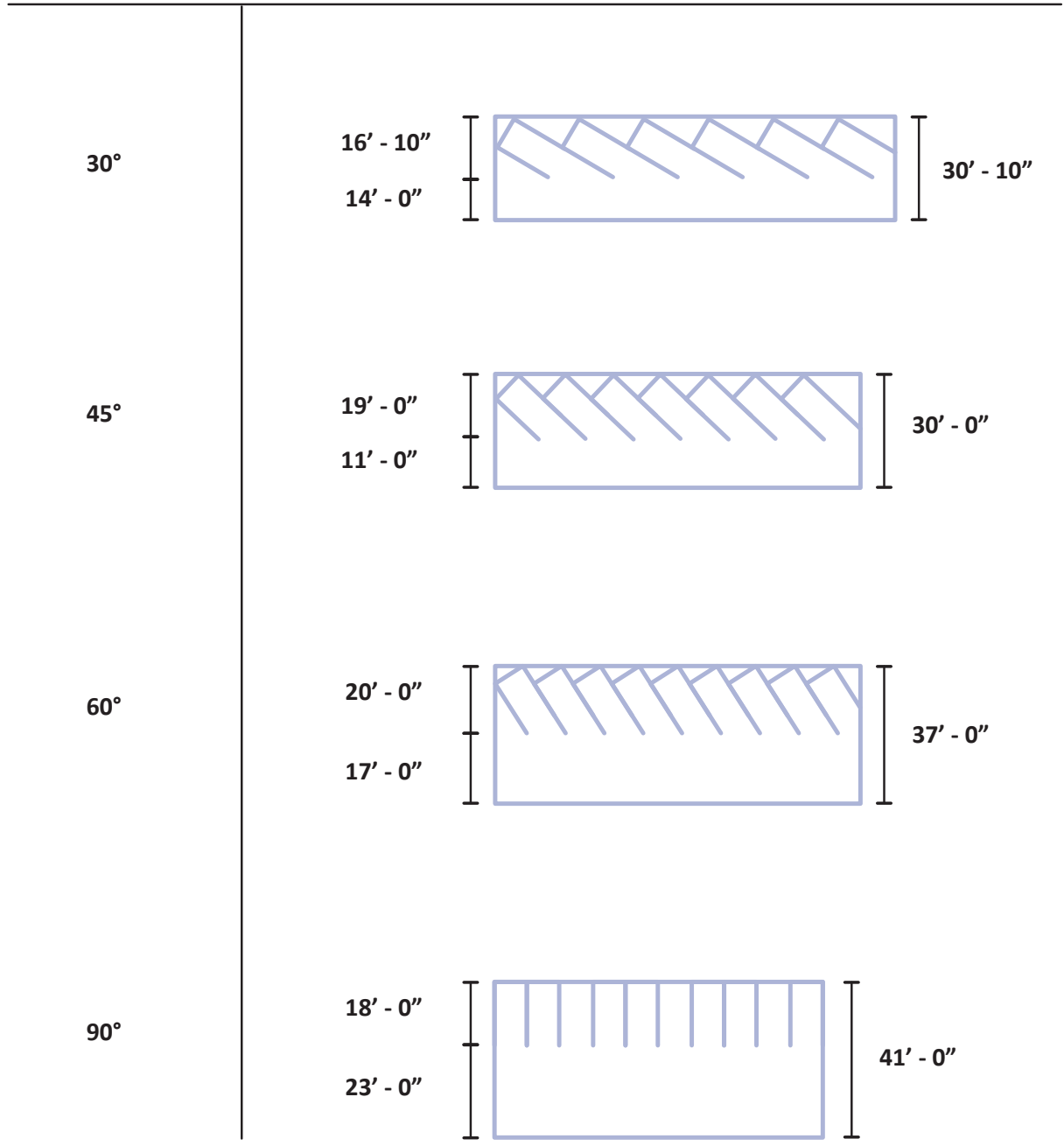


# TYOLOGIES / DIMENSIONS

## PARKING LOT LAYOUTS - SINGLE ROW



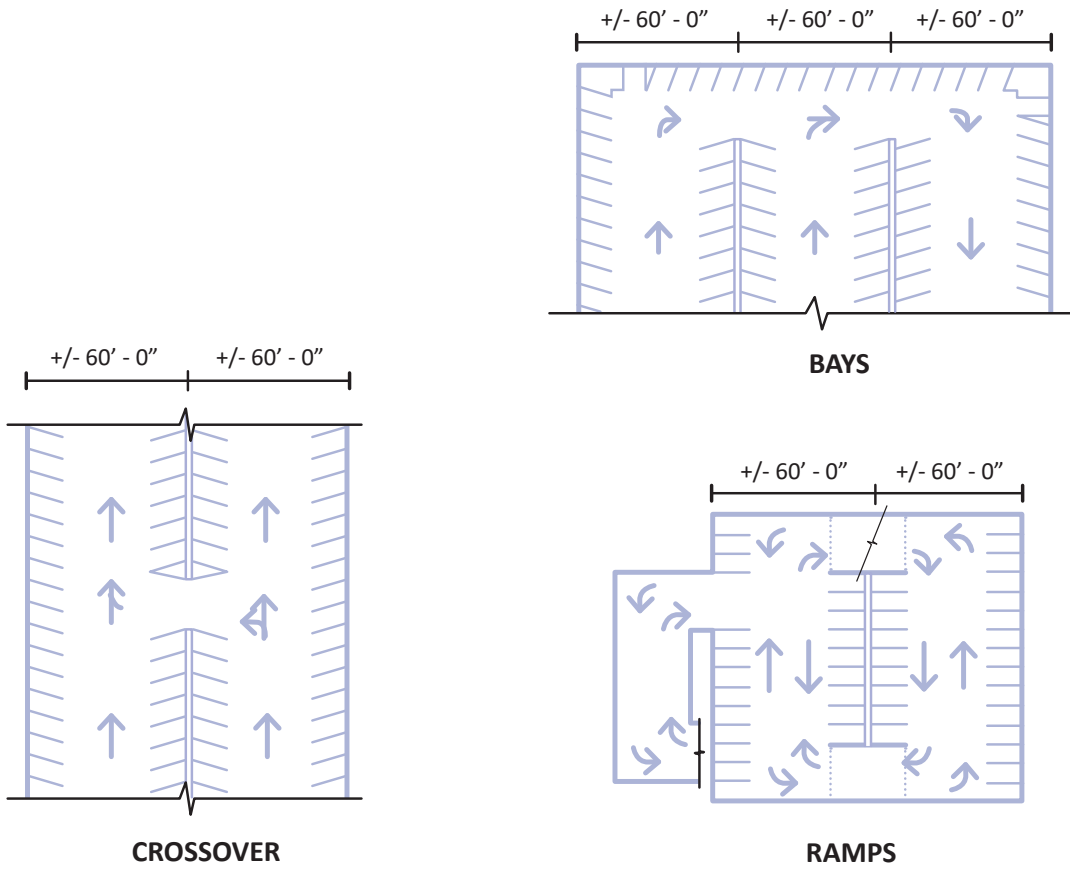
### SINGLE ROW



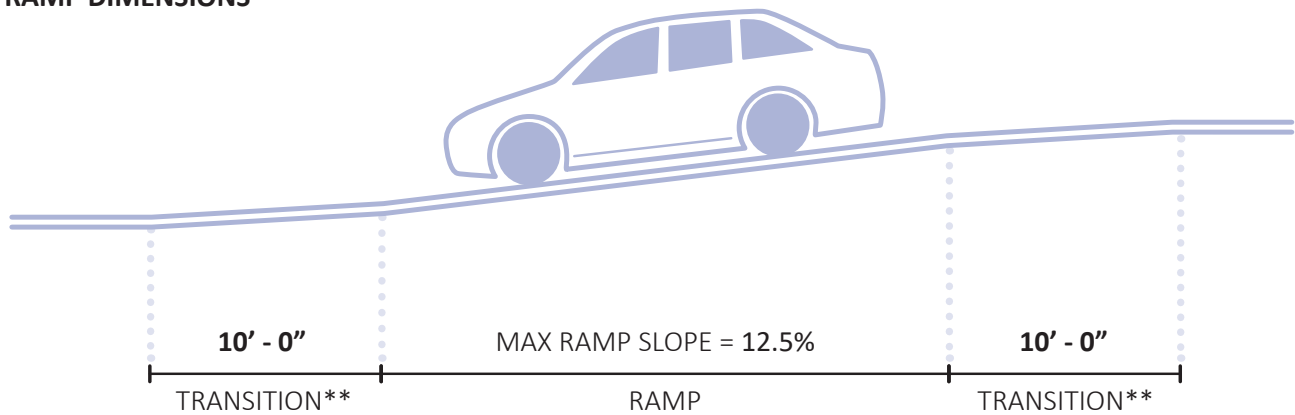


# TYOLOGIES / DIMENSIONS

## PARKING GARAGE LAYOUTS



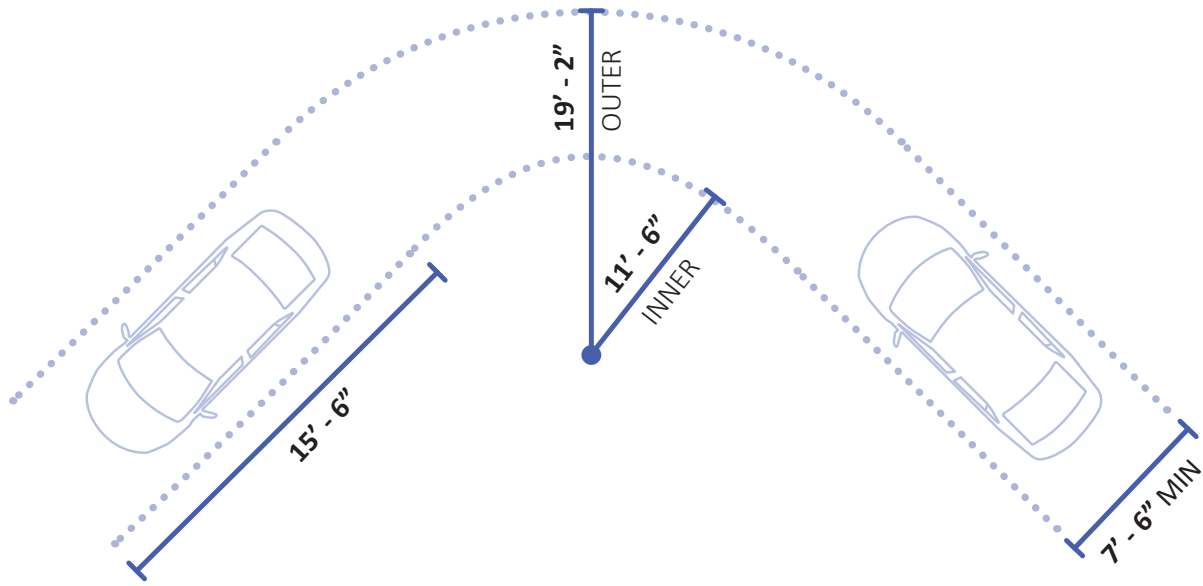
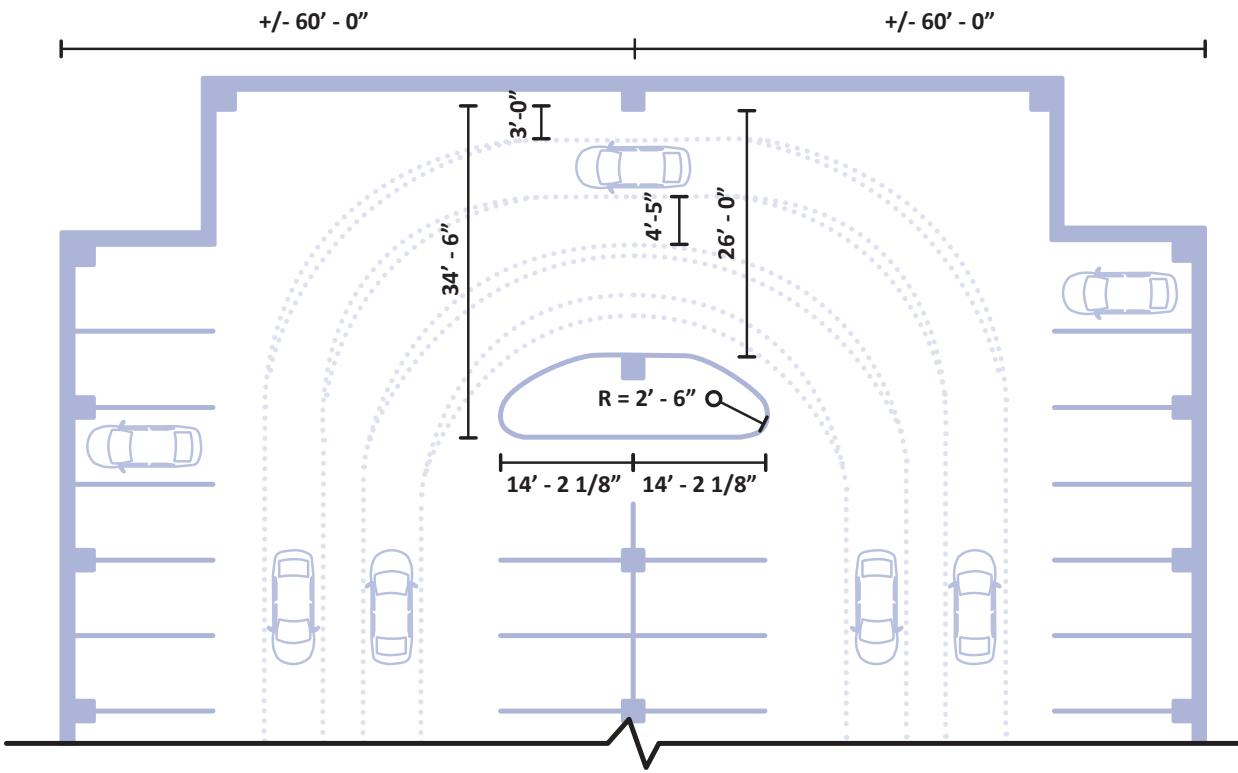
### RAMP DIMENSIONS



\*\*TRANSITION SLOPE = 1/2 RAMP SLOPE

# TYOLOGIES / DIMENSIONS

## TURNING RADIUS DIMENSIONS



# TYPOLOGIES / DIMENSIONS

## PUBLIC MARKETS- OUTDOOR



### PORTLAND SATURDAY MARKET

(S) (M) (T) (W) (T) (F) (S)

ADDRESS 2 SW NAITO PKWY, PORTLAND, OR  
 HOURS 10AM- 5PM (MAR-DEC)  
 # OF VENDORS 200+  
 BOOTH SIZES 10' x 10' (AREA OF CANOPY)  
 SITE SF ~70,000 SF



### PORTLAND FARMER'S MARKET @ PSU

(S) (M) (T) (W) (T) (F) (S)

ADDRESS 1803 SW PARK AVE, PORTLAND, OR  
 HOURS 8:30AM- 2PM (YEAR ROUND)  
 # OF VENDORS 100+  
 BOOTH SIZES 10' x 10' (AREA OF CANOPY)  
 SITE SF ~15,000 SF



### PORTLAND FARMER'S MARKET @ KING

(S) (M) (T) (W) (T) (F) (S)

ADDRESS NE WYGANT ST &, NE 7TH AVE, PORTLAND, OR  
 HOURS 10:00AM- 2:00PM (MAY-NOV)  
 # OF VENDORS 30  
 BOOTH SIZES 10' x 10' (AREA OF CANOPY)  
 SITE SF ~15,000 SF



### SOUTH WATERFRONT FARMER'S MARKET

(S) (M) (T) (W) (T) (F) (S)

ADDRESS 3508 S MOODY AVENUE, PORTLAND, OR  
 HOURS 2:00PM- 7:00PM (JUN-OCT)  
 # OF VENDORS 50+  
 BOOTH SIZES 10' x 10' (AREA OF CANOPY)  
 SITE SF ~80,000 SF



### HOLLYWOOD FARMER'S MARKET

(S) (M) (T) (W) (T) (F) (S)

ADDRESS 4420 NE HANCOCK ST, PORTLAND, OR  
 HOURS 8:00AM- 1:00PM (APR-OCT)  
 # OF VENDORS 50+  
 BOOTH SIZES 10' x 10', 10' x 15', 10' x 20'  
 SITE SF ~36,000 SF

# TYPOLOGIES / DIMENSIONS

## PUBLIC MARKETS- INDOOR



### PORTLAND NIGHT MARKET

(S) (M) (T) (W) (T) (F) (S)

ADDRESS 100 SE ALDER ST, PORTLAND, OR  
 HOURS 4PM- 11PM (APR-DEC)  
 # OF VENDORS 175+  
 BOOTH SIZES 6' x 6', 8' x 8', 10' x 10'  
 SITE SF 10,000 SF



### UNIQUE MARKETS

(S) (M) (T) (W) (T) (F) (S)

ADDRESS 300 N WINNING WAY, PORTLAND, OREGON  
 HOURS 10:00AM- 4:00PM (5/13-5/14)  
 # OF VENDORS 150+  
 BOOTH SIZES 6' x 6', 10' x 10', 10' x 20'  
 SITE SF 40,000 SF



### PORTLAND FLEA (SE LOCATION)

(S) (M) (T) (W) (T) (F) (S)

ADDRESS 240 SE CLAY ST. PORTLAND, OR  
 HOURS 11:00AM- 4:00PM (APR-OCT)  
 # OF VENDORS 50+  
 BOOTH SIZES 10' x 10' (AREA OF CANOPY)  
 SITE SF 4,000 SF



### PINE STREET MARKET

(S) (M) (T) (W) (T) (F) (S)

ADDRESS 126 SW 2ND AVE, PORTLAND, OR  
 HOURS 11:00AM- 9:00PM (YEAR ROUND)  
 # OF VENDORS 9  
 BOOTH SIZES VARIES PER TENANT  
 SITE SF 10,000 SF



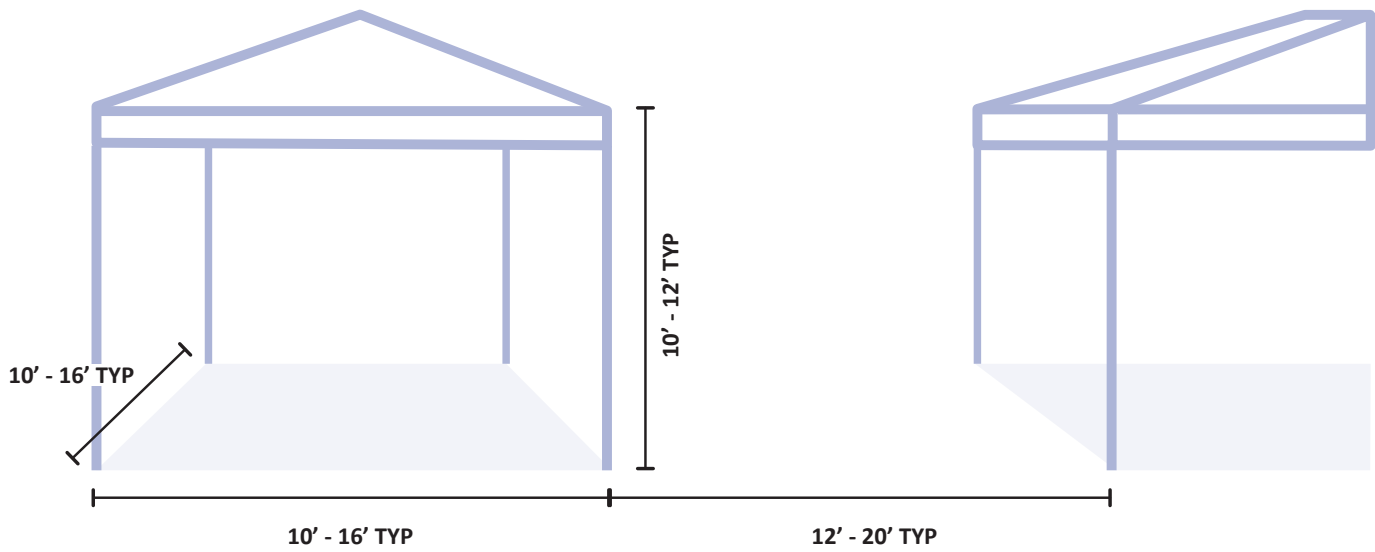
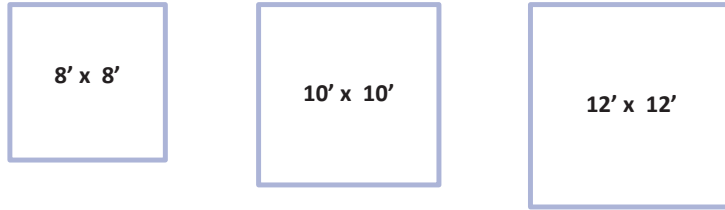
### PIKE'S PLACE MARKET

(S) (M) (T) (W) (T) (F) (S)

ADDRESS 4420 NE HANCOCK ST, PORTLAND, OR  
 HOURS 9:00AM- 5:00PM (YEAR ROUND)  
 # OF VENDORS 220+  
 BOOTH SIZES 6' x 8', 10' x 10', 10' x 20'  
 SITE SF 44,000 SF

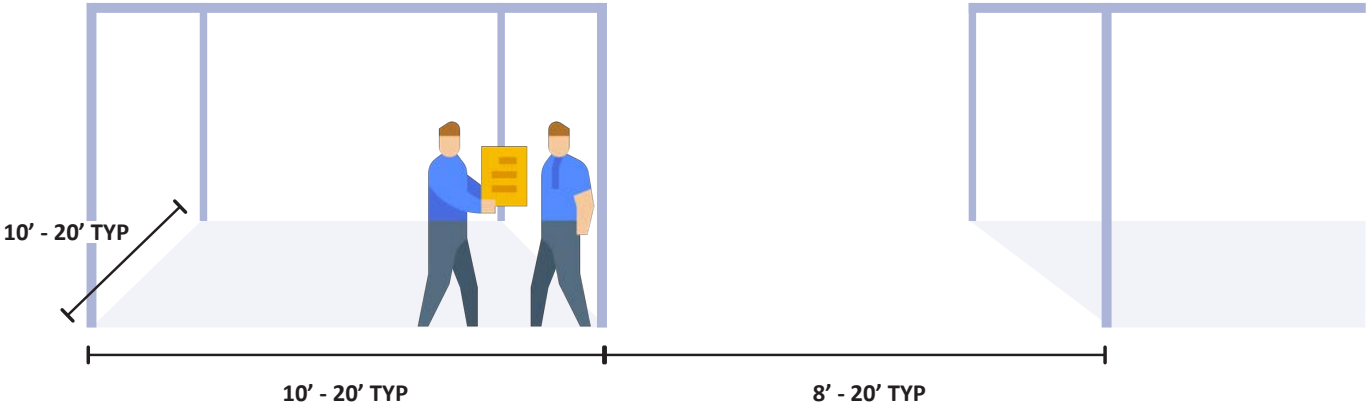
# TYOLOGIES / DIMENSIONS

## TYP MARKET BOOTH DIMENSIONS- OUTDOOR



# TPOLOGIES / DIMENSIONS

## TYP MARKET BOOTH DIMENSIONS- INDOOR



# TYOLOGIES / DIMENSIONS

## OFFICE TYPOLOGY



### FOX TOWER

121 SW SALMON ST, PORTLAND, OR

USE  
ARCHITECT  
# OF STORIES  
BUILDING AREA  
BUILDING HEIGHT  
YEAR OF COMPLETION  
TOTAL GHG EMISSIONS

RETAIL + COMMERCIAL OFFICES  
TVA  
27  
599,388 SQ FT  
113 FT  
2000  
1,328.3 MT CO2E

OFFICE

RETAIL



### PARK AVENUE WEST TOWER

121 SW SALMON ST, PORTLAND, OR

USE  
ARCHITECT  
# OF STORIES  
BUILDING AREA  
BUILDING HEIGHT  
YEAR OF COMPLETION  
TOTAL GHG EMISSIONS

RETAIL + OFFICE + RESIDENTIAL  
TVA  
30  
474,000 SQ FT  
460 FT  
2016  
3,239.1 MT CO2E

RESIDENTIAL

OFFICE  
RETAIL  
PARKING



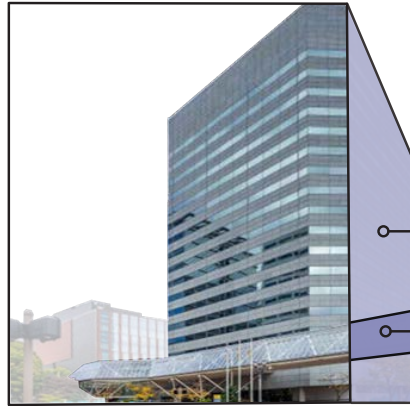
# TYOLOGIES / DIMENSIONS

## OFFICE TYPOLOGY



### WORLD TRADE CENTER PORTLAND

121 SW SALMON ST, PORTLAND, OR



USE	RETAIL + OFFICE
ARCHITECT	ZGF
# OF STORIES	17
BUILDING AREA	474,867 SQ FT
BUILDING HEIGHT	230 FT
YEAR OF COMPLETION	1977
TOTAL GHG EMISSIONS	844.9 MT CO2E



### BLOCK 300

308 SW 2ND AVE. PORTLAND, OR



USE	RETAIL + COMMERCIAL OFFICES
ARCHITECT	ZGF (RENO)
# OF STORIES	10
BUILDING AREA	361,640 SQ FT
BUILDING HEIGHT	113 FT
YEAR OF COMPLETION	1991
TOTAL GHG EMISSIONS	1,584.5 MT CO2E

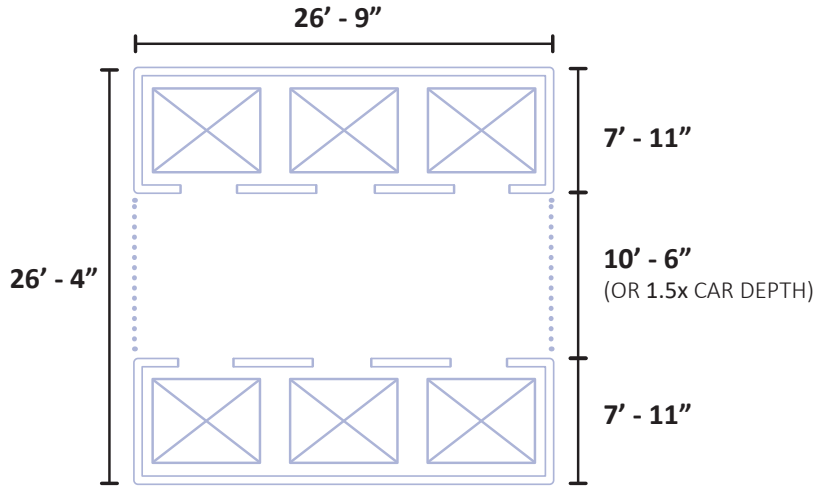


# TYOLOGIES / DIMENSIONS

## CORE DIMENSIONS : ELEVATOR CLEARANCE

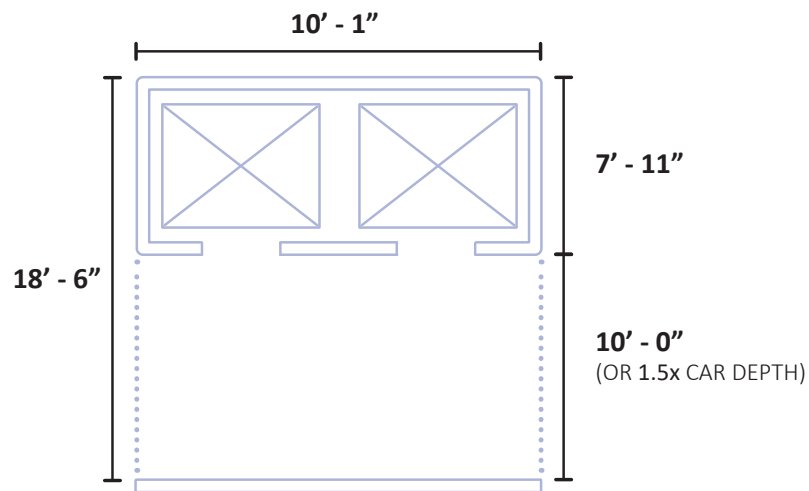
ELEVATOR BANK - SIX LIFTS

704 FT<sup>2</sup>



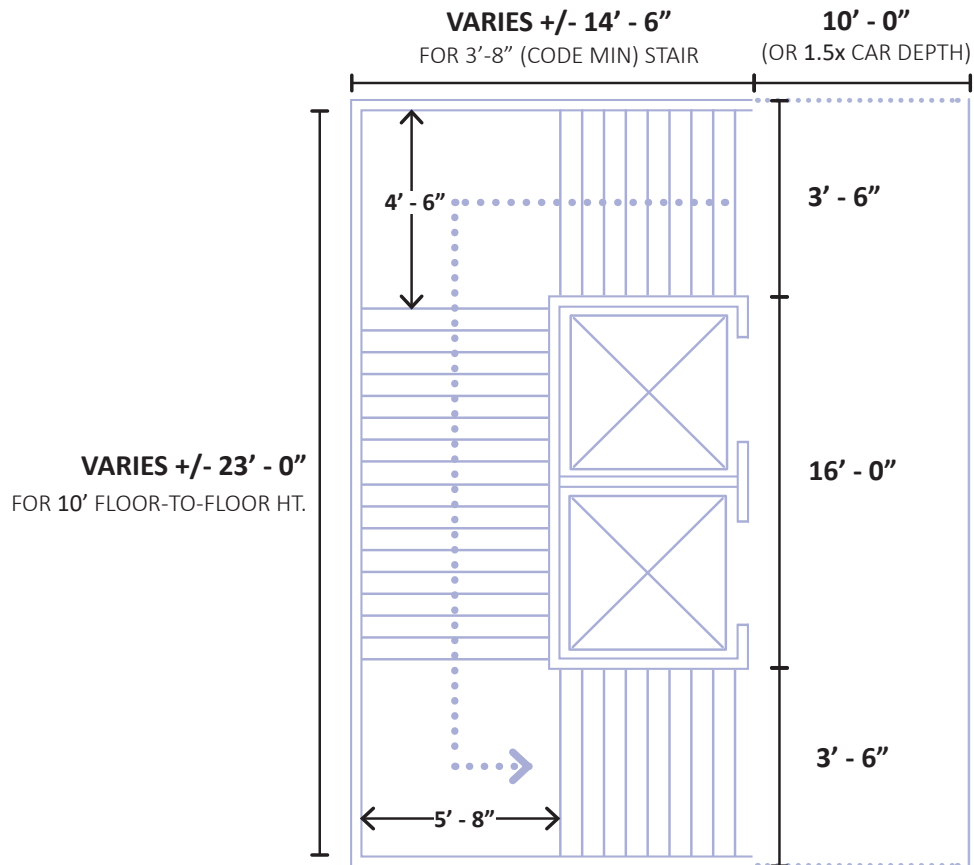
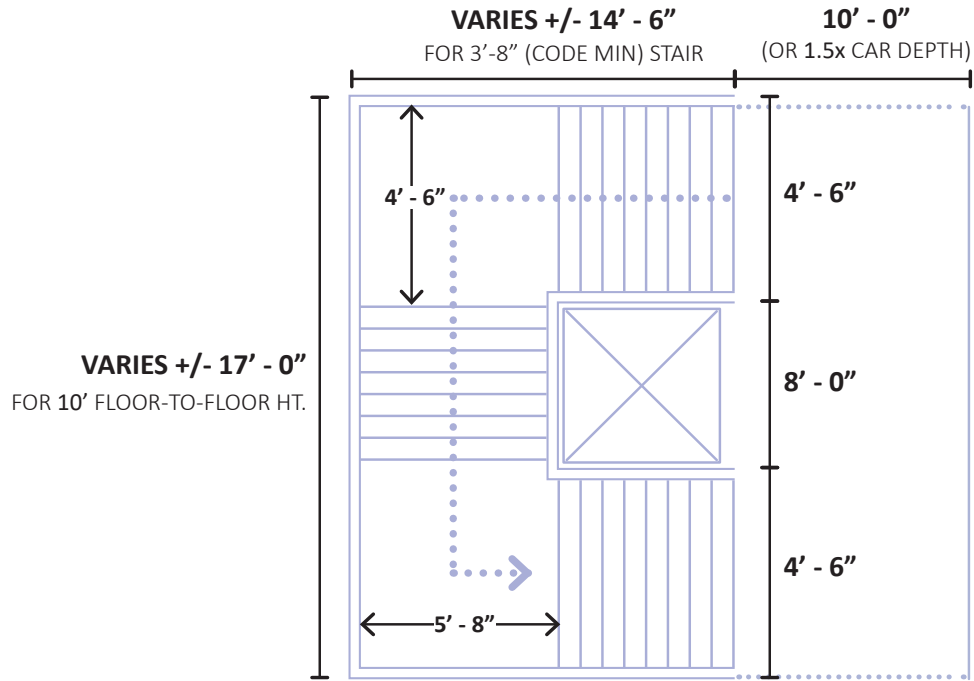
ELEVATOR BANK - TWO LIFTS

333 FT<sup>2</sup>



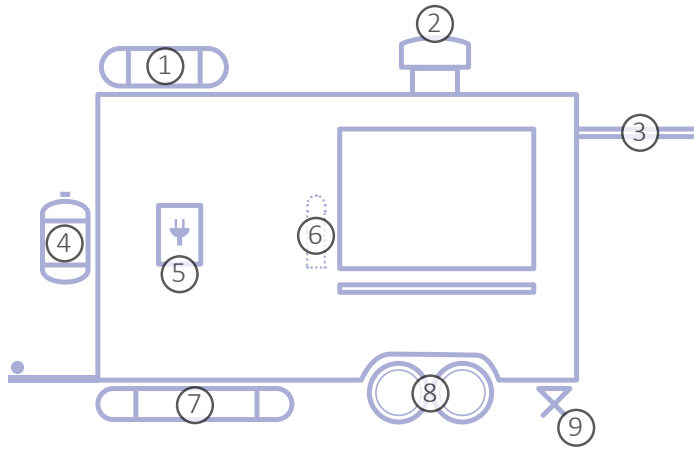
# TYOLOGIES / DIMENSIONS

## CORE DIMENSIONS : ELEVATOR + STAIR

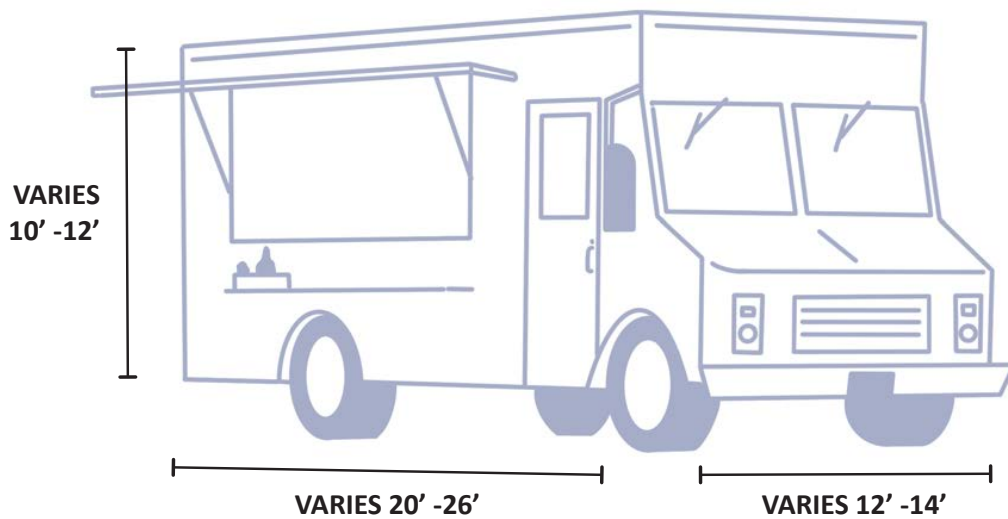


# TPOLOGIES / DIMENSIONS

## FOOD TRUCK DIMENSIONS

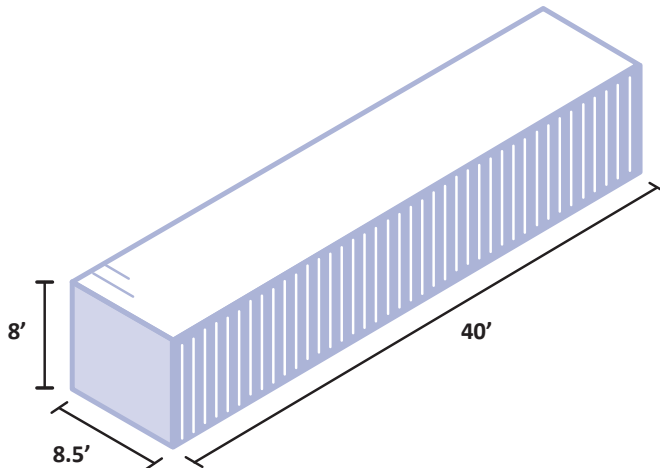
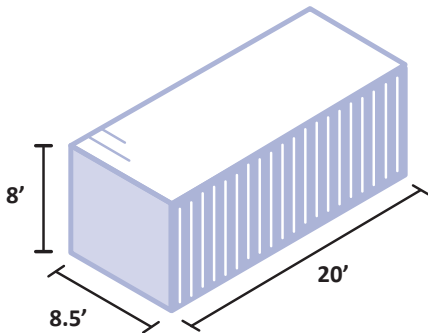
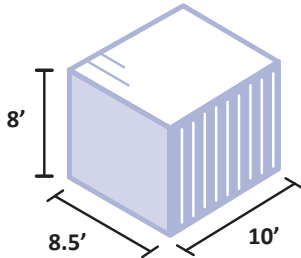


- ① WATER TANK
- ② EXAUHST FAN
- ③ AWNING
- ④ PROPANE TANK
- ⑤ POWER SUPPLY
- ⑥ FIRE SUPPRESSION
- ⑦ GREY WATER TANK
- ⑧ DOUBLE AXEL
- ⑨ STABILIZER



# TYPOLOGIES / DIMENSIONS

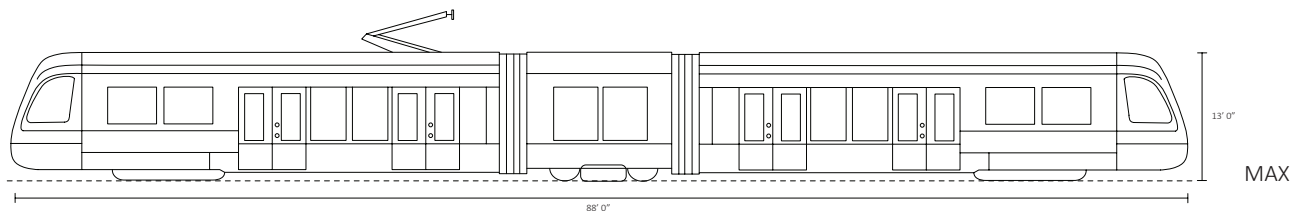
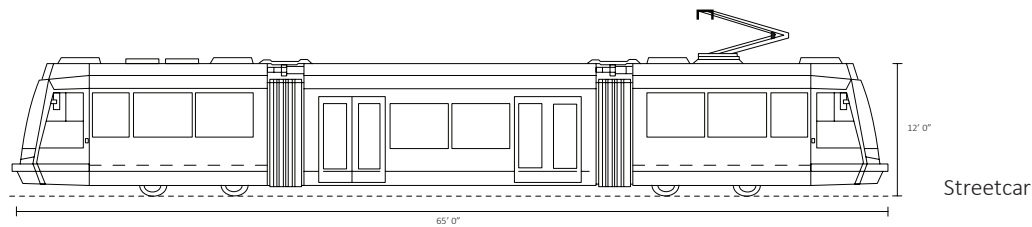
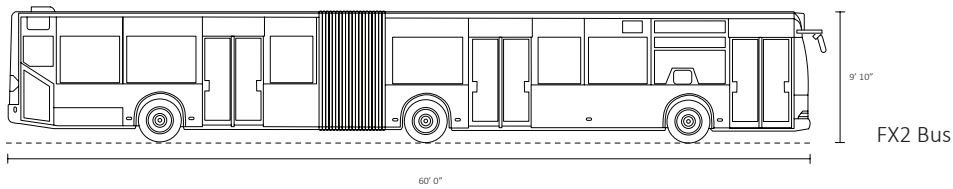
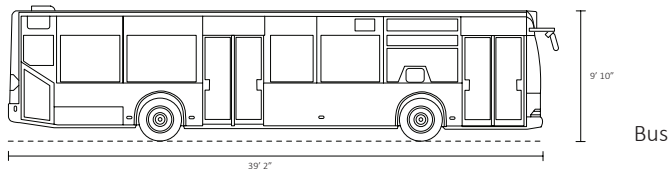
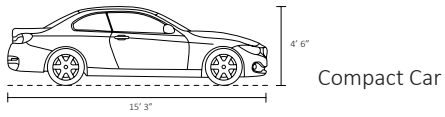
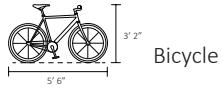
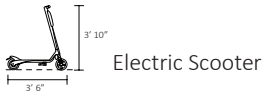
## SHIPPING CONTAINER DIMENSIONS





# TRANSPORTATION

# TRANSPORTATION DIMENSIONS

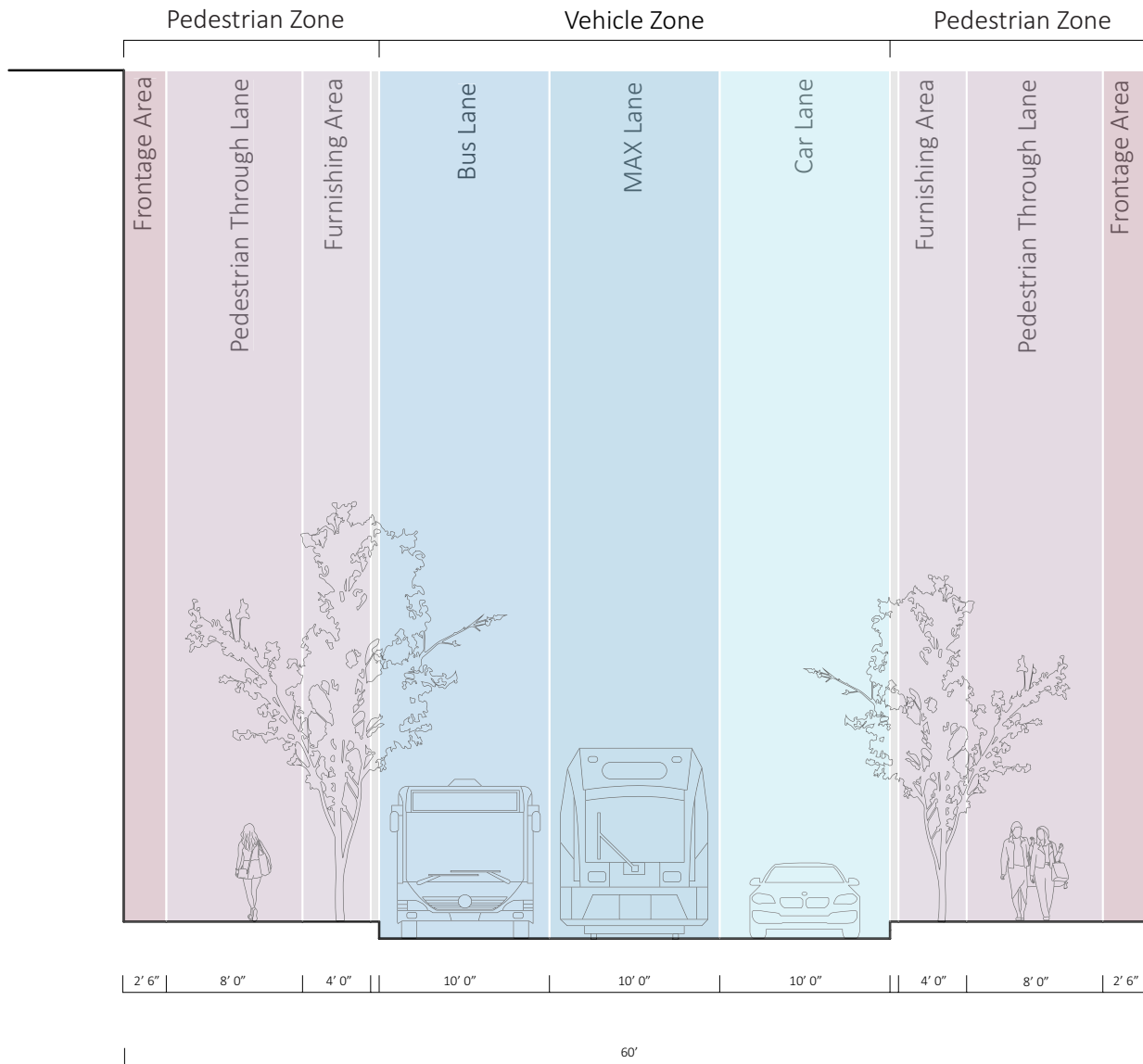


# TRANSPORTATION

## TRANSIT ORIENTATED STREET

### SW 5TH AVE. and SW ALDER ST.

NEIGHBORHOOD MAIN STREET DESIGN

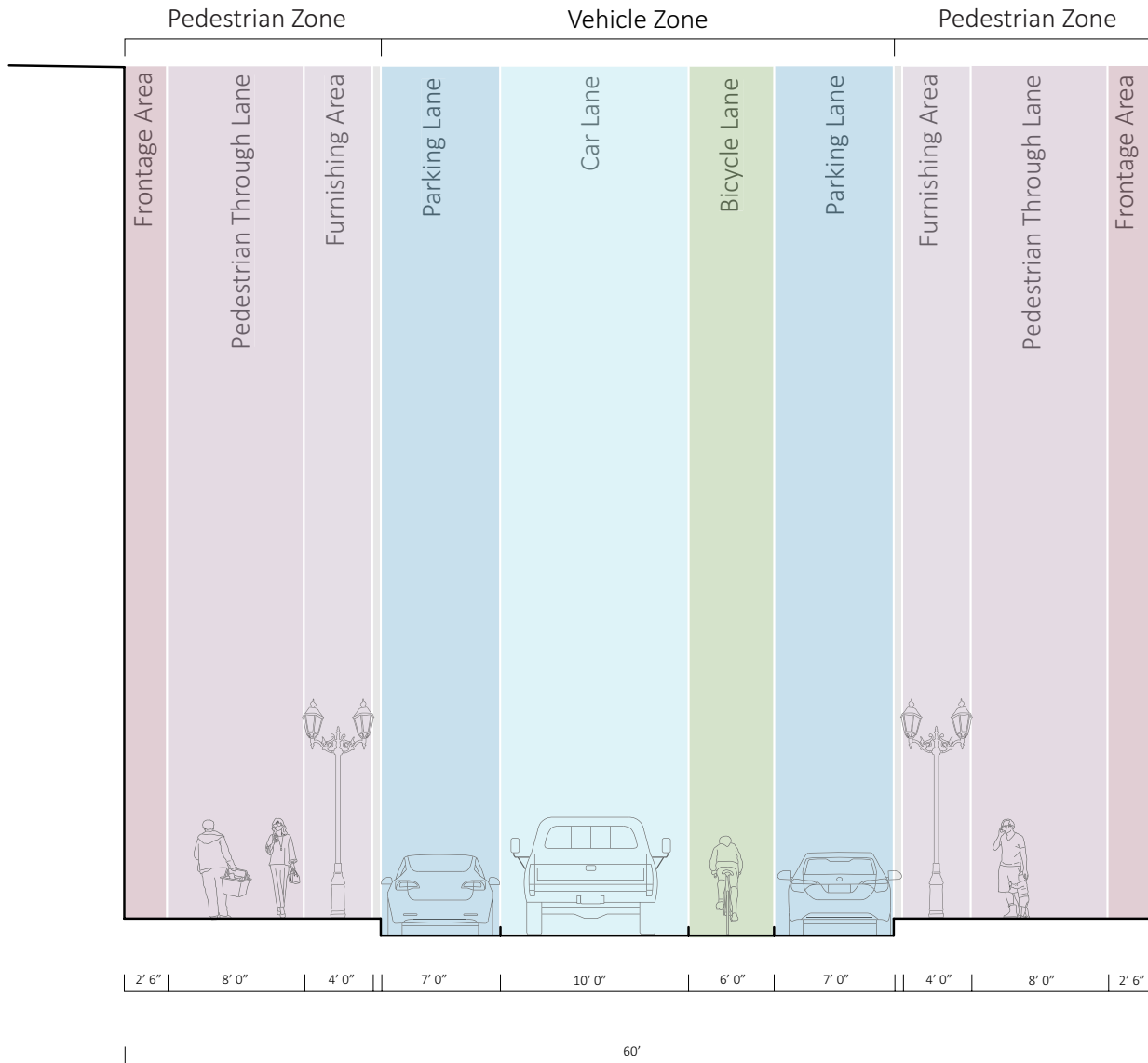


# TRANSPORTATION

## BICYCLE ORIENTATED STREET

### SW 1ST AVE. and SW OAK ST.

NEIGHBORHOOD MAIN STREET DESIGN



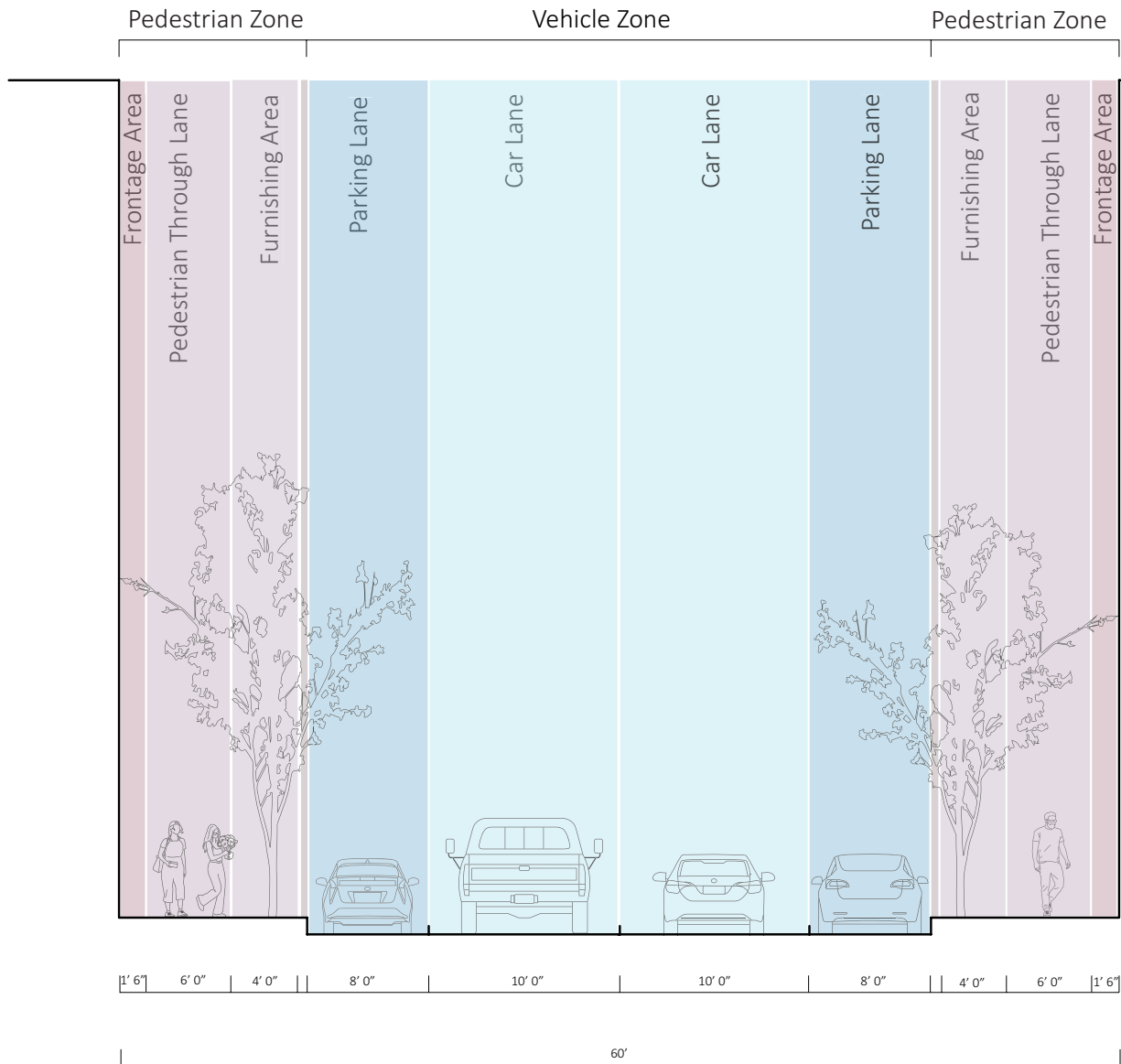


# TRANSPORTATION

## CAR ORIENTATED STREET

### SW 4th AVE. and SW SALMON ST.

CIVIC CORRIDOR DESIGN



# TRANSPORTATION

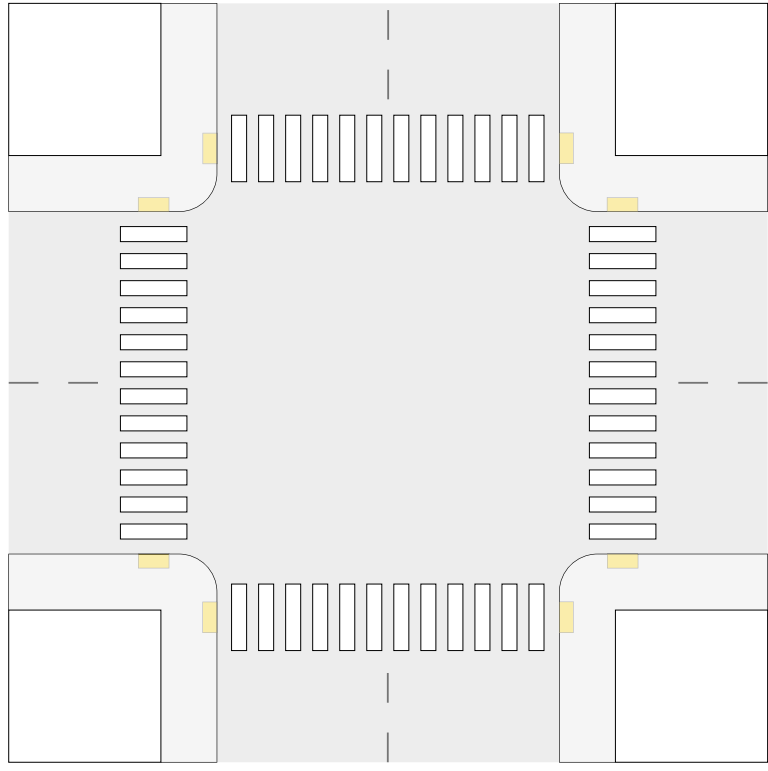
## STREET WIDTH MINIMUMS

Street Design Classification	Frontage Zone	Pedestrian Through Lane	Furnishing Zone	Curb	Min. Sidewalk Width	Parking Lane	Vehicle Lanes	Bike Lanes
Civic Main Street	2' 6"	8'	4'	6"	15'	7' -8'	10' -11'	6' - 12'
Neighborhood Main Street	2' 6"	8'	4'	6"	15'	7' -8'	10' -11'	6' - 12'
Civic Corridor	1' 6"	6'	4'	6"	12'	7' -8'	10' -11'	6' - 12'
Local Street	6"	6'	4'	6"	11'	7' -8'	10' -11'	6' - 12'

Right-of-Way Total	60'
--------------------	-----

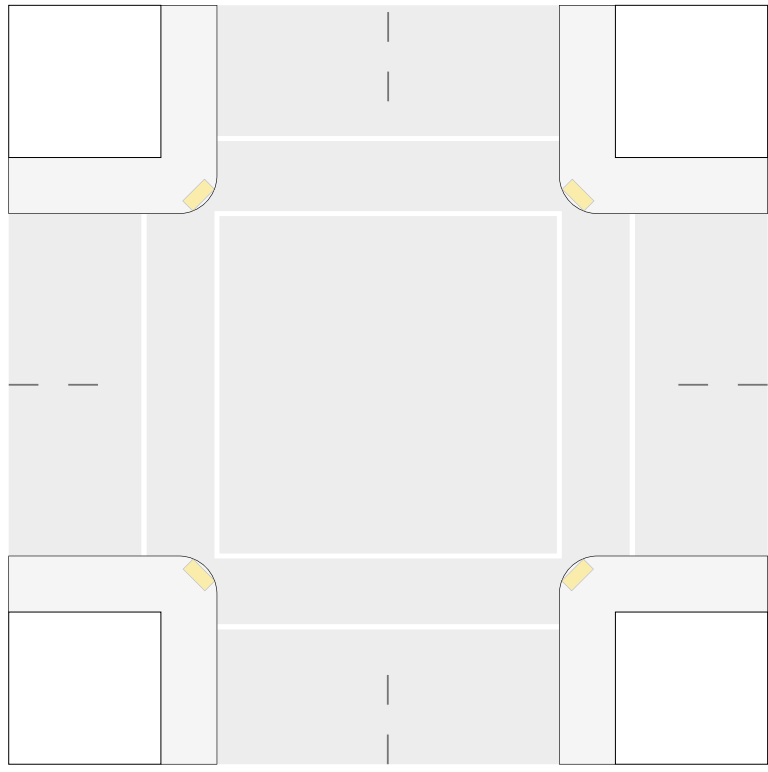
# TRANSPORTATION

## CURRENT CROSSWALK DESIGN



Minimum Crosswalk Width	6'
-------------------------	----

SW 3rd Ave. and SW Harvey Milk St.

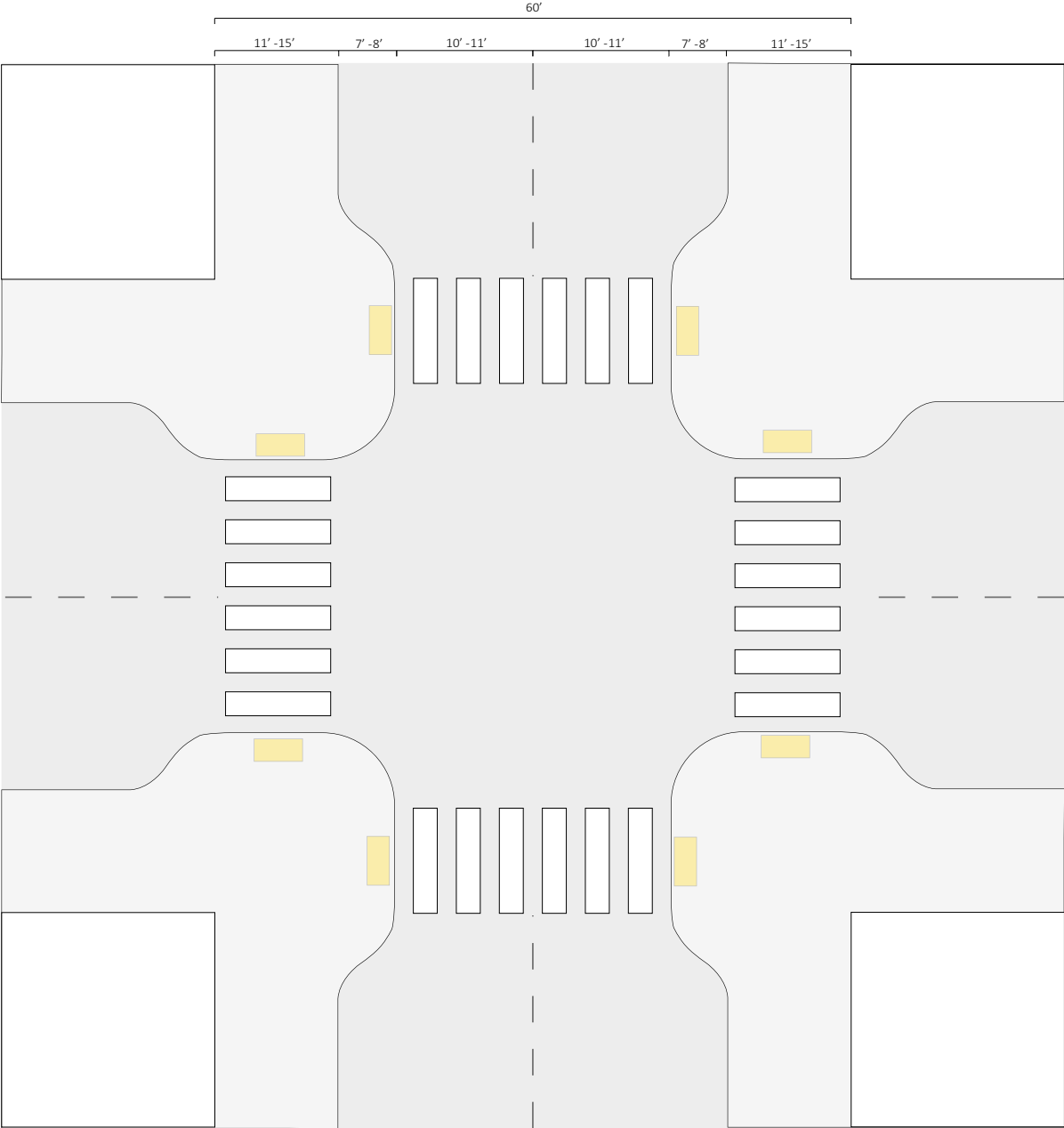


SW 3rd Ave. and Main St.

EMMA PAGET AND EJ DEL ROSARIO

# TRANSPORTATION

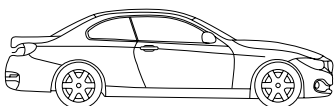
## SAFER CROSSWALK DESIGN



Bulb-out Crosswalk

# TRANSPORTATION

## VECHILE TRAFFIC USAGE



- █ Heavy Traffic
- █ Medium Traffic
- █ Light Traffic

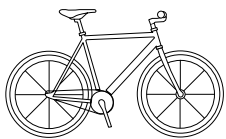
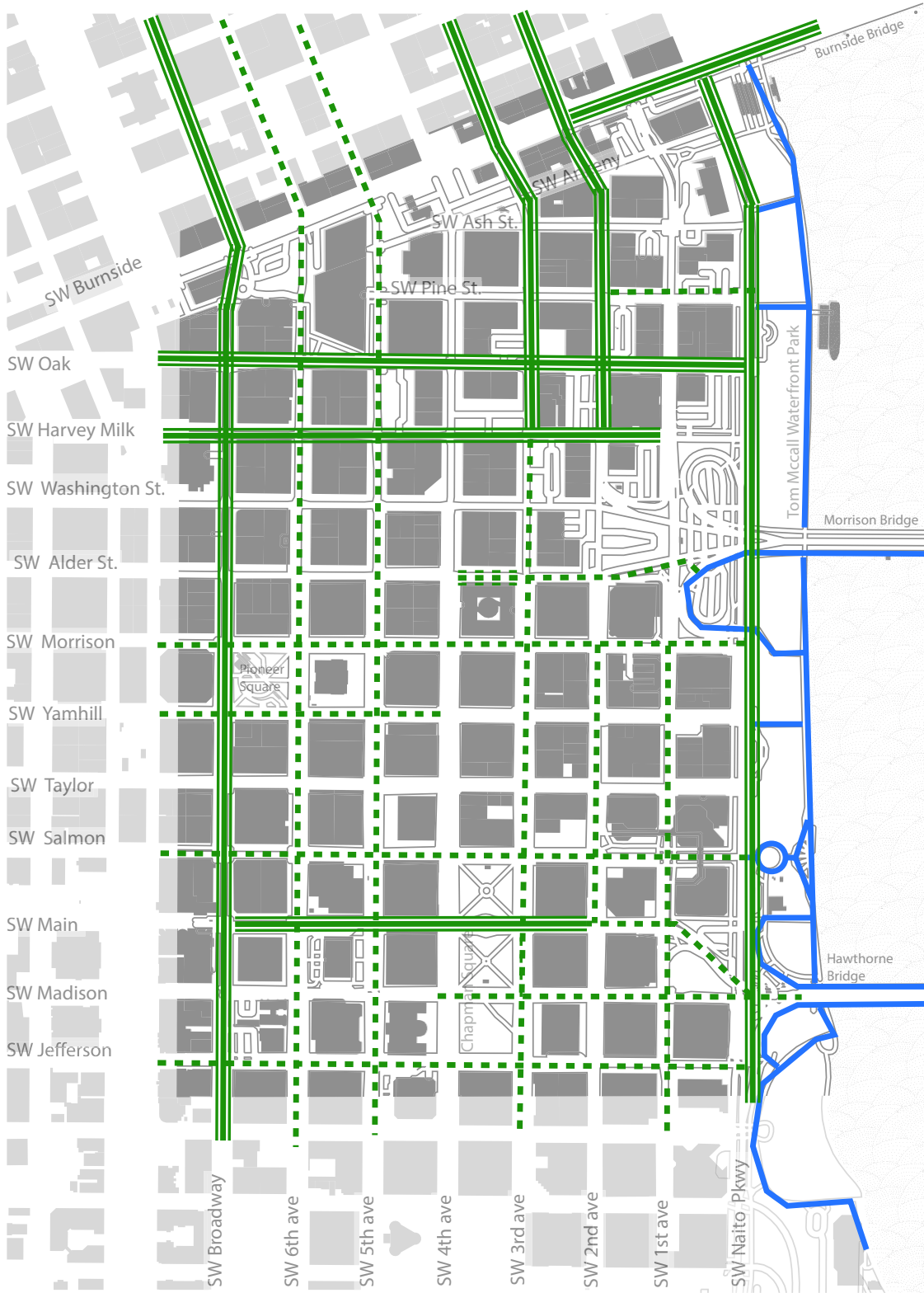
◀ Flow of Traffic




Average Daily Traffic (ADT)  
14,340 > 6,290



# TRANSPORTATION

## BIKE PATHS

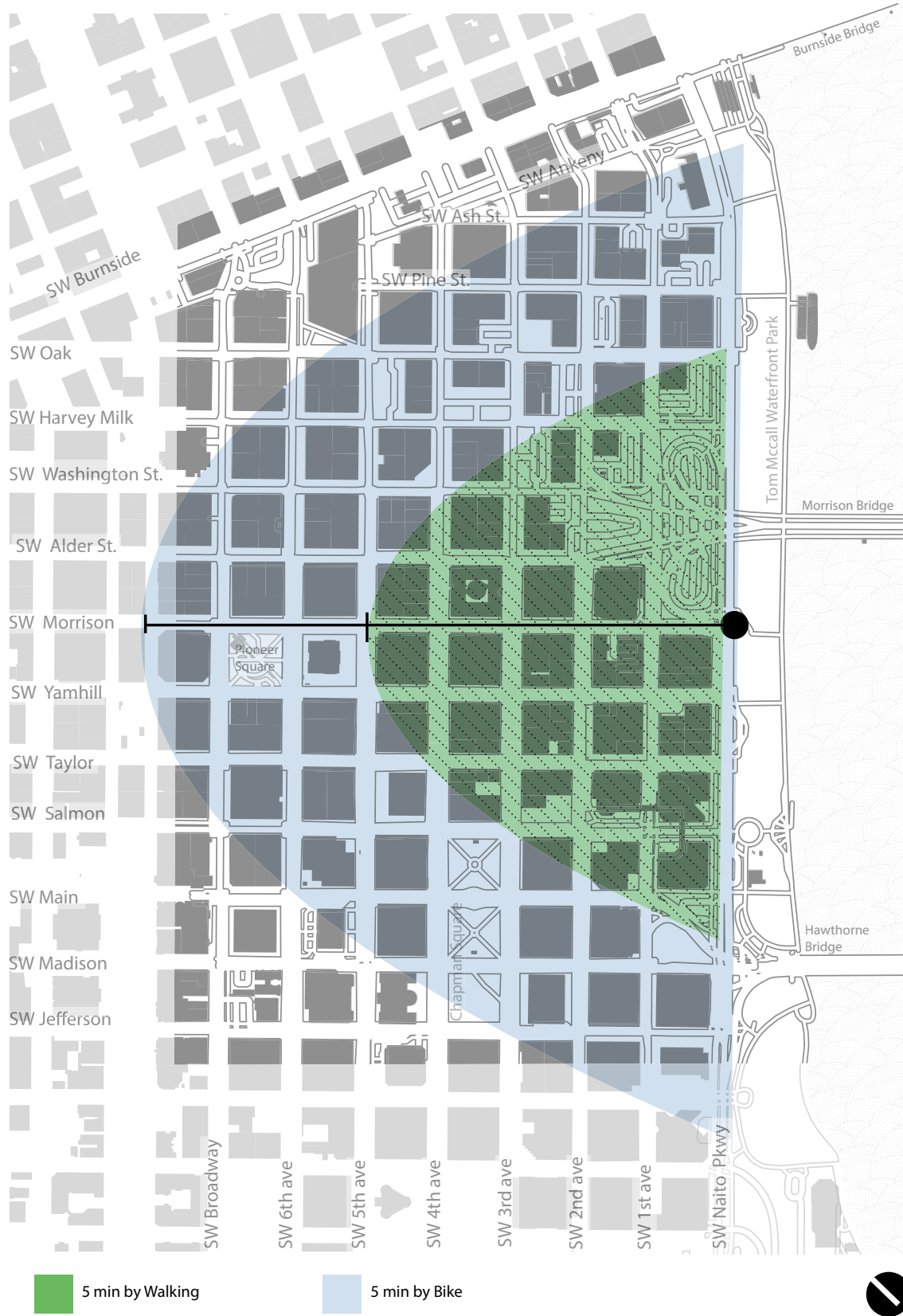


-  Protected Bike Lane
-  Shared Roadways with Bike Lanes
-  Mix-use Bike Path



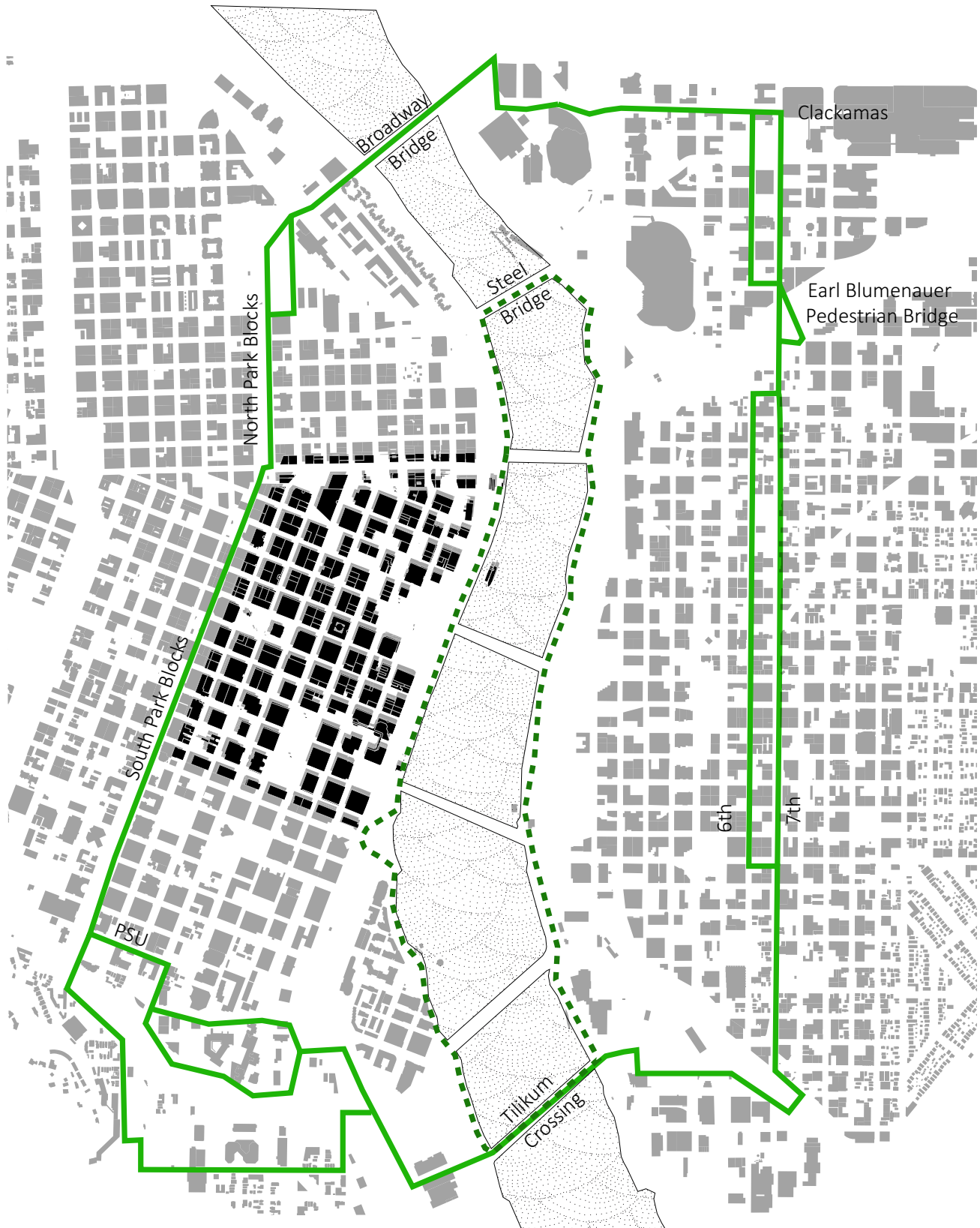
EMMA PAGET AND EJ DEL ROSARIO

# TRANSPORTATION TRAVEL TIMES



# TRANSPORTATION

## CC2035 GREEN LOOP

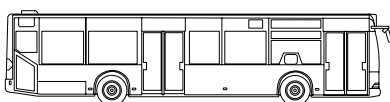
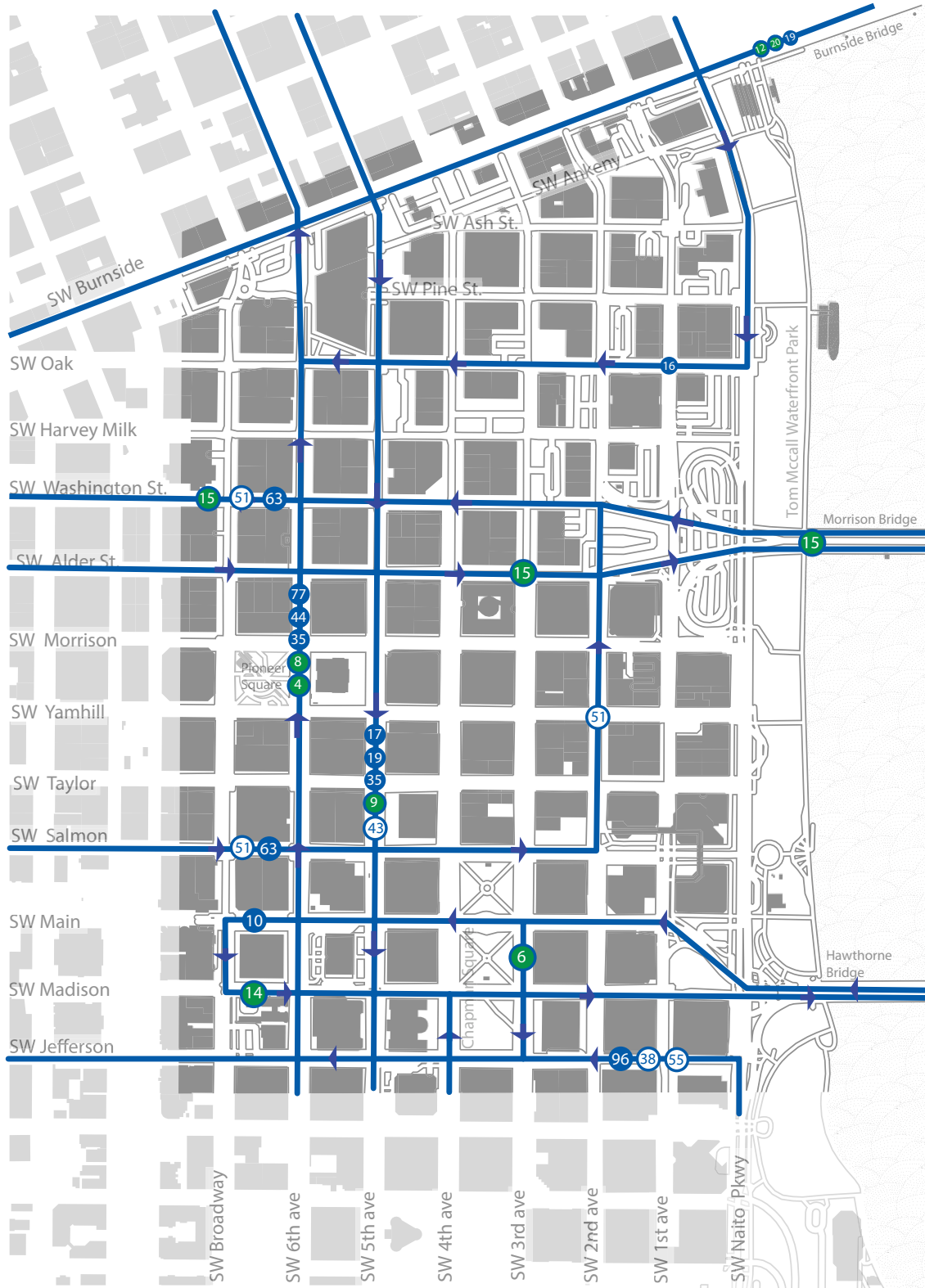


- CC2035 Green Loop
- - - - - Naito Pkwy/Vera Katz Eastbank Esplanade

EMMA PAGET AND EJ DEL ROSARIO



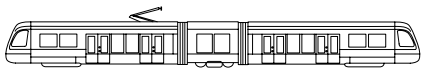
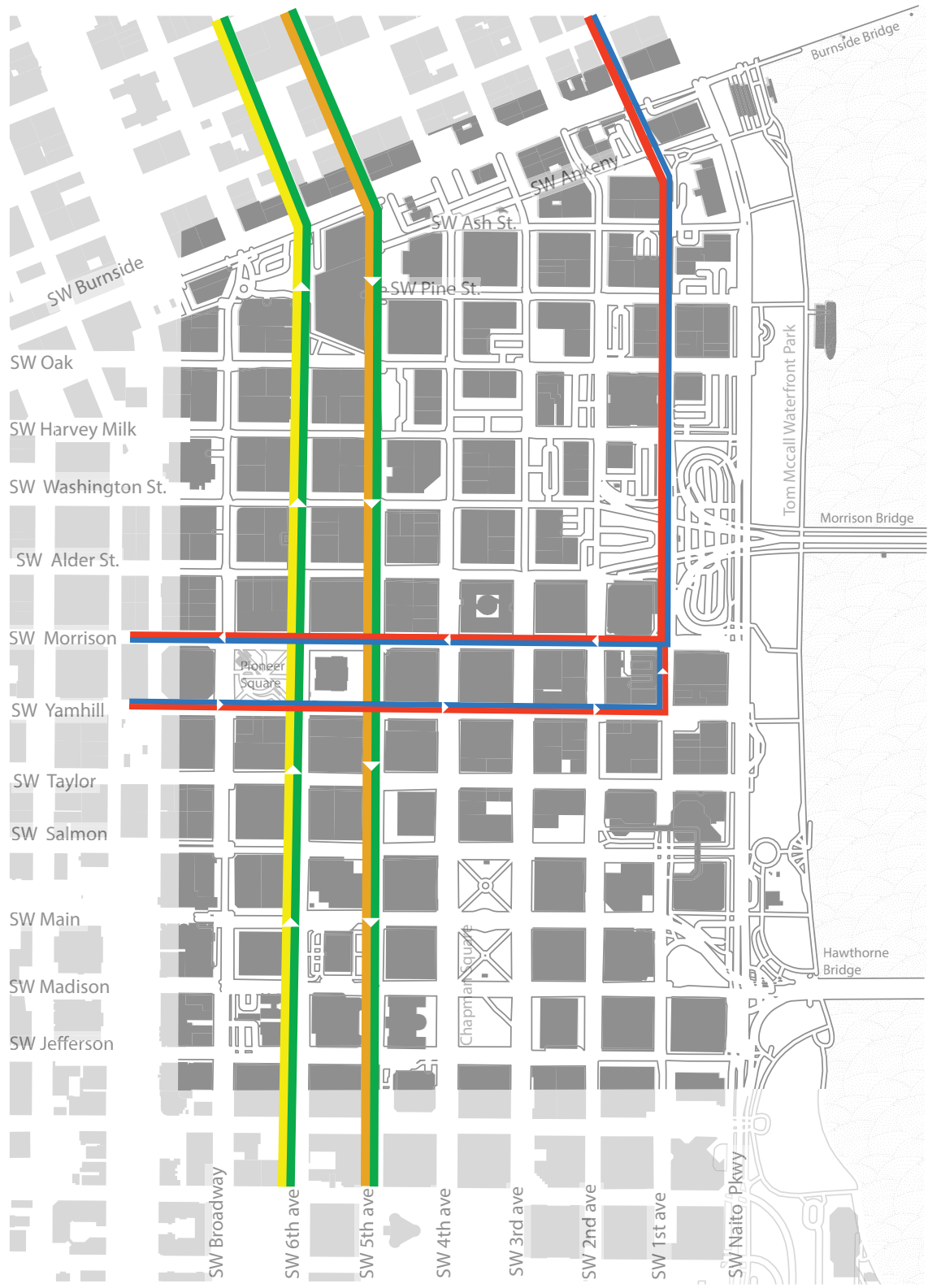
# TRANSPORTATION BUS ROUTES



- 16 Standard Service
- 51 Rush Hour Service
- 20 Frequent Service



# TRANSPORTATION MAX ROUTES



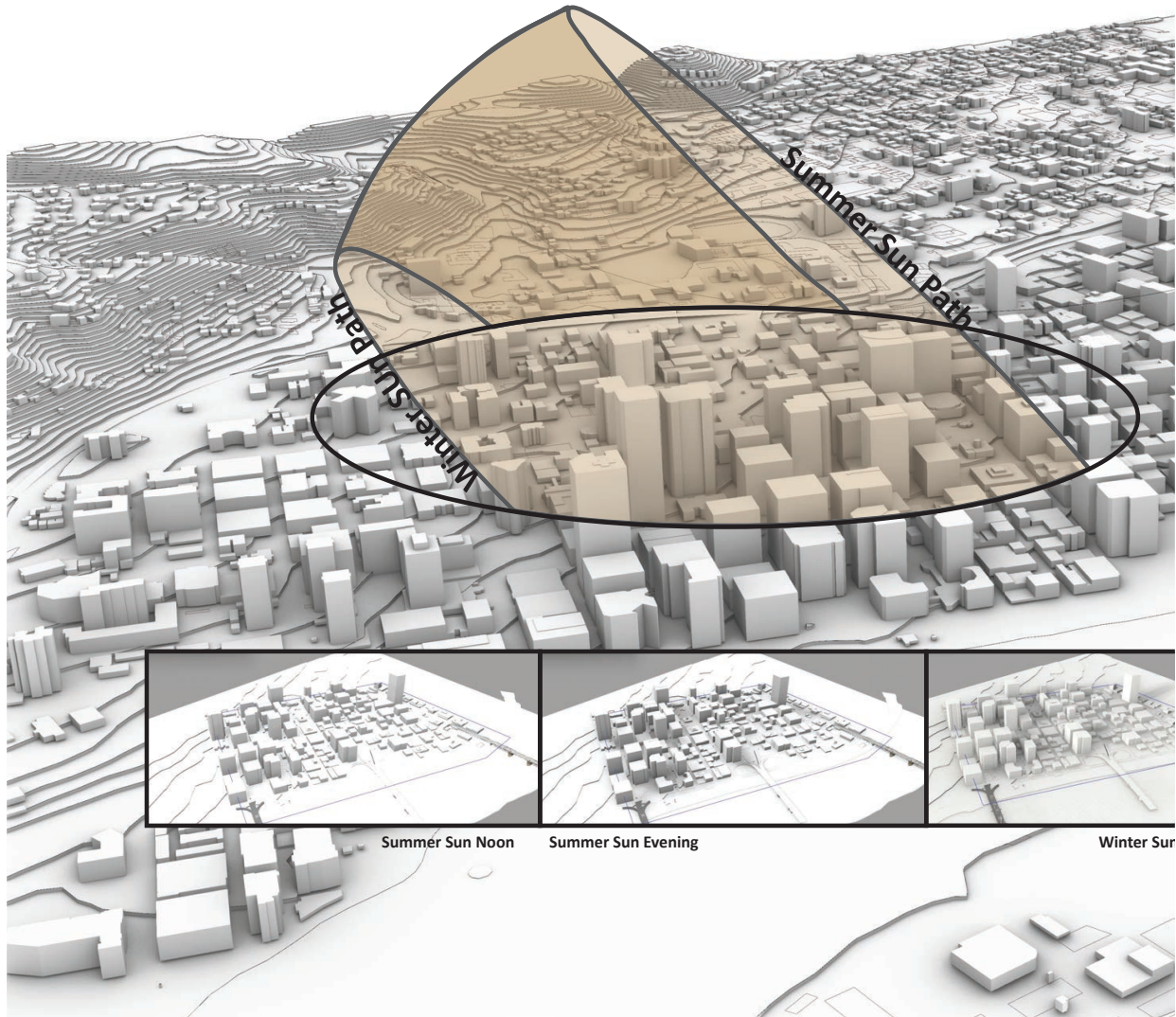
- Airport/Beaverton
- Clackamas/PSU
- Expo Center/PSU
- Hillsboro/Gresham
- Milwaukie





# ENVIRONMENTAL INFO

**ENVIRONMENTAL INFO**  
SOLAR STUDY

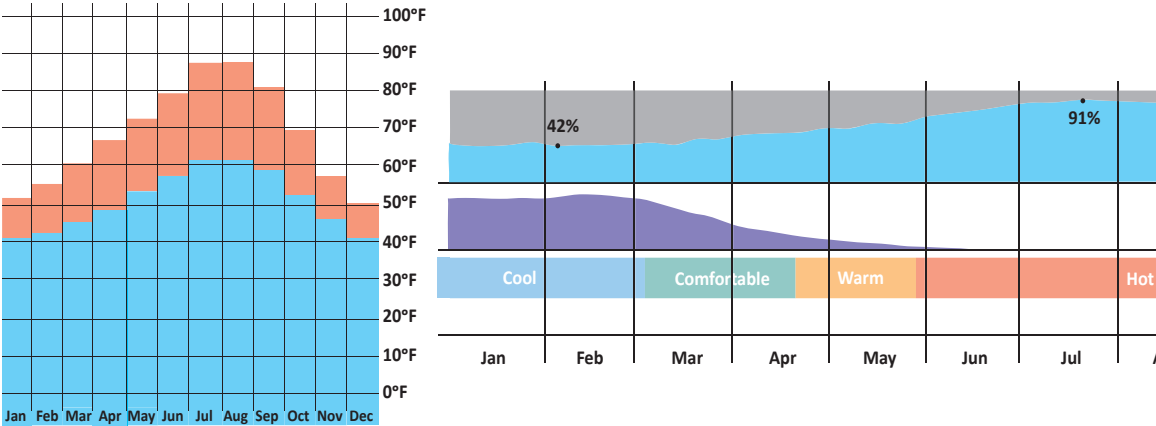


ISABEL HOFF AND THALIA KIERSTEAD

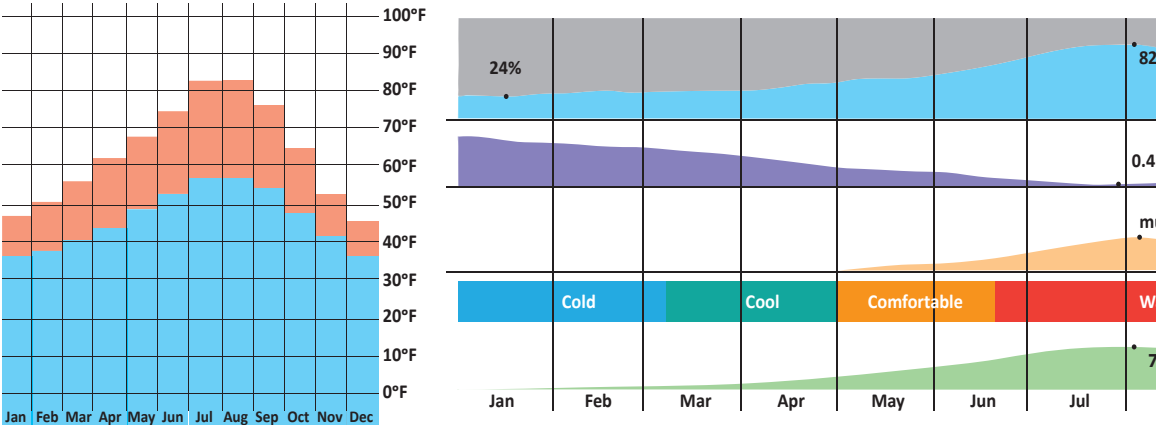
# ENVIRONMENTAL INFO

## ENVIRONMENTAL COMFORT

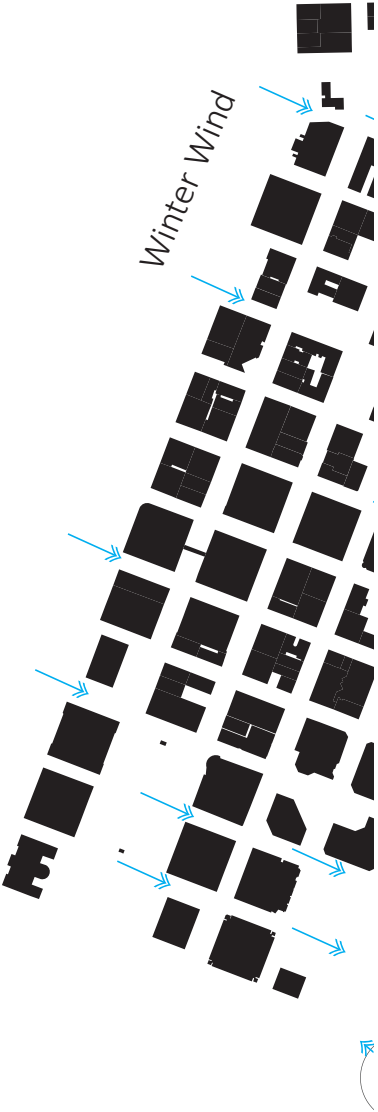
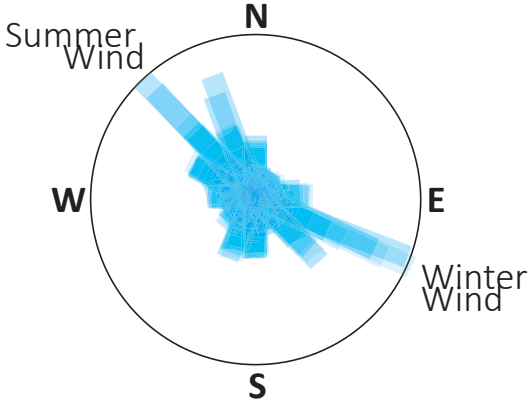
### Projected Change



### Conditions as of 2023



**ENVIRONMENTAL INFO**  
WIND STUDY



ISABEL HOFF AND THALIA KIERSTEAD

# ENVIRONMENTAL INFO

## GREENERY PLAN



ISABEL HOFF AND THALIA KIERSTEAD

# ENVIRONMENTAL INFO

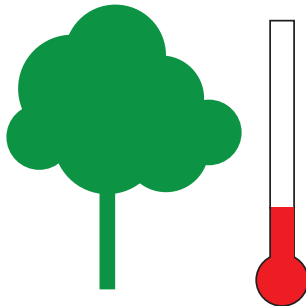
## GREENERY BENEFITS



Trees, green roofs and vegetated areas increase the time it takes stormwater to reach a larger body of water. This decreases the amount of runoff, erosion and flooding from storm events



Bringing nature into a city psychologically connects people to the environment. By integrating ecological systems into the city people can directly see the impact of day to day life on nature.



Trees and other greenery absorb and re-emit solar heat much less than buildings roads and other infrastructure, leading to overall cooler temperatures at all times of day.



# ENVIRONMENTAL INFO

## WATERFRONT ECOLOGY- PLANTS



### Native Plants of Portland’s Deciduous Forested Wetlands and Floodplains

Healthy native plants provide habitat and food for native wildlife, enhance air quality by trapping particulates, enhance water quality by filtering sediments, stabilize streambanks, and serve many other important ecosystem and community functions. Below is a list of commonly found species.

#### TREES

- |   |                     |
|---|---------------------|
| <i>Alnus rubra</i>                                    | Red Alder           |
| <i>Crataegus gaylussacia</i>                          | Suksdorf’s hawthorn |
| <i>Fraxinus latifolia</i>                             | Oregon Ash          |
| <i>Populus balsamifera</i> var.<br><i>trichocarpa</i> | Black Cottonwood    |
| <i>Populus tremuloides</i>                            | Quaking Aspen       |
| <i>Salix lasiandra</i> var. <i>lasiandra</i>          | Pacific Willow      |
| <i>Salix scouleriana</i>                              | Scouler Willow      |
| <i>Acer macrophyllum</i>                              | Bigleaf Maple       |
| <i>Crataegus gaylussacia</i>                          | Suksdorf’s hawthorn |
| <i>Frangula purshiana</i>                             | Cascara, chitum     |
| <i>Quercus garryana</i>                               | Oregon White Oak    |
| <i>Salix prolixa</i>                                  | Rigid Willow        |

#### SHRUBS

- |   |                       |
|---|-----------------------|
| <i>Amelanchier alnifolia</i>                        | Western Serviceberry  |
| <i>Cornus sericea</i>                               | Redosier dogwood      |
| <i>Oemleria cerasiformis</i>                        | Indian Plum           |
| <i>Physocarpus capitatus</i>                        | Pacific Ninebark      |
| <i>Rosa gymnocarpa</i>                              | Baldhip Rose          |
| <i>Rosa nutkana</i>                                 | Nootka Rose           |
| <i>Salix exigua</i> var. <i>columbiana</i>          | Columbia River Willow |
| <i>Sambucus nigra</i> ssp. <i>caerulea</i>          | Blue Elderberry       |
| <i>Sambucus racemosa</i> var.<br><i>arborescens</i> | Red Elderberry        |
| <i>Symphoricarpos albus</i>                         | Common Snowberry      |

#### HERBACIOUS, GRASSES, ETC.

- |   |                         |
|---|-------------------------|
| <i>Angelica arguta</i>                    | Sharptooth Angelica     |
| <i>Arnica amplexicaulis</i>               | Clasping Arnica         |
| <i>Athyrium filix-femina</i>              | Lady Fern               |
| <i>Bromus carinatus</i>                   | California Brome        |
| <i>Claytonia perfoliata</i>               | Miner’s Lettuce         |
| <i>Claytonia sibirica</i>                 | Candy Flower            |
| <i>Cyperus erythrorhizos</i>              | Red-Rooted flatsedge    |
| <i>Cyperus squarrosus</i>                 | Awned flatsedge         |
| <i>Cyperus strigosus</i>                  | Straw-colored flatsedge |
| <i>Elymus glaucus</i> ssp. <i>glaucus</i> | Blue Wildrye            |
| <i>Equisetum arvense</i>                  | Common Horsetail        |
| <i>Galium trifidum</i>                    | Small Bedstraw          |
| <i>Heracleum maximum</i>                  | Cow parsnip             |
| <i>Juncus ensifolius</i>                  | Dagger-leaf Rush        |
| <i>Polypodium glycyrrhiza</i>             | Licorice Fern           |
| <i>Polystichum munitum</i>                | Sword Fern              |
| <i>Pteridium aquilinum</i>                | Bracken                 |
| <i>Ranunculus occidentalis</i>            | Western Buttercup       |
| <i>Ranunculus uncinatus</i>               | Little Buttercup        |
| <i>Scirpus cyperinus</i>                  | Wooly Sedge             |
| <i>Tellima grandiflora</i>                | Fringecup               |
| <i>Urtica dioica</i> ssp. <i>gracilis</i> | Stinging Nettle         |
| <i>Vancouveria hexandra</i>               | Inside-out Flower       |

# ENVIRONMENTAL INFO

## WATERFRONT ECOLOGY- ANIMALS



### Fish & Wildlife

The Willamette River is critical habitat for salmon, steelhead, lamprey, and other fish listed on the Endangered Species Act. Raptors rely on Willamette fish for food, while other birds subsist on riparian plants. Below is a life of some fish and wildlife that are found in and around the Willamette.

#### Fish:

chinook and coho salmon, largescale sucker, cutthroat and rainbow/steelhead trout, smallmouth bass, common carp

#### Birds that fish and nest on the river:

raptors: osprey, bald eagles, peregrine falcons

other: gulls, double-crested cormorants, Canada geese, cackling geese

#### Birds in the tree canopy:

robins, spotted towhees, juncos, Swainson's and varied thrushes, brown creepers, Pacific-slope flycatchers, Wilson's warblers, black-throated gray warblers, ravens, woodpeckers

# ENVIRONMENTAL INFO

## WATERFRONT ECOLOGY- IMPLEMENTATION



### How to Create a Healthy Habitat for Salmon

In its current condition, the Willamette River in downtown Portland is too deep for young salmon to comfortably swim downstream. Places where salmon can rest are shallow and rocky, such as on naturally gradient riverbanks, by fallen logs or beaver dams.

The above image shows Portland's South Waterfront redevelopment. Aspects of this design that are beneficial to salmon and other native species include the gradual slope of gravel and rocks at the river's edge and the vegetation of varied heights growing along the riverbank, which filter pollutants before runoff enters the river and provide food and habitat to wildlife. The wooden remnants of an old dock are also beneficial to salmon, as they provide shelter from fast currents. Below are images of an object designed to have a similar effect.



# ENVIRONMENTAL INFO

## WATER MANAGEMENT



### Sustainable Drainage Systems and Design for Stormwater Management

Impermeable surfaces in the city block rainfall from enter the ground, causing flooding, evaporative loss of water that should contribute to groundwater, and collecting pollutants from asphalt and other substances that are on the asphalt, such as gasoline. To prevent flooding, maintain clean natural waterways, and protect the health of Portland’s inhabitants, both human and non-human, stormwater must be sustainably managed. Urban design and architecture can help by slowing down the progress of rainwater from a site, cooling down the collected or passing water, and filtering it before releasing the water back into the ground or river. The following three categories describe approaches to sustainable drainage systems at different scales:

Source control and prevention techniques: green roofs, permeable pavements, rain water harvesting, infiltration trenches, and infiltration basins.

Permeable conveyance systems: filter drains and swales.

Passive treatment systems: filter strips, detention basins, retention ponds, and wetlands.

Trees collect up 27% of stormwater upon rainfall, decreasing runoff significantly. Designing stormwater management systems in harmony with the natural flow of water in the landscape is key. Take note of the site’s topography, native species, and other natural components.

# ENVIRONMENTAL INFO

## TOPOGRAPHY



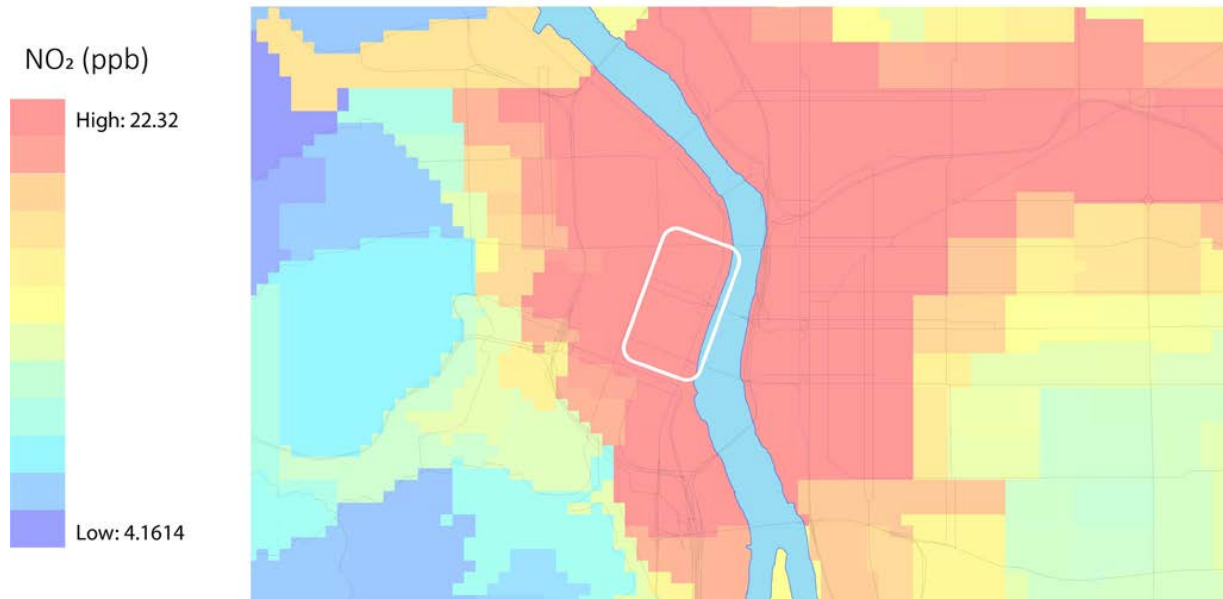
### Topography of Downtown Portland

The topography of the land on which downtown Portland was built slopes from hills in the west down toward the Willamette River. As indicated by the contour lines in the map pictured above, southwest of downtown is a steep hillside which, through the city center, gradually descends toward the river's edge. This slope naturally leads stormwater runoff toward the river.

It is important to consider the topography of the landscape when designing systems for stormwater management because it is ideal to use natural slope and gravity to guide water through planted filtration systems before the water flows into the river. Plants help reduce erosion by holding soils in place with their roots, and they filter pollutants in the water and the air, cleaning two of the most important elements for human and animal survival. Designing spaces for plants along all levels of the natural topography will help reduce pollutants in stormwater at varying stages of the water's progression from rainfall to runoff.

# ENVIRONMENTAL INFO

## AIR QUALITY



### Air Pollution in Downtown Portland

The graphic above shows a heat map of air pollution in the city of Portland, measured in nitrogen dioxide (NO<sub>2</sub>) particulates per billion. NO<sub>2</sub> is a good indicator of other air pollutants, particularly those emitted by combustion-engine vehicles.

The entirety of downtown Portland and its surroundings fall within the highest category of air pollution recorded in the city. This indicates that downtown Portland is heavily impacted by vehicular emissions, despite the fact that the city's center is very well connected to transit and bike access routes.

How can urban designers improve air quality downtown?

Reduce vehicular traffic downtown.

- improve transit and bike access citywide
- reduce commuting by creating residences downtown so people can walk from home to other downtown destinations

Plant more trees and greenery, which trap particulates and create more oxygen through photosynthesis. Larger, older trees have the greatest impact.

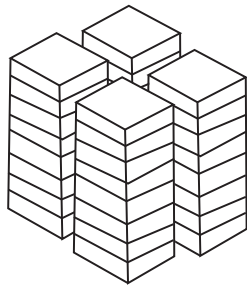
# ENVIRONMENTAL INFO

## BUILDING ENERGY PERFORMANCE

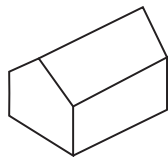


# ENVIRONMENTAL INFO

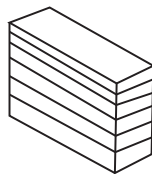
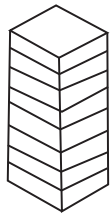
## BUILDING PERFORMANCE BY TYPOLOGY



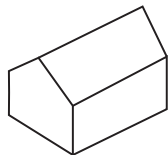
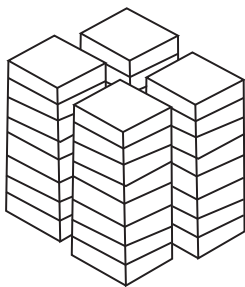
Compact urban blocks perform the best in terms of kWh consumption



Detached single family homes perform the worst in terms of kWh consumption



High-rise apartments and slab housing can perform very well



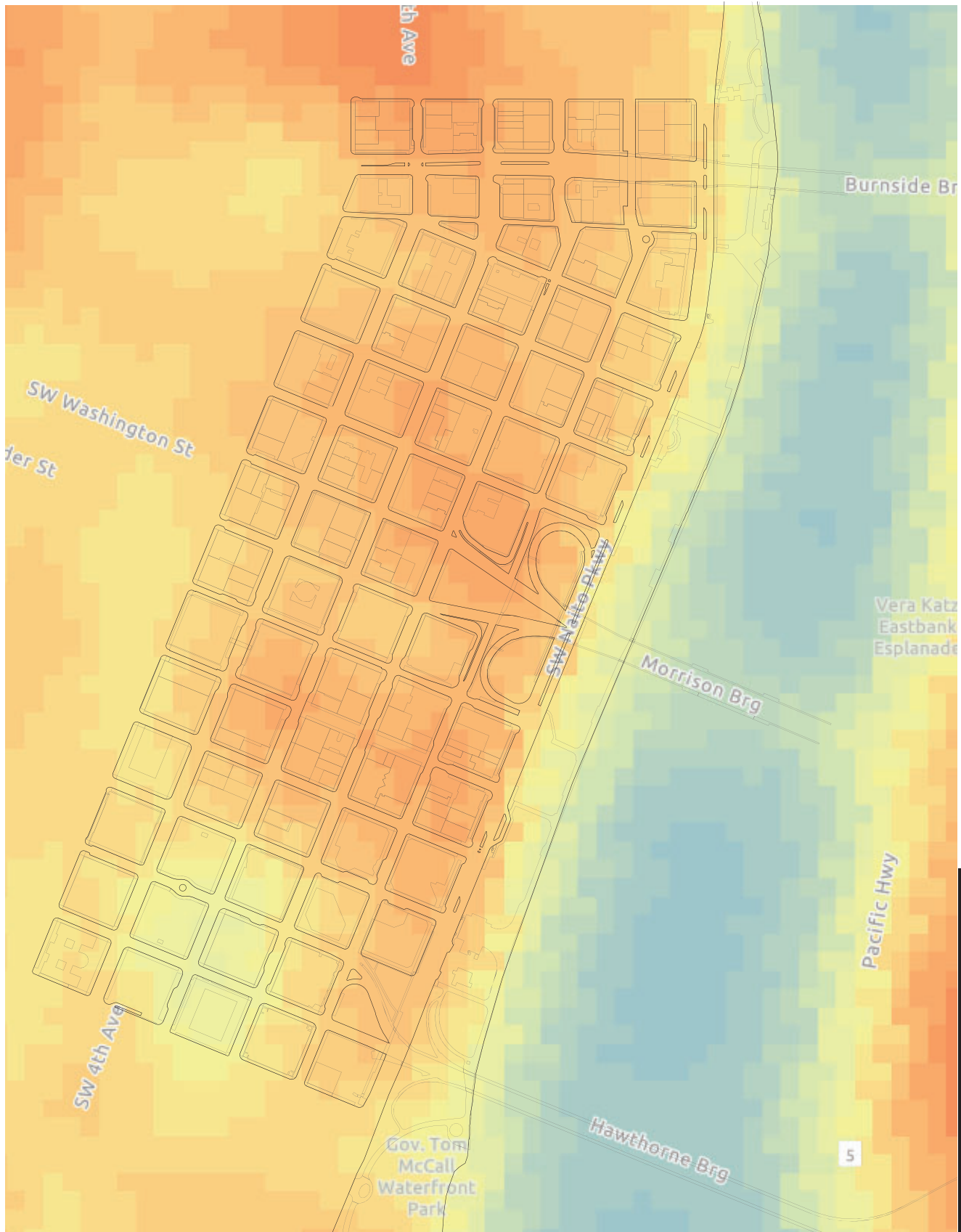
Higher density is correlated with lower energy demand

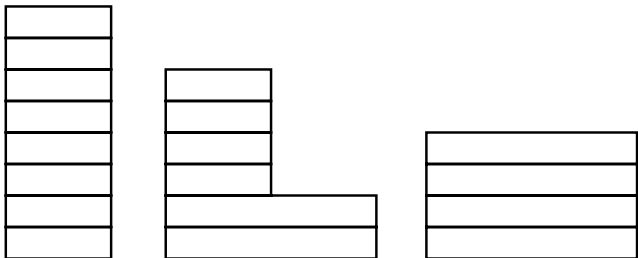




# ENVIRONMENTAL INFO

## HEAT INDEX

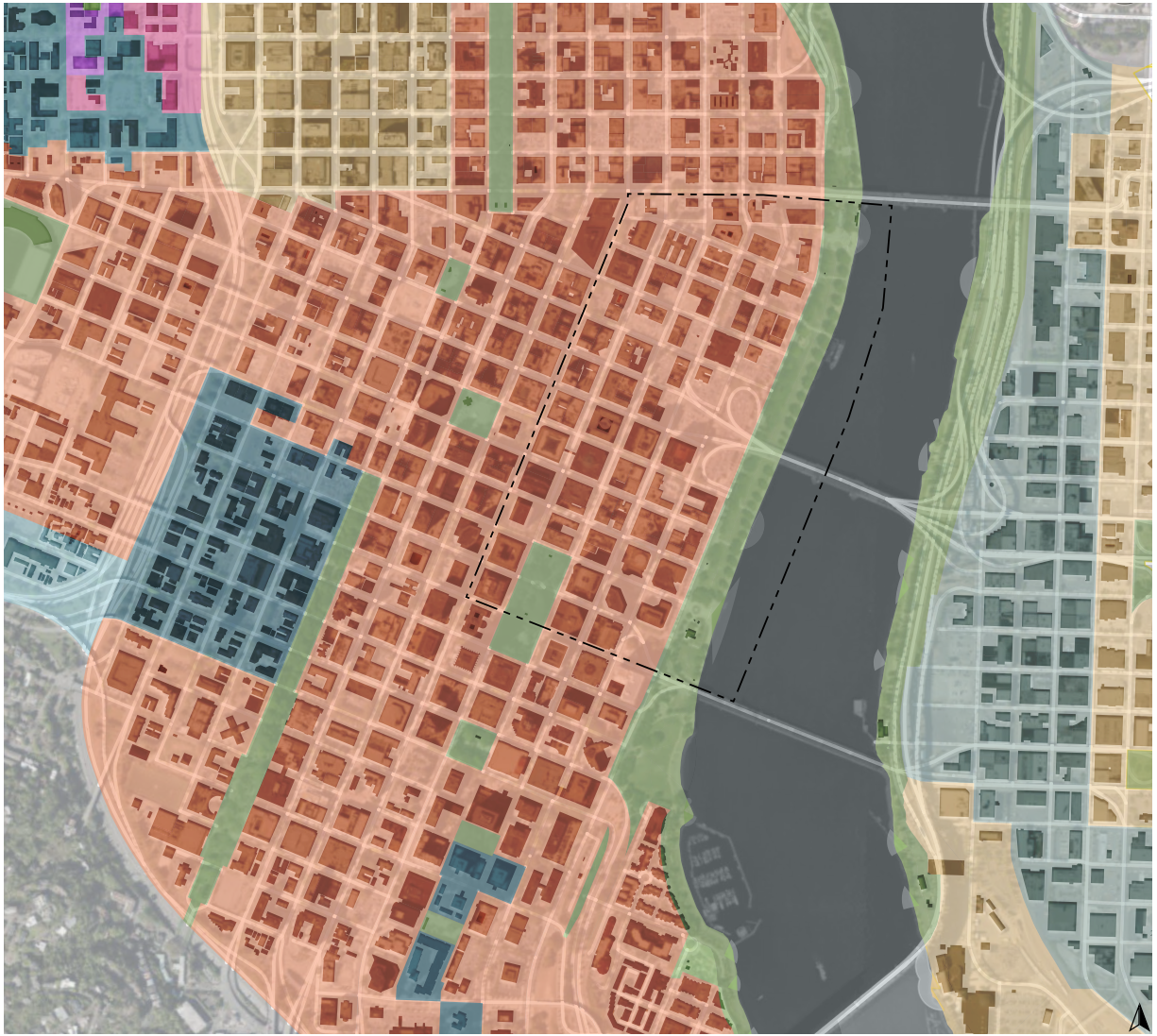













# ZONING

# ZONING

## ZONING MAP



- |   |                              |   |                                    |
|---|------------------------------|---|------------------------------------|
|  | Central Commercial (CX)      |  | General Industrial (IG1)           |
|  | Central Employment (EX)      |  | Central Residential (RX)           |
|  | Commercial Mixed Use 2 (CM2) |  | Residential Multi-Dwelling 4 (RM4) |
|  | Commercial Mixed Use 3 (CM3) |  | Residential Multi-Dwelling 3 (RM3) |
|  | Open Space (OS)              |   |                                    |

# ZONING

## Overlays and Plan Districts



- Central City
- A Central Eastside
- B Downtown
- C Goose Hollow
- D Old Town/ chinatown
- E Pearl
- F University/ South Downtown
- G West end
- Northwest
- South Auditorium



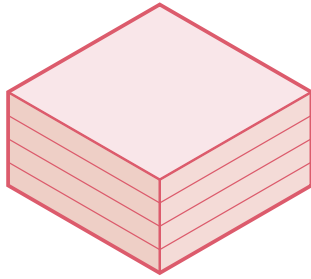
- New Chinatown/Japantown
- Skidmore/Old Town
- Alphabet
- Yamhill
- South Park Blocks
- 13th Avenue
- Sequenc

\*Plan Overlays or Historic Districts may have more strict zoning requirements than the general zoning code. i.e. height, density, material, character, setbacks, etc.

# ZONING

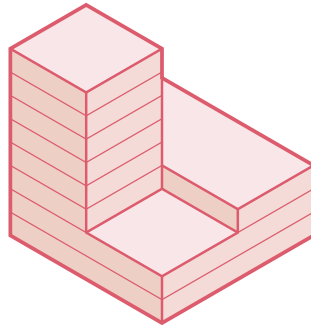
## FAR: HOW IT WORKS

$$\text{Floor Area Ratio} = \frac{\text{Total Building Area}}{\text{Area of Site}} \rightarrow \frac{160,000 \text{ sq ft}}{200 \text{ ft} \times 200 \text{ ft}} = 4$$



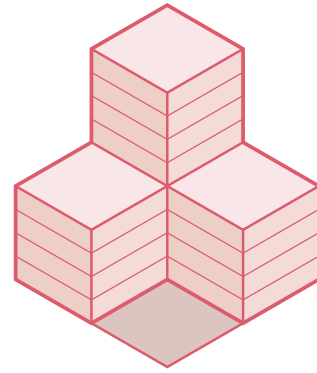
**SCHEME A**

FAR 4:1 (4)  
 LOT COVERAGE 100%  
 HEIGHT ~40'



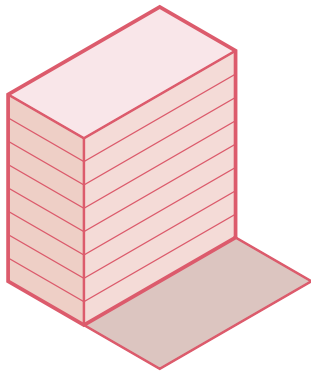
**SCHEME B**

FAR 4:1 (4)  
 LOT COVERAGE 100%  
 HEIGHT ~80'



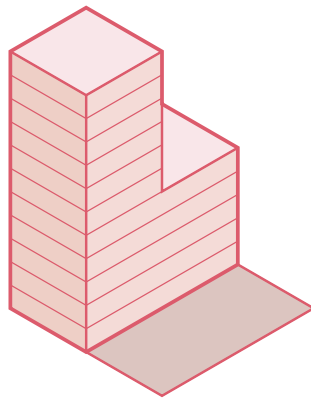
**SCHEME C**

FAR 4:1 (4)  
 LOT COVERAGE 75%  
 HEIGHT ~80'



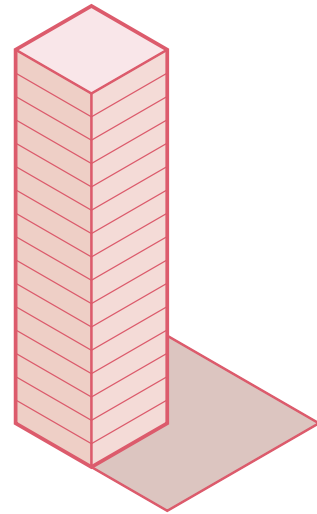
**SCHEME D**

FAR 4:1 (4)  
 LOT COVERAGE 100%  
 HEIGHT ~80'



**SCHEME E**

FAR 4:1 (4)  
 LOT COVERAGE 50%  
 HEIGHT ~110'

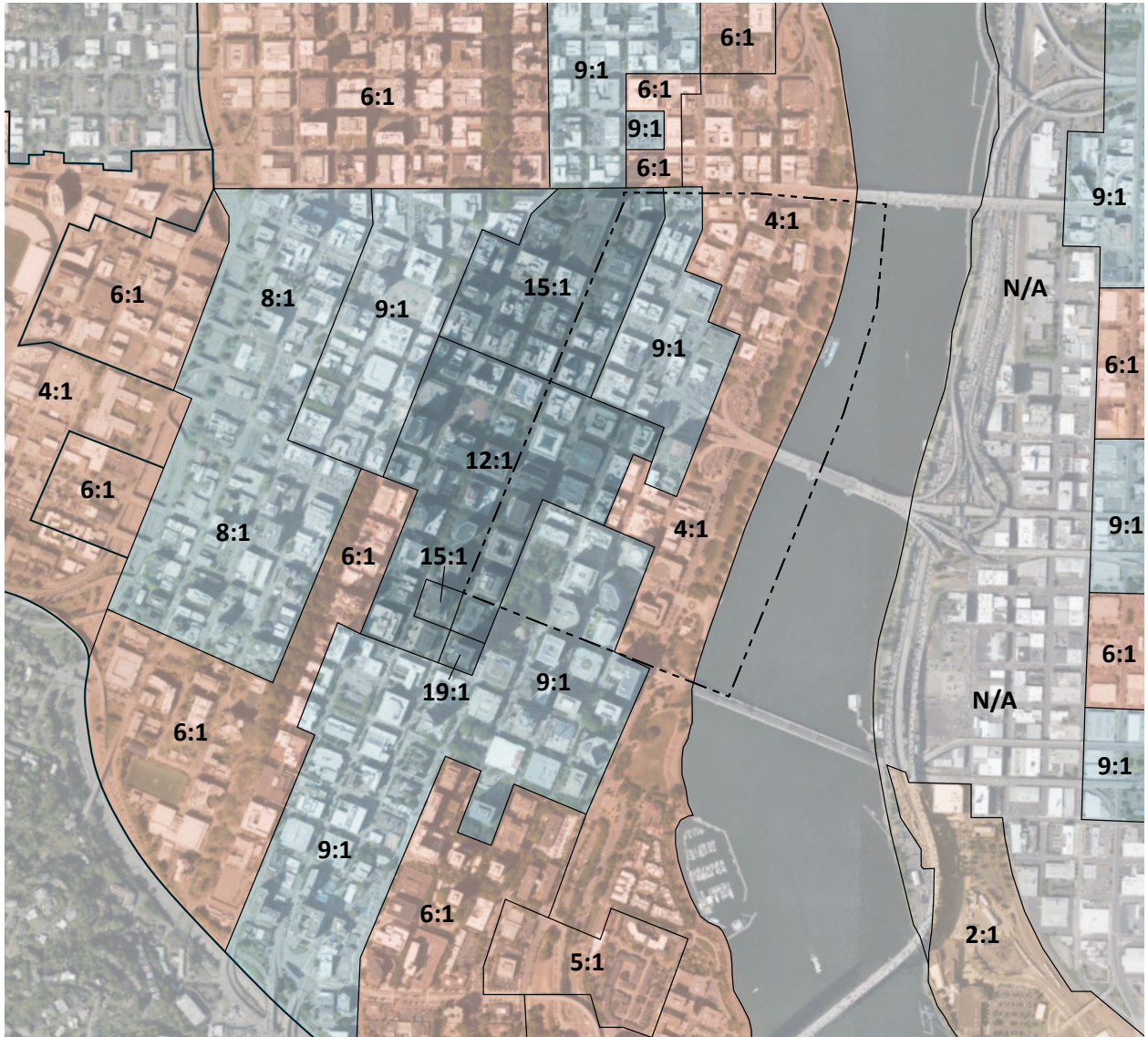


**SCHEME F**

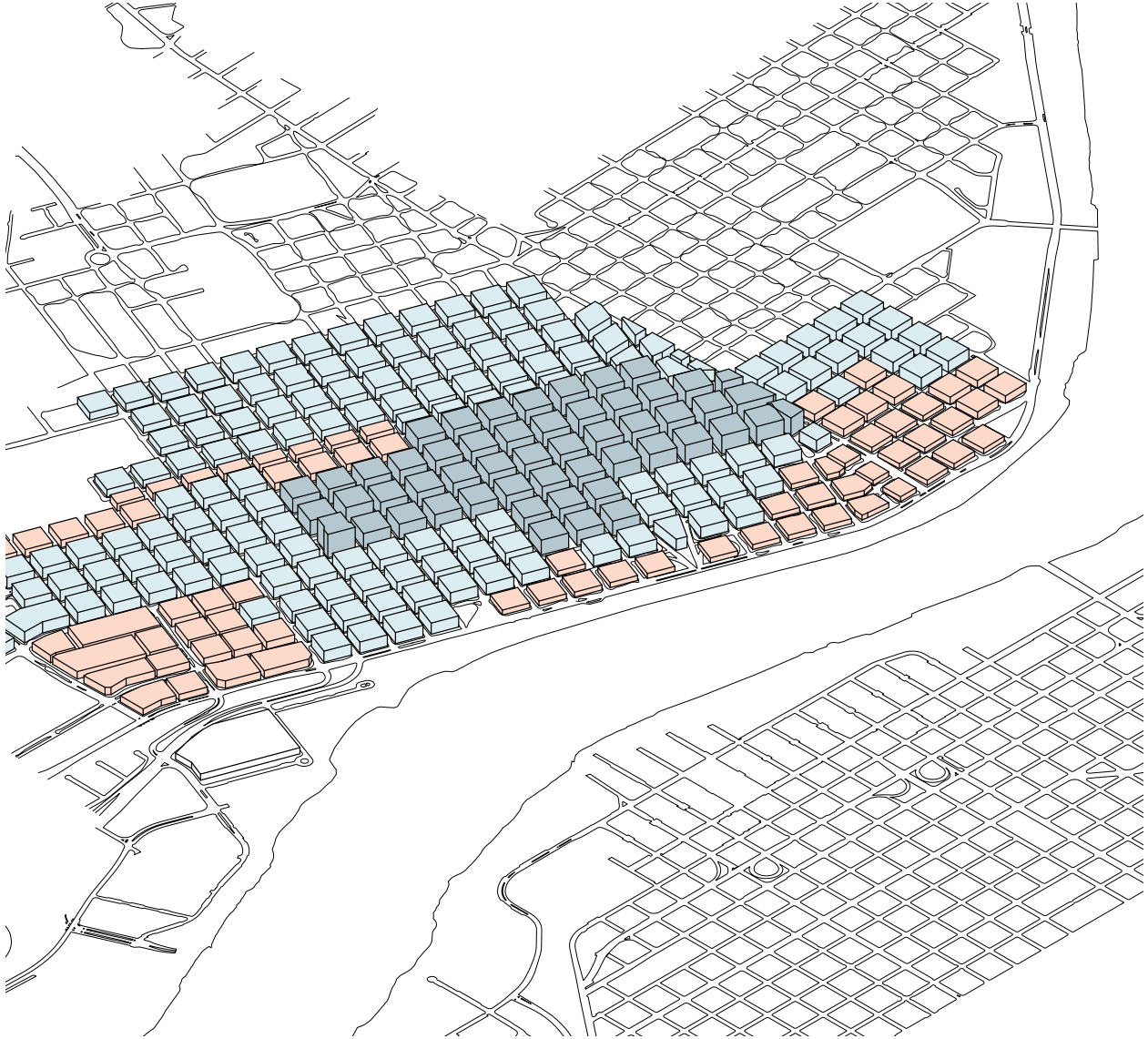
FAR 4:1 (4)  
 LOT COVERAGE 25%  
 HEIGHT ~160'

# ZONING

## FAR: LIMITS

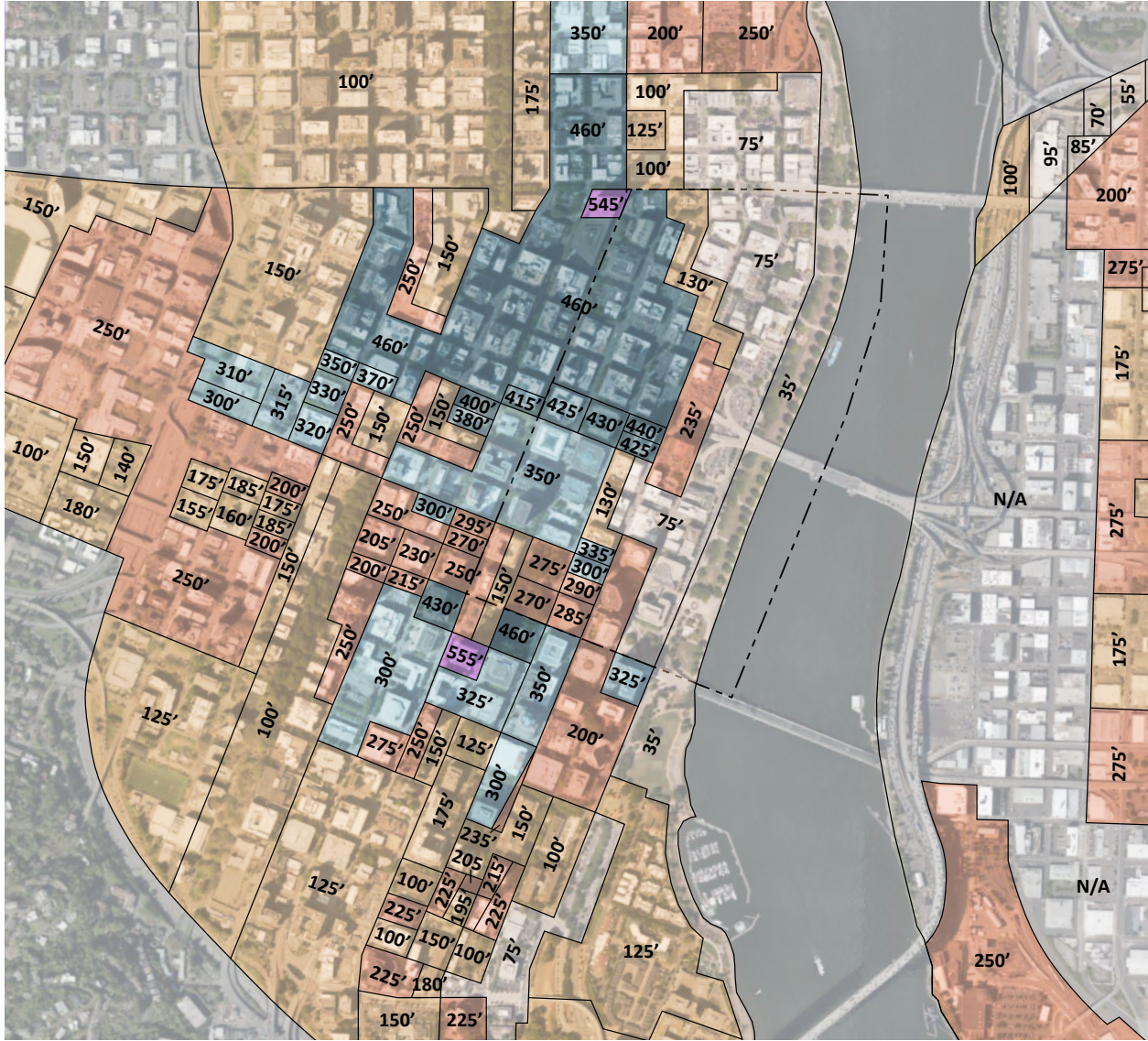


# ZONING FAR AXON



# ZONING

## HEIGHT LIMITS





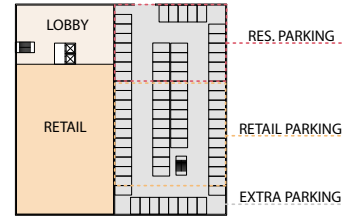
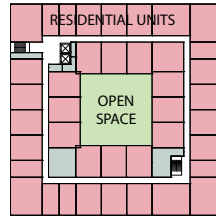
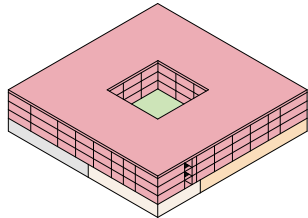
# ZONING FAR AXON



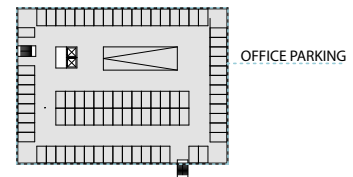
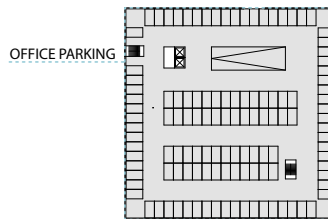
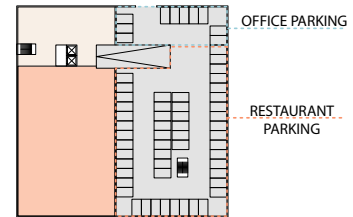
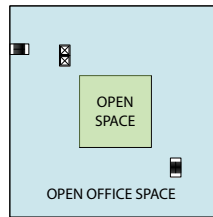
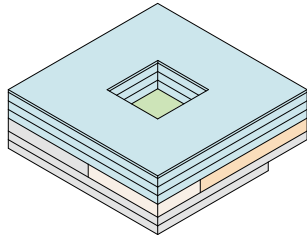
# ZONING

## PARKING REQUIREMENT EXAMPLES

SCHEME A: RESIDENTIAL AND RETAIL			
# UNITS/ SQ FT	PARKING RATIO	REQ. PARKING	
117 UNITS	.33 PER UNIT		39
13,065 SF	1 PER 500 SF		26
<b>TOTAL:</b>			<b>65</b>



SCHEME B: OFFICE AND RESTAURANT			
USE AND SF	PARKING RATIO	REQ. PARKING	
OFFICE - 104,330 SF	1 PER 500 SF		209
RESTAURANT - 13,065 SF	1 PER 250 SF		52
<b>TOTAL:</b>			<b>261</b>



REQUIRED PARKING								
USE	Household Living	Group Living	Retail and Sales	Restaurants/Bar	Health Clubs/ Gyms	Office	Commercial Outdoor Rec	Major Event Entertainment
PARKING RATIO	0 for 1-30 units 0.2 per unit for 31-40 units 0.25 per unit for 41-50 units 0.33 per unit for 51+ units	1 per 4 residents	1 per 500 sf	1 per 250 SF	1 per 330 SF	1 per 500 SF	20 per acre	1 per 8 Seats

# ZONING GENERAL INFORMATION

Code Chapter	Description	Central Commercial
33.510.116	Uses	<p>Retail Sales and Service uses are limited to 50,000 sq ft of net building area per use.</p> <p>Allowed Uses: Household living, group living, retail sales and services, office, commercial outdoor recreation, major event entertainment, parks and open area, schools, colleges, medical centers, religious institutions, daycare.</p> <p>Conditional Uses: commercial parking, manufacturing and production, industrial service, basic utilities, community service, aviation and surface passenger terminals, agriculture, detention facilities, radio frequency transmission facilities, and rail lines/utility corridors</p>
Table 130-2	Setbacks	<p>Front: N/A Rear: N/A Side: N/A Max Street Setback: 10'</p> <p>Abutting Civic Corridors: 10' Within 15' of lot line across from a local service street RF-R-2.5 and RM1 and RMP zones: 5 or 10' Abutting RF, RM4, RMP, or IR zoned lot: 10'</p>
33.510.200.C	FAR	<p>Maximum FAR can be increased on a site if FAR is transferred (historic districts) or earned through a bonus.</p> <p>Standard for zone 4:1 - increased through central district overlay</p> <p>Minimum FAR 1:1 for sites with 1:1 to 4:1 ratio Minimum FAR 2:1 for sites with 5:1 to 8:1 ratio Minimum FAR 3:1 for sites with 9:1 + ratios</p>
Table 130-2	Building Coverage	Max Building Coverage = 100%
Table 130-2	Height	Base Height 75' - see central district overlay for any changes
33.510.210		<p>Goals:</p> <ul style="list-style-type: none"> <li>• Locate tallest buildings along Transit mall</li> <li>• Protect designated public views</li> <li>• Vary Building Height Across Central City</li> <li>• Generally step down height to Willamette River</li> <li>• Emphasize bridgehead locations with taller buildings</li> <li>• Limit shadows on public open spaces</li> <li>• Ensure building height compatibility within historic districts</li> </ul> <p>Exceptions:</p> <ul style="list-style-type: none"> <li>• Chimneys, vents, flagpoles, satellites, and other items attached to a building may extend 10' above base height.</li> <li>• Parapets and rooftop railings may extend 4' above base height.</li> <li>• Elevator equipment may extend 16' above base height.</li> <li>• Other mechanical equipment may extend 10' above base height limit with 15' setback from exterior wall.</li> </ul>
33.510.225	Ground Floor Uses	<p>Active uses include lobbies, retail, commercial, and office uses. They do not include storage, vehicle parking, garbage, recycling, mechanical, or utility uses.</p> <p>Dwelling units are prohibited on the ground floor.</p> <p>Minimum height 12' (finished floor to bottom of ceiling) Minimum depth 25'</p>
33.510.255.K	Open Space	<p>At least 20,000 sq ft or 50% (whichever is less) of required open area must be designed as parks or plazas with a min 50'x50' dimension.</p> <ul style="list-style-type: none"> <li>• Bike and pedestrian access may not be more than 25% of space</li> <li>• Must meet small or large tree coverage requirements</li> <li>• Parks and plazas must be sited so that a max of 50% of the park is in shade at noon on March 21, June 21 and September 21</li> </ul>
Table 510-1           Table 266-1	Parking	<p>Downtown Core Parking Ratios:</p> <ul style="list-style-type: none"> <li>• Maximum Parking <ul style="list-style-type: none"> <li>- Residential uses = 1.2</li> <li>- Office, retail sales, service, etc. = 1.0</li> <li>- Grocery = 2.0</li> <li>- Anchor Retail = 1.5</li> <li>- Hotel = 1 per room and 1 per 1,000 sq ft of meeting rooms</li> <li>- Manufacturing = 1.0</li> <li>- Medical Centers = 1.5</li> <li>- Community Service, Religious Institutions, Theaters = 0.5</li> <li>- Visitor parking = not applicable (no max, no min)</li> </ul> </li> <li>• Minimum Parking Household Living: <ul style="list-style-type: none"> <li>- 0 for 1-30 units</li> <li>- 0.2 per unit for 31-40 units</li> <li>- 0.25 per unit for 41-50 units</li> <li>- 0.33 per unit for 51+ units</li> </ul> </li> </ul> <p>Vehicle Access is prohibited along the following Streets:</p> <ul style="list-style-type: none"> <li>• 5th and 6th Avenues between NW Irving and SW Jackson</li> <li>• On SW Park between SW Jackson and SW Salmon</li> <li>• NW Park Ave and NW 8th Ave between W. Burnside and NW Lovejoy</li> <li>• SW Morrison and SW Yamhill between SW 1st and SW 18th Ave</li> <li>• 1st Ave between NW Davis Street and SW Stark</li> <li>• 1st Ave between SW Washington and SW Yamhill</li> </ul>
Code Chapter	Description	Open Space
33.510.115.A.	Uses	<p>May contain buildings, benches, art, coffee shops, or restaurants, or other small retail shops</p> <p>On sites that are 1 acre or less - total building area may be up to 2,500 sq ft On sites that are more than 1 acre - total building area may be up to 10,000 sq ft or 5% of total site area, whichever is less</p> <p>Uses Allowed: Major event entertainment, commercial outdoor recreation, and up to 15,000 sq ft of office</p>

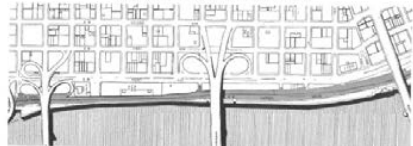


# CULTURE/PLACE

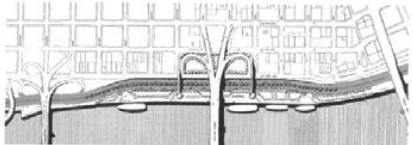
# CULTURE/PLACE PLANNING HISTORY



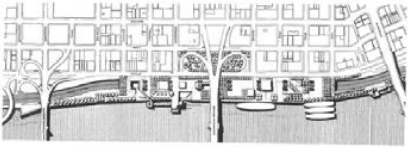
24 PORTLAND CITY CLUB BULLETIN  
 SKETCHES OF EXISTING DOWNTOWN PORTLAND RIVERFRONT AREA AND TWO OF THE SEVERAL PROPOSALS FOR DEVELOPMENT



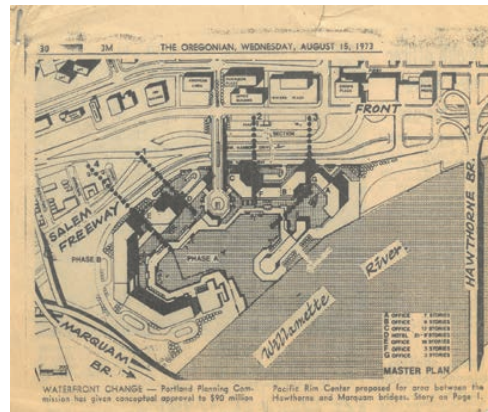
A. Existing Harbor Drive-Front Avenue routes around Journal Building site along Willamette River between Hawthorne Bridge (left) and Burnside Bridge (right).



B. Proposal to move a six-lane, slightly depressed Harbor Drive inland, adjacent to Front Avenue, with two pedestrian bridges for access to remaining waterfront area.



C. Proposed 'Downtown Waterfront Plan' to include a depressed 'cut-and-cover' Harbor Drive roadway with full development of a readily accessible waterfront park area and access to the river itself for private and public boating activity.



## Portland's Planning and Developmental History

Similarly to many U.S. cities, Portland has a longstanding history of racist zoning and land use practices that have created and then reinforced racial inequalities. Racially restrictive covenants, redlining, and exclusionary zoning are examples of this. Portland is a recipient of federal funding, obligating it to contribute to fair housing and to meet the Federal Fair Housing Act, and as a large city it has the responsibility of fostering a diverse and inclusive community.

On the developmental side of the story, Portland has gone through series after series of proposed plans, affecting both the waterfront and the city itself. Asa Lovejoy and Frances Pettygrove laid down the first 16 blocks of the city on a 200 foot square block in 1845, setting Portland up to be a walkable and accessible city. The waterfront itself has always been a point of tension in terms of how to address development and successful planning. Many plans were proposed but Portland has fallen short of its planning potential and the waterfront remains a topic to be addressed.

# CULTURE/PLACE PLANNING HISTORY



**Portland's Waterfront:  
May the Best Plan Win**

"The waterfront in its present condition is menaced by fire; it injures adjacent property and its subconscious influence upon citizenship is extremely bad."  
The Greater Portland Plan of 1912 by Edward H. Bennett

Recognition of the need for the orderly development of Portland's waterfront is anything but a new idea. Proposals have flowed from City Hall and a multitude of other sources as steadily and dependably as the water in Willamette River flows through the city every day. But like water over Willamette Falls, most of the reports have never been implemented. In the few cases where they were, it would probably have been better if they hadn't. Obviously somebody, somewhere thought the waterfront was important to study. After all, it was the waterfront where the city got its start in the mid 1840s. The first school was a log cabin built in 1847 at SW 1st Avenue and Taylor Street. The first church was located in a waterfront barrel shop in 1848. Two years later the first sawmill was built at 1st and Jefferson, which burned down three years later. Jefferson Street became the first major arterial when a plank road was built along it in 1851. Historic importance, of (Continued on page 4)

In 1905, at the foot of SE Alder, teams of horses and wagons lined the docks as they awaited the arrival of vessels laden with cargo. (Oregon Historical Society photo)

**Bennet Plan Received Favorable Vote But Was Never Implemented**

(Continued from page 1)

course, has never been enough of a reason to develop an area. Obviously the virtual flood of reports that came out at least three times every ten years were after something more than just remembering the early origins of Portland. One of the first studies to address itself to the waterfront was The Report on Public Docks presented to the Portland Chamber of Commerce by Joseph N. Teal and published in October 1910 as a supplement to the Chamber of Commerce Bulletin. The report principally addressed itself to the development of an active shipping center on Portland's waterfront. Commenting on the fact that the city had lost control of its own waterfront, the report emphatically stated that "it is intolerable that the water front and entrance of and to a city should be in any hands but those of the city." The report concluded with a glowing recommendation and a glowing prediction for the future.

"A commission should be created at once with ample powers and funds. It should give the problem the most careful consideration under the advice of the best experts. It should then proceed carefully and conservatively on the plan adopted. The result will be a port and harbor and facilities in Portland that will attract the shipping from every part of the world doing business on this coast. It will make of Portland one of the great ports of the world, with all that that implies, just as certainly as like work made Rotterdam, Bremen and Hamburg in Europe, Glasgow and Liverpool and other ports in Great Britain."

Two years later Edward H. Bennett submitted to the people of Portland The Greater Portland Plan, a grandiose "guide for the further development of the City." Predicting an eventual population of two million, the Bennet "plan for Portland" results from the powerful impulse of a certainty of growth that would be a calamity were not preparations made for it.

Like most other proposals in the Bennet plan, the waterfront was dealt with in a few paragraphs of broad ideas needing further refinement if implementation was approved. Basically, the plan called for the construction of bridges over the Willamette and inter-connected on both sides of the river by elevated roadways. Two leveled docks, for high and low water, would be built below the roadway and used for landing of merchandise from small boats.

The approach to the bridges would begin at First Street and these would pass over Front Street which would then be left open for "heavy teaming and rail traffic." The report stated that the entire waterfront should be rebuilt with fireproof materials and quays of concrete. The central portion of the waterfront would be warehouses but the area to the south would be set aside for parks. As in the Teal report, public ownership of the waterfront was a necessary ingredient for its implementation.

Bennet believed that the business district could not expand to the west due to topography and that it instead would extend across the river and be connected by the bridges.

An interesting sidelight was the portion of the report calling for "great intercepting sewers (to) be carried under the river driveways when built and the sewage thrown North."

This plan was devised by Mr. O. Laurgaard and proposed the construction of a retaining wall along the harbor line from Gilliam to Jefferson Streets. Terminals for suburban electric and steamboat lines were called for along with the construction of a public market between Front Street and the river and the Morrison and Hawthorne Bridges. In addition, Front Street was to be widened to 100 feet with railroad tracks placed parallel to and east of Front. Bridge approaches would be elevated, thereby passing over Front Street.

A year later Charles H. Cheney proposed a plan which included a widened Front Street, rapid transit lines along the waterfront, and elevated approaches to the bridges over Front Street on the west side



Portland's waterfront circa 1914 at the foot of the Yamhill and Salmon Streets. Edward Bennett's fear of fire damage is easily understood because of all the old wooden structures. The subconscious influence he saw upon the citizenry may be a little more difficult to detect. (Oregon Historical Society photo)



The Ash Street docks circa 1920. Water carriers were important means of transporting both goods and people. (Oregon Historical Society photo)

of the City. The report also stressed that the water of the river be of as great purity as possible, especially on the Southern stretch.

Even though the Bennet plan was submitted to the voters and given an overwhelming affirmative vote by a 2 to 1 margin, it was never implemented due mainly to a lack of means to compel its enforcement. It was one of the earliest plans in the nation for orderly development of a city and despite its many shortcomings and gross over-estimations of Portland's growth in several areas, was basically a very worthwhile effort and certainly a step in the right direction.

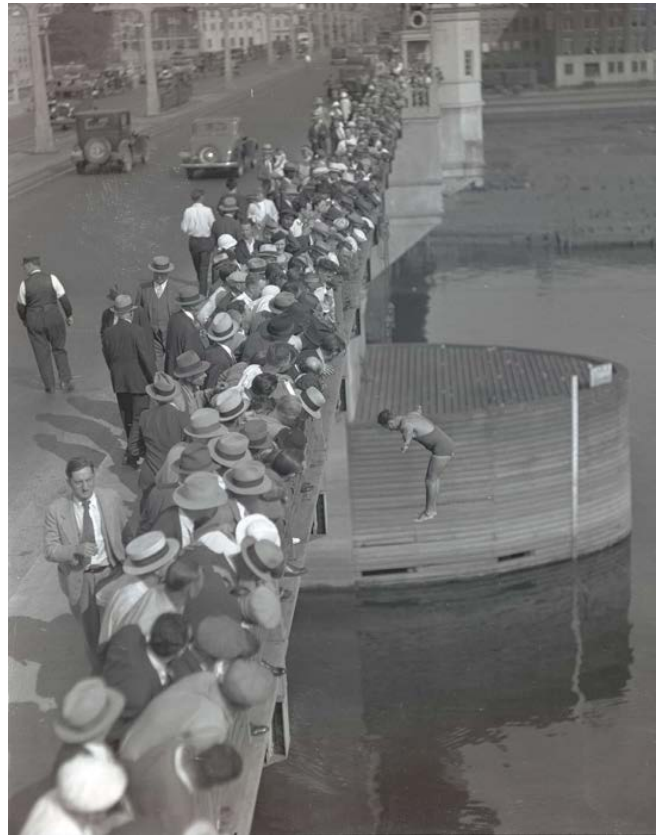
The Bennet plan was followed eight years later by the City Engineer's Plan of 1920.

(Continued on page 1)

**CULTURE/PLACE**  
**HISTORICAL CONTEXT**



Portlanders gather for the opening of the dedication of the Burnside Bridge.



Roy Woods dives off Burnside in 1934.



Man dives into the waters surrounding the Skidmore Fountain during the Willamette Flood of 1894.



The 1894 flood raised the Willamette River 30 feet, flooding the central business district.

# CULTURE/PLACE

## HISTORICAL CONTEXT



Oct. 6 1985

Portlandia arrives in Portland



1908

Portland Rose Festival



1970

Liberty Bell Bombing in City Hall



Dragon Boat Race

A tradition starting in 1989



Cherry Blossoms

Given to Portland as a gift from Japan in 1990



## CULTURE/PLACE

### CULTURAL GROUPS



#### Portland's "Japantown" (Nihonmachi)

Japantown existed before World War II and was in the area that is now known as Old Town-Chinatown. During the 1890s, labor contractors found jobs for Japanese immigrants on farms, forests, and railroads. Many of these immigrants were processed through Portland creating a need for bathhouses, hotels, laundries and other services. Because of the low rent area and the high demand for these services, many Japanese families opened small businesses that focused on service that was oriented toward the Japanese population.

#### Portland's African American Population

African Americans who came to Portland settled near Union Station due to the work with the Pullman Company within railroads or with downtown hotels. In the 1900s the First African Methodist Episcopal Zion Church had relocated to 13th and Main where many African American men lived and worked. The Bethel AME Church was located on 68 North Tenth, in a neighborhood where many African American women operated rooming houses and where the Golden West Hotel (near the Park Blocks) housed between 40 and 50 men. Similar to the Japanese Population, many African Americans moved to East Portland in search of homeownership after the Broadway Bridge opened in 1913. This was due to exclusionary acts from the Portland Realty Board who discouraged sales to Asian and African people.

#### Portland's "Chinatown"

Chinatown stretches from Ash to Market Street. Thousands of Chinese men came to the West coast largely due to the California goldfields in the 1850s and the railroad labor throughout the West in the mid 1860s. Chinese men settled around Second and Oak Street which had become so segregated by 1880 that the federal census designated it a separate enumeration district, containing over 1,500 Chinese men and no one else.

# CULTURE/PLACE

## WATERFRONT



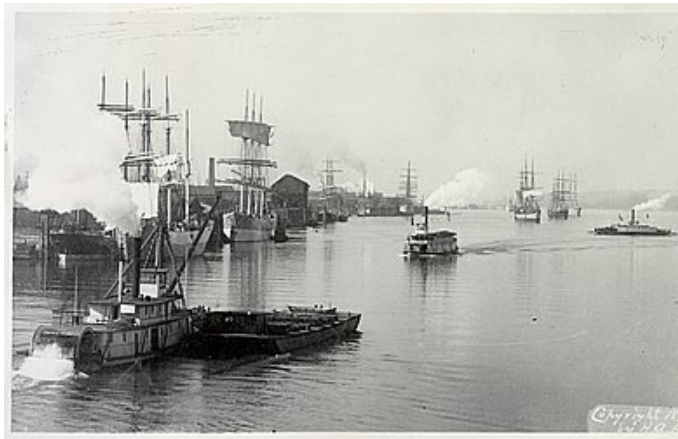
1922, West Side

Portland's strong presence as a port city are evident in this photo showing the accumulation of docks and industry related warehouses lining the river. Public access was allowed but was limited to streets that extended from the cities grid to the shore.



1898, East Portland

Double decker docks line the river allowing ships to access cargo in high and low water conditions.



1899, Port of Portland

The Port of Portland was established in 1891 to construct and permanently maintain a 25 foot ship channel in the Willamette and Columbia rivers.



1930, Guild's Lake Area

Between 1906-1920's this area was filled in with soil sluiced off the hillsides and dredged from the Willamette. It was proposed to become a park.

# CULTURE/PLACE

## WATERFRONT



1928- Portland's West Side Waterfront Construction



Circa 1940s- Portland's West Side Waterfront

## CULTURE/PLACE

### WATERFRONT



**Oregon Journal Building (Public Market)**

The Public Market building was established during Portland's Progressive Era. The market was closed in 1942 due to poor location, changing shopping habits, and the Depression. The abandoned building was used by the U.S. Navy during World War II and the Oregon Journal newspaper was headquartered there from 1948 to 1961. It was later demolished to make room for the Waterfront



**The Battleship Oregon**

This photo is looking south along the Portland waterfront from the Hawthorne Bridge. South of the ship you can see a giant pile of hog fuel that was used to fuel the Lincoln Power Plant for steam and electricity.

# CULTURE/PLACE

## IMPACT OF THE AUTOMOBILE



Looking South from the Burnside Bridge



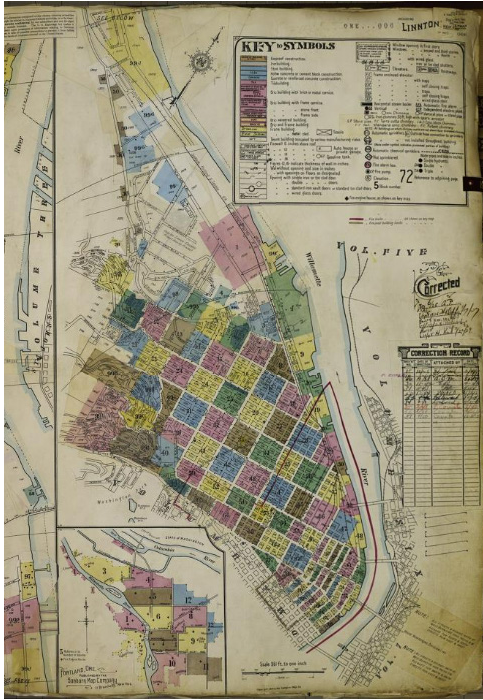
The Kamm Block Bilding (SW Naito Pkwy & SW Pine St)



Harbor Drive and Tom McCall Waterfront Park

# CULTURE/PLACE

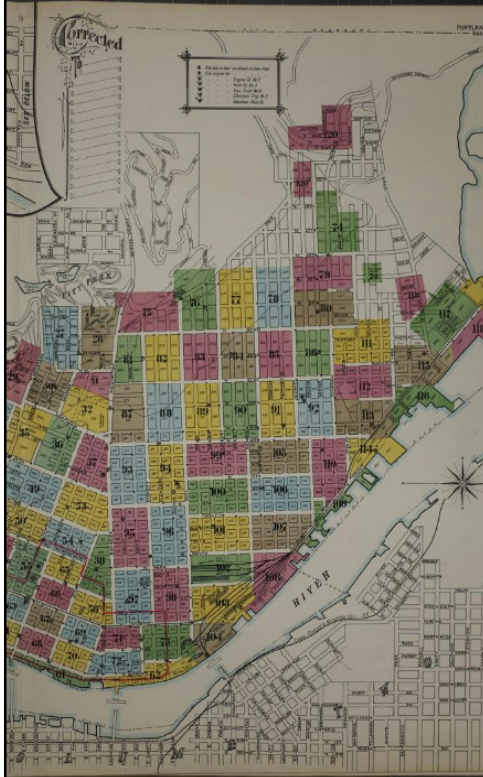
## SANBORN MAPS



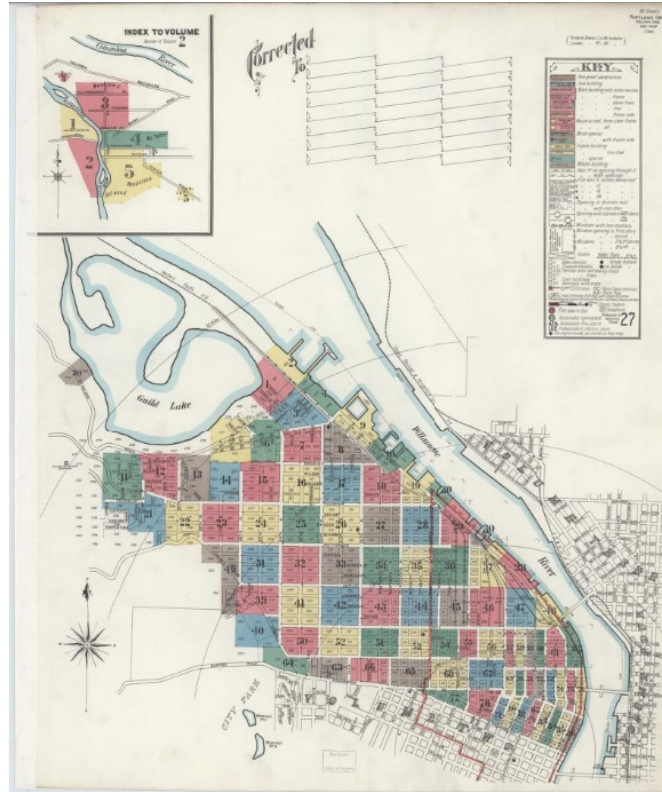
1850



1889



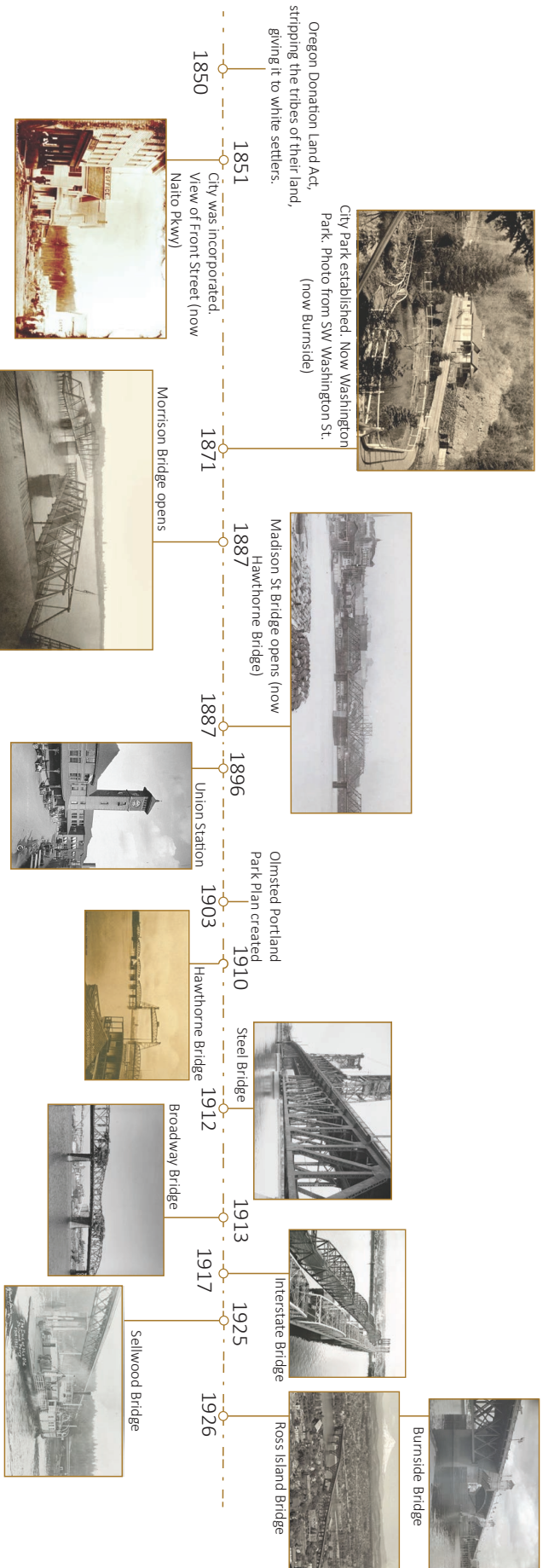
1901



1908

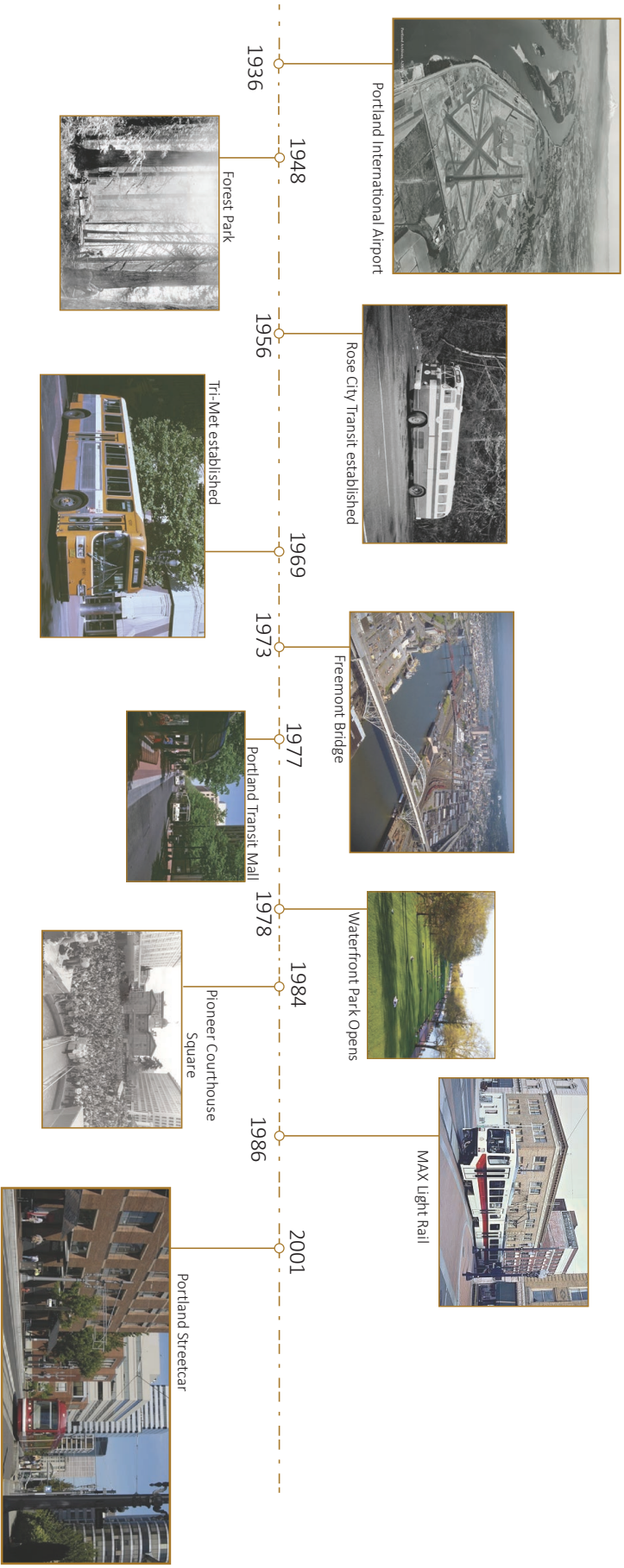
# CULTURE/PLACE

## SITE HISTORY



# CULTURE/PLACE

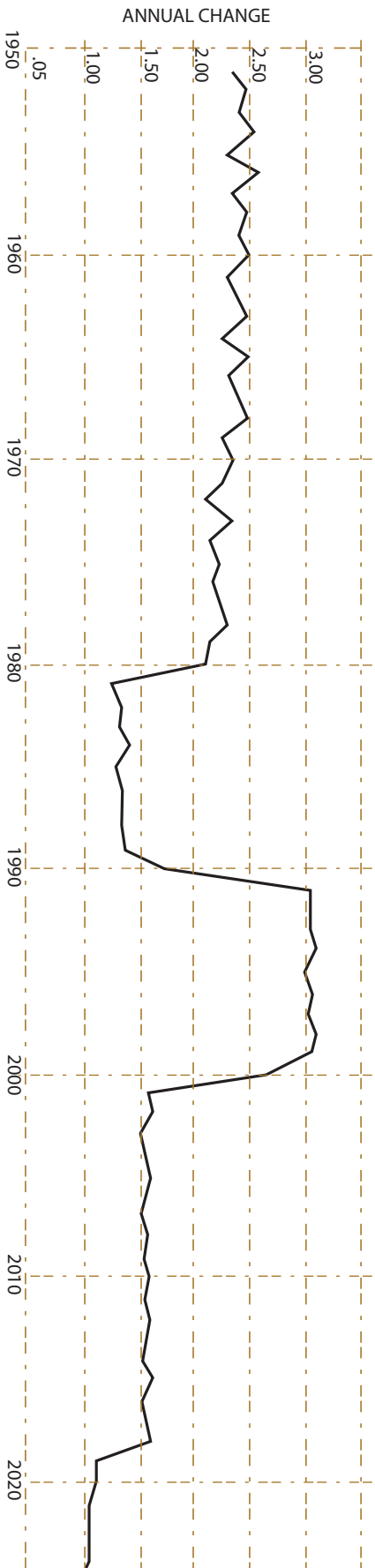
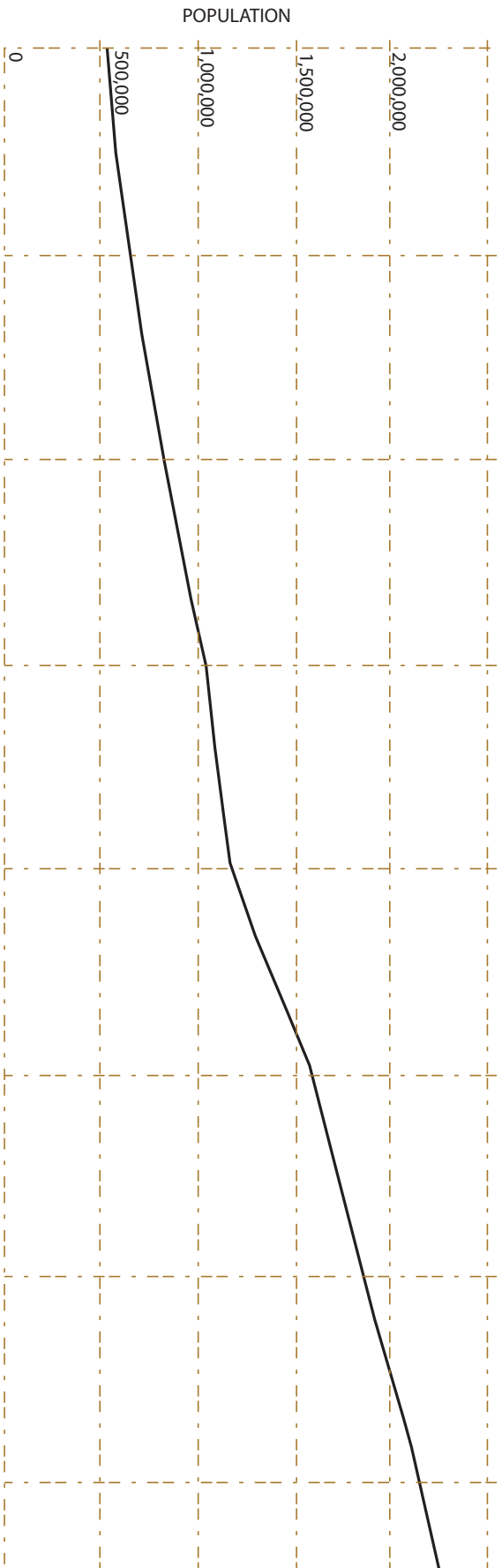
## SITE HISTORY



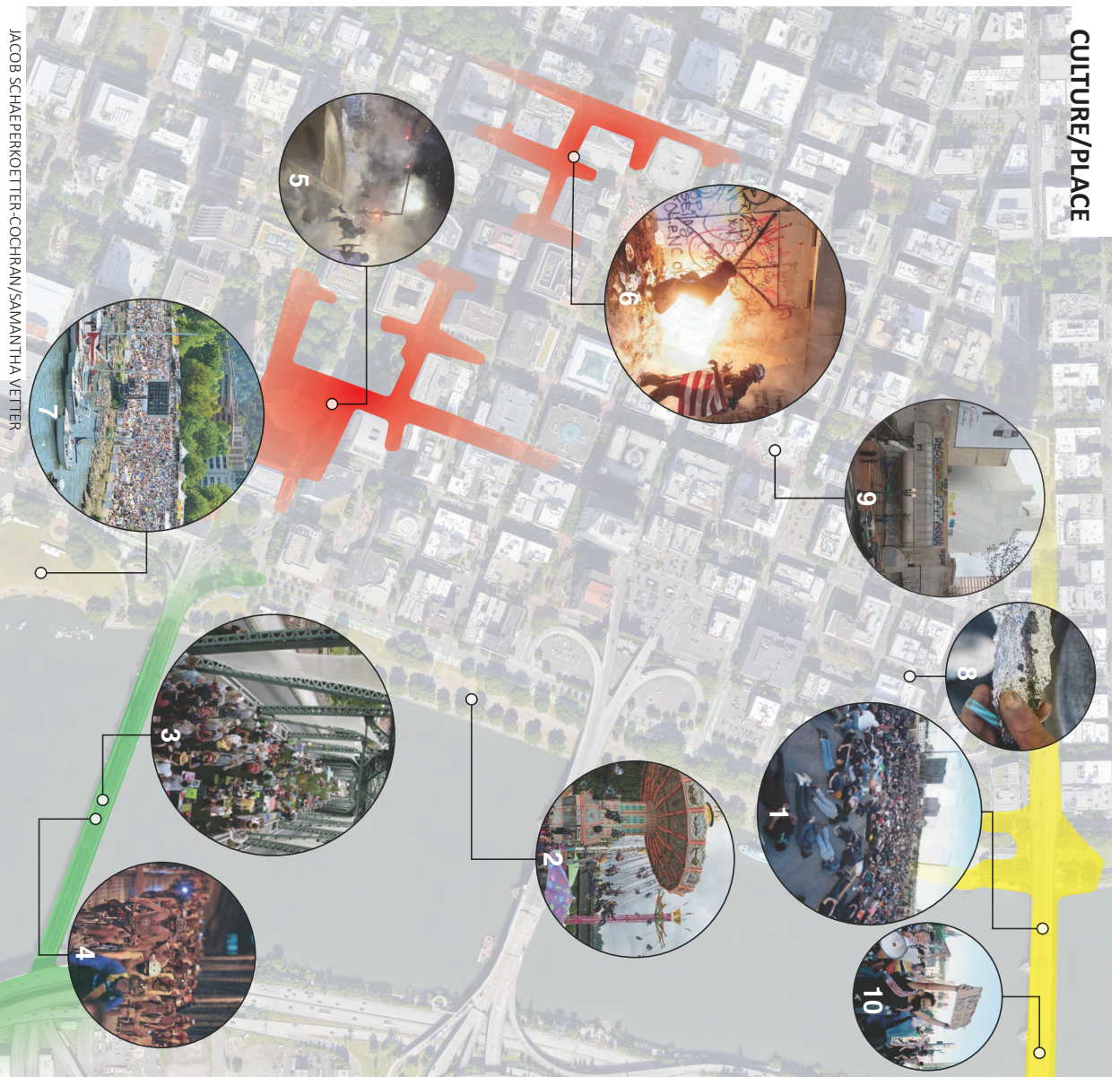
JACOB SCHAEPERKOTTER-COCHRAN/SAMANTHA VETTER



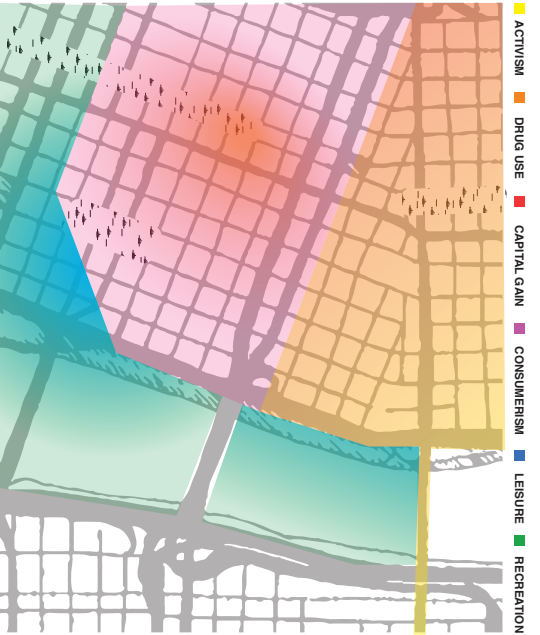
CULTURE/PLACE  
SITE HISTORY

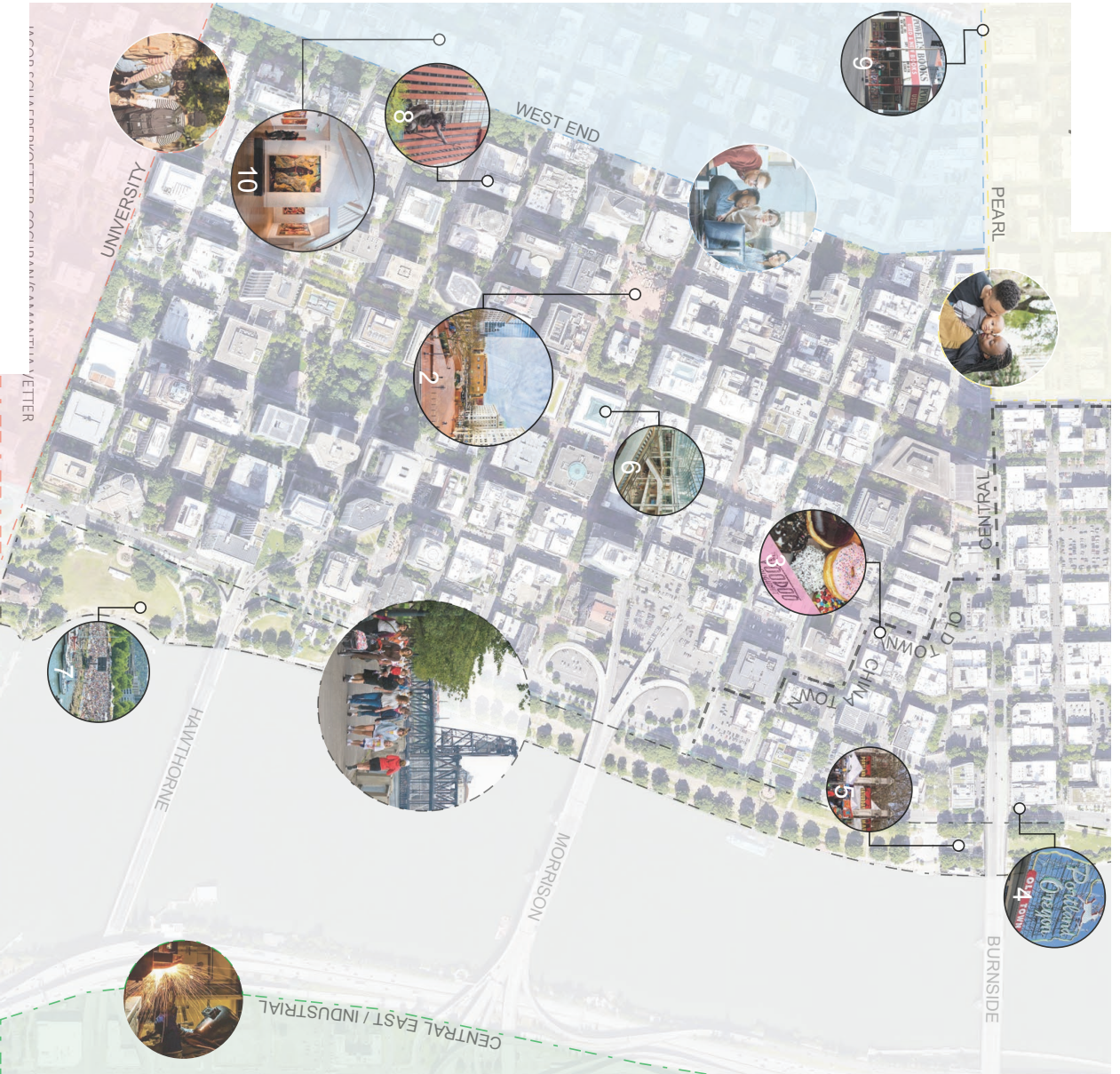


JACOB SCHAEFERKOEETTER-COCHRAN/SAMANTHA VETTER



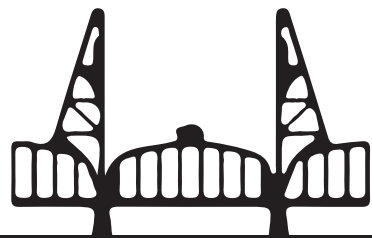
- ▼ **EVENTS & ACTIVITY**
01. BLM "Lie-In" 2020
  02. Portland Rose Festival
  03. PDX Bridge Festival "Hawthorne Park" 2010
  04. Naked Bike ride (Critical Mass, Bridge Ride)
  05. Riot Declared at City Hall 2020
  06. Destruction at Pioneer Courthouse Square
  07. Waterfront Blues Festival
  08. Open Drug Use/Sales
  09. Open-Air Fentanyl Market Bust
  10. BLM March





▼ THINGS TO DO / SEE

01. Tom McCall Waterfront Park
02. Pioneer Courthouse Square
03. Voodoo Doughnuts
04. Portland Oregon Sign
05. Saturday Market
06. Pioneer Square Mall
07. Hawthorne Bowl
08. Portland Building
09. Powell's Books
10. Portland Art Museum



# PHYSICAL SITE

**PHYSICAL SITE**  
FIGURE GROUND

Our site contains 184 buildings

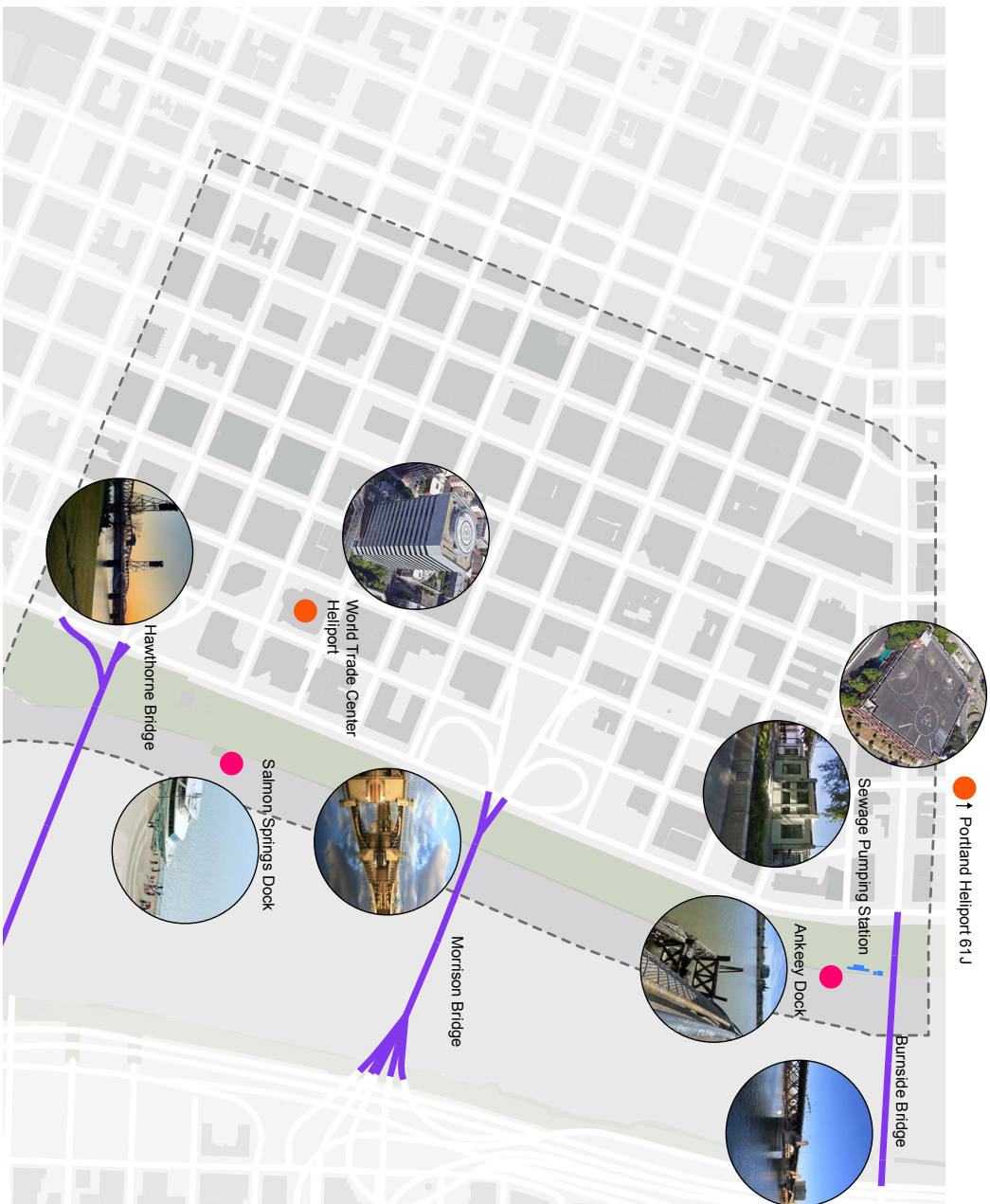


SERGEY TKACHENKO, ADEL MAKBOUL

# PHYSICAL SITE INFRASTRUCTURE

Major infrastructure moves in our site are happening near the water. This is because they either need water or open space, which the waterfront area provides

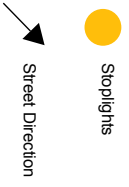
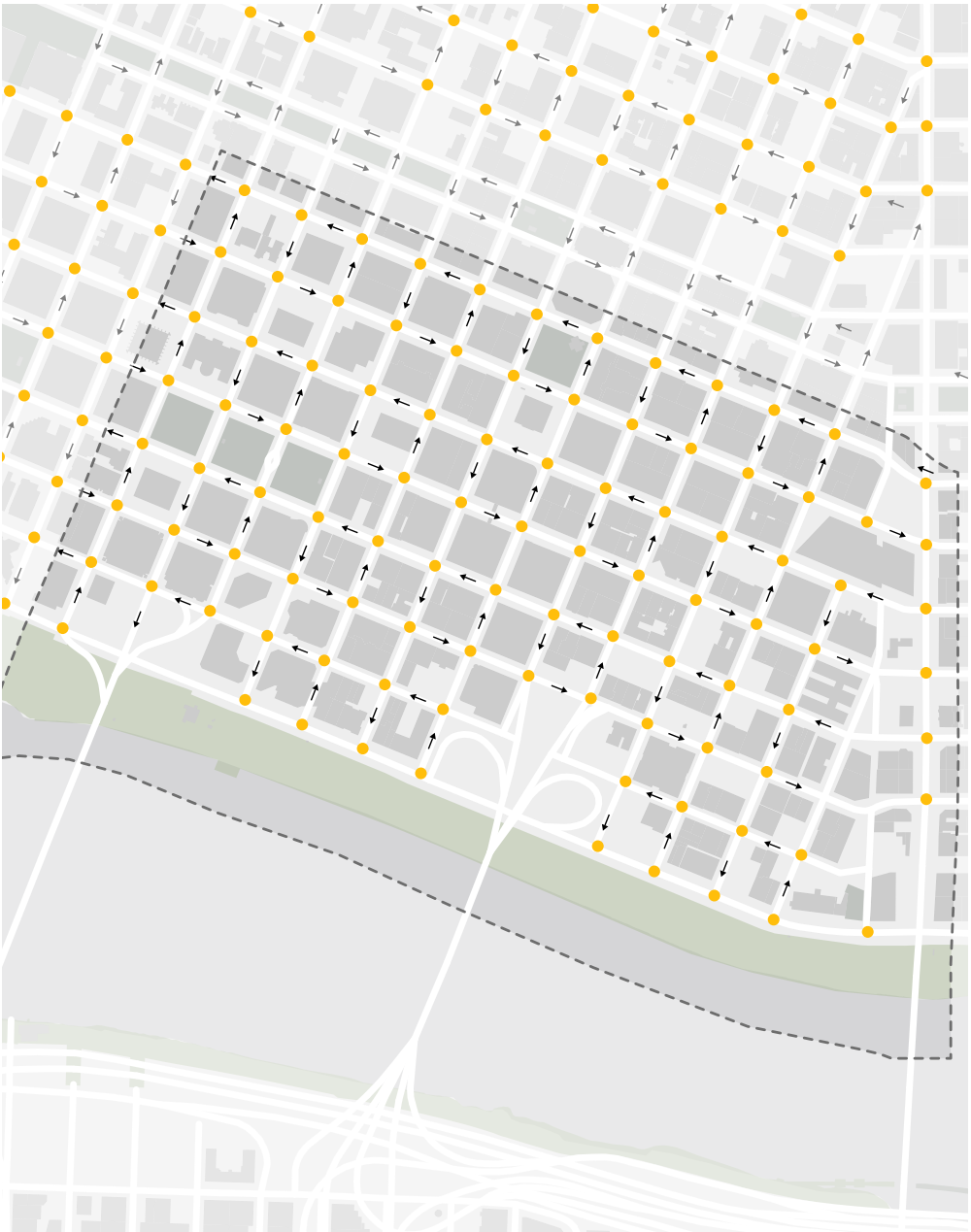
- Sewage
- Bridges
- Docks
- Helicopter Landing Pads



SERGEY TKACHENKO, ADEL MAKBOUL

# PHYSICAL SITE STREET INFRASTRUCTURE

Except for two streets, Natio and Burnside, all of the streets we will be working with are one way streets. There is also a stop light at just about every stop in our site



SERGEY TKACHENKO, ADEL MAKBOUL

# PHYSICAL SITE

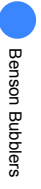
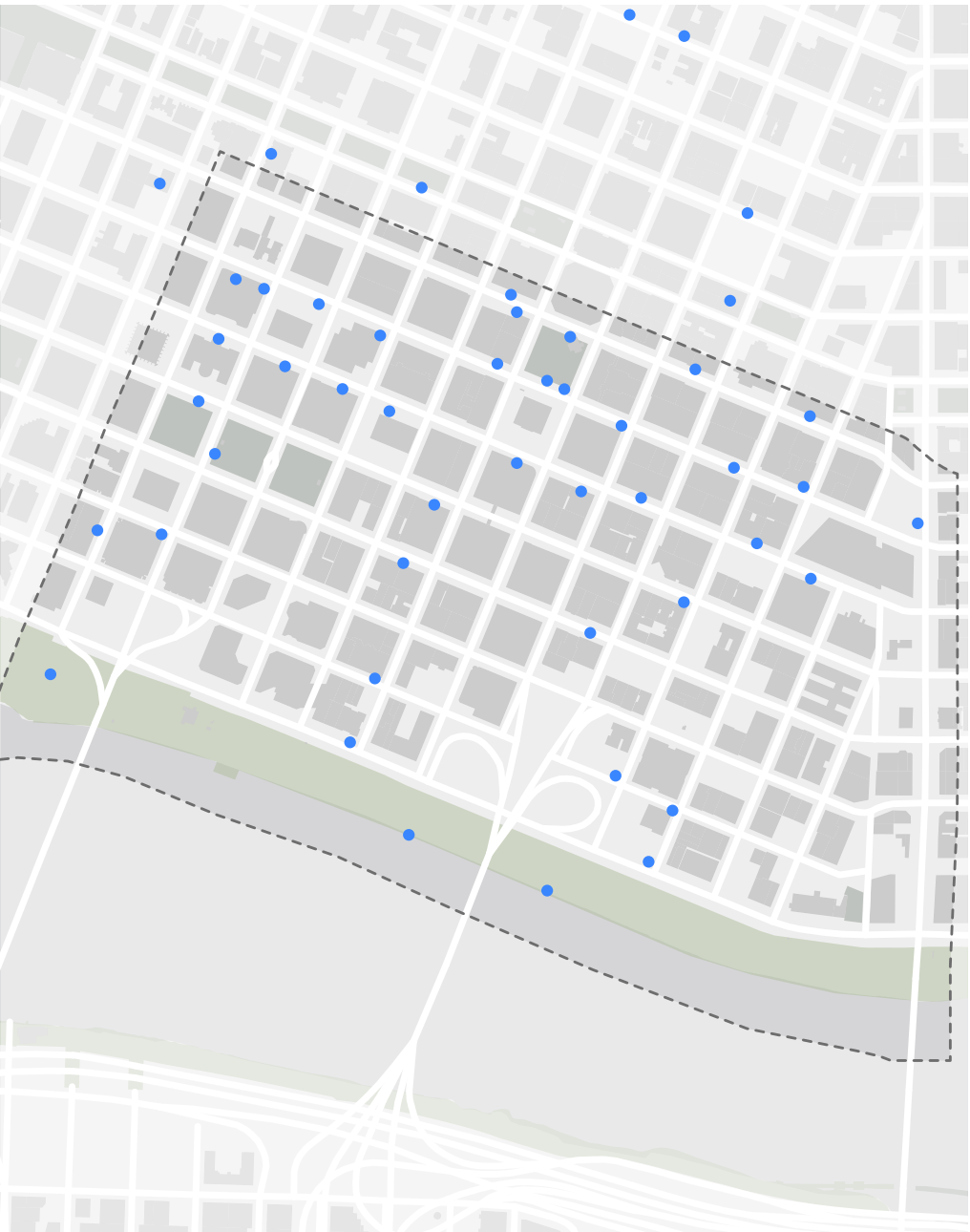
## BENSON BUBBLERS



Named after Simon Benson who donated \$10,000 in 1912 to the city for installation of drinking fountains.

- Hoped they would reduce alcohol consumption during lunch breaks
- Found a girl crying during a parade because she was unable to find water

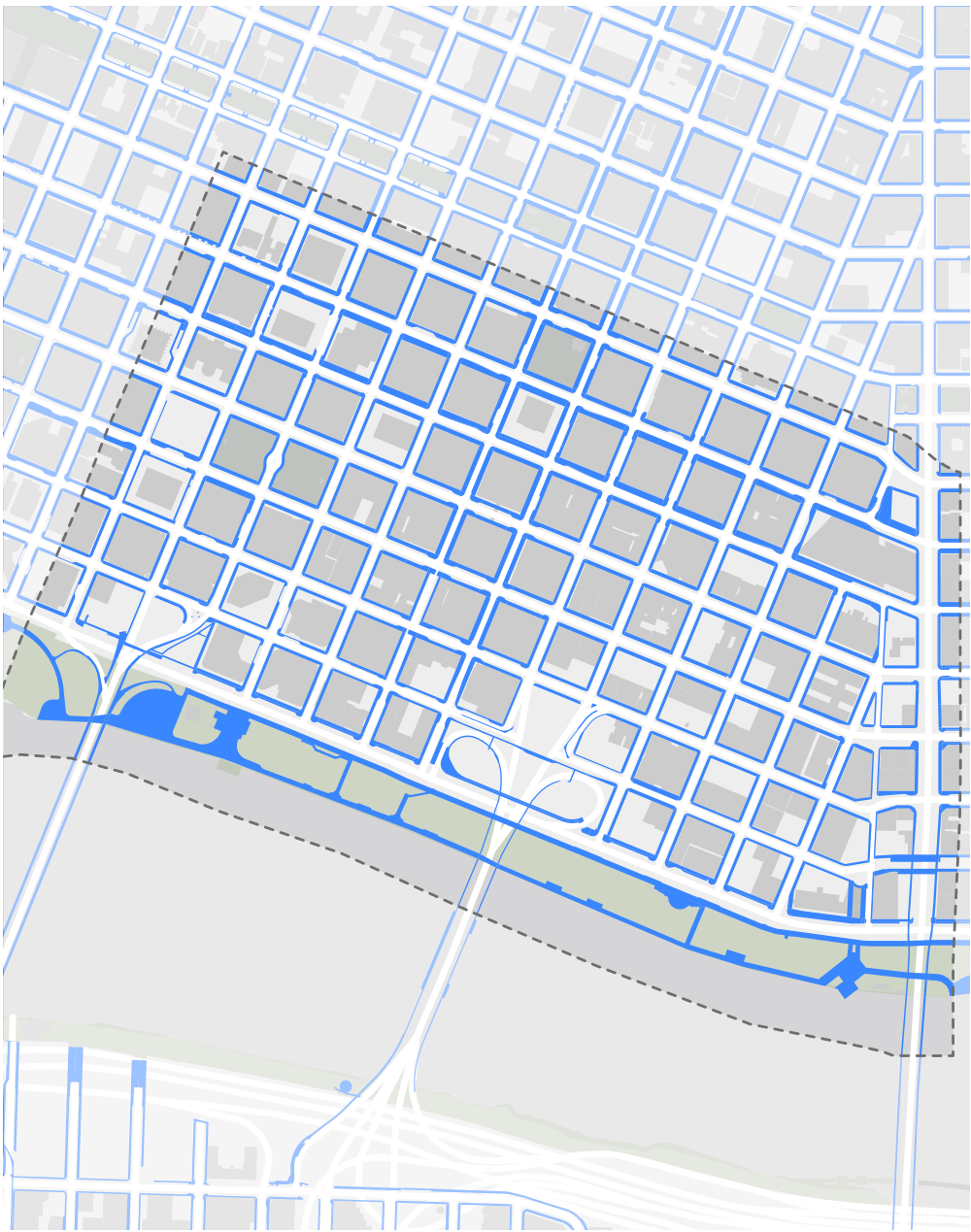
Family requested they be installed in specific boundaries of Portland to "diminish the uniqueness of them."



Benson Bubblers



**PHYSICAL SITE**  
SIDEWALKS



SERGEY TKACHENKO, ADEL MAKBOUL

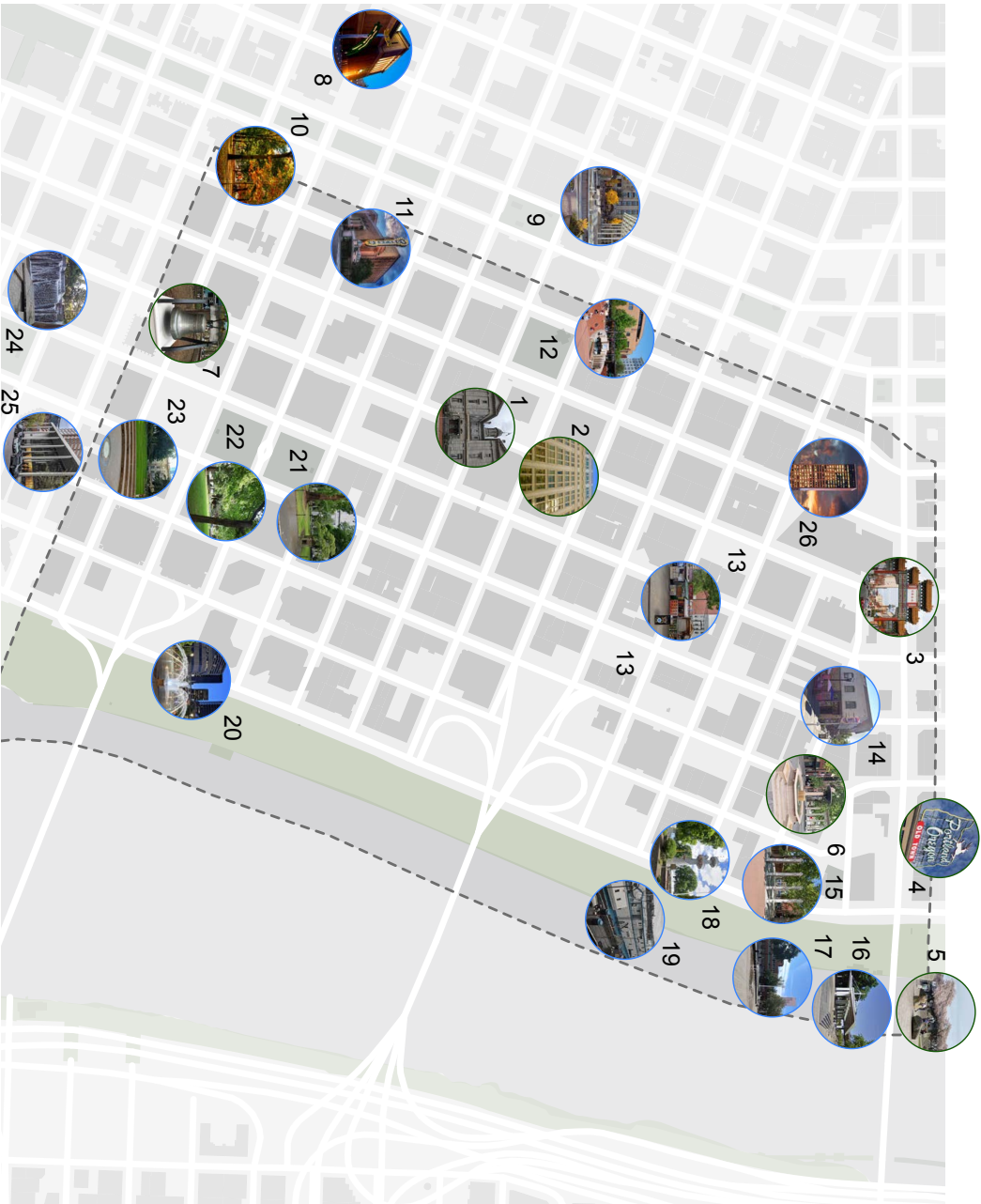
# PHYSICAL SITE DESTINATIONS

## HISTORIC LANDMARKS

- 01. Pioneer Courthouse
- 02. Meyer and Frank Building
- 03. Chinatown Gateway
- 04. White Stag Sign
- 05. Japanese American Historical Plaza
- 06. Skidmore Fountain
- 07. Liberty Bell

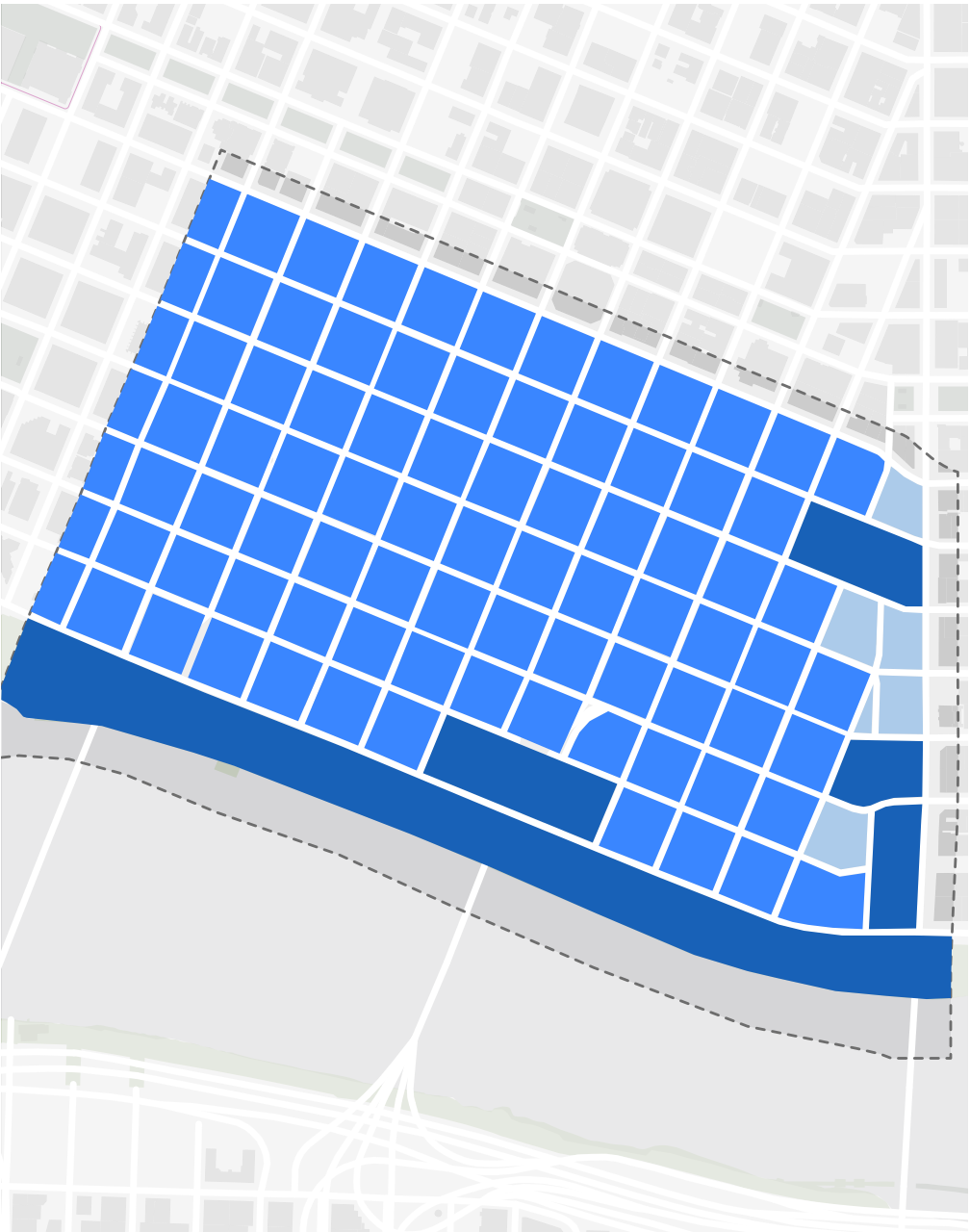
## PLACES

- 08. Portland Art Museum
- 09. Directors Park
- 10. South Park Blocks
- 11. Arlene Schnitzer Concert Hall
- 12. Pioneer Square
- 13. Food Carts
- 14. Voodoo Donuts
- 15. Ankeny Plaza
- 16. Japanese American Historical Plaza Fountain
- 17. Bill Natio Legacy Fountain
- 18. Battleship Oregon Memorial Marine Park
- 19. Oregon Maritime Museum
- 20. Salmon Street Springs
- 21. Lownsdale Square
- 22. Chapman Square
- 23. Terry Schrunk Plaza
- 24. Keller Fountain Park
- 25. Keller Auditorium
- 26. Big Pink



# PHYSICAL SITE BLOCK SIZES

A typical Portland Downtown block consists of 200' by 200' dimensions. The majority of the downtown site is made up of these blocks



SERGEY TKACHENKO, ADEL MAKBOUL

# PHYSICAL SITE MAJOR ELEMENTS

Our site is divided into three clear areas, the Willamette River, the Waterfront Park, and the City

- City
- Waterfront Park
- Willamette River



SERGEY TKACHENKO, ADEL MAKBOUL

# PHYSICAL SITE MINOR ELEMENTS

Due to the river running North and South, it causes a lot of similar NS movement to the rest of our site

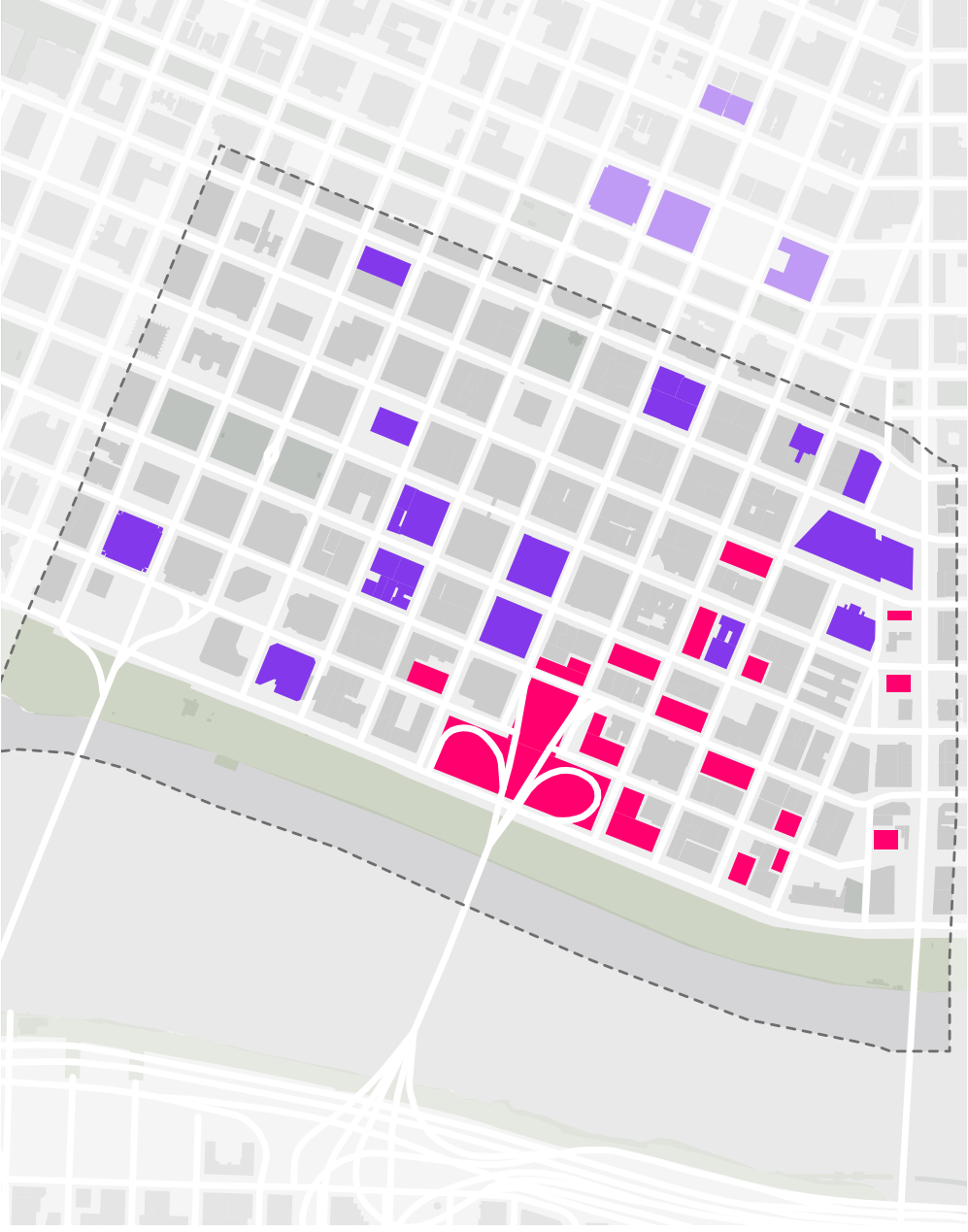
There are main roads and parks in our site which follow the same NS movement. The main EW movement is brought into our site through the bridges

- North-South Elements
- East-West Elements



# PHYSICAL SITE PARKING AREAS AND TYPES

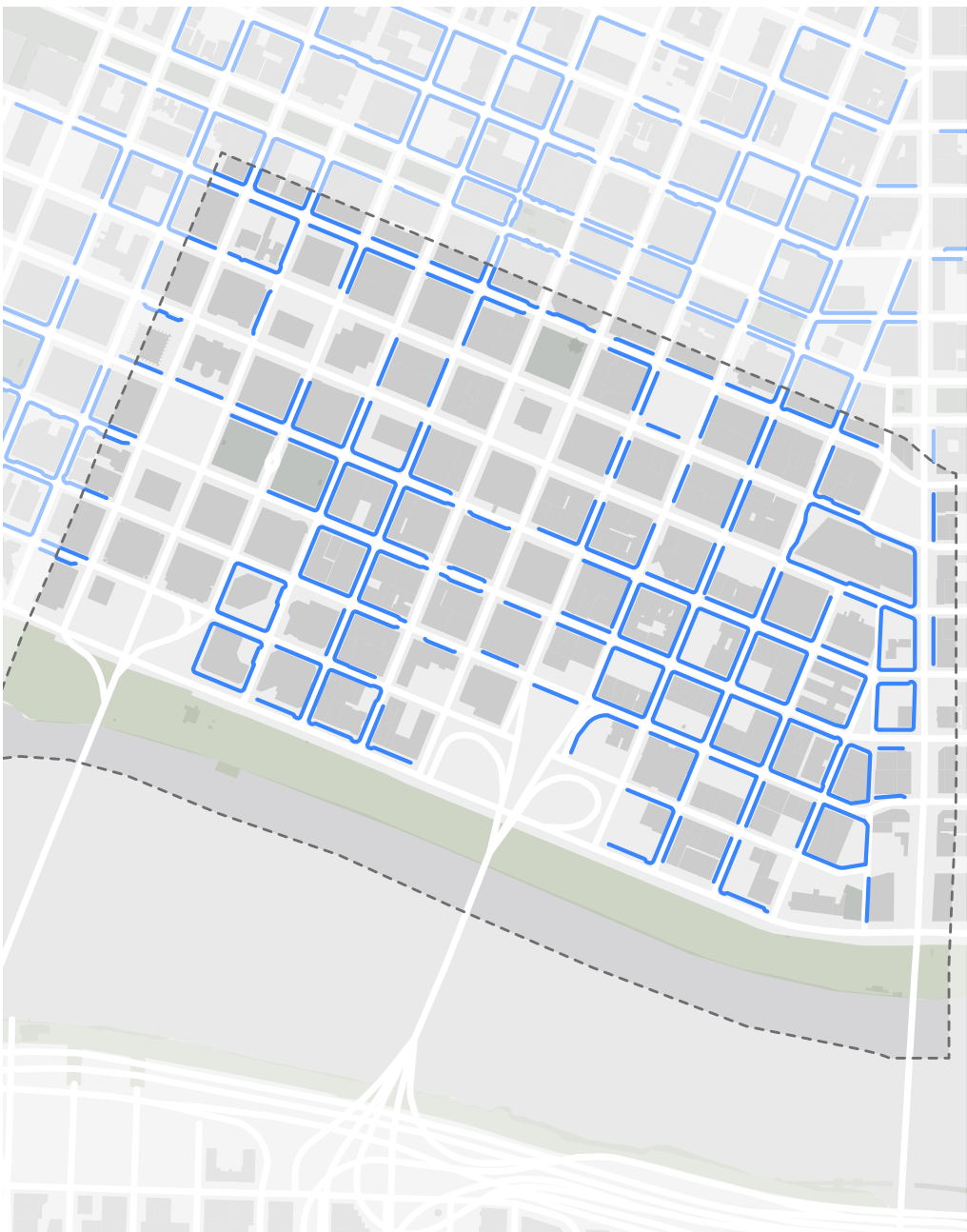
There is a high density of surface parking and no parking garages in the NW corner of our site. Getting past that, parking garages are scattered throughout the rest of our site



- Parking Garages
- Surface Parking

SERGEY TKACHENKO, ADEL MAKBOUL

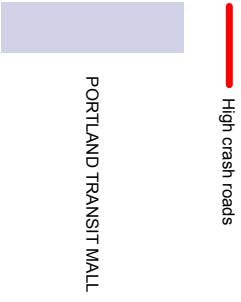
**PHYSICAL SITE**  
STREET PARKING



SERGEY TKACHENKO, ADEL MAKBOUL

# PHYSICAL SITE HIGH CRASH ROADS

The three high crash roads in our site are SW Broadway, SW 4th Ave, and Burnside. Broadway and 4th have the Portland Transit Mall located inbetween the two of them.



SERGEY TKACHENKO, ADEL MAKBOUL

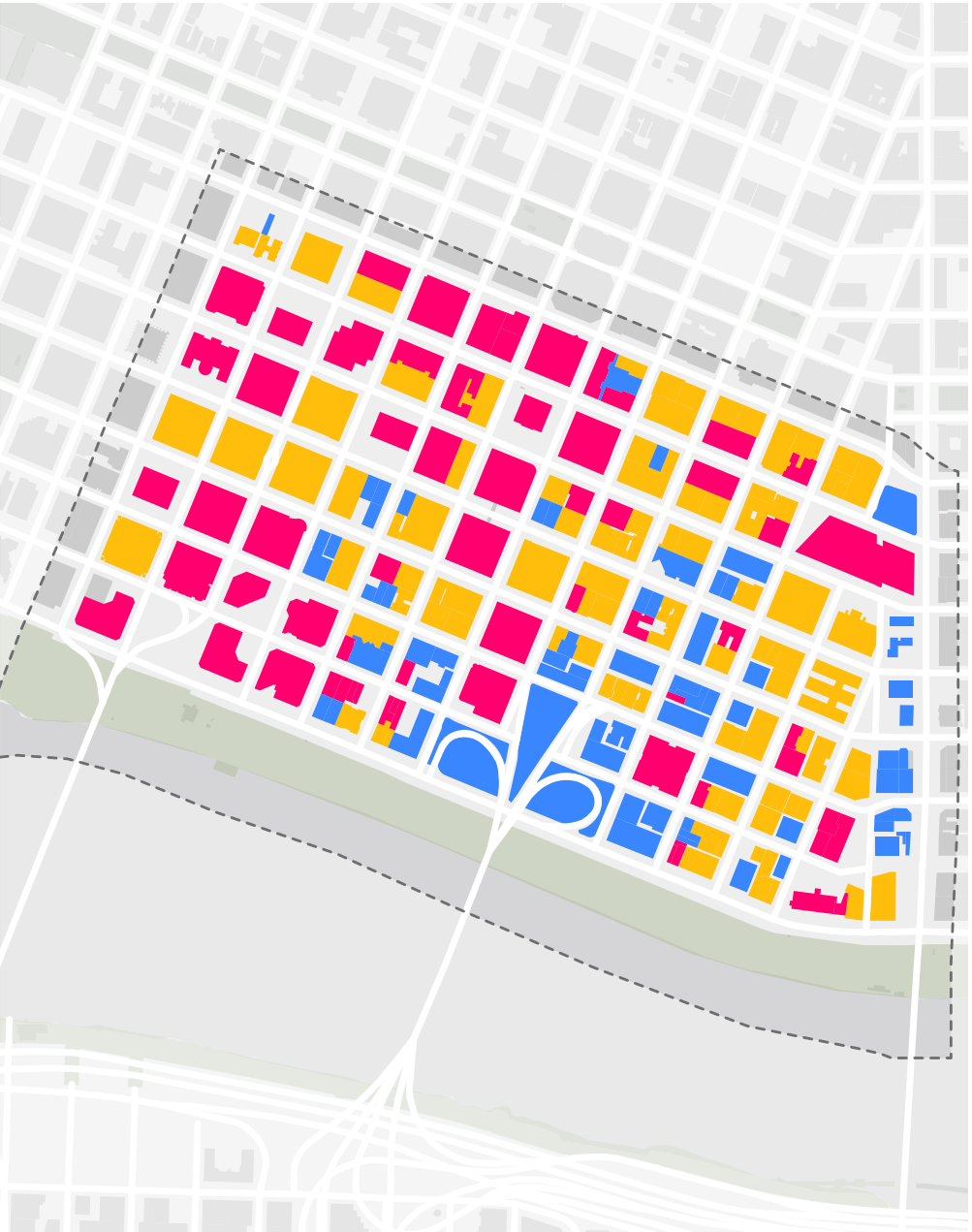


# PHYSICAL SITE OPPORTUNITY SITES

Easy opportunity buildings are out of character with surrounding buildings, 1 story buildings, or a vacant building

Medium opportunity buildings will have some restrictions but could be worked around

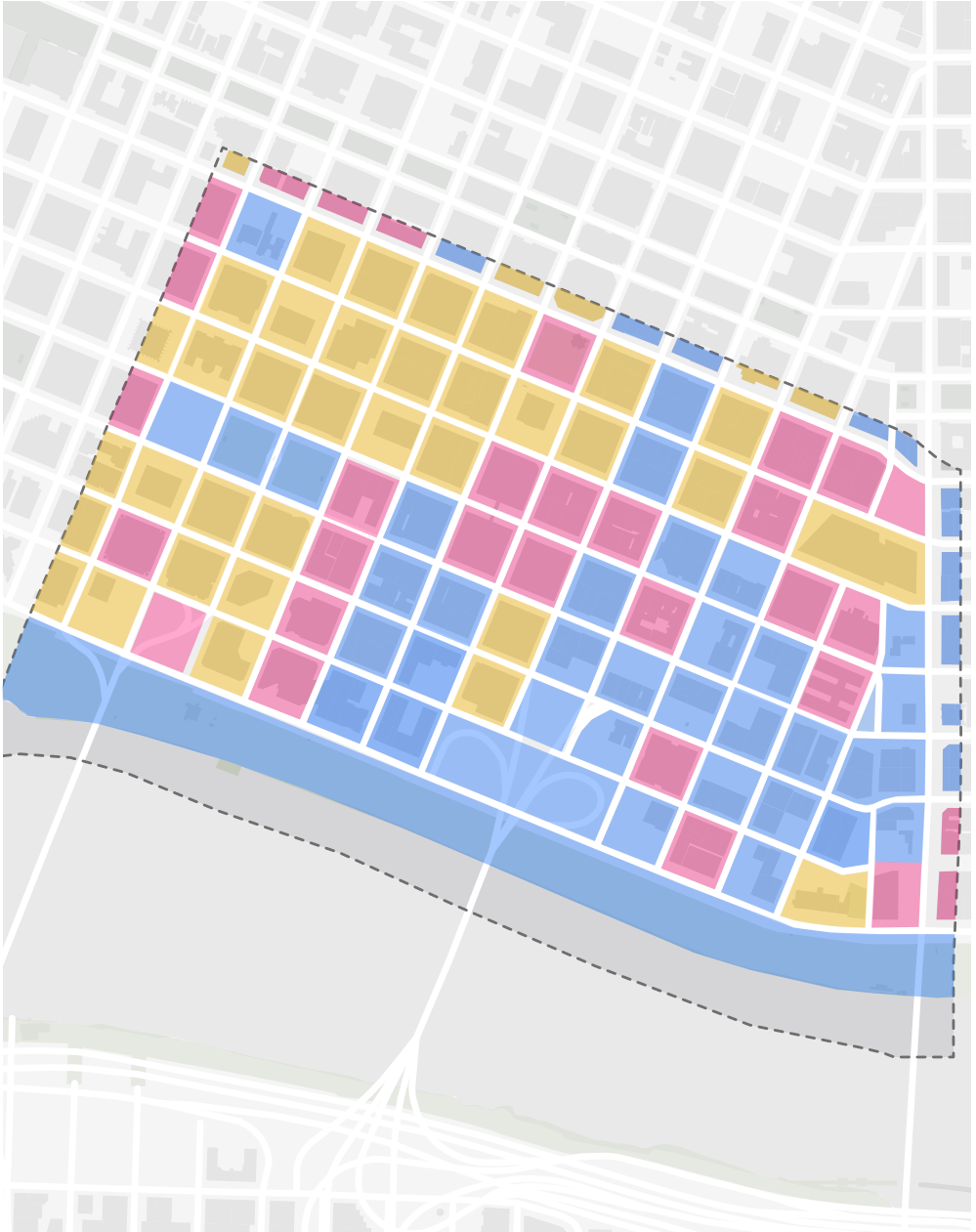
Hard opportunity buildings are historic buildings, high rise buildings, or have housing.



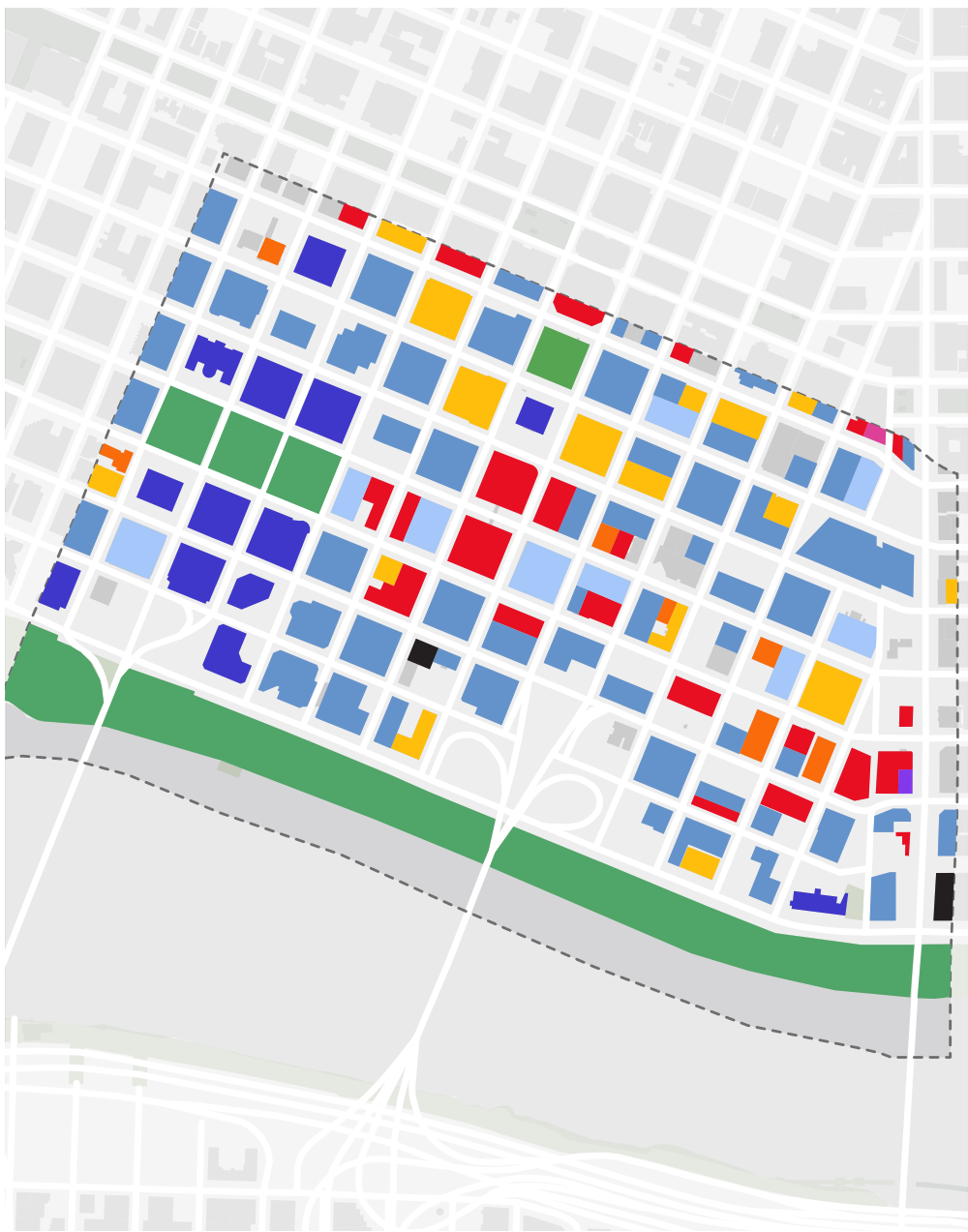
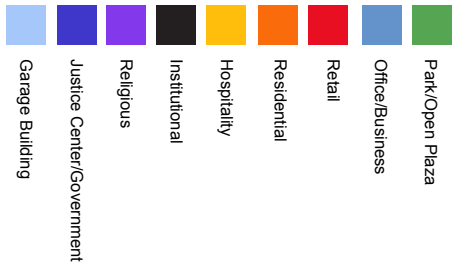
# PHYSICAL SITE CRITICAL SITES

"Critical" here is defined as being important based on its location and its existing use (this gesture does not include streets or their impact to the blocks)

Most Critical sites are identified as being in "successful" areas such as potential for new construction or redesign. Medium Critical sites are along major roadways and park. Least Critical sites have neither of top two.



**PHYSICAL SITE**  
EXISTING USES



SERGEY TKACHENKO, ADEL MAKBOUL

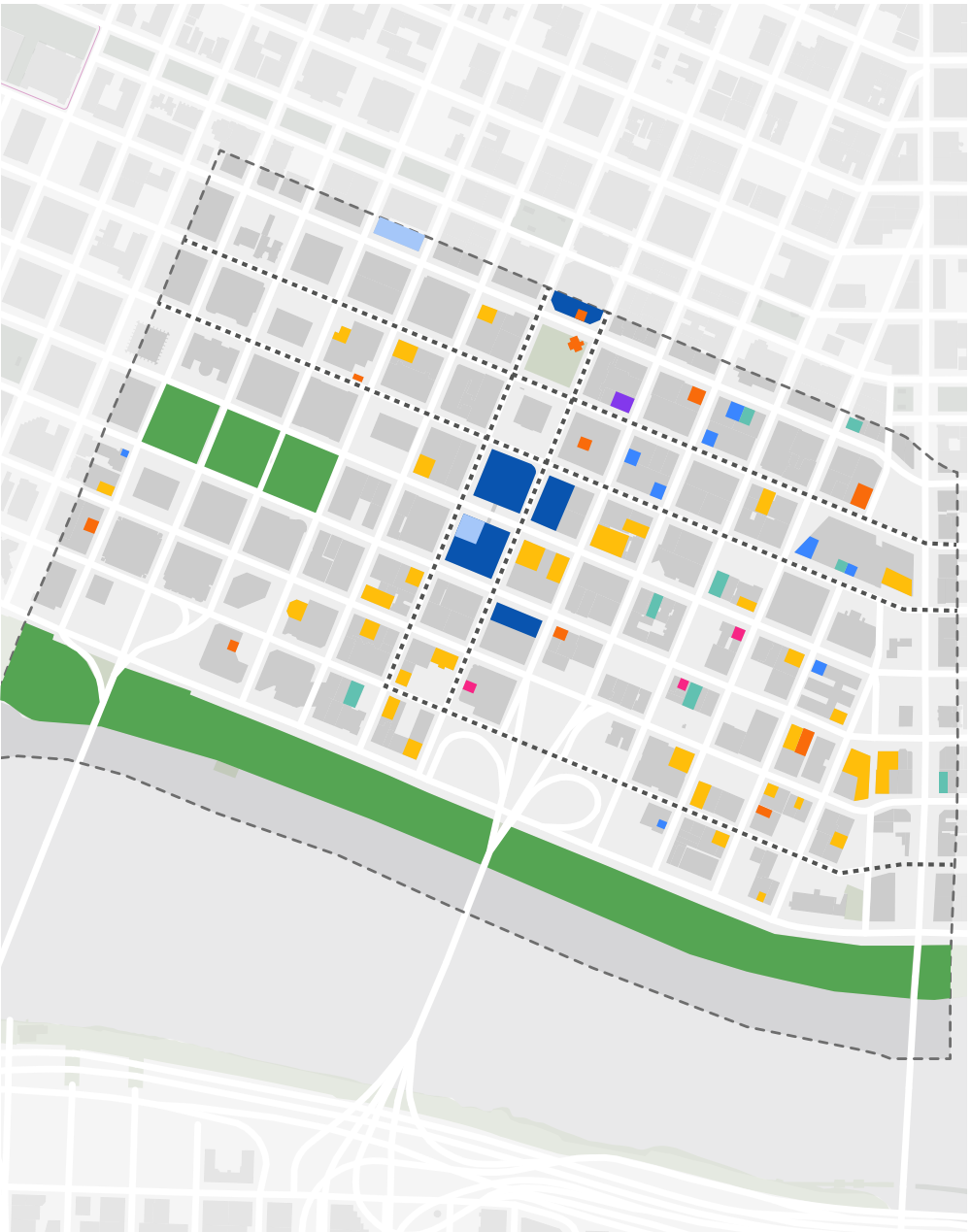
**PHYSICAL SITE  
AREA CONTEXT**



SERGEY TKACHENKO, ADEL MAKBOUL

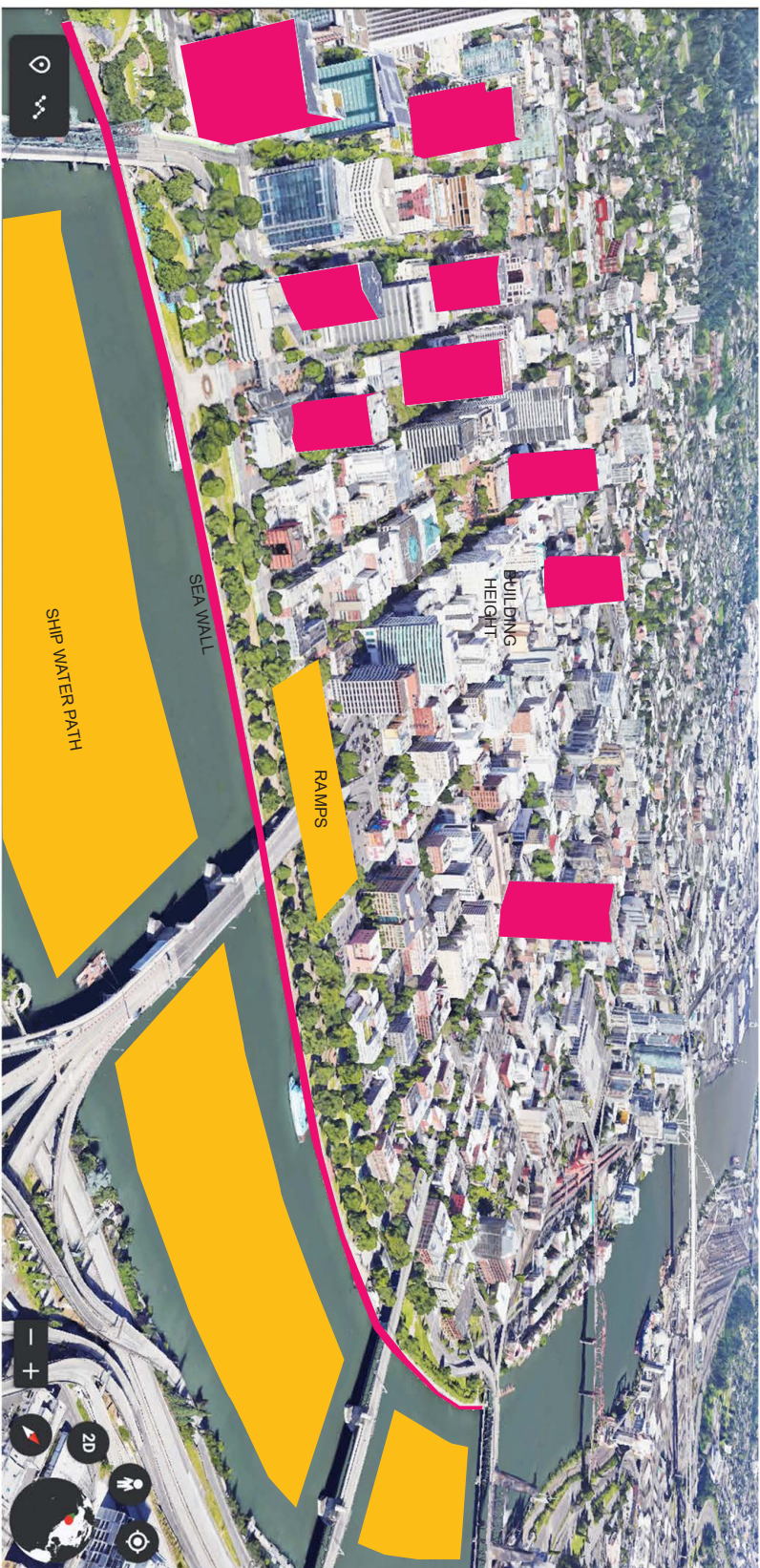
# PHYSICAL SITE AMENITIES

- Park
- Shopping
- Beauty Salon
- Coffee
- Restaurant/Food
- Bar/Nightclub
- Daycare Center
- Gym
- Grocery/Convenience Stores
- Theater
- Transit Lines



SERGEY TRACHENKO, ADEL MAKBOUL

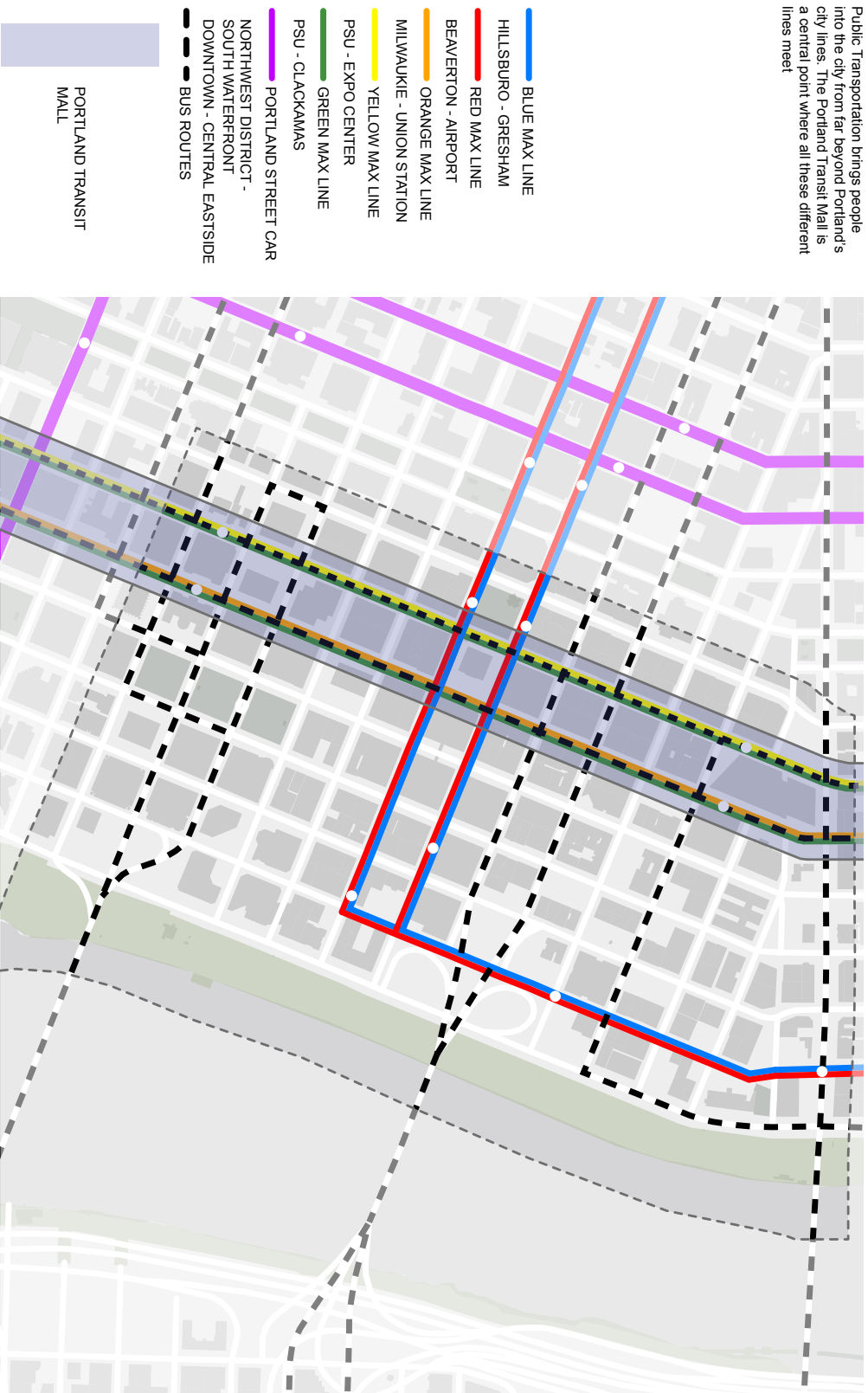
**PHYSICAL SITE**  
BARRIERS/CHALLENGES



SERGEY TKACHENKO, ADEL MAKBOUL

# PHYSICAL SITE PUBLIC TRANSIT CONNECTIONS

Public Transportation brings people into the city from far beyond Portland's city lines. The Portland Transit Mall is a central point where all these different lines meet

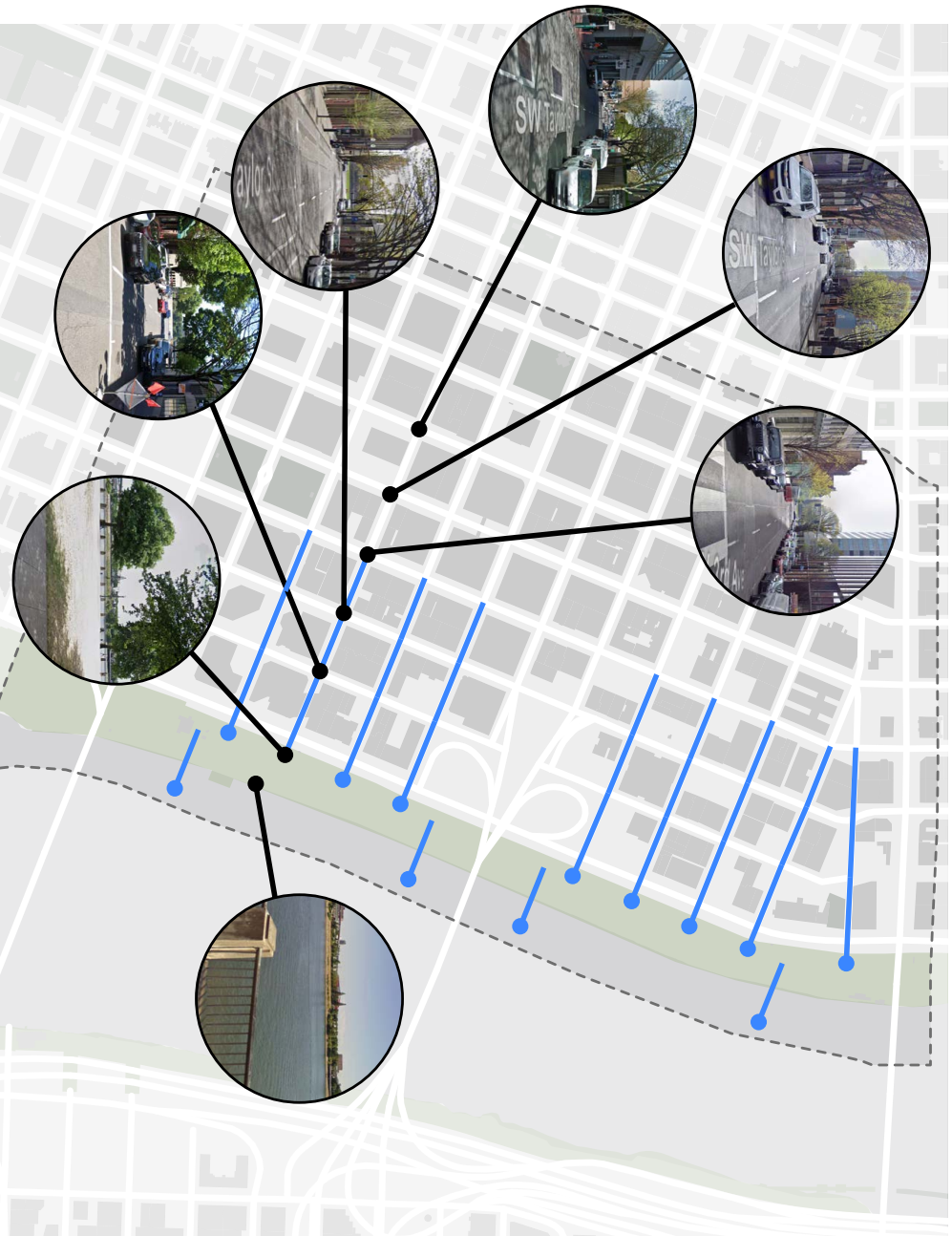


SERGEY TKACHENKO, ADEL MAKBOUL

# PHYSICAL SITE VIEWS

Because of the city grid, when looking down the streets, you see as far down the road as your eyes will let you with no building interruption

About 3-4 blocks in is when you begin to see the waterfront park. You can only see the water while in the park.



SERGEY TKACHENKO, ADEL MAKBOUL



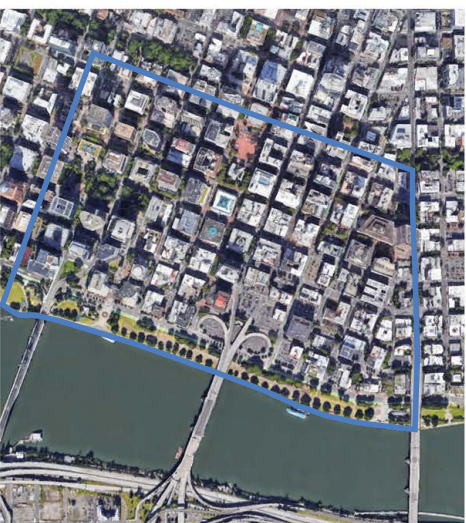
**PHYSICAL SITE**  
SCALE COMPARISON

VANCOUVER, WA  
WATERFRONT



3,500' X 750'

PORTLAND, OR  
DOWNTOWN &  
WATERFRONT



2,300' X 3,300'

SEATTLE, WA  
WATERFRONT IMPROVEMENT



3,900' X 480'



# PRECEDENTS

**WATERFRONTS**

- encourage human-scale interactions with water
- varied pathways/transportation modes
- sensitivity to natural ecology
- recreation spaces

**PLAZAS**

- integration with urban environment/transit
- 24 hour programming
- event/performance spaces

**PATHWAYS**

- sequence of experiences- multiple interest points
- safety at all times of day
- multiple transportation modes
- wayfinding strategies

**RECREATION**

- multifunctional
- activities without economic barriers
- spaces for all ages/abilities

**URBAN SWIMMING**

- free outdoor recreation
- interaction with waterfront
- safety considerations

**PUBLIC MARKETS**

- supports small businesses/existing cultures
- encourages interactions
- sense of ownership

**STREET ACTIVATION**

- ground floor commercial
- blending of indoor/outdoor spaces
- opportunities for public activities/events

**PRECEDENTS**  
**JIAOZHOU SANLI RIVER**  
*Jiaozhou, China*

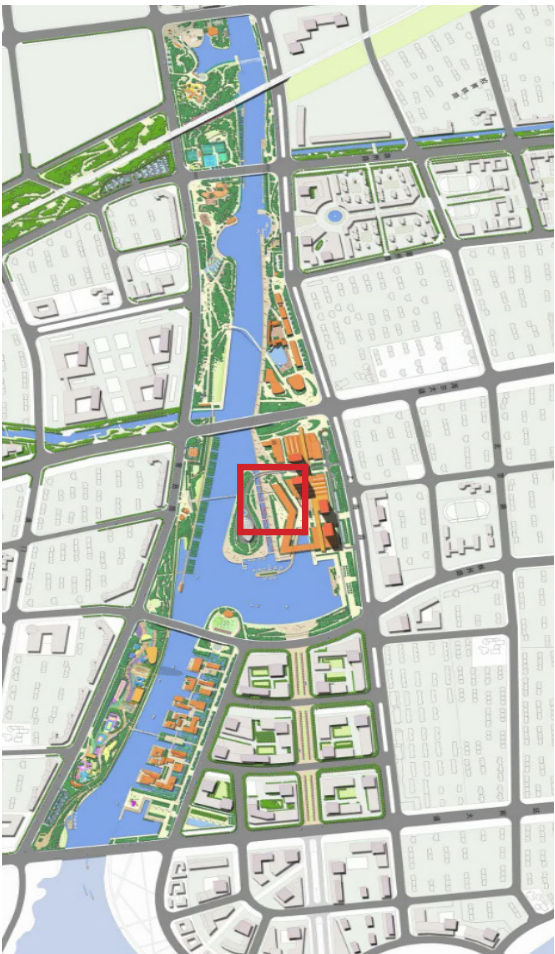


**Significance**  
Waterfront activation, varied pathways (boardwalks) and transportation modes, rehabilitation of natural ecology, interface of urban density and greenspace, spaces for recreation



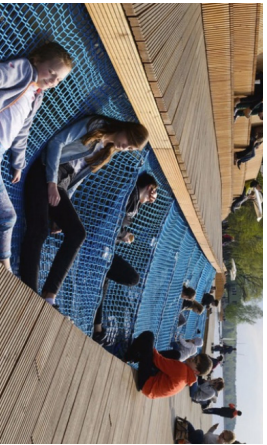
<https://moool.com/en/jiaozhou-sanli-river-the-central-business-district-by-ldg.html>

MADDY JOHNSON

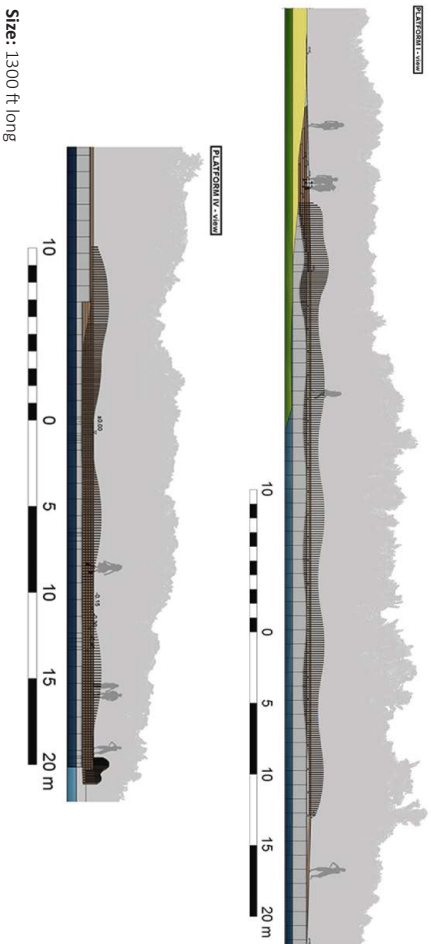


Size: 10000 ft long

**PRECEDENTS**  
**PAPROCANY WATERFRONT**  
*tychy, poland*



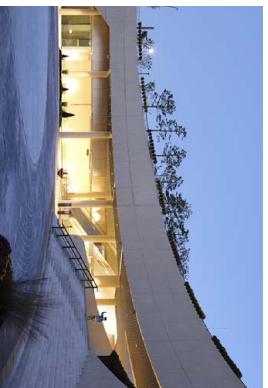
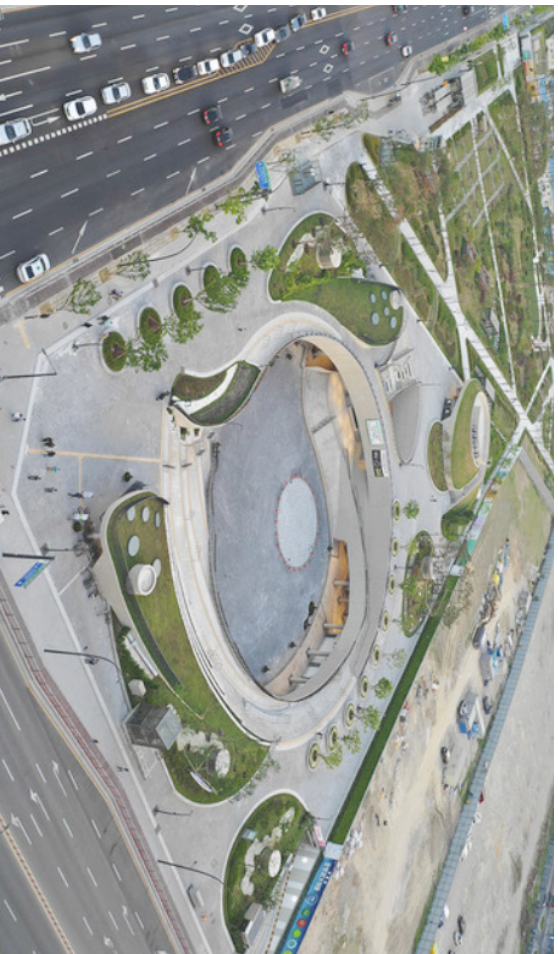
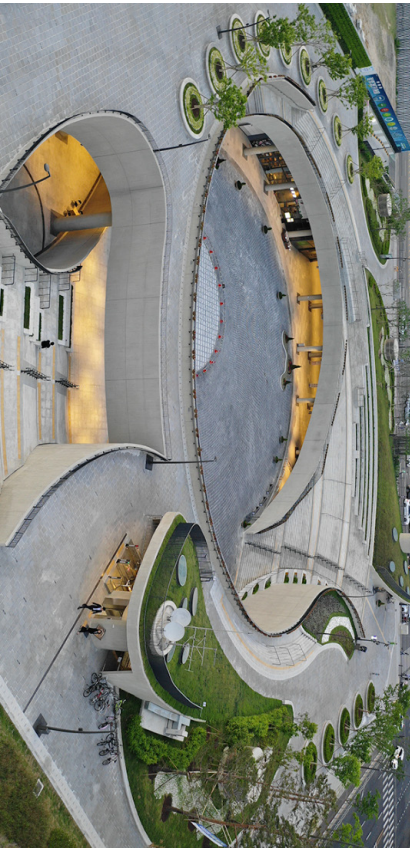
**Significance**  
 Network of pathways that enhance waterfront experience, areas for specific recreational activities, unique structures that allow for increased proximity to water, 24-hour programming/safety



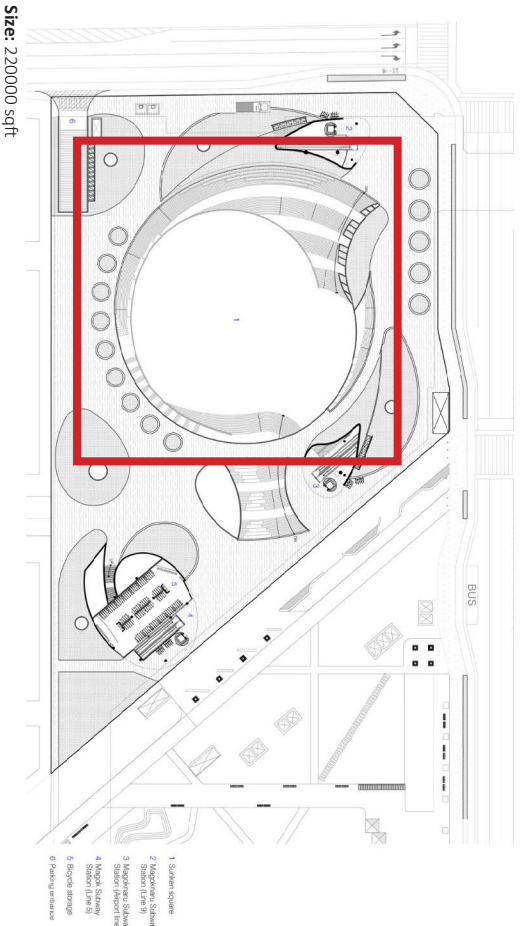
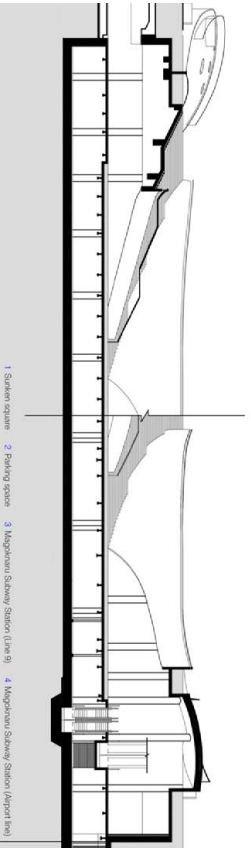
Size: 1300 ft long

<https://landezine.com/paprocany-lake-shore-by-rs/>  
 MADDY JOHNSON

**PRECEDENTS**  
**MAGOK CENTRAL PLAZA**  
*ganso-gu, south korea*



**Significance**  
 Public plaza integrated with urban environment, event/performance space, 24 hour activation, connection to public transit



**Size:** 220000 sqft

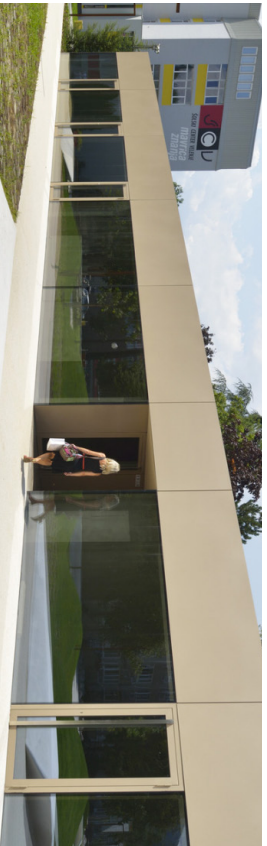
<https://www.arch2o.com/magok-central-squares-competition-wooridongin-architects/>

MADDY JOHNSON

**PRECEDENTS**  
**PROMENADA**  
*velenje, slovenia*

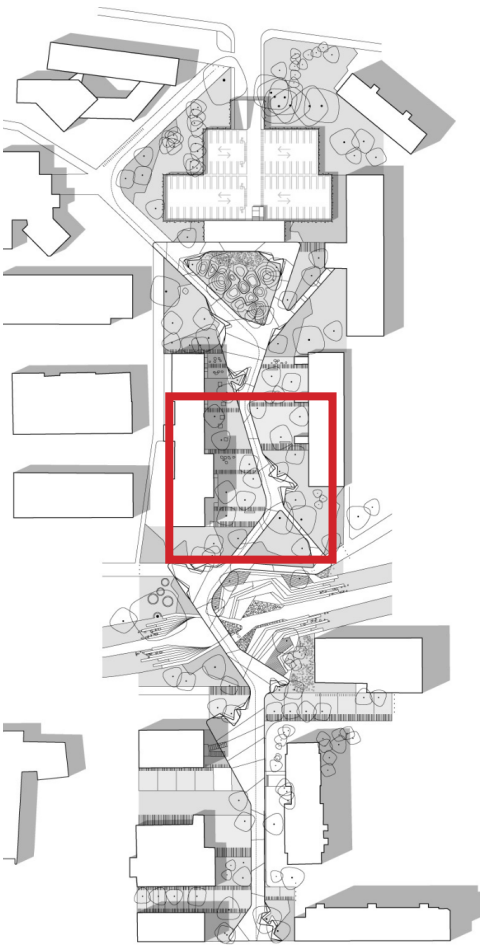


**Significance**  
Pedestrian pathway through urban environment, interaction with water, sequence of experiences, ground floor retail/restaurant interactions, multiple transportation modes

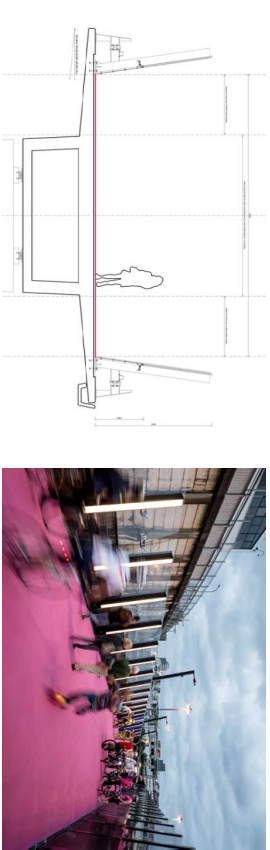
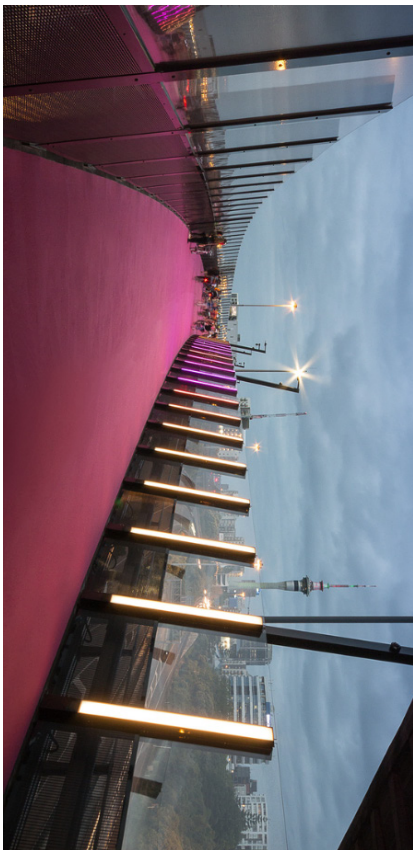


[https://www.archdaily.com/636611/promenada-velenje?ad\\_medium=gallery](https://www.archdaily.com/636611/promenada-velenje?ad_medium=gallery)

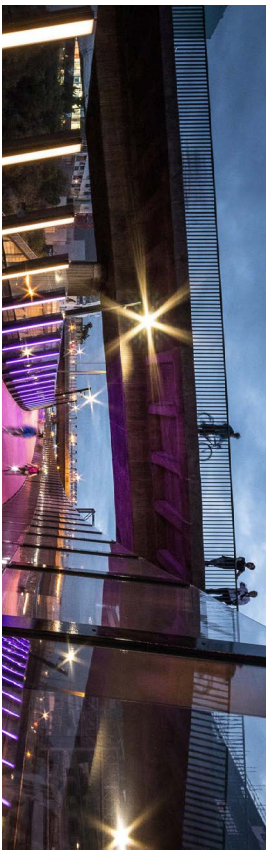
MADDY JOHNSON



Size: 183000 sqft

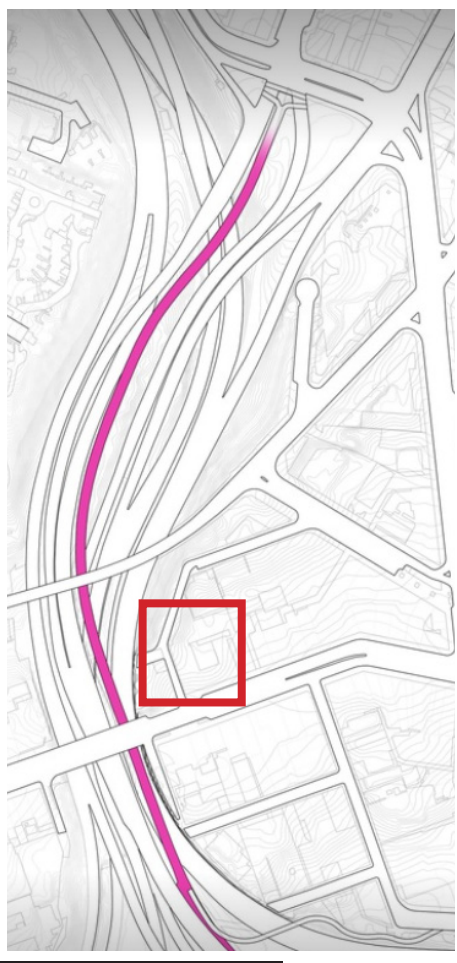


**Significance**  
Highway revitalization/reuse, pedestrian/bike routes separated from vehicles, 24 hour programming, spaces for recreation



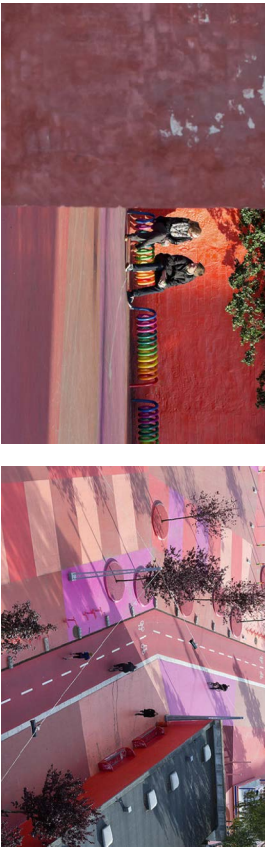
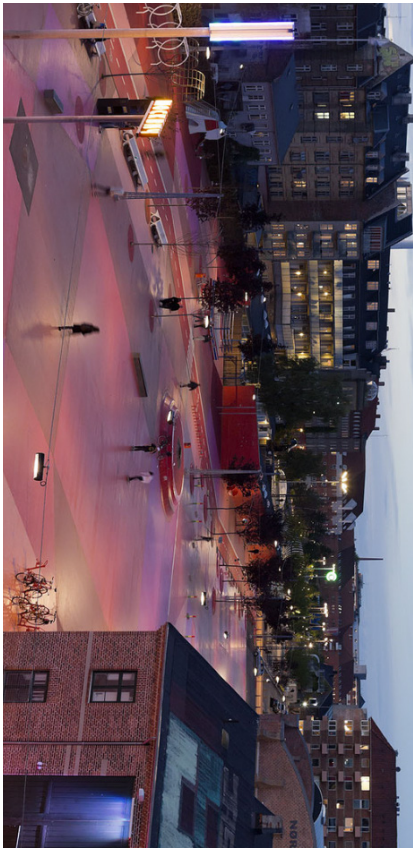
<https://www.bikeauckland.org.nz/ride/lightpath-te-ara+-whiti>

MADDY JOHNSON



Size: 2000 ft long





**Significance**  
 Pathway as recreation, urban artery connecting multiple points of interest; wayfinding strategies, creation of identity



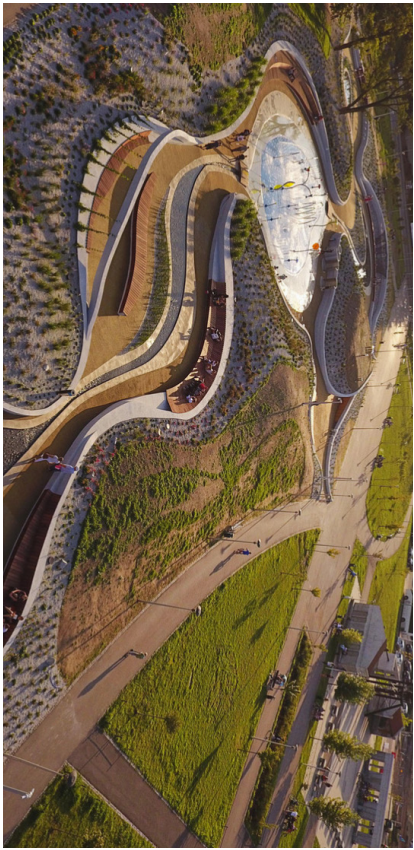
[https://www.archdaily.com/286223/superkilen-topotek-1-big-architects-superflex7ad\\_medium-gallery](https://www.archdaily.com/286223/superkilen-topotek-1-big-architects-superflex7ad_medium-gallery)

MADDY JOHNSON

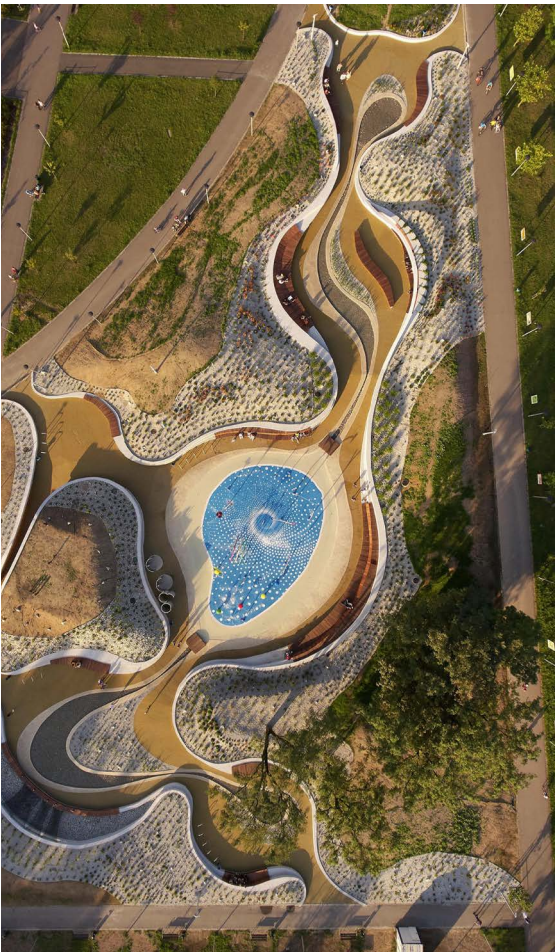
**PRECEDENTS**  
**SUPERKILEN**  
 copenhagen, denmark



**Size:** 290000 sqft



**PRECEDENTS**  
**JAWORZNICKIE WATER PLAYGROUND**  
*Jaworzno, Poland*



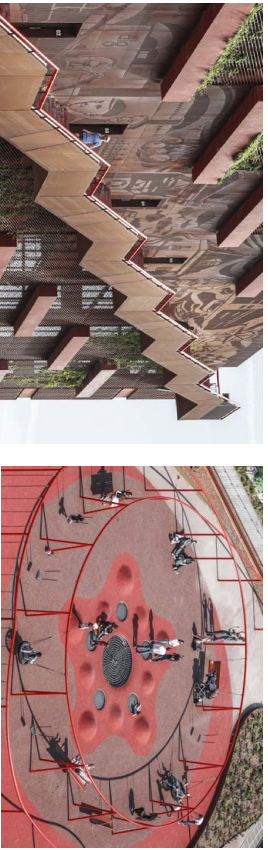
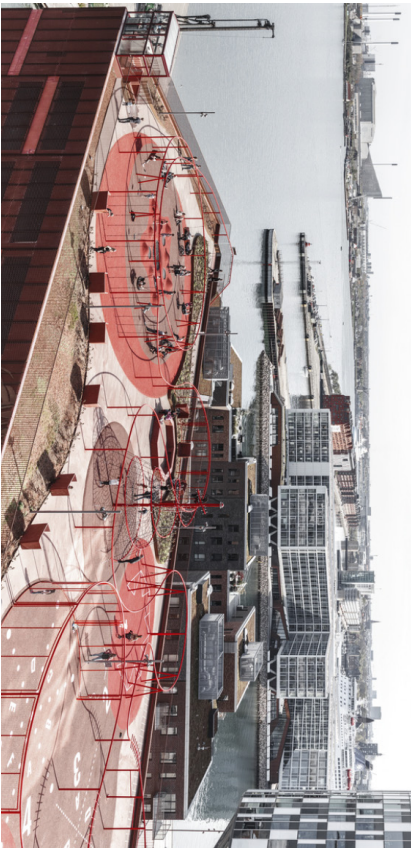
**Significance**  
 Urban park for all ages, access to free recreation, connection to water, public restrooms, reclamation of greenery in an underused/underserved area



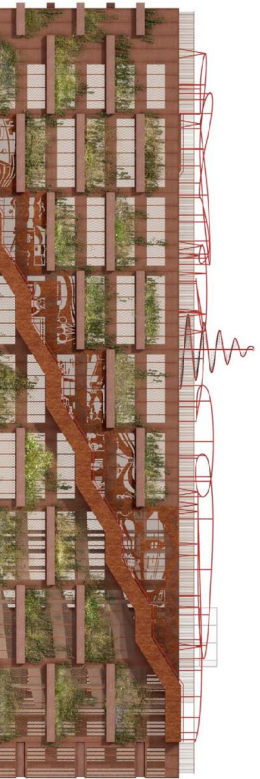
<https://moresports.network/jaworznicke-planty/?lang=en>

MADDY JOHNSON



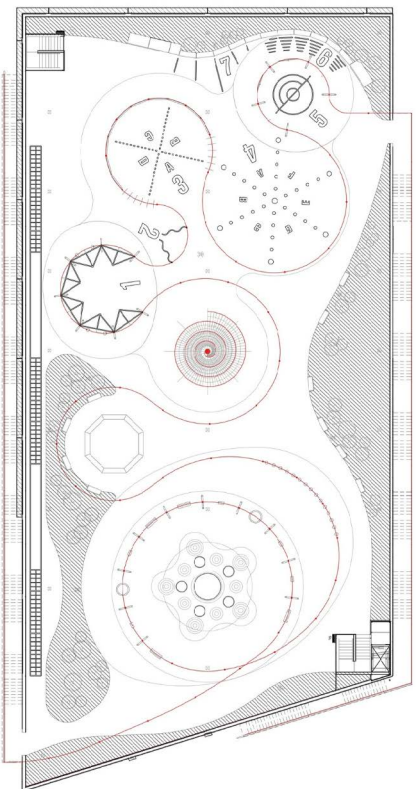
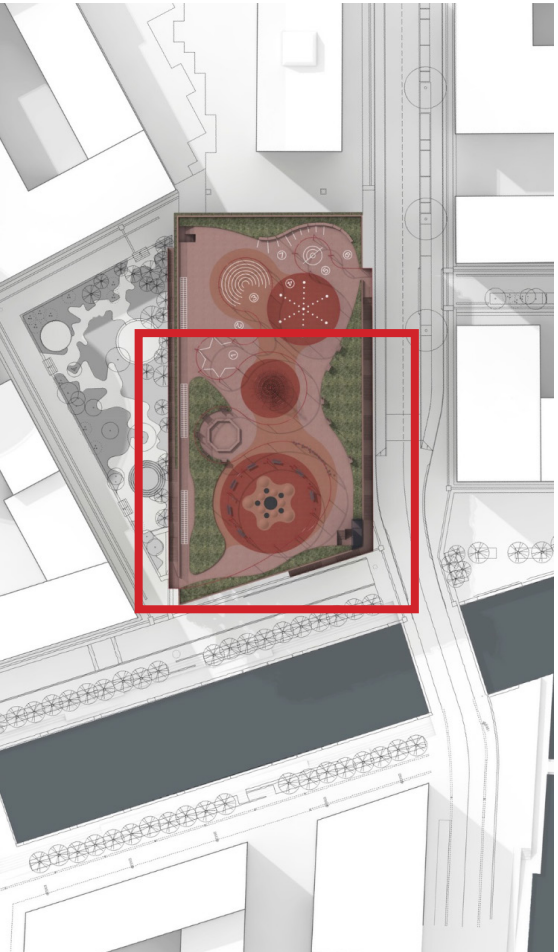


**Significance**  
Reuse of existing parking structure, places for free recreation, connection/views to waterfront, multifunctional spaces

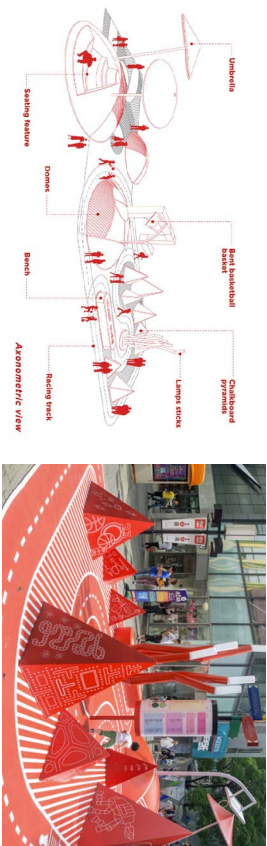


<https://dac.dk/en/knowledgebase/architecture/park-n-play/>

MADDY JOHNSON



**Size:** 25000 sqft

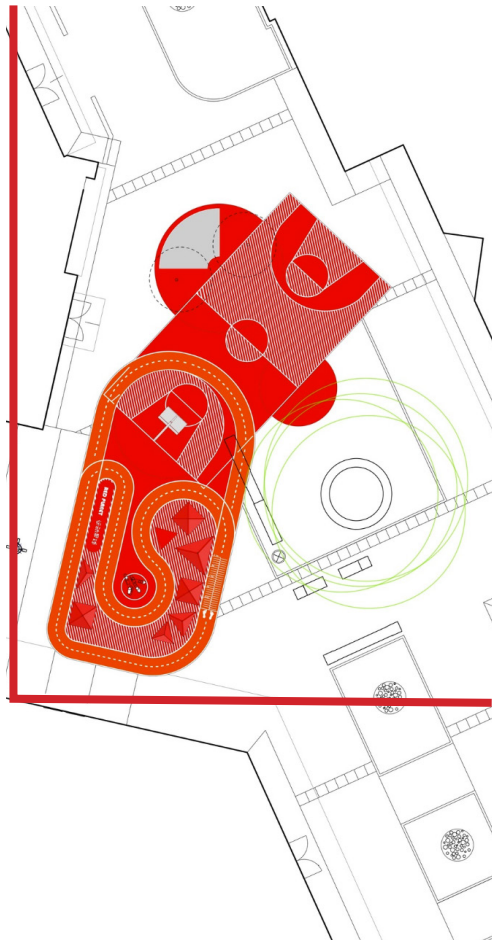


**Significance**  
 Recreation connected to ground floor commercial spaces, activation of underused circulation space, family-friendly spaces



[https://www.archdaily.com/891645/red-planet-100architects?ad\\_medium=gallery](https://www.archdaily.com/891645/red-planet-100architects?ad_medium=gallery)

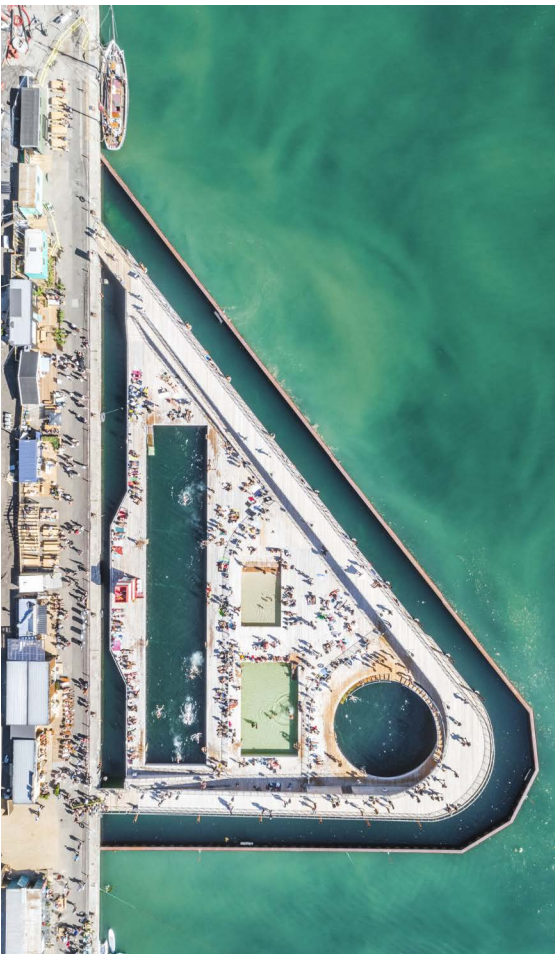
MADDY JOHNSON



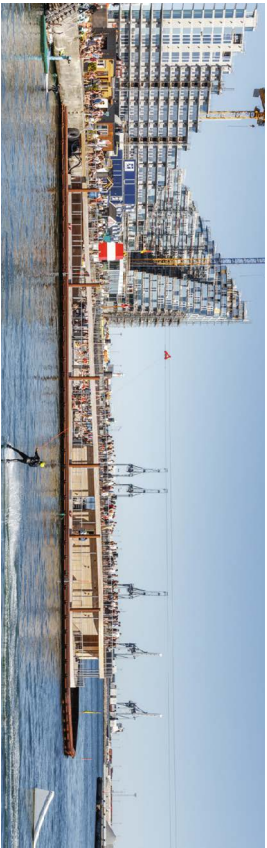
Size: 2500 sqft

**PRECEDENTS**  
**RED PLANET**  
 zhubei qu, china

**PRECEDENTS**  
**AARHUS HARBOR BATH**  
*aarhus, denmark*

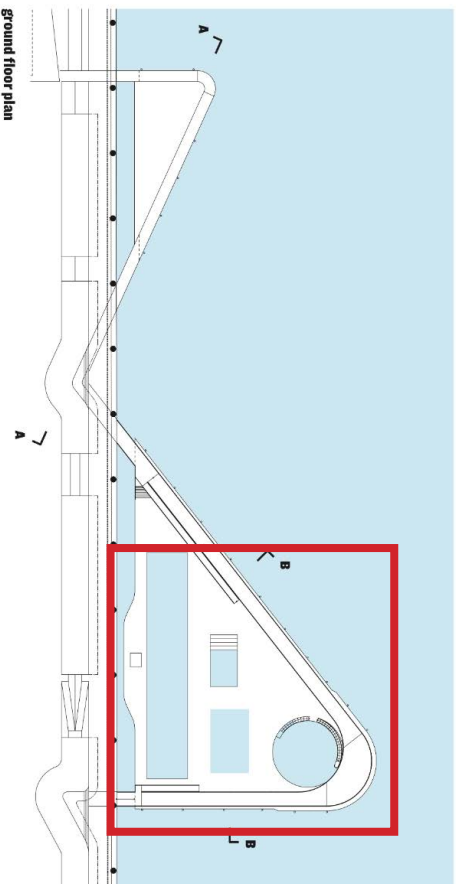


**Significance**  
 Public interaction with water, opportunities for outdoor recreation, consideration for change of seasons, accommodations for multiple ages/abilities



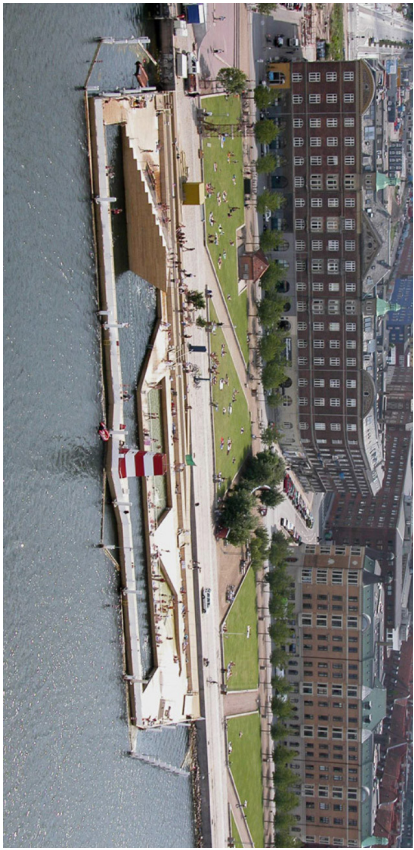
<https://www.architectural-review.com/buildings/harbour-bath-in-aarhus-denmark-by-hjarke-ingels-group>

MADDY JOHNSON



Size: 280000 sqft

ground floor plan



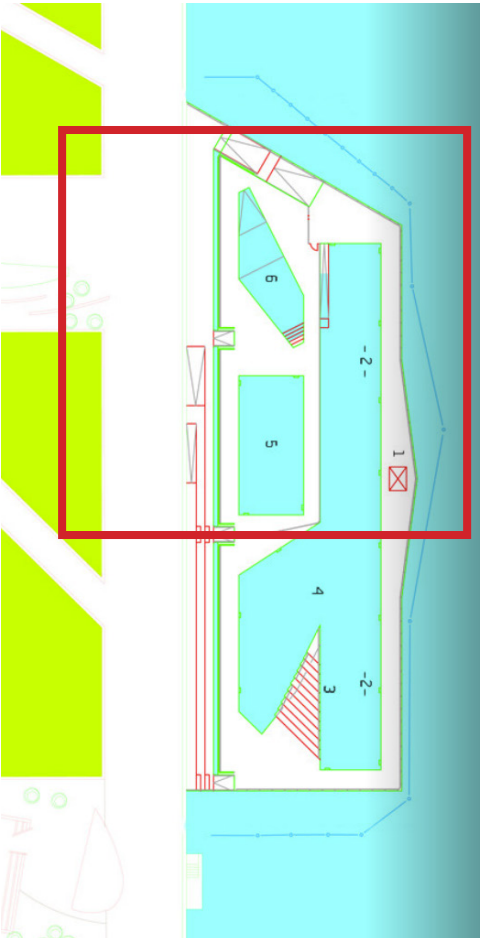
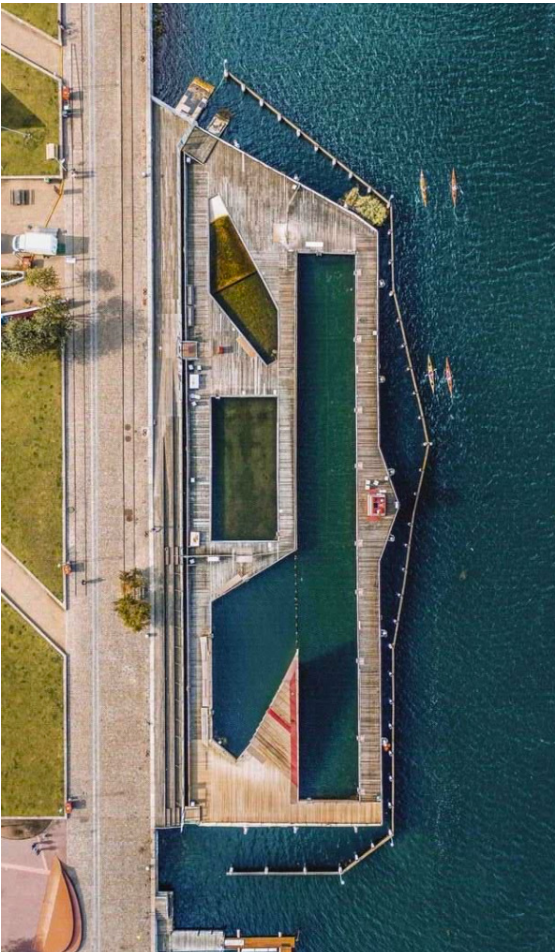
**Significance**  
Public welcomed to waterfront, spaces for multiple ages, safety considerations, flexible programming, access to free recreation



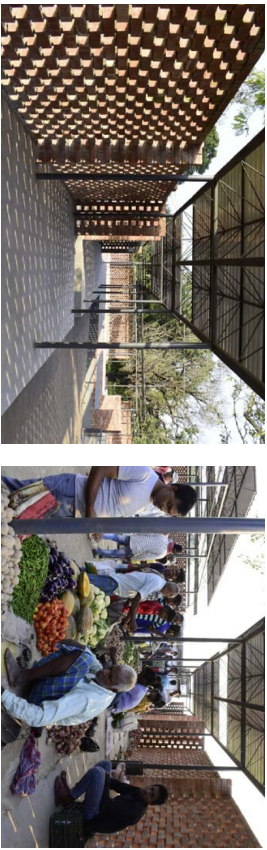
<http://dlsa.eu/bad/>

MADDY JOHNSON

**PRECEDENTS**  
COPENHAGEN HARBOR BATH  
*copenhagen, denmark*



Size: 25000 sqft



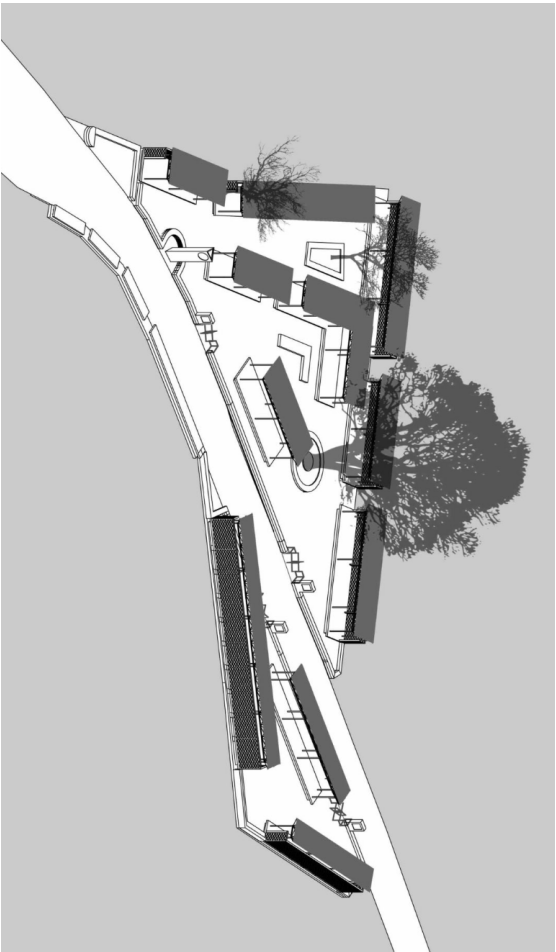
**Significance**  
 Architecture that supports existing programming, spaces for small businesses, activation of town center



<https://studiomatter.in/portfolio/narindrapur-market/>

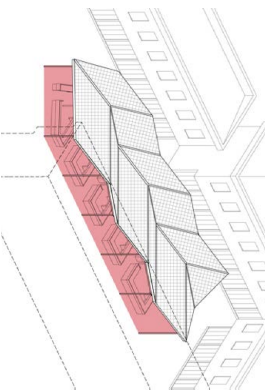
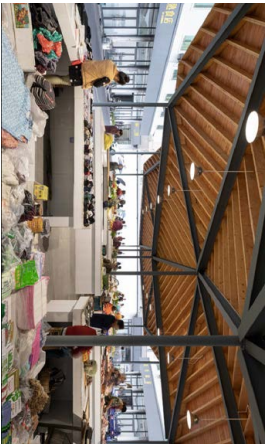
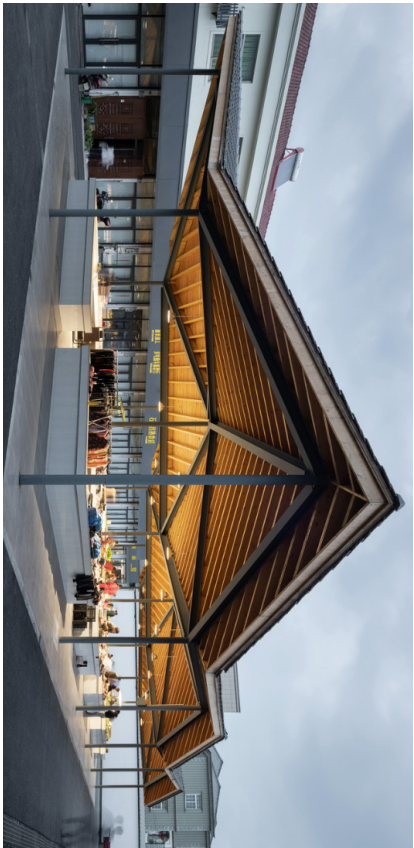
MADDY JOHNSON

**PRECEDENTS**  
 NARINDRAPUR MARKET  
*narindrapur, india*

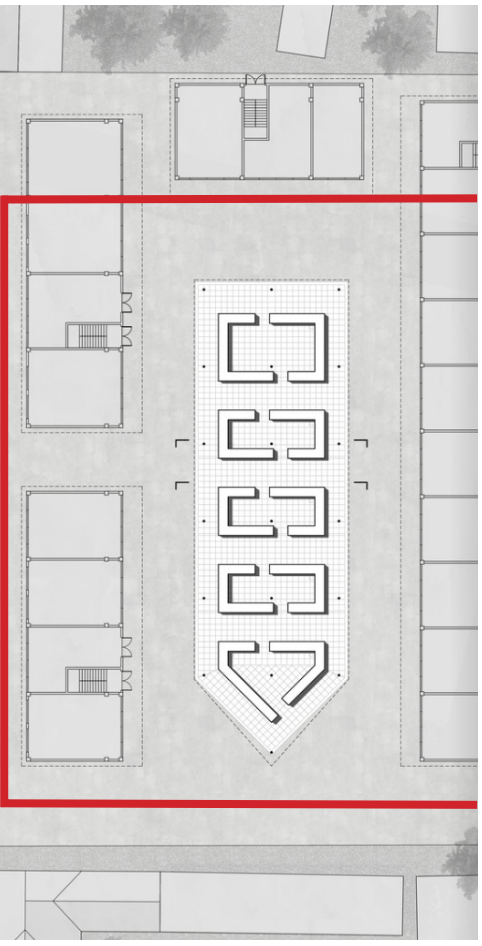
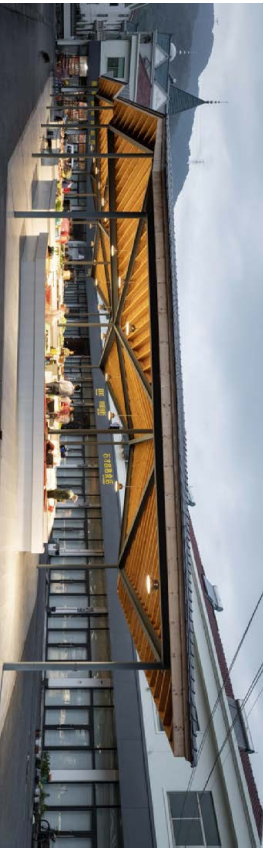


**Size:** 2500 sqft

**PRECEDENTS**  
**XIAFU FARMERS' MARKET**  
*Jinhua, china*



**Significance**  
Marketplace located in important community center, layout that encourages public interactions, sense of ownership for sellers



**Size:** 7800 sqft

<https://www.goood.cn/the-renovation-of-the-xiafu-village-farmers-market-china-by-bengo-studio.htm>

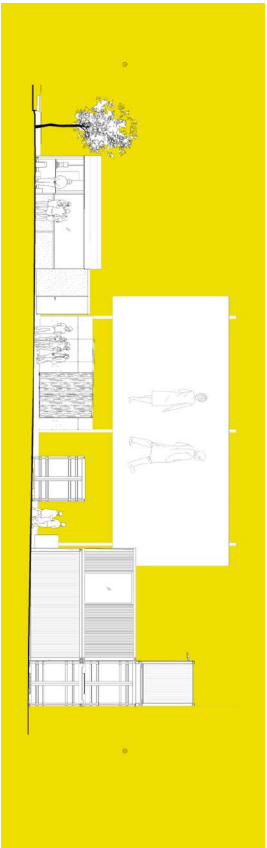
MADDY JOHNSON



**PRECEDENTS**  
**PROXY**  
*san francisco, california*



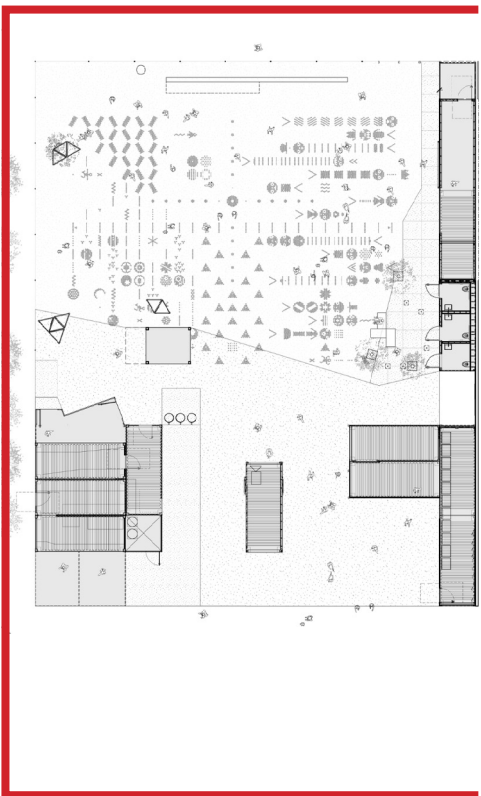
**Significance**  
Activation of unused urban spaces, ground floor retail and restaurants, spaces for community events and activities

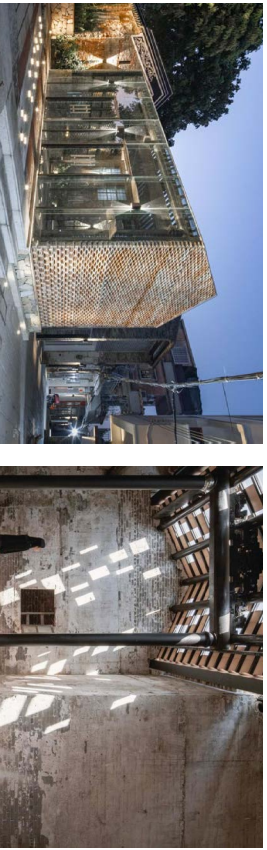


<https://envelopead.com/work/proxy/>

MADDY JOHNSON

**Size:** 30000 sqft





**Significance**  
Rehabilitation of existing structures, activation at street level, public space spilling from indoor to outdoor



<https://www.archdaily.com/996249/renovation-of-the-diejiao-ancient-street-atelier-cns-ll-architects>

MADDY JOHNSON



**PRECEDENTS**  
**DIEJIAO STREET**  
*fo shan, china*

URBAN DESIGN STUDIO | UO SPRING 2023

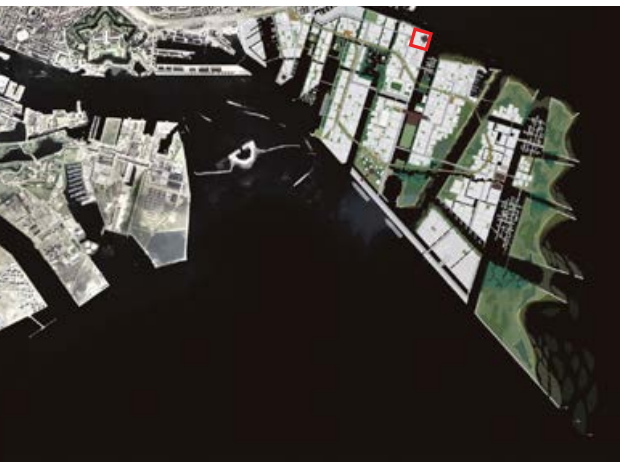
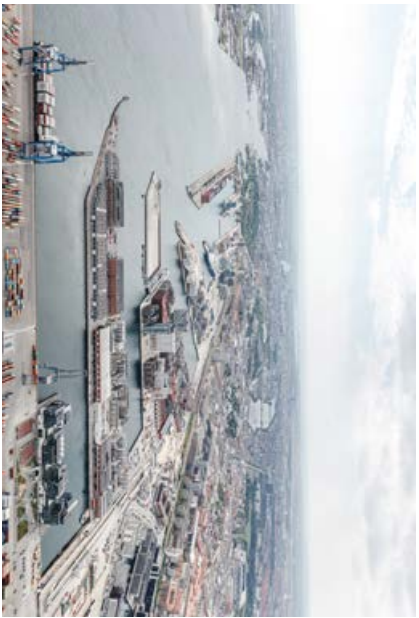


Size: 280000 sqft

133

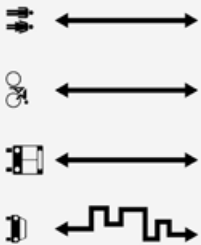
**STREET ACTIVATION**

**PRECEDENTS**  
**NORDHAVN WATERFRONT**  
*Nordhavn, Copenhagen*



<https://cobe.dk/place/nordhavn>  
 ALYSSA RUPP

Size: 768 acres



SOFT MOBILITY



"URBAN GREEN" + "NATURAL GREEN" SPACE



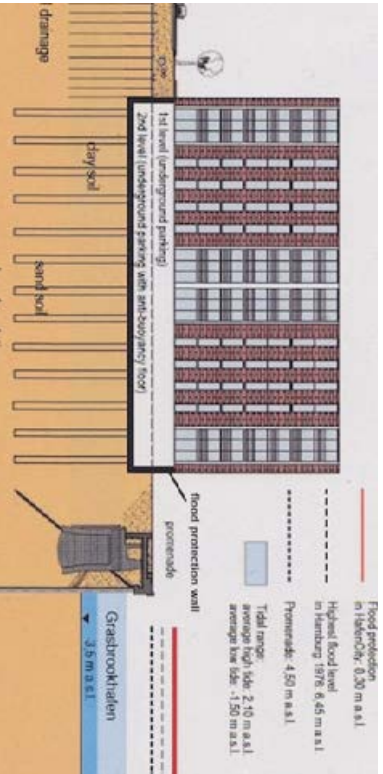
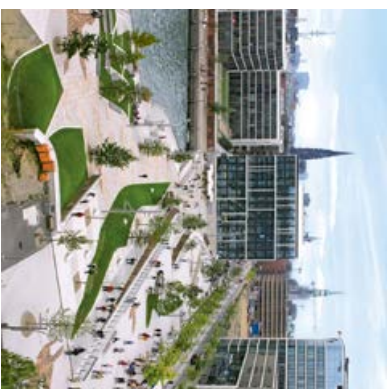
GREEN LOOP- 5 MINUTE CITY



NEW CANALS

**SIGNIFICANCE**  
 The design and development of blue and green spaces are prioritized over buildings. There is a gradual expansion into the surrounding sea. The planning focuses on soft mobility, making it more convenient to travel by bike or bus over car through a greenway and street design. The strategy for designing for an unknown future is to create a flexible framework and develop it in phrases.

**PRECEDENTS**  
**HAFENCITY**  
*Hamburg, Germany*



**FIRST FL. ON THE PROMENADE SEALS OFF FOR FLOOD**     **BLDG BEHIND PROMENADE BUILT ON "TERPS"**

**SIGNIFICANCE**  
 The waterfront is designed to live with the water instead of trying to wall it off. Sea Walls are very costly and cut off interaction with the waterfront. Instead, Hafencity returned to an ancient Dutch technique of building on top of artificial mounds called "Terps". Terps are a nature-based approach that preserves public access; the steps can double as an amphitheatre and cut the cost of flood protection.



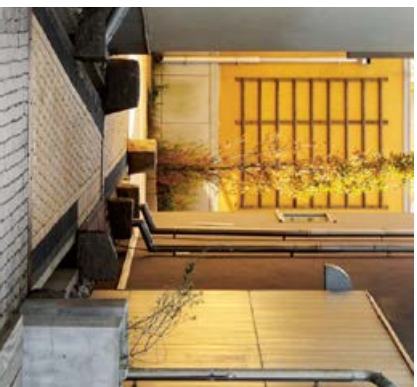
**Size:** 407 acres

<https://www.kcap.eu/projects/9/hafencity>  
 ALYSSA RUPP

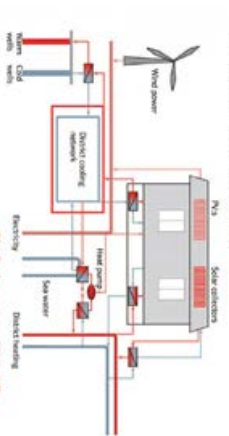


**OLDER BRICK BUILDINGS ARE BUILT TO WITHSTAND FLOODING. WALKWAYS ARE ELEVATED.**

**PRECEDENTS**  
**BOO1**  
*Malmö, Sweden*



**PV ARRAYS AND WIND TURBINE PROVIDE ELECTRICITY**  
**100% locally renewable energy**



**DISTRIBUTION SYSTEM - 100% LOCAL RENEWABLE ENERGY**  
**Size: 54 acres**

<https://www.urbanrenewablegrids.com/projects/boo1-city-of-tomorrow-malmo-sweden/>  
 ALYSSA RUPP



**PONDS BUFFER AND PURIFY WATER**



**ALL HOMES CAN TRACK WATER CONSUMPTION**

**SIGNIFICANCE**  
 This district is run on 100% renewable energy. Their heat is from an Aktern heat pump installation which extracts from an underground reservoir. Cold air also utilizes sea water. Electricity is from local wind turbines and PV Arrays. The residents can track all of their energy and water consumption. For rainwater, they altered the topography to direct water to the sea. There are green roofs and a number of purifying and buffer systems.

**PRECEDENTS**  
**THE FORKS**  
*Winnipeg, Manitoba, Canada*



**SIGNIFICANCE**  
 The Forks main focus is awakening and activating the waterfront during every season. In the winter, people can walk, skate, cross-country ski, have curling matches and play hockey on the river. The goal is for the waterfront to be a meeting place full of social interaction using a mixed-use approach.

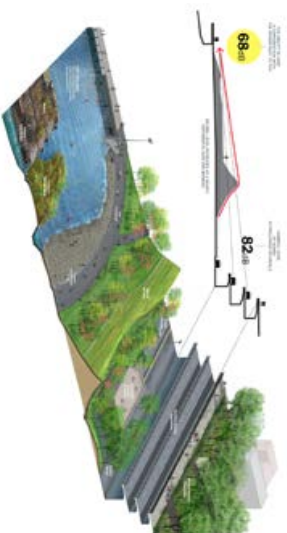


**Size:** 62.5 acres

**WARMING HUT COMPETITION**

<https://www.theforks.com/uploads/documents/go-to-the-waterfront-2014.pdf>  
 ALYSSA RUPP

**PRECEDENTS**  
**BROOKLYN BRIDGE PARK**  
*Northaven, Copenhagen*



**SOUND BERM REDUCES TRAFFIC NOISE**



**SIGNIFICANCE**  
 The park is activated by a green-way and oversized piers, each with designated nature-based play. The furniture and terraces are reused and found material. There are sound berms to deflect traffic noise. The sea wall was removed and replaced with a flood-tolerant stone rip-rap shoreline. The park also acts as a storm buffer for climate change.



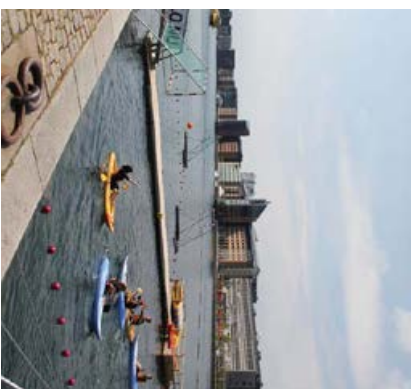
**Size:** 85 acres



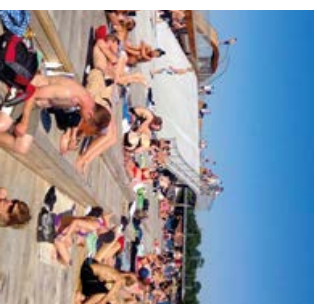
**REMOVED SEA WALL REPLACED WITH FLOOD-TOLERANT STONE RIP-RAP SHORELINE**

<https://www.nvmainc.com/projects/brooklyn-bridge-park>  
 ALYSSA RUPP

**PRECEDENTS**  
**ISLAND BRYGGE PARK**  
*Islands Brygge, Copenhagen*



**SIGNIFICANCE**  
 The main activity for this park that draws people here is the five open-air swimming pools open all year long. They provide a place for play and exercise, socializing, playing and enjoying the sun. In addition, there are water taxis and water buses that turn the canal. And an increase in pedestrian bridges and promenades that provide a total circulation of movement.



<https://urbannext.net/copenhagen-harborfront-critical-review/>  
 ALYSSA RUPP

Size: 247 acres





**PRECEDENTS**  
**VANCOUVER WATERFRONT**  
*Vancouver, Wa*



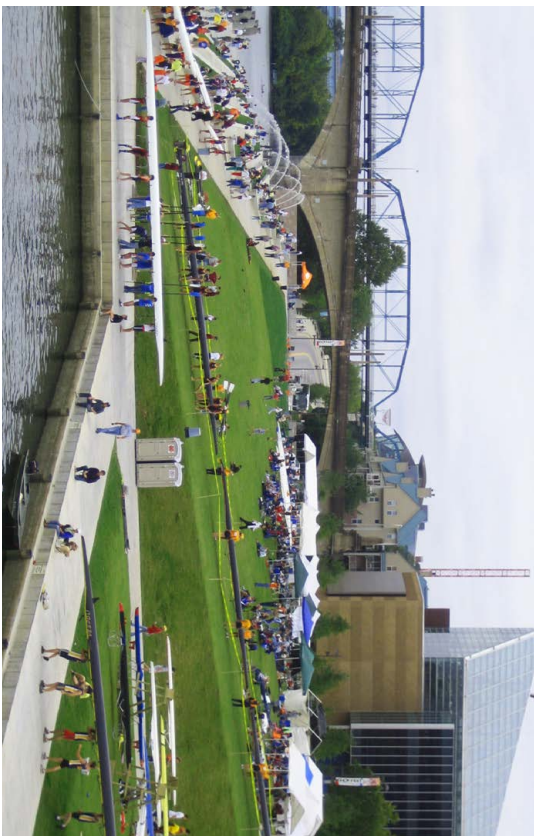
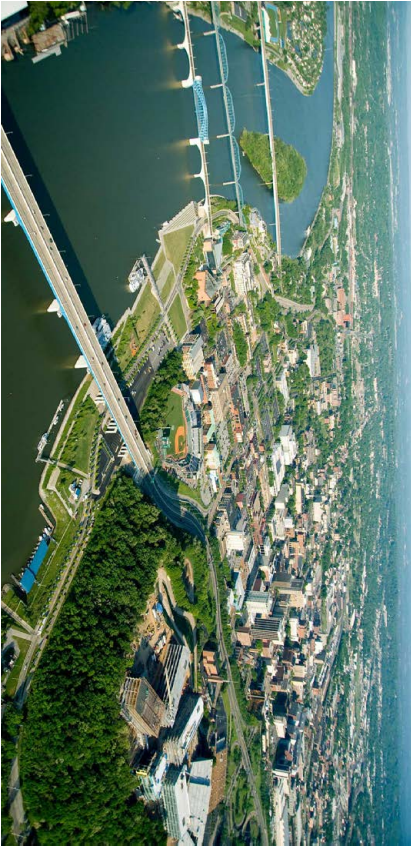
<https://www.pwipartnership.com/case-studies/vancouver-waterfront-master-plan-park>  
 ALYSSA RUPP  
**Size:** 7.3 acres



**SIGNIFICANCE**  
 Material choice was intentional: local basalt was used throughout the waterfront design, and heavy timber and mill artefacts were used. In addition, the open portion of the Grant Street Pier was designed not to hinder the aquatic species migration and reduce disturbance to the riverbed.



**PRECEDENTS**  
 CHATTANOOGA WATERFRONT PARK  
 Chattanooga, TN

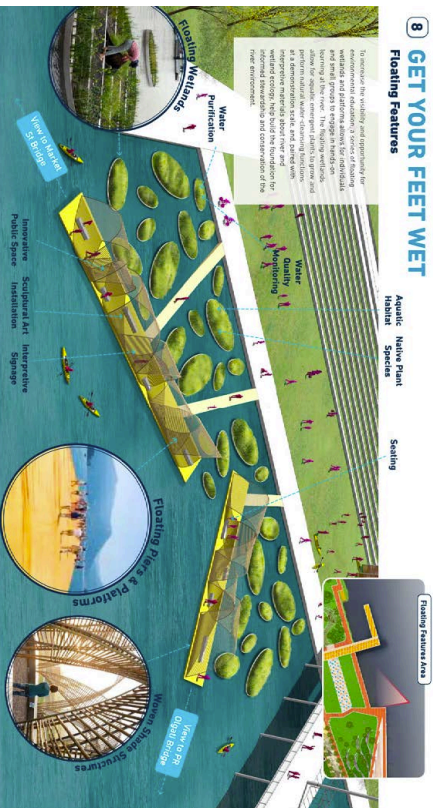


**Significance**  
 Stepped connection down to water, piers out into the water. Major green/fairground as center of the park and waterfront.

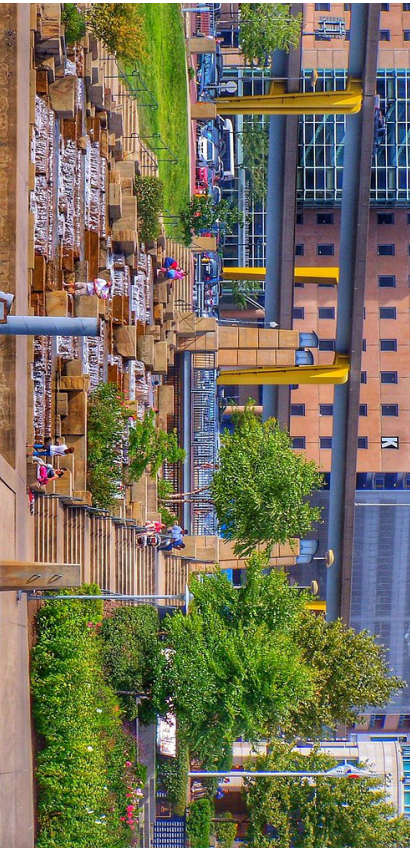


<http://www.hartgreaves.com/work/chatanooga-21st-century-waterfront-park/>  
 SPENSER GOULD

First plan for the park was successfully implemented through the 90's and 2000's, and a renewed master plan was made in 2020 to further activate the green outside of festivals and big events.



**PRECEDENTS**  
PITTSBURGH RIVERLIFE  
*Pittsburgh, PA*

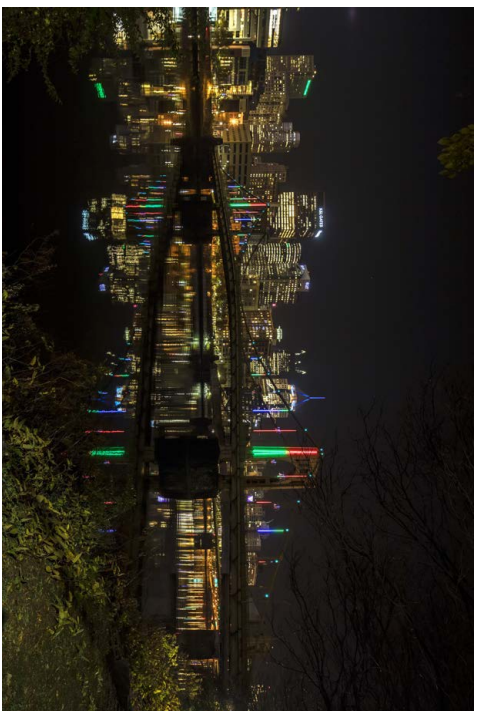
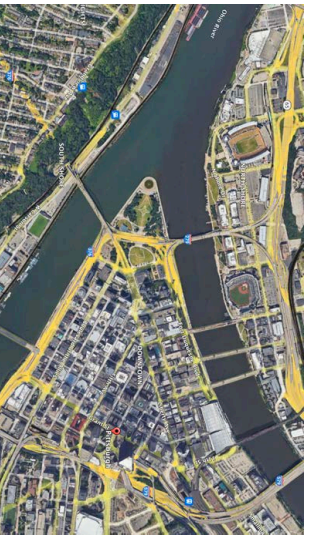


Shore bird houses made from repurposed concrete.

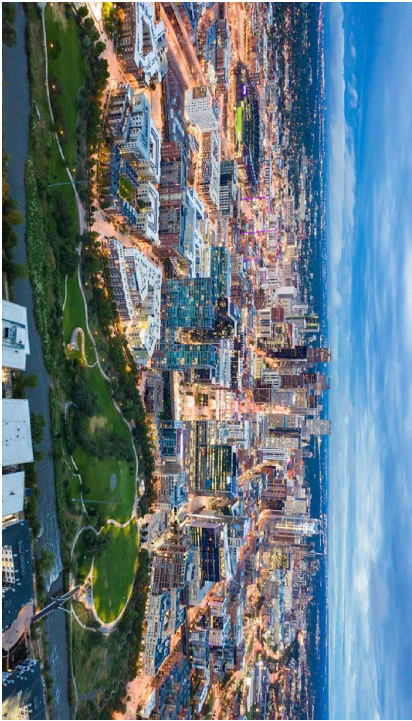


**Significance**

Special waterway path sections leading from downtown core to the river, bridges celebrated with lighting displays, restorative ecology exhibit using repurposed urban materials.



SPENSER GOULD



**PRECEDENTS**  
DENVER RIVERFRONT PARK  
Denver, CO



**Significance**

Important reconnection to downtown via the riverfront park. Grand pedestrian stair crosses over old rail yard and brings travelers down to the new street level. Civic minded green space also known as the Denver Commons

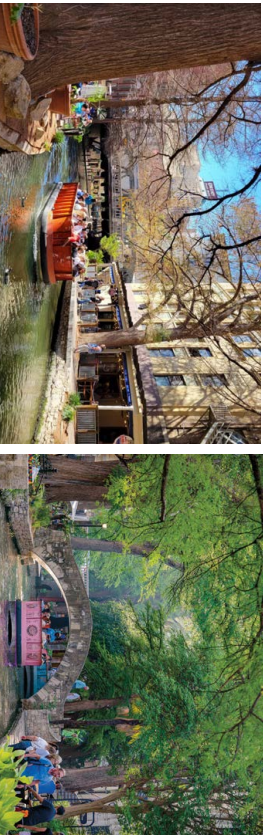
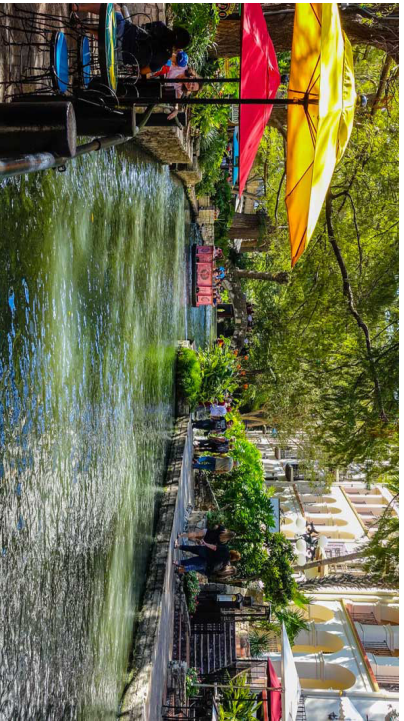


SPENSER GOULD



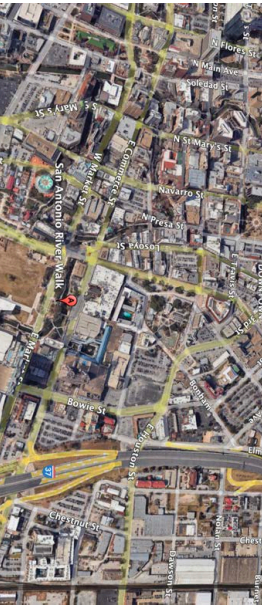
<https://www.designworkshop.com/projects/riverfront-park.html>

**PRECEDENTS**  
**SAN ANTONIO RIVERWALK**  
*San Antonio, TX*



**Significance**

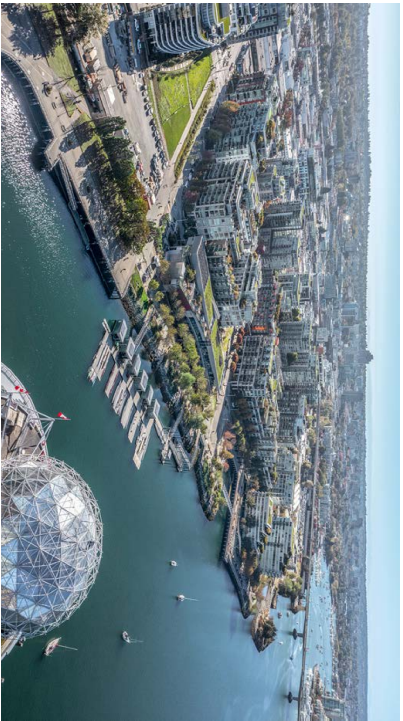
Human scaled engagement with water, special experience at the riverfront sometimes called the 'American Venice'. Art Installations under interstate overpasses and the Riverwalk has expanded out of downtown to also accommodate quieter trails for jogging.



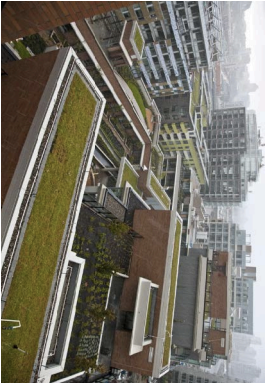
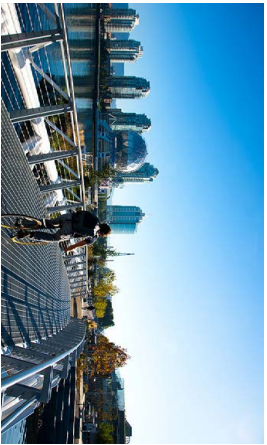
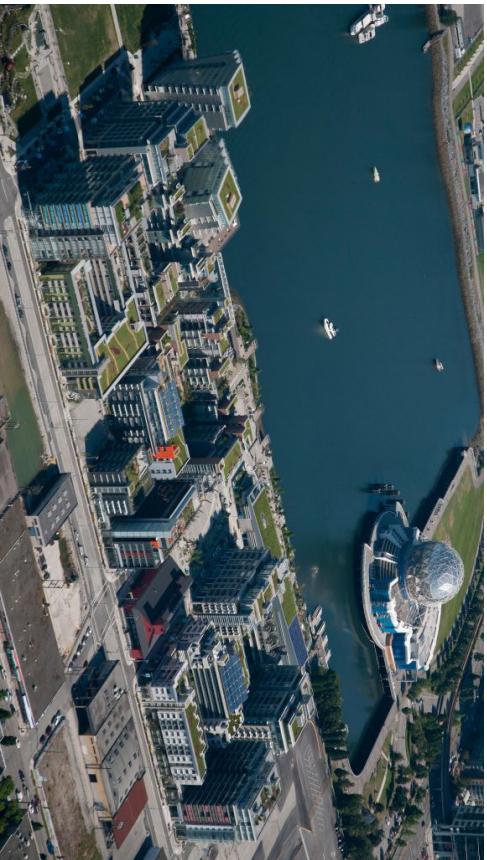
SPENSER GOULD



<https://www.thesanantonioriverwalk.com/about/our-history/>

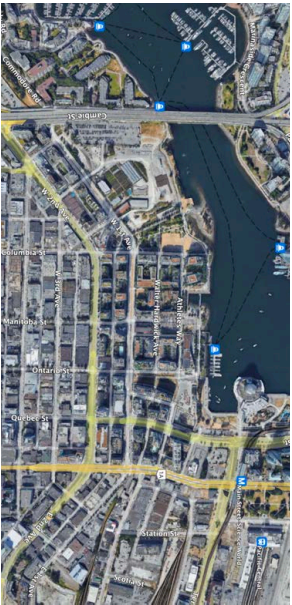


**PRECEDENTS**  
**VANCOUVER OLYMPIC VILLAGE (SE FALSE CREEK)**  
*Vancouver, BC*



**Significance**

Dense example of sustainable urban development. Entire neighborhood awarded Leed Platinum status, extensive green roofs and stormwater management on reclaimed industrial waterfront. Hinge park is a developed wetland, and habitat island serves as an ecological patch.

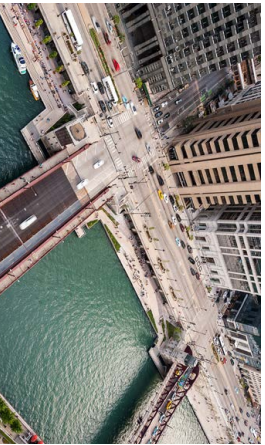


SPENSER GOULD

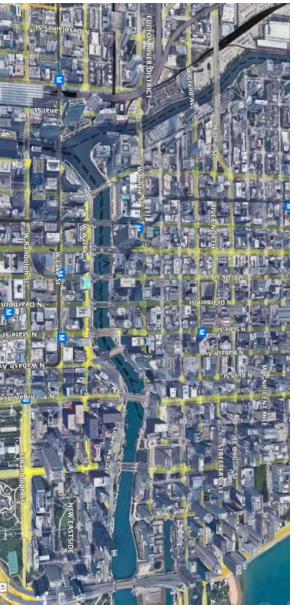


<https://vancouver.ca/home-property-development/southeast-false-creek.aspx>

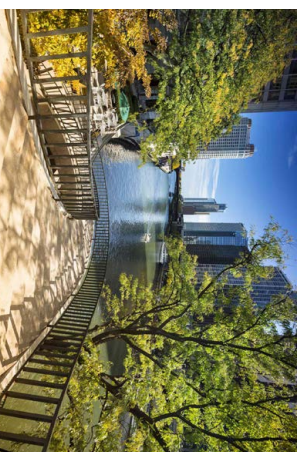
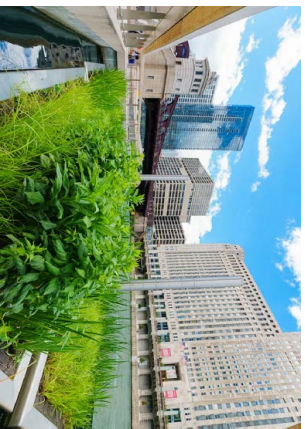
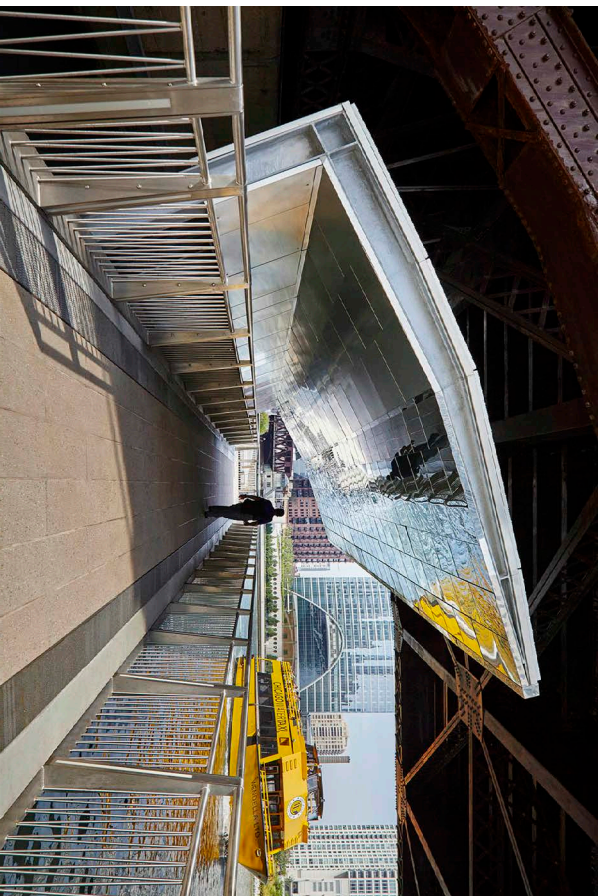
**PRECEDENTS**  
**CHICAGO RIVERWALK**  
*Chicago, IL*



**Significance**  
 Riverfront reclaimed for the ecological, recreational, and economic benefit of the city. Unique 'rooms' created in between the bridges, giving each section a different character. Floating plantings for ecological restoration, and underbridge art installations to guide passages.



SPENSER GOULD



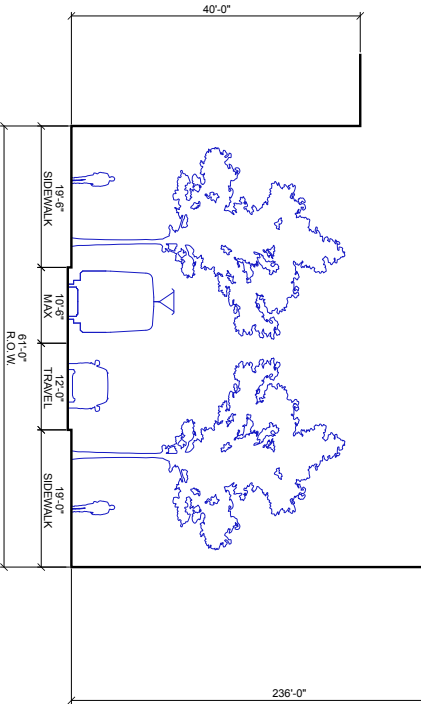
<https://www.archdaily.com/780307/chicago-riverwalk-chicago-department-of-transportation-plus-ross-barney-architects-plus-sasaki-associates-plus-jacobs-ryan-associates-plus-alfred-benesch-and-company>



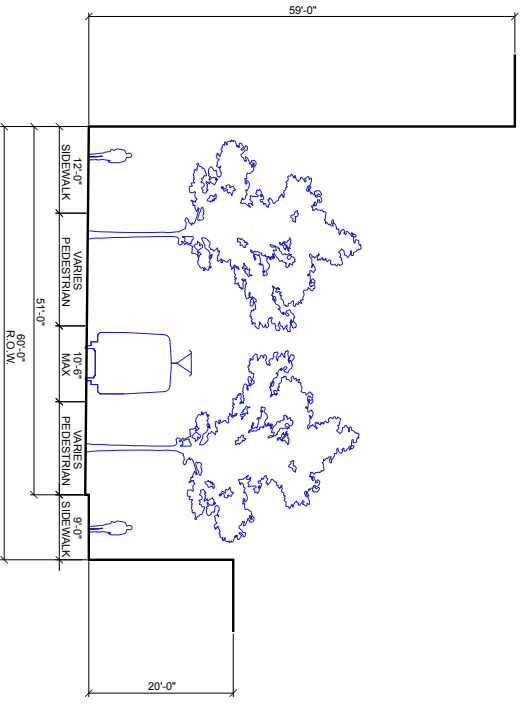
# BASE DRAWINGS



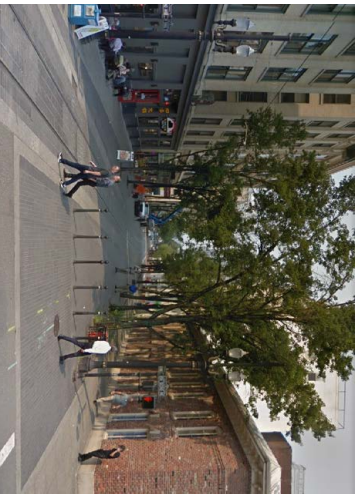
**BASE DRAWINGS**  
STREET SECTIONS



SW MORRISON, BTWN 2nd & 3rd, LOOKING WEST  
Scale: 1/16" = 1'-0"

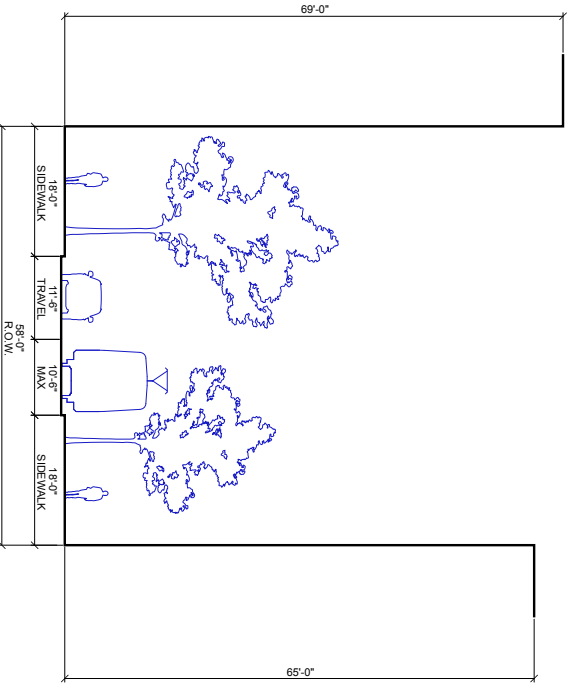


SW YAMHILL, BTWN 2nd & 3rd, LOOKING WEST (BLOCK CLOSED TO CARS)  
Scale: 1/16" = 1'-0"

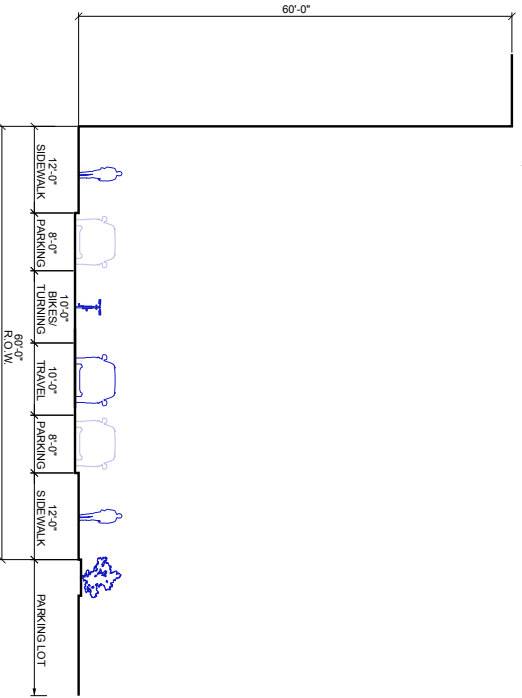


HARI DEEVI AND EMILY BRATT

**BASE DRAWINGS**  
STREET SECTIONS



SW YAMHILL, BTWN 3rd & 4th, LOOKING WEST  
Scale: 1/16" = 1'-0"

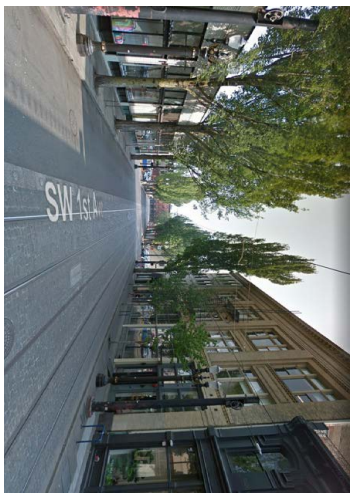
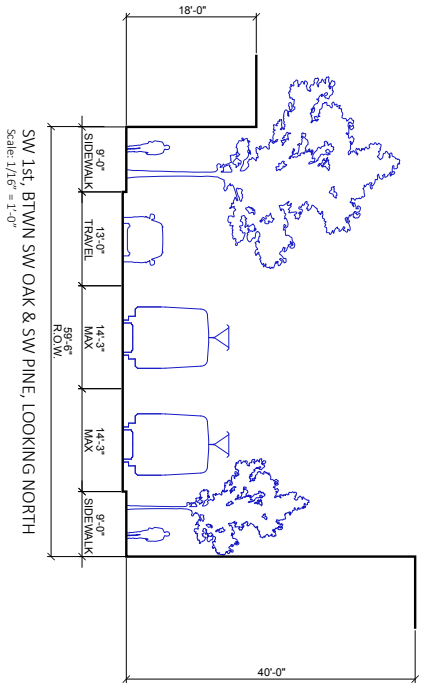


SW HARVEY MILK, BTWN 3rd & 4th, LOOKING WEST  
Scale: 1/16" = 1'-0"



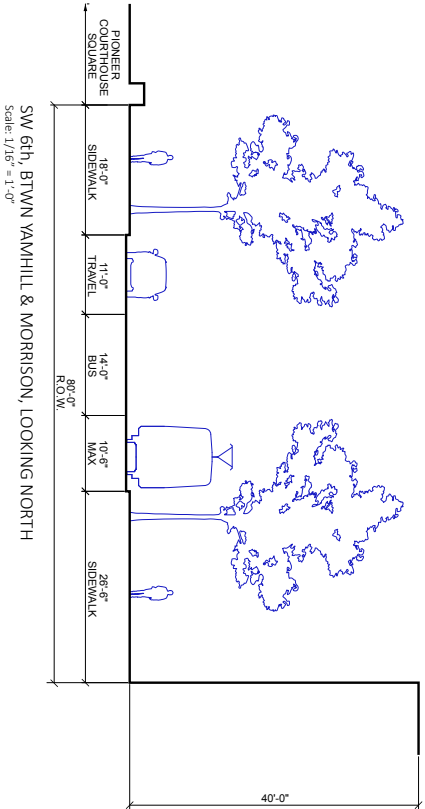
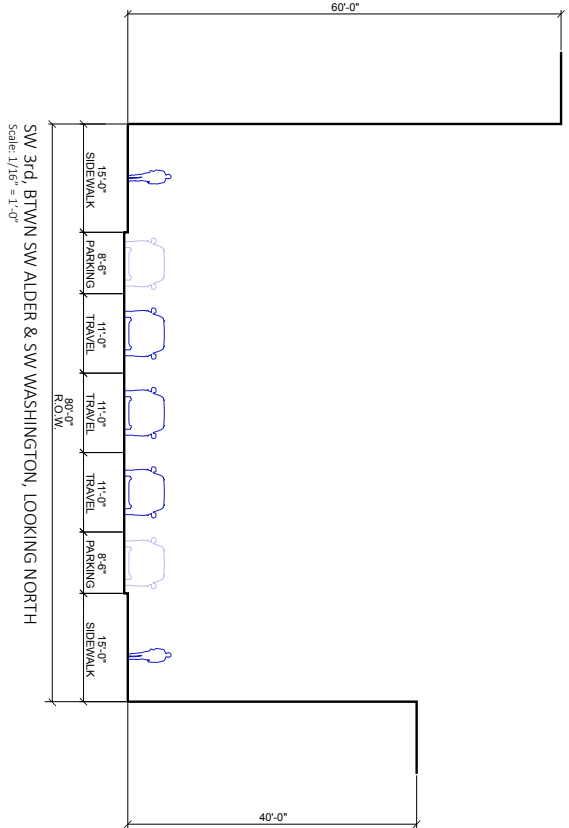
HARI DEVI AND EMILY BRATT

**BASE DRAWINGS**  
STREET SECTIONS



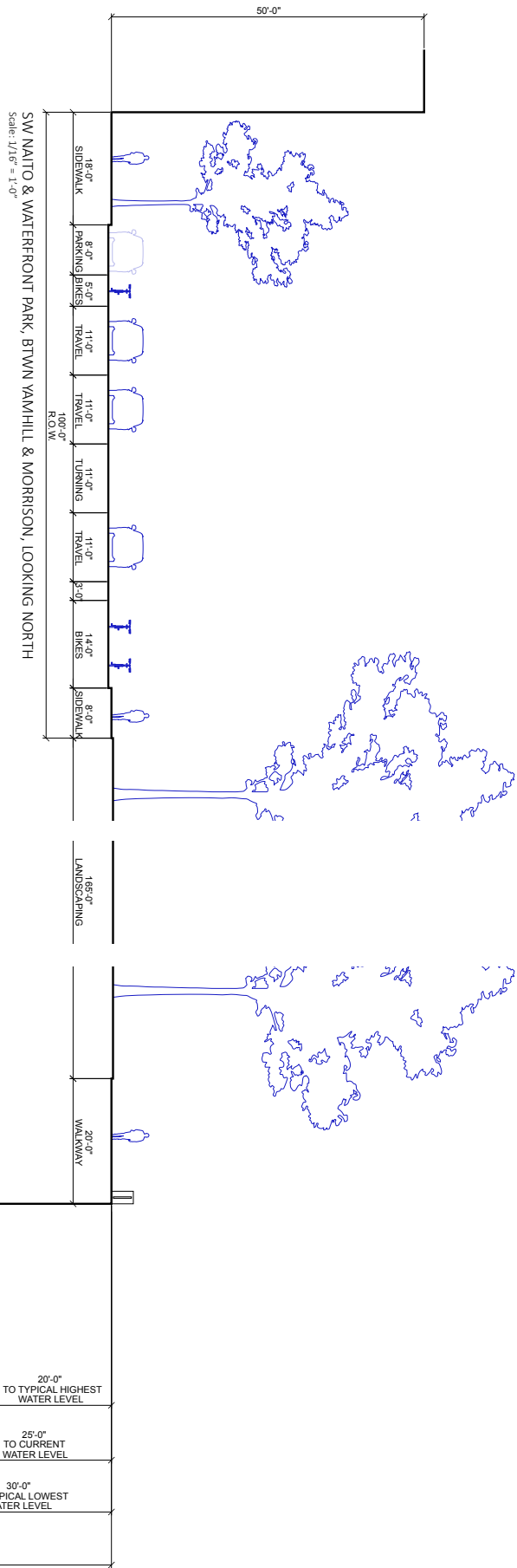
HARI DEVI AND EMILY BRATT

**BASE DRAWINGS**  
STREET SECTIONS



HARI DEEVI AND EMILY BRATT

**BASE DRAWINGS**



HARI DEEVI AND EMILY BRATT

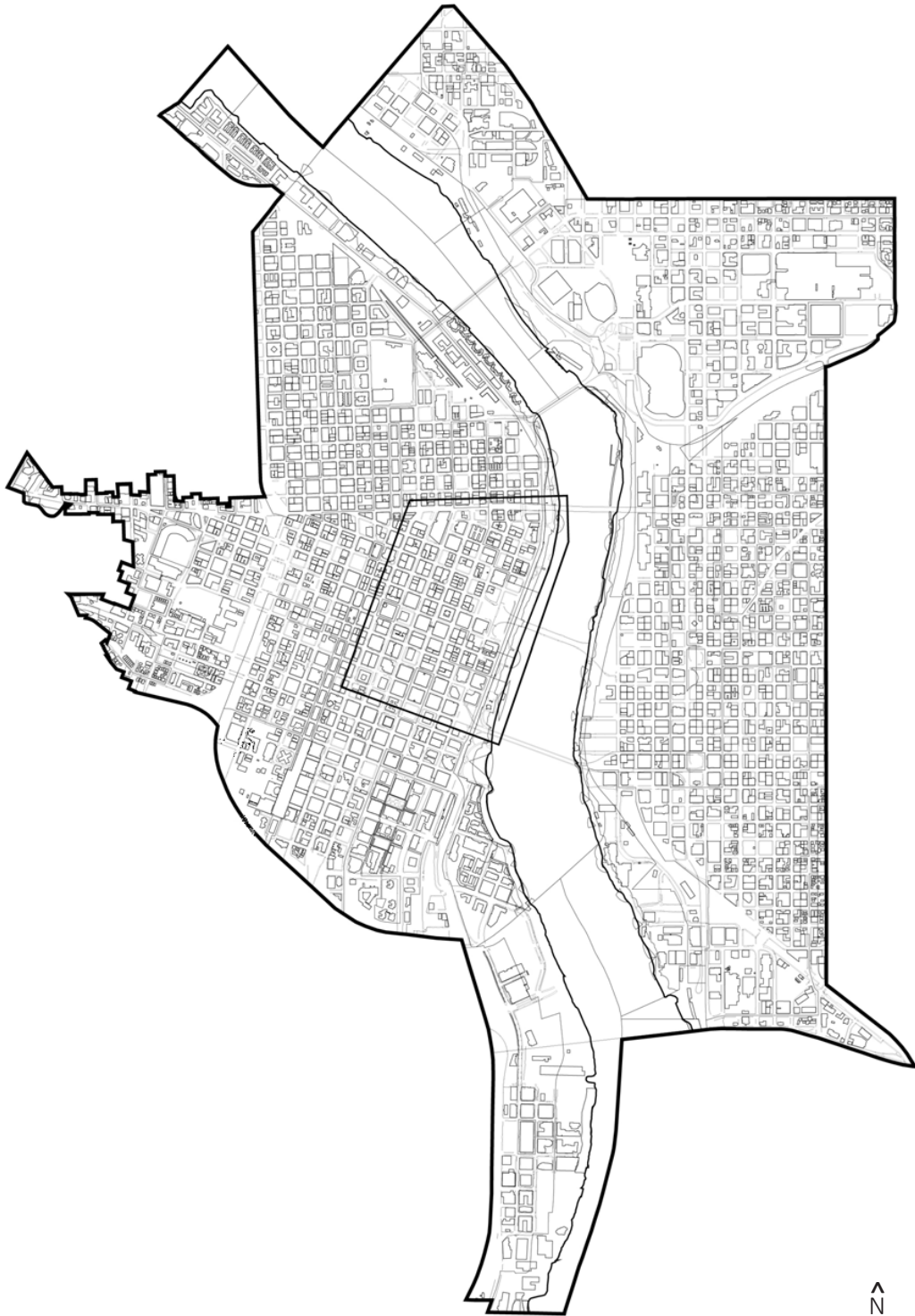
# BASE DRAWINGS

## 3D MODEL AXON



# BASE DRAWINGS

## 2D LINEWORK OVERVIEW



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N  
N.T.S.

# BASE DRAWINGS

## 2D LINEWORK PROJECT AREA





# THE END

ADEL MAKBOUL

ALYSSA RUPP

ANDY KREITER

EJ DEL ROSARIO

EMILY BRATT

EMMA PAGET

HANNAH LINDBLAD

HARI DEEVI

ISABEL HOFF

JACOB SCHAEPERKOETTER-COCHRAN

MADDY JOHNSON

SAMANTHA VETTER

SERGEY TKACHENKO

SPENCER DAIGLE

SPENSER GOULD

THALIA KIERSTEAD

SPRING 2023

LARCO/LILLARD/RAGGETT

UNIVERSITY OF OREGON