

9/8/2023

BASTROP FLOODPLAIN PARK

UPDATE CONCEPT DEVELOPMENT

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REQUIREMENTS

- Minimal construction invasiveness to flood plain zone
- Keep out of adjacent utility easements
- Maintain adjacency to completed designs and ensure good tie-in
- Mindful flood plain design
- Maximize usable area for amenities to Bastrop development



CONCEPT

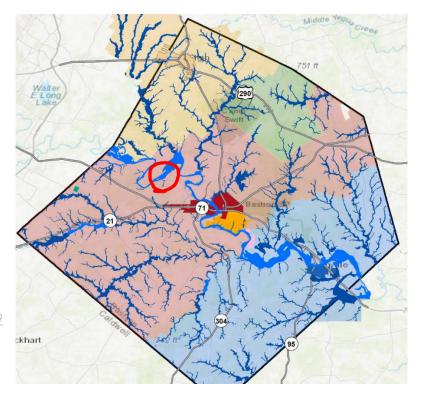
Flood-Able Park

- Communal and recreational spaces that are intentionally designed to be flooded with minimal damage during storm or flood events.
- Maintenance:
 - Post flood conditions drops sediment and sand from the water column, requiring need to remove from the park.
- Materials:
 - Pervious, floodable, and water friendly
 - Well drained and secure to primary soil
- Terrain:
 - Use minimal berms, soil deposits, and create islands for visual interest, and water slowing during flooding.



FLOODZONE INFORMATION

- FEMA defined "AE" Flood zone
 - "AE Flood Zones are areas that present a 1% annual chance of flooding and a 26% chance over the life of a 30-year mortgage"
 - "The base floodplain where base flood elevations are provided. AE zones are now used on the new format FIRMs instead of A1-A30 zones."
 - "Structures built in the SFHA are subject to damage by rising waters and floating debris. Moving flood water exerts pressure on everything in its path and causes erosion of soil and solid objects. Utility systems, if not elevated above base flood elevation may also be damaged.
 - Colorado River near at Bastrop, Bastrop County, Texas reached an overflow elevation of 57.0 feet in June 0f 1935. <u>The average peak flow for</u> the Colorado River is 19.3 feet at this site.
- https://www.cityofbastrop.org/page/plan.floodplainmanagement
- https://fema.maps.arcgis.com/apps/webappviewer/index.html?id=e7a7dc3ebd7f4ad39 bb8e485bb64ce44





FLOOD PLAINS - PLANNING THE FLOOD

- 1 year flood target (18'-0")
- 50 year flood target (25'-0")
- 100 year flood target (floodway)
 - Fast moving water
 - Debris, 1-5 days a year
 - Depends on nearby dams, rainwater, and water usage







QUESTIONS FOR US / AHJ

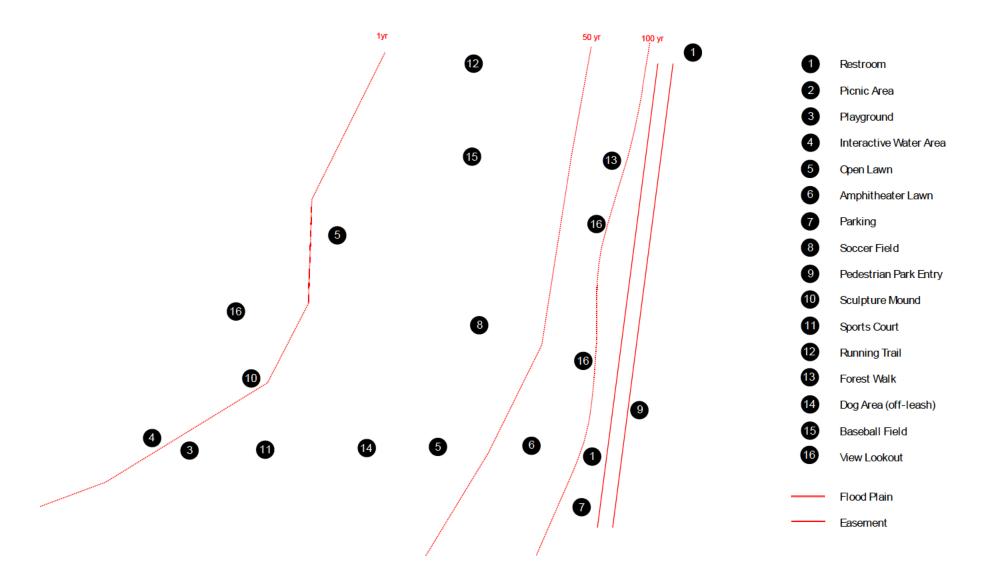
- Grading / Foundations / Retaining walls
- Published flood heights (if any)
- Solar Lights
- Fences
- Maintenance
- Turf / Grass / Irrigation
- Operations / Demographic
- Elevated walkways / areas
- River Access
- Public Access

CONFIRMED

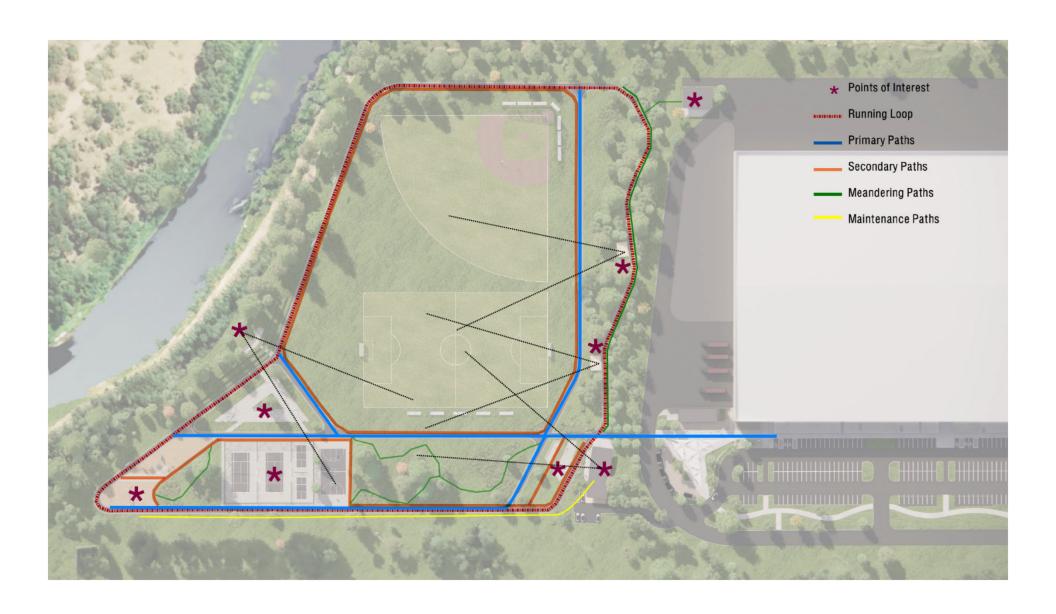
- NO Infrastructure (power, sewer)
- NO habitable structures within floodway

































CASE STUDIES



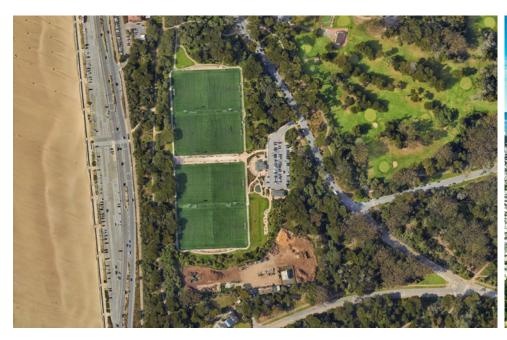
FENG RIVER ECO-PARK







GOLDEN GATE PARK







PARQUE RACHEL DE QUEIROZ













SOUTH WETLANDS PARK







LUUWIT VIEW PARK





PLAYA VISTA PARK







STADIUM PARK AND CHEVRON PARKLANDS



