

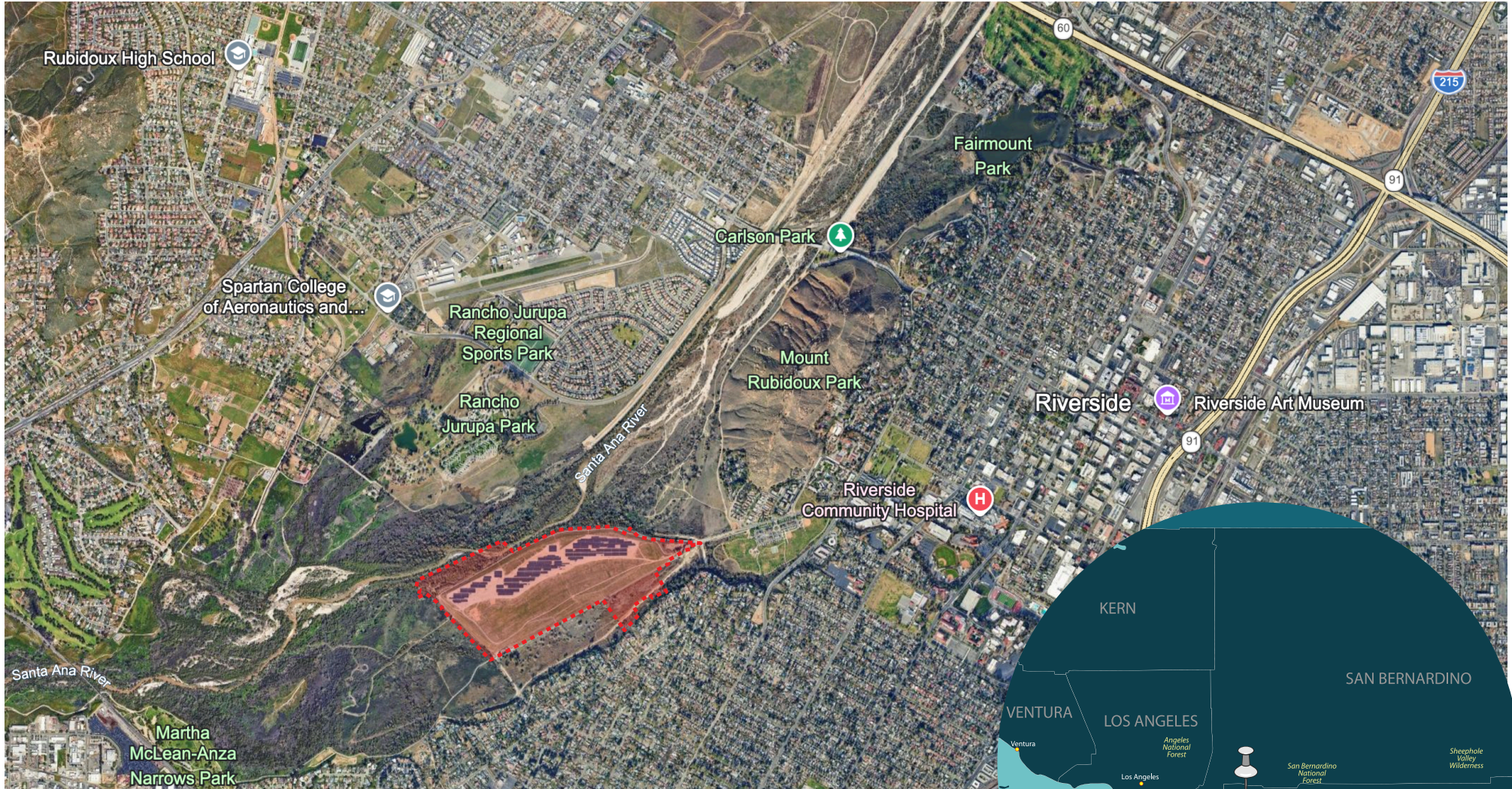
LAYERS OF LIFE

AT TEQUESQUITE CREEK



LOCATION

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



CITY OF RIVERSIDE DEMOGRAPHICS

Population: ~318,000

Median Age: ~31–33 years

Household Size: ~3.2 persons

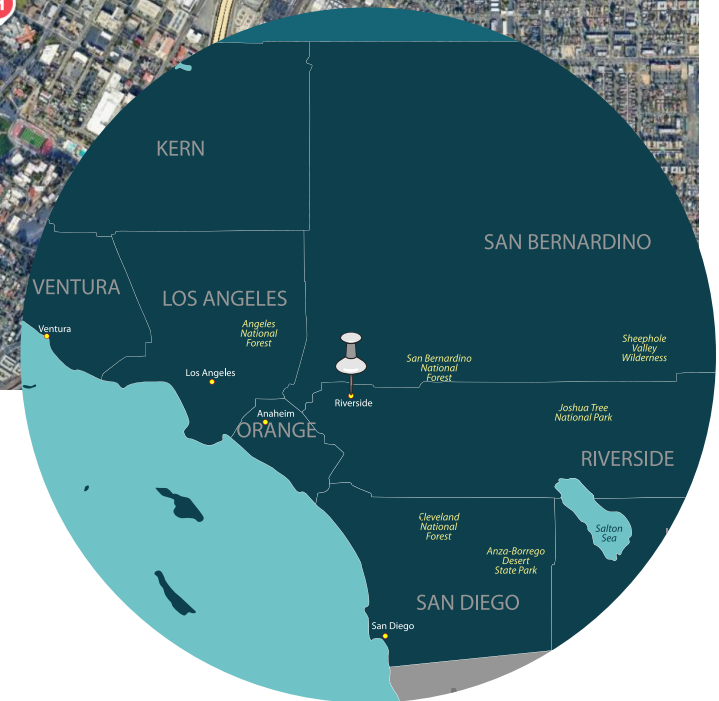
Median Household Income: ~\$76,000 per year

Poverty Rate: ~15–17% of residents below poverty line

Racial/Ethnic Composition: ~55–60% Hispanic/Latino, ~18% White (non-Hispanic), ~7% Black, ~8% Asian, remainder mixed/other

Educational Attainment: ~25% hold a bachelor's degree or higher

Homeownership Rate: ~55–60% owner-occupied housing units



HISTORY

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA

PRE-COLONIAL ERA AND CITRUS BOOM

Before becoming a landfill, the Tequesquite site was a natural arroyo landscape of seasonal drainage channels, scrubland, grassland, and eroded hillsides typical of Inland Southern California.

The broader area was home to Indigenous peoples including the Tongva, Cahuilla, Luiseño, and Serrano before they were displaced by successive waves of colonization in the process known as the California Genocide.

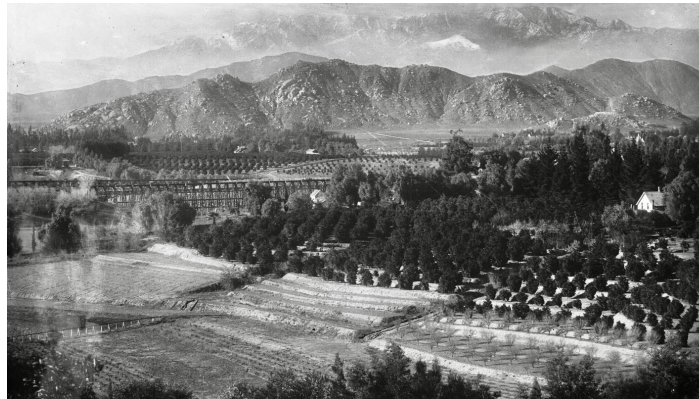
During the colonial era, the region came under Spanish and later Mexican control through the mission and rancho system, which replaced Indigenous land use with agricultural grazing.

Modern Riverside was founded in 1870 by American settlers and investors, who developed the area through irrigation and the booming citrus industry that reshaped the landscape into farms, roads, and neighborhoods.

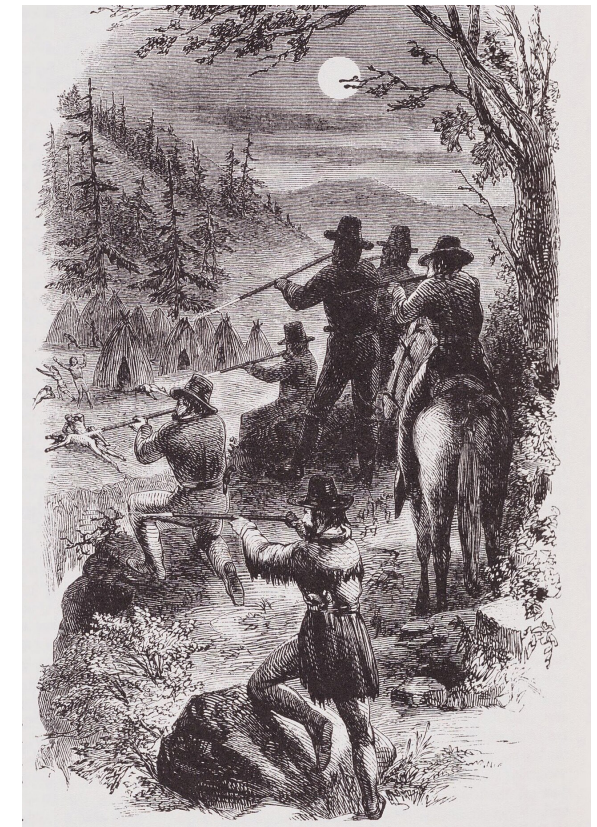
As Riverside expanded in the 20th century, marginal open land along the Tequesquite Arroyo corridor became urban edge space and was eventually selected for municipal landfill use.



Panoramic view of Riverside, c. 1900.



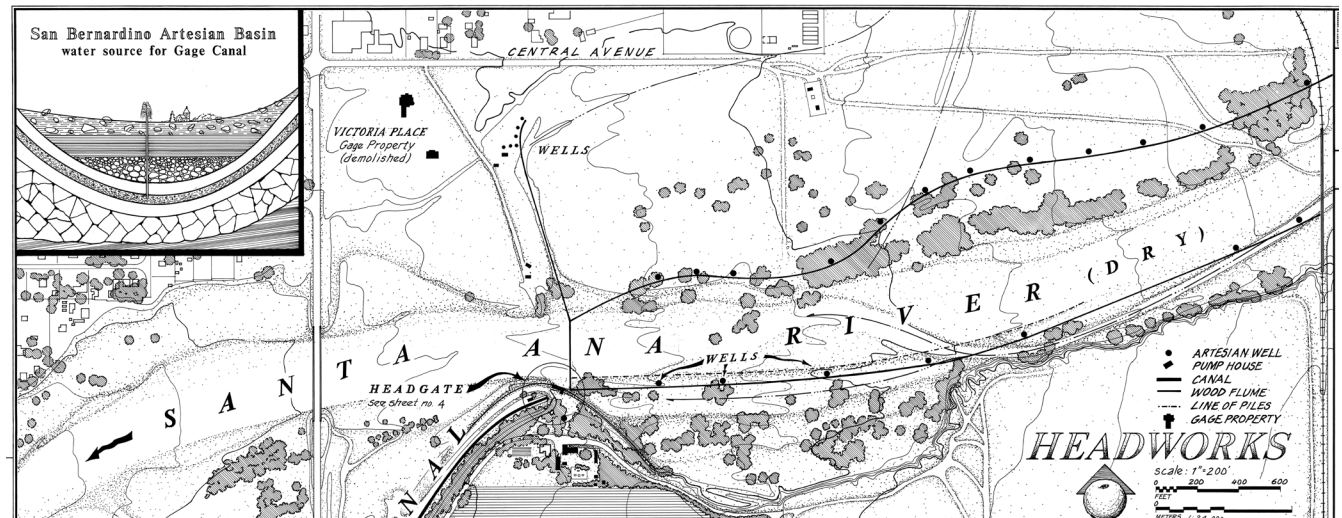
View of the Gage Canal flume that supplied irrigation water to the booming citrus industry in the early 1900s.



"Protecting The Settlers", illustration by J. R. Browne in The Indians Of California, 1864



Canal running between citrus orchards.



A series of wells along the Santa Ana River supplied the Gage Canal.

HISTORY

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA

LANDFILL ERA

From prior to 1910 until 1947, the landfill operated as a burn dump. From 1947 to 1959, waste was disposed of using a trench fill method. From 1959 until closure in 1985, the landfill operated as an area fill.



1931: burn dump operations are largely limited to the Eastern edge of the site. Note sharp southward bend of the Santa Ana River through the western half of the site.



1959: trench and fill operations buried waste up to 15 feet below grade. The Santa Ana River has been diverted and no longer crosses the west side of the site.



1967: area fill operations are in full swing, setting the foundation for today's earthen mound. Suburban sprawl has completely replaced the citrus orchards to the south.



2003: post-closure remediation efforts attempt to minimize impacts to populated areas on all sides as well as contain erosion from rainfall and Santa Ana River flows.

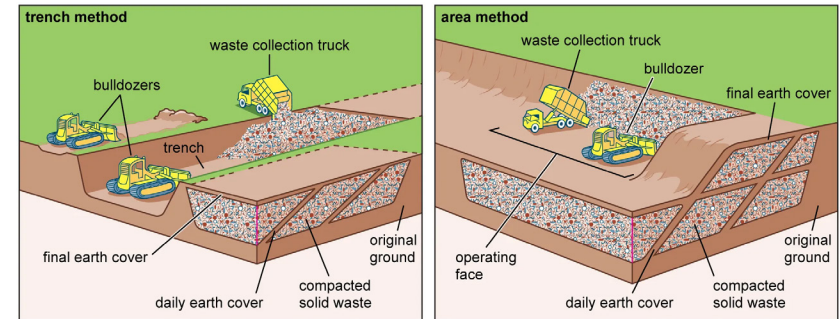
CLOSURE AND REMEDIATION EFFORTS

Previous investigations found that refuse at the site averages 35–43 feet deep in the interior, reaches about 15 feet below grade at its deepest point, and that the landfill contains approximately 4.8 million cubic yards of municipal solid waste and soil.

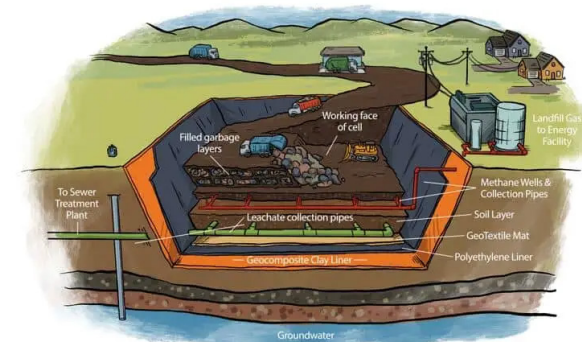
City records also show that when the landfill was operating, environmental controls were largely absent, with no evidence of protective liners such as clay or synthetic high-density polyethylene that became standard at later facilities.

A 4-foot low-permeability cover was installed in the late 1990s, with a gently sloped top deck and side slopes graded at a maximum 3:1 ratio, with a flood control levee added around vulnerable areas at the base of the site due to proximity to the Santa Ana River. Erosion control measures include concrete drainage structures and planted vegetation on the slopes, though the cover and slopes are not currently irrigated.

The site has no active leachate collection system, relying instead on the cover system and six dataloggers that monitor soil moisture. Groundwater is routinely monitored through a network of wells under a Waste Discharge Order overseen by the Santa Ana Regional Water Quality Control Board.



Trench vs. area method (Credit: Encyclopaedia Britannica)



Modern sanitary landfill operation. (Credit: structville.com/sanitary-landfills)

SOLAR FARM

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA

KEY STATISTICS

Capacity: 7.3 MWAC.

Commissioned: September 2015.

Operator: Solar Star California XXXI, LLC
(under Sun Power, LLC).

Output: enough to power about 1,600 homes.

Footprint: 40 acres (utilized for panels).



VISUAL IMPACT

After the solar farm was built, nearby residents complained that visible white inverter boxes and concrete pads were visually intrusive from their homes. In response, Riverside Public Utilities met with neighbors and repainted the equipment in darker, landscape-compatible colors, significantly reducing their visual impact.



INVERTER CLOSE UP

BEFORE



INVERTER CLOSE UP

AFTER

SITE INVENTORY & CLIMATE

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA

WINTER

Prevailing wind direction: W-NW
Average wind speed: ~7 mph
Average temperature (high): 67–70°F
Average temperature (low): ~42–45°F
Average rainfall: ~6–7 inches
Average days of rain: ~15–18 days

SPRING

Prevailing wind direction: W-SW
Average wind speed: ~8–10 mph
Average temperature (high): ~72–80°F
Average temperature (low): ~47–55°F
Average rainfall: ~2–2.5 inches
Average days of rain: ~8–10 days

SUMMER

Prevailing wind direction: W-SW
Average wind speed: ~9–10 mph
Average temperature (high): ~87–96°F
Average temperature (low): ~59–65°F
Average rainfall: ~0.1–0.3 inches
Average days of rain: ~1–3 days

FALL

Prevailing wind direction: variable with NE Santa Ana winds
Average wind speed: ~7–8 mph
Average temperature (high): ~75–92°F
Average temperature (low): ~47–61°F
Average rainfall: ~1–1.5 inches



Site boundary
Chainlink fence

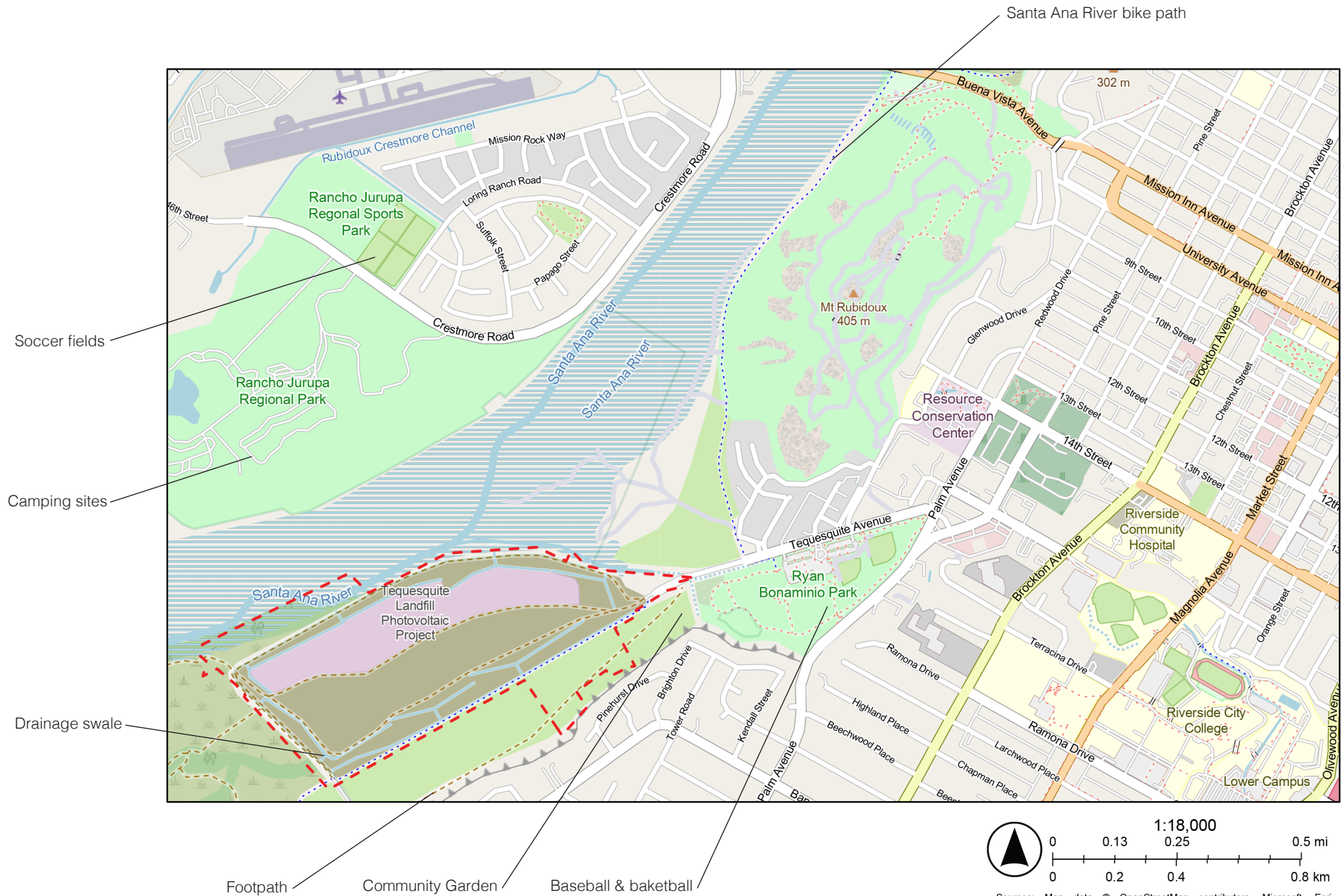


Power line
Inverter unit (noise)

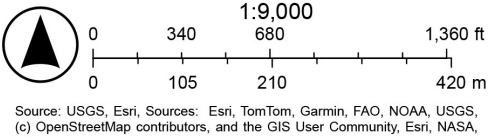
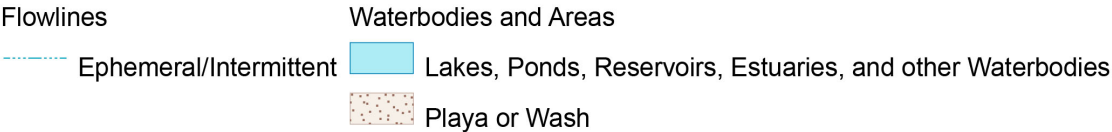


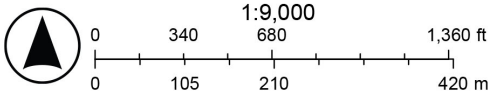
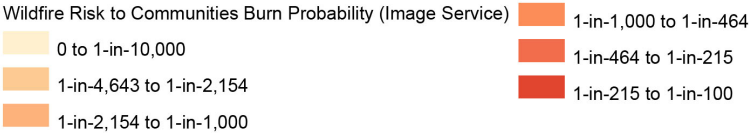
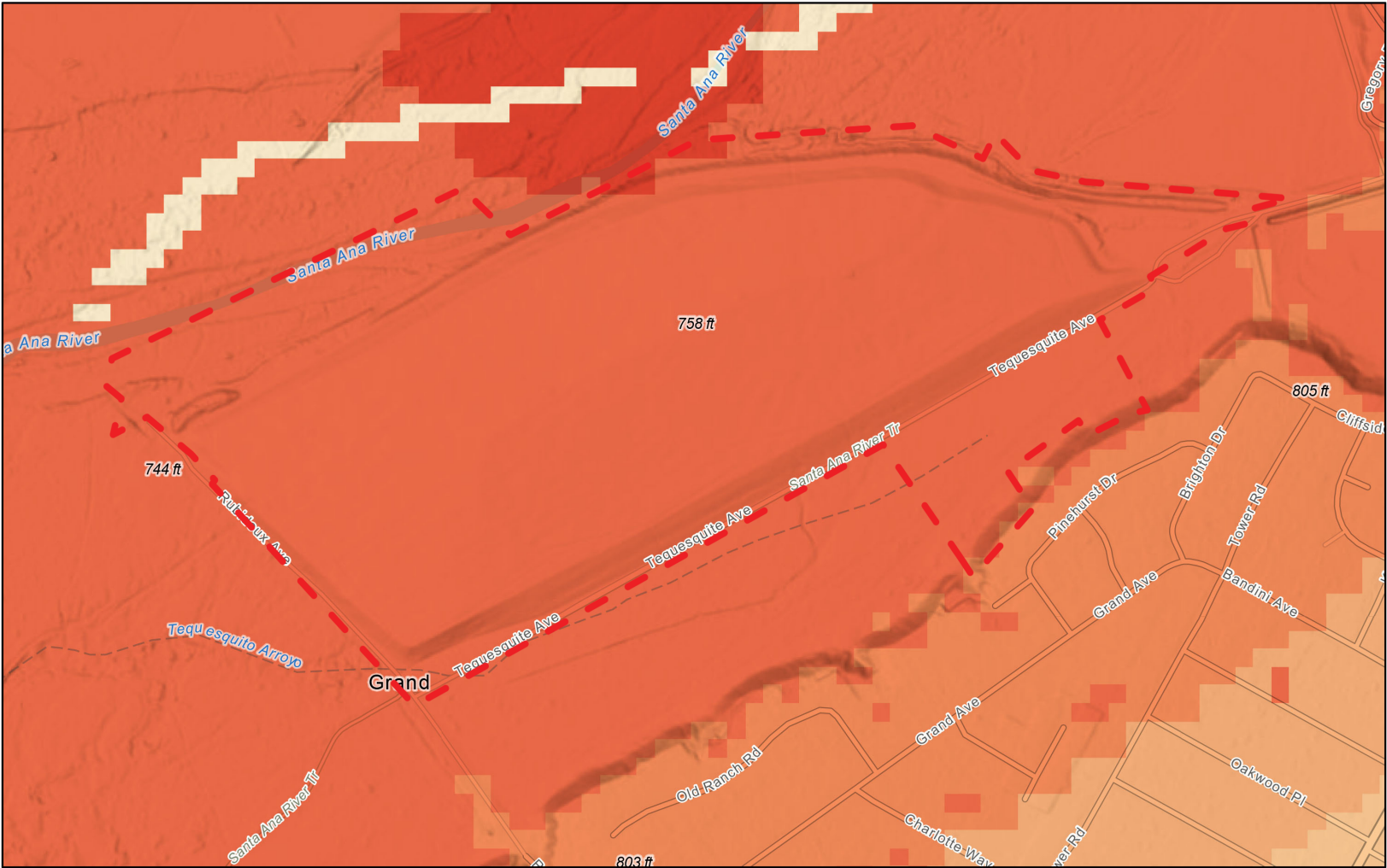
Encampment area
Sun arc

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



Sources: Map data © OpenStreetMap contributors, Microsoft, Esri
Community Maps contributors, Map layer by Esri





Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Funding for this project was

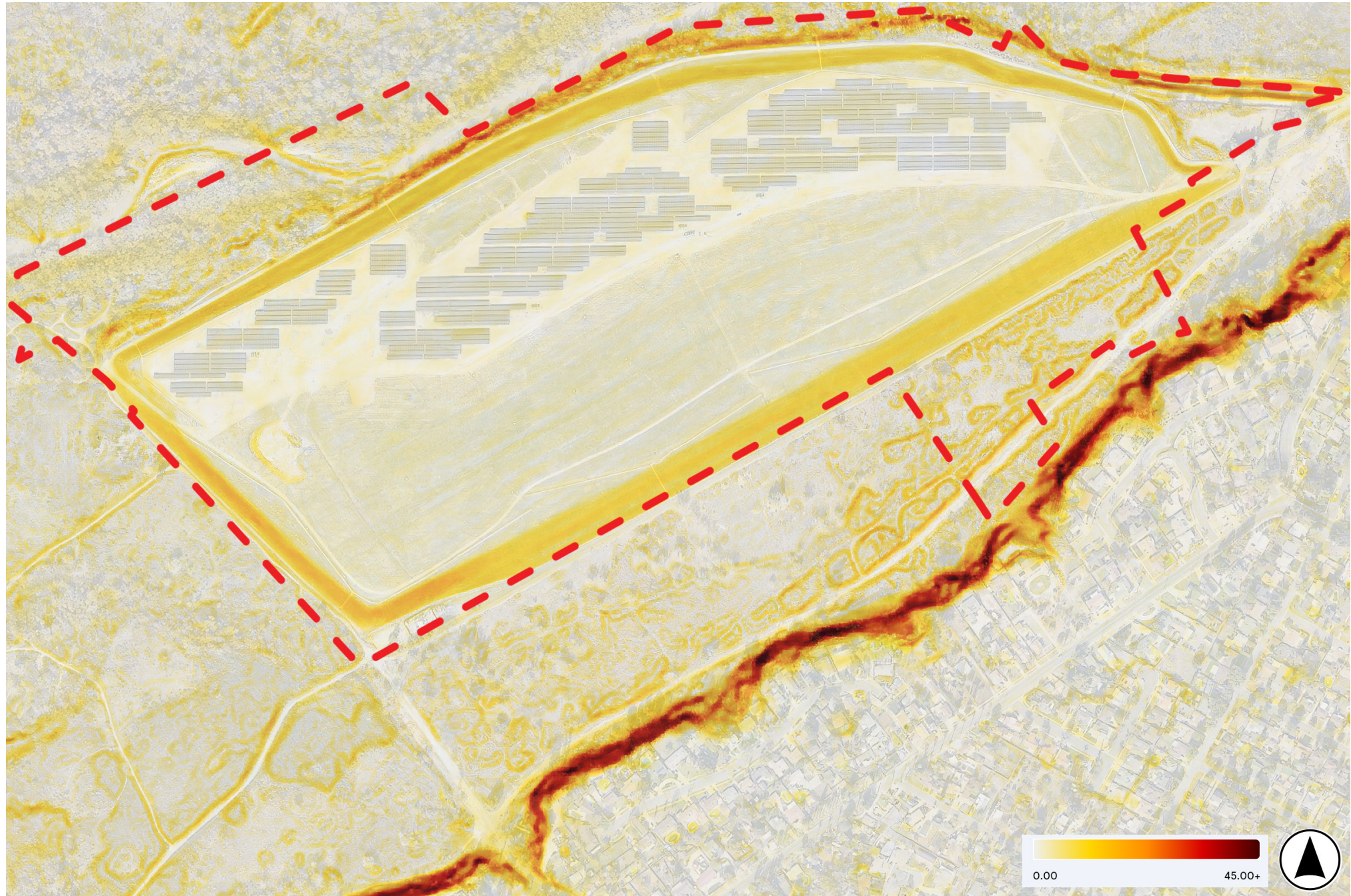
TOPOGRAPHY - CONTOURS (1 METER)

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



TOPOGRAPHY - SLOPE

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



SITE PHOTOS

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



1. Adaptive re-use and community engagement at nearby drainage channel.



2. Drainage channel along north edge near entrance.



4. Service road along north edge near entrance.



3. Wayfinding and information at Santa Ana River Trail trailhead



5. Solar panels and noisy transformer.

SITE PHOTOS

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



1. Drainage swale and methane cap at top of northern slope.



2. Entrance trail heading west uphill.



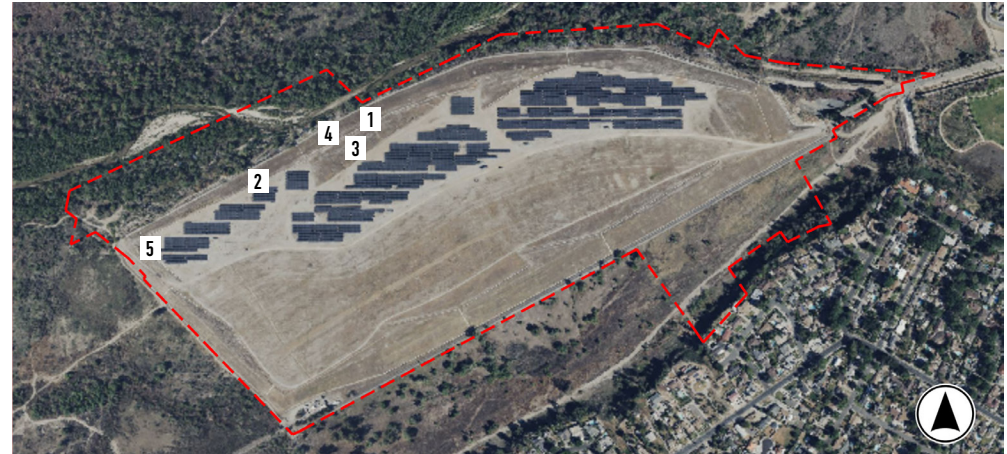
3. North side slope edge.

SITE PHOTOS

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



1. Wooded area beyond north side fence.



2. Service road along north edge looking east.



4. Service road along north edge looking west.



3. Debris pile in wooded area north of fence. Note person accessing encampment near the river.



5. Confluence of drainage at northwest corner. Note person accessing river encampment.

SITE PHOTOS

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



1. River valley view with landfill infrastructure.



2. Confluence of drainage at northwest corner, north edge (right) and west edge (left)..



3. Service road ramp, manhole and river valley view from west edge of mound.

SITE PHOTOS

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



1. Service road ramp and river valley view from west edge of mound.



2. River valley view from west edge of mound looking NW.



4. River valley view from west edge of mound looking W.



3. River valley view from west edge of mound looking SW.



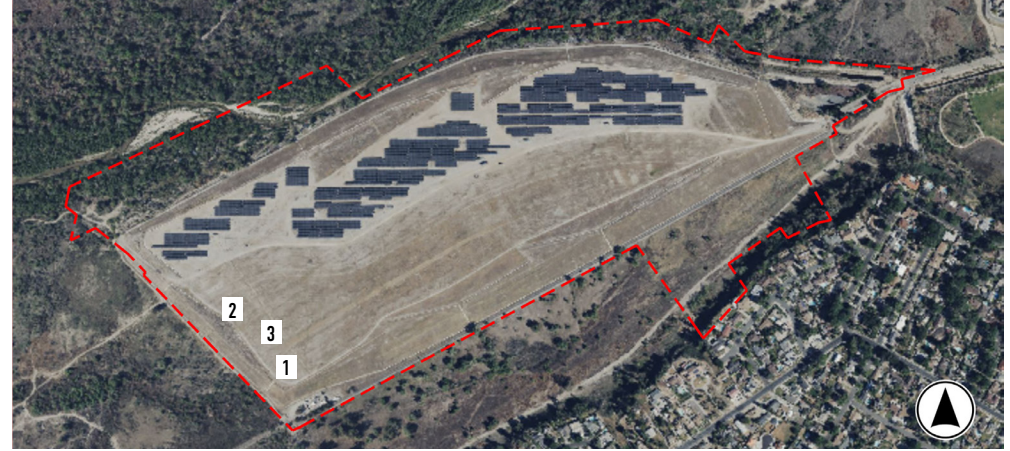
5. View from west edge of mound looking S.

SITE PHOTOS

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



1. Tractor doing maintenance work.



2. Drainage channel along west edge above service road ramp.



3. River valley view from west edge of mound looking SW.

SITE PHOTOS

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



1. Possible groundwater monitoring well.



2. Maintenance truck, solar farm equipment.



4. Service road along north edge near entrance.



3. Open area S of solar farm.



5. Open area S of solar farm.

SITE PHOTOS

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



1. Possible groundwater monitoring well.



2. Methane cap.



3. Open area S of solar farm.



4. Open area and trail facing E down toward entrance.

SITE PHOTOS

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



1. Open area at bottom of S side of mound.



2. Open area at bottom of S side of mound near entrance.



4. Swale, fence and bike path along S edge of mound.



3. Entrance facing E.



5. Entrance facing SW.

COMMUNITY INPUT + PROJECT JUSTIFICATION

OPTION 1 – PASSIVE RECREATIONAL USE

Under Option 1, the primary development focus at the site is passive:

- Loop Trail around Landfill for bike/walk/jog with integrated exercise station circuit
- 12-acres of open (unprogrammed) sports fields
- 3 – acre youth (5 to 12 years of age) adventure/playground
- 5 – acre group picnic area
- 1/2-acre and 1-acre tot (2 to 5 years of age) lot areas
- 5-acre interpretive site
- 1/2-acre handicapped garden site
- 1-acre community garden site
- 100-acre passive meadow
- 2-acre remote control airplane site

OPTION 2 – COMBINATION ACTIVE/PASSIVE RECREATIONAL USE

Under Option 2, the development has a smaller 20-acre meadow, with the remaining 80-acres developed into soccer fields and a skate park:

- Loop Trail around Landfill for bike/walk/jog with integrated exercise station circuit
- 12-acres of open (unprogrammed) sports fields
- 2 softball/little league fields
- 15-acre soccer field
- 1/2-acre skate park
- 10-acre interpretive site
- 2-acre remote control airplane site
- 1/2-acre rock climbing area
- 20-acre passive use meadow
- 2-acre youth adventure playground
- 5-acre group picnic area
- 1/2-acre and 3-acre tot lot areas
- 5-acre interpretive site
- 1/2-acre handicapped garden site
- 1-acre community garden site

OPTION 3 – ACTIVE RECREATIONAL USE

Under Option 3, the development vat the site is fully for active recreational use:

- Loop Trail around Landfill for bike/walk/jog with integrated exercise station circuit

- 2-acre dog park
- 14-acres of programmed (use delineated) sports fields
- 2 softball/little league fields
- Soccer field
- Lacrosse/Field Hockey field
- Volleyball court
- 15-acre golf driving range
- 10-acre BMX track area
- 2-acre interpretive site
- 2-acre remote control airplane site
- 1-acre tot lot/youth adventure playground
- 1/2-acre handicapped garden site
- 1-acre community garden site

PROJECT JUSTIFICATION

Option 2 will be developed with **a mix of active and passive uses** in order to address the range of needs expressed in community survey below. **Programming of the space responds to community feedback** including the feasibility study and survey. As per feasibility study, “the construction of active/organized sports fields and other improvements will cause **additional loading on the landfill** which may exacerbate differential settlement of the site. Therefore, structures **will need to be engineered to accommodate the impacts of landfill settlement.**”

SURVEY SUMMARY

A skatepark is by far the most desired amenity at the Tequesquite sites, particularly at the south extension. In addition to the skatepark, more natural elements were requested, such as nature trails, flowers and native plants, habitat conservation, community gardens, meadows, and forest restoration, with some comments requesting that the parks remain as undeveloped as possible.



OPPORTUNITIES & CONSTRAINTS

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA

OPPORTUNITIES

- Large open space with sweeping views
- Proximity to river
- Water flow including drainage
- Existing DIY recreation scene (BMX, skateboarding)
- Lessons from the past



CONSTRAINTS

- Transformer noise
- Sun & wind exposure
- No irrigation or large plantings on landfill mound
- River bank encampments
- Landfill infrastructure

GOALS & OBJECTIVES

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



RESTORE THE ENVIRONMENT

- Native plant habitat
- Stormwater treatment
- Clean energy



EXPAND RECREATION

- Team sports & paid activities
- Exploration & adventure
- Peace & nature



CONNECT THE COMMUNITY

- Expand access to the river
- Memorialize the history of the site
- Set sights on the future



PROGRAM

OPTION 2 – COMBINATION ACTIVE/PASSIVE RECREATIONAL USE

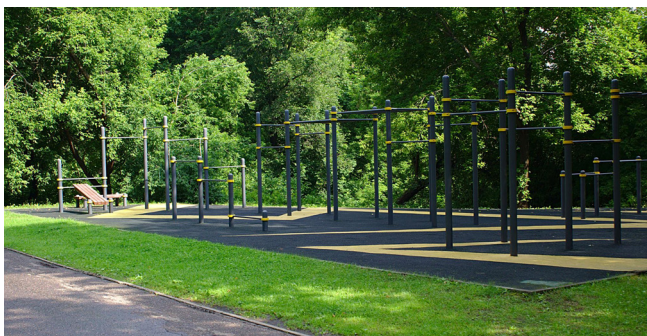
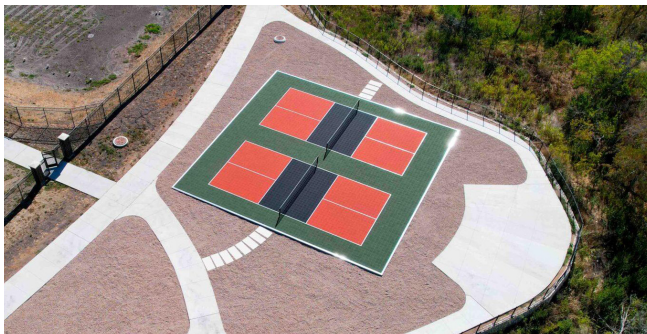
RESTORATION

Native meadow
Riparian area
Stormwater treatment pond
Solar power shade structures*
Wind turbines*



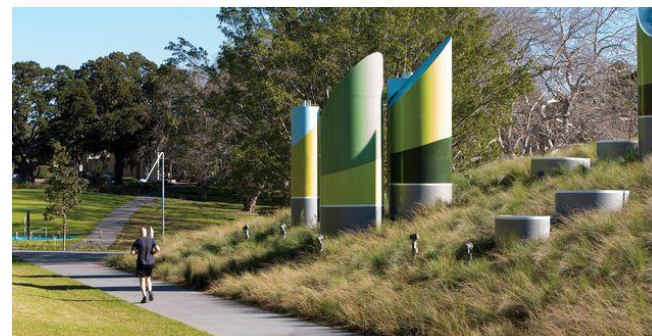
RECREATION

Soccer fields*
Pickleball courts*
Workout equipment
Skate trail
Mountain bike trail
Scenic walking trail



CONNECTION

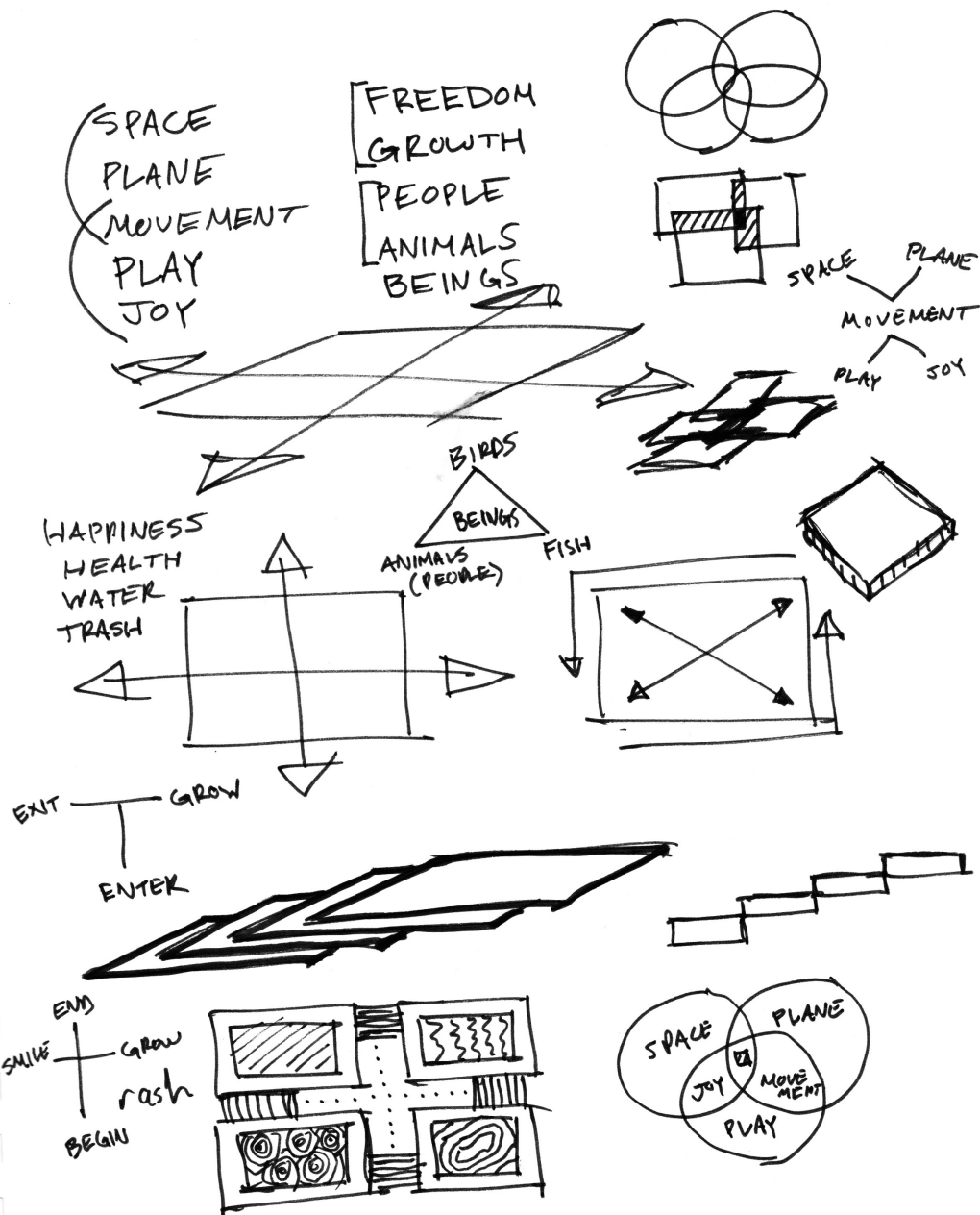
River walk
Main gateway with parking
Fire sculpture
Sculpture park
Wood Streets Gateway



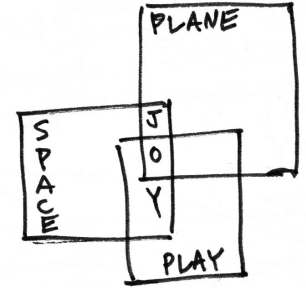
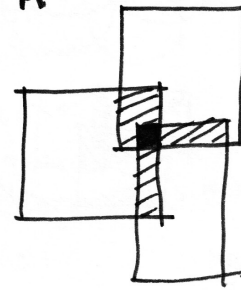
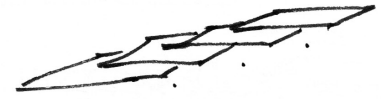
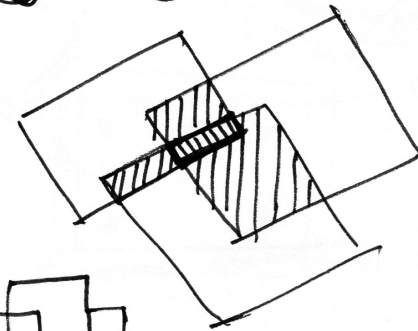
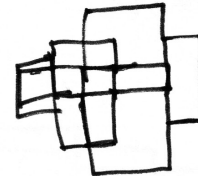
*income generating activities

DIALECTIC DIAGRAM PROCESS

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA



AVOID
THE TYPICAL
EMBROIDERED
IN THE MYTHICAL



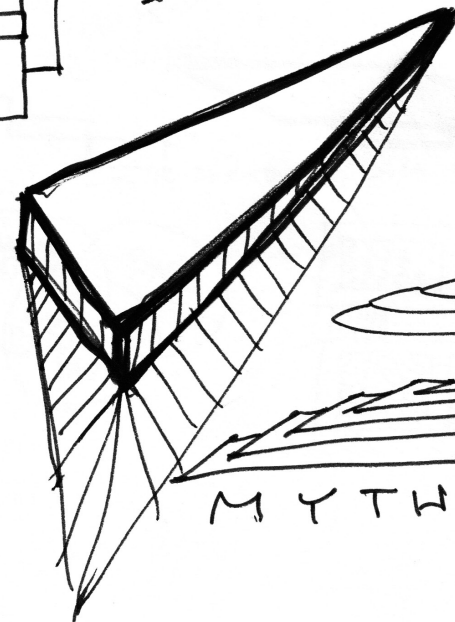
SPACE
ESCAPE
CHASE
HASTE

PLANET
PLANE
PLAN
PLANT
LAND
LAD
LA
LANDSCAPE

LAND-ESCAPE

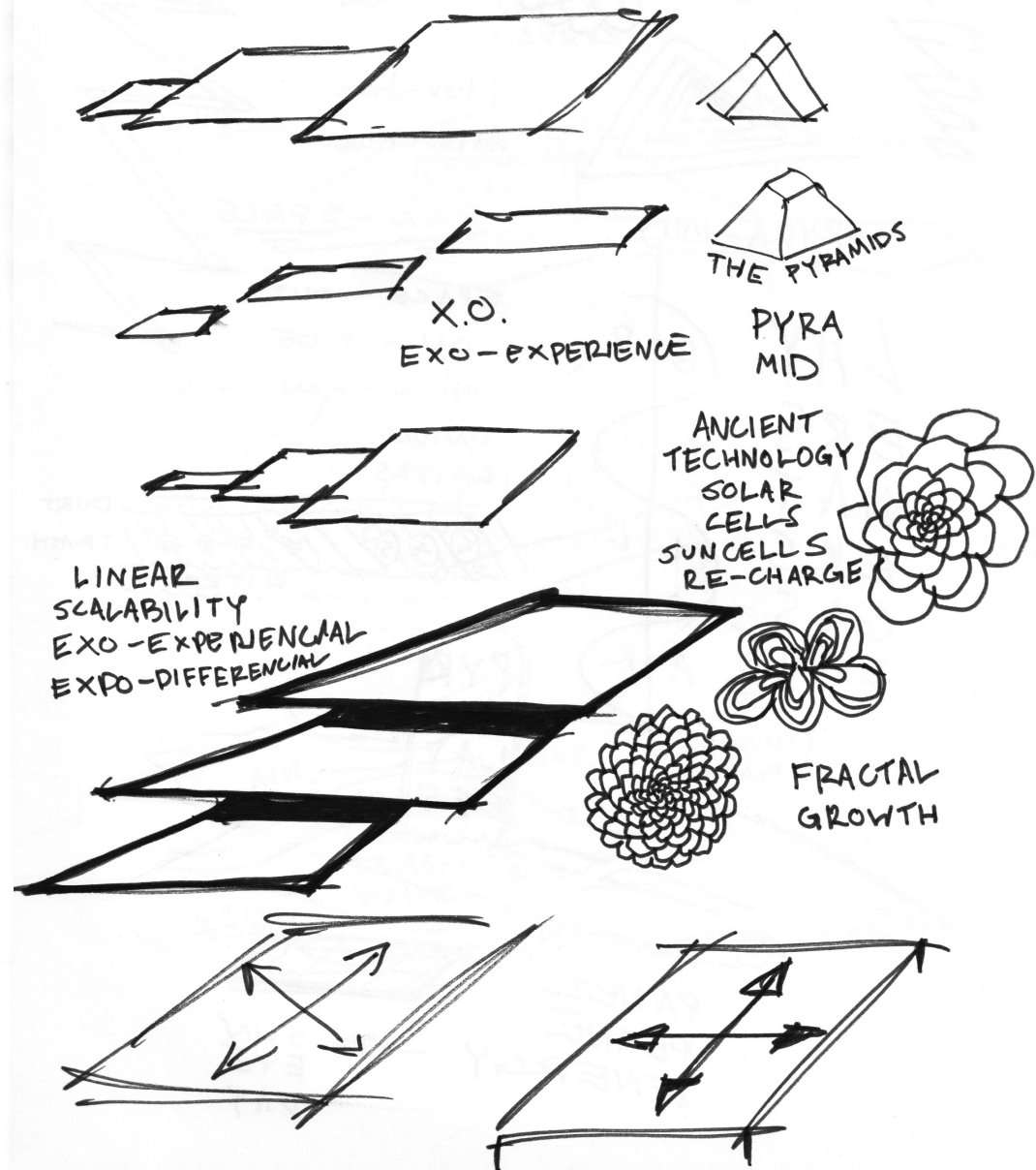
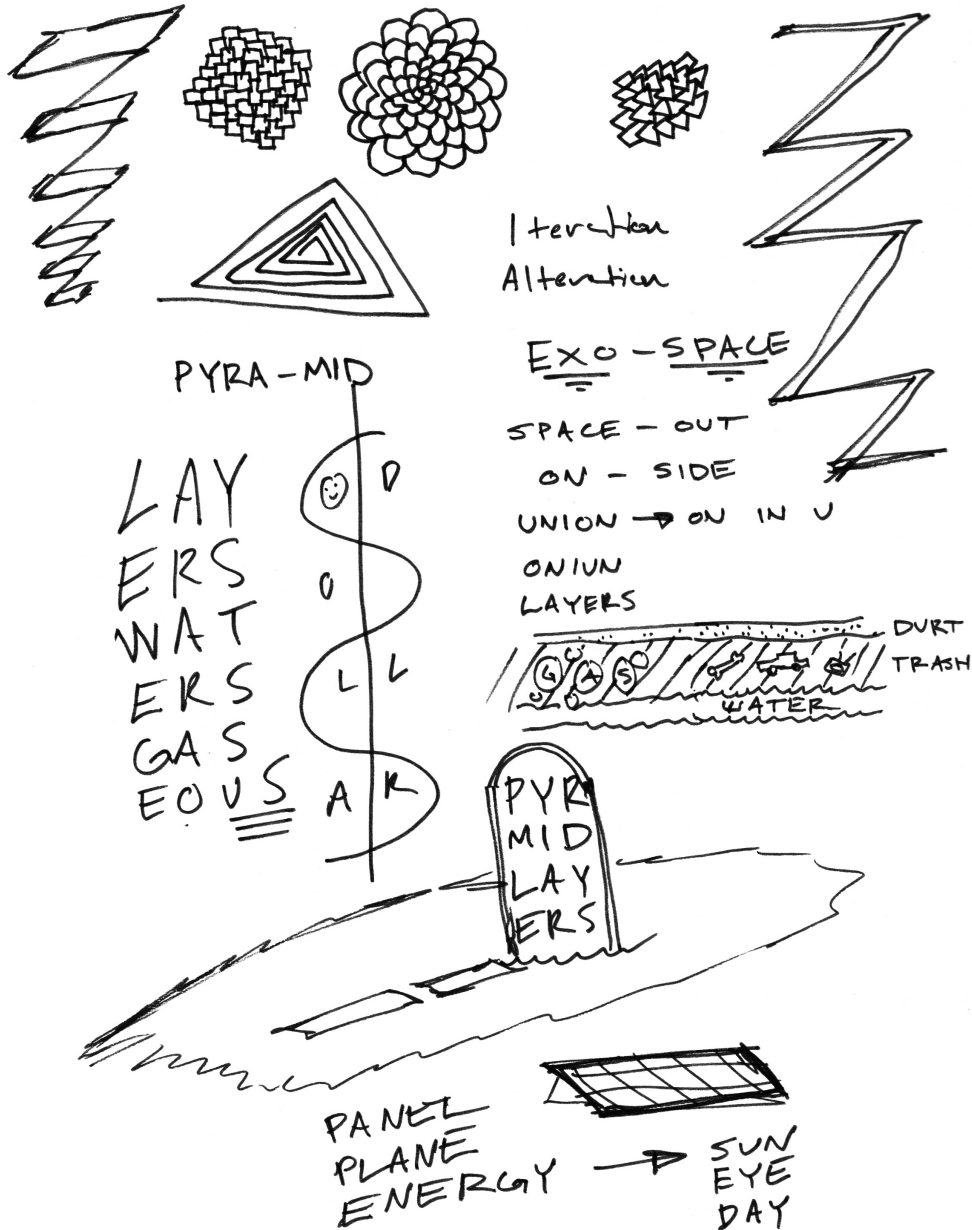
LAND
ESCAPE

BLANDSCAPE
ARCHITECTURE
ARCHI-TYPE
TYPICAL



MYTHICAL

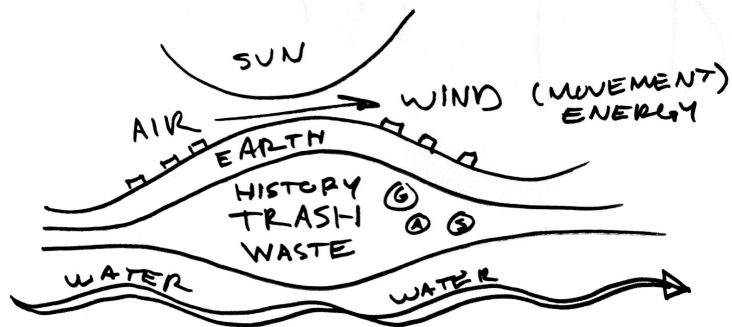
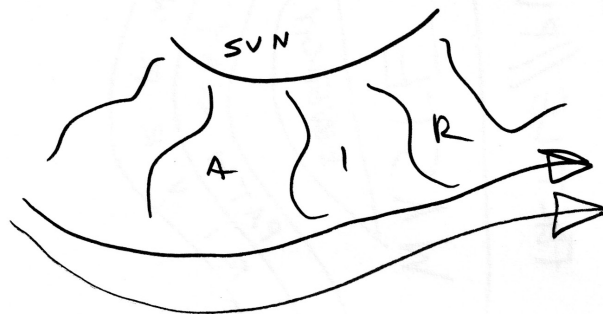
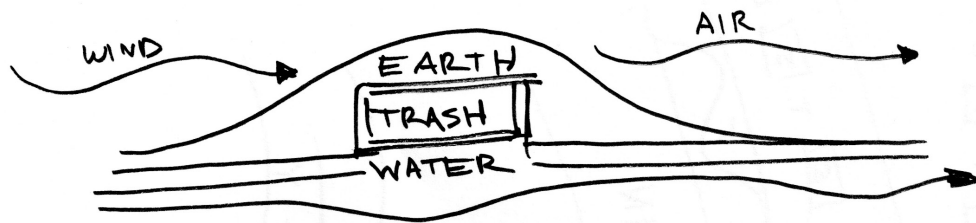
FRACTAL - GROWTH



DIALECTIC DIAGRAM PROCESS

TEQUESQUITE LANDFILL | RIVERSIDE, CALIFORNIA

CONTAINMENT
PROTECTION
SHELTER] - JOY - PLAY - ENRICHMENT
EXO - EXPERIENCE
BLAND - ESCAPE
PLANE - MOVEMENT
LAYERS



P H R O I V V S A E T S E

P H R O I V V S A E T S E
S L O W E T S E
FERTILE//PLAIN

WASTE

ENERGY
PATH WAY
RIVER WAY

CONCEPT 01: EXO-EXPERIENCE

EXPERIENCE OUTDOORS & OUTSIDE OF EVERYDAY LIFE

OPEN PLANE

Open Plane as vessel for Opportunities. Space as a conduit for Movement, Freedom, Growth and ultimately JOY.

UNITED EXISTENCE

The open plane as a metaphor for a world where the distinction between Artificial (Manmade) and Organic is erased because Humans are Animals - no more, no less.

That distinction is replaced by the balance of what is Fair and Beneficial.

DIVERSE VIEWS

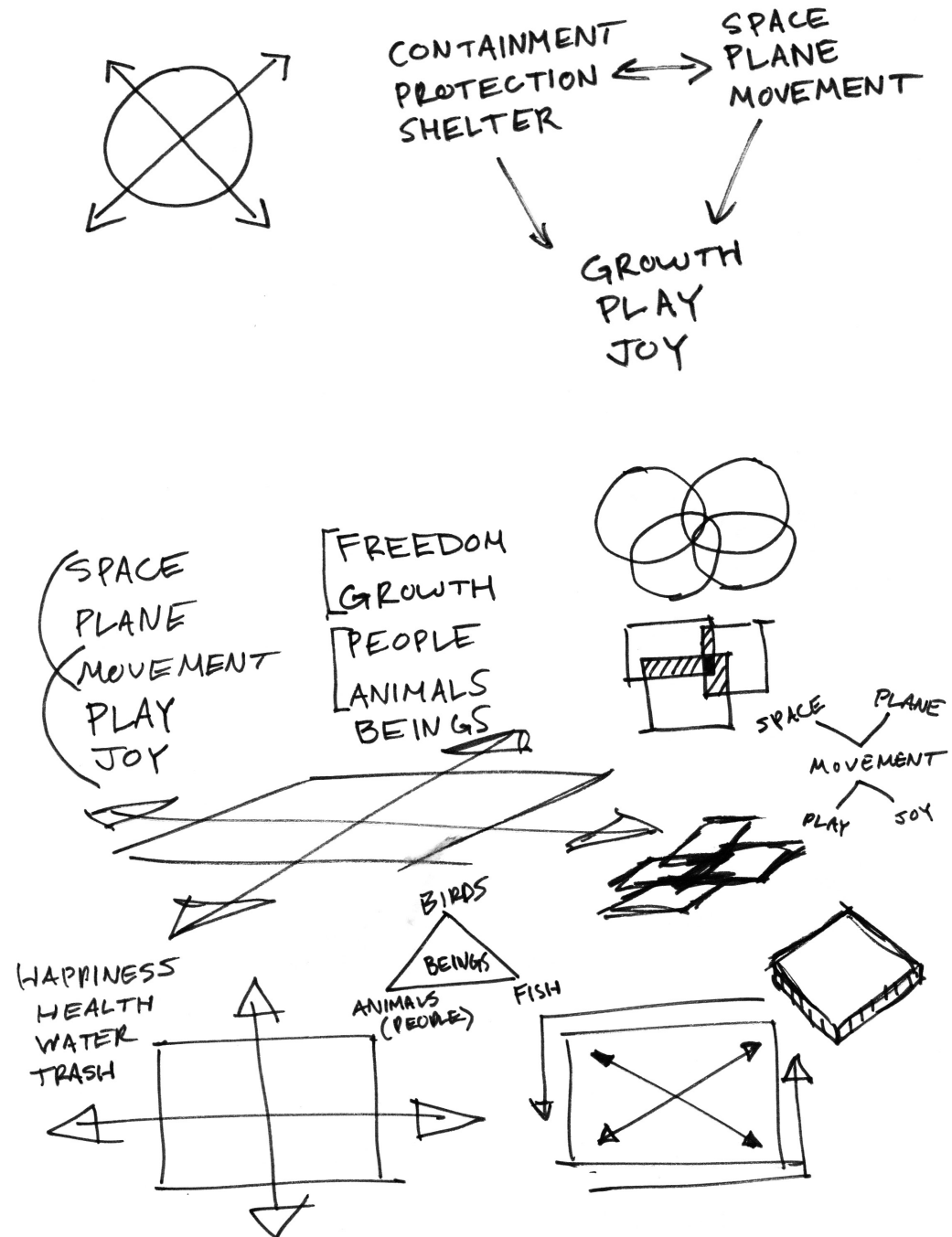
Unity is not conflated with Uniformity. Nature contains straight lines and curves - they are the way they are for a reason. The path is curved by topography; the crystal is straight by molecular force.

PARK AS WORLD

In the Exo-Experience there are no Parks within the Park. All uses are integrated as much as possible, separated subtly and only as needed so users are not confined to their separate silos any more than they need to be.

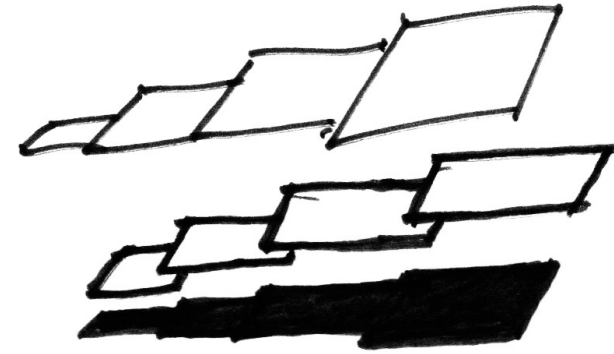
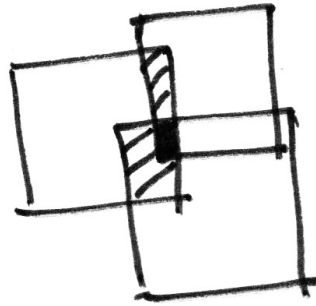
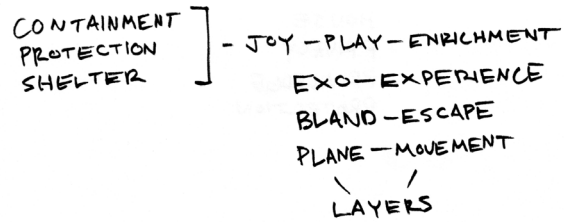
There is no Skate Park, there is a Park you are allowed to Skate in.

There is no Playground, there is Ground you are allowed to Play on.



CONCEPT 02: LAYERS OF LIFE

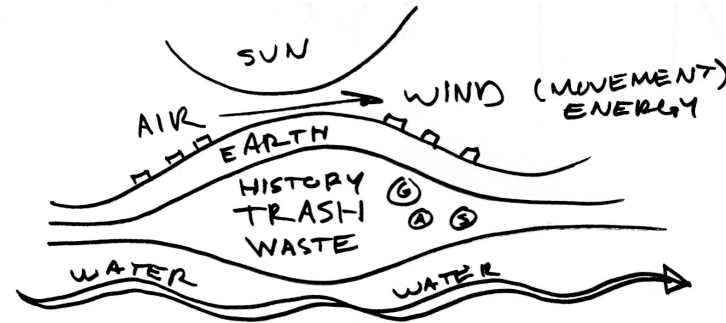
IDEAL FUNCTIONAL DIAGRAM



VERTICAL

From Heaven to the Underground:

- Sun
- Air (Wind)
- Earth
- Trash
- Gas
- Water



LAYERED EXPERIENCE

This framework examines how layers/uses can overlap to bring us new experiences, new places and new heights.

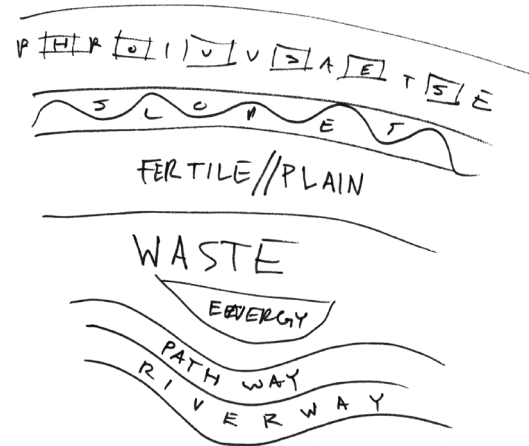
Separation becomes unity when edges overlap and feed into each other.

Union=Oniun

TRANSVERSAL

From the River to the Hills:

- Riverbed
- Riverbank
- Pathway
- Energy (Solar Farm)
- Waste (Landfill)
- Slopes
- Fertile plain
- Private homes



CONCEPT 03: ANCIENT TECHNOLOGY

A NATURAL HISTORY OF PLACE

SUN

Original source of:

- Energy
- Light
- Heat
- Growth

SOLAR PANELS

Technology as:

- Plane
- Mirror
- Space
- Footprint
- Shadow
- Grid

RIVER

Original source of:

- Power
- Transportation (Movement)
- Cold
- Growth

WATER

Creative force for:

- Change
- Shade
- Flow (Movement)

PYRAMID

A vessel for our shared
Future, Present & Past

A vessel for Royalty
(Gods)

LANDFILL FORM

A vessel for:

- Life (Production)
- Waste
- Decay
- Hope for the future

A vessel of past
Productivity

BUILDING THE FUTURE FROM THE PAST

The Pyramid motif from the landfill form is a theme throughout, as are the ancient technologies of the Native people of the valley who learned to manage the land without compromising it's integrity.



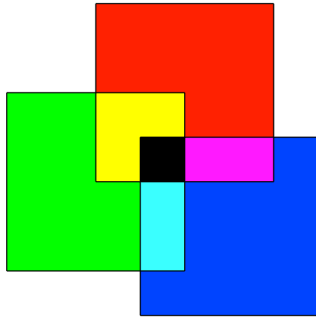
LAYERS OF LIFE AT TEQUESQUITE CREEK

A NATURAL HISTORY OF ANCIENT TECHNOLOGIES

LAYERED EXPERIENCE

This framework examines how layers/uses can overlap to bring us new experiences, new places and new energy.

Separation becomes unity when edges overlap and feed into each other.

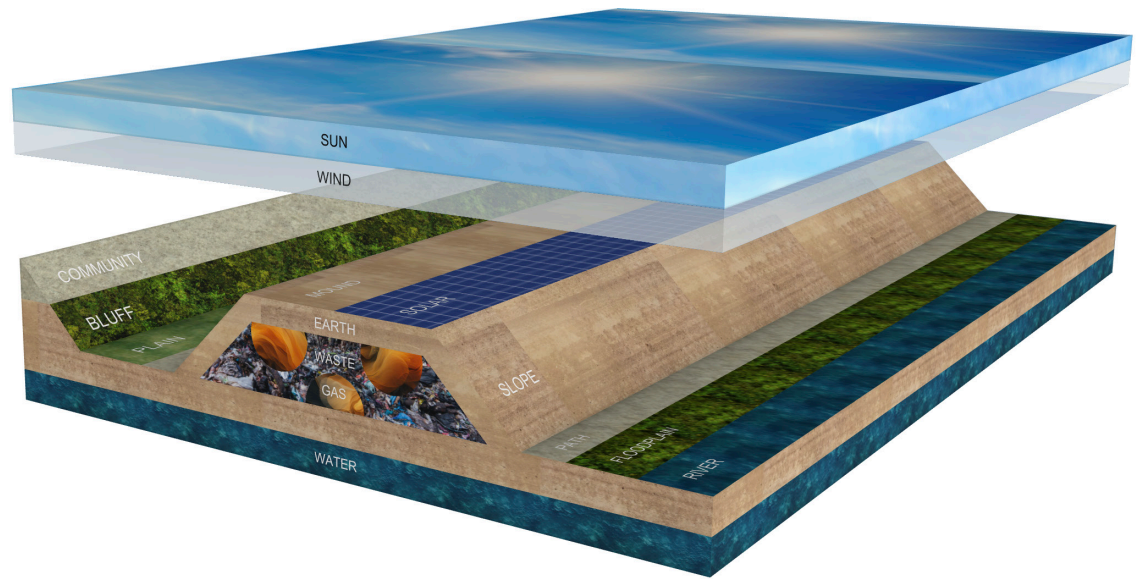


OPEN PLANE

The Open Plane is a vessel for opportunities; Space is a conduit for Movement, Freedom, Growth and JOY.

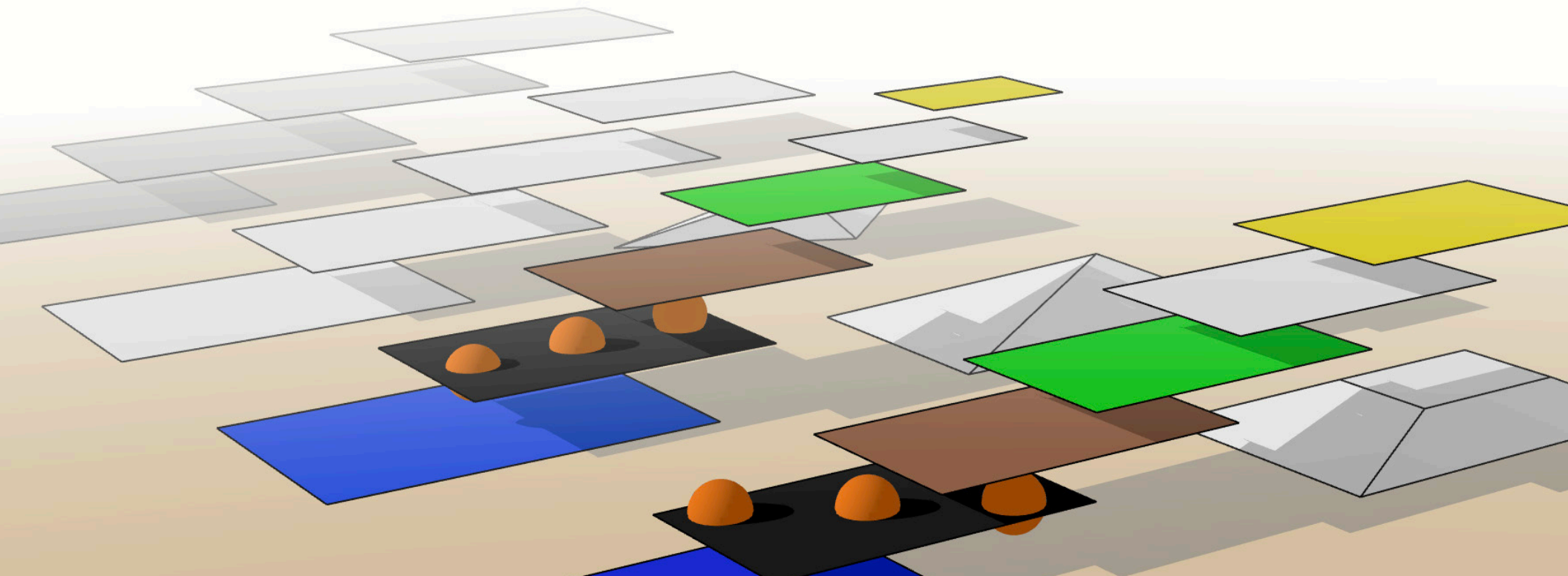
UNITED EXISTENCE

In this Park-World, all uses are integrated as much as possible, separated subtly and only as needed so users are not confined to their separate silos any more than they need to be.



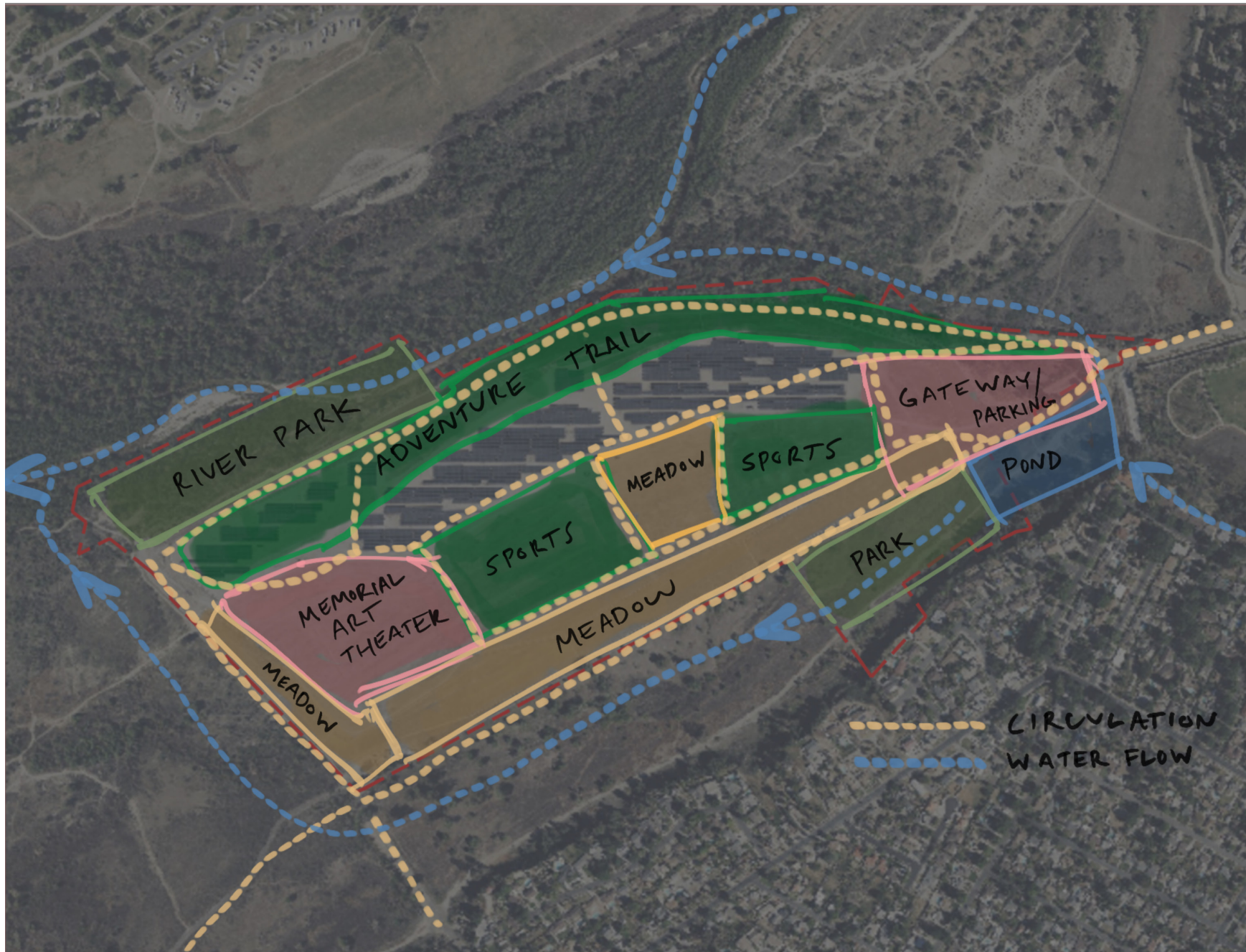
BUILDING THE FUTURE FROM THE PAST

The Ladfill Pyramid is a vessel for our shared Past, Present and Future; a repository of Life (Production), Waste, Decay, and Hope. Lessons learned from the ancient knowledge of the land, it's original inhabitants and those who built the landfill will guide us into the future of this great community.



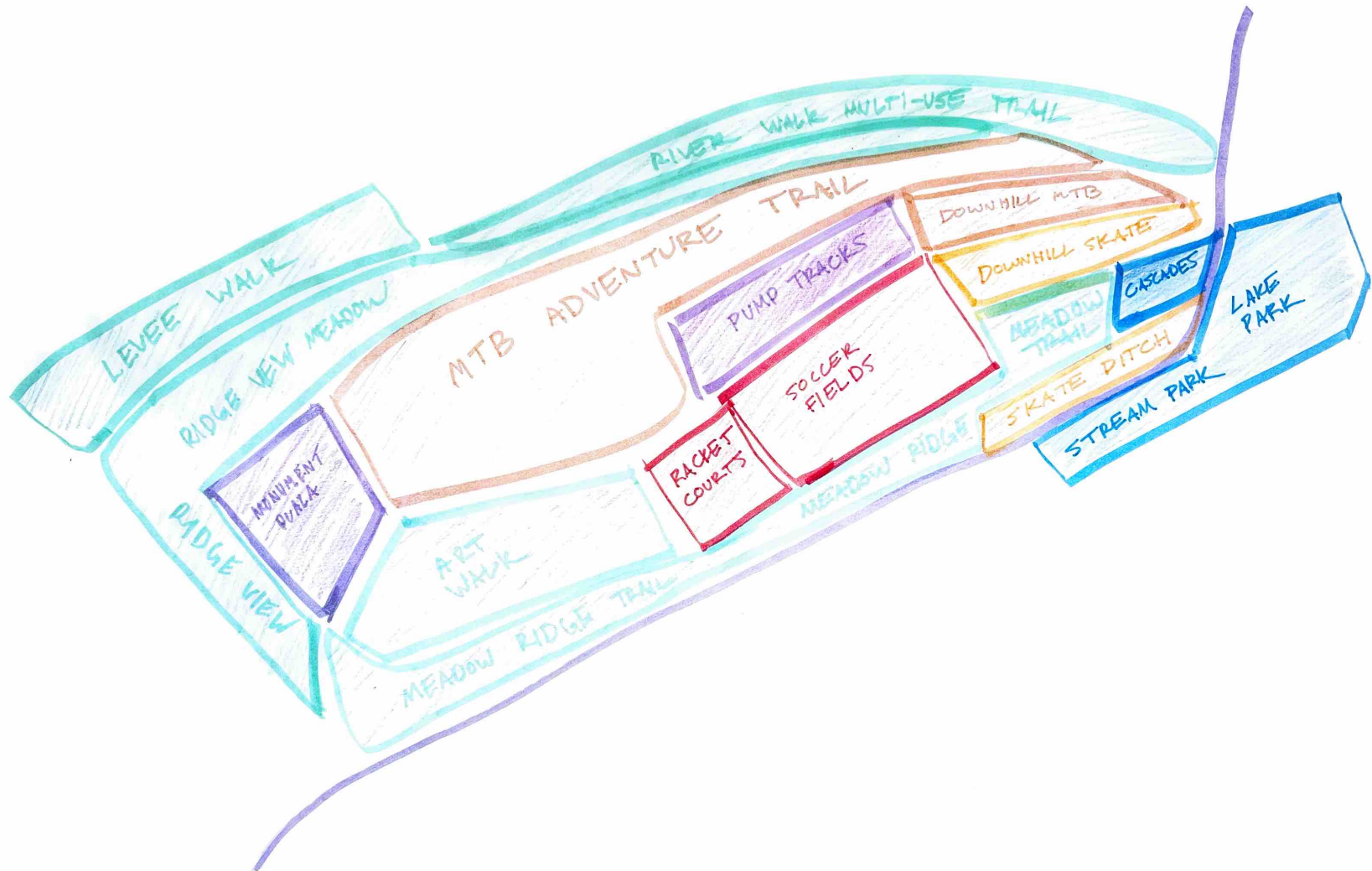
FUNCTIONAL DIAGRAM

GENERAL USES, CIRCULATION & WATER FLOW



LAYOUT DIAGRAM

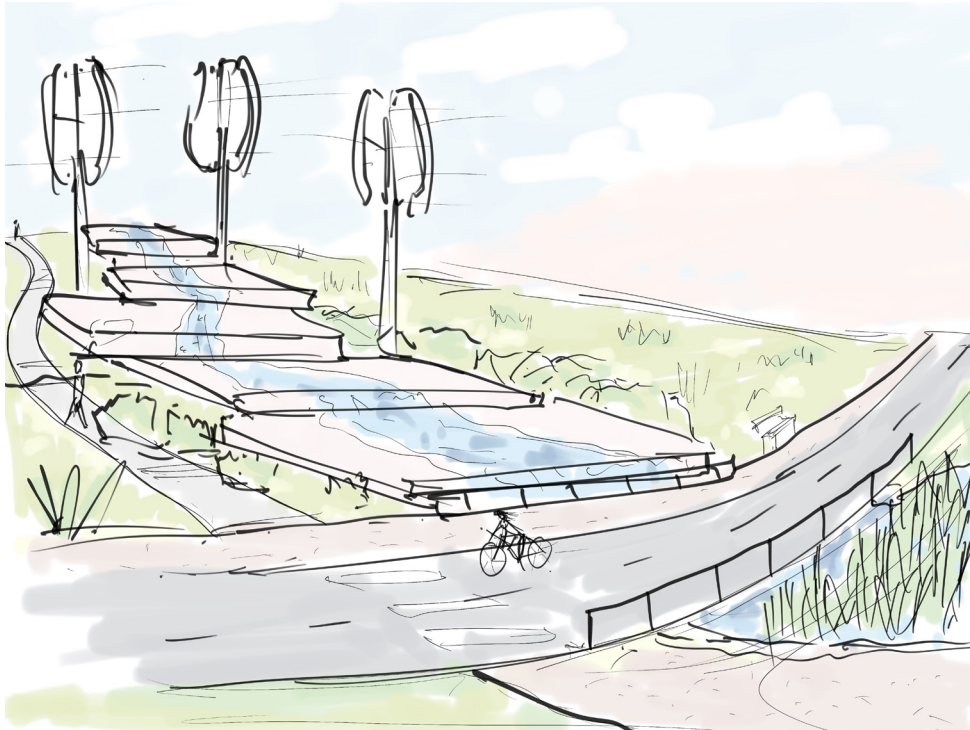
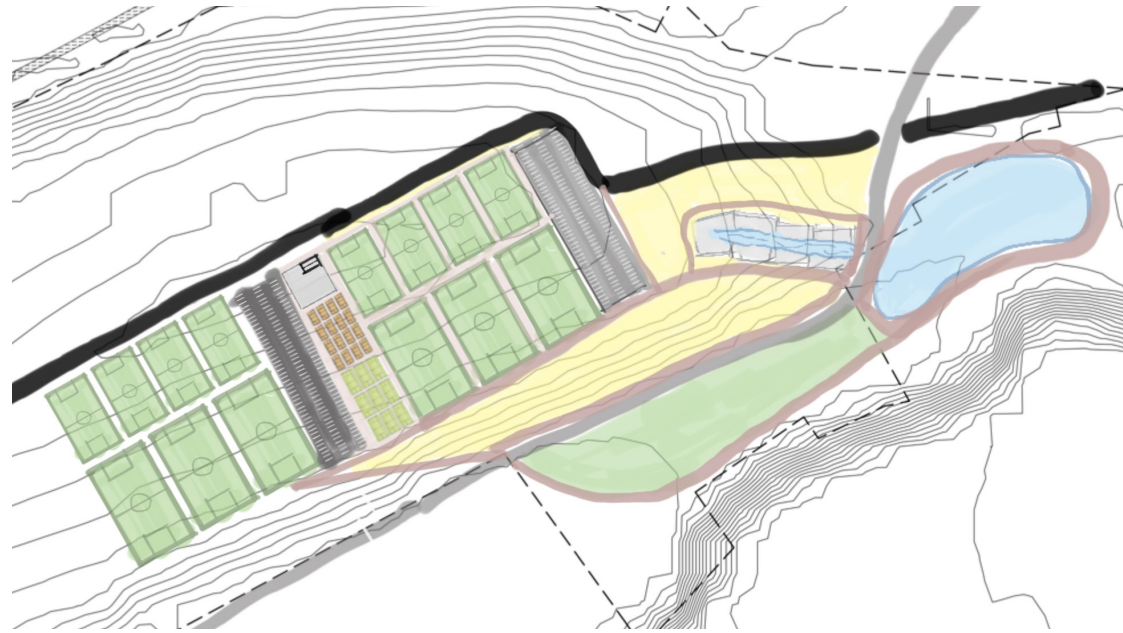
PROGRAM ELEMENT LOCATION & SIZING



INITIAL EXPLORATIONS

ENTRANCE SEQUENCE & SPORT FIELDS LAYOUT

- Vehicular entry & circulation
- Soccer field & racket court sizing & layout
- Open meadow space
- Stormwater treatment lake
- Terraced water feature
- Parking
- Walking trail network



TERRACED CASCADES SKETCH

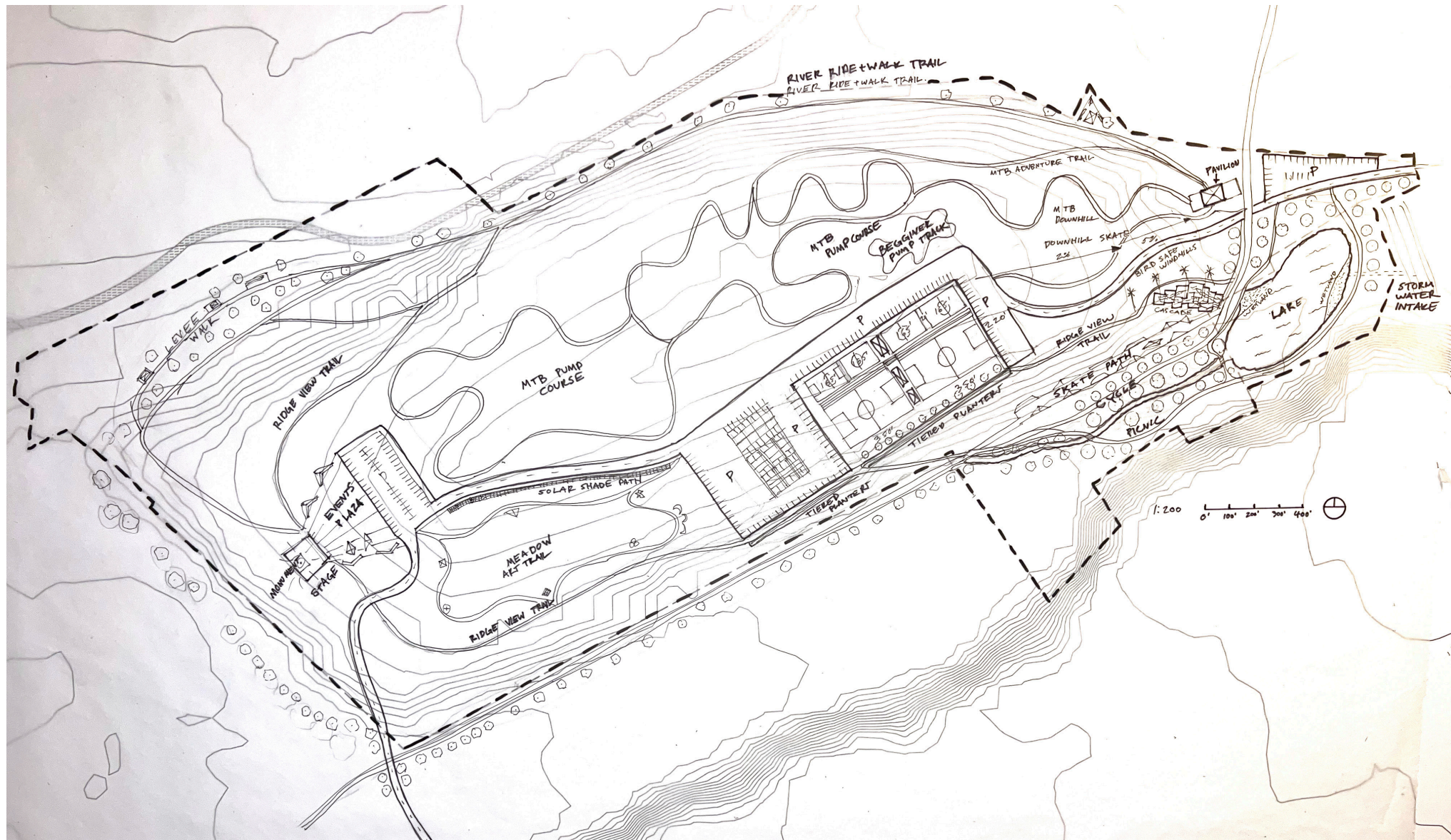
- Bike + walking path
- Bird-friendly vertical wind turbines
- Concrete terraced stream protects landfill+circulates water
- Culver under bike path
- Constructed wetland
- Native shrubs + grasses

PRELIMINARY SKETCH

PROGRAM & CIRCULATION

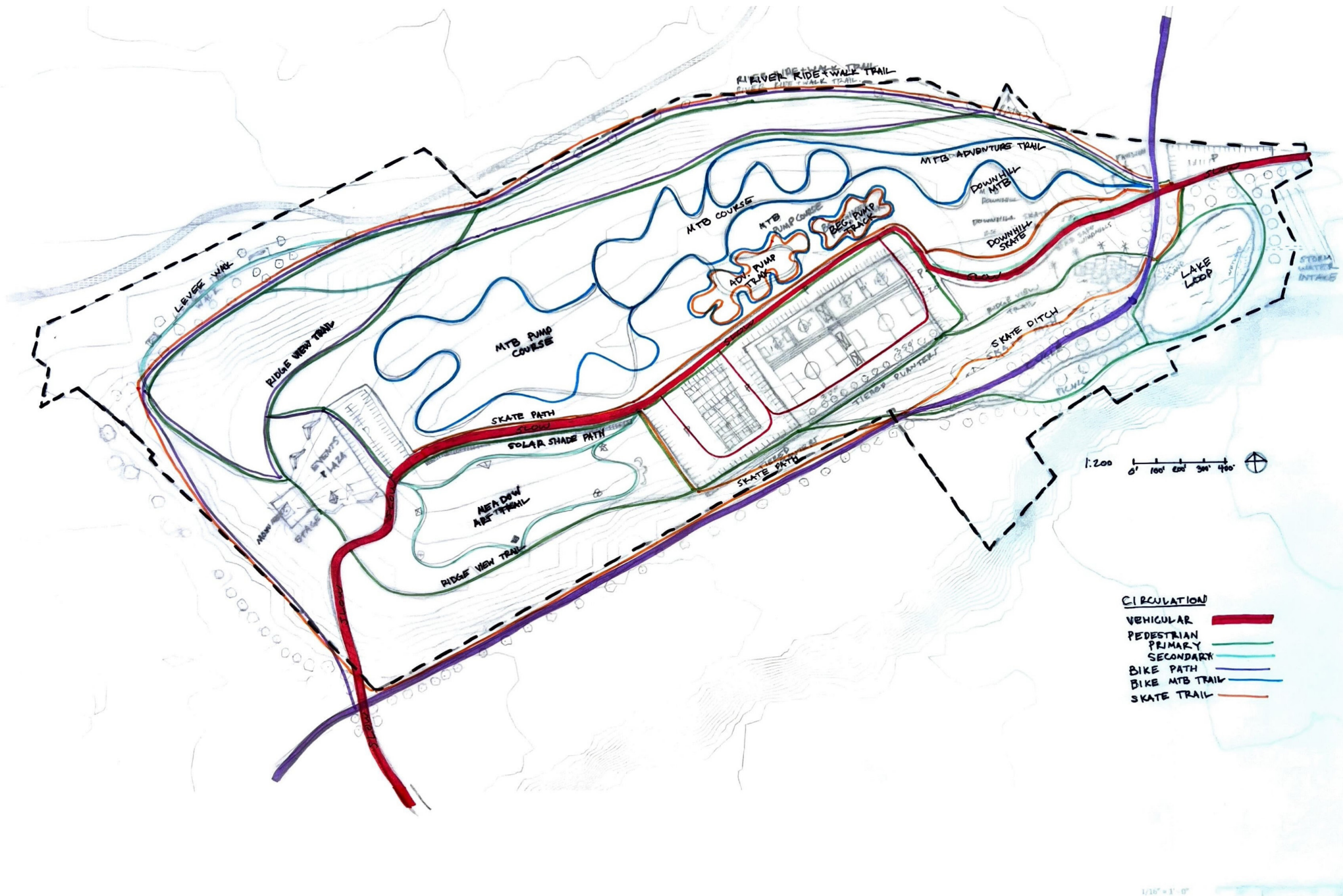
- Courts offset from solar path to prevent glare.
- Walking, vehicular, bicycle and skate circulation separated with areas of confluence and parallel courses.
- Curving paths open up diverse views of Santa Ana River valley.
- Modified bike path route near entrance opens up space for skate course.
- Pavilion at entry is gateway to walking/biking/skating routes.
- Stormwater intake from Tequesquite Creek via constructed wetland.

- Vehicular connection from Woods Neighborhood via Roubidoux Ave.
- Stream flows SW from lake down Tequesquite Creek to intake near bike path, water is pumped to top of tiered cascade feature that flows back to lake.
- Lake overflow to drainage channel on north side of site to Santa Ana River.
- Site runoff directed to lake via constructed wetland.

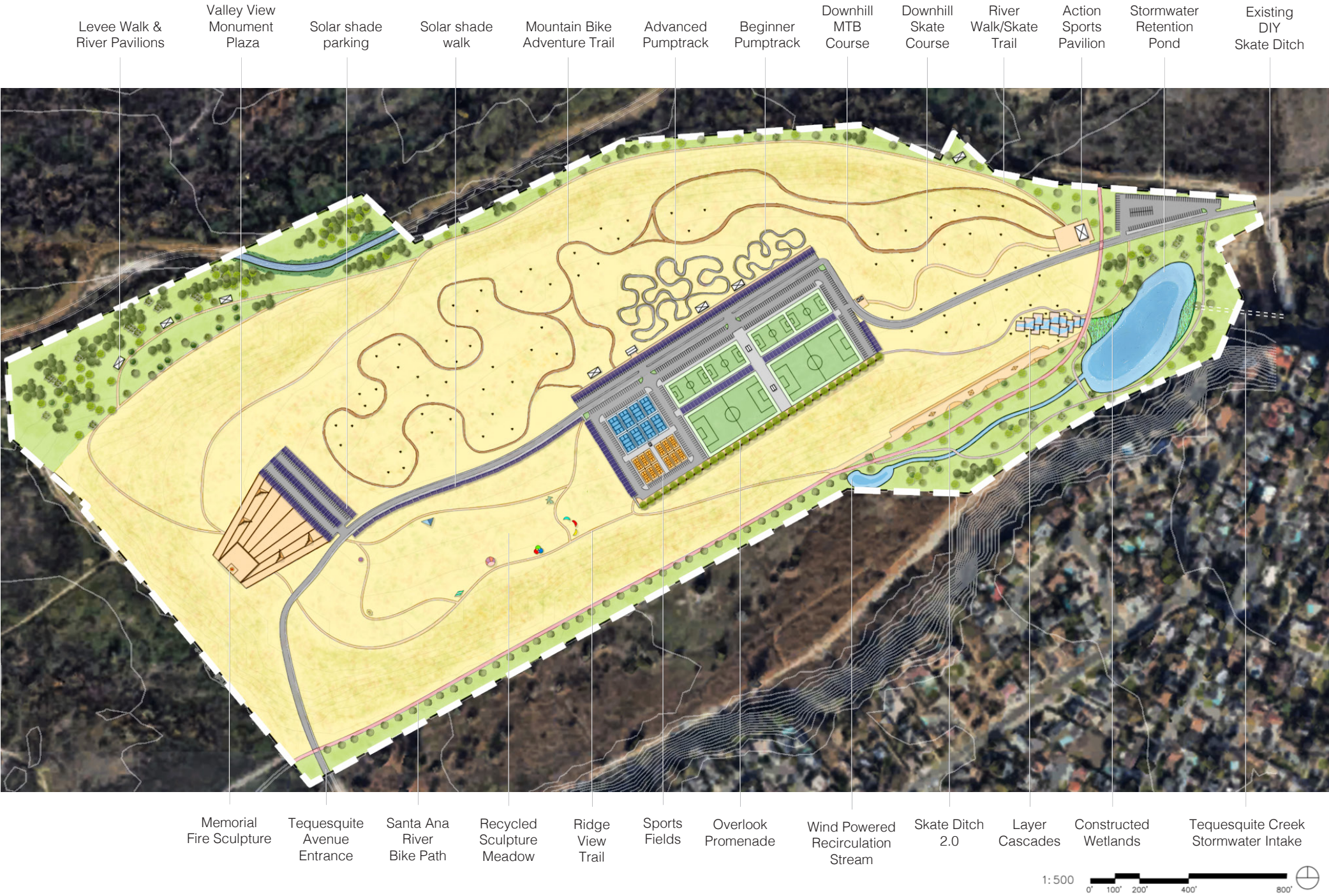


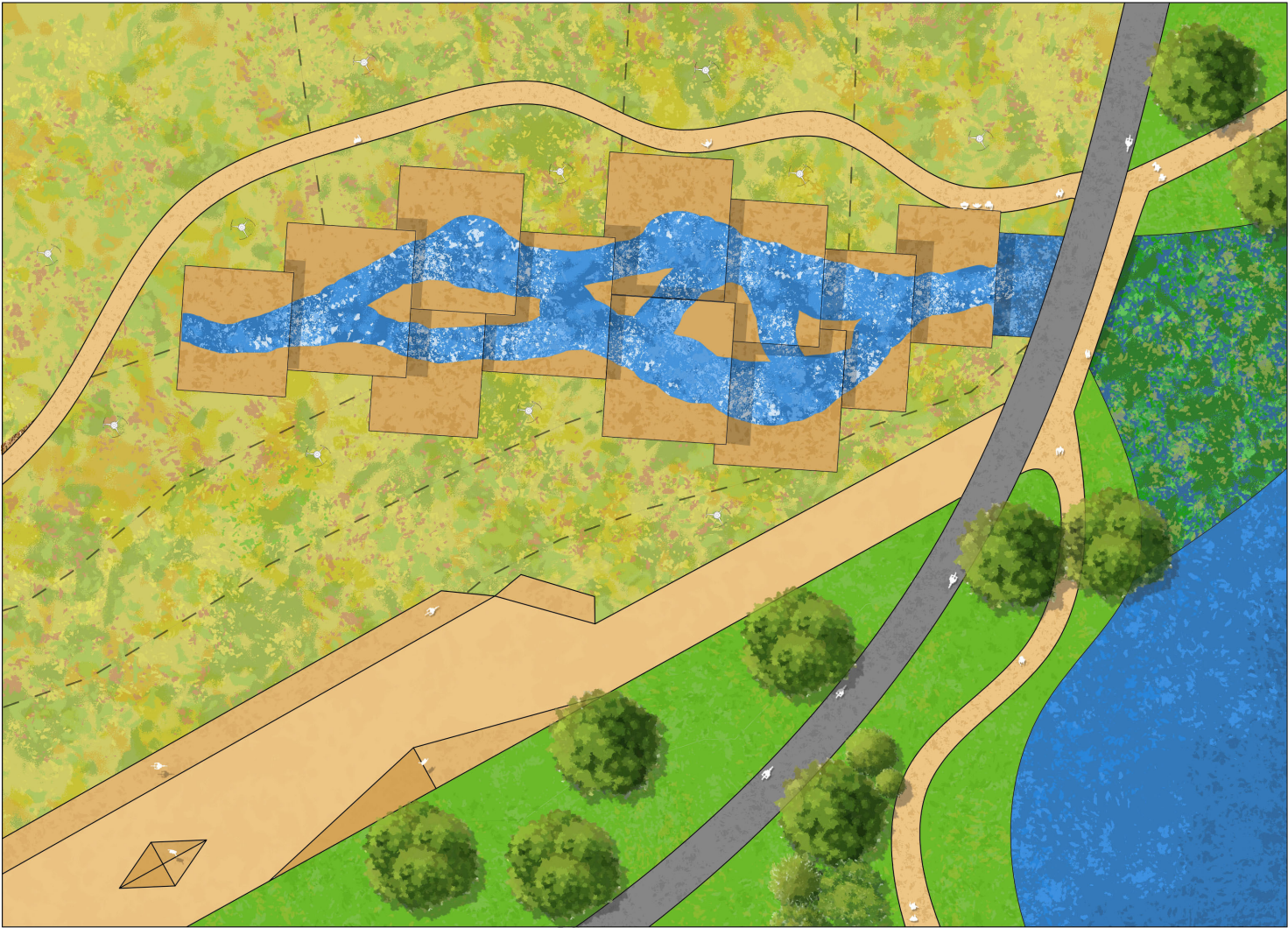
CIRCULATION DIAGRAM

ROADWAY, BIKE+WALK+SKATE TRAIL NETWORK



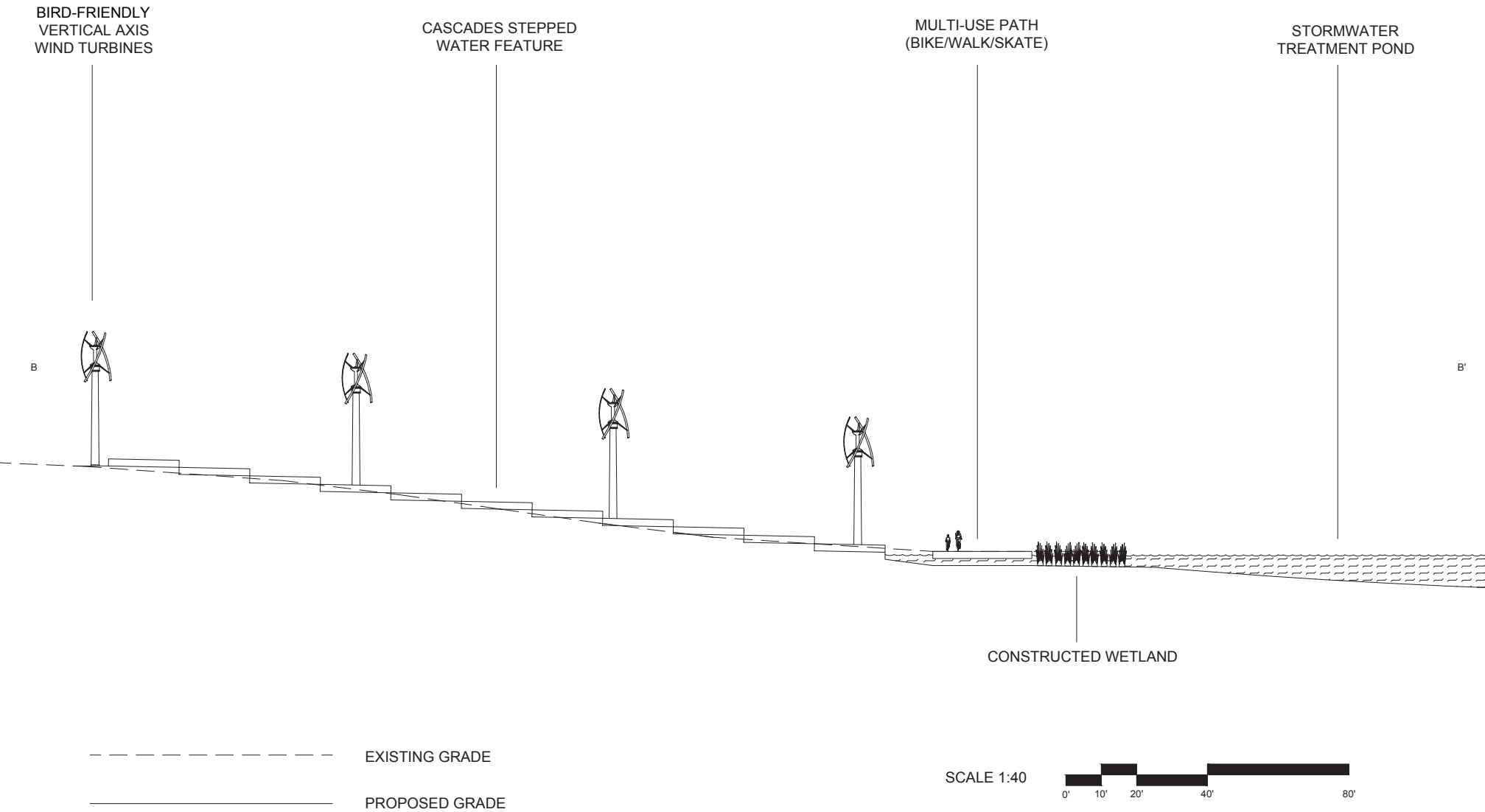
SITE MASTERPLAN
PROGRAM & CIRCULATION





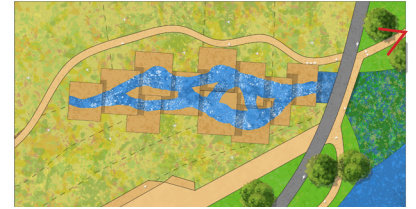
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0' 10' 20' 40' 80'

LAYER CASCADES
ENTRANCE SEQUENCE & STORMWATER TREATMENT BASIN



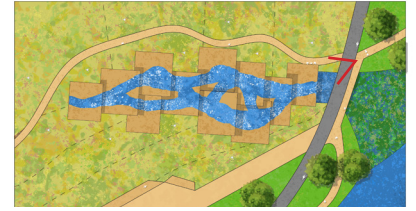
LAYER CASCADES

ENTRANCE SEQUENCE & STORMWATER TREATMENT BASIN



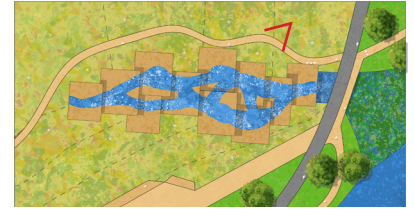
LAYER CASCADES

ENTRANCE SEQUENCE & STORMWATER TREATMENT BASIN

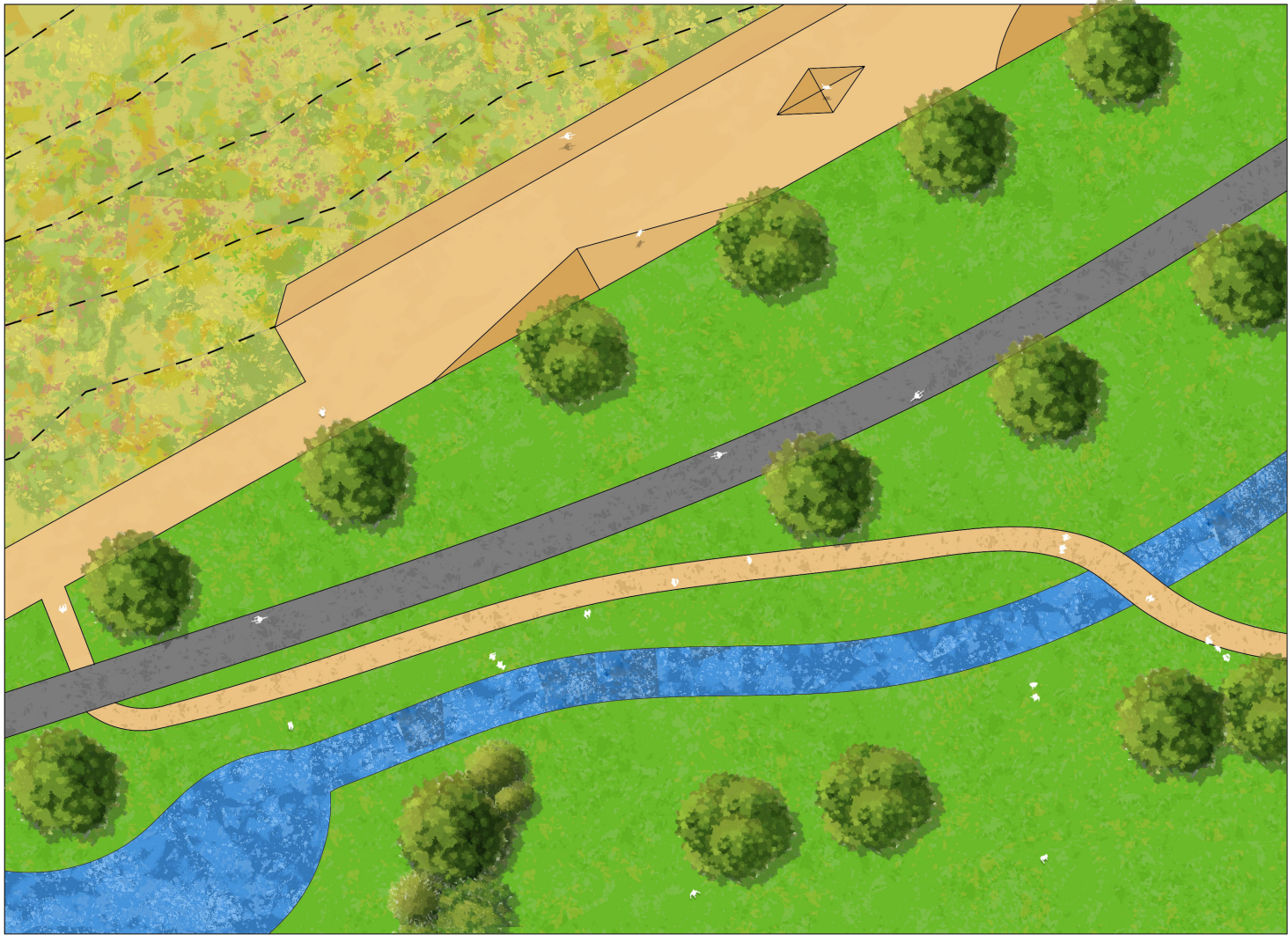


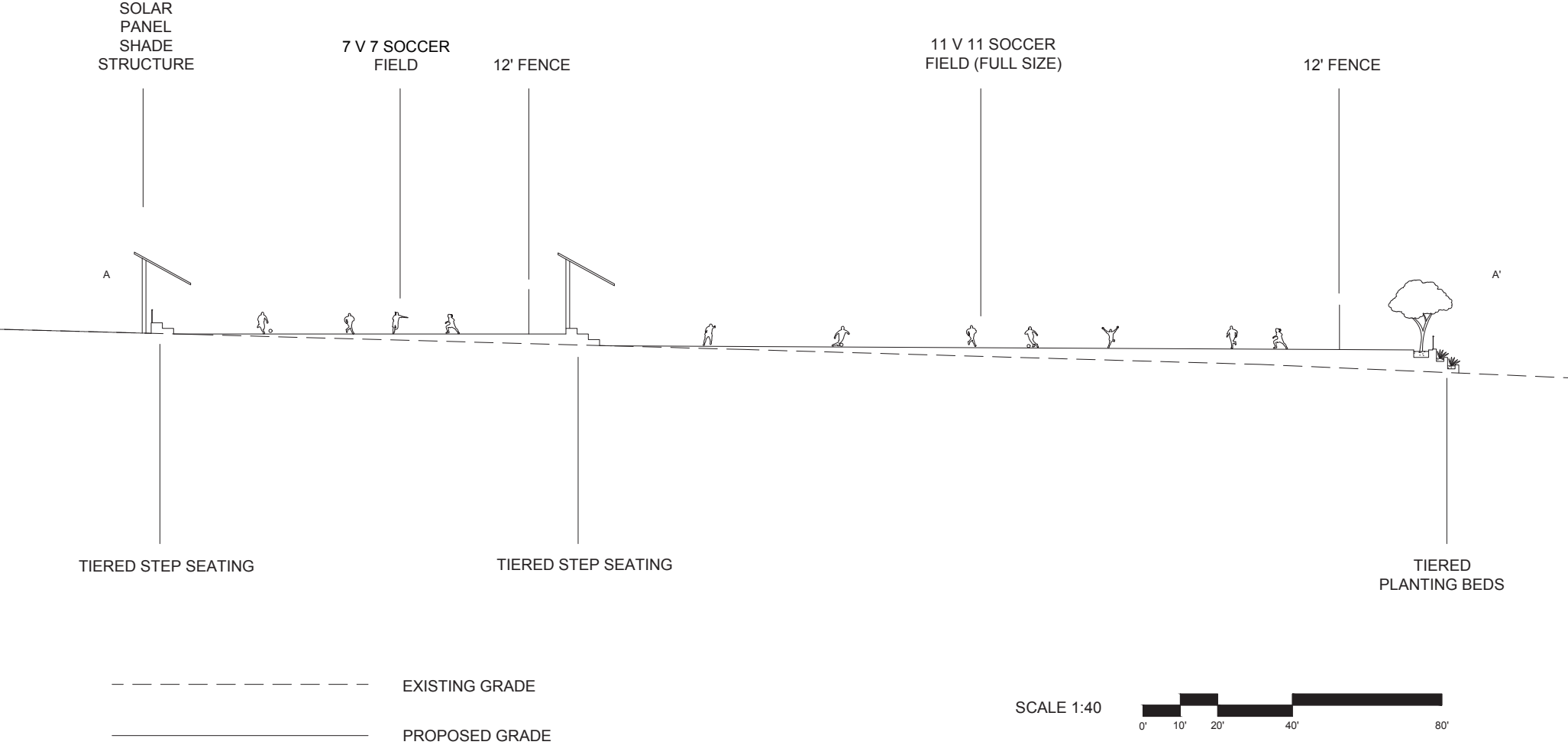
LAYER CASCADES

ENTRANCE SEQUENCE & STORMWATER TREATMENT BASIN

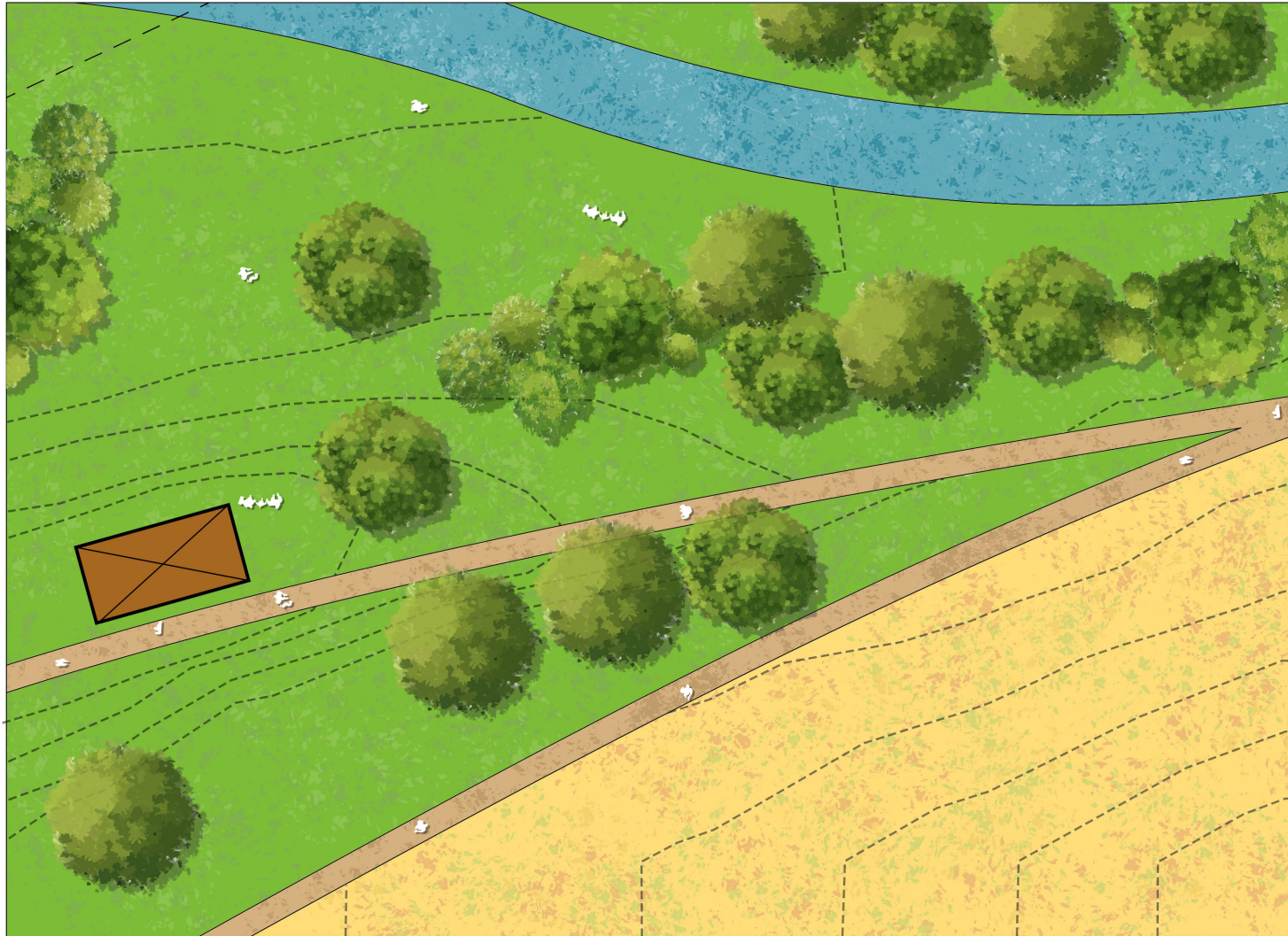


STREAM PARK & SKATE TRAIL
RE-CIRCULATING WATER FROM POND TO CASCADES

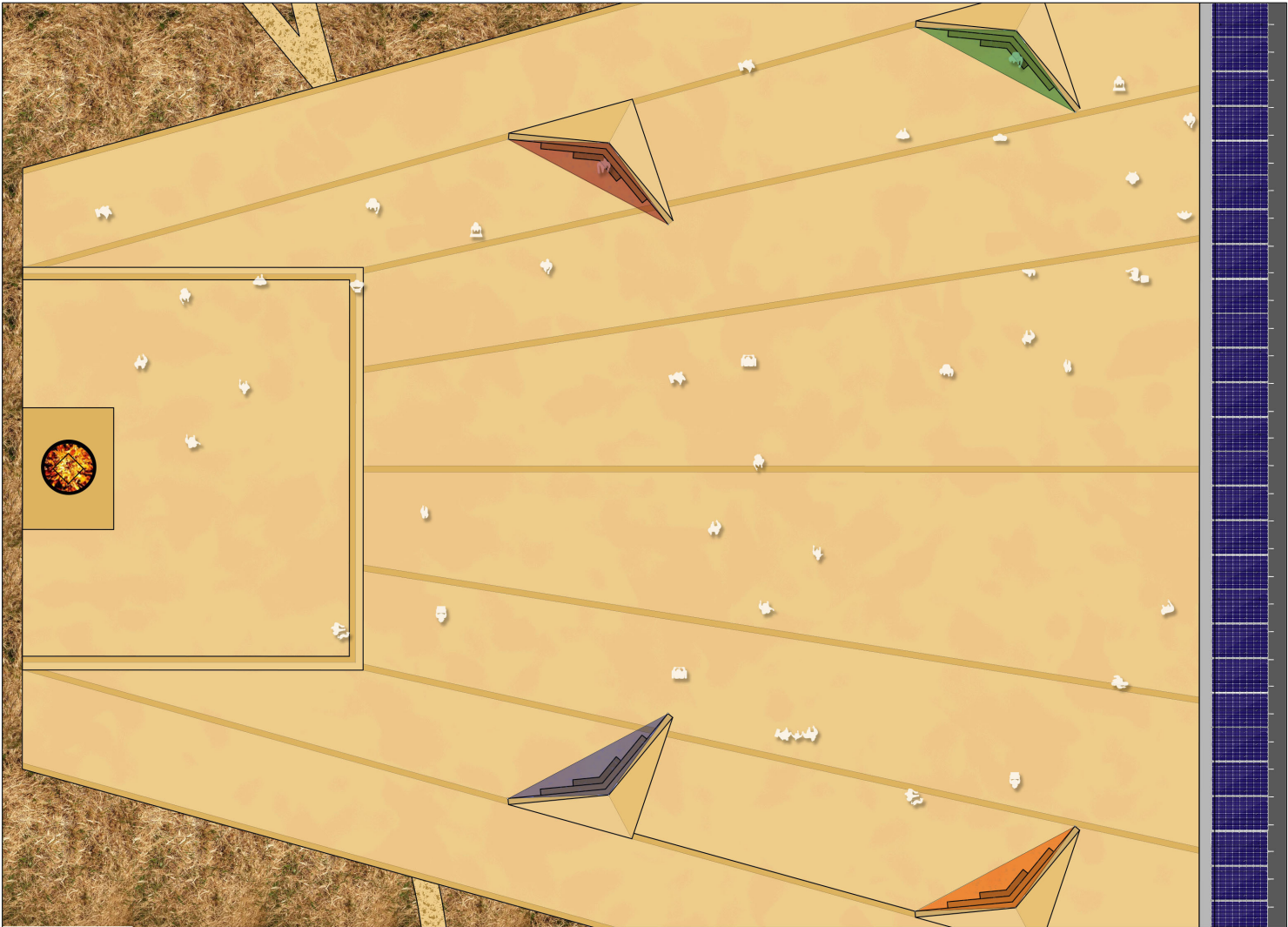




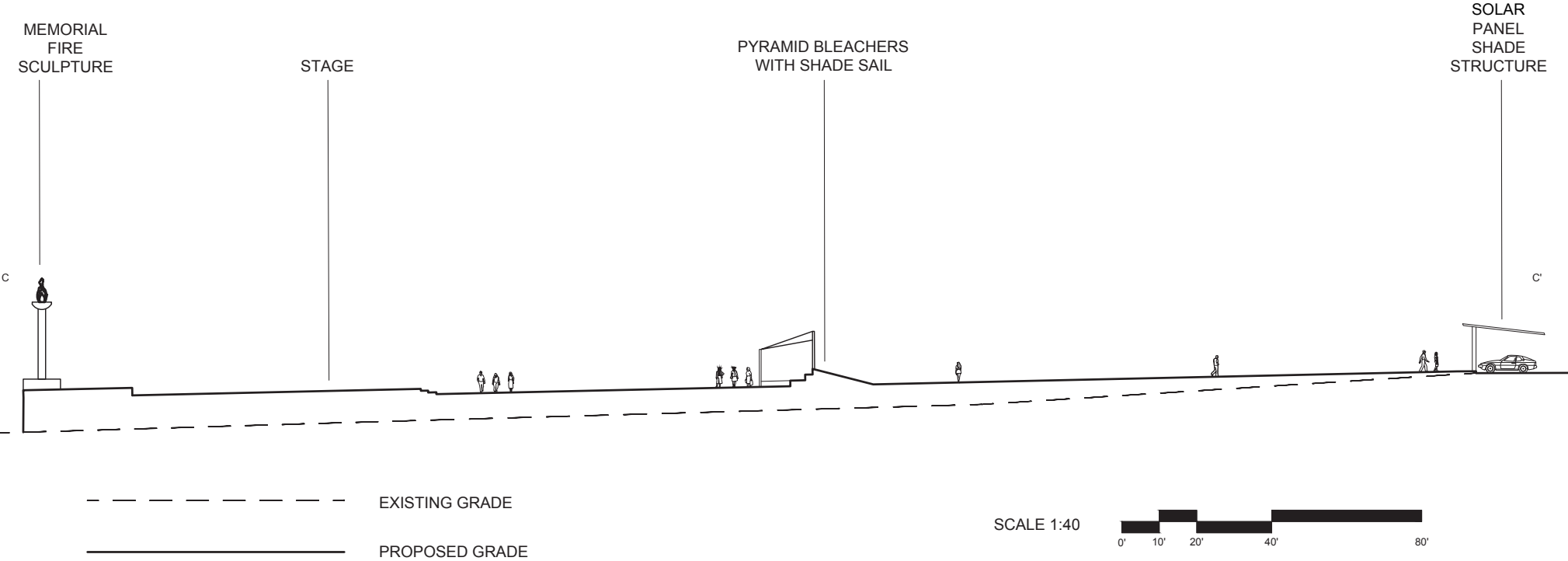




1:40
0' 10' 20' 40' 80'

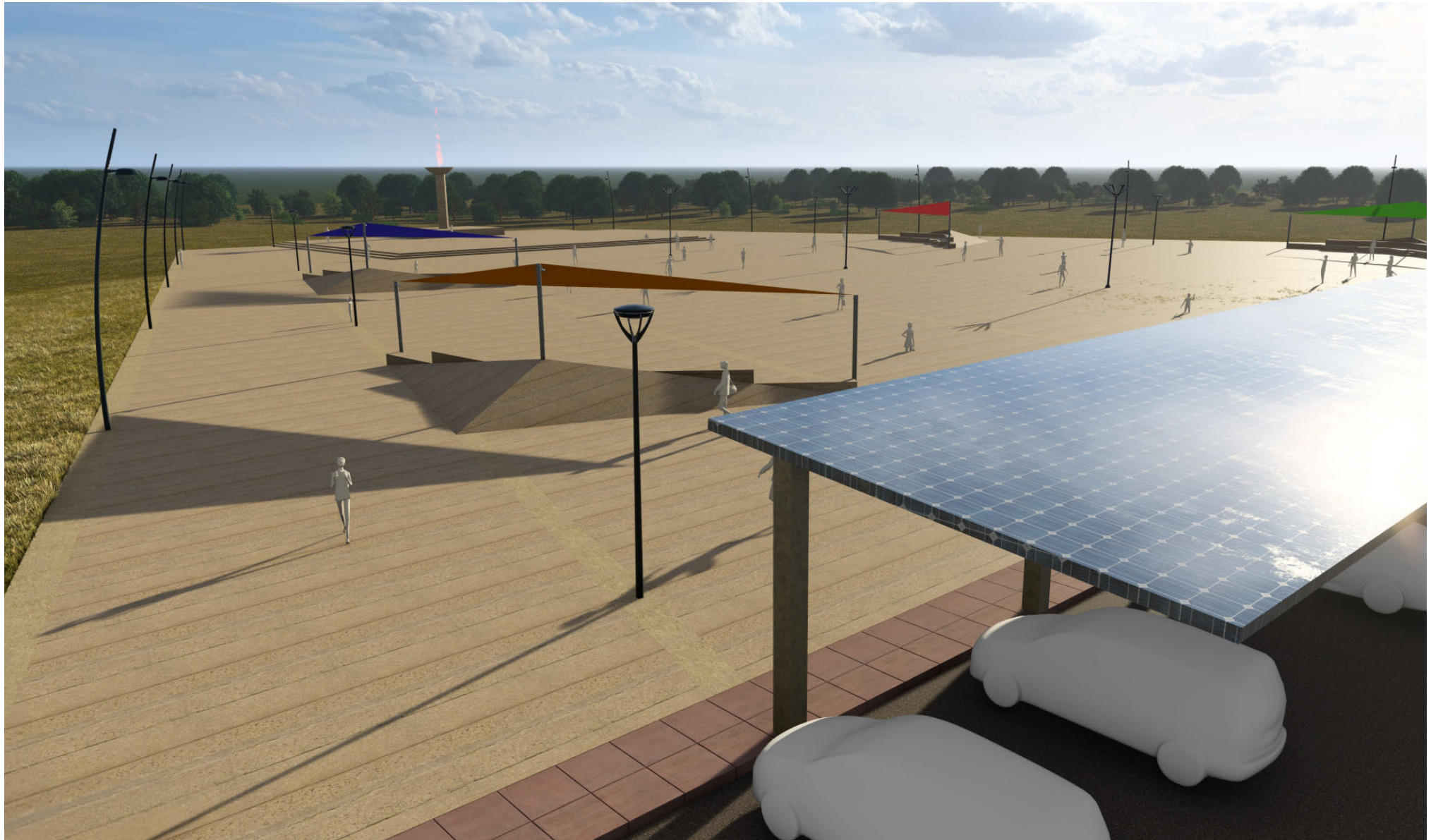


1: 40
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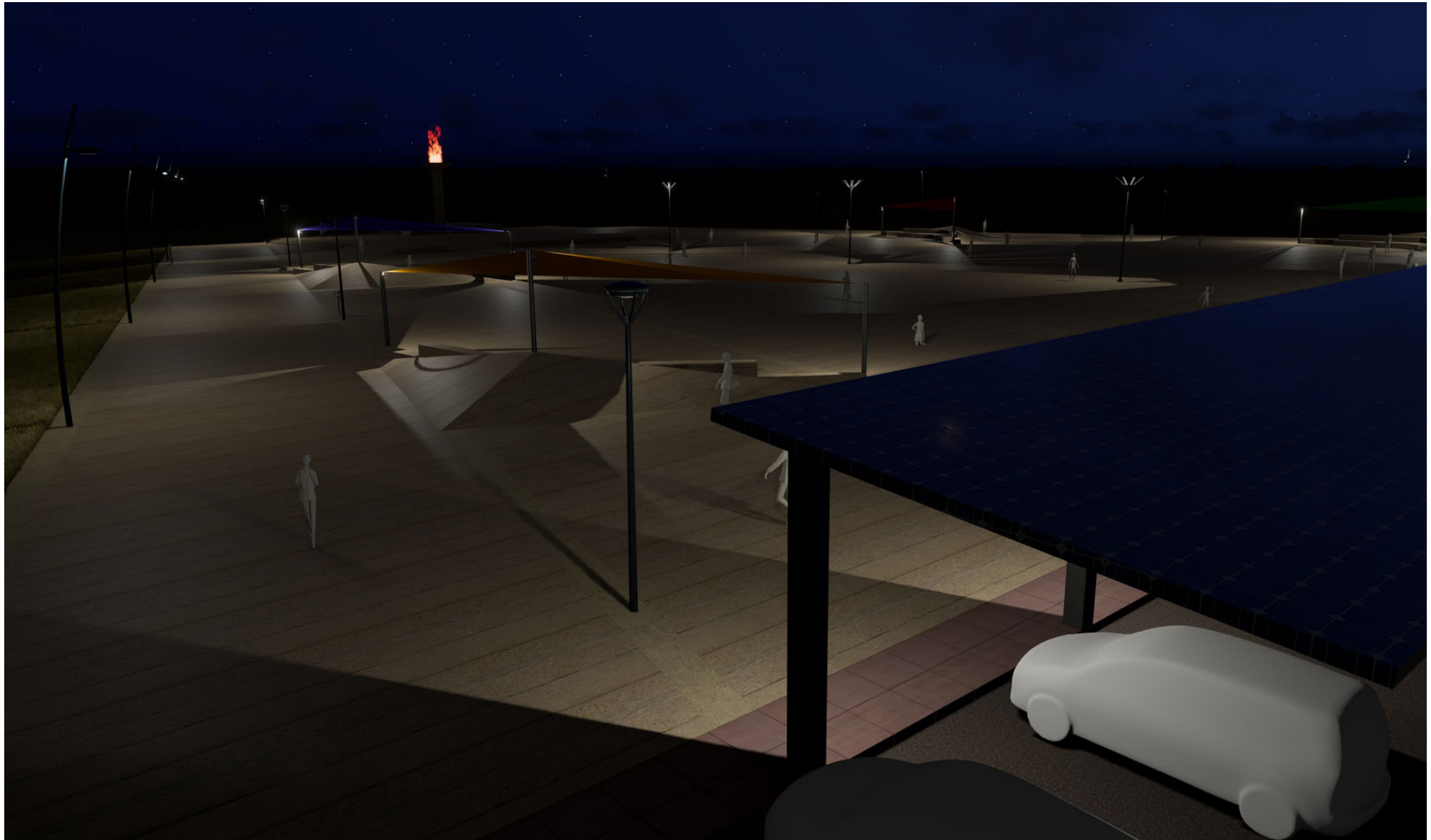
VALLEY VIEW MONUMENT PLAZA

DAYTIME OVERVIEW



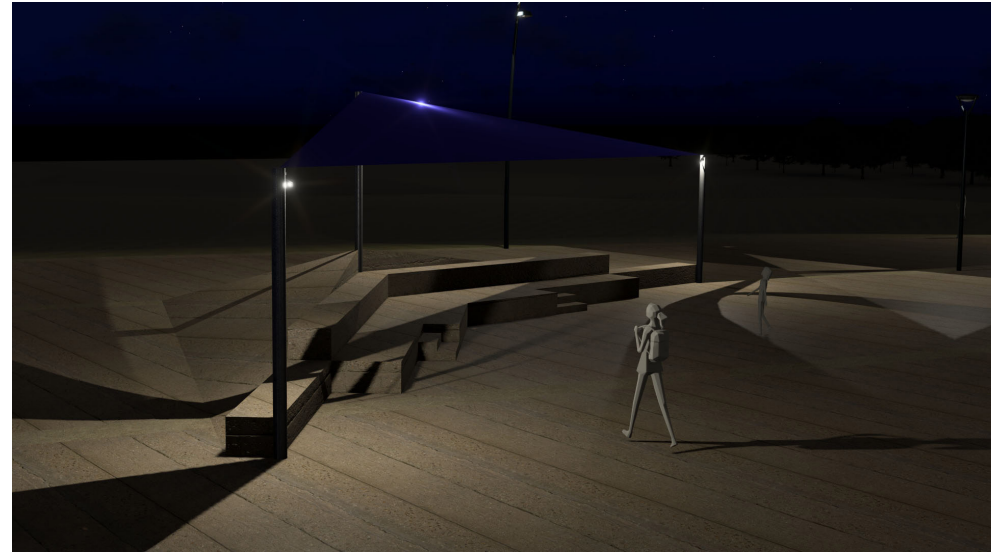
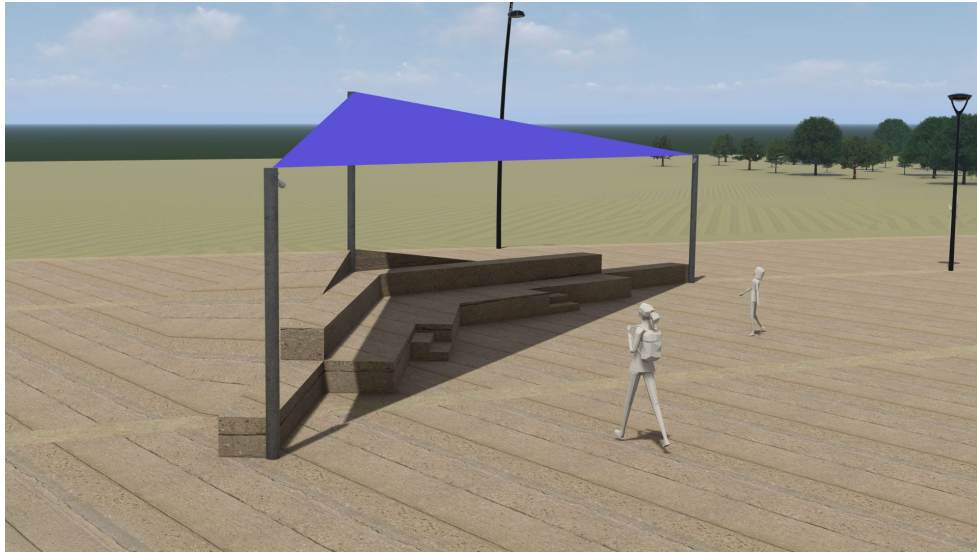
VALLEY VIEW MONUMENT PLAZA

NIGHTTIME OVERVIEW



VALLEY VIEW MONUMENT PLAZA

PYRAMID BLEACHERS DAY VS. NIGHT



VALLEY VIEW AT SUNDOWN

