

**Santa Clara University
CO-13**

Site Location:

500 El Camino Real
Santa Clara, CA

Features:

- Turf block fire lanes are used throughout the campus for fire access.
- A few streets have been diverted and replaced with landscaping. To maintain proper fire access, turf block fire lanes have been installed.
- Multi-story buildings reduce building footprint.

Stormwater Benefits:

- Reduced impervious surface area
- Reduced volume and velocity of runoff

Design Specifications:

- Turf block must withstand 76,000 pounds of gross weight and 20 feet in width for fire trucks (with risers)
- Maintenance performed by Santa Clara University (SCU)



Here the sidewalk and turf block with grass is used for fire access. The arrows point to concrete blocks that mark the extent of the turf block areas.



Concrete blocks mark the fire lanes throughout campus (also see photograph to left).

Santa Clara University
CO-13 (cont.)



This street used to extend directly through campus. Now the sidewalk and turf block is used for fire access while providing more areas for infiltration and aesthetic value.



The fire lane here uses both the sidewalk and turf block for access. Bollards can be removed for emergency access.



Concrete blocks mark the turf block fire lane so that fire trucks can drive along the proper area without sinking. "No Parking" signs and red curbs help denote the fire lanes. Note that the nearest tree will need to be relocated to maintain the necessary width.



Multi-story dormitories reduce the building footprint size and thereby decrease impervious surface area. Turf block allows emergency access to these dormitories.

Santa Clara University
CO-13 (cont.)



This street, which extended through the university, was redirected and replaced with turf block and sidewalks for fire access.



This sidewalk also provides emergency vehicle access. The fire lane continues on through the shrubs onto the turf block.

Lessons Learned:

- Periodic inspection of fire lanes and training is important to remind SCU staff not to place obstacles in fire lanes (e.g., trees, garbage bins, oversized shrubs).

Municipal Contact:

Gloria Sciara

City of Santa Clara

(408) 615-2450

gsciara@ci.santa-clara.ca.us

Fire Department Contact:

Steve Silva

Santa Clara Fire Department

(408) 615-4978

ssilva@ci.santa-clara.ca.us

**Residence Inn
CO-15**

Site Location:

4460 El Camino Real
Los Altos, CA

Features:

- Turf block fire lane provides access for fire crews to the rear of the hotel.

Stormwater Benefits:

- Reduced impervious surface area.



Grass covers the turf block lane used for fire access, while reducing the overall impervious surface area for site.



Landscaping provides an aesthetically pleasing area for people to enjoy while also functioning as a fire lane.

Municipal Contact:

Larry Lind
City of Los Altos
(650) 947-2624

Site Contact:

General Hotel Information

Marriott's Residence Inn
(650) 559-7890

info@losaltosresidenceinn.com

**Los Padres and Homestead Condominiums
MF-2**

Site Location:

Los Padres and Homestead Road
Santa Clara, CA

Features:

- Turf block fire lanes are used for fire access
- Narrow 20-foot wide streets
- Higher density housing

Stormwater Benefit:

- Reduced impervious surface area.



Close-up picture shows the concrete turf block matrix not covered in grass.



Fire access is marked where the fire truck can drive up over the curb across the turf block to access this housing development.



Signs clearly posted in order to prevent people from blocking access to the turf block fire lanes in emergencies.

**Los Padres and Homestead Condominiums
MF-2 (cont.)**



The narrow streets within the complex provide only 20 feet of access, thereby reducing the amount of impervious surface area. With this narrow access, any parked vehicles can impede fire access. Red curb paint and signs can be used to denote fire lanes throughout complexes. (This driver remained in his vehicle.)

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The Crossings MU-1

Site Location:

2255 Showers Drive
Mountain View, CA

Features:

- High density (multi-story) housing with reduced building footprints integrated with commercial areas
- Located near mass transit including bus lines and CalTrain station
- Disconnected downspouts drain into landscaping
- Turf block fire lanes
- Landscaped center of driving circle

Stormwater Benefits:

- Transportation-related pollutant reduction
- Reduced impervious surface area
- Reduced velocity of runoff
- Reduced directly-connected impervious area (DCIA)
- Natural treatment of runoff



“The Crossings” is conveniently located across the street from the San Antonio CalTrain Rail Station.



Turf block fire lane provides access during emergencies. The bollards can be removed for emergency access.

**The Crossings
MU-1 (cont.)**



Multi-story housing reduces the building footprint and, thus, impervious surface area. Rooftop runoff drains into landscaping rather than directly to the storm drain system.



This rain gutter drains into landscaping reducing the amount of directly-connected impervious area (DCIA).



Drive around circle has a landscaped island, providing an area for infiltration.



The Crossings is located within walking distance to major commercial areas for groceries and other shopping needs, thereby reducing the need for auto use.

The Crossings MU-1 (cont.)



Municipal Contact:

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City of Mountain View
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Site Contact:

Betina Schessow

Hudson Management Group
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Designer Contact:

Peter Calthorpe

Calthorpe Associates
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Mixed use commercial businesses located within the Crossings encourage residents to walk to shops thereby reducing the reliance on motor vehicles.

Other Opportunities:

- To improve the site design from a stormwater quality perspective, the island could have been designed to accept runoff from the street through such features as concave landscaping with pavement protection, curb cuts, and grading the street to drain to the island.