

The Bowtie Parcel Master Plan

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OVERVIEW AND HISTORY

The Bowtie Parcel, otherwise known as the G-1 Tract, is an 18-acre site within Taylor Yard, a historic rail yard along the Los Angeles River. Today it is post-industrial, but its prime location at the intersection of the 2 and 5 Freeways as well as its position along one of only two soft-bottomed stretches of the LA River make it an important site for the future of Los Angeles. In fact, in 2003, the State of California purchased the land, and in 2019, Governor Newsom approved \$500K in the state budget for an initial design proposal for a new State Park located on the Parcel.

Initially the Bowtie Parcel and the surrounding region was occupied by the Tongva people, and over the course of its history, the land traded hands multiple times. Spain claimed California from 1769 to 1821, when Mexico gained independence; however, in 1847, the Treaty of Guadalupe Hidalgo was signed and, as a result, Mexico ceded California to the United States. Soon after Los Angeles saw a boom of growth due to the expansion of railroad lines. In 1876, the Southern Pacific Railroad line was completed – the very line that ran through the Bowtie Parcel and Taylor Yard. In 1925, Taylor Yard was a major rail yard after several construction projects, such as the South Turntable, were completed on site, but when Southern Pacific rerouted its trains through the Cajon Pass in 1960 – possibly due to concerns of repeat

flooding of the LA River – Taylor Yard’s function as a rail yard began to diminish. Ultimately, Taylor Yard closed in 1985, and over the next few decades, the land’s new function as public and state parks was determined.

The G-1 Tract has much potential, although currently, it is overrun by invasive plants and asphalt. Furthermore, it has multiple complicated layers of challenges: soil toxicity, neighborhood apprehension toward development due to gentrification, noise pollution from the adjacent railroad tracks, and safety concerns surrounding homelessness. These challenges, however, do not outweigh the ecological and public health significance of the Bowtie Parcel. Wildlife sightings are commonplace in the LA River, which is strewn with Giant Reed and Black Willow vegetation communities according to the 2016 report completed by the Nature Conservancy. Additionally, the opportunity to remediate surface water runoff, reducing TMDLs (total maximum daily load of pollutants in a body of water to meet water quality standards), and restore the LA River to a better version of itself is one that cannot be overlooked. Finally, the addition of a state park would increase the city’s overall public health in an otherwise park-poor Los Angeles. These are the challenges – and the opportunities – that will be addressed in the redesign proposal for the Bowtie Parcel.



Aerial view of Bowtie Parcel, Taylor Yard, LA River, and surroundings. Photo via: Los Angeles Wave Newspaper.



Utility lines are positioned throughout the site.



This portion of the LA River is soft-bottomed, and is a shockingly breathtaking view.



A Clockshop artist framed a view of the LA River.



Remnants of the South Turntable.

SITE HISTORY TIMELINE

1784

José María Verdugo was granted 36,000+ acres of land to settle and graze; land includes the area known as Taylor Yard (within which is the Bowtie Parcel)

Photo via: Margaret Hayhurst via www.latimes.com



1876

Southern Pacific line completed; residential development soared throughout LA

Photo via: www.railswest.com



1925

Taylor Yard became a major rail yard facility after major construction and development projects

Photo via: www.scprr.org



1985

Taylor Yard closed as major train yard

1992

1st Taylor Yard Area Planning and Urban Design Workshop held about the land's future

2003

State of California purchased 18 acre G-1 Tract, otherwise known as the Bowtie Parcel

2014

California State Parks & Clockshop partnered to bring artistic and cultural programming to the Parcel

Photo via: Gina Clyne via www.clockshop.org



1908

Land known as "Taylor Yard" after the Taylor family, who opened a general store and mill there

1949

Southern Pacific Railroad built diesel shops along the LA River for its growing enterprise

1960

Southern Pacific Railroad rerouted trains through Cajon Pass



Photo via: www.latimes.com

1938

LA River flooded during a major four-day storm, resulting in the river being channelized in concrete

1847

The Treaty of Guadalupe Hidalgo was signed; Mexico ceded California to the United States

1833

Mexican Secularization Act began the process of secularizing the California Missions, splitting mission lands into individual rancho land grants to further Mexican independence from Spain

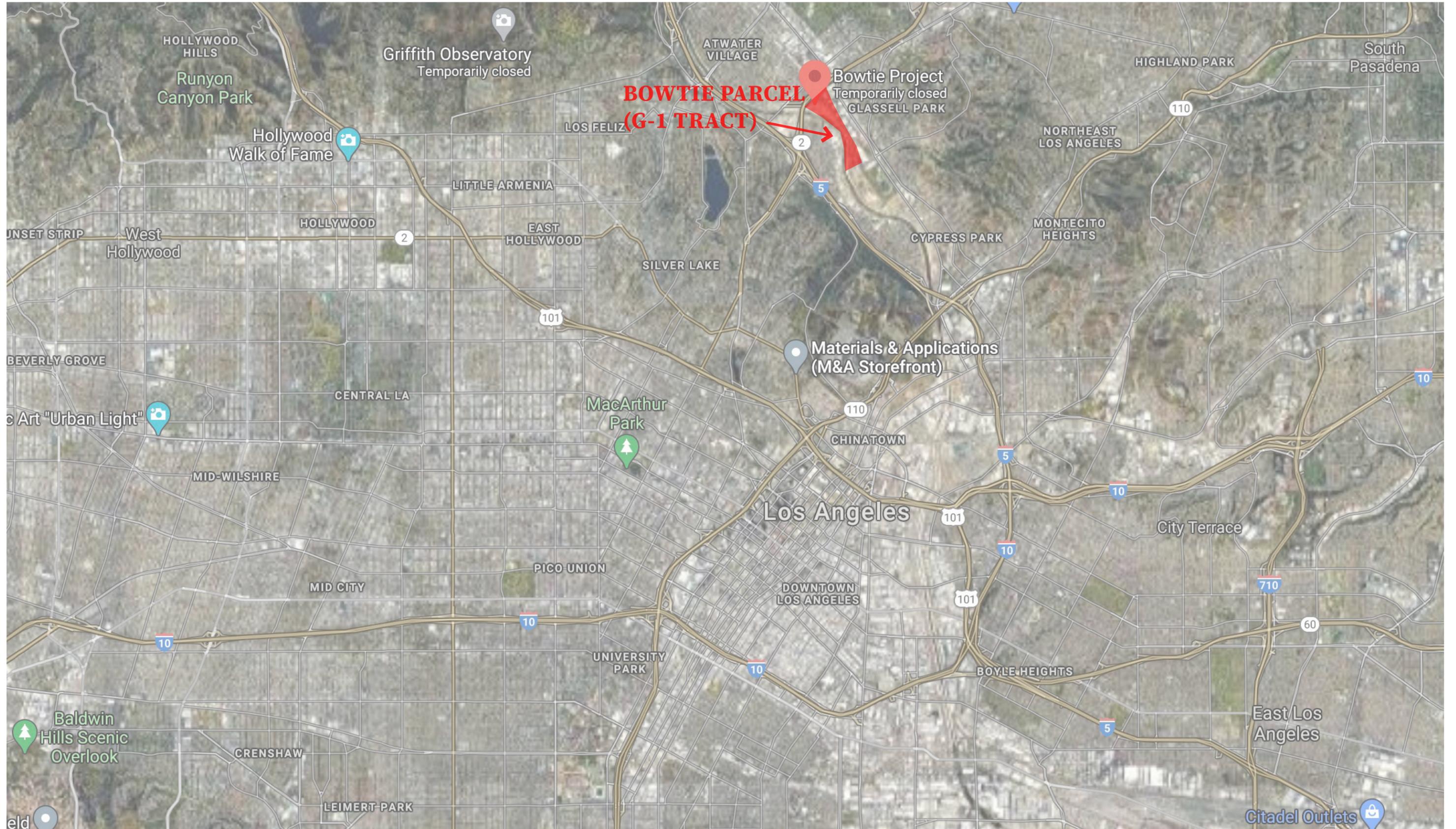


Photo via: Bowers Museum Collection

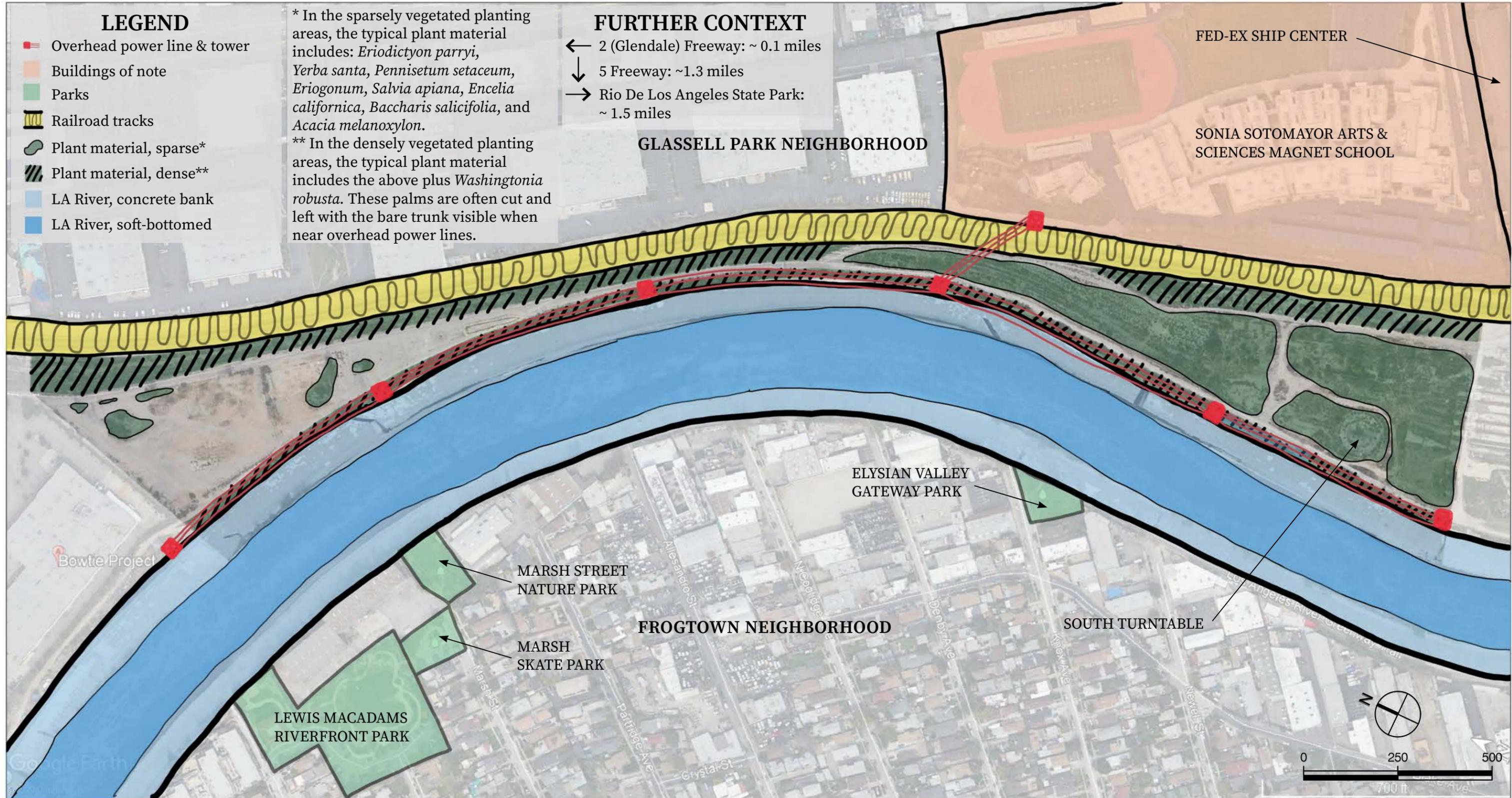
pre-1700s

Tongva people occupied the region. Pictured: Tongva woman settled along the LA River

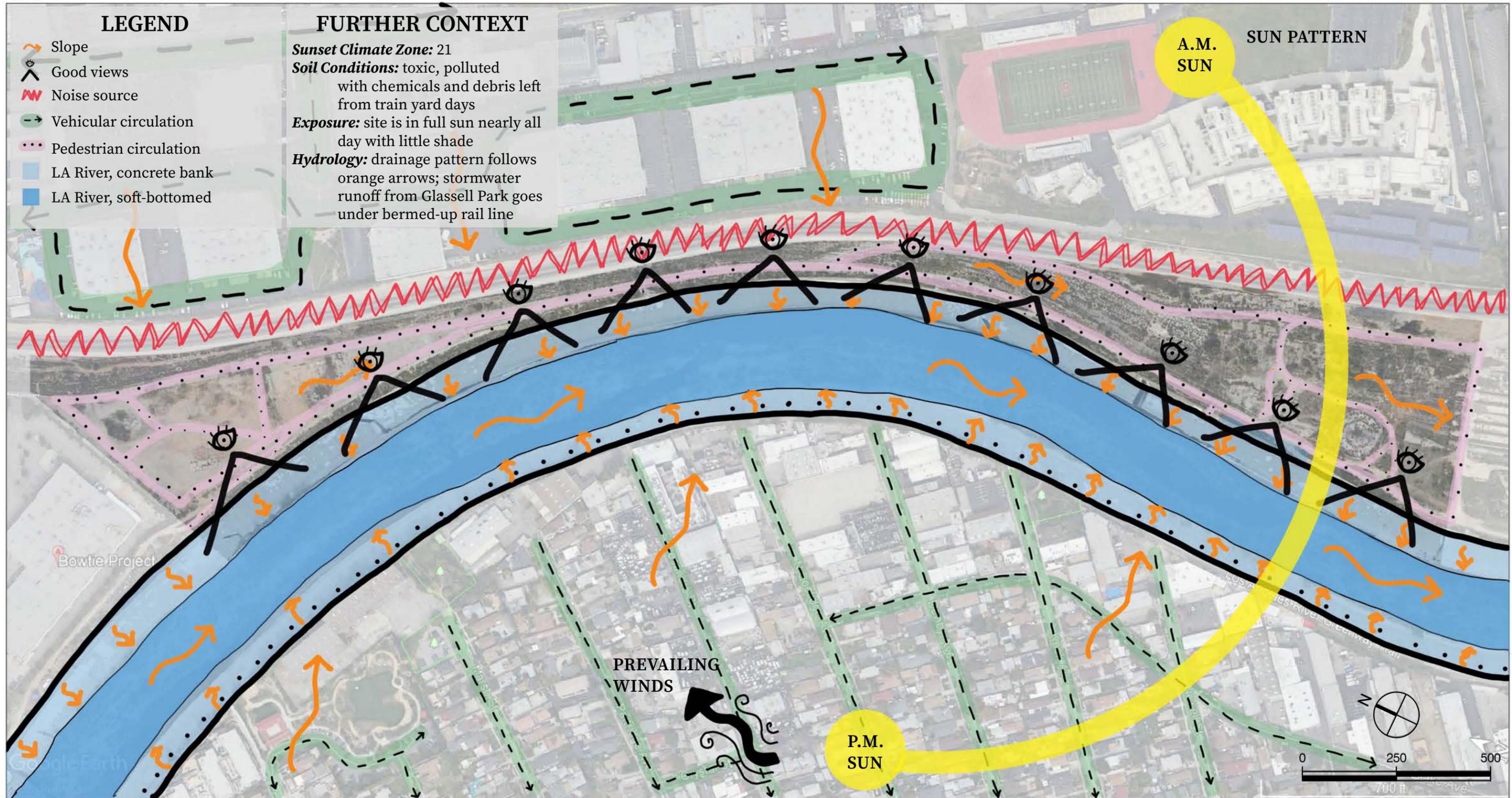
VICINITY MAP



SITE INVENTORY



SITE ANALYSIS



SITE CONSTRAINTS



1 No Shade

Shade is needed for visitors' comfort, but is also important in restoring diverse plant and animal life at the Bowtie Parcel. Trees and plants also help prevent erosion, which will be necessary due to the LA River's flooding history.

2 High Speed Train

Amtrak's Coast Starlight train tops out at 79 mph on its way to Union Station, posing a safety hazard to visitors. It also produces noticeable sound and air pollution. The train line is also a physical barrier, severing communities' ties to the River.

3 Contaminated Soil

Debris like that shown are remnants from the Parcel's history as a train yard; petroleum pipelines also run under the site. These translate into toxic soil, restricting the type of plants that will grow and contaminates runoff.

4 LA River

The Los Angeles River is hazardous due to its Mediterranean flooding patterns (in which water flow is highly variable and extreme) and the current contamination levels of the water. This constrains animal and human usage of the site.

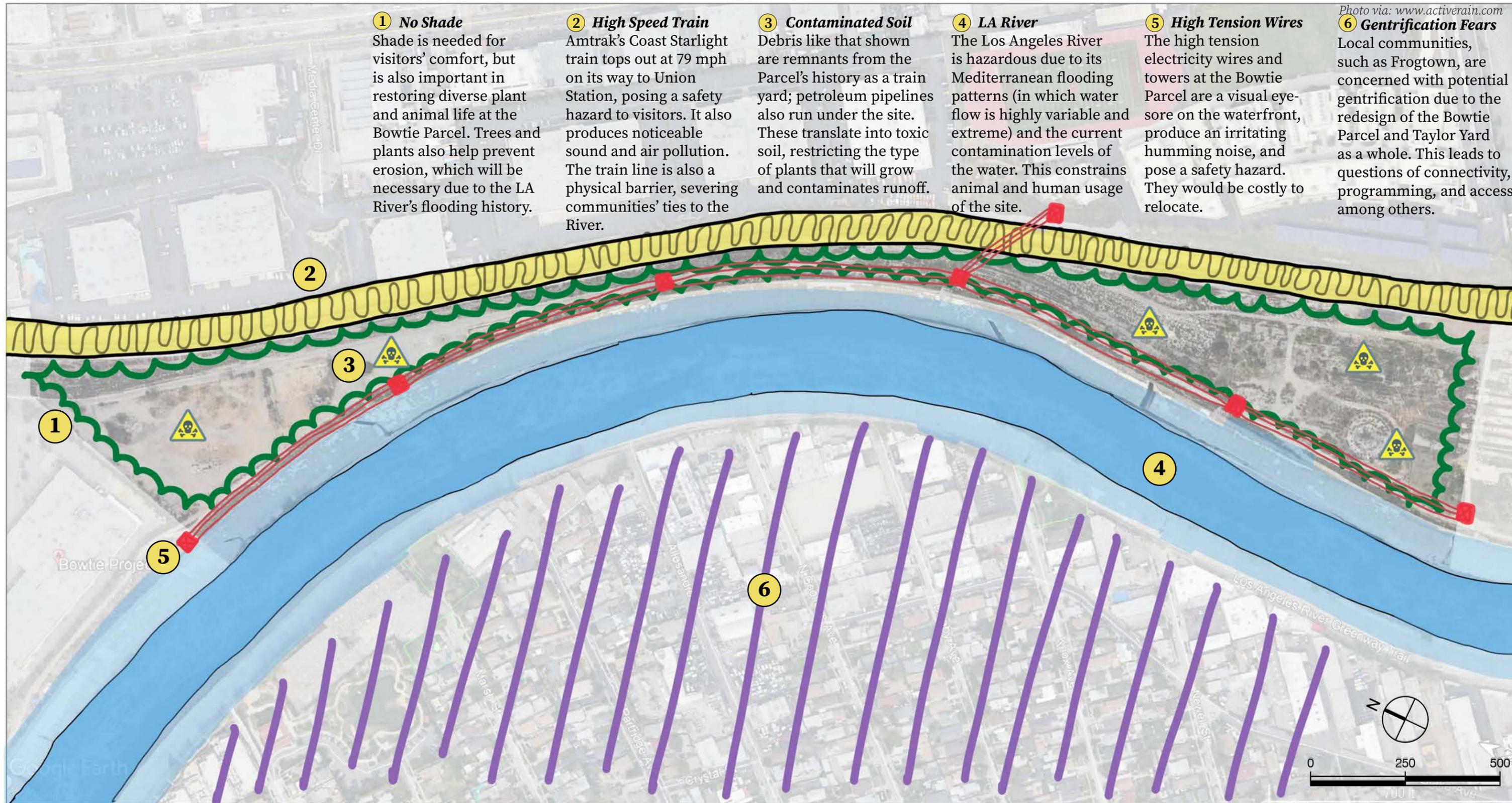
5 High Tension Wires

The high tension electricity wires and towers at the Bowtie Parcel are a visual eyesore on the waterfront, produce an irritating humming noise, and pose a safety hazard. They would be costly to relocate.

Photo via: www.activerain.com

6 Gentrification Fears

Local communities, such as Frogtown, are concerned with potential gentrification due to the redesign of the Bowtie Parcel and Taylor Yard as a whole. This leads to questions of connectivity, programming, and access among others.



SITE OPPORTUNITIES



Photo via: www.archdaily.com



Photo via: ESKYIU Architects



Photo via: Alexander Robinson, www.landscapeperformance.org



Photo via: www.swagroup.com



Photo via: www.culturalweekly.com



Photo via: www.designboom.com

① **Shade Plants & Architecture**

Shade structures like the one in the Phoenix Civic Space by Architekton can create gathering places for large groups of people, or alternatively, intimate places to sit. Trees similarly add to the functionality and beauty of the site.

② **Sound Walls**

Sound walls can block noise, address safety concerns, and use vertical space to revive a riparian corridor's plant material while still taking advantage of the unique opportunity to visually connect with the city and its aesthetic.

③ **Clean the Environment**

Riparian buffers serve multiple functions: they prevent erosion, create a wildlife habitat, and clean groundwater. The latter would be huge for LA, which receives 89% of its water supply from elsewhere. Pictured: Cheonggyecheon Stream.

④ **LA River**

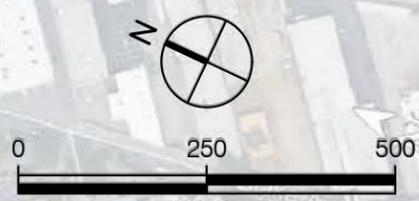
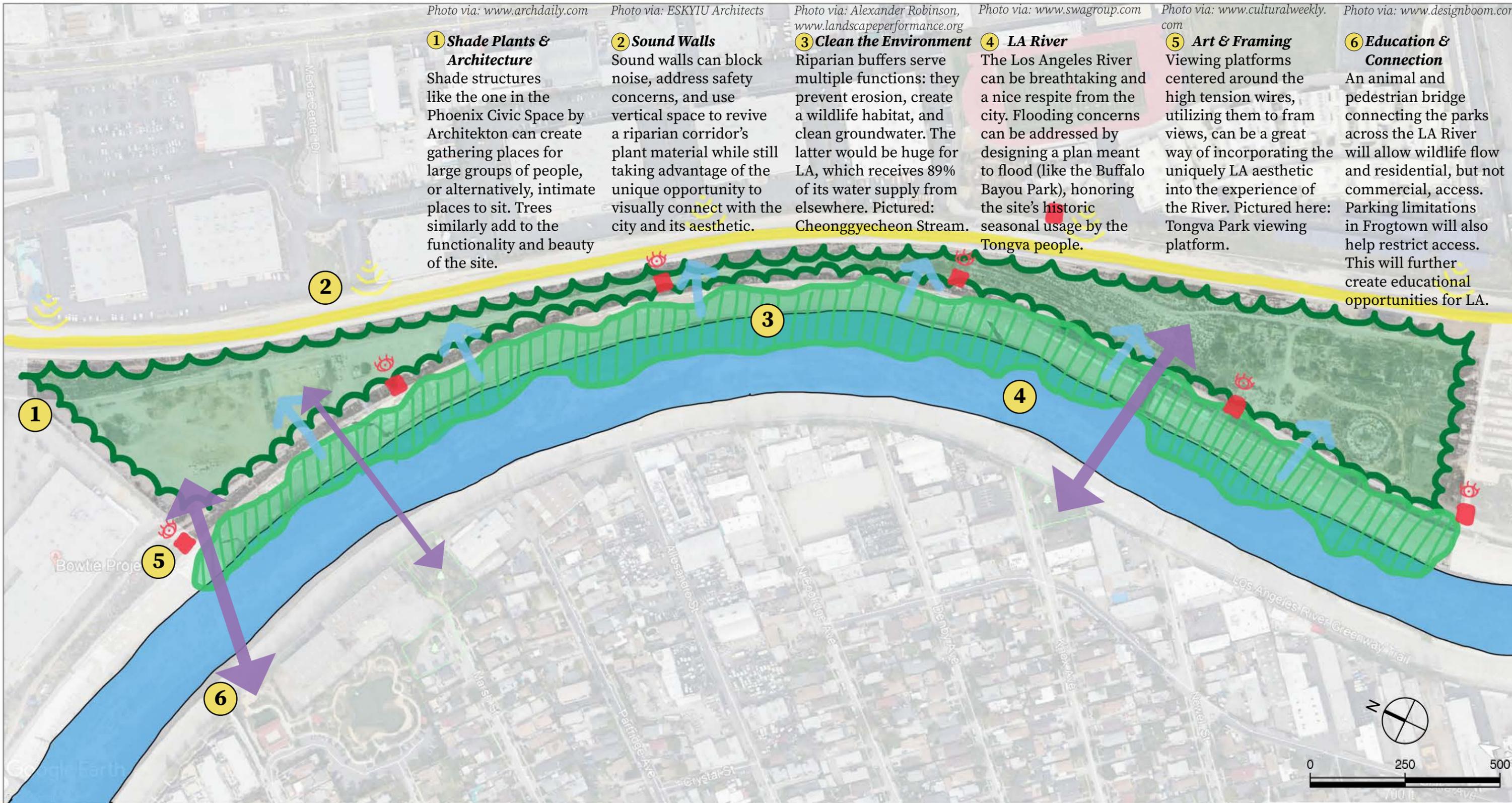
The Los Angeles River can be breathtaking and a nice respite from the city. Flooding concerns can be addressed by designing a plan meant to flood (like the Buffalo Bayou Park), honoring the site's historic seasonal usage by the Tongva people.

⑤ **Art & Framing**

Viewing platforms centered around the high tension wires, utilizing them to frame views, can be a great way of incorporating the uniquely LA aesthetic into the experience of the River. Pictured here: Tongva Park viewing platform.

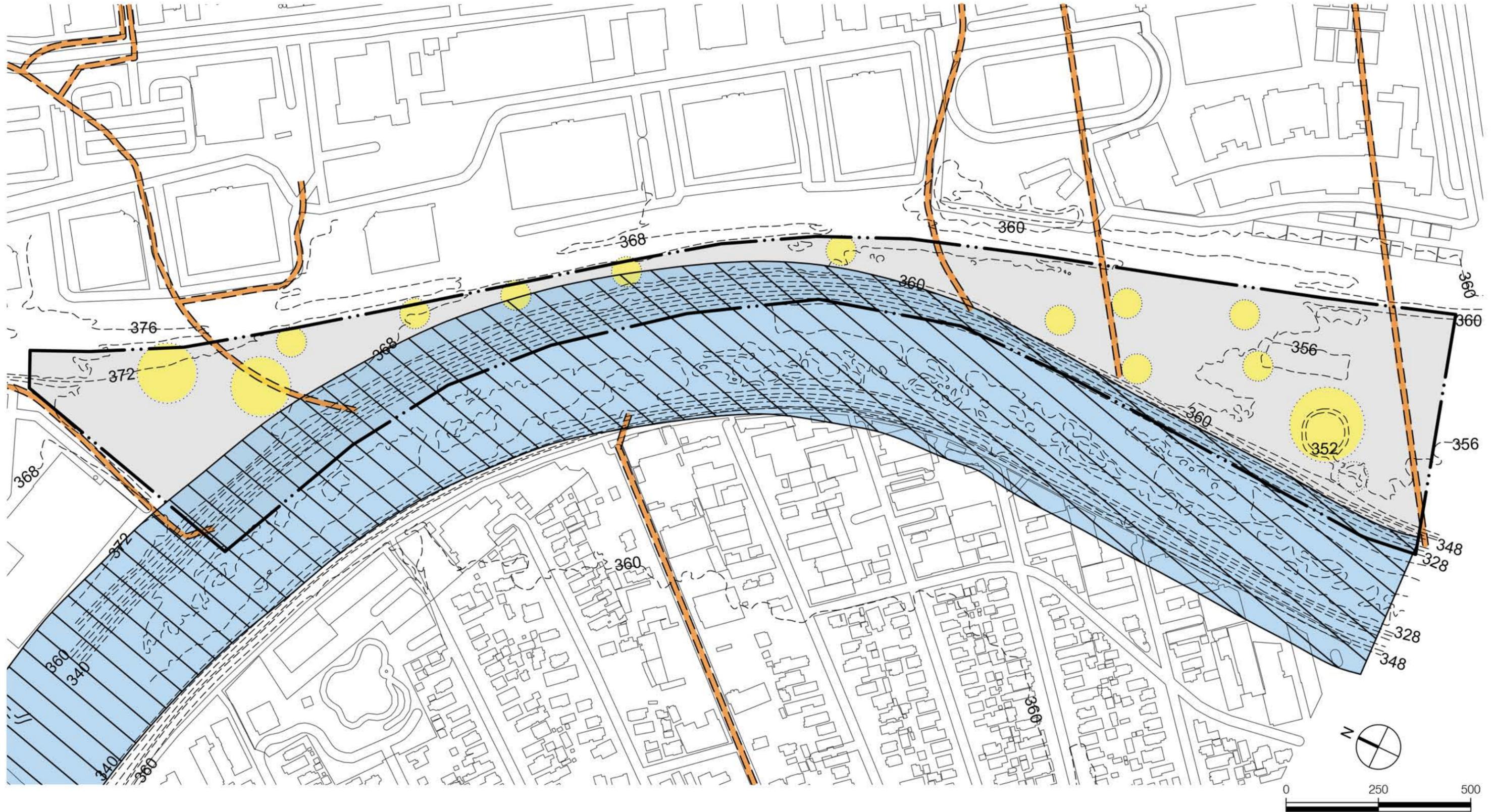
⑥ **Education & Connection**

An animal and pedestrian bridge connecting the parks across the LA River will allow wildlife flow and residential, but not commercial, access. Parking limitations in Frogtown will also help restrict access. This will further create educational opportunities for LA.



SITE EXISTING ENVIRONMENTAL SURVEY

- 360 - Topography lines (elevation as indicated)
- Storm drains
- Heavy soil contamination areas
- 100 year event flood zone
- Property line/extent of Bowtie Parcel/G-1 Tract



PRECEDENT CASE STUDY 1: BUFFALO BAYOU PARK

SITE OVERVIEW

Located in Houston, Texas, the Buffalo Bayou Park, designed by SWA Group, revitalized a 2.3 mile-long stretch of the Buffalo Bayou, the city's main drainage basin. With difficult conditions such as overhead freeways and utilities, steep slopes, limited access and flood-prone banks, the site also suffered from damaged ecological and riparian systems.

SUCSESSES

- Improved access with 4 new **bridges** that connect surrounding neighborhoods
- Channel stabilization techniques such as: **gabions**, **coir lifts**, re-graded slopes, re-engineered meandering water course, bulkheads, and flood benches
- It's **meant to flood**: withstood Hurricane Harvey and avoided large repair costs due to damage
- Increased habitat quality within 25% of the park
- Annually sequesters 9.19 tons of atmospheric carbon and intercepts approximately 84,000 gallons of stormwater runoff
- Increased reported quality of life for visitors and nearby neighborhoods
- Design **repurposed the Cistern**, converting it into an educational and cultural space, often an art gallery

AREAS FOR IMPROVEMENT

- Hurricane Harvey still left deep and heavy silt deposits in trails and other low-lying park facilities
- Gentrification effects: 13% average increase in the median property tax revenue (compared to 7% increase in the county), and generated \$2 billion worth of investments within a 3-block radius
- Re-engineering the water course meant removal of existing trees and vegetation, temporarily exposing the shoreline
- It seems more could have been removed and instead planted with other types of vegetation (phytoremediating, wetlands, etc.)

Large open spaces allow for gathering and recreational events



Above (3) photos via: SWA Group via www.swagroup.com

Pathways go underneath the overhead freeways



Flooding was built into the design, which withstood Hurricane Harvey



Section showing gabions and slope re-grading for improved channel stabilization

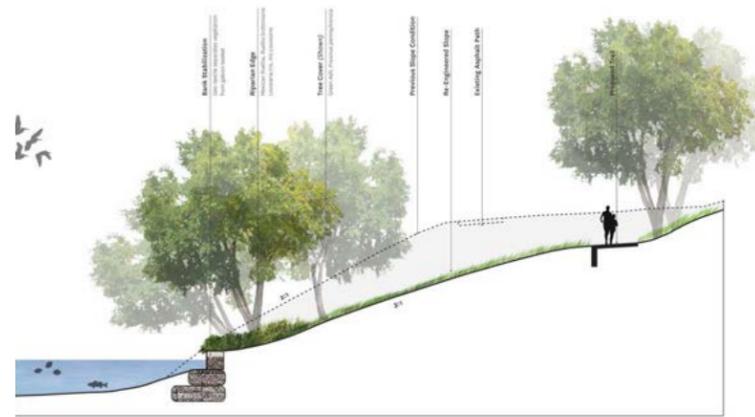


Photo via: SWA Group via www.landezine.com

Coir lifts was another method used in preventing soil erosion along the Bayou edge



Photo via: www.rolanka.com



- | | | | | | | | | |
|--|---|---|--|-------------------------------------|---|---|--|---|
| 1 SHEPHERD DRIVE GATEWAYS AND PEDESTRIAN AND BIKE BRIDGE | 4 CEMETERY OVERLOOK | 8 JACKSON HILL PEDESTRIAN AND BIKE BRIDGE | 12 WORTHAM FOUNTAIN PLAZA | 16 STANFORD LIVE OAK GROVE | 19 POLICE MEMORIAL PEDESTRIAN AND BIKE BRIDGE | 23 ELEANOR TINSLEY PARK EVENT LAWN AND AMPHITHEATER | 26 SABINE SPRINGS FILTRATION WETLAND SOURCE | 28 NATURE PLAYGROUND AND PICNIC PAVILION |
| 2 ST. THOMAS MEADOW | 5 TIRRELL CASCADE | 9 LIVE OAK SEATING CIRCLE | 13 MEMORIAL HEIGHTS OVERLOOK | 17 LOWER TAFT STREET FOOTPATH | 20 COTTONWOOD BOWL EVENT LAWN & AMPHITHEATER | 24 ALLEN PARKWAY LIVE OAK PROMENADE | 27 THE WATER WORKS: SKY LAWN WITH PERFORMANCE STAGE ON TOP OF RENOVATED HISTORIC CISTERN FOR ART INSTALLATIONS | 29 DOWNTOWN SKYLINE PAVILION, INFORMATION, & BIKE RENTAL BUILDING |
| 3 TIRRELL MEADOW | 6 RESTAURANT, INFORMATION, AND KAYAK RENTAL | 10 WAUGH DRIVE BRIDGE BAT COLONY VIEWING AREA | 14 DOG PARK | 18 MEMORIAL DRIVE VIADUCT UNDERPASS | 21 TAPLEY TRIBUTARY | 25 PARK MAINTENANCE YARD | | 30 CROSBY OUTFALL AND OVERLOOK |
| | 7 LOST LAKE | 11 GREENTREE NATURAL AREA | 15 ROSEMONT PEDESTRIAN AND BIKE BRIDGE | | 22 DOWNTOWN SKYLINE OVERLOOK | | | |

Photo via: SWA Group via www.swagroup.com

PRECEDENT CASE STUDY 2: CHEONGGYECHEON STREAM

SITE OVERVIEW

Completed in 2005, the Cheonggyecheon Stream Restoration Project in Seoul, South Korea daylighted an urban stream that was covered by a highway. In restoring the stream, designer SeoAhn Total Landscape re-connected parts of the city, reduced air pollution and traffic congestion, increased plant and animal biodiversity, and also revived the city's economy.

SUCSESSES

- Removed concrete highway and reconnected the city, as well as waterways
- Provides flood protection for up to a 200-year flood event and can sustain a flow rate of 118mm/hr
- Constructed 22 brigdes, ultimately increasing use of **more sustainable methods of transportation**
- Increased biodiversity by 639% through **creation of native willow swamps, shallows and marshes**
- Design **terraced vertical walls** to allow for greater seasonal interest in addition to flood protection
- Use of **stones across the stream** slow down the flow of water, also creating stepping stones for visitors
- Removal of highway improves city air quality and reduces urban heat island effect
- Attracts 64,000 visitors daily
- Incorporated and repurposed remnants of highway into the design, **celebrating the site's history**

AREAS FOR IMPROVEMENT

- Design was not initially accessible to all, namely those with visual impairments and mobility challenges
- Ecological performance could be improved with:
 - Spur dikes
 - Vegetated low-flow revetment
 - Alternate detour channels for fish
 - Vegetated filter strips to remediate urban runoff from adjacent motorways
- Heavy gentrification: increased the price of land by 30-50% for nearby properties (more than double that in other areas of Seoul)

Diagrammatic section showing use of site before and after the Stream Restoration

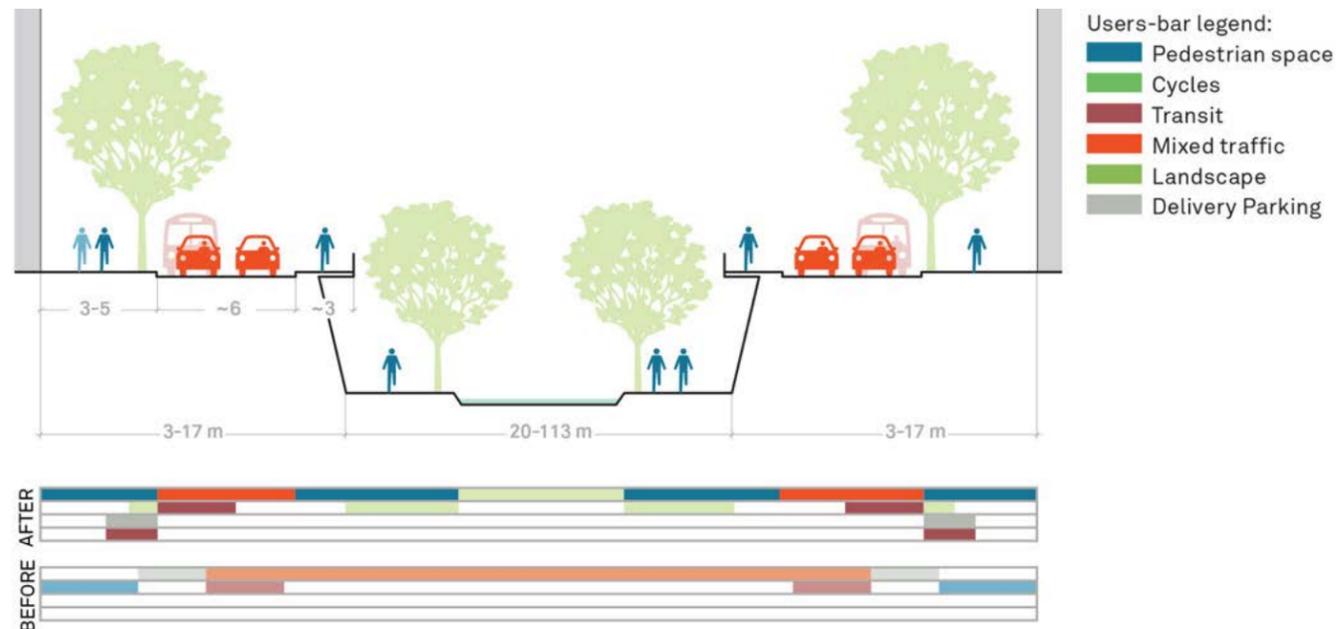


Photo via: www.globaldesigningcities.org

Refugee huts along the River c. 1945, when it was used as a sewer system



Photo via: www.kcet.org

Before the Cheonggyecheon Stream Project: a highway, dividing the city



Above (2) photos via: Seoul Metropolitan Government via www.landscapeperformance.org

After the Cheonggyecheon Stream Project: a daylighted stream



Terraced banks of the stream allow access and create flood protection



Photo via: Alexander Robinson via www.landscapeperformance.org

Highway remnants are incorporated into the design, showing the site's history



Photo via: Seoul Metropolitan Government via www.landscapeperformance.org

Stones slow down the stream's water flow, but also serves as stepping stones



Photo via: www.favelissues.com

Suggested improvement example: spur dikes



Photo via: www.thesouthern.com

Suggested improvement example: vegetated low-flow revetment, or riprap



Photo via: www.mwcd.org

Suggested improvement diagram: filter or buffer strips for runoff control

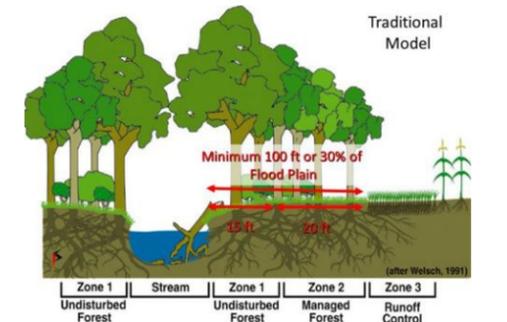


Photo via: www.extension.umn.edu

PRECEDENT CASE STUDY 3: RENAISSANCE PARK

SITE OVERVIEW

Designed by Hargreaves Associates, Renaissance Park in Chattanooga, Tennessee was completed in 2006 as the final phase of the 21st Century Waterfront Master Plan, which aimed to revitalize the Tennessee River. This site was post-industrial - it was previously an appliance manufacturing and enameling facility - and held contaminants in the soil, which was leaching toxins into groundwater and back into the River.

SUCSESSES

- Moved contaminated soil from within the 100-year floodplain and **sealed toxic soil within landforms**
- Created a **constructed wetland**, which increased biodiversity, the site's flooding capacity, and treats stormwater
- Visited by 145,220 people annually, also boosting the economy in the nearby neighborhood
- Reduced irrigation water demand by 74% by removing several lawn areas
- Site used for public events and art exhibits
- Site **history incorporated into program areas**, such as Trail of Tears Pathway

AREAS FOR IMPROVEMENT

- Gentrification: land value within 1/4 mile of the park increased 821% between 2005 and 2013 (compared to a 319% increase for the overall Northshore neighborhood)
- Success of stormwater cleaning in the constructed wetland could be further improved: E. coli is a constant problem in the water, and therefore visitors are unable to put their feet in the water (not to mention the effect it has on the existing and potential animal life in the park)

Renaissance Park Site Plan



RENAISSANCE PARK

- A Parking (typ)
- B Parcel Subdivision
- C Pavilion
- D Hill Landforms
- E Amphitheater
- F Constructed Wetland
- G Overlook
- H Plant Nursery
- I Bridge Blockhouse
- J Meig's Allee
- K Trail of Tears Pathway
- L North Market Branch Stream
- M Boat Ramp
- N Camp Contraband Picnic Area
- O Preserved Floodplain Forest (typ)

Photo via: City of Chattanooga Parks and Recreation via www.landscapeperformance.org

Aerial view of Renaissance Park, with connection bridges over the Tennessee River



Photo via: John Gollings via www.land8.com

The topographic forms that hold and seal in the contaminated soil are also used as gathering and play spaces



Photo via: Chris Whitis via www.landscapeperformance.org

The constructed wetland uses a series of gabions filled with rocks, with plant material behind each



Photo via: www.hargreaves.com

Diagram shows the water flow into the constructed wetland, slowing down the water velocity and increasing the floodplain

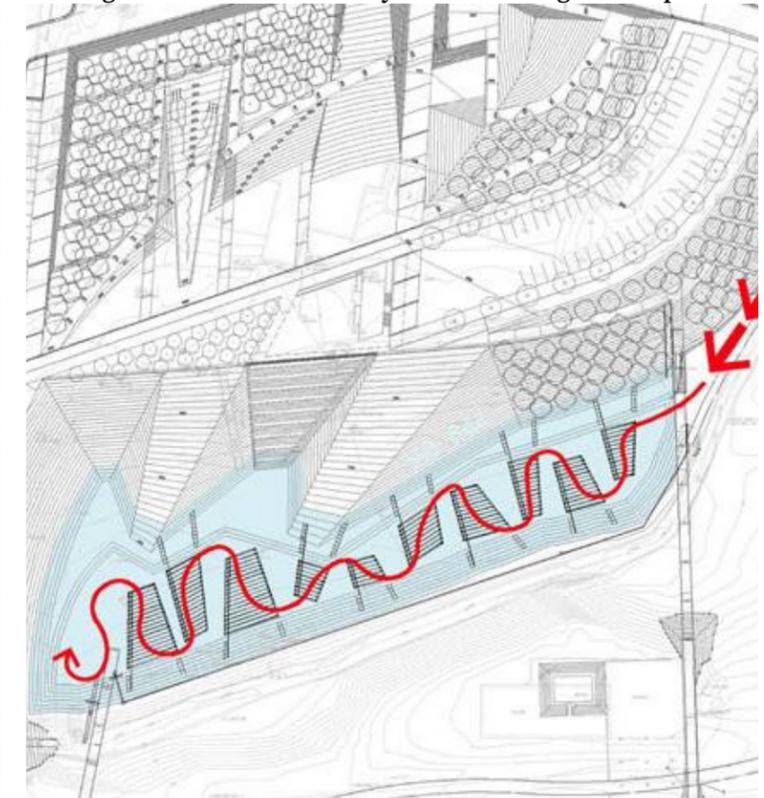


Photo via: www.land8.com

PRECEDENT CASE STUDY 4: ALUMNAE VALLEY RESTORATION

SITE OVERVIEW

Located at Wellesley College in Massachusetts, the Alumnae Valley Restoration was completed in 2005 and designed by Michael Van Valkenburgh Associates, although the initial concept for its wetland renewal and glacial landforms was posed by Frederick Law Olmsted in 1902. However, this recommendation was ignored at the time, and instead, Alumnae Valley on the Wellesley campus became a toxic brownfield, used as a physical plant, industrialized natural gas pumping, and eventually, a parking lot. In 2005 Alumnae Valley was restored with an eye toward Olmsted's vision, remediating the toxic soils and restoring the watershed through a variety of efforts.

METHODS

- The **most toxic soil was excavated and removed off-site** for treatment
- The mildly toxic soils were left in place and **capped, with a geosynthetic clay liner** to seal it off
- Clean/non-toxic soil was placed over the entire site in geomorphic forms, raising it **6' above grade**
- Dense non-aqueous phase liquid (DNAPL) is **pumped, collected, and removed off-site** for treatment
- A **cattail marsh** uptakes and transforms harmful contaminants into benign compounds
- A **constructed wetland** was created and **stormwater runoff was cleaned and recharged**

AREAS FOR IMPROVEMENT

- Toxic soils and liquids moved off-site could have been kept on an **on-site remediation facility**, adding an educational and historic component to the design
- Arsenic and Zinc levels in post- occupancy soil samples are higher than EPA standard, revealing that the **soil remediation efforts may not be working as effectively as intended, begging the question: WHY?**

Perspective of the geomorphic glacier-like forms of the Alumnae Valley Restoration Project



Photo via: www.mvvainc.com

The slopes and marsh edge are stabilized by coir logs and capped with a geosynthetic clay liner



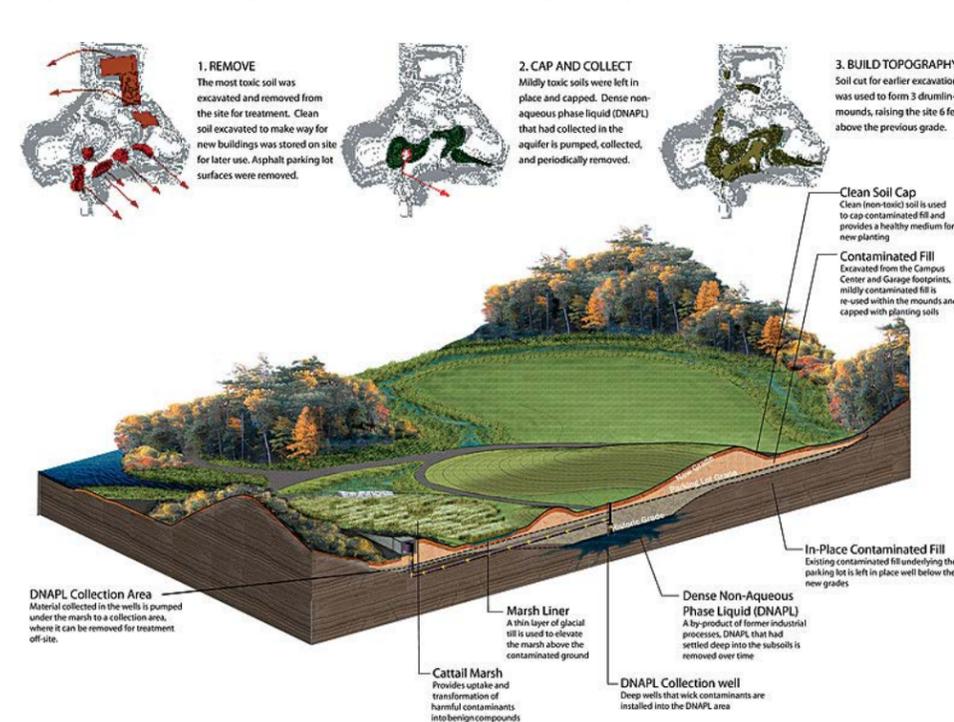
Photo via: Charles Mayer Photography via www.asla.org

Alumnae Valley Restoration Site Plan



Photo via: www.mvvainc.com

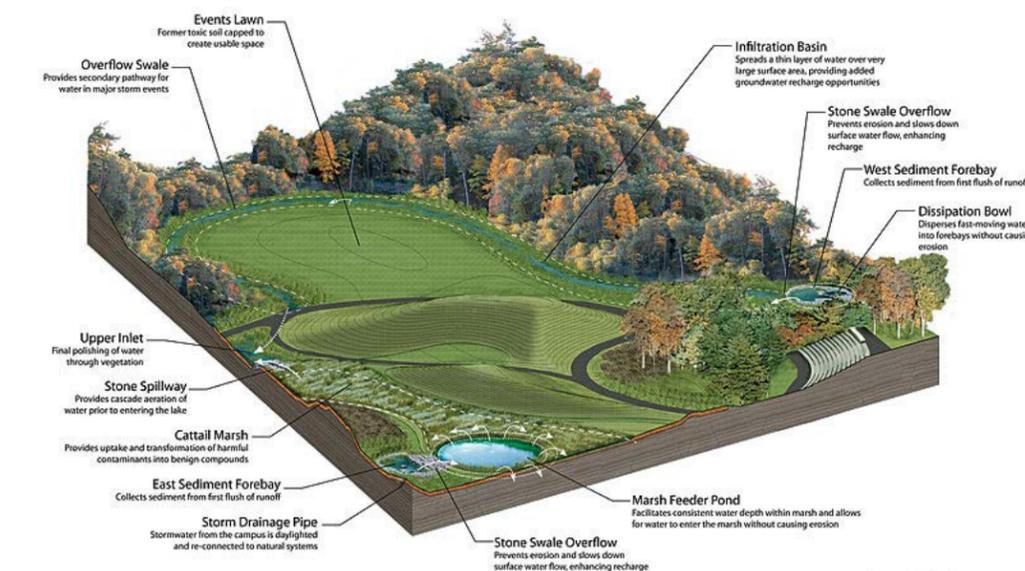
Layers of soil toxicity are dealt with in a variety of ways



Brownfield Restoration - Efficiently Dealing With Toxicity
A variety of soil remediation techniques are used to treat the contaminated site and restore it as a living system.

Photo via: www.mvvainc.com

Wetlands were constructed and stormwater is cleaned and recharged



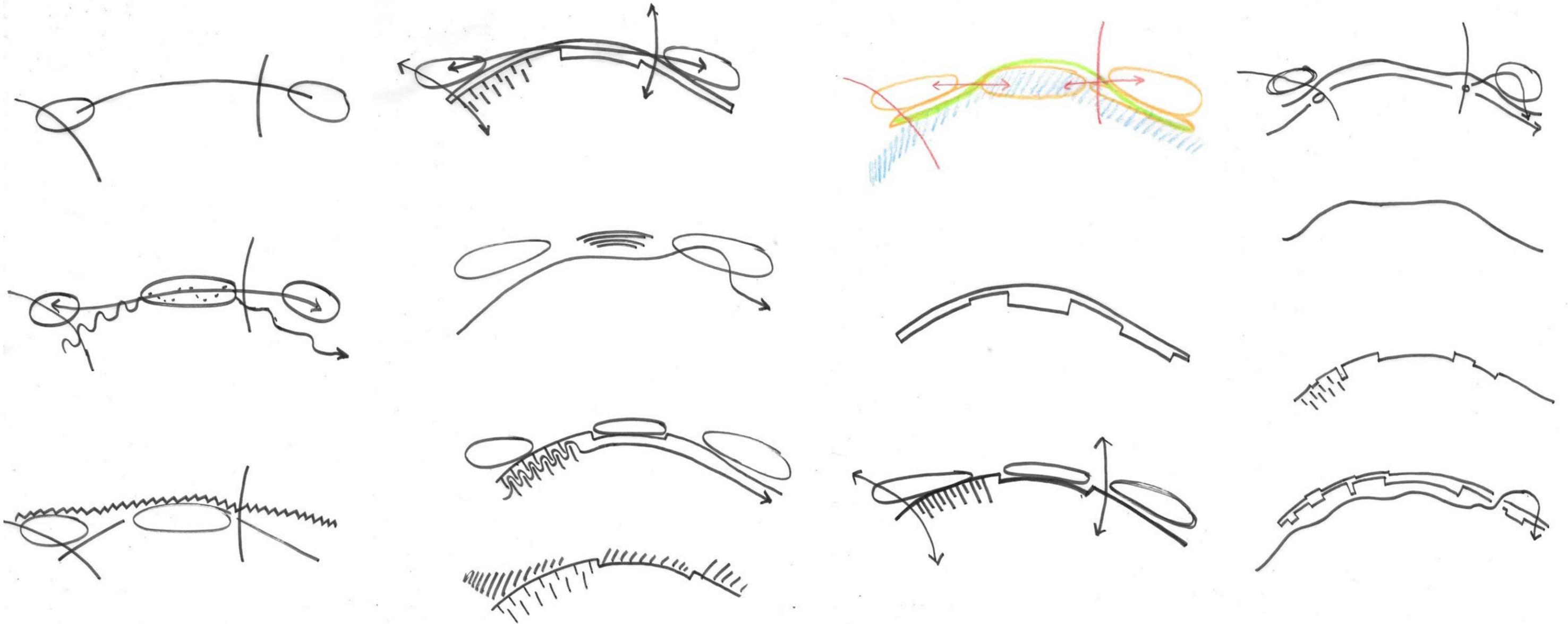
Reconnecting Systems - Using Topography and Hydrology to Treat Surface Water
Through ecological restoration techniques and hydrological design, Alumnae Valley is reinstated as part of the glacial topography and ecology that Olmsted cited as Wellesley's unique and valuable legacy.

Alumnae Valley in context
The area highlighted shows the extent of this project in light green, in relation to the valley system of Wellesley's campus (in dark green).

Photo via: www.mvvainc.com

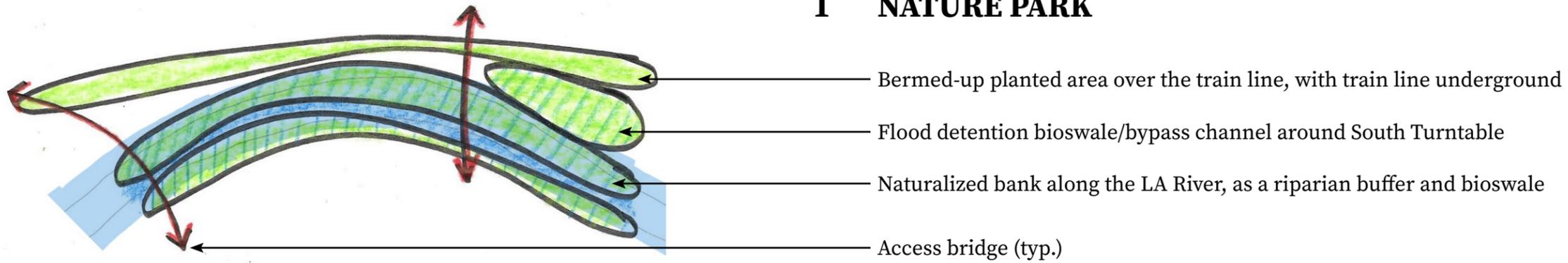
PROCESS: DIAGRAMMING

In an effort to address the program in terms of spatial connections as well as LID/engineering systems, I began to draw parti-like diagrams to understand the overall "picture." Below are these diagrams, in which a progression of ideas is visible, ultimately leading to 3 design alternatives.

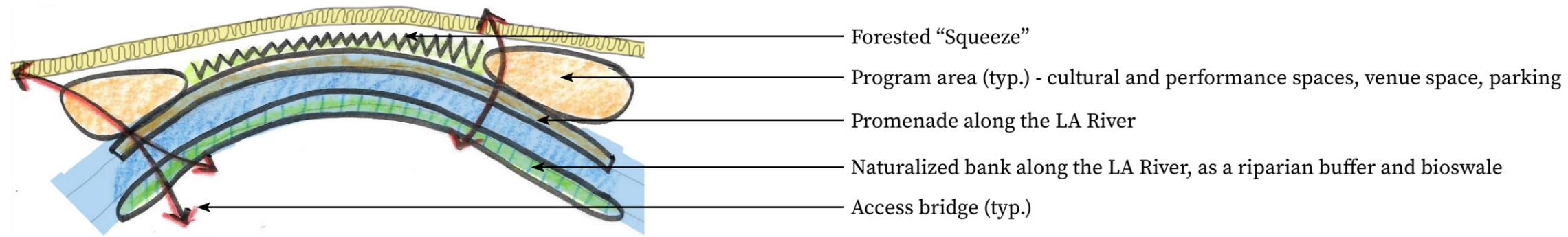


3 DESIGN ALTERNATIVES OVERVIEW

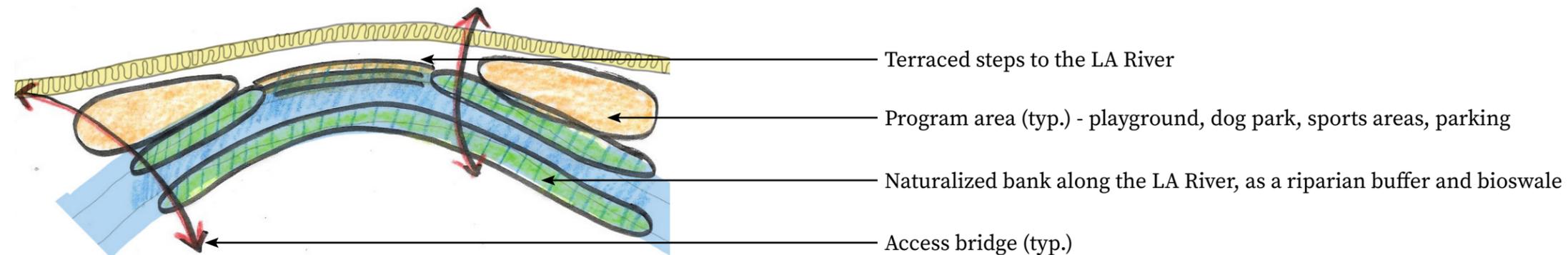
1 NATURE PARK



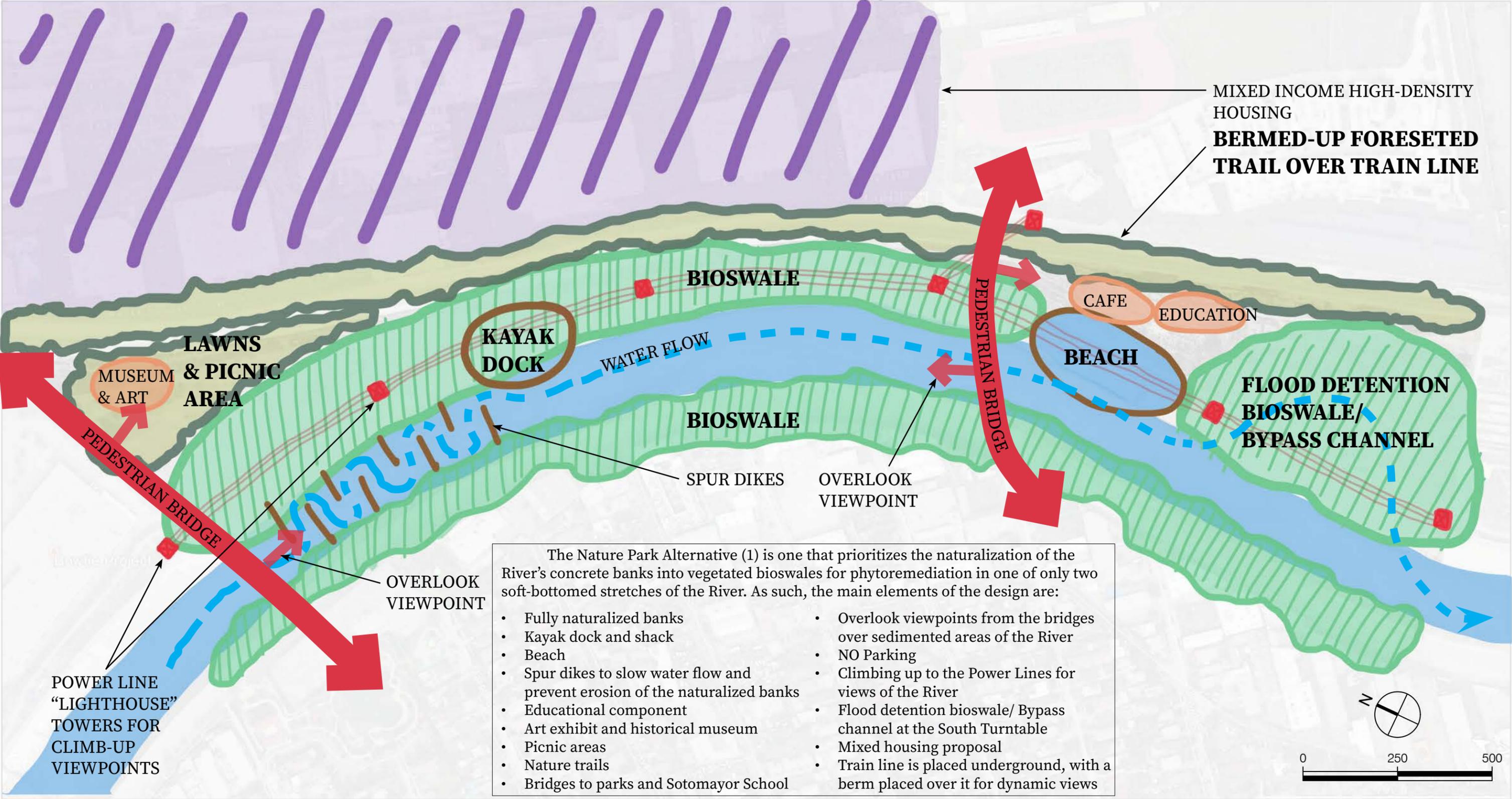
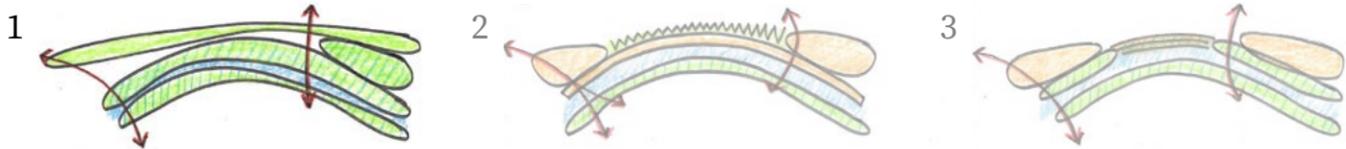
2 CULTURE CENTER



3 PLAY PARK



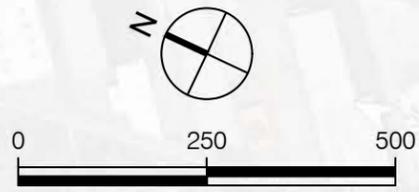
DESIGN ALTERNATIVE 1: NATURE PARK



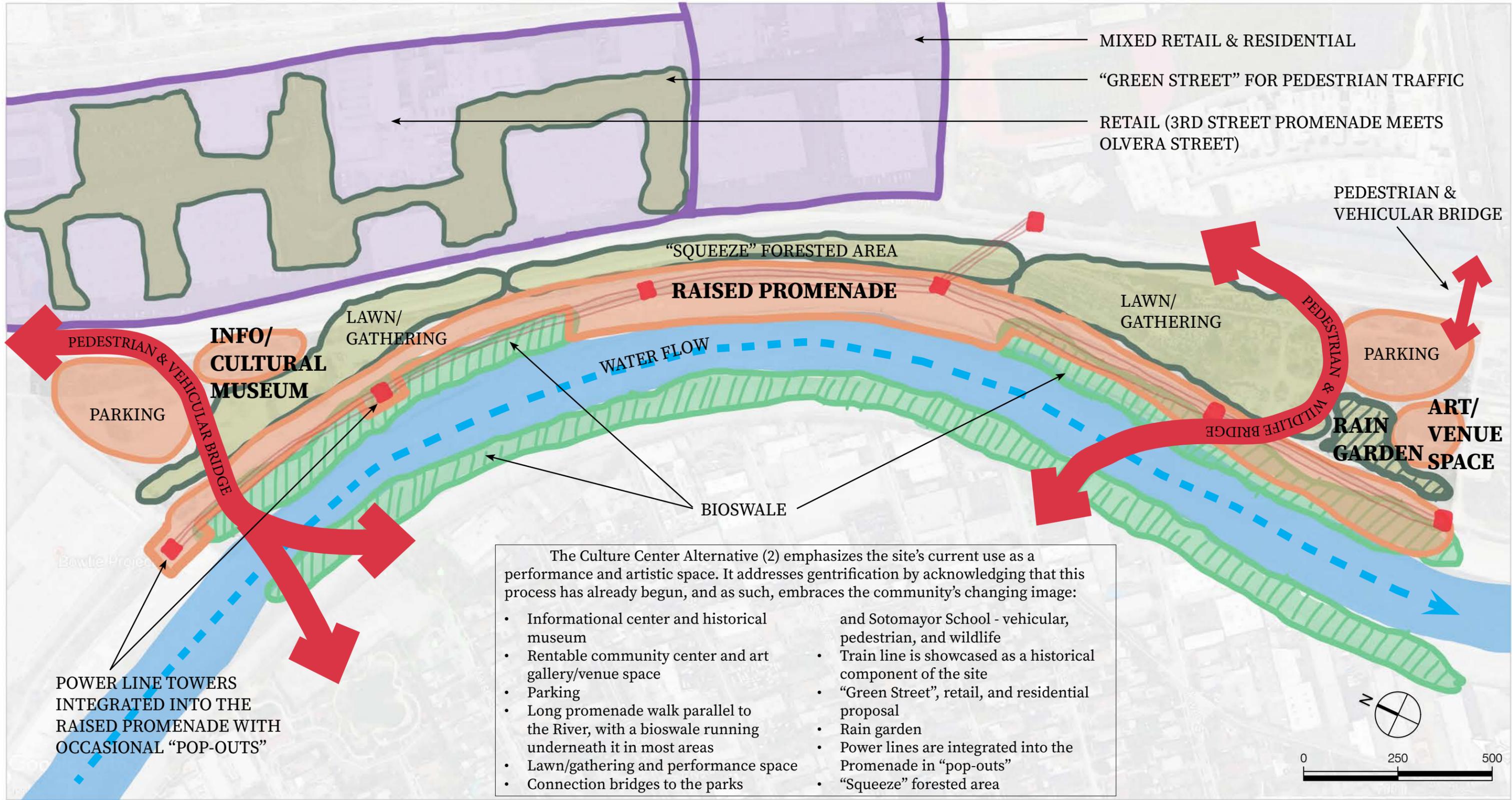
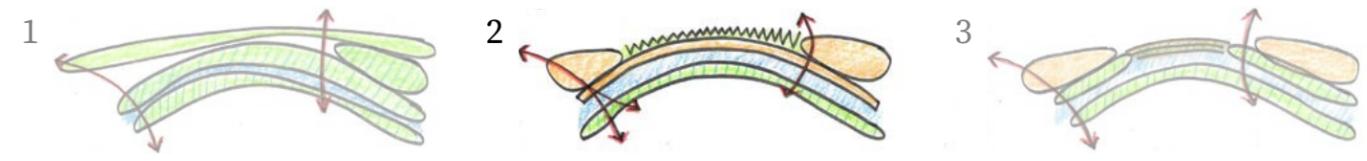
MIXED INCOME HIGH-DENSITY HOUSING
BERMED-UP FORESETED TRAIL OVER TRAIN LINE

The Nature Park Alternative (1) is one that prioritizes the naturalization of the River's concrete banks into vegetated bioswales for phytoremediation in one of only two soft-bottomed stretches of the River. As such, the main elements of the design are:

- Fully naturalized banks
- Kayak dock and shack
- Beach
- Spur dikes to slow water flow and prevent erosion of the naturalized banks
- Educational component
- Art exhibit and historical museum
- Picnic areas
- Nature trails
- Bridges to parks and Sotomayor School
- Overlook viewpoints from the bridges over sedimented areas of the River
- NO Parking
- Climbing up to the Power Lines for views of the River
- Flood detention bioswale/ Bypass channel at the South Turntable
- Mixed housing proposal
- Train line is placed underground, with a berm placed over it for dynamic views

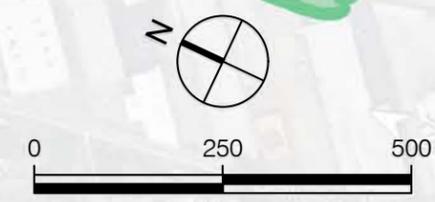


DESIGN ALTERNATIVE 2: CULTURE CENTER

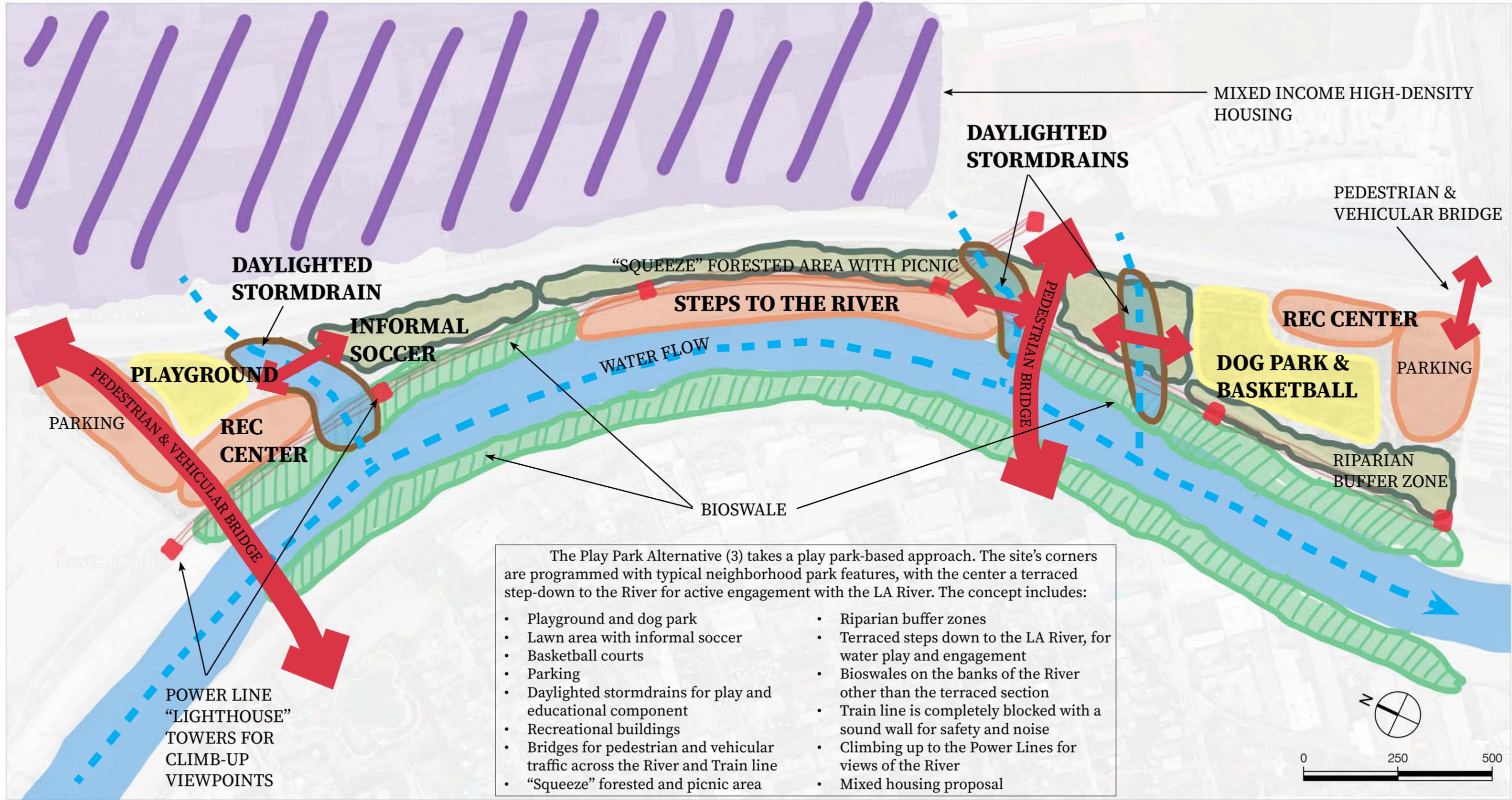
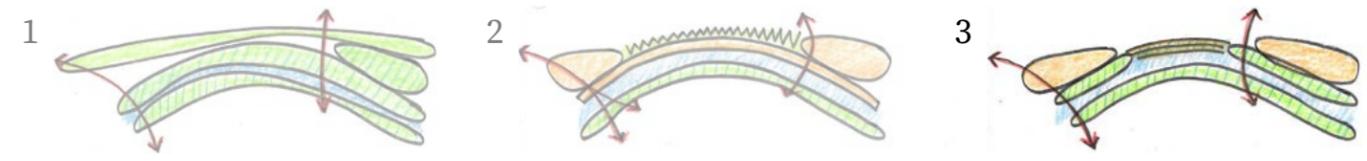


The Culture Center Alternative (2) emphasizes the site's current use as a performance and artistic space. It addresses gentrification by acknowledging that this process has already begun, and as such, embraces the community's changing image:

- Informational center and historical museum
- Rentable community center and art gallery/venue space
- Parking
- Long promenade walk parallel to the River, with a bioswale running underneath it in most areas
- Lawn/gathering and performance space
- Connection bridges to the parks and Sotomayor School - vehicular, pedestrian, and wildlife
- Train line is showcased as a historical component of the site
- "Green Street", retail, and residential proposal
- Rain garden
- Power lines are integrated into the Promenade in "pop-outs"
- "Squeeze" forested area



DESIGN ALTERNATIVE 3: PLAY PARK



The Play Park Alternative (3) takes a play park-based approach. The site's corners are programmed with typical neighborhood park features, with the center a terraced step-down to the River for active engagement with the LA River. The concept includes:

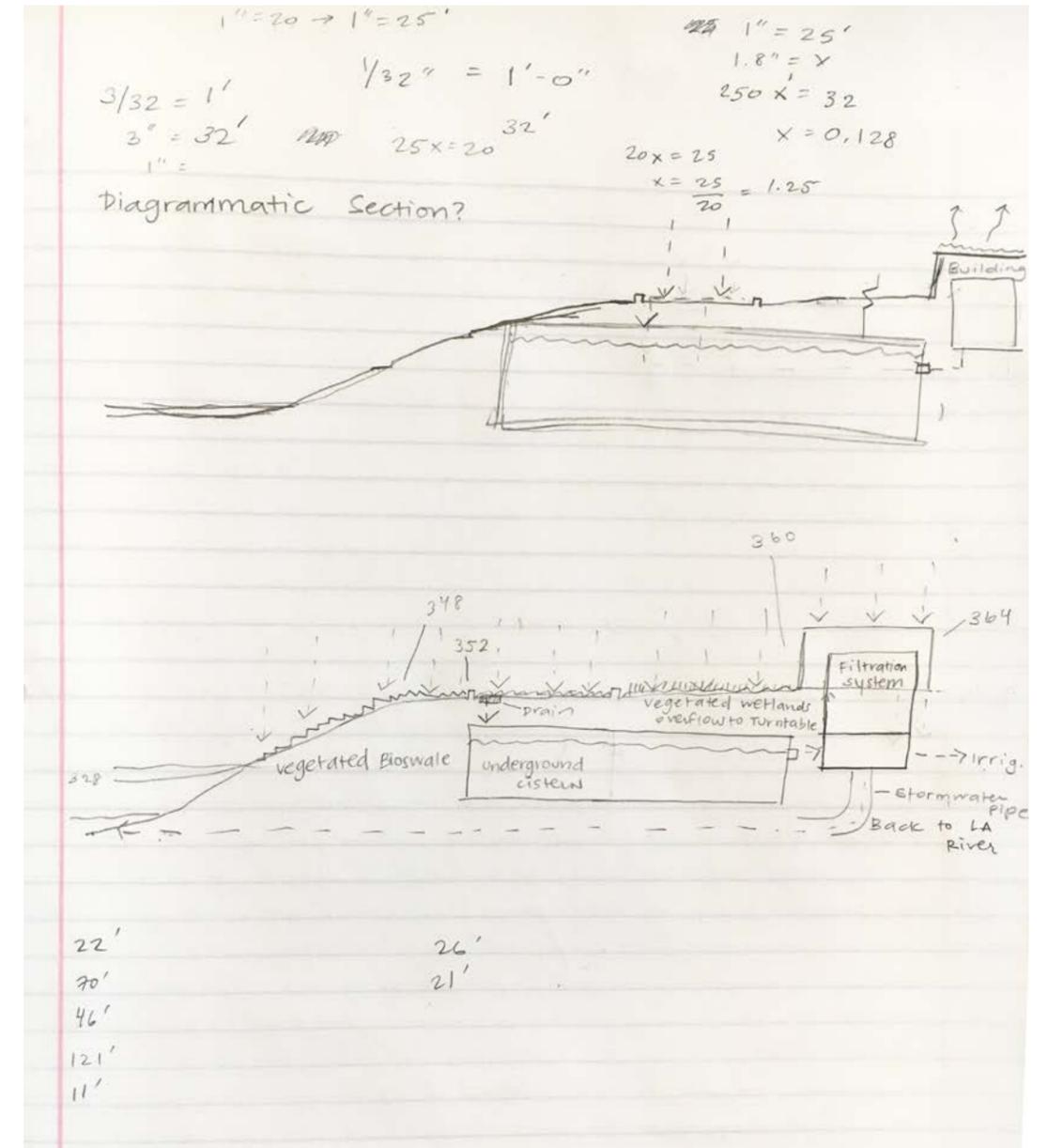
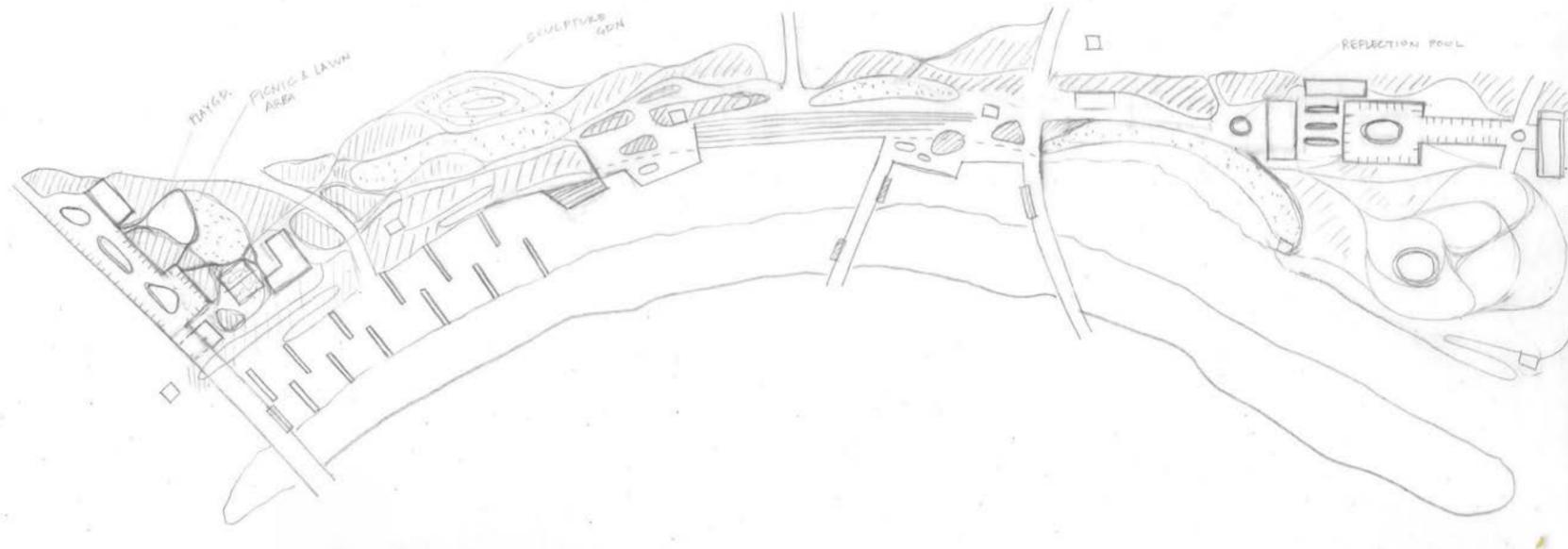
- Playground and dog park
- Lawn area with informal soccer
- Basketball courts
- Parking
- Daylighted stormdrains for play and educational component
- Recreational buildings
- Bridges for pedestrian and vehicular traffic across the River and Train line
- "Squeeze" forested and picnic area
- Riparian buffer zones
- Terraced steps down to the LA River, for water play and engagement
- Bioswales on the banks of the River other than the terraced section
- Train line is completely blocked with a sound wall for safety and noise
- Climbing up to the Power Lines for views of the River
- Mixed housing proposal

PROCESS: SITE PLAN & LID SYSTEM NAVIGATION

After drawing a series of diagrams, a concept emerged in which a blend of the 3 design alternatives was explored. This hybrid of ideas was also expressed in the site program: on the north side of the master plan is a city park, much in line with the nearby parks located in Frogtown; however, as one moves southward through the Bowtie Parcel, the California State Parks's mission of "naturalized open space" is addressed through large green spaces, an open promenade with access to the LA River, and a trail over a bioswale around the historic South Turntable.

A hybrid also emerged with regard to the blend of organic and geometric forms on the site. It is this aesthetic that appeals to me as a designer, but also felt appropriate given the Bowtie Parcel's proximity to the city grid, gritty LA history, and ultimate desires to become "naturalized open space."

Finally, in dealing with some of the ecological and environmental issues of the site, I felt it important to calculate how the new design proposal incorporated the already-existing site topography, and how that could be manipulated to allow for LID, or "low impact development." This was particularly true along the water's edge, where stormwater runoff could be treated from harmful pollutants, making the design sustainable and responsible - as it should be - in this era of environmental awareness.



MASTER PLAN: "PROMENADE & PLAY"

In reviewing the Bowtie Parcel's history, environmental conditions, and its constraints and opportunities, it became clear that the design should pay homage to the cultural history of the site, address the needs and concerns of the neighboring communities, and deal with the site's environmental conditions - namely toxic soils and water as well as the erosive and flood-prone nature of the Bowtie Parcel.

The Bowtie Parcel's redesign focuses on the central stepped Promenade, sandwiched between two raised viewing platforms over the LA River. "Play" is also a major component of the Park: a children's playground, basketball courts, a daylighted stream, beach, kayak docks, a lower bike path, a sculpture garden, and lighthouse-like climbable High Tension Power Lines are features of the design proposal.

Cultural and environmental education are also heavily incorporated in the design. A museum and daylighted storm drain with stormwater-cleansing and energy-producing weirs exist on the northern end of the Bowtie Parcel; a wetlands bioswale and flood detention zone with underground cisterns is part of a larger education center, conveniently located near the Sotomayor School, on the southern side of the site.

On an urban design-scale, the Promenade & Play Master Plan proposes mixed-income housing combined with retail space instead of the nearby warehouses in Glassell Park. The inspiration for the retail area comes from both Olvera Street and 3rd Street Promenade, and in transforming this area into a walkable retail and residential area, the streets can be converted into "Green Streets," further emphasizing the master plan's overall Low Impact Development (LID) intent for the city of Los Angeles.

LID strategies include bioswales along the banks of the LA River (except at the central bend of the river, where the stepped promenade prevents the erosion of the bank in flooding events), bermed and heavily planted mounds over the Rail Line, permeable parking pavers, and a wetlands wildlife habitat/bioswale/flood detention zone.

Overall, the Bowtie Parcel's "Promenade & Play" design aims to take advantage of its constraints by turning them into opportunities. The master plan capitalizes on its adjacencies by connecting the two sides of the LA River and making the site accessible for all in terms of programming. More importantly, however, in employing sustainable LID strategies throughout the site, the redesign becomes an important example for the treatment of current and future environmental issues in Los Angeles and cities around the world.



"PROMENADE & PLAY": ILLUSTRATIVE PLAN



INSPIRATIONAL PHOTOS COLLAGE

Climbable “Lighthouse Towers”
Minnesota Fire Towers



Photo via: Jordan Mileski, www.minnesotamonthly.com

Promenade Steps
Avon River Park Terraces & City Promenade



Photo via: LandLAB (3), www.bestawards.co.nz

Viewing Platforms on Bridges
Willis (Sears) Tower



Photo via: www.atlasobscura.com

Sloped Bioswales (Replacing channelized banks)
Biofiltration Marsh with Native CA Plants



Photo via: www.ccber.ucsb.edu

Pilotis Buildings in Flood Zones
The UW Faculty Club



Photo via: www.classhaus.com

Bridge and Riparian Buffer Zone over Daylighted Storm Drain
The Mariners’ Museum & Park

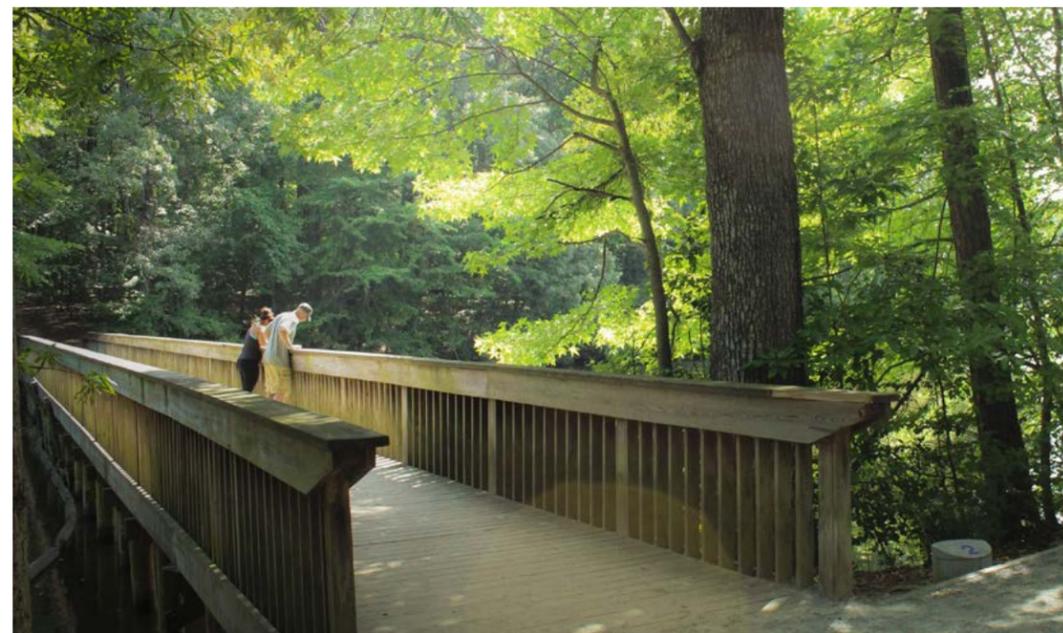


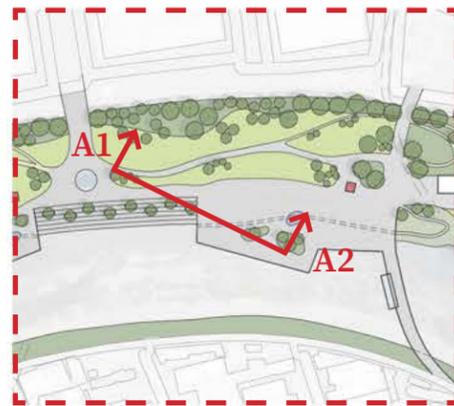
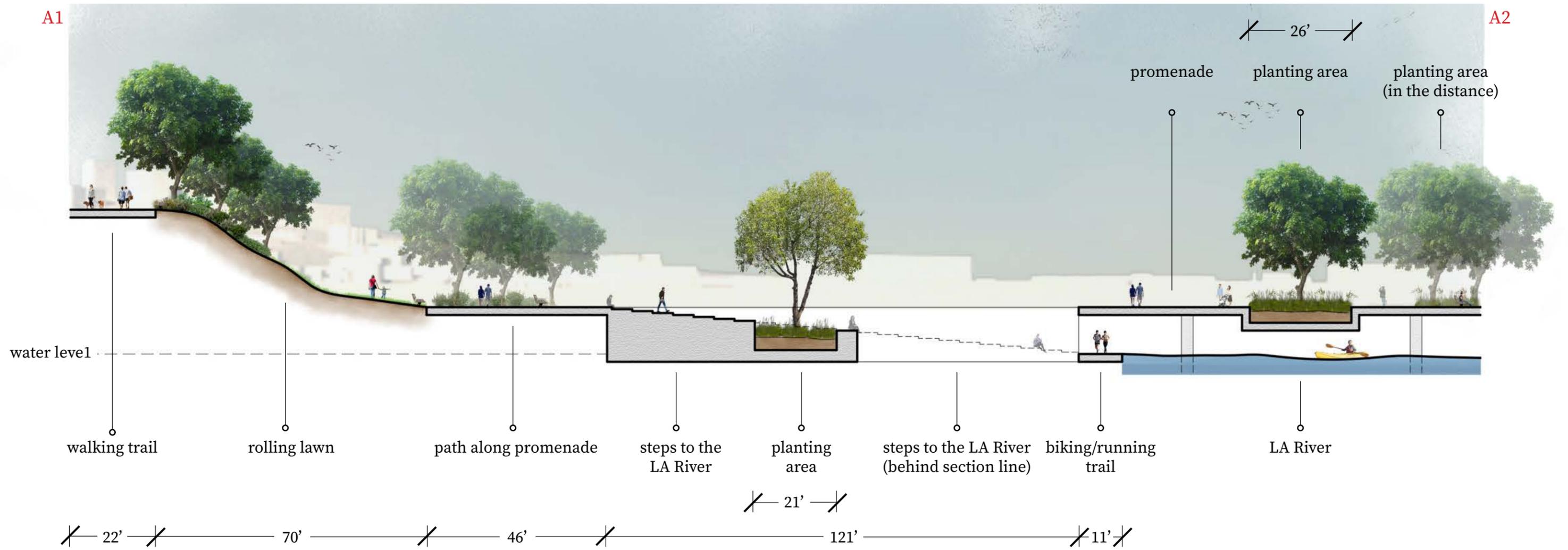
Photo via: www.marinersmuseum.org

Trail over Wetlands/Flood Detention Bioswale (“Area 26”)
Wakehurst Wetland Boardwalk

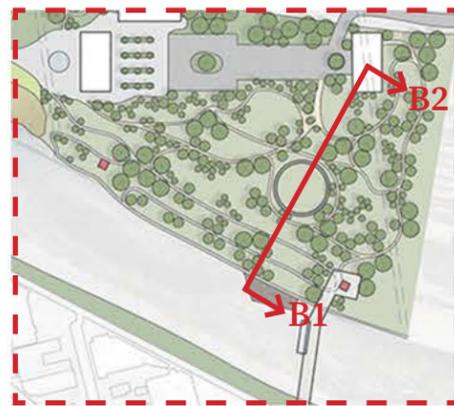
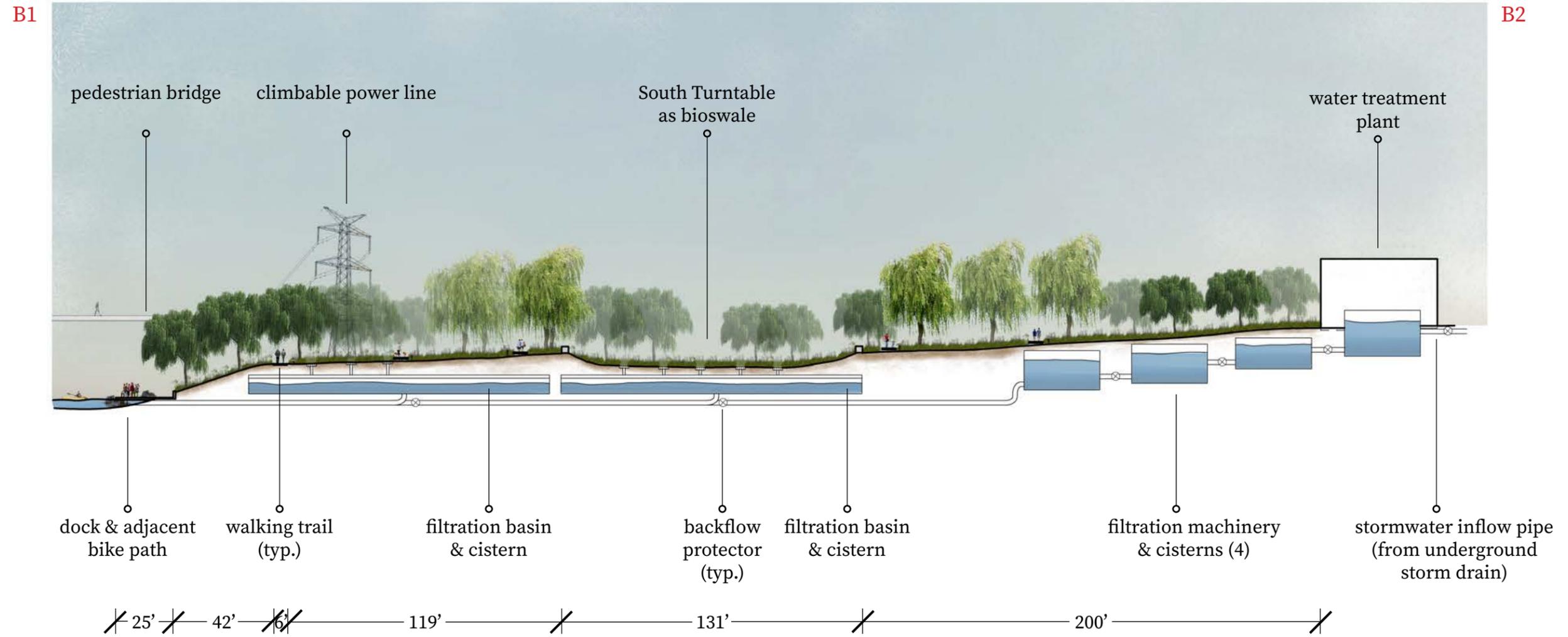


Photo via: www.thewilddeckcompany.co.uk

SITE SECTION AA: STEPS TO THE LA RIVER & PROMENADE



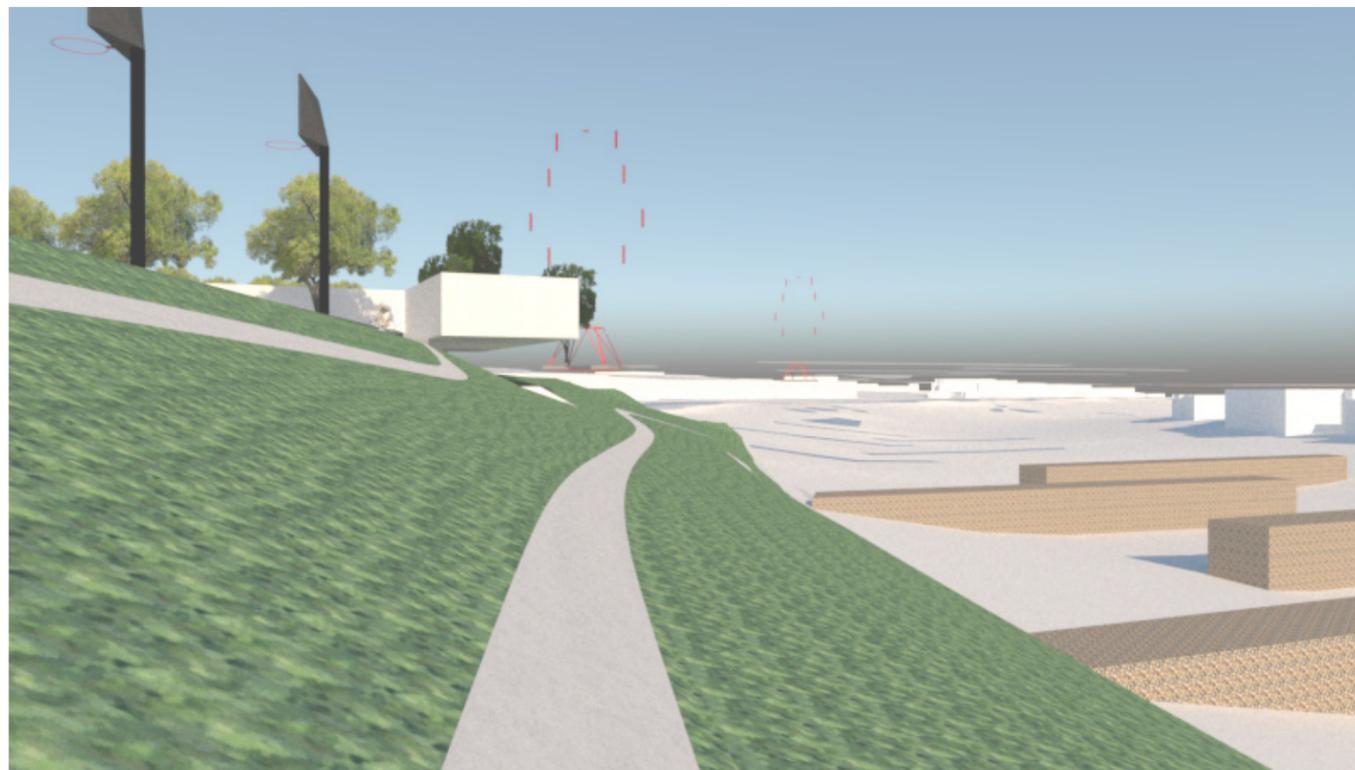
SECTION BB: LID SYSTEM IN FLOOD DETENTION BIOSWALE



PERSPECTIVES & WALKTHROUGH VIDEO

PROMENADE & PLAY SKETCHUP "WALKTHROUGH" VIDEO (NORTH END OF THE SITE):

<https://drive.google.com/file/d/1qQDFuguZ2mkkkyoo4aoHQtvOIAvRM7gi/view?usp=sharing>



Rivkah Spolin