LANDSCAPE DESIGN 4: ENVIRONMENTAL ANALYSIS AND PLANNING ARCH-X 472.9 - WINTER 2022

CONCEPTUAL REDESIGN

JOHNNY CARSON PARK

STUDENTS - TERESITA LARRAIN, NICOLE CALHOUN, BRENNAN GROH INSTRUCTOR - EMILY GABEL-LUDDY







6-7

CONTEXT

10-20

CONCEPTUAL DESIGN

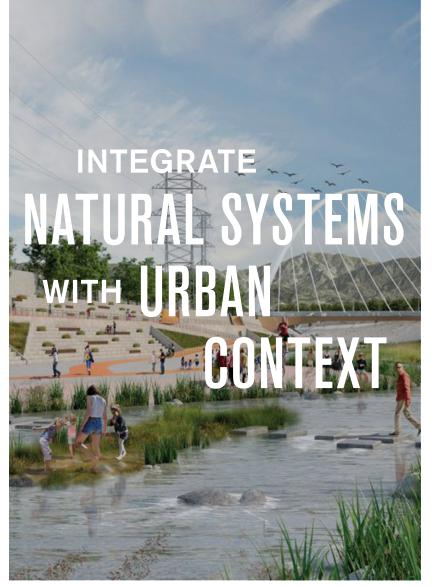
GOALS AND OBJECTIVES



Apply regenerative practices.

Enhance resilience to a hotter/drier climate.

Promote mixed modal transit options.



Mitigate urban heat island effect.

Improve public health through access to nature.

Support wildlife.

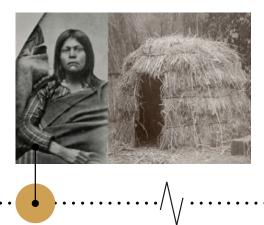


Increase accessibility from all adjacencies.

Enrich social interactions.

Provide space for diverse programming.

A BRIEF HISTORY OF BURBANK AND JOHNNY CARSON PARK



5000 BCE

Earliest evidence of the Tongva (LA Basin First People).

Spanish & Mexican Eras bring dramatic changes in land management and the incarceration and forced religious conversion of Indigenous Peoples under the Mission System.

1769 - 1848

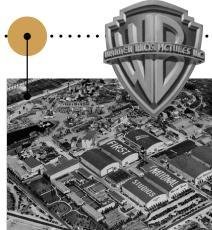




1886

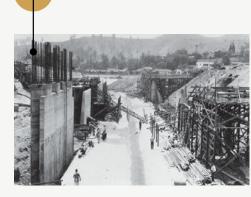
Burbank sells his land holdings to the Providencia Land, Water, and Development Company for \$250,000. First National Pictures opens and is soon purchased by Warner Bros Studios.

1926



Channelization of LA River begins in response to severe flooding.

1938





1943

Buena Vista Park was established in an effort to beautify the LA River area.

134 Freeway construction completed, and 6.6 magnitude San Fernando Earthquake strikes the region.

1971

1992

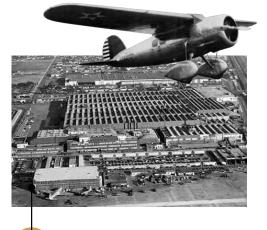
Buena Vista Park is rededicated Johnny Carson Park after the so-called King of Late Night.



2016

Johnny Carson Park is remodeled by AHBE.







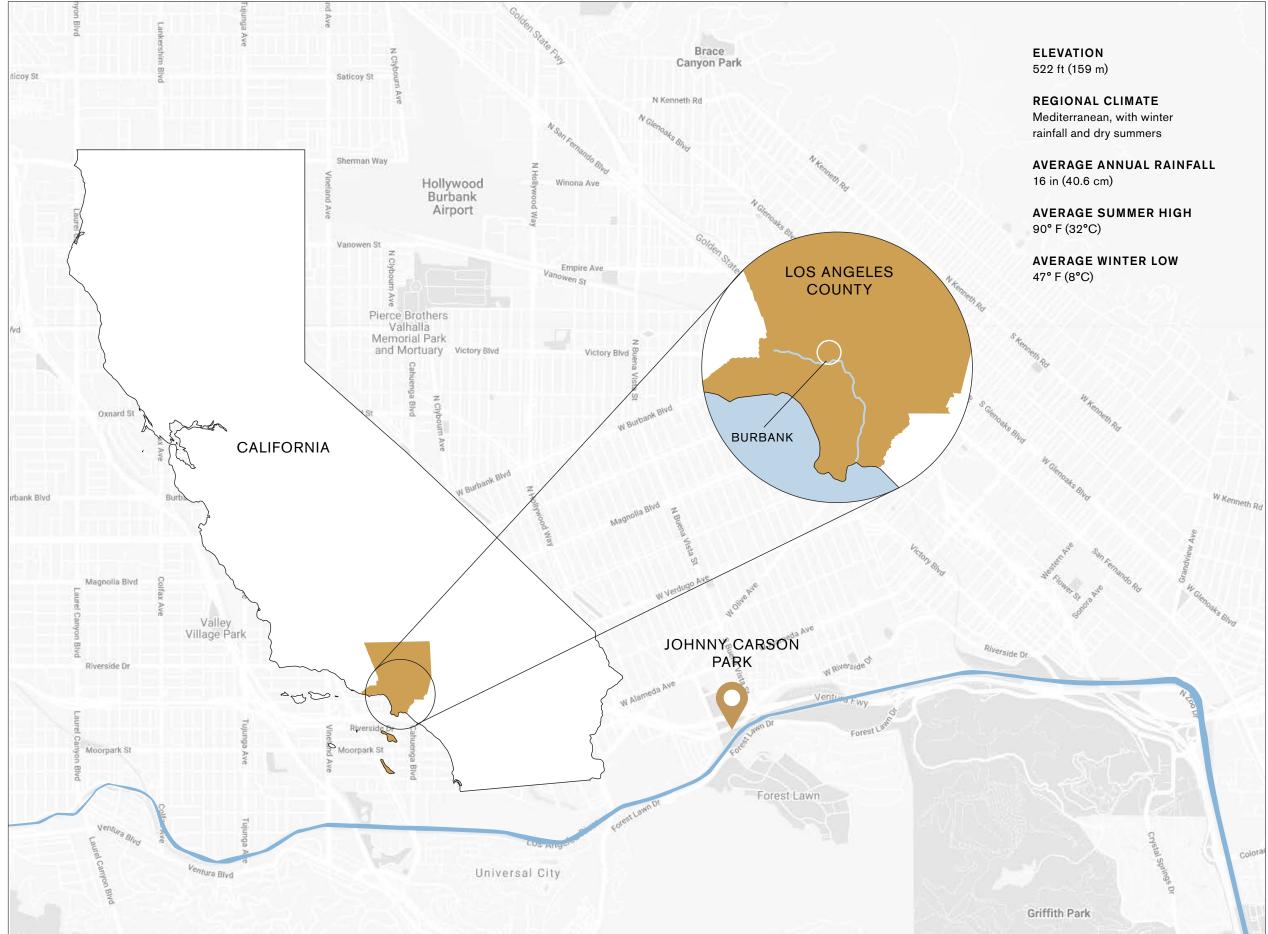
1928

Lockheed Aircraft Company relocates to Burbank. United Aircraft & Transport Corp. identifies Burbank as future home of United Airport (now Hollywood Burbank Airport).

Headworks Reservoir project completed.





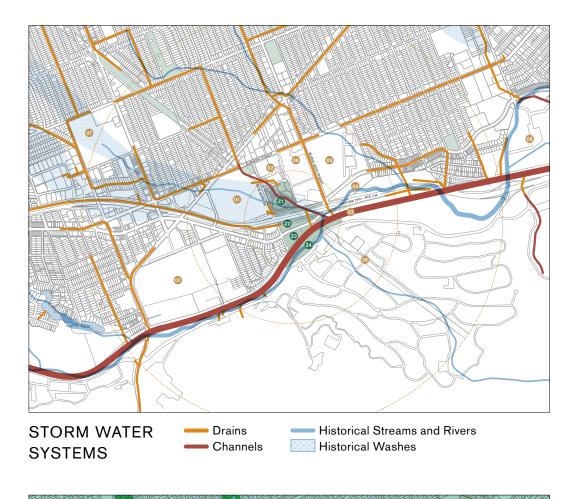


LOCATION

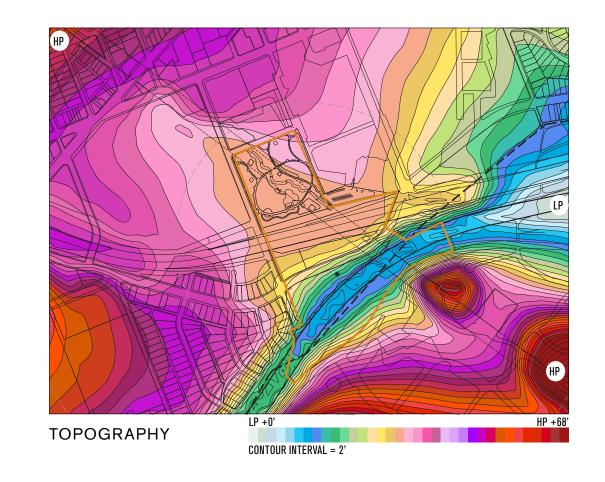
BURBANK, CALIFORNIA STATS

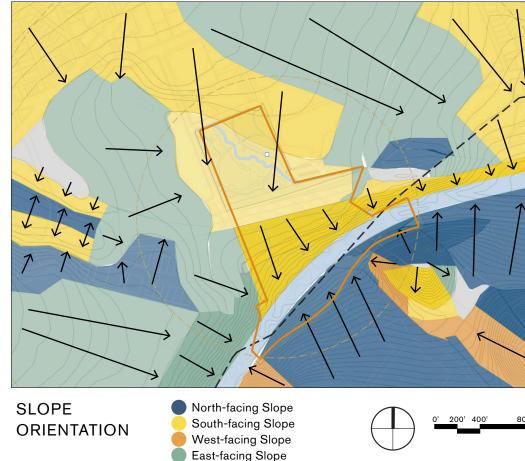
| | | 1990 | 2020 | 2050 |
|-----------------------------|--------------------------------------|--------|-----------------|-----------------|
| POP. | Total Population | 94,643 | 107,337 | 120,031 |
| | White | 82.6% | 71.8% | 60.2% |
| C | Two or More Races | N/A | 4.8% | 8.6% |
| RACE & ETHNIC ORIGIN | Other | 8.4% | 10.1% | 12.4% |
| CE & ORIC | Asian | 7.1% | 12.1% | 15.3% |
| RA | Black | 1.7% | 3.0% | 4.6% |
| | Hispanic or Latino (any race) | 22.6% | 23.5% | 26.8% |
| | Under 18 years | 20.0% | 23.8% | 18.5% |
| | 18 - 24 years | 10.2% | 6.1% | 5.7% |
| AGE | 25 - 44 years | 36.0% | 30.9% | 25.4% |
| AG | 45 - 64 years | 19.2% | 27.2% | 30.4% |
| | 65 - 79 years | 14.5% | 12.8% | 13.2% |
| | Over 80 years | 3.3% | 5.4% | 6.8% |
| | Did Not Graduate High School | 20.3% | 7.9% | 6% |
| EDUCATION (AGE 25+) | High School Graduate | 23.4% | 17.6% | 25% |
| EDUC (AGE | Some College or Associate Degree | 33.4% | 32.2% | 26% |
| | College Graduate/ Advanced Degree | 22.9% | 42.3% | 43% |
| | Poverty Rate | 8.3% | 10.7% | 9.8% |
| NCOME | Low Income | 12.6% | 18.7% | 24.3% |
| INC | Middle Income | 58.7% | 68.2% | 57.6% |
| | High Income | 28.7% | 42.3% | 43% |
| LABOR | Unemployment Rate | 5.1% | 16% | 4.9% |
| MEAN TRAVEL TIME TO WORK | Travel Time | N/A | 28.9 minutes | 22.7 minutes |

NTS







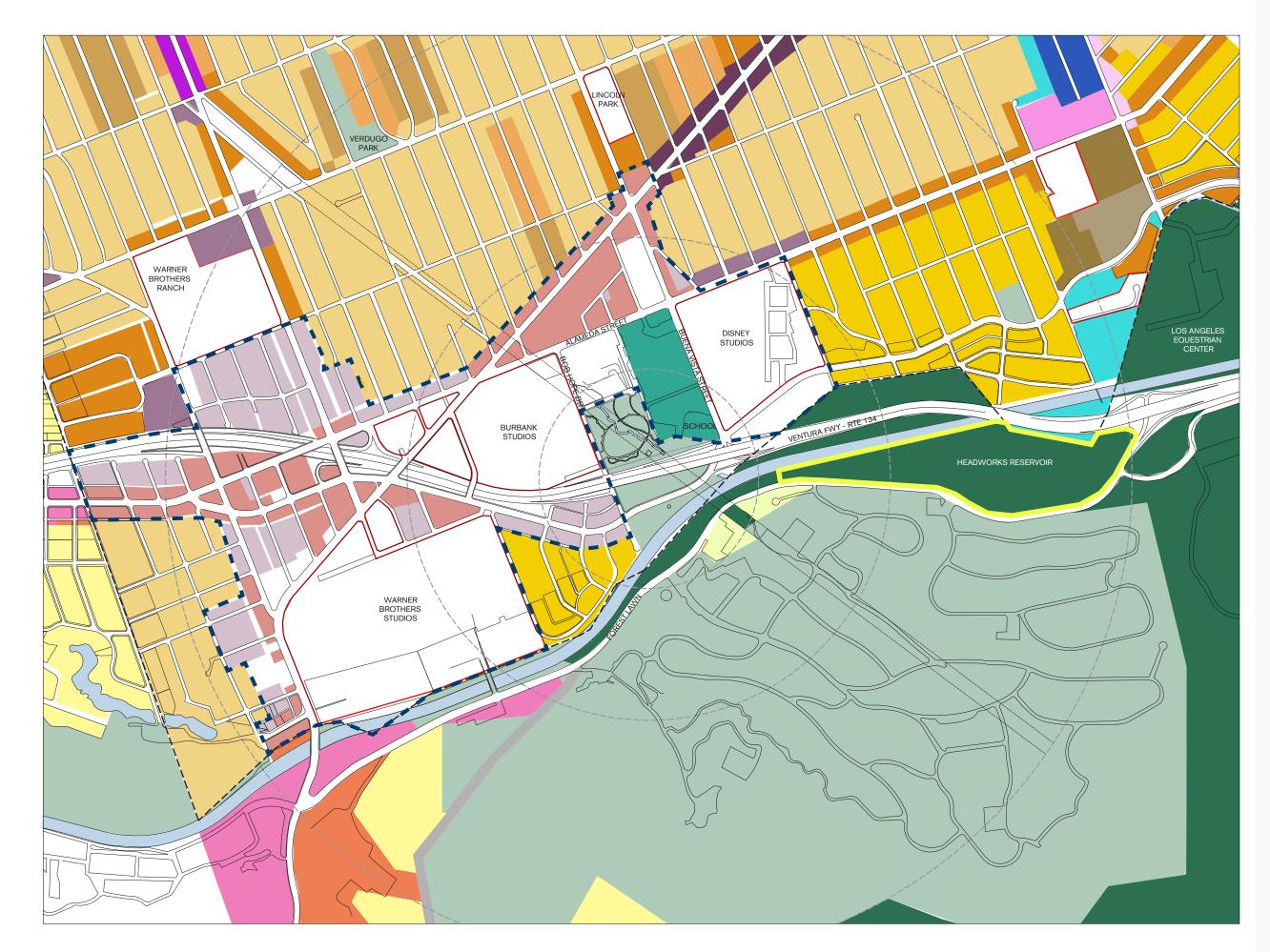


CONTEXT NATURAL HISTORY

The 52 mile stretch of the Los Angeles River provides the primary drainage for the region. The river is fed by many tributaries, including Little Tujunga Wash, which runs through our site. Historically, the course of the Los Angeles River meandered from year to year. Tributaries ran wet or dry as annual rainfall shifted.

As urban infrastructure was developed adjacent to the river in the early 20th century, humans and the built environment became increasingly vulnerable to harm from seasonal flooding. The Los Angeles River was channelized in an effort to protect life and property. Natural washes were paved over and stormwater management systems were increasingly urbanized into our current stormwater drainage system. In recent decades efforts are underway to divert stormwater from this system and capture it in the landscape to increase ground water. The stormwater drainage system remains invaluable to prevent flooding during high volume rain events when groundwater recharge rates reach capacity, especially in an era of increasing extreme weather events.

Historic vegetation was primarily Coastal Sage Scrub, with Southern Oak Woodlands occupying north-facing slopes and Riparian corridors running throughout.



CONTEXT

ZONING MAP

LEGEND

– – – – – City Boundary

CITY OF BURBANK

🗕 🗕 📕 Media District Boundary

RESIDENTIAL



M-1 Limited Industrial

R-1 Single Family Residential

R-2 Low Density Residential

R-4 High Density Residential MDR-3&4 Media District R-3 R-4

R-3 Medium Density Residential

R-1-H Single Family Residential Horsekeeping

MDM-1 Media District Industrial

MDC-2/3/4 Media District C Commercial Business (C-2, C-3, C-4) NB Neighborhood Business GO Garden Office RC Rancho Commercial C-R Commercial Recreation RBP Rancho Business Park

MPC-2 Magnolia Park Limited Business

OPEN SPACE

OS Open Space

PLANNED DEVELOPMENT

PD Planned Development

CITY OF LOS ANGELES

RESIDENTIAL



Minimum Residential Low / Low I Residential

Low / Low / Residential Low Medium / Low Medium I Residential

COMMERCIAL

Limited Commercial

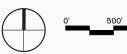
Public Facilities

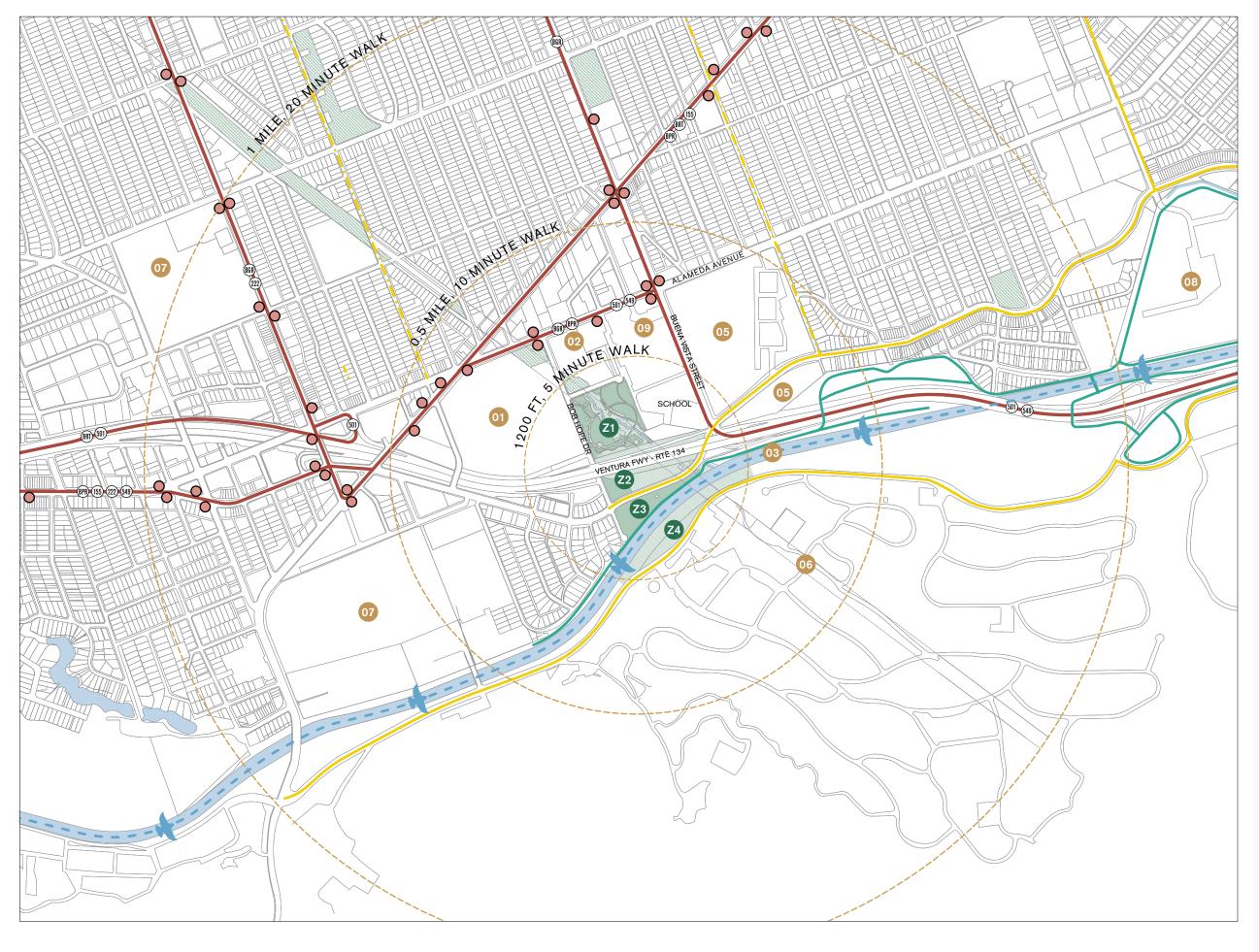
OPEN SPACE / PUBLIC FACILITIES

Open Space

Open Space - HISTORIC PRESERVATION ZONE

Headworks Reservoir Boundary

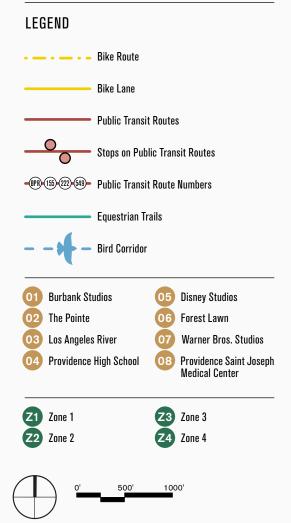


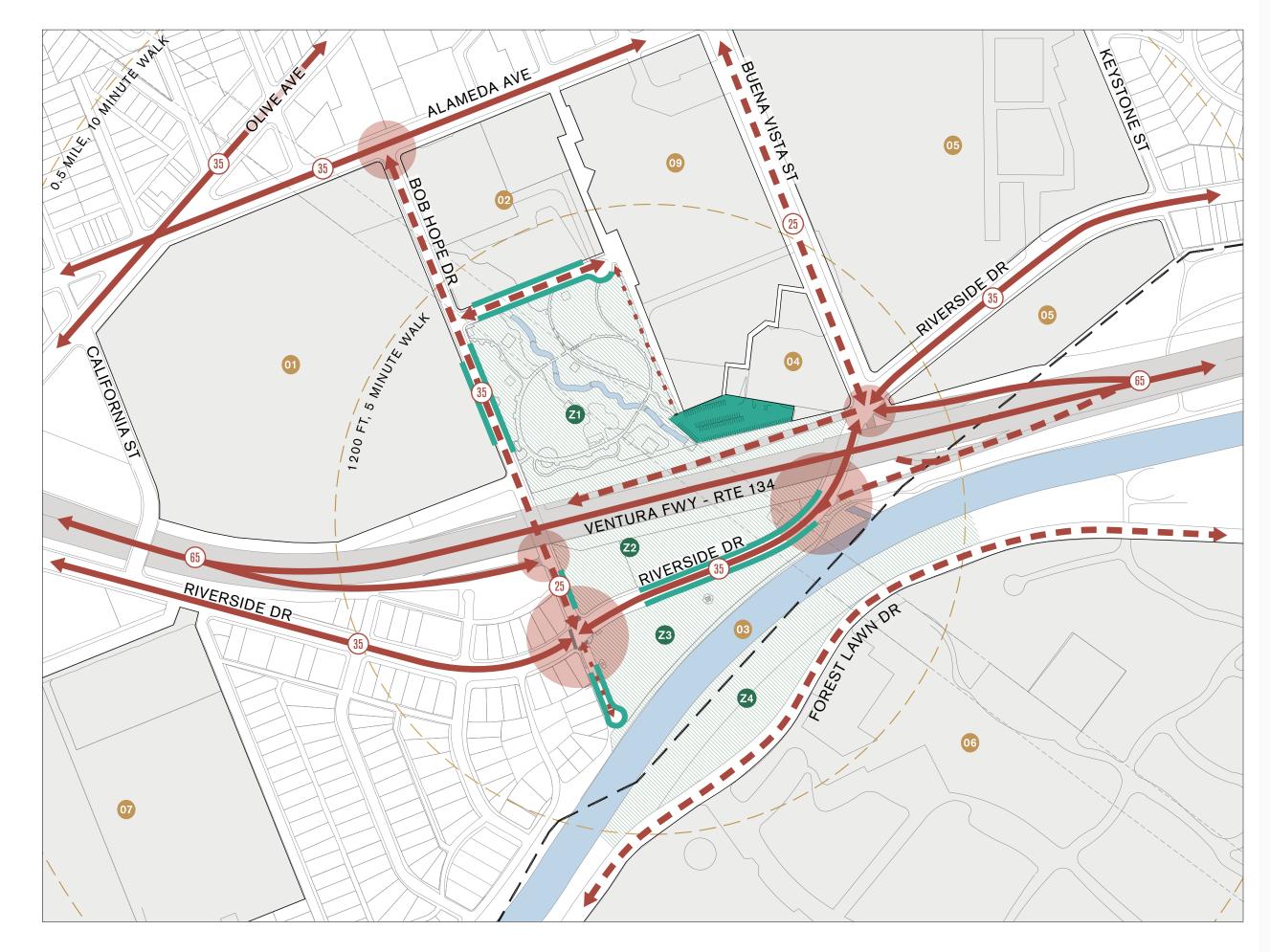


SITE ANALYSIS

REGIONAL TRANSIT

- Johnny Carson Park is walking distance from multiple bus stops that serve the greater Burbank area. Local public transit connectivity across the river is minimal.
- One bike route with a designated bike lane directly accesses the park. Bicycle circulation is shared with vehicular circulation, contributing to increased risk of bicycle / vehicular conflict and a dampening effect on the use of bicycle transportation, especially among women, children, and elderly populations.
- A set of mixed use / equestrian trails links Johnny Carson Park to adjacent sites via a trail along the LA River.
- The LA River corridor is a major transportation route for migratory birds





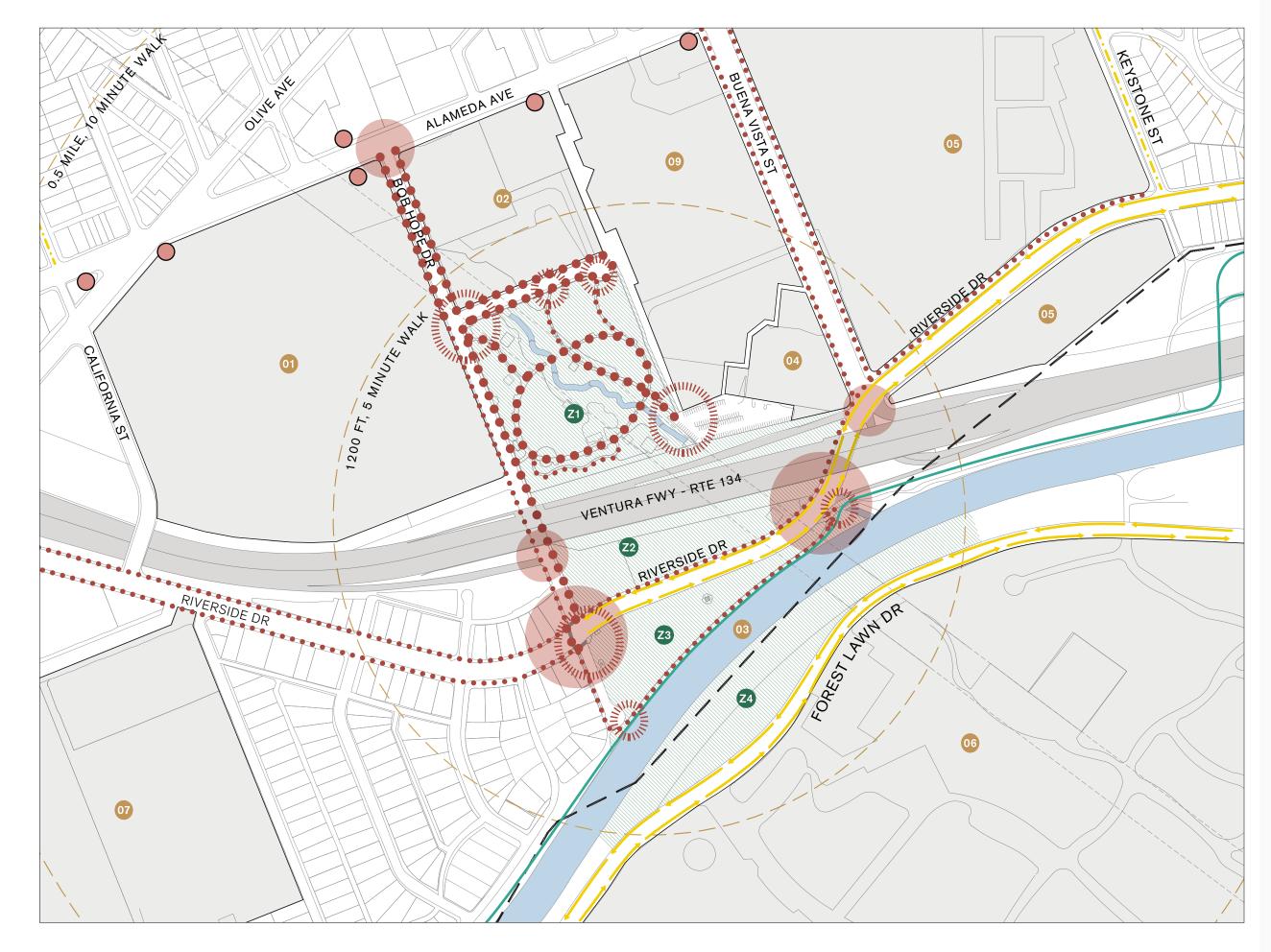
SITE ANALYSIS

VEHICULAR CIRCULATION

Although people are driving less than in previous decades, cars are still the dominant mode of transportation in the region. Outdated infrastructure that combines vehicular circulation with other forms of transportation, especially bicycle and pedestrian circulation, leads to conflict and continues to suppress rates of engagement in non-vehicular transportation.

Parking areas continue to be retrofitted with electric vehicle charging stations.



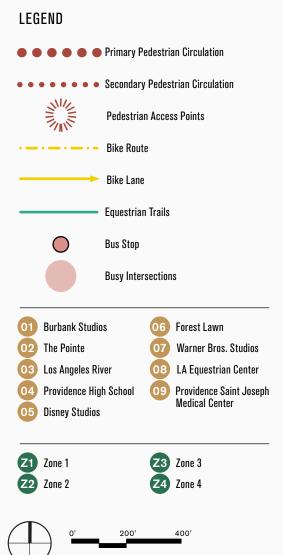


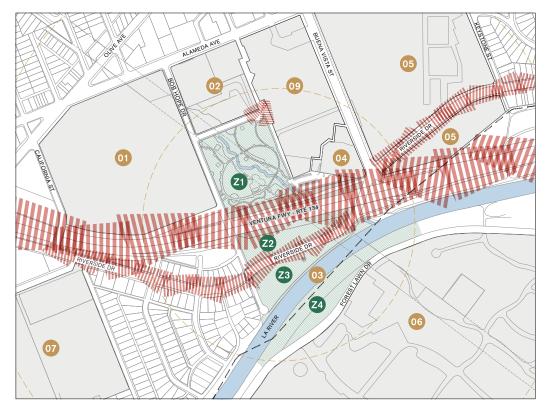
SITE ANALYSIS

PEDESTRIAN CIRCULATION

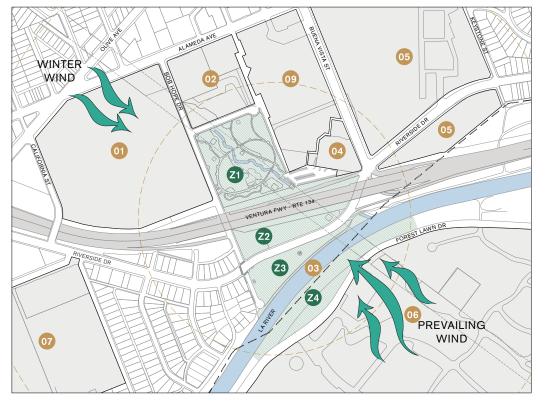
Johnny Carson Park is primarily accessed by two sets of pedestrians: those accessing Zone 1 of the park from adjacent workplaces, nearby transit stops, and northerly residential areas, and those coming from the residential neighborhood southwest of the park, accessing Zones 2 and 3 of the park via Riverside Dr.

Pedestrian circulation within Zone 1 is popular with joggers, dog walkers, and families. Pedestrian connectivity between the zones of the park is lacking.

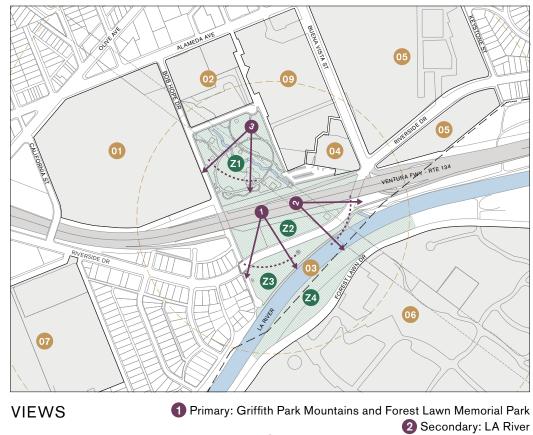




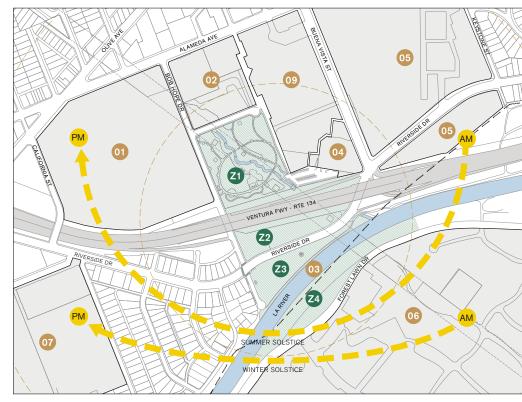
NOISE







3 Tertiary: Across park to Griffith Park Mountains



SUN PATTERNS



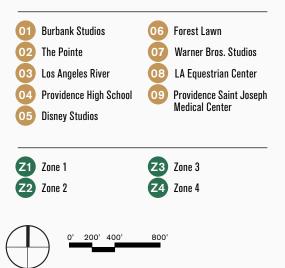




SITE ANALYSIS

SENSORY EXPERIENCE

- Vehicular noise has long been extremely prevalent at Johnny Carson Park. The recent decommissioning of the freeway is an improvement, but noise from vehicular traffic is still persistent within earshot of Riverside Dr.
- The contours of Griffith Park to the south provide the most pleasing views, especially when the view is framed by existing trees within Johnny Carson Park.





TREE CANOPY



CURRENT URBAN HEAT ISLAND MAP



LARGE PAVED SURFACES



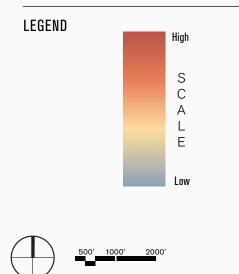
PROSPECTIVE URBAN HEAT ISLAND MAP

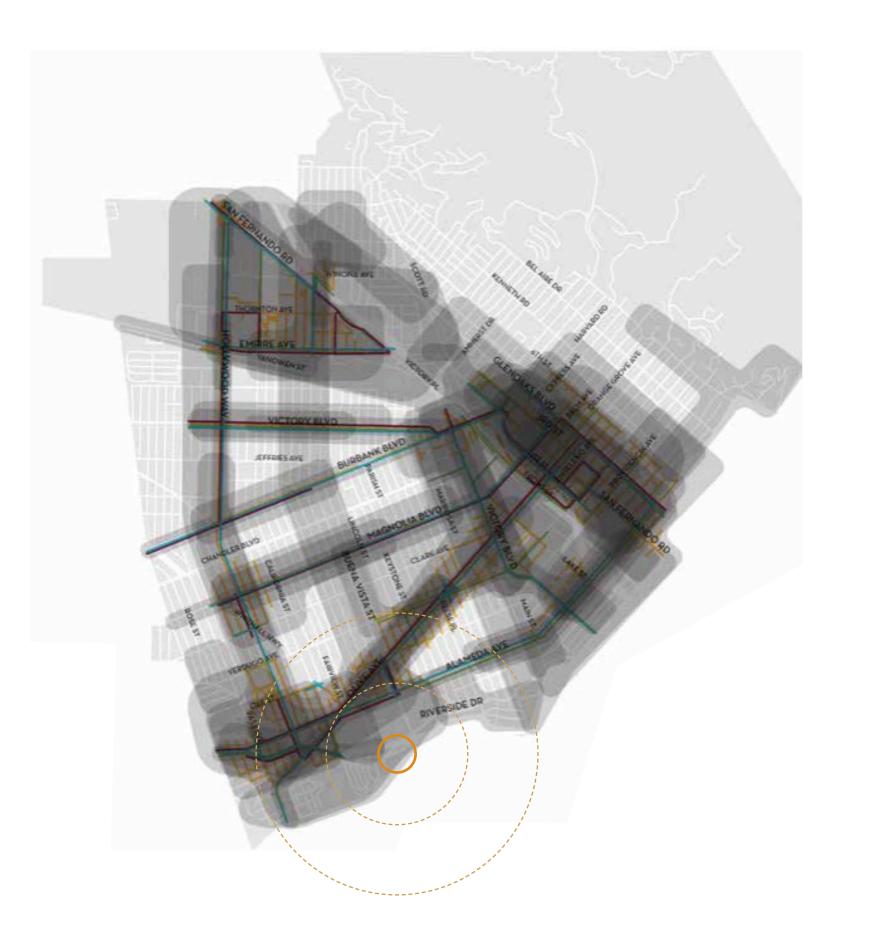


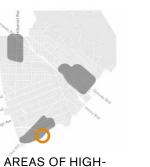
SITE ANALYSIS

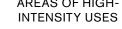
URBAN HEAT ISLAND

Urban heat islands occur when natural land cover is replaced with hardscape surfaces that absorb and re-radiate heat. Roofs and large paved surfaces such as parking lots and roadways contribute to the urban heat island effect. Urban tree canopies help to mitigate this effect.











COMMUTER DISTRICTS



MOBILITY GAPS AND BARRIERS



PEDESTRIAN COLLISION HOTSPOTS



BICYCLE COLLISION HOTSPOTS



MOTORIST HOTSPOTS



KSI HOTSPOTS



LACKING SHADE TREES



DISADVANTAGED COMMUNITIES

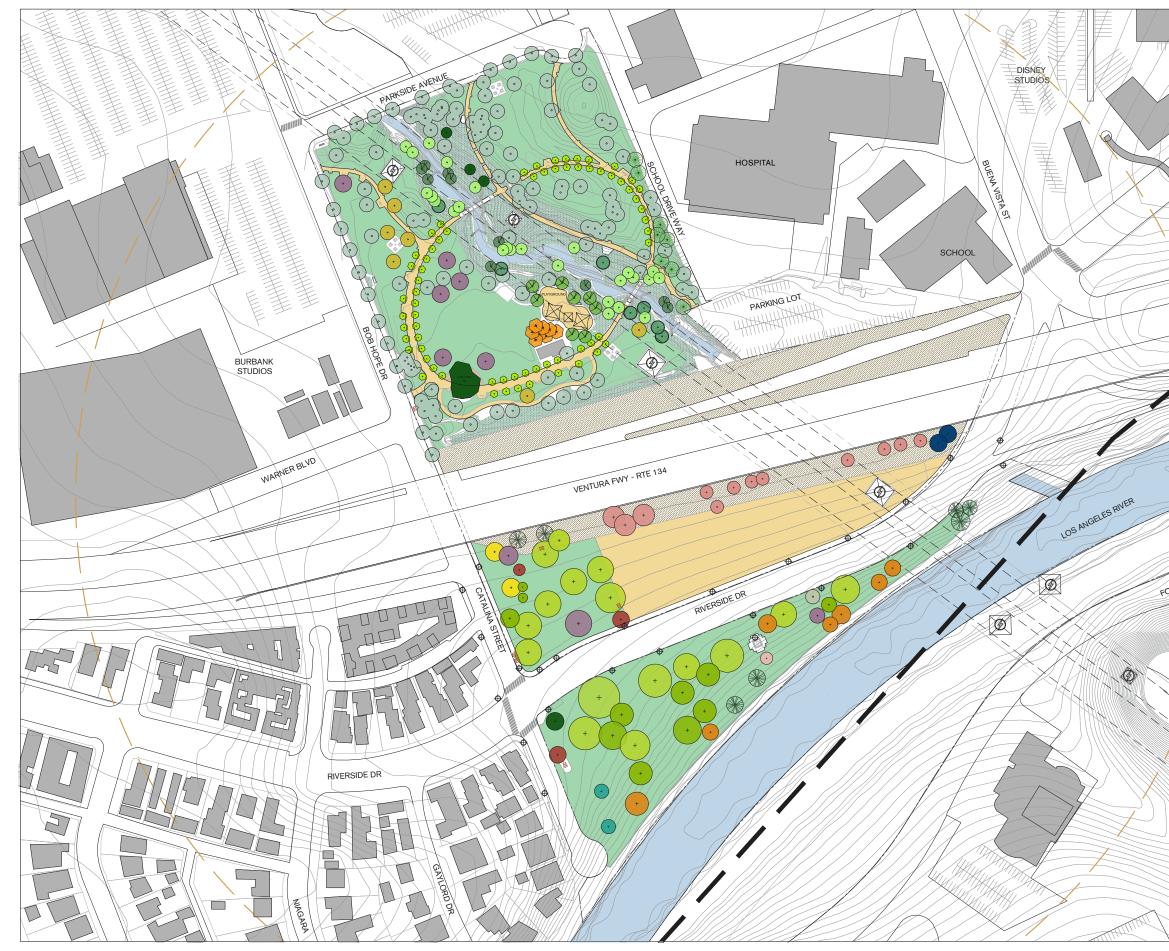
SITE ANALYSIS

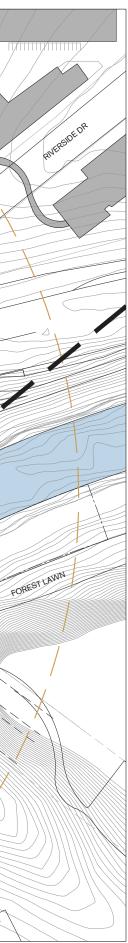
STRESSORS

The City of Burbank performed an in-depth analysis of its transportation infrastructure. The goal of this analysis was to develop safe mobility for all types of users, of all ages, and of all abilities. The City identified nine criteria that go beyond modes of travel: land use, demographic, collision, tree, environmental, justice, equity, and infrastructure data. These criteria are used to identify focus areas in the city that are especially in need of attention. Overlaying these graphics helps to identify areas with the most need (darkest) to those with the least (lightest).

SOURCE City of Burbank Complete Streets Plan

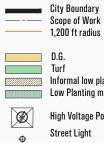






SITE INVENTORY

LEGEND



Informal low planting on freeway slope Low Planting mix - native shrubs

> High Voltage Power Tower Street Light Utility Box

TREES - ZONE 1



Aesculus californica* Alnus rhombifolia* Betula nigra Ginkgo biloba Jacaranda mimosifolia Pinus canariensis Quercus agrifolia* Taxodium mucronatum Tipuana tipu Sambucus nigra*

(California Buckeye) (White Alder) (River Birch) (Maidenhair Tree) (Jacaranda) (Canary Island Pine) (Coast Live Oak) (Montezuma Cypress) (Tipu Tree) (Blue Elderberry)

Other - Existing trees preserved

TREES - ZONES 2 AND 3

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| Eucalyptus sp. | (Eucalyptus) |
|---------------------------|------------------------|
| Handroanthus heptaphyllus | (Pink Trumpet tree) |
| Jacaranda mimosifolia | (Jacaranda) |
| Koelreuteria paniculata | (Golden Raintree) |
| Liquidambar styraciflua | (Sweet Gum) |
| Pinus sp. | (Pine Tree) |
| Platanus racemosa* | (Sycamore Tree) |
| Pyrus calleryana | (Callery Pear) |
| Quercus agrifolia* | (Coast Live Oak) |
| Quercus fusiformis | (Texas Live Oak) |
| Quercus virginiana | (Southern Live Oak) |
| Schinus molle | (Peruvian Pepper Tree) |
| Ulmus parvifolia | (Chinese elm) |

* California native trees







Alnus rhombifolia



Betula nigra



Ginkgo biloba



Jacaranda mimosifolia



Koelreuteria paniculata



Liquidambar styraciflua



Pinus canariensis



Platanus racemosa



Quercus agrifolia



Schinus molle



Tipuana tipu



Ulmus parvifolia

SITE INVENTORY

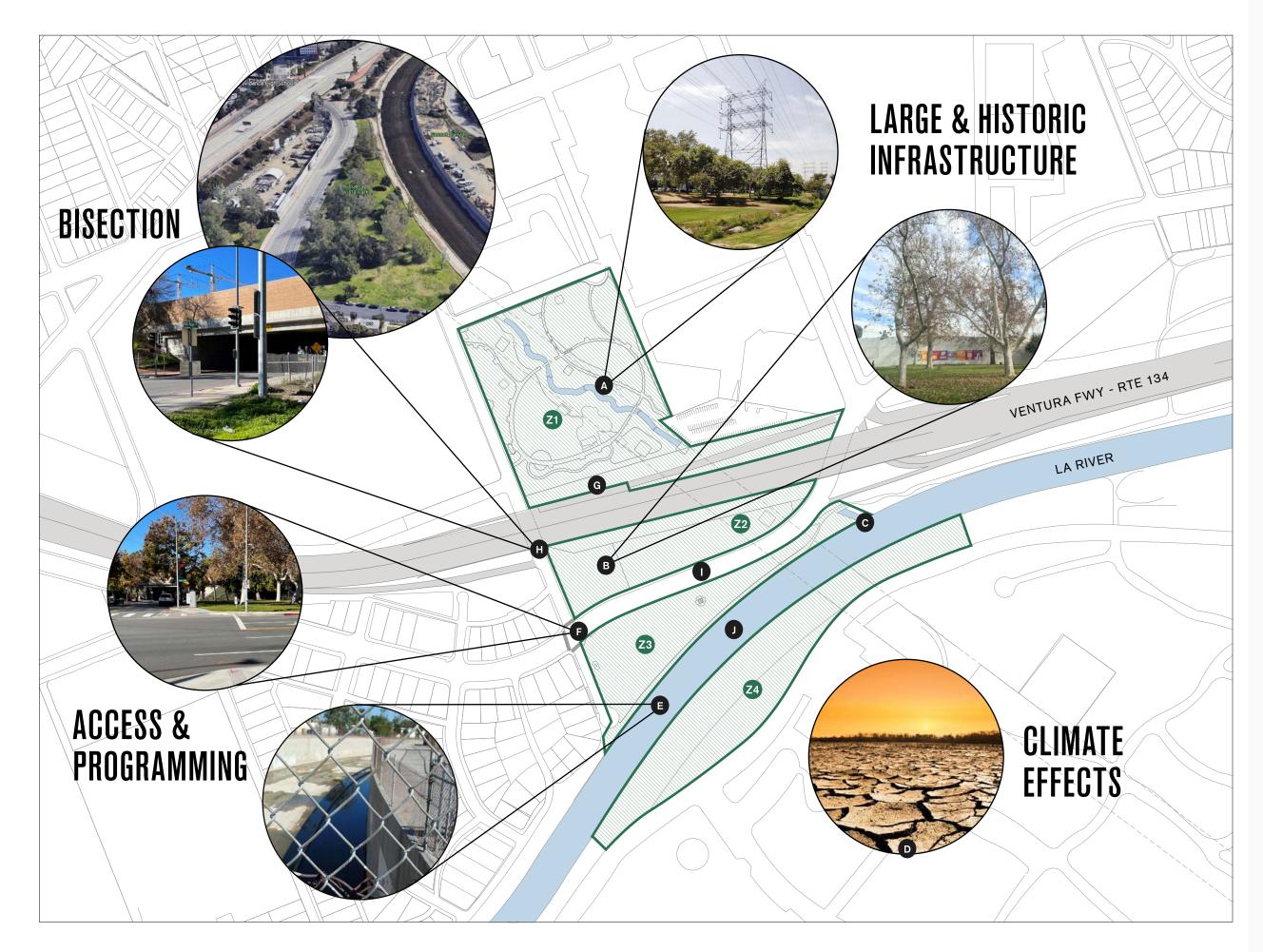
EXISTING VEGETATION

Johnny Carson Park features a diverse canopy of trees. Species include keystone natives such as Coast Live Oak (Quercus agrifolia) and Western Sycamore (Platanus racemosa) as well as climate appropriate non-natives with notable ornamental value such as Jacaranda (Jacaranda mimosifolia) and California Peppertree (Schinus molle).

Broad diversity of tree types is supported by the presence of Johnny Carson Park Creek (formerly Little Tujunga wash), which supports riparian species such as California native White Alder (Alnus rhombifolia) and nonnative Black Birch (Betula nigra).

Such a diverse canopy of trees is more resistant to pests and diseases, and supports more species richness in bird populations.

Some existing species are under pressure from insect pests such as polyphagous shot-hole borer, and continued trends in the climate towards hotter and drier conditions. New additions should be selected to preserve diversity, support habitat, and offset urban heat island effect. Selections should also exhibit excellent pest and disease resistance, and tolerance of hot, dry conditions.



CONSTRAINTS

LARGE & HISTORIC INFRASTRUCTURE



A High-tension power lines run across the site. Access must be maintained for maintenance vehicles. Height restrictions apply to adjacent vegetation.



B Significant trees should be preserved where possible, limiting potential uses and regrading options.



C Stormwater recharge is limited by channelization of the river.

CLIMATE EFFECTS

D Significant sun exposure and south facing slope limits use during hot days. Plant material options limited to those that can withstand a hotter, drier climate and increasingly sporadic weather events.

ACCESS & PROGRAMMING



E Concrete lined rectangular channel condition of the Los Angeles River through the site limits access to the river for people and terrestrial wildlife.



Multi-modal access to the site is hindered by missing crosswalks, lack of bicycle parking, and minimal public transit stops within a 5 minute walk. Zones 2, 3, and 4 lack ADA accessible circulation.



G Urban soundscape and high volume of traffic present difficulties in cultivating a peaceful park setting.

BISECTION

H 134 Freeway embankment bisects the site. Circulation between Zone 1 and Zones 2, 3, and 4 is limited to the existing underpasses. Freeway embankment blocks views from Zone 1 to Griffith Park, and from Zones 2, 3, and 4 to the landscape of Zone 1 and its urban envelope

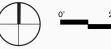


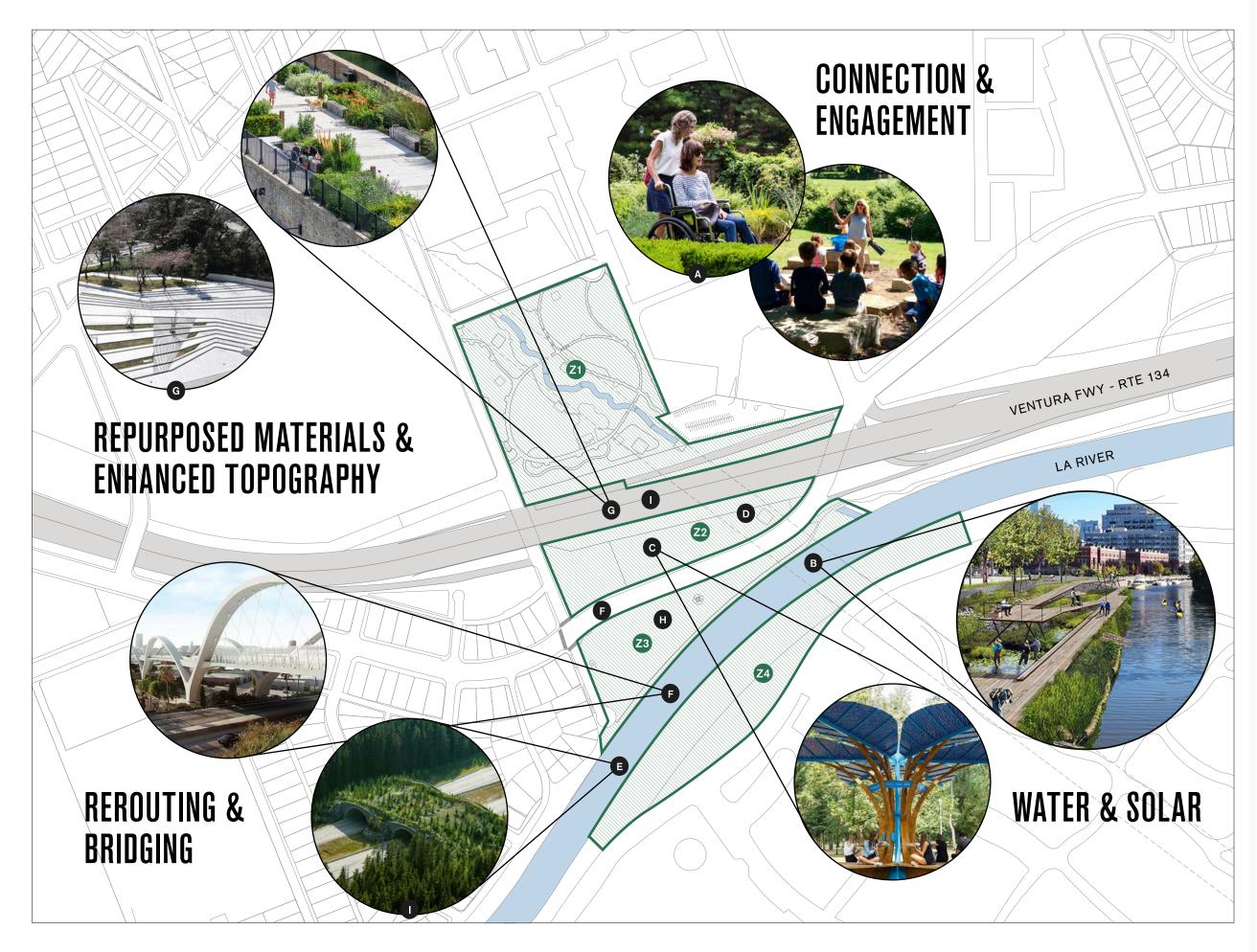
Riverside Drive bisects the site, fragmenting Zones 2 and 3.

Los Angeles River bisects the site, limiting access for people and wildlife coming from Griffith Park and Forest Lawn Memorial Park.









OPPORTUNITIES

COMMUNITY ENGAGEMENT

A Engage community by developing outdoor dining areas for local workforce, healing & meditation gardens for hospital patrons, outdoor classrooms for local school kids, and flexible use spaces for community programming.

WATER & SOLAR



B Provide access to the River to enjoy cooler ambient temperatures, water activities, and riparian plants and wildlife. Improve groundwater recharge.



C Feature large-scale shade sculptures as functional public art, topped with solar panels to take advantage of high solar exposure.



D Contribute solar energy to the electric grid by tapping into the existing high-tension infrastructure.

REROUTING & BRIDGING

E Pedestrian, bicycle, and wildlife bridge over the river to provide direct access to significant green spaces of Forest Lawn Memorial Park and Griffith Park.



F Reroute car traffic around site while encouraging pedestrian, bicycle, and multi-modal transit circulation through the site. Bring more public transit stops closer to the park. Improve safety and convenience for cyclists and pedestrians accessing the park.

REPURPOSED MATERIALS & ENHANCED TOPOGRAPHY

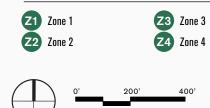


G Creatively reuse the infrastructure of the decommissioned freeway as a solar farm, regional hike / bike route, and/or viewing platform.

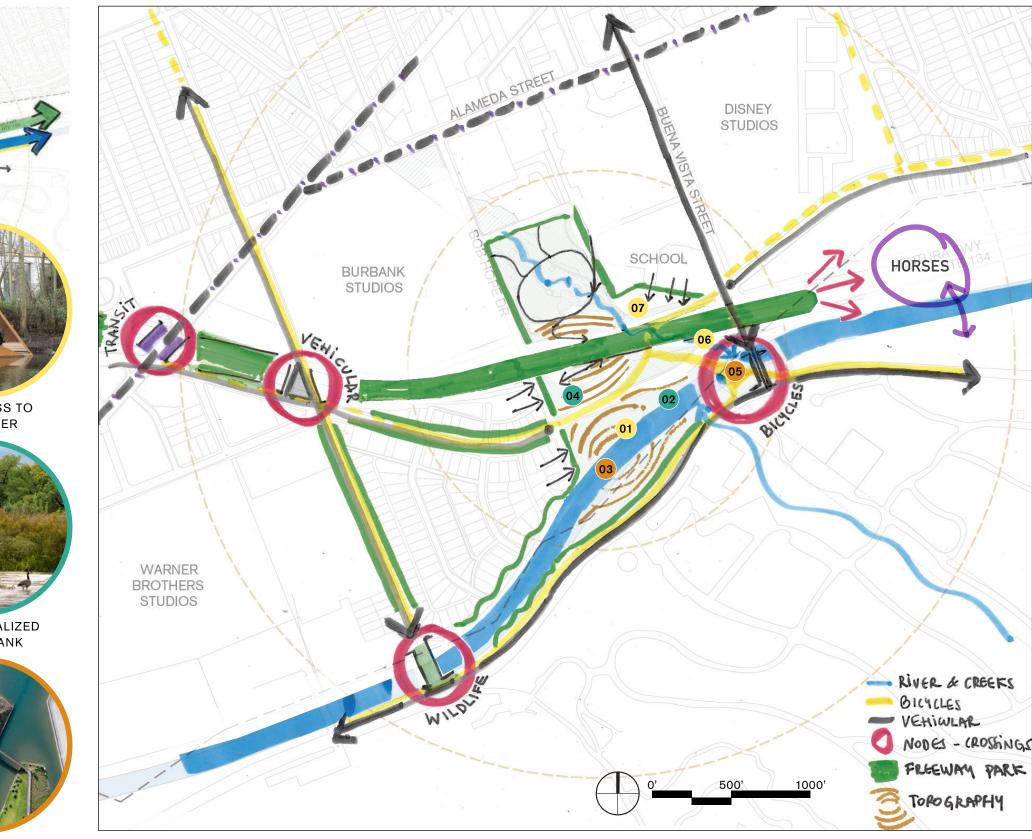
H Develop gathering areas under existing shade trees. Re-use materials from downed trees as site furnishings, or incorporate into natural systems.

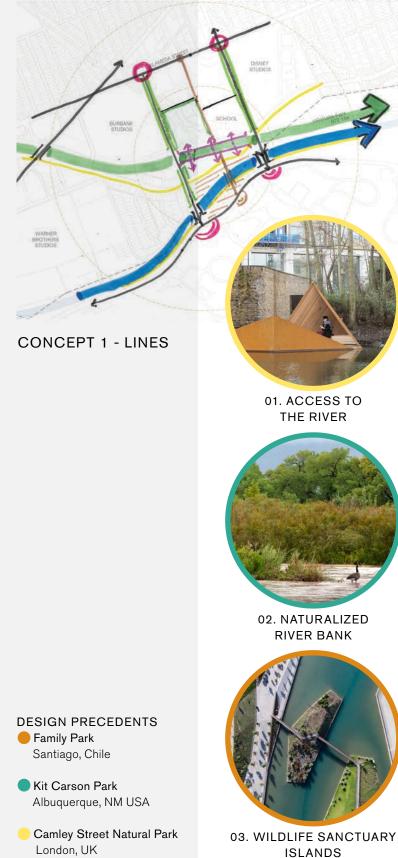


Use cut soil removed from river and freeway embankments as fill soil for pedestrian and wildlife overpasses.



CONCEPT DIAGRAMS AND DESIGN PRECEDENTS





CONCEPT 2 - NODES



04. GATHERING SPACES UNDER TREE CANOPY



05. PEDESTRIAN AND BICYCLE BRIDGE



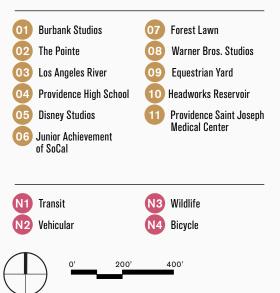
06. NATURE CORRIDOR



07. OUTDOOR EDUCATION



MASTER PLAN





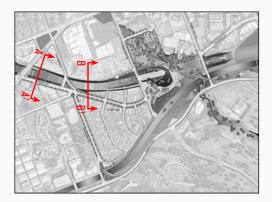
FREEWAY PARK - 25' DEEP

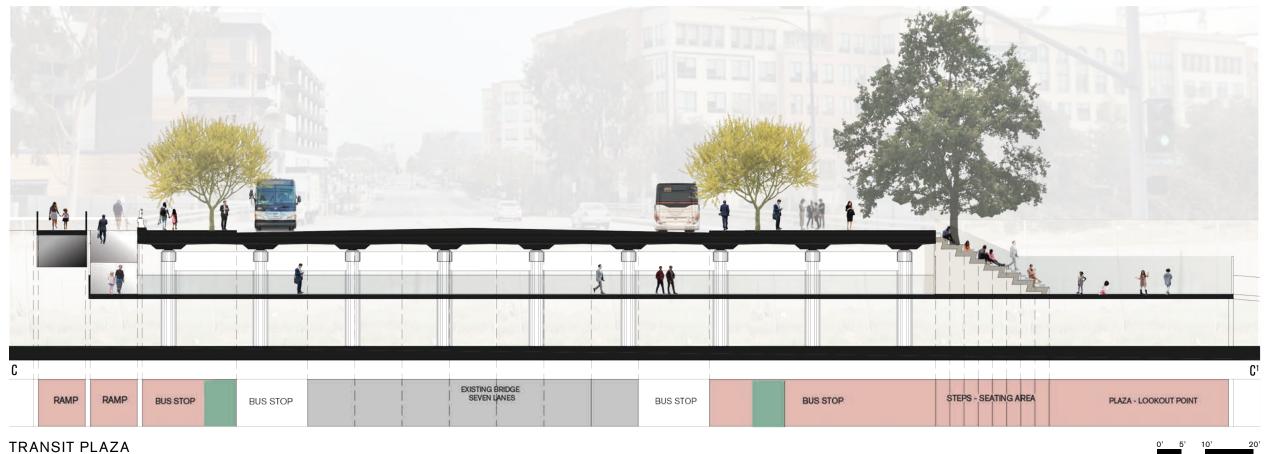


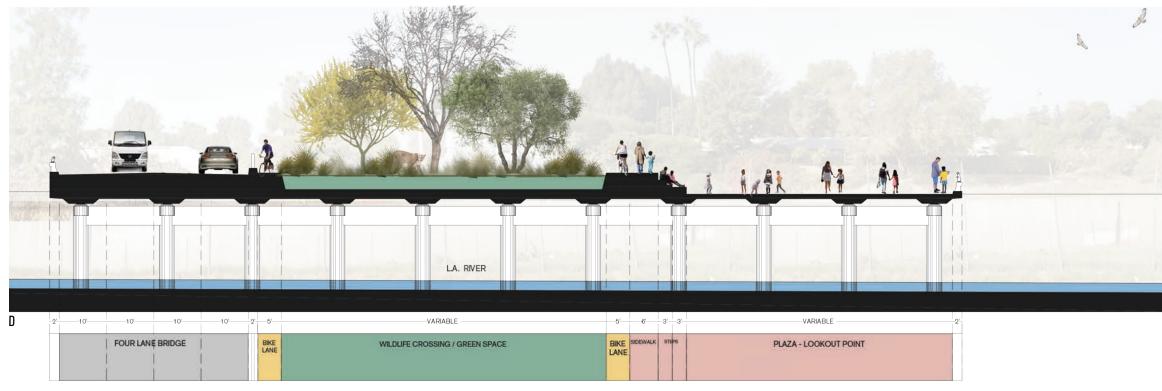
FREEWAY PARK - 10' DEEP



FREEWAY PARK



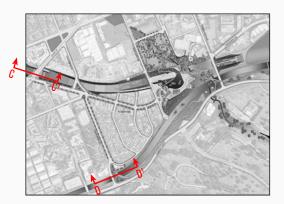




CALIFORNIA BRIDGE

SECTION/ **ELEVATIONS**

NODES

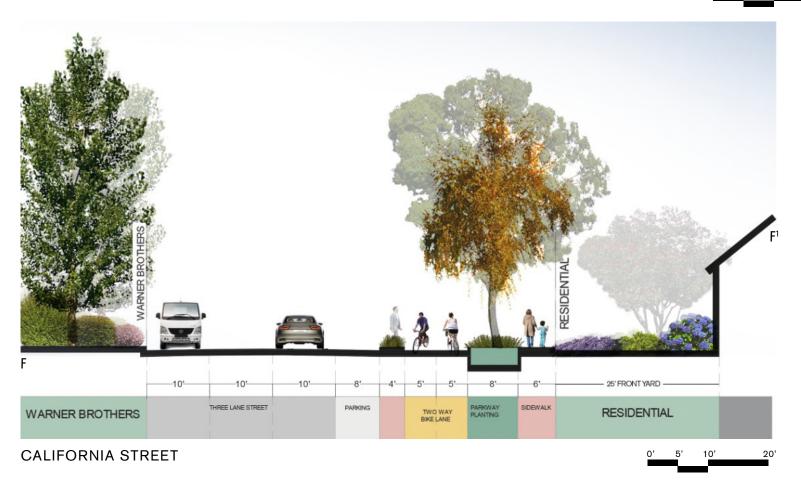




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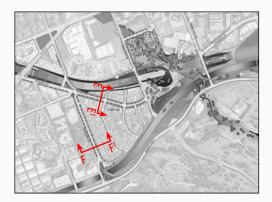
RIVERSIDE STREET



JOHNNY CARSON PARK - LD4 - TERESITA LARRAIN, NICOLE CALHOUN, BRENNAN GROH - 2022

SECTION/ **ELEVATIONS**

STREETS





SITE PLAN

LEGEND



- 01 Burbank Studios
- 02 The Pointe
- 03 Los Angeles River
- 04 Providence High School
- 05 Disney Studios



- 06 Forest Lawn
- 07 Warner Bros. Studios
- 08 LA Equestrian Center



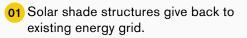




200'







- **02** Repurpose 134 Freeway to integrate green space and wildlife corridors.
- **03** Expanded green space with large tree canopy and climate appropriate species.
- **04** Allowing ground water recharge, celebrating our precious resource, and continuing to use recycled water for irrigated areas.
- **05** Separate circulation for bike and pedestrian safety, increase access points, and enhance pedestrian access.

06 Exercise:

Accessible walking paths over varied terrain, enhanced bike path connections through site

07 Social Gathering and

Community Events: Variety of shaded plazas and

amphitheater with flexible seating.

08 Education and Learning:

Outdoor classrooms, demonstration gardens, and interpretive nature areas.

09 Picnic Areas:

Grassy knolls and picnic infrastructure on top of freeway park.

10 Dog Park:

Shaded dog park for small and large dogs easily accessible from residential neighborhood.

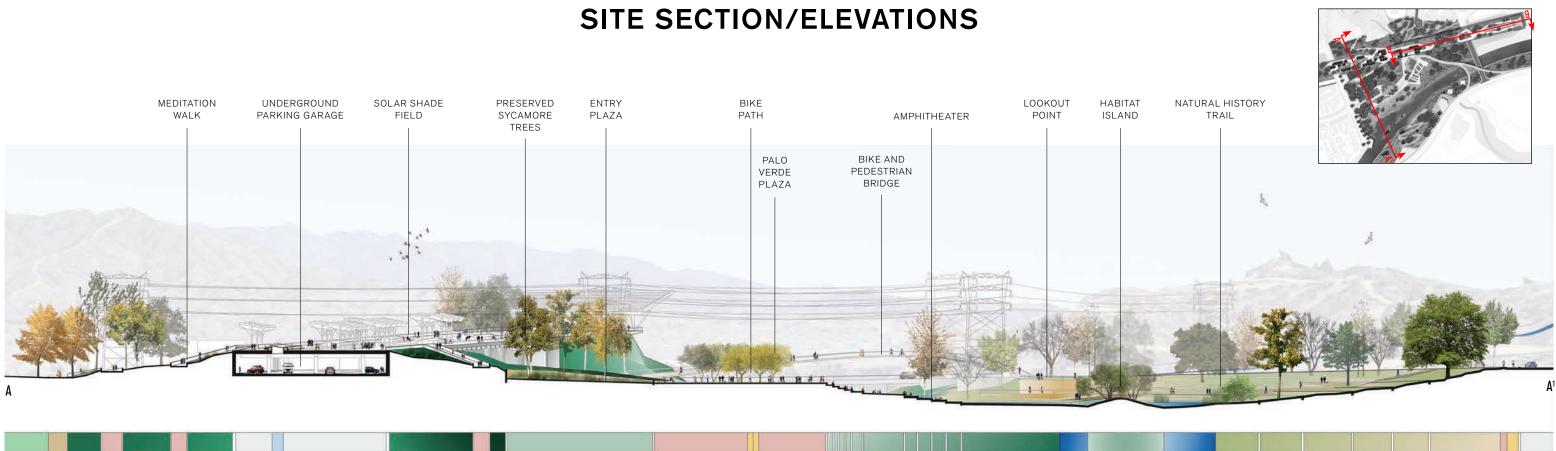
LEGEND

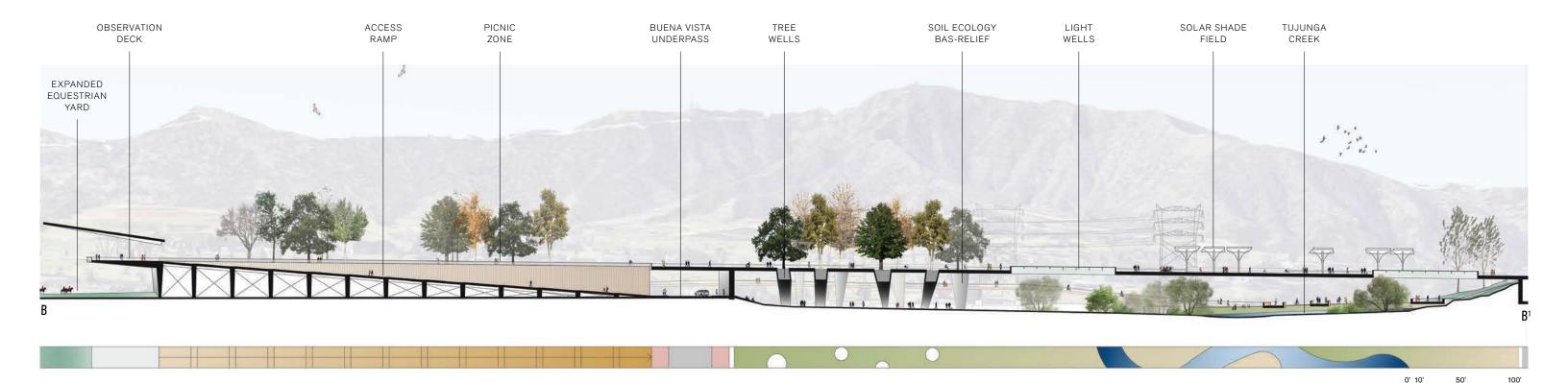


Access Points

Enhanced View Points







ENLARGEMENT AND PERSPECTIVE ILLUSTRATIONS



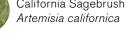


SAMPLE PLANT MATERIAL ON STRUCTURE



California Buckwheat Eriogonum fasciculatum



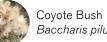


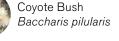
Common Yarrow Achillea millefolium

White Sage

Salvia apiana

Canyon Prince Wild Rye Elymus condensatus







Cleveland Sage Salvia clevelandii





Toyon Heteromeles arbutifolia



'Desert Museum' Palo Verde Parkinsonia 'Desert Museum'

Desert Willow Chilopsis linearis

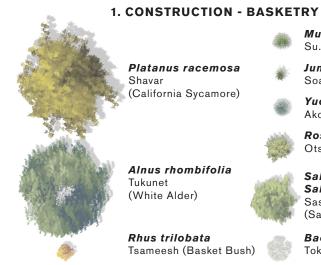




ENLARGEMENT AND PERSPECTIVE ILLUSTRATIONS



GABRIELINO TONGVA PLANT MATERIAL



Platanus racemosa Shavar (California Sycamore) Otsur (California rose)

Alnus rhombifolia Tukunet (White Alder)

Rhus trilobata Tsameesh (Basket Bush)



Rosa californica

Salix hindsiana Salix lasiolepis Sash.hat (Sandbar and Arroyo willow)

Baccharis salisifolia Tokor Mahar (Mulefat)

2. FOOD SOURCE

Quercus agrifolia Weht (Coast Live Oak)

Umbellularia californica Takape kaka (California Bay Laurel)

Arctostaphylos glauca

Sobochesh (Manzanita)

Heteromeles arbutifolia Ashwet (Toyon)

Sambucus mexicana Ku.ut (Elderberry)

Isomeris arborea Takape Ahoots (Bladder Pod)

Salvia mellifera Kasili (Black Sage)

3. MEDICINAL - SPIRITUAL

Artemesia californica Pawots (Coastal Sagebrush)

Artemesia tridentata Wikwat (Basin Sagebrush)

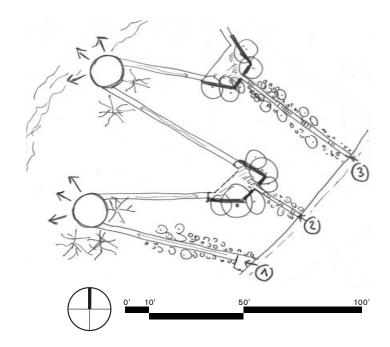
Ceanothus sp. Ishwhish (Mountain Lilac)

Adenostoma fasciculatum Hu'utah (Chamise)

Eriogonum fasciculatum Wilakal (Buckwheat)

Salvia apiana Kasili (White Sage)

Ribes malvaceum Kochar (Currant)



ENLARGEMENT AND PERSPECTIVE ILLUSTRATIONS





SUPPORTED WILDLIFE





MOURNING CLOAK BUTTERFLY

WESTERN HONEY BEE



COYOTE

MOURNING CLOAK

CATERPILLAR

