

TRAIL PLAN DESIGN CONSIDERATIONS

The purpose of this document is to provide guidance on the most common aspects encountered when proposing a trail in District Rights of Way (R/W). It should be understood that this document is not all encompassing and is subject to change.

Trail Path

As approved by the District, improvements to a District facility shall allow for use and access by District maintenance staff using equipment necessary to maintain the flood control facility. At a minimum, the following shall be provided:

- All trail paths shall provide a 15-foot wide drivable access route (can be a combination of an unpaved walking path and paved bike lane) and be constructed using material such as concrete, asphalt, decomposed granite or 1-inch x No. 4 coarse aggregate as per Section 90-1.02C(4)(b) of the Caltrans Specifications
- All trail paths shall be kept free and clear of any and all encumbrances including signs, light fixtures, irrigation, landscaping, and trail amenities (benches, shade structures, trash receptacles, fitness centers, etc.).
- All trail paths shall be maintained throughout the length of trail
- All paved trail surfaces shall be rated for HL 93 (H20) traffic loading. A soils (geotechnical) report for the recommended trail section shall be provided as part of the permit submittal packet.

Trail Access

- Access to the trail shall be controlled at the entrances through the use of a gate (pipe: District Standard M820, chain-link: District Standard M801, custom) or removable bollards. Other requirements that may apply include:
 - Turning radius simulations shall be considered in the design to ensure the District will be able to perform ingress/egress safely.
 - Turnarounds per District standards may have to be incorporated in the design of trails to facilitate easy access for District equipment to maintain the flood control facility.
- Signs prohibiting the use of electric and motorized vehicles (e.g., electric bikes, electric scooters, mopeds, ATVs, dirt bikes, etc.) shall be posted at trail entrances except for class 1 and 2 electric bicycles per State Assembly Bill 1096 which are permitted.

Fencing

Some trails may require fencing along the top slope of channel due to safety concerns related to drops from steep or vertical channel slopes.

- Use of chain-link fence (District Standard M801) or cable railing fence (Caltrans Standard) shall be implemented when needed for public safety purposes
- Where safety is not a concern, fencing for decorative purposes (e.g., corral fencing) may be allowed as approved by the District.
- Fence heights need to be considered for the type of use (safety vs. decorative) but should also consider potential channel maintenance needs and restrictions such as when maintenance of the channel can only be performed from the access road/ top of slope (i.e., earthen channel with restricted conservation area at the invert), as there may be certain height restrictions to allow equipment to reach over a proposed fence.

- Homes that abut the Trail shall have a fencing separating the yard and the Trail on the property line

Safety Devices

All safety devices requested by District during the course of the project, including but not limited to concrete pads, slope protection barriers, signage and fencing, shall be purchased and installed by Contractor, and subject to the District's inspection and approval.

Landscaping

Landscaping in District rights of way (R/W) (including easements) shall exclude any and all trees and woody vegetation mainly due to invasive tree roots that can damage drainage infrastructure including but not limited to channel side slopes and laterals.

- The District has developed a list of allowable plants for installation within the R/W that can be found [here](#).
- An Applicant may propose vegetation that is not on the pre-approved plant list subject to District review and approval. The plants should fall into the category of groundcover, grasses, or shrubs, be non-woody, and preferably be native and drought tolerant.
- For plants not part of the pre-approved list, characteristics such as max height, max width, root details (aggressive/ non aggressive), native habitat, etc., should be provided in the plan set to help facilitate review for conformance to District and MSHCP criteria (where applicable).
- All landscape shall be properly maintained by public entity responsible for trail maintenance and kept out of the walkable/drivable path.

Utilities (Irrigation & Lighting)

Irrigation lines should be avoided within District Right of Way (R/W) when possible to prevent possible damage caused by a broken line.

- If irrigation lines need to be installed within the District R/W they should be placed as close to the property boundary as possible within the landscaped area and out of the walkable/ drivable trail path. Irrigation lines are not allowed within the flood control conveyance area or the access road limits.
- Irrigation lines within the District R/W should have a leak detection system in place to minimize damage to access roads due to a break.
- All laterals and related appurtenance (valves, bubblers, controls, etc.) shall be located outside the walkable/ drivable trail path.

Similar to irrigation lines, all electrical conduits should be placed outside the District R/W or as close to the property boundary as possible.

- All light fixtures, fixture overhang, pedestals, and related appurtenances (i.e., pull boxes) shall be kept out of the walkable/drivable path and outside the outer limits of the access roads. Any overhang shall maintain a vertical clearance of 30 feet above the walkable/drivable path for maintenance equipment clearance.

