





Hetch Hetchy Railroad Trail

Groveland Community Services District

 Proposed Hetch Hetchy Railroad Trail

 Future Phase to Big Oak Flat

 Pedestrian/Bike Bridge

 Parcel lines showing Right-of-Way

Future Sports Complex & Existing Ball Field and Dog Park

New Trailhead Amenities
 -Trailhead kiosk
 -Wayfinding signage
 -Bike Parking
 -Trash receptacles
 -Picnic Tables

New Bird Watching Benches

New Pedestrian Bridge over Creek

Connection path to Resilience Center

GCSO Offices
 -New Bike Parking
 -New Water Fountain

New Pedestrian Bridge
 Connection to Mary Laveroni Park and Downtown Groveland

New Pedestrian Bridge over Creek







New Paved Shared Use Path (width = 12 feet)

New Trailhead Amenities
 -Trailhead kiosk
 -Wayfinding signage
 -Bike parking
 -Trash receptacles
 -Interpretive signage

New Trailhead Amenities
 -Trailhead kiosk
 -Wayfinding signage
 -Trash receptacles

Future Phase to Big Oak Flat

Trail Amenities to be Included:

-  Bicycle Parking
-  Drinking Fountain
-  Trailhead Kiosk & Wayfinding Signage
-  New Trash Bins (18 total new bins)
-  Bird Watching & Trail Benches (18 total new benches)
-  Pathway Lighting (54 total light fixtures)

0 500 1,000 ft



Hetch Hetchy Railroad Trail

Parcel and Right-of-Way Ownership Map

- Proposed Hetch Hetchy Railroad Trail
- Future Phase to Big Oak Flat
- Pedestrian/Bike Bridge
- Parcel and Right-of-Way Lines
- SFPUC Right-of-Way (GCSD has obtained letter of intent to purchase from SFPUC and is currently in escrow)
- Caltrans property (not used by Caltrans and GCSD has agreement with Caltrans for easement)
- GCSD controlled and owned parcels

Future Sports Complex & Existing Ball Field and Dog Park

Resilience Center

GCSD Offices

SFPUC Property
GCSD in escrow for purchase and has obtained letter of intent from SFPUC

Caltrans property
Easement agreement in place

MARY LAVERONI PARK
STATE ROUTE 120

DOWNTOWN GROVELAND

Future Phase to Big Oak Flat

0 500 1,000 ft



Existing Conditions



Proposed Design

Mary Laveroni Park

North

↑
to the
GCSD Offices &
Resilience Center

↓
to Deer Flat Road

Class 1 Multi-Use Path
Width : 12 ft



EXISTING CONDITIONS - MIDDLE BRIDGE



Location of middle pedestrian bridge beneath the GCSO office. A clear-span bridge (approx. 70 feet) with concrete abutments will be needed in approximately the location of the water and sewer crossing the creek. The bridge would also protect the exposed sewer/water pipes.

EXAMPLE BRIDGE RENDERING

RENDERING OF MIDDLE BRIDGE



EXISTING CONDITIONS

EXISTING CONDITIONS - MARY LAVERONI PARK TRAILHEAD KIOSK



Location of trailhead kiosk and HHRT entrance at Mary Laveroni Park near the western pedestrian bridge.

EXAMPLE KIOSK RENDERING

MARY LAVERONI PARK TRAILHEAD

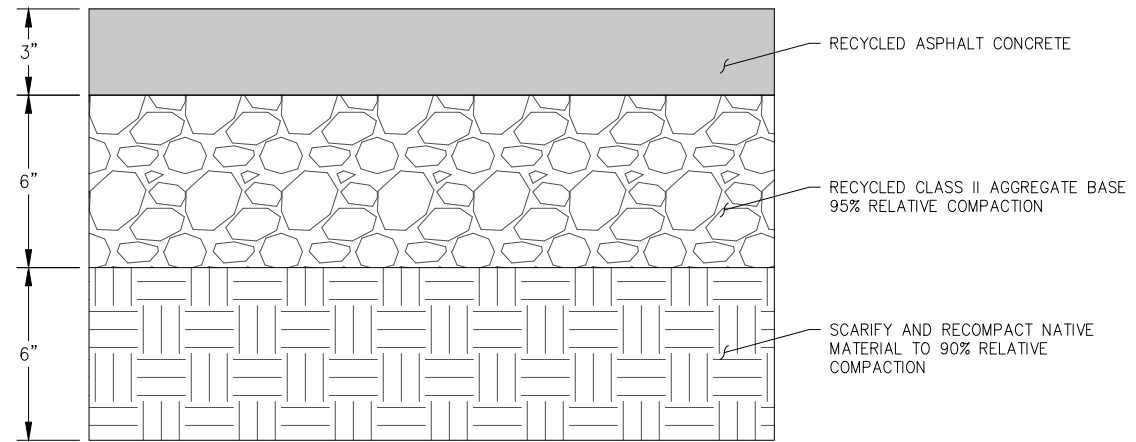


Groveland CSD
Hetch Hetchy Railroad Trail Project
Design Standards

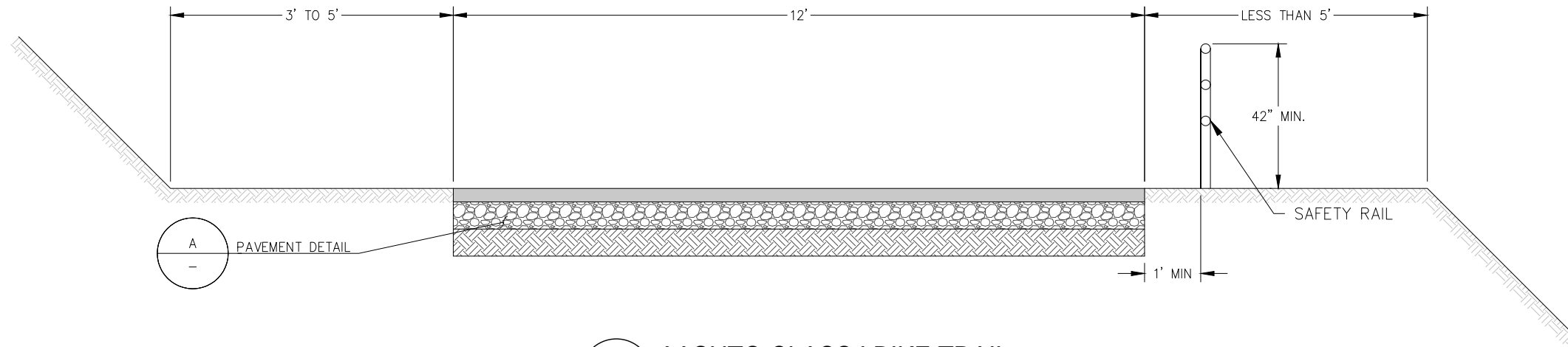
The park trails being proposed for the above referenced project were designed in accordance with AASHTO standards. The proposed park trail will be classified as a Class I multipurpose bike/pedestrian trail. Please see attached figure for specific design criteria that were utilized.

CONSTRUCTION NOTES

1. MULTIPURPOSE BIKE/PEDESTRIAN PATH, PER AASHTO STANDARDS, ARE RECOMMENDED TO BE 11' TO 14' WIDE.
 - 1.1. FOR THIS REASON, THE WIDTH OF PAVEMENT HAS BEEN SELECTED TO BE 12'.
2. PROPOSED ALIGNMENT WILL UTILIZE A MAXIMUM OF A 5% RUNNING SLOPE, WHERE FEASIBLE.
 - 2.1. IN AREAS WHERE RUNNING SLOPE EXCEED 5%, BUT NO HIGHER THAN 12%, REST LANDINGS WILL BE PROVIDED.
3. BIKE PATH SHALL UTILIZE A 2% MAXIMUM CROSS SLOPE.
 - 3.1. MINIMUM TRANSITION LENGTH OF 5' FOR EACH 1% CHANGE IN CROSS SLOPE.
4. SHOULDERS SHALL BE 5' WIDE WHERE FEASIBLE, BUT NO LESS THAN 3' WIDE.
 - 4.1. MAXIMUM CROSS-SLOPE OF 1V:6H.
5. AASHTO STANDARDS REQUIRE A MINIMUM PAVEMENT DEPTH OF 6", INCLUSIVE OF PAVEMENT AND AGGREGATE BASE:
 - 5.1. FOR THIS REASON 3" RECYCLED ASPHALT WILL BE PLACED ON TOP OF 6" OF CLASS II RECYCLED AGGREGATED BASE.



A PAVEMENT DETAIL
SCALE: N.T.S.

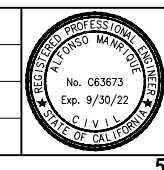


A AASHTO CLASS I BIKE TRAIL
SCALE: N.T.S.

REV	DATE	DESCRIPTION	APPR

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DESIGNED BY XX	PROJECT ENGINEER ALFONSO MANRIQUE
DRAWN BY XX	REG NUMBER C63673 EXP DATE 09/30/22
CHECKED BY AM	PROJECT NUMBER
DATE 4/7/2022	CADD STANDARDS



cm Consulting Engineers
5150 N. SIXTH ST SUITE 124, FRESNO, CA
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GROVELAND CSD
PARK TRAILS IMPROVEMENTS PROJECT
CLASS I MULTIPURPOSE BIKE TRAIL DESIGN STANDARDS

DRAWING C-01
SHEET 1
OF 1 SHEETS