

# Floodwalls and channel A C Floodwalls and channel improvements (completed)

Permanente Creek Flood Protection Project





The Permanente Creek Flood Protection Project will provide natural flood protection for Mountain View and Los Altos, create recreational opportunities and enhance the environment. This project is funded by the countywide Safe, Clean Water and Natural Flood Protection Program parcel tax passed by voters in November 2012.

The four project elements:

- A Floodwalls and levees north of U.S. Highway 101 (completed)
- Flood detention area at City of Mountain View's McKelvey Park
- C Widening and deepening of existing channels along Permanente and Hale Creeks (completed)
- Flood detention areas at County of Santa Clara's Rancho San Antonio Park

### **Questions?**

valleywater.org/permanente-creek (408) 755-0333

### **A** Floodwalls

The project constructed 2 to 3 foot floodwalls on top of the existing Permanente Creek levees from Charleston Road to U.S. Highway 101. Floodwalls are concrete walls that increase the creek bank height, therefore increasing the creek capacity to accommodate waters from a 100-year flood.\*

## **©** Channel improvements

The project widened and deepened Permanente Creek from Mountain View Avenue to Valencia Avenue, including 600 feet of Hale Creek where it feeds into Permanente Creek. The Mountain View Avenue culvert on Hale Creek was replaced to accommodate waters from a 100-year flood.\*

These areas of Permanente Creek are densely developed and there is limited space, making floodwalls and channel improvements the best options. The floodwalls and channel improvements work in conjunction with the two detention areas at McKelvey Park and Rancho San Antonio County Park.

\* 100-year flood is a flood that has a 1 percent chance of occurring in any given year.

### **Features**

- Channel modifications from Mountain View Avenue to Valencia Avenue
- Floodwalls with an average height of 2 to 3 feet on top of the existing Permanente Creek levees from Charleston Road to U.S. Highway 101 (with upstream detention)
- New culvert at Mountain View Avenue

- Provides flood protection for thousands of households and businesses in Mountain View and Los Altos, saving residents thousands of dollars on flood insurance each year
- Fits in with densely developed urban areas
- Low maintenance costs

# A Floodwalls map



## **G** Channel improvements map







# What to expect during construction

Construction of the floodwalls and channel improvements began August 2017 near Amphitheatre Parkway and were completed at the end of 2018. Valley Water and cities of Mountain View and Los Altos worked together to minimize construction impacts as much as practical and in accordance with city ordinances. Thank you for your patience as we completed this important flood protection project.

- Regular work hours are 7:30 a.m. to 4 p.m., Monday through Friday, excluding legal holidays.
- Construction will take place on various parts of Permanente Creek's west bank trail from Amphitheatre Parkway to U.S. Highway 101. The trail will be closed during construction. Temporary fencing and signs will be used to re-direct foot traffic.
- Construction between Mountain View Avenue and Valencia Avenue will take place within the creek.
- Mountain View Avenue, between Raymundo Avenue and Arroyo Road, will be closed to traffic while the culvert is being replaced. Signs and barricades will be provided to control traffic.
- Safety of the community and our employees is our priority. Barricades, railings, lights, fences and other warning devices will be used for the greatest public safety and convenience.

# What is a floodwall?

A floodwall is an artificial barrier, usually made of concrete, that is designed to increase the capacity of a creek to contain water during high flow events and prevent flooding. Floodwalls are mainly used in locations where space is scarce, such as urban environments with many buildings and limited right-of-way.

The two renderings on the right show the creek's previous condition and current creek looking south.

The city of Mountain View completed the inboard floodwall along the east side of the creek.

Valley Water built an outboard floodwall along the west side of the creek, which means it was placed on the outside of the trail (not shown).

Note: The rendering shows an inboard floodwall.



