



Santa Clara Valley Urban Runoff Pollution Prevention Program  
Green Stormwater Infrastructure Case Study

# MARTHA GARDENS GREEN ALLEYS

GREEN STREET PROJECT  
SAN JOSE, CALIFORNIA

## Project Description

Three residential alleys in the Martha Gardens neighborhood near downtown San Jose, which were previously covered with deteriorated asphalt and bare soil, now feature permeable pavement and concrete made from recycled content. A trench constructed underneath the permeable pavement collects stormwater runoff. The project improves drainage and aesthetics while adding stormwater storage, infiltration, and filtration to remove pollutants.

## Key Elements

- Three residential alleys totaling over 35,000 square feet have been replaced with recycled content concrete and permeable pavers.
- Aggregate-filled trench beneath pavers stores and infiltrates runoff to reduce flows to the storm drain system.
- A layer of porous sand and gravel within the trench provide filtration of pollutants.
- New pavement provides proper drainage in areas with localized flooding prior to the project.
- Lighter colored paving absorbs less sunlight and lowers temperatures.



**Completion Date**  
August 2015

**Project Duration**  
3 years (planning, design: Aug. 2013 – Jan 2015 & construction: Jan. – Aug. 2015)

**Costs**  
Total Project Cost  
~ \$1.23 million

Construction  
- \$ 860,271  
Design, Project Planning & Admin.  
- \$304,853  
Monitoring & Outreach  
- \$68,640

**Funding**  
\$945,000 State Water Board Proposition 84 Stormwater Grant

*Additional project support from:*

City of San Jose  
Public Works and Environmental Services  
Departments

*Photo: Design allows for better parking, improves bike/ pedestrian access, and reduces flooding in the alley.*

## Stormwater Control Measures



**Infiltration Trench**  
Trenches beneath the alley infiltrate runoff



**Permeable Pavement**  
Trenches are covered by a strip of permeable pavers (approximately 5,000 sq. ft. total)



## LOCATION

Three alleys in the Martha Gardens neighborhood of San José (1<sup>st</sup> to 3<sup>rd</sup> St / Margaret to Martha St)

**San Jose, CA**

## MARTHA GARDENS GREEN ALLEYS

### Project Outcomes and Lessons Learned

- Street sweeping is restored (previously not feasible due to poor pavement).
- Improved pavement is pedestrian and cyclist friendly.
- Infiltration trench is 4 ft. wide by 6 ft. deep, is fabric-lined on the sides, and is filled with porous stone.
- Concrete used is made from recycled flyash.
- The City created a “Green Streets Blue Bay” medallion installed on the street, a fact sheet, and video for public outreach about this project and stormwater runoff pollution in general. (Images at right are from the City’s fact sheet.)
- A block party was held to celebrate project completion.
- The project provides benefits to an area considered a disadvantaged community.

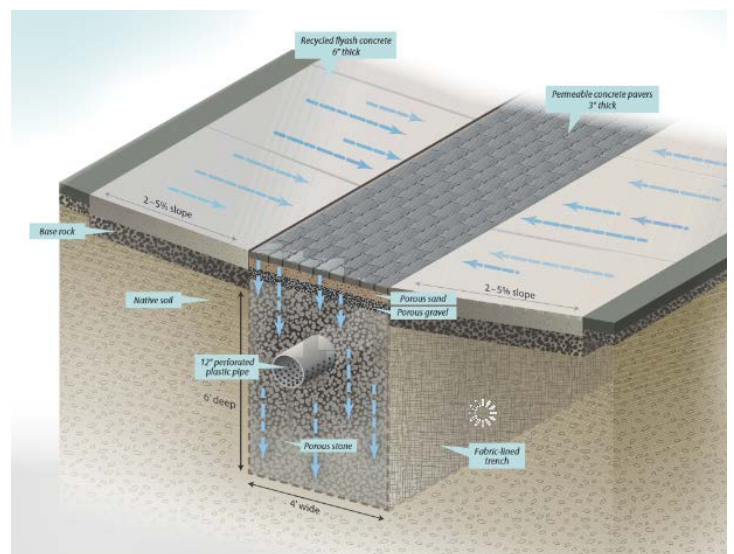


*“The alley seems like a different place. Now, it looks like a nice place to live. ... When the winter rains come, all the improvements will really make a difference.”*

– Tony May, Neighbor (San Jose Fact Sheet)

### Operation and Maintenance

- City staff performs wet-weather inspections for clogging, ponding, and other conditions in need of additional maintenance.
- The City specifies use of regenerative air street sweepers within the alleys to maintain the permeability of the pavers.



### Additional Information

#### City Website

Project video and fact sheet <http://www.sanjoseca.gov/index.aspx?NID=4781>

#### Other Project Information Links

Project presentation on SCVURPPP website [http://www.scvurppp-w2k.com/pdfs/1213/c3\\_workshop/07\\_Aguilar\\_San\\_Jose\\_Green\\_Street\\_Demonstration\\_Projects\\_Presentation.pdf](http://www.scvurppp-w2k.com/pdfs/1213/c3_workshop/07_Aguilar_San_Jose_Green_Street_Demonstration_Projects_Presentation.pdf)

### PROJECT CONTACTS

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