

Cate School Corp. Bank Stabilization and Fish Passage Restoration Project

Carpinteria, California

PROJECT

Fish Barrier Removal Project
and
Bank Stabilization Project
Carpinteria Creek
Carpinteria, CA 93013

CONTACT

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TIMING

Project Began:
September 2008

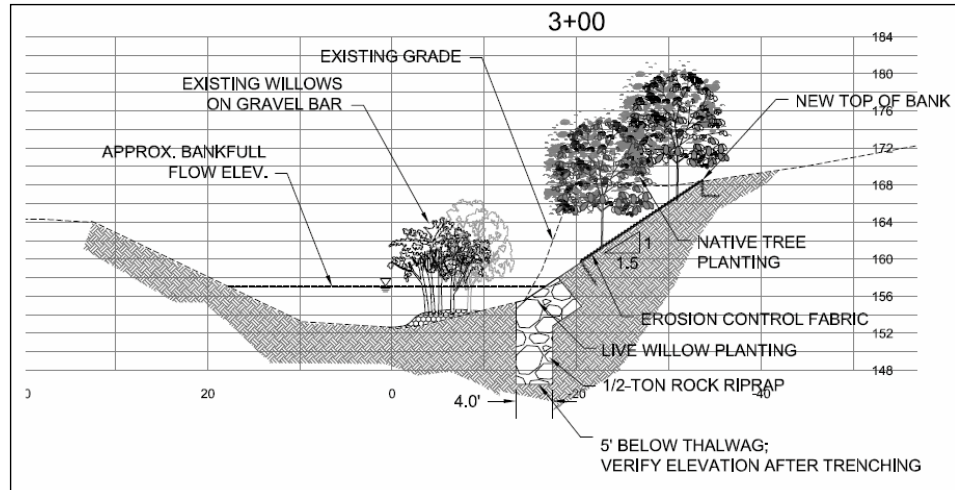
Project Completion Estimate:
December 2008

FUNDING

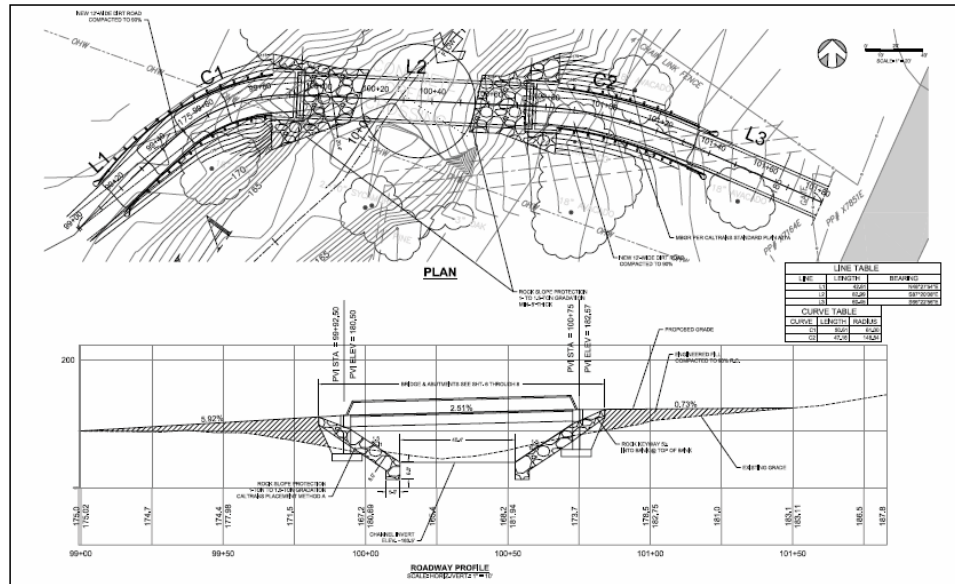
CA Dept. of Fish and Game
CA Coastal Conservancy

HIGHLIGHTS

Creek Restoration
Fish Passage Enhancement
Bank Protection and Stabilization
Native Riparian Plantings



Design above shows one treatment to be implemented at a location of a nearly vertical bank.



Design above shows plan and profile views of new clear span bridge to be installed.

Project Summary:

South Coast Habitat Restoration (SCHR) secured funding from the Coastal Conservancy for the development of the engineered designs at the Cate School site for the purpose of protecting approximately 400 linear feet of unstable creek bank as well as the removal of a low flow crossing and replacement with a clear spanning bridge.

SCHR also secured permits from all necessary regulatory agencies and secured funding for the implementation of the project from the Coastal Conservancy and other funding sources.

Project Details:

The goal of the project is to improve steelhead habitat, water quality, and streambank conditions in the Carpinteria Creek watershed along the main stem of Carpinteria Creek in Santa Barbara County. The location is at the Cate School Property (Cate) on Lillingston Canyon Rd.

The following paragraphs cover the planning and construction details for the project. The principal components of this work plan include

- Removal of a low flow crossing at Cate
- Biotechnical technical bank stabilization at crossing site and another downstream site
- Regrading of the creek
- Implementation of streambank stabilization and associated native plant restoration
- Improved fish passage opportunities
- Biological monitoring before, during and after project

Site description and project objectives

The Carpinteria Creek watershed is located in coastal Santa Barbara County, about 10 miles southeast of the City of Santa Barbara and 16 miles northwest of the City of Ventura. The proposed site is located on Carpinteria Creek; it is a low flow stream crossing owned by the Cate School Corporation.

The primary vegetation communities along the project site is riparian woodland and riparian scrub. Native trees are predominantly western sycamore and coast live oak, but also include arroyo willow and black cottonwood. The creekbanks and understory are a mixture of native and non-native species, with natives such as Giant Rye Grass and Horsetail present. Non-natives present at both sites are cape ivy, fennel and periwinkle. Southern California steelhead trout (*Oncorhynchus mykiss*) resides in the Creek, and the site has the potential as habitat for southwestern willow flycatcher, which has been observed in migration along lower reaches of the creek. The coast range newt (*Taricha torosa ssp. Torosa*), a California species of concern, may also be present.

Cate School property project description

The Cate School project consists of a biotechnical bank stabilization project to address an area of 300 feet of eroding banks and the removal of a low flow crossing, BR_CA_5, which spans the stream channel in a shallow U-shape.

Bank Stabilization

Project consists of the protection of steep vertical banks by implementing biotechnical bank stabilization measures such as root wad structures and willow trenching. Project will act as a demonstration project to other property owners in the Carpinteria Valley as well as around the South Coast of Santa Barbara County. Project would decrease the amount of unnatural sediment flowing into the creek as well as increase the habitat quality along this portion of the creek.

Road Crossing

The concrete crossing is 33 feet wide and approximately 76 feet across the creek. The Steelhead Assessment and Recovery report noted that undercutting of the crossing has created a four-foot vertical jump. According to the study, the crossing creates an “extremely high to impassable” barrier for upstream migration, and is important for recovery of the Carpinteria Creek’s steelhead population. The removal of this barrier to fish passage on Carpinteria Creek will allow steelhead to migrate approximately 1,267 feet through habitat rated moderate by the report to the next barrier BR_CA_6.



Cate School – Typical Area for Bank Stabilization



Low flow road crossing at Cate School

Designs call for the removal of the crossing, regrading of the creek and replacement with a prefabricated bridge. Because of scouring that has eroded the edges of the crossing, the structure is on the verge of failure and presents a hazard to vehicle passage as well as to downstream property during flood flows. The crossing provides the landowner's only available access to the other half of its property.