BOWTIE RIVER PARK: A MASTER PLAN PROPOSAL

GUS KOVEN LD6/ STEVEN CHAVEZ SEPT 6. 2020

- Comme

TABLE OF CONTENTS

Pre Design

Overview	2
Site History	3
Context	4
Site Inventory	5

Concept Design

Site Analysis: Environmental Conditions.	6
Site Analysis: Storm Drains	7
Site Constraints	8
Site Opportunities	9
Precedent Case Study 1	10
Precedent Case Study 2	11
Precedent Case Study 3	12
Soil Remediation Case Study	13

Schematic Design

Design Alternative 1	14
Design Alternative 2	15
Design Alternative 3	16

Design Development

Case Study Images	17
Master Plan Concept Statement	18
Low Impact Design	19
Plan View	20
North Section	21
South Section	22
Responses to Site Constraints	23
Perspectives	24-26



OVERVIEW



The Bowtie Parcel is a long, deserted 18 acre stretch of land along the East side of the Los Angeles River in the heart of Los Angeles. Once a bustling railroad yard employing 5000 people in its 1940's heyday, it is now a place in transition, waiting for its next life.

The history of the parcel is very much intertwined with the history of Los Angeles. Before Europeans arrived, native Americans had lived along the river for hundreds of years. The first European landowner was Jose Maria Verdugo who received it as part of a 36,000 acre land grant from the Mexican government.

The land was eventually broken up after the Mexican-American War, with the Taylor family settling there in the 1870s running businesses related to agriculture. So-called Taylor Yard evolved to service the new railroads going through in the 1920s, building a roundhouse and becoming a major rail facility for the Southern Pacific and Metrolink railroads until the 1980's.

After numerous studies and community input, the parcel was bought by the State in 2000 and will become part of Rio de Los Angeles State Park and the overall revitalization of the LA river. Since 2015, the state has partnered with the art collective Clockshop for art and cultural programming.











SITE HISTORY





PRE 1750s	Native People living along the LA River.
1771	San Gabriel Mission Completed.
1784	Jose Maria Verdugo gets 36,000 acre land grant which in
1876	Southern Pacific Railroad completed. Runs through parce
1877	Taylor Family settles on parcel and starts business.
1911	Taylor Yard Established.
1938	LA River Floods. Army Corps of Engineers Encases it in Co
1950s	Taylor Yard the Central node of the Southern Pacific freig
1988	Taylor Yard Closes.
1990s	Area gets developed for warehouses, mixed use.
2000	Prop 12 is passed. State buys Parcel D for \$45 million.
2003	State acquires Parcel G-1.
2014	California State Parks and Clockshop partner to activate The Bowtie Project.
2019	Initial design proposals for a new state park at G-1

ncludes parcel.

el.

Concrete.

ght network. 5000 People employed.

Parcel G-1 with art and cultural programming and name it

SITE CONTEXT







SITE INVENTORY

SCALE: 1" = 250'

25

Coyot

0

1. LA RIVER

- 2. 20' HIGH CONCRETE BANKS
- 3. ENTRANCE FROM CASITAS AVE
- 4. AMTRAK RAILROAD TRACKS
- 5. OPEN AREA WITH GRAVEL
- 6. CONCRETE PAD APPPROX 50' X 100' WITH CONTAINER
- 7. ROCK PILE
- 8. ART INSTALLATION
- 9. HIGH VOLTAGE ELECTRICAL TOWER
- 10. ART INSTALLATION- SIGNAGE
- 11. MAIN ROAD FORKS TO SECONDARY ROAD 25. MARSH PLAYGROUND OVER OLD RAILROAD 12. MAIN ROAD

13. MAIN ROAD

- 14. OLD ROUNDHOUSE
- **15. ENTRANCE FROM** 16. FENCED OFF AREA
- **17. RAMPS DOWN TO CONCRETE RIVER WALLS**
- 18. BIKE PATH
- **19. LEWIS MACADAMS RIVER PARK**
- 20. NEW RETAIL IN FROGTOWN
- 21. SONYA SOTOMAYOR SCHOOL
- 22. INDUSTRIAL PARK
- 23. LOUD AC UNIT ATOP
- 24. ENTRANCES TO BIKE PATH
- 26. STORM PIPE OUTLETS
- 27. INFORMAL BIKE PATH



FILTER

Gray Califo Pacif bullfr weste

WILDLIFE:

- great great
- snow red-ta
- prair ospre

weste

black

- EXISTING PLANT INVENTORY:
 - Salvia leucophylla (NATIVE) Salvia mellifera (NATIVE)
- Salvia apiana (NATIVE)

2

12

2

- Eriodictyon trichocalyx (NATIVE)
- Eriogonum fasciculatum (NATIVE)
- Baccharis salicifolia (NATIVE)
- Baccharis sarothroides (NATIVE)
- Salix lasiolepis var. lasiolepis (NATIVE)

22

26)

- Typha dominguinsis (NATIVE)
- Acacia redolens 'Low Boy'
- Ficus carica
- Washingtonia robusta Pennisetum setaceum (INVASIVE)
- Ricinus communis (INVASIVE)
- Nicotiana glauca (INVASIVE)

UCLA LD6 / SUMMER 2020 / GUS KOVEN

(3) 18 24

50' 500'	1000'
e Fox rnia kingsnake c rattlesnake og rn pod turtle egret blue heron r egret iled hawk e falcon y rn bluebird necked grebe	 pied-billed grebe cinnamon teal western gull comon carp largemouth bass Nile tilapia black bullhead green sunfish common pleco Pacific lamprey bluegill fathead minnow crayfish mosquito fish quagga mussel
20	
24	

SITE ANALYSIS: ENVIRONMENTAL CONDITIONS





SITE ANALYSIS: STORM DRAINS





CYPRESS PARK

SITE CONSTRAINTS



LEGEND



RAILROAD ENTRANCES ELECTRICAL TOWERS CONCRETE BANKS LIMIT OF WORK FLOW OF LA RIVER



LACK OF SHADE AND TOPOGRAPHY CREATING SENSE OF DESOLATION



MOST OF PARCEL COVERED WITH INVASIVE PENNISETUM SETACEUM AND OTHER INVASIVE PLANTS



CONTAMINATED SOIL



LIMITED ACCESS DUE TO RIVER, FREEWAY AND TRAIN TRACKS



HIGH VOLTAGE ELECTRICAL TOWERS ARE UNSIGHTLY, LOUD, AND REQUIRE CONCRETE EMBANKMENT



CONCRETE BANKS ADD TO FLOODING ISSUES AND CREATE DISCONNECT FROM RIVER

250'

500'

1000'



DECAYING REMNANTS OF OLD RAIL YARD AND ART INSTALLATIONS



SITE OPPORTUNITIES

LEGEND





LIMITED ACCESS ALLOWS FOR HABITAT OPPORTUNITIES



ELECTRICAL TOWERS CAN BE USED TO FRAME VIEWS AND CREATE DRAMA



FO

UCLA LD6 / SUMMER 2020 / GUS KOVEN

250'

500'

CONCRETE BANKS CAN BE REPLACED OR USED AS FOUNDATION FOR LOOKOUTS

PRECEDENT CASE STUDY 1: CRISSY FIELD, SAN FRANCISCO



BEFORE



AFTER



BEFORE



AFTER





38,000 cubic yards of contaminated soil remediated on-site through low temperature thermal desorption instead of being hauled away.

Restored 40 acres of habitat with an increase in Native Species Richness from 4.2 to 5.2 in the high elevation marsh habitat between 2002 and 2004.

Attracts 1.2 million annual visitors including hikers, bikers, windsurfers, paragliders, dog walkers, and families from around the Bay Area and across the globe.

Provides environmental education for 693,000 children, youth, and community members per year.

UCLA LD6 / SUMMER 2020 / GUS KOVEN

PRECEDENT CASE STUDY 2: HUNTER'S POINT SOUTH PARK, QUEENS

Originally fill from city tunnels, resulting in steep piles of earth with a wildly curved perimeter that ran into the East River and the adjacent Newtown Creek.

Curving wetlands that were low enough to fill with water twice a day during high tides, a new peninsula of isolated parkland, and a rejuvenated beach.

Soft water edges with an elevated river walk to protect the new wetlands that absorb and gently release storm water.

A tree-filled peninsula becomes an island during high tide and old rails are used as garden plots.

Amenities include shade structure, grass field, and a 36-foot-wide viewing platform that provides 360-degree vistas to Brooklyn, Manhattan, and Queens.











PRECEDENT CASE STUDY 3: ISAR RIVER, MUNICH



BEFORE

AFTER







BEFORE

AFTER

- The Isar River had been channelized like the LA river to prevent heavy spring floods. The walls were lower than the walls of the LA river.
- Now restored to a more natural state along eight miles through the Munich, resulting in habitat creation and passive recreation.
- Planning began in 1995. Project Completed in 2010.
- The city considers it part of a long-running flood management program along with the improving city aesthetics.
- When major storm "Norbert" brought the biggest rainfall in 50 years in 2005, the Isar did not flood.
- The Isar differs from the LA River as it was still relatively clean before the restoration, and runs year round.

SOIL REMEDIATION CASE STUDY: MAYWOOD RIVERFRONT PARK





BEFORE

AFTER



Maywood Riverfront Park is a four acre park just a few miles downstream from Taylor Yard built on top of the Pemaco Superfund Site. Pemaco was a former chemical mixing facility in Maywood, CA operating from the 40's to 1991. After a 1993 fire the EPA stabilized the site, did further testing and placed the site on the Superfund NPL in 1999.

The City of Maywood, together with the Trust for Public Land, incorporated the site into a community park as part of the Los Angeles River Greenway project. The park opened in May 2008, offering much-needed athletic and recreational facilities to a heavily populated urban area (Maywood is the densest city in California)

EPA investigations confirmed the presence of hazardous chemicals, mostly VOCs, in soil and groundwater including PCE, TCE, trichloroethane (TCA), DCA, and vinyl chloride.

- olet oxidation

The Park was designed by Melendrez (now RELM) and has both active and passive amenities. Of particular interest is the strategic location of the handball courts and paving where capping needed to take place, the use of bioswales and retention areas to keep water from flowing directly into the river and that GAC remediation of vapors, powered by solar energy, is still ongoing onsite.

The solar energy system produces about 5,600 kilowatt hours annually, offsetting about 3.3 tons of carbon dioxide emissions each year.

Remediation began in 2005 with the following remedies:

Capping and revegetation

electrical resistance heating (ERH) with vapor extraction

high-vacuum dual phase extraction (HVDPE) system using ultravi-

Granular Activated Carbon for water treatment

flameless thermal oxidation (FTO) for vapor treatment

CONCEPT 1: VISIBLE DISTURBANCES





UCLA LD6 / SUMMER 2020 / GUS KOVEN

CONCEPT 2: NEIGHBORHOOD PARK



250'



UCLA LD6 / SUMMER 2020 / GUS KOVEN

CONCEPT 3: URBAN HABITAT





UCLA LD6 / SUMMER 2020 / GUS KOVEN

250'

CASE STUDY IMAGES



Clockwise from Top Left: The wetland created by a spillway along the river traps storm water runoff to infiltrate into the soil rather than flowing directly into the river at Hunter's Point South Park, Queens, NY. Wide shaded multiuse pathways allow cyclists and pedestrians to enjoy a ride or a stroll along the Rhone in Lyon, France. Exposing and revealing the remnants of past resource exploitation connects people to their history and their local environment at Gasworks Park, Seattle, WA. WSP's illustration of The LA River as habitat for people and wildlife.



The design of the proposed Bowtie River Park is guided by four principles: Fostering Community, Healing the River, Providing Habitat, and Connecting People to the History and Ecology of the River.

The layout is a series of paths running parallel with the river with a one mile dirt trail loop for runners and a series of open areas and diagonal walkways to open up views for visitors to look across the river. Two pedestrian bridges linking formerly isolated neighborhoods cross the river to Lewis Macadams Park and Elysian Valley Gateway Park. Multiple other bridges span the railroad tracks connecting to the river to Glassell Park and Sotomayor Magnet School.

Along with acres of green space for passive recreation, the proposed active play areas, rec center, and preschool on the north end are meant to support the local neighborhood. The parking lot at the north end of the park is designed as a flexible space to accommodate farmers markets and food trucks with ample shade and seating. Moving south, there is a large fire pit and picnic tables for local weekend gatherings.

Moving further south are programmed and activated spaces: the eating area, outdoor theater and the central steps for people from all over the city to come together. The central building of the park is directly connected to the bike path via the two bridges, and features a restaurant as well as space for a DIY bike repair coop in a building designed to evoke a train station. Adjacent to the restaurant is an outdoor eating area on old exposed train tracks with shade structures made from recycled steel.

The curvilinear forms of three levels of paths mirrors the curve of the river and takes advantage of the existing informal paths that have been formed along the site. The park is designed to withstand a 100 year flood with no buildings placed below the 100 year flood line.

Wetland areas are situated at the output of all four storm water pipes entering the park. Water enters the wetland area and infiltrates into the ground instead of flowing directly into the river. If heavy rains create too much water for the bioswale to handle, the water will naturally overflow into the river.

The concrete embankments have been eliminated in favor of native riparian vegetation that can withstand the traditional droughts and floods of the LA River and that will aid in slowing down the river during a surge. Parking lots and pathways are made of permeable paving, and all the structures are covered in solar panels or green roofs.

Many species of animals, particularly birds migrating along the Pacific Flyway, depend on healthy wetlands and riparian areas for food and cover. As California has lost 90% of its freshwater wetlands, and what remains has been heavily impacted by agriculture and development, the plants selected for this design are typical native plants for a Southern California Palustrine/ Lacustrine freshwater wetland and the surrounding chaparral.

Scrub Oak, Toyon and Arroyo Willow provide cover for birds and other small creatures, Elderberry and Toyon provide berries for food, Monkeyflower, Black Sage, Sunflower, Lupine and Ceanothus Instead of 'waterplay', kids and grownups provide flowers for pollinating insects and have the opportunity to interact with hummingbirds, and native grasses, reeds the river itself with fishing and boulder and sedges provide all-important habitat hopping on the spur dikes in the river. for insects. At the south end of the park Frequent visitors can experience the rise is a designated wetland and habitat area. and fall of the water level in response Visitors can look out over the southern to the cycle of the seasons. Trash wetlands, but not enter it.

Exposing and preserving the remnants of what was once at the site, from the fragments of rail and turntable from its Taylor Yard days to the Clockshop art installations is an important step in connecting the community to the river's history. The proposed museum of water is meant to be a place where visitors can see art and exhibitions on the history, ecology and culture of water in Southern California. The old roundhouse is converted into a reflecting pool with reclaimed water.

accumulating in the plants growing out of the soft bottom of the river and the never ending battle against invasive plants will be opportunities for the neighborhood to become engaged with the river.

Soil contamination is remediated by underground bacterial bioremediation of the TCE and Napthalene, capping with the parking lot and basketball court of the diesel, arsenic and lead at the north end of the park and by excavating and capping with the museum the PAHs, lead

and diesel at the south end of the park.







0



500'

1000'



SCALE: 1" = 60'

SOUTH SECTION

60'

0





120'

240'







The basketball court and skate park are situated over areas of soil contamination and act as caps. In the background, the existing sculpture has been preserved and the rock pile has been re-purposed as a play structure.



All the multi-use paths are below a 5% grade encouraging all pedestrians to venture down to the river's edge.

<





The narrow middle section of the park acts as a central hub. There is a pedestrian entrance point over the train tracks and a giant set of steps with trees in planters leading down to the river. The cafe has space for a bicycle repair coop and a green roof. The building's shape is meant to evoke a train station, and the outdoor eating area contains the rails left over from the Taylor yard days and trellises made out of iron.



Formerly disconnected neighborhoods are now connected to the river and each other via multiple bridges. A small-sided grass soccer pitch is meant for pick-up games. In the background are a rec center and preschool.





The stage is situated to take advantage of afternoon light, and the hilltop above has an excellent view of the sunset across the river.



The steps along the river's edge act as a weir to trap storm water flowing out of the storm water outlets so it has a chance to infiltrate into the soil. During a heavy rain, the water can spill over the steps into the river.

UCLA LD6 / SUMMER 2020 / GUS KOVEN

Δ

