Project Type: Street Retrofit

Project Approach: Strategic

Site Design Strategies Used: Efficient site design, balanced parking, surface stormwater conveyance, and additional tree canopy

Stormwater Facility Strategies Used: Stormwater curb extensions

SOURCE: NEVUE NGAN ASSOCIATES

Figure 6-29: *The new stormwater curb extension will convert approximately three on-street parallel parking stalls into a landscape stormwater system.*

SOURCE: GOOGLE EARTH

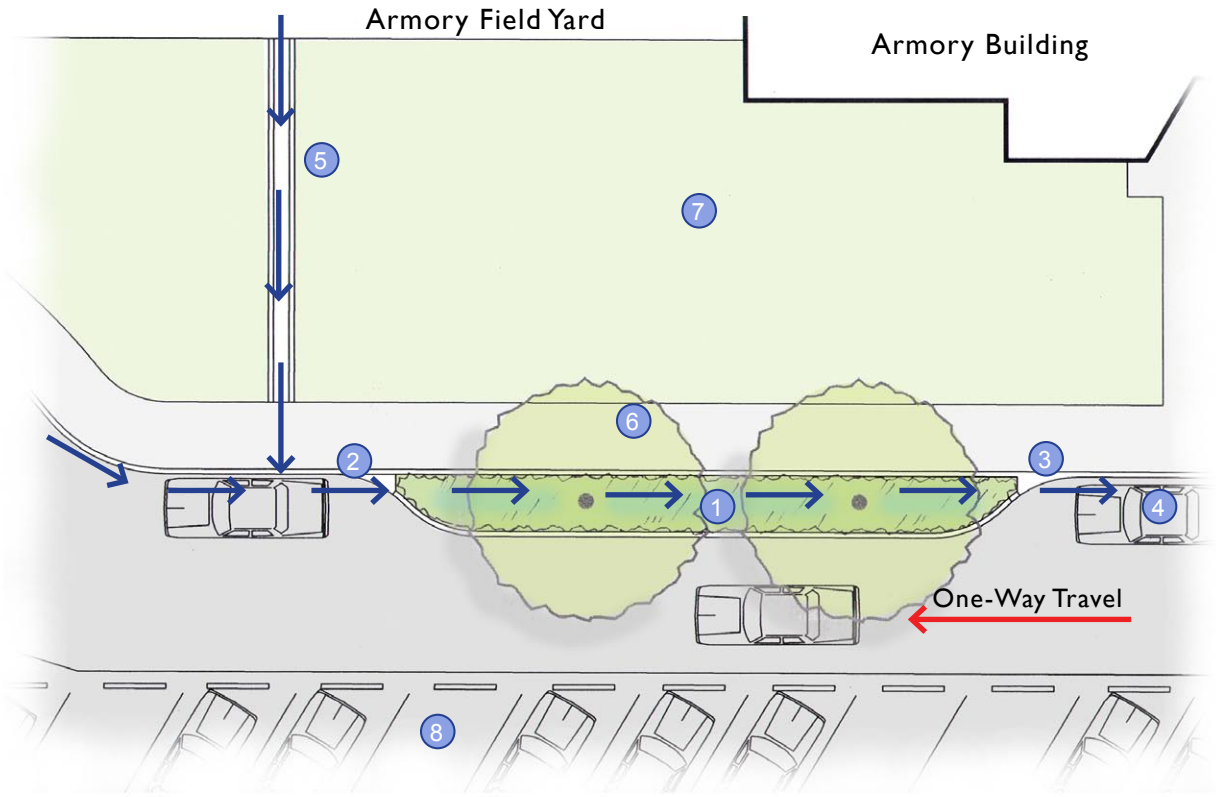
Figure 6-30: *This aerial view of the project site shows the footprint of the proposed stormwater curb extension.*

The Belle Air/Third Avenue Green Street project, located in San Bruno, California is a retrofit project that converts a portion of a street's parking zone into a stormwater curb extension. The street itself is located in a residential neighborhood adjacent to the Belle Air Elementary School, Belle Air Park, and National Armory Building.

The stormwater curb extension's landscaped area will measure approximately 7 feet by 50 feet, yielding approximately 350 square feet of landscape area for stormwater treatment. Approximately 9,500 square feet of runoff drains from the street and adjacent parking lot towards the stormwater curb extension. The design yields approximately 4% landscape area to the total catchment area.

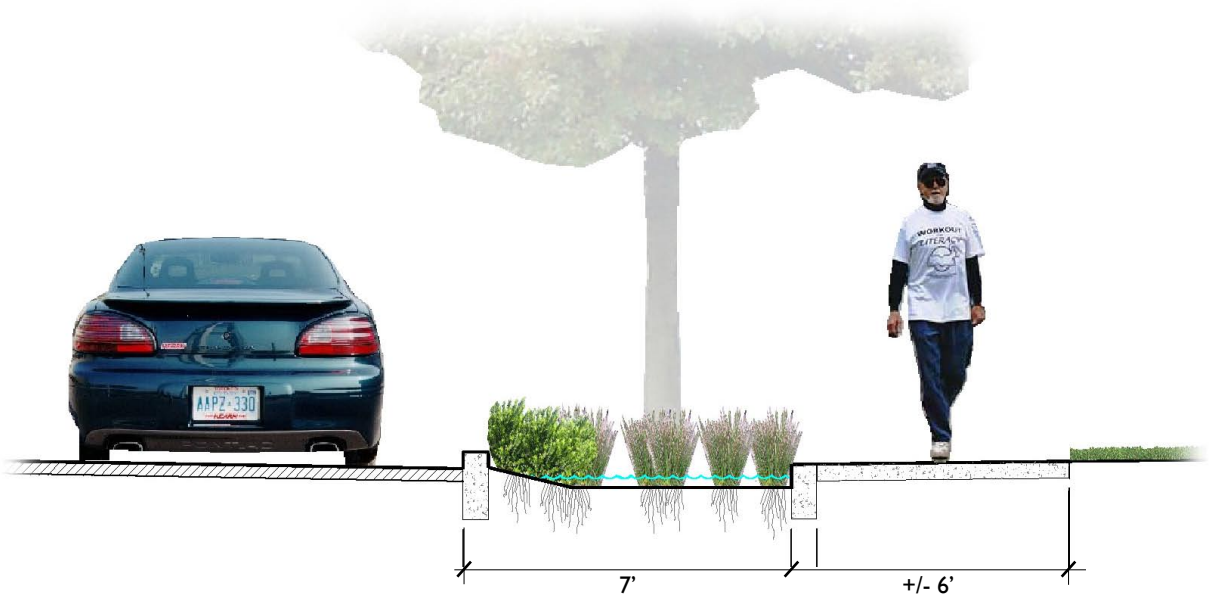
The street's longitudinal slope is extremely flat, measuring below a 1% grade. A soil infiltration test was conducted and the results indicated little potential for infiltration. There is also no cost-effective means to install an underdrain system because there are no nearby storm drain inlets to connect to. As a result, the stormwater curb extension will be graded relatively shallow, and retain a maximum of 3 inches of water. It is expected that the new plantings within the stormwater curb extension, including new street trees, will uptake much of this water through evapotranspiration and help improve water quality and reduce flow.

As the first stormwater curb extension built in San Mateo County, this project will demonstrate that, even without the potential for infiltration and an underdrain system, retrofitted stormwater facilities that are not subject to C.3 regulations can be built to help improve water quality and reduce flow. Hopefully, the Belle Air/Third Avenue Green Street project will set a precedent for similar green street projects.



Stormwater Curb Extension Concept Plan

1. New stormwater curb extension on west side of street only
2. Stormwater entry
3. Stormwater exit
4. On-street parking zone
5. Trench drain conveys runoff from Armory site to the street
6. Optional new street trees
7. Potential future rain garden opportunity in adjacent grass area
8. Existing parking lot for elementary school



Typical Cross Section