



Site Information	
Jurisdiction	City of Redwood City
Street Name	Goodwin Ave & Connecticut Dr
Street Typology	High-Density Residential
Co-Located Project	Safe Routes to School
Capture Area (acres)	3.32
Impervious Area (%)	90
85 <sup>th</sup> Percentile Rainfall (in)	0.85
Generated Runoff (ac-ft)	0.21



Curb Extension with Curb Cut

#### Site Description:

The proposed project consists of green street improvements along Connecticut Drive between Goodwin Avenue and Washington Avenue, and the intersection of Goodwin Avenue and Alameda de las Pulgas. The site is characterized by high-density residential streets that border the John F. Kennedy Middle School. Curb extensions are recommended as the primary treatment type. This project will integrate with the Safe Routes to School Program to implement green infrastructure that will also improve pedestrian safety. Curb extensions are proposed at crosswalks to improve pedestrian visibility and decrease crossing distance. The project also presents an opportunity for public education and signage can be implemented to inform the public on the benefits of green infrastructure.

The proposed improvements would capture 100% of the 85<sup>th</sup> percentile runoff volume (0.21 ac-ft) while providing flood risk mitigation, community enhancement, increased property values, safer pedestrian routes, and other multiple benefits.

**DISCLAIMER:** All elements of this conceptual design are planning-level. Locations of opportunities for placement of green infrastructure shown in the map are preliminary and subject to further site assessment and design. Percent imperviousness is based on best professional judgement. All design assumptions/parameters and cost estimates must be re-evaluated during the detailed design process.

#### Design Summary

Green Infrastructure Type	Design Width (ft)	Design Length (ft)	Capture Volume (ac-ft)
Bioretention (Curb Extension)	12	405	0.210

#### Cost Estimate

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Excavation/Hauling	900	CY	\$50.00	\$45,000
Bioretention	4,860	SF	\$25.00	\$122,000
Curbs and Gutters	405	LF	\$17.25	\$7,000
CONSTRUCTION SUBTOTAL				\$174,000
Planning (20%), Mobilization (10%), Design (30%), Contingency (25%)				\$148,000
<b>TOTAL COST</b>				<b>\$322,000</b>

## Concept for a Green Street Retrofit for Stormwater Capture

Site: Kennedy Middle School Green Streets (City of Redwood City)





Site Information	
Jurisdiction	City of Redwood City
Street Name	Middlefield Rd
Bounding Streets	Main St / Woodside Rd
Street Typology	Arterial
Co-Located Project	Middlefield Streetscape Project
Capture Area (acres)	4.16
Impervious Area (%)	90
85 <sup>th</sup> Percentile Rainfall (in)	0.85
Generated Runoff (ac-ft)	0.27



Curb Extension on an Arterial Street

#### Site Description:

The proposed project consists of green street improvements along Middlefield Road between Main Street and Woodside Road. The street segment is approximately 2,250 feet long. Middlefield Road is an arterial street that is relatively narrow. Limited space is divided between bike lanes, multiple lanes each direction, turn lanes, and parking lanes. This presents a challenge with siting green infrastructure without sacrificing some usage of the roadway. Curb extensions are recommended as the primary treatment type. Segments of the street that feature two lanes may be reduced to single lanes to allow adequate area for improvements. Center medians can be removed to provide additional area. Curb extensions can also be placed at crosswalks to improve pedestrian safety while increasing stormwater capture capacity. Where lanes cannot be reduced, some parking may need to be removed.

The proposed improvements would capture 100% of the 85<sup>th</sup> percentile runoff volume (0.27 ac-ft) while providing flood risk mitigation, community enhancement, increased property values, safer pedestrian routes, and other multiple benefits.

**DISCLAIMER:** All elements of this conceptual design are planning-level. Locations of opportunities for placement of green infrastructure shown in the map are preliminary and subject to further site assessment and design. Percent imperviousness is based on best professional judgement. All design assumptions/parameters and cost estimates must be re-evaluated during the detailed design process.

#### Design Summary

Green Infrastructure Type	Design Width (ft)	Design Length (ft)	Capture Volume (ac-ft)
Bioretention (Curb Extension)	8	780	0.270

#### Cost Estimate

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Excavation/Hauling	1,160	CY	\$50.00	\$58,000
Bioretention	6,240	SF	\$25.00	\$156,000
Curbs and Gutters	780	LF	\$17.25	\$14,000
CONSTRUCTION SUBTOTAL				\$228,000
Planning (20%), Mobilization (10%), Design (30%), Contingency (25%)				\$194,000
<b>TOTAL COST</b>				<b>\$422,000</b>

## Concept for a Green Street Retrofit for Stormwater Capture

Site: Middlefield Road (City of Redwood City)

