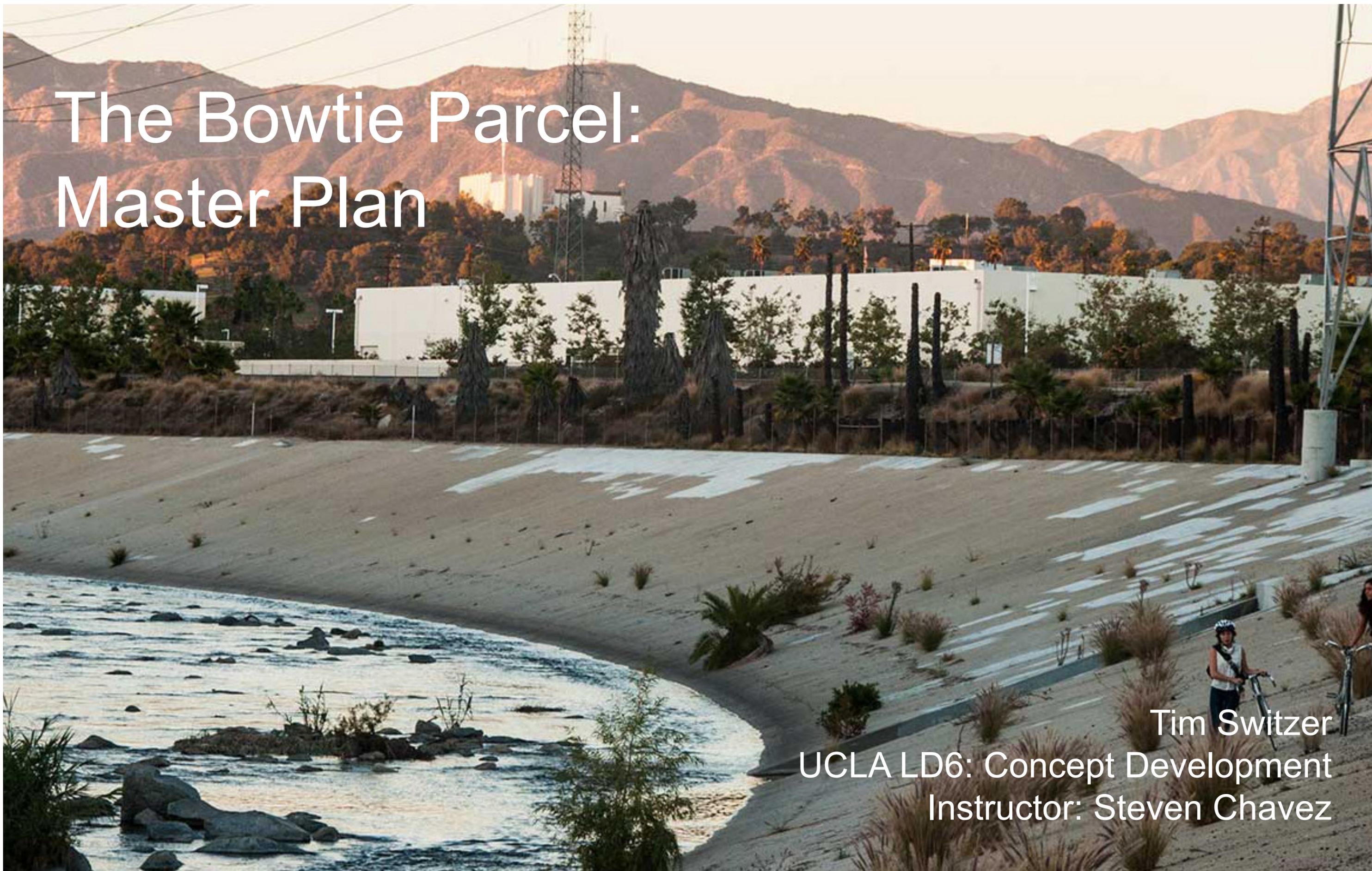


The Bowtie Parcel: Master Plan

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HISTORY & OVERVIEW

The Bowtie Parcel in Los Angeles, CA is a microcosm of the processes and forces that lead the city to be the way we see it today - offering a history to consider and an opportunity to reinvision our future.

The post-industrial site was formerly a Southern Pacific Railroad service center sitting adjacent the channelized and environmentally degraded Los Angeles River. When the yard closed in 1985, the buildings sat empty and the slow process to determine the site's future began as the buildings deteriorated. Walking the razed and paved over site now, few remnants of the machinery and infrastructure of Taylor Yard remain. It has remained in limbo for decades, while developers and community groups made their case for what the parcel should become.

Eventually, largely through the efforts of the 'Coalition for a State Park at Taylor Yard,' the state acquired the G-1 and neighboring G-2 parcel for \$45 million in 2002 and 2003, while the rest of the site had been sold piecemeal over the preceding years.

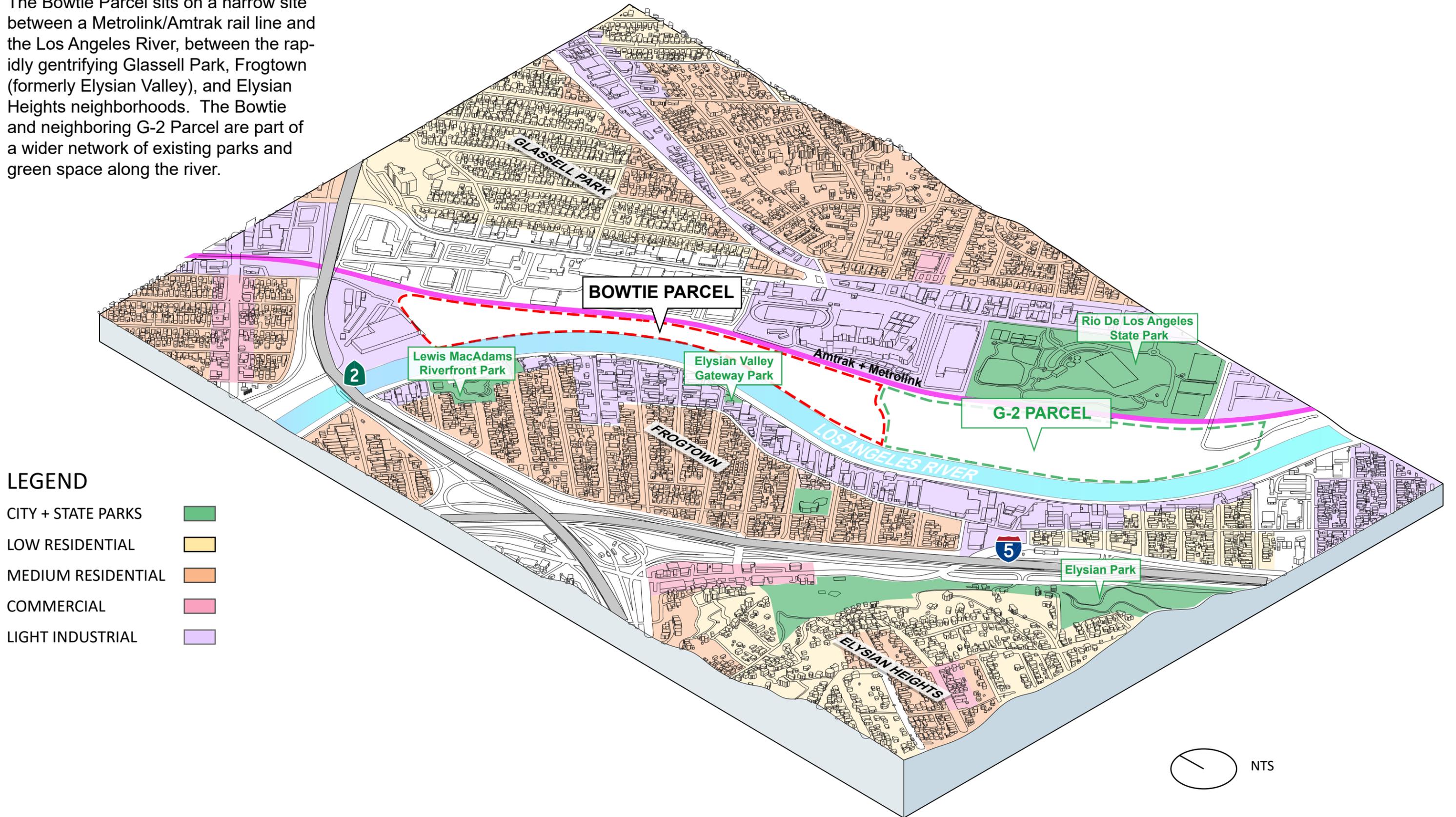
The site sat vacant for nearly a decade until in 2014, a partnership between California State Parks and Clockshop, an arts non-profit, activated the derelict space by commissioning an ongoing series of art and community engagement projects - renaming it the Bowtie Project. Now the layers the site's history have compounded and recombined, with railroad ties from the late 1800s and graffiti covered art projects from the 2010s melding together, and native plants and invasive weeds burst through the cracks in the asphalt.

It's all a perfectly fitting physical manifestation of the site's history and precarious present - at the center of rapid gentrification amidst a broader push from the city and state to "revitalize" the Los Angeles River. With the state approving \$500,000 in funding for design development 2019, change is imminent at the Bowtie, but how the design serves the environment and the community remains to be seen. The design proposed in this booklet attempts to synthesize these community and environmental concerns to provide a roadmap for future public space in Los Angeles while acknowledging its past.



SITE CONTEXT

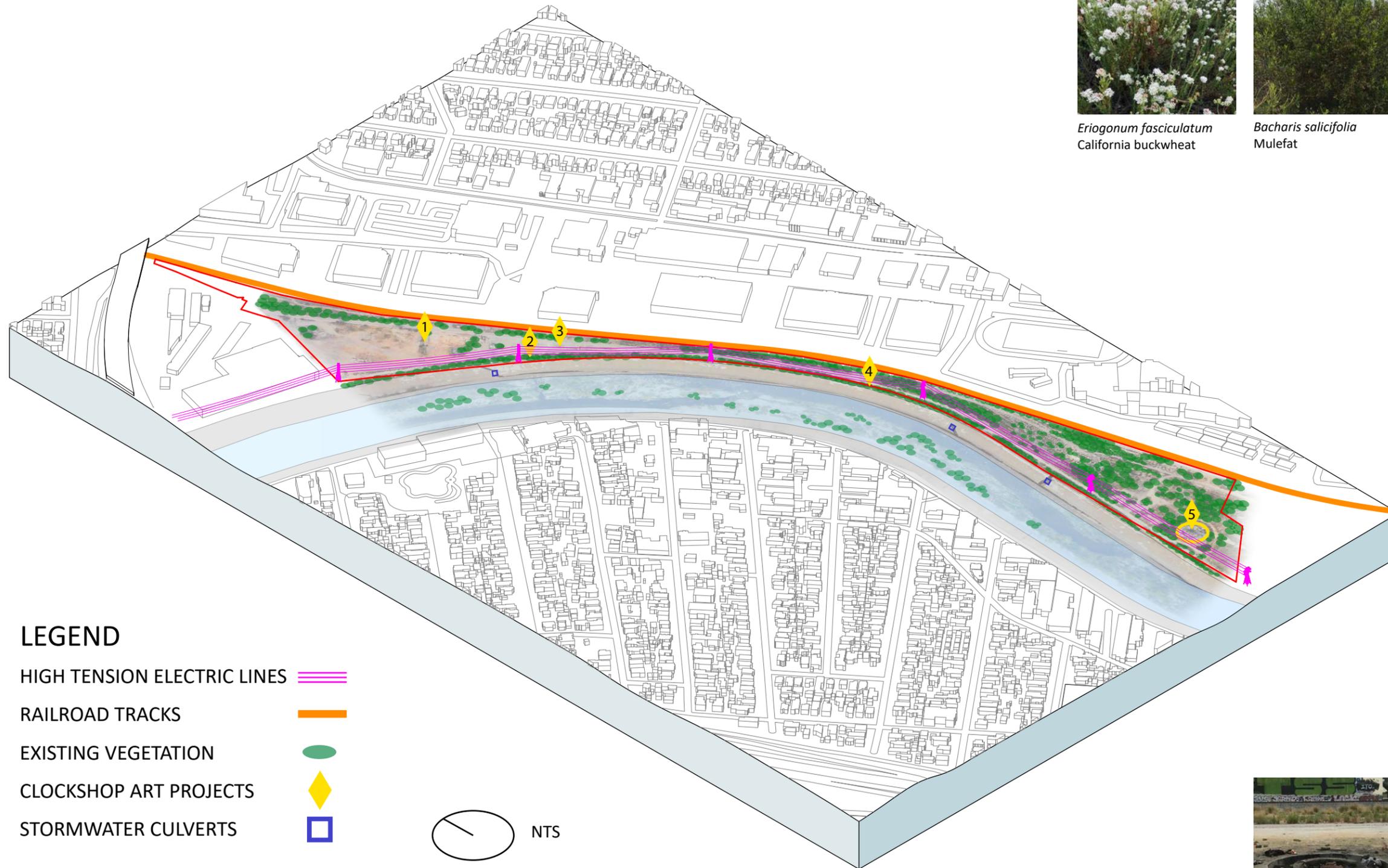
The Bowtie Parcel sits on a narrow site between a Metrolink/Amtrak rail line and the Los Angeles River, between the rapidly gentrifying Glassell Park, Frogtown (formerly Elysian Valley), and Elysian Heights neighborhoods. The Bowtie and neighboring G-2 Parcel are part of a wider network of existing parks and green space along the river.



LEGEND

- CITY + STATE PARKS
- LOW RESIDENTIAL
- MEDIUM RESIDENTIAL
- COMMERCIAL
- LIGHT INDUSTRIAL

SITE INVENTORY



NATIVE PLANTS



Eriogonum fasciculatum
California buckwheat



Bacharis salicifolia
Mulefat



Eriodictyon californicum
Yerba Santa



Datura wrightii
Sacred datura

IVASIVE PLANTS



Pennisetum setaceum
Fountain grass



Washingtonia robusta
Mexican fan palm

CLOCKSHOP ART PROJECTS



1. Hatch - Jesse Harrod
2019



2. ACE Design Studio
2016



3. Fire Pit
N/A



4. ACE Design Studio
2016



5. Railcar Turnaround
N/A

LEGEND

HIGH TENSION ELECTRIC LINES

RAILROAD TRACKS

EXISTING VEGETATION

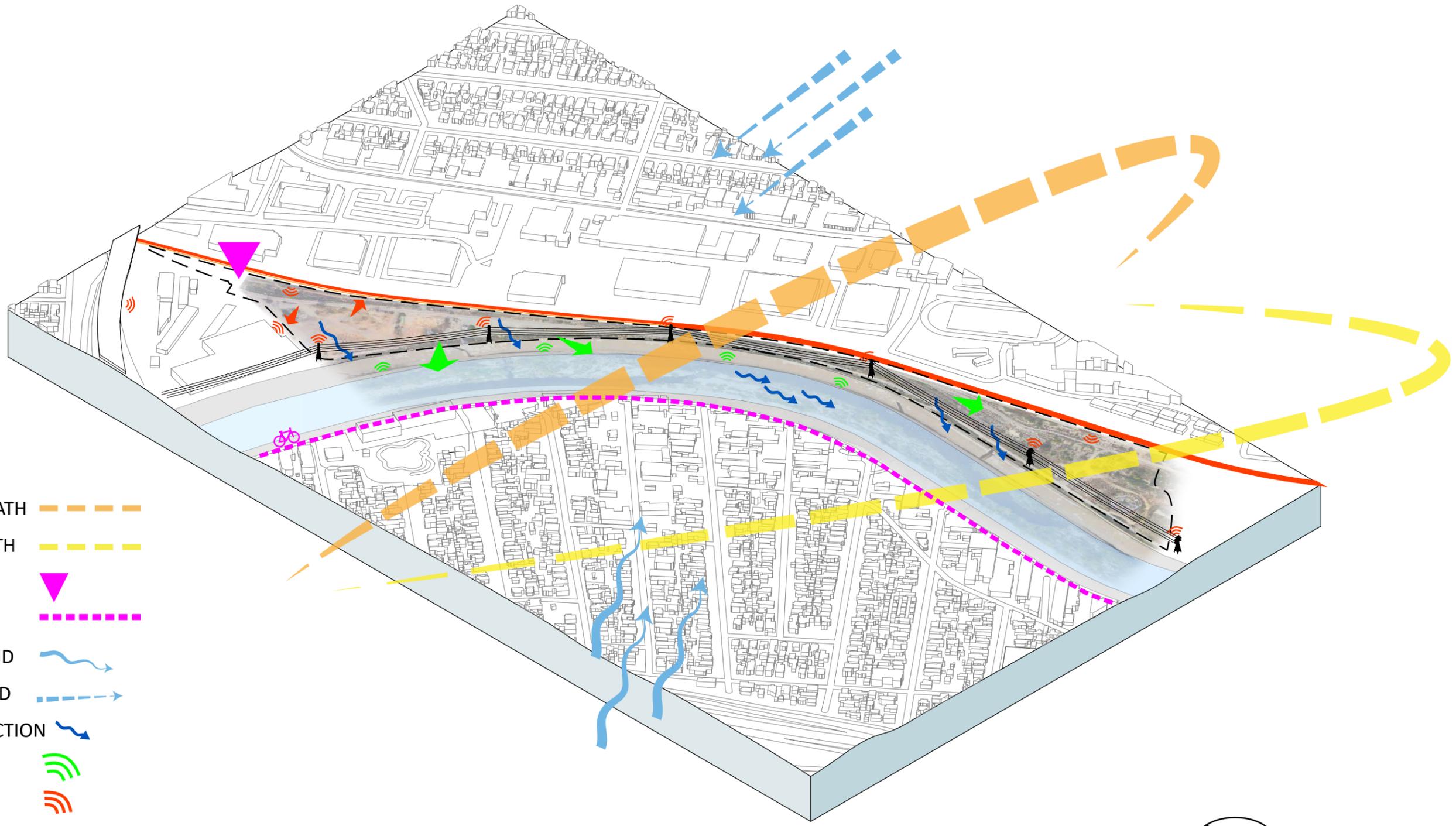
CLOCKSHOP ART PROJECTS

STORMWATER CULVERTS



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SITE ANALYSIS



LEGEND

- SUMMER SUN PATH ————
- WINTER SUN PATH - - - - -
- ACCESS POINT ▼
- BIKE PATH - - - - -
- PREVAILING WIND ~~~~~>
- SANTA ANA WIND - - - - ->
- DRAINAGE DIRECTION ~~~~~>
- POSITIVE NOISE ~~~~~
- NEGATIVE NOISE ~~~~~
- POSITIVE VIEWS >
- NEGATIVE VIEWS >



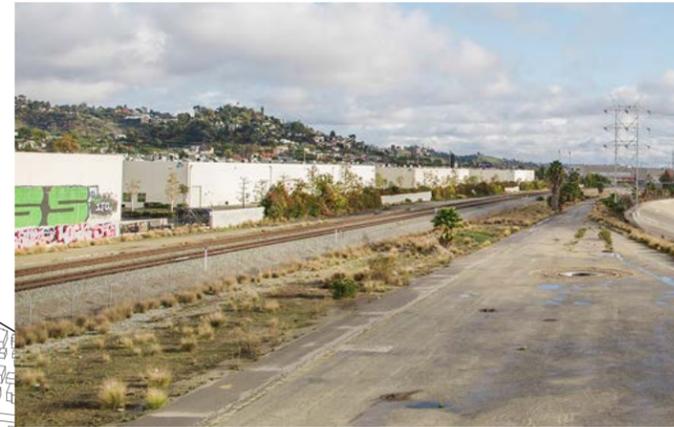
SITE CONSTRAINTS



NO SHADE- The site has virtually no tree canopy. When coupled with the abundant asphalt, the urban heat island effect is even more pronounced.



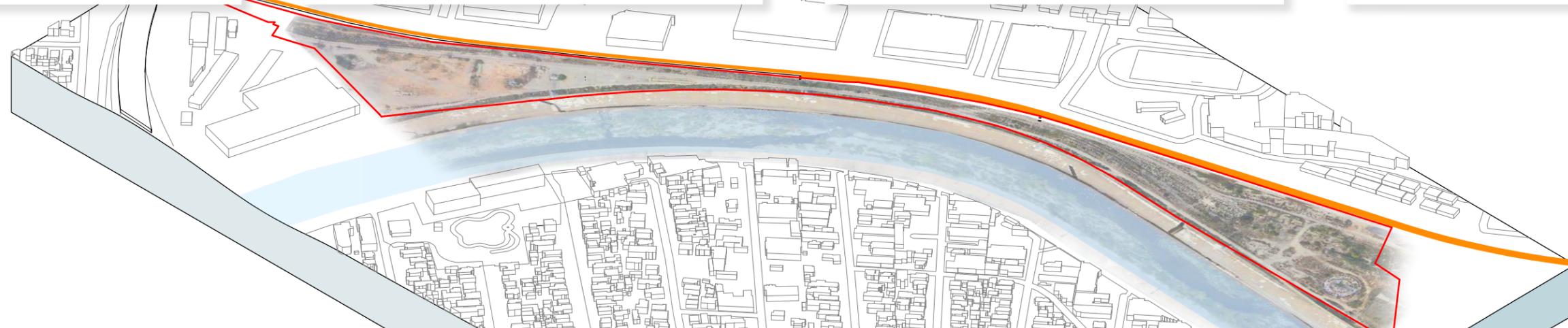
LIMITED ACCESS TO THE RIVER- While the bowtie sits adjacent to the LA River, access is limited to a handful of gaps in a chain-link and barbed wire fence, followed by the steep concrete banks.



SAFETY HAZARD FROM PASSENGER RAIL- The Amtrak line bordering the site runs up to 75 MPH, creating a significant safety risk. Sections of the site are without any barriers separating the railroad.



CONTAMINATED/ DEGRADED SOIL- The soil on site was contaminated by decades of industrial pollutants and now contains, bacteria, chloride, cyanide, and other heavy metal compounds.



LIMITED ENTRY- The only pedestrian access to the bowtie is located on the north side of the linear lot, near the 2 Freeway overpass, limiting circulation and connections to the surrounding neighborhoods.



INVASIVE PLANT SPECIES- The bowtie is covered with pennisetum setaceum, a highly invasive fountain grass that thrives in disturbed areas and threatens the ecology of the LA River.



GENTRIFICATION- The site sits between many rapidly gentrifying neighborhoods. Current research points to new greenway parks contributing to gentrification even more than other park types.



DIRTY HIGH VELOCITY STORMWATER- Storm drains currently run under the site and flow directly into the river, contributing to a higher water velocity and doing nothing to cleanse stormwater runoff.



SITE OPPORTUNITIES



PLANT TREES- While the exposed nature of the site offers great views of the valley and surrounding hills, some areas should be densely planted with trees to offer shade for visitors and habitat for wildlife.



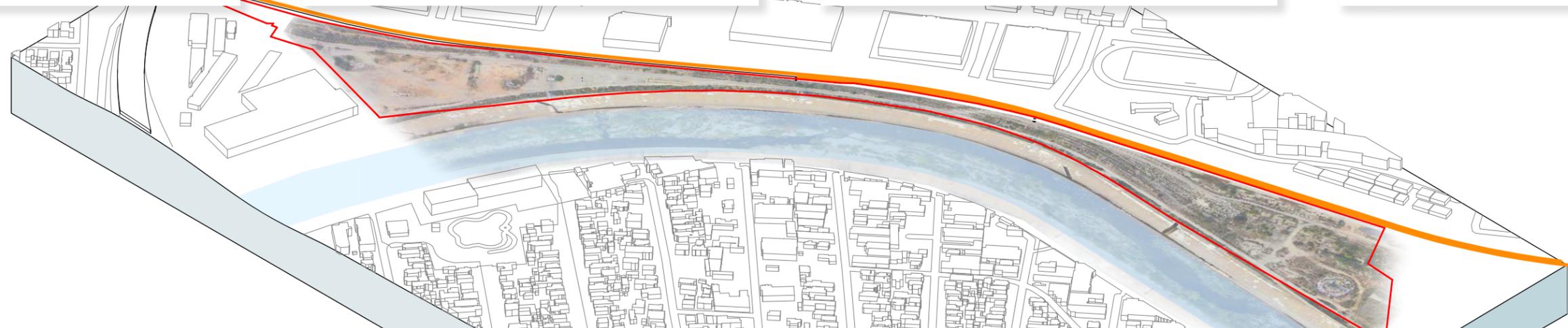
CONNECT SITE TO RIVER- Numerous strategies could be implemented to connect the site to the river - including terracing or naturalizing the banks, and designing walking paths to the water's edge.



GREEN WALL BARRIER- A green wall structure could serve to improve safety, reduce noise, and enhance views of the passenger train while adding planting to improve air quality and habitat.



SOIL REMEDIATION- A number of strategies are proven to remove soil contaminants. Bioremediation, soil washing, and thermal desorption offering their own set of advantages and disadvantages.



PEDESTRIAN BRIDGES- Connections can be made via pedestrian/ bike bridge to Frogtown, while connection to the adjacent Taylor Yard project should be considered to create an integrated greenway.



BOLSTER NATIVE PLANTS- Despite the presence of invasive species, many native plants- through hydro-seeding efforts- have been reestablished, including CA buckwheat, sages, and yerba santa.



GENTRIFICATION- While gentrification is a systemic problem that can't be solved through design, certain considerations should be made - Extensive community engagement, anti-displacement and tenant protection regulation would be appropriate.



STORMWATER TREATMENT- Rain gardens and bioswales can transform daylighted stormwater drains into ecologically rich systems for filtering and slowing stormwater, while naturalizing the river banks would also provide the same function.

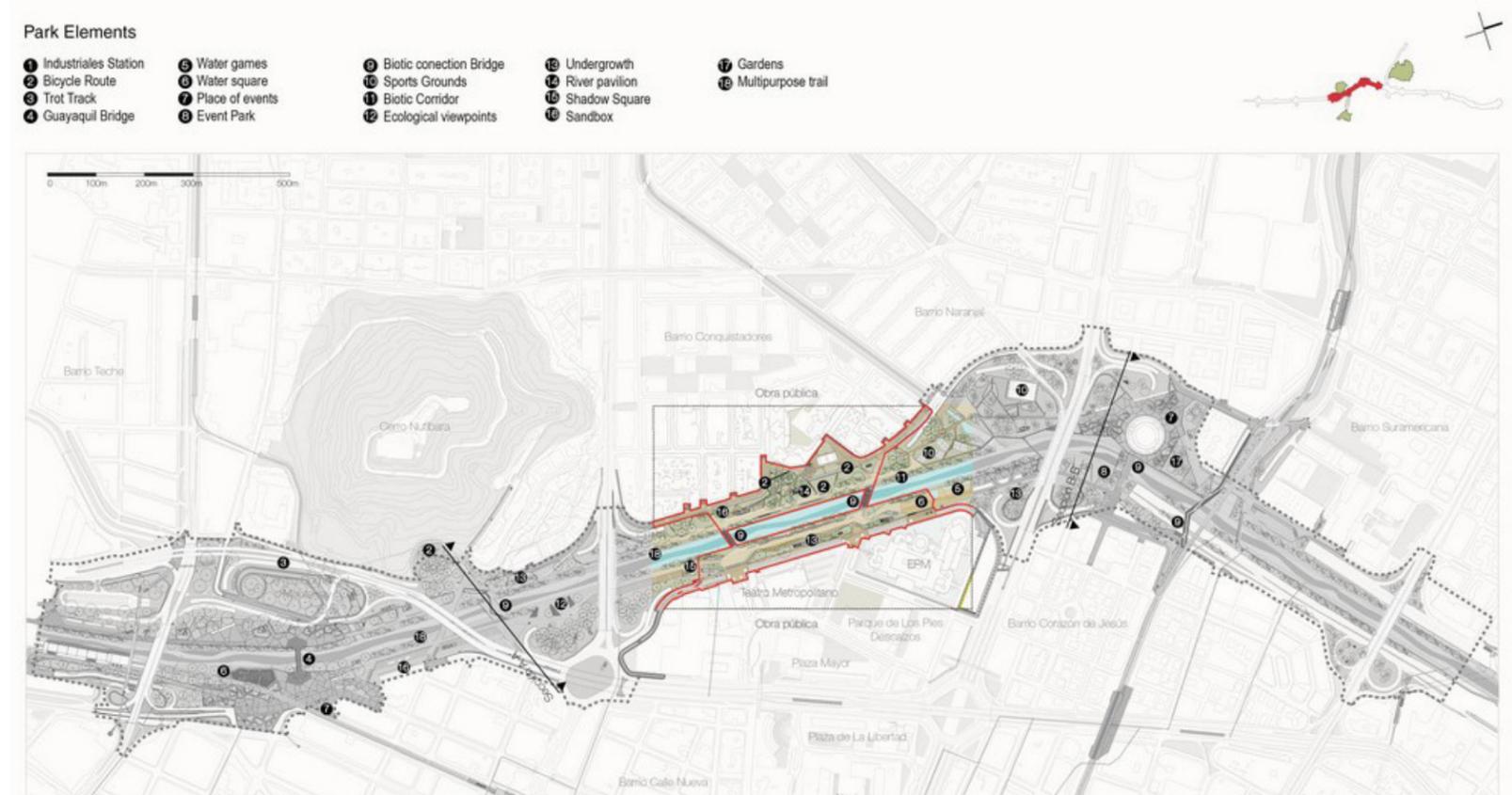


PRECEDENT CASE STUDY 1: MEDELLIN RIVER PARKS MASTER PLAN

The Medellin River Parks Master plan is a linear sequence of more than 10 miles of public spaces along Rio Aburre, which bisects the Columbian capital. In addition to bringing public activity to the channelized river, it ties into a broader effort starting in 2004 to link nodes of development in some of the city's poorest neighborhoods to public transportation. The city sits in a valley, and a series of bridges in the plan serve to overcome the river acting as a wall dividing neighborhoods

The first phase of the project, completed in 2016, is constructed on top of an existing freeway bringing public green space to the river's edge and using the river as a organizing axis and hub for civic life. This first section, known as Medellin River Botanic Park, emphasizes the use of native flora, and seeks to develop environmental awareness. The recently completed BIO 2030 Plan incorporates the geology, hydrology, and fragmentation of the valley as a base for future development.

The extreme inequality in Medellin is reflected in its housing types, with the poor living in self-constructed settlements on the steep slopes of the valley. These planning efforts have coincided with efforts to expand services to these settlements, as well as explore design frameworks to improve their safety and connectivity.



Site Context. Image credit: Sebastian Monsalve + Juan David Hoyos



Image Credit: Alejandro Arango



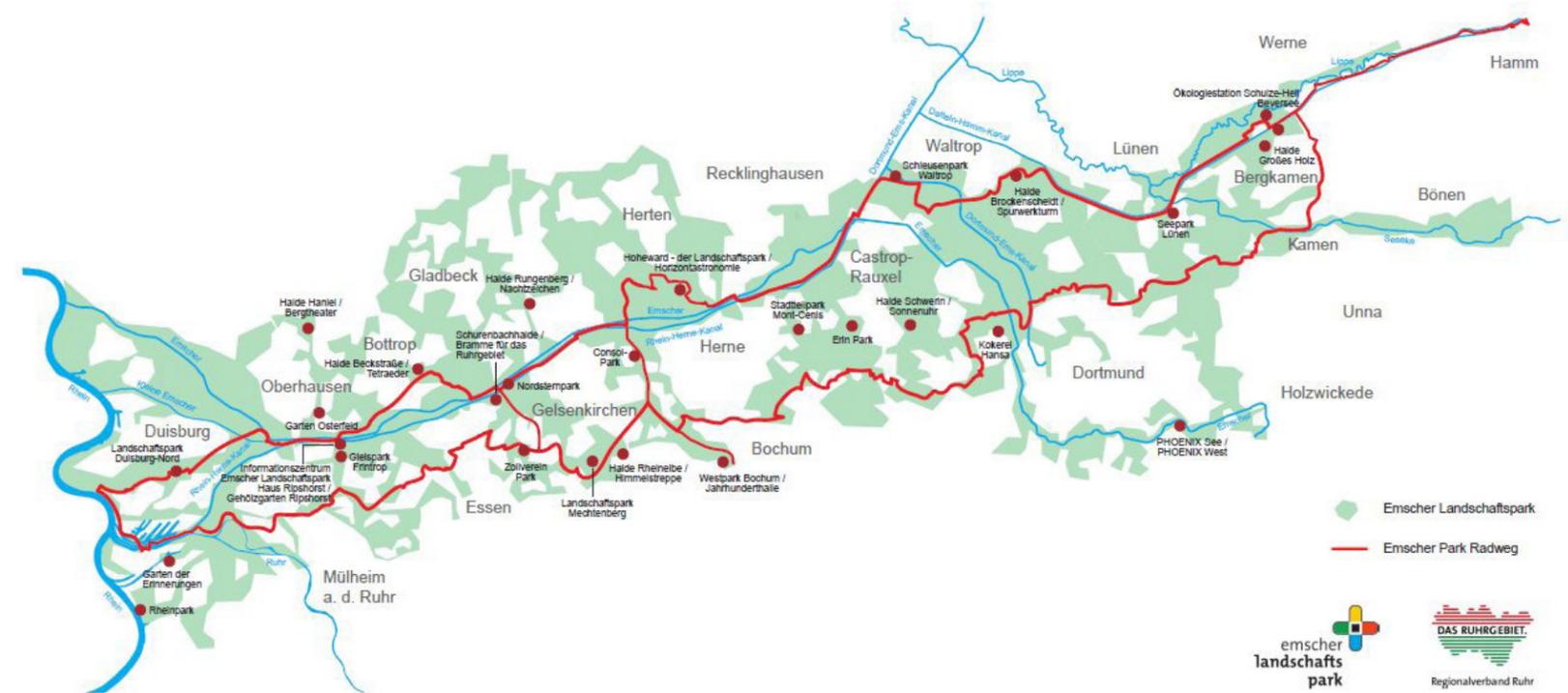
Image credit: ArchDaily

PRECEDENT CASE STUDY 2: EMSCHER LANDSCAPE PARK

The International Building Exhibition Emscher Park from 1989 to 1999 laid out new ideas for post-industrial landscapes that would lead to the transformation of the Ruhr region of Germany. Mining and steel manufacturing had been the primary industries, and they accordingly dominated the landscape - leaving heavily polluted waterways and landscapes unsuitable to recreation. The closure of the Thyssen plant in 1983 marked a turning point in the region and signaled the decline of industry. The exhibition was a workshop for the future of former industrial areas, whose stated goal was to promote, with limited interventions, the improvement of people's living conditions within the region.

A regional planning body working with 17 municipalities adapted the Exhibition's ideas to create connective landscape spaces between towns. Building off 7 existing north-south green corridors, the plan connected them with east-west green corridors along the Emscher River. These corridors were activated with a network of pedestrian and cycling paths.

As of 2016, the Park includes 406 implemented projects over 177 square miles. A notable project, Duisburg-Nord Landscape Park, retains industrial ruins and uses phytoremediation to clean the contaminated soil, while using existing bunkers to sequester especially toxic soil.



Master Plan. Image Credit: Metropol Ruhr



Duisburg Nord Landscape. Image Credit: Mark Wohlrab



Duisburg Nord Landscape. Image Credit: Michael Shwarze-Rodrian

BROWNFIELD REMEDIATION CASE STUDY: QUEEN ELIZABETH OLYMPIC PARK

Queen Elizabeth Olympic Park was constructed in East London to host the 2012 Olympic Games. A major emphasis was placed on making the games “the greenest in history,” and this formerly heavily polluted brownfield site was converted into an ecological and recreational space with a life beyond the games themselves.

The Olympic Park soil strategy had four main objectives: support of the landscape, creation of ecological habitats, environmental interaction and water attenuation/filtration. A survey of the site soil early on found that the limited topsoil on the site could not be reused as topsoil due to chemical, physical, and biological contamination.

The remediation strategy involved using a ‘cover system’ to cover the contaminated soil with a geosynthetic marker layer and then clean landscape soils suited to the soil strategy objectives on top of it. Around 1.5 million cubic yards of soil (98% of demolition soil) were reused as civil engineering fill to construct landscape mounds and the site’s unique topographic features.

The constructed landscape soils were engineered for discrete landscape applications (wildflower meadows, lawn, perennial beds, etc.), and efforts were made to limit excessive topsoil depth. Topsoil below 500 mm tends to self-compact, lack aeration, and become anaerobic.

Alternative remediation techniques were also used, with 30,000 cubic meters of soil treated through bioremediation, 230,000 cubic meters washed, and 1,260 tons of diluted chemical reagents injected into the soil.

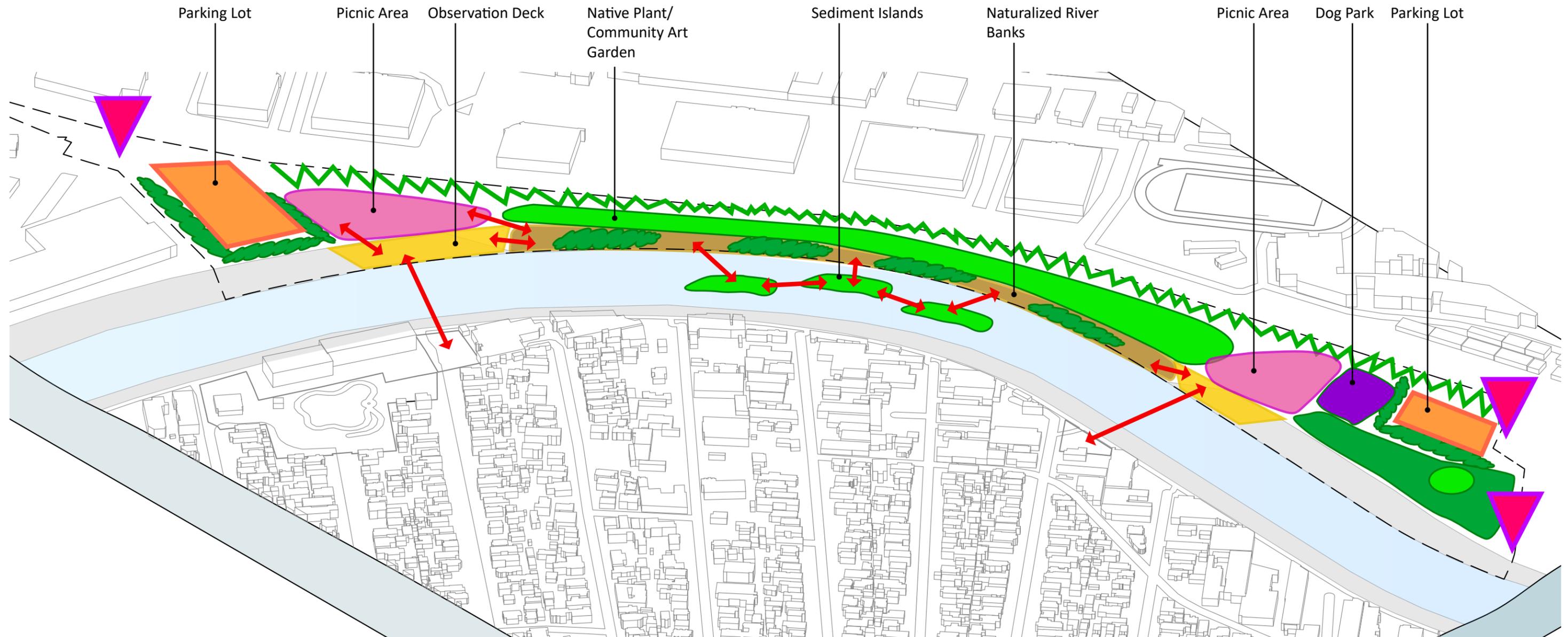


Master Plan. Image Credit: Hargreaves Associates



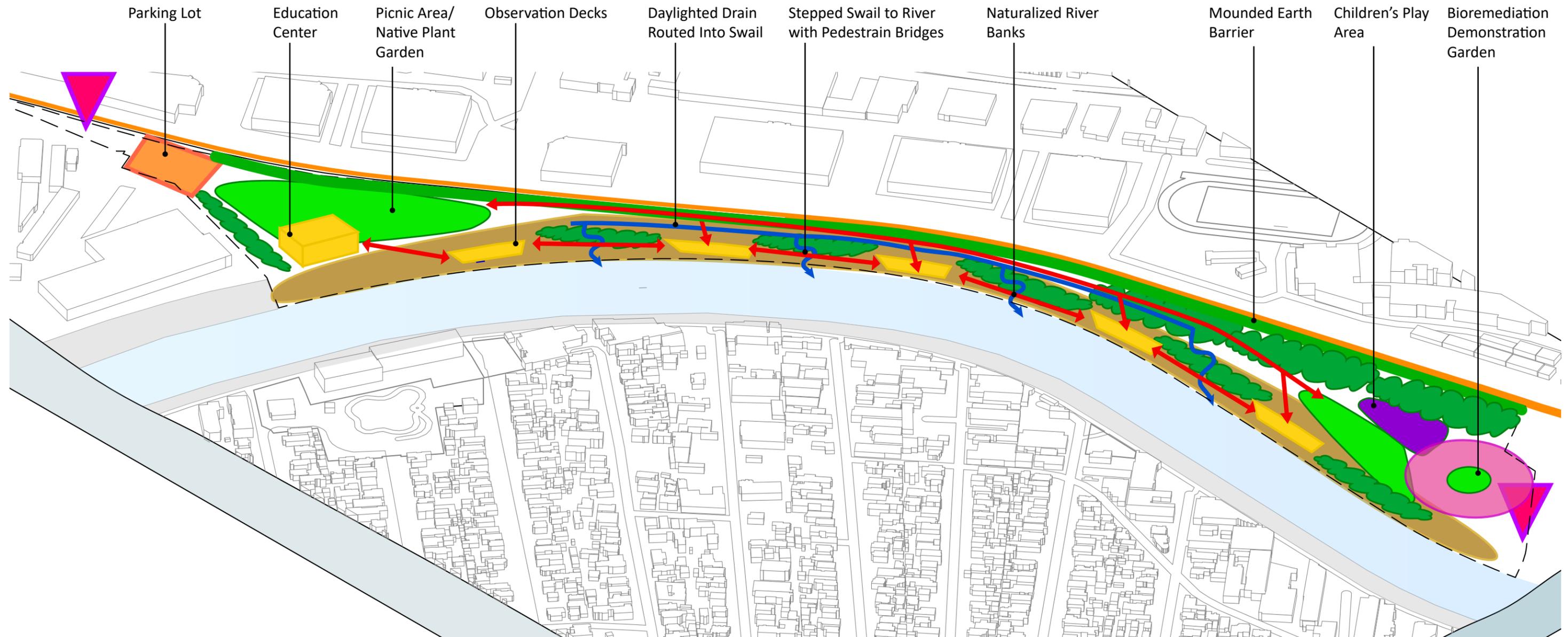
DESIGN ALTERNATIVE 1: CONNECTING NEIGHBORHOODS

The first design alternative places an emphasis on strengthening neighborhood connections across the LA River, and providing program elements for neighborhood residents. With parking and entrances on either end of the bowtie, picnic areas, a dog park, and large gathering spaces are located at the wider spaces. The narrower central portion of the bowtie is extended down to the river, with naturalized river banks providing nature paths and sediment islands for exploration, education, and solitude.



DESIGN ALTERNATIVE 2: STORMWATER SHOWCASE

The second alternative treats stormwater currently routed under the site and directly into the LA River. The water is routed through a series of stepped swales with pedestrian trails and bridges running along the completely naturalized river banks. An education center overlooks the river and river paths near the existing entrance and new native plant garden. At the far end of the site, a bioremediation demonstration garden uses the existing boundaries of the railroad turnaround to educate the public about phytoremediating contaminated soil.

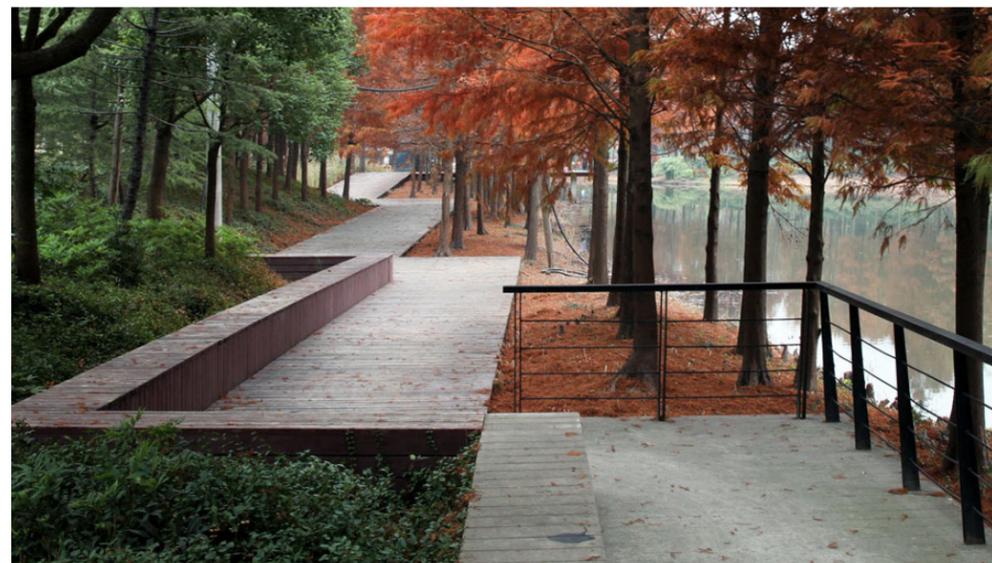
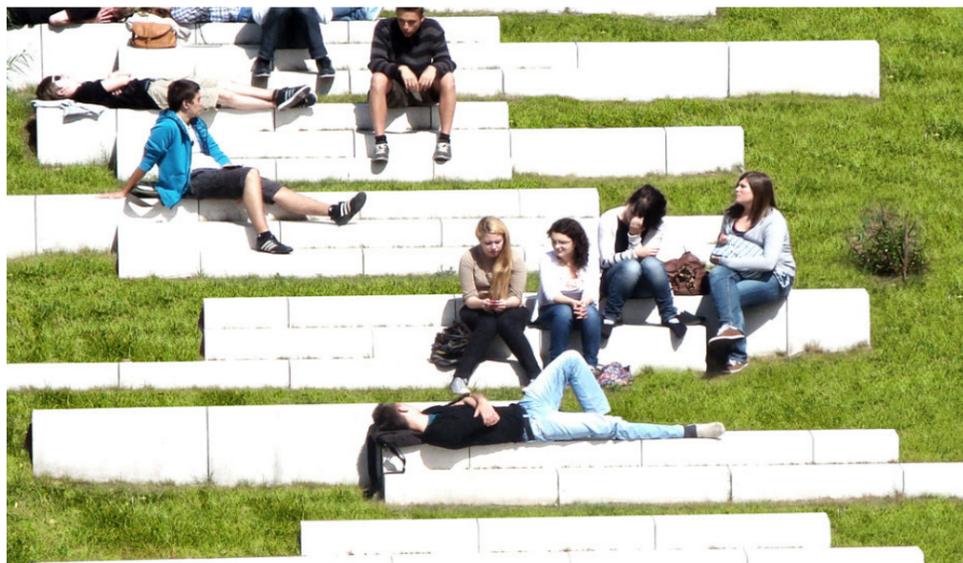


DESIGN ALTERNATIVE 3: ACTIVE TRANSPORTATION, ACTIVE COMMUNITY

The final design alternative centers recreation and active transportation. Bike lanes interconnect with the existing Frogtown bike lane across the river. Basketball courts and soccer fields flank either side of the park, near the parking lots. They are connected by a shaded interior jogging path and a paved river boardwalk. The river banks remain channelized, but are terraced with a walking path interweaving with planting areas.



DESIGN ELEMENTS



MASTER PLAN - STORMWATER SHOWCASE

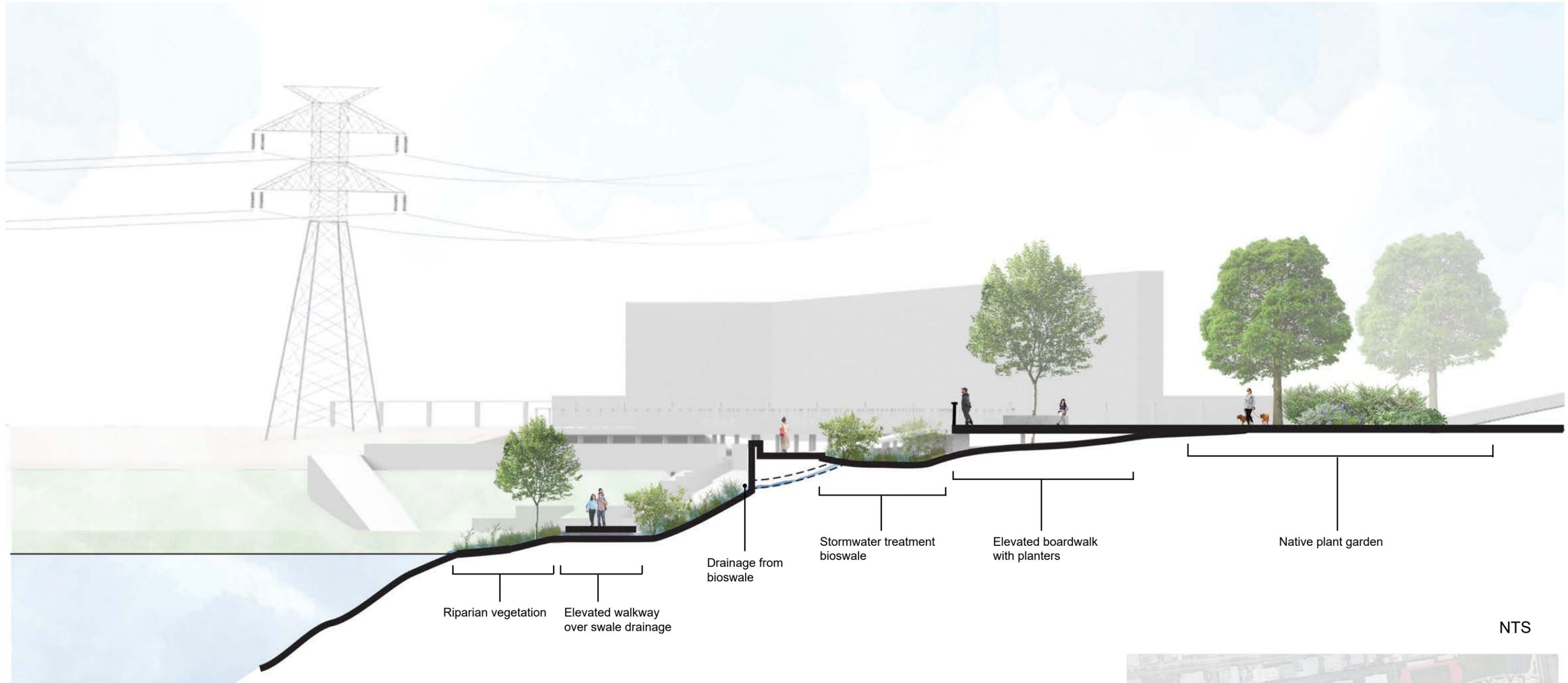
The Bowtie master plan focusses on bringing stormwater treatment to the forefront - creating educational and aesthetically pleasing systems for the community while improving habitat for plant and animal life. Pedestrian bridges make connections to Glassell Park and Frogtown, and terraced pedestrian paths interlock with check-dam stepped swales to connect the community to the river along a new riverfront path. A swale system flows from a daylighted storm drain adjacent to the nature/ stormwater education center, and pedestrians walking along the formal promenade can follow the stormwater along its course through filtering swales and down into the river.

In the narrow center of the site, a native plant garden and sculpture garden pay homage to the Bowtie's current character, giving a sense of space and context. In the south side of the site, the banks of the riverbanks are fully naturalized, allowing the natural floodplain to claim this more wild riparian wetland. The old railroad turnaround is retained and used as a bioremediation demonstration garden. The banks of the central boardwalk are semi-naturalized with vegetated rip-rap, preventing erosion from the seasonal floods.



- | | | | | | |
|--------------------------------|---------------------------|--------------------------|----------------------------|--------------------------|-------------------------|
| ① Permeable paving parking lot | ④ Picnic area | ⑦ Bioswale / rain garden | ⑩ Steps / terraced benches | ⑬ Rain garden | ⑯ Bioremediation garden |
| ② Dog park | ⑤ Nature education center | ⑧ Bioswale | ⑪ Native plant garden | ⑭ Restored floodplain | |
| ③ Play structure | ⑥ Daylighted storm drain | ⑨ Formal promenade | ⑫ Bridge over swale outlet | ⑮ Additional parking lot | |

SECTION-ELEVATION A



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PERSPECTIVE 1



PERSPECTIVE 2



PERSPECTIVE 3



PERSPECTIVE 4



AERIAL VIEW

