BlueWave | Micro-Connectivity

Networks of the Flood Resilient Urban Landscape

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Project Overview : Railyard is the overlooked industrial landmark of the Sacramento downtown. It is considered as the potential transportation hub with mix-use development of the future. With ongoing transformation and growth, the goals of this project are to re-imagine and repurpose the existing site condition to highlight the changes of its surrounding, especially along the Sacramento Riverfront zone create micro-connectivity networks with a level of precision that was previously lacking with the site through the understanding of different functionality and human behavior on site and its surrounding. Second is integrating flood resilient urban landscape and water management as part of the design and layout to increase the evacuation time for the lower elevation sites.

Car Alone (78.6%)
Car pooled (11.7%)
Subway (0.4%)
Bus (3.3%)
Streetcar (0.6%)
Other (2.1%)
Bicycle (1.5%)
Walk (1.8%)

Noise Level
50 dBa Leg
55 dBa Leg
60 dBa Leg
65 dBa Leg
70 dBa Leg
80 dBa Leg

Water Front: Along in the water front zone there opportunites creat a bufferzone inorder to filiter air pollution + noise intendity

Sacramento River: Used as a transportation channel + activities

Lack of vegetation: By increasing vegetation alonging the water front will help reduce noise pollution through a phenomenon called sound attenuation, which is the reduction of sound intensity.

Linkage Opportunity

Existing View Point
1. Under Jibboom St.
2. River Edge
3. I St. Bridge
4. Water Edge Bike Path

Sacramento 's Flood History

1986 — Pineapple Express unleashed unprecedented amounts of rain on northern California. In Sacramento, nearly 10 inches of rain fell in an 11-day period. The overwhelming floodwaters tore bridges from their foundations and punched through levees.

1995 — Heavy rains hit the Sacramento area causing wide-spread localized flooding, in particular in the Arcade, Morrison, Florin, Union and Dry Creeks.

1997 — A series of tropical storms hit the valley, causing the Cosumnes River to crash through levees in 24 places.

2006 — New Year's Eve Storm cause residents to be vigilant and question their individual storm readiness.

2017 — Sacramento County was impacted by a series of Atmospheric Rivers and storm systems starting January 3, 2017 through January 24, 2017. Water from storm systems, king tides, releases, and runoff into the watershed impacted several areas of Sacramento County.

Flooding Evacuation Route

Levee Dependency Map

Commercial Alleyway | The D | Open Plaza | Skate Park | Water Terminal Park | BlueWave Bridge | BlueWave Shoreline | Sacramento River

Major Circulation + Connection

Waterfront of Sacramento is a landmark of the city that is being under utilized by the public. This master plan layout is being adapted from the proposal plan of SWA. In order to create a micro-connectivity network with the surrounding, non-mobile bridge has been integrated. It provides variety connections with commercial, residentials and waterfront zones. Alonging with connection to interesting points on site, this BlueWave bridge also provides different elevations for different vista points as well as creating interaction with water. out throughout the site.

Vehicals + Major Public Transportation

Bike

Pedestrain

Section Cut |

Phase I : Regular Water Level

Phase II : Heavy Rain + Increasing of Watrer Level

Capturing Capacity: 6283 cubic feet = 47,000 gallon

Oveflowing Level of 30ft

Sacramento River

Phase III :Overflowing Water

Reference Information:
21.4 Feet: Discovery Park is closed to the public.
33.5 Feet: Flood Stage
36.4 Feet : major flooding outside levees. Top of levee.

Sacramento River

Master Plan | Activity on Site

1. BlueWave Bridge
2. BlueWave Shoreline
3. Waterfront Comercial Wave
4. Terrace
5. Sport Field
6. Railyard Parking
7. Skate Park
8. Water Terminal Park
9. Sacramento Station
10. Railroad Musume
11. Commercial Alleyway
12. Private Office Courtyard
13. Pedestrain Central Road

Street Types + Urban Fabric Transition

Implementation of shared street at secondary routes will allow moderate traffic to take place arround the residential area and provide connection for site visitors and the existing urban fabric.

The inner section of railyard site will be consist of smaller, local roads that are only accessible pedestrians and cyclists. This intention to provide social interaction space and high density escape zone.

The center section of railyard site will be consist of one wide road that are only accessible pedestrians. This intention to provide social and community event gatherings

Water Transfering Diagram:

Inlet

Outlet