Culver Boulevard Realignment and Stormwater Capture Project, Culver City



Project Description

The Culver Boulevard Realignment and Stormwater Capture Project is a combined initiative of a Road Realignment and Stormwater Capture Project. A stormwater capture facility was integrated into a road realignment with additional green street enhancements.

The **Road Realignment** continues the widening of Culver Boulevard that was initiated by Caltrans in 2009 as part of the widening improvements to the 405 Freeway. The Road realignment resolves traffic issues, improves pedestrian safety and bicycle mobility, and enhances aesthetics along Culver Boulevard from Elenda Street to Sepulveda Boulevard.

The **Stormwater Capture Facility** site was identified in the Ballona Creek Enhanced Watershed Management Plan (EWMP) as one of the top projects to address compliance with water quality regulations. The Culver Boulevard site will provide significant water quality benefits for both Culver City and other jurisdictions within the watershed due to the tributary drainage area, location of adjacent storm drains, and available development space.

As a major step towards implementing the EWMP, Culver City designed and implemented the regional stormwater capture facility within the Culver Boulevard median. The primary design goal of the Culver Boulevard stormwater facility was to reduce long term annual loading of pollutants to Ballona Creek from its .

CLIENT

City of Culver City

LOCATION

Culver Boulevard from Sepulveda Boulevard to Elenda Street

PROJECT TEAM

<u>Design Team</u>

Tetra Tech, Civil Design Craftwater Engineering, Stormwater SWA, Landscape Architect

Construction Team

Michael Baker, Construction Mgt Ortiz Construction, Contractor

PROJECT COST AND FUNDING

\$18.2 Million (Construction Cost),

Funded by LA Metro, Caltrans, California Proposition 1 & Proposition 84 Grants, City of Culver City and City of Beverly Hills Partnership Agreement

CITY CONTACT

Yanni Demitri, Public Works Director and City Engineer

Sean Singletary, Environmental Programs Manager

Mate Gaspar, Engineering Services Manager

The existing utilities, geotechnical conditions, hydrology, and water quality were first characterized, followed by an optimization analysis of cost-effective solutions. The following summarizes the recommended configuration:

- A 10' high underground storage reservoir (8 acre-feet or 2.6 million gallons in volume)
- 25 cfs gravity diversion from Harter Ave drain (BI 2901-U2 Line B)
- 25 cfs gravity diversion from Sepulveda Boulevard drain (Culver City Drain Unit 4 Line A)
- 5.76 cfs maximum discharge rate with filtration and subsequent return to the Harter Ave drain





	Description	Quantity
No. Contraction of the second s	Drainage Area (acres)	796 acres (297 acres Culver City)
	Diversion Rate (cfs)	25 cfs (Harter Ave Drain) 25 cfs (Sepulveda Blvd Drain)
Sepulveda Bird. Drainage Area 641 acres, 23% within Culver City	Storm Water Capture Storage Volume (acre-feet)	8.01 AF
Drainage Area	Storm Water Treatment Volume (acre-feet)	11.42 AF
Sepulveda Blvd	Total Stormwater Capture (acre-feet)	19.43 AF
Drainage Area	Average Annual Runoff Capture Volume (acre- feet)	187 AF/year
	Average Annual Zinc Load Reduction (lbs)	82 lbs/year

CULVER BOULEVARD MEDIAN AT SEPULVEDA RETAINING WALL AND BERMING CONCEPT





Project Description



Road Realignment and Landscaping





Stormwater Capture Facility, Site Layout

