
GREEN
OUR CITY

by converting
hardscape to landscape,
we transform the journey
into a beautiful destination

With new developments along with renovations occurring throughout San Francisco, public and private developers are encouraged to add greening to their fronting property.

Landscaped sidewalks look great, provide wildlife habitat, reduce flooding, and increase property values! Whether it's planting trees, adding permeable pavers, rain gardens or sidewalk landscaping, there is a solution for every environment.

environmental benefits

- Reduce storm-water runoff
- Improve air quality and climate
- Reduce pollution
- Create and protects wildlife habitat

RETAIN STORM WATER RUNOFF

Storm-water runoff is generated when precipitation from rain (and snowmelt) flows over land and does not seep into the ground. As it flows over paved streets, it accumulates debris, chemicals, sediment or other pollutants. In San Francisco, our combined sewer system means that if storm-water overloads the system, sewage will discharge in the Bay, resulting in large fines for the City.

RETAIN STORM WATER RUNOFF

Urban runoff is a significant cause of pollution throughout California. Pollutants of concern found in urban runoff include sediments, non-sediments solids, nutrients, pathogens, oxygen demanding substances, petroleum, hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons (PAHs), trash, and pesticides and herbicides.

REDUCE POLLUTANTS

Urban development creates new pollutant sources, including vehicle emissions, vehicle maintenance wastes, pesticides, household hazardous wastes, pet wastes, trash, and other contaminants that can be washed into the City's storm-water collection systems.

REDUCE POLLUTANTS

Natural vegetated soil can both absorb rainwater and remove pollutants, providing a very effective purification process. Because pavement and concrete can neither absorb water nor remove pollutants, the natural purification characteristics of the land are lost. Proper landscaping reduces nitrate escaping from the soil into the water supply.

Did you know?

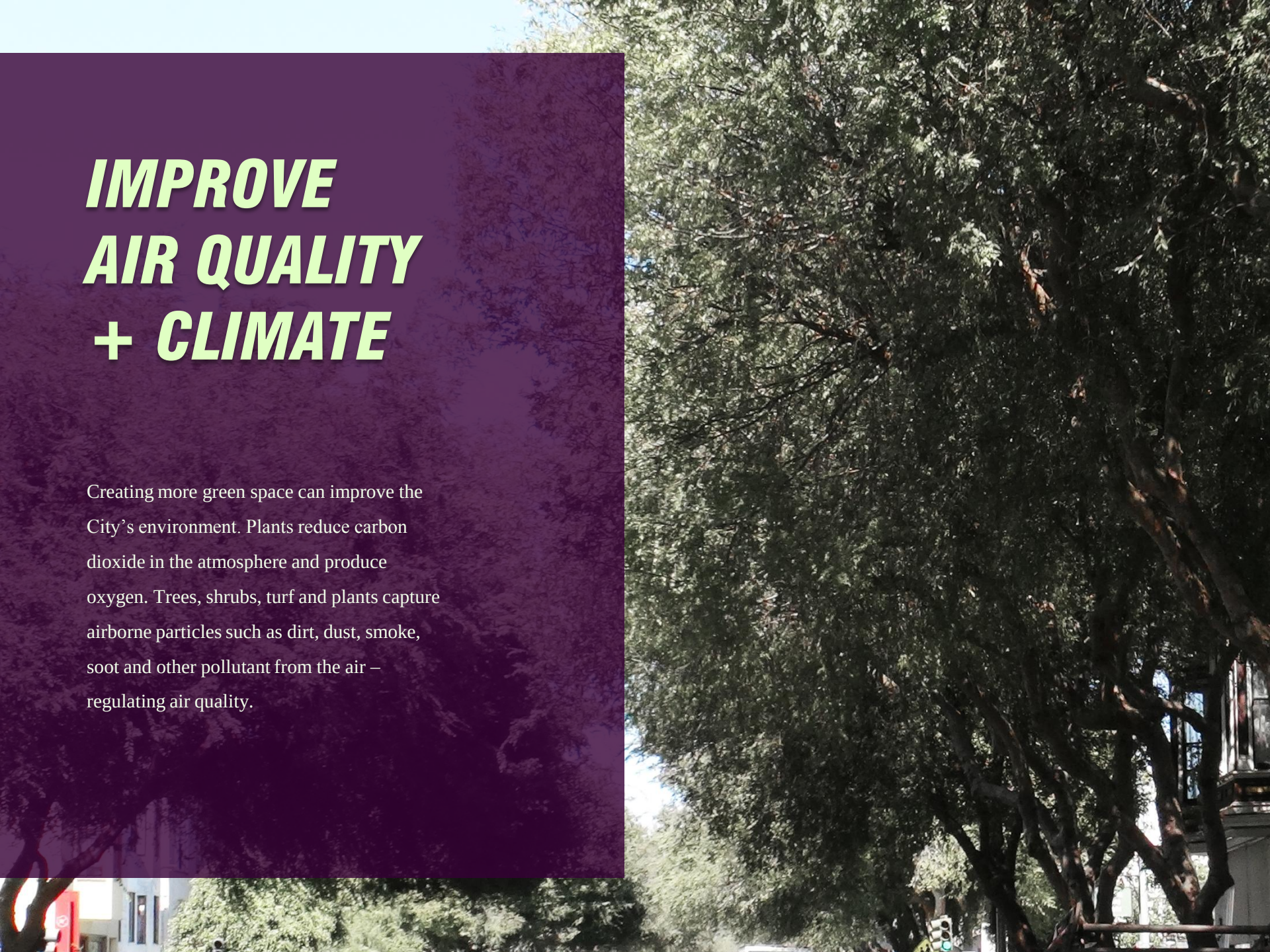
A mature tree can store 50-100 gallons of water during large storm and an average street tree in San Francisco intercepts 1,006 gallons of rainwater a year?

IMPROVE AIR QUALITY + CLIMATE

Pavement absorbs heat from the sun, which increases the temperature of storm-water runoff flowing over these surfaces and raises the air temperature nearby. Higher air temperatures can speed up the chemical reactions that cause smog to form which can trigger asthma and reduce lung function.

IMPROVE AIR QUALITY + CLIMATE

Creating more green space can improve the City's environment. Plants reduce carbon dioxide in the atmosphere and produce oxygen. Trees, shrubs, turf and plants capture airborne particles such as dirt, dust, smoke, soot and other pollutant from the air – regulating air quality.



Did you know?

One tree can remove 26 pounds of carbon dioxide from the atmosphere annually, equaling 11,000 miles of car emissions and 25,000 square feet of turf absorbs carbon dioxide from the atmosphere and releases enough oxygen for a family of four to breathe.

CREATES +PROTECTS WILDLIFE HABITATS

Landscaping and greening promotes pollination and creates microhabitats for species such as hummingbirds, bees, butterflies, ladybugs, earthworms.

By attracting a wide array of birds, insects and a variety of animals in your neighborhood, you can enhance biodiversity.

health & safety benefits

- Improves pedestrian safety
- Calms traffic
- Promotes active living and healthy lifestyle
- Reduces crime

IMPROVE PEDESTRIAN SAFETY

Street trees and sidewalk garden create a physical and mental barrier between the street and the sidewalk, keeping pedestrians, children and pets out of harm's way.

Less concrete sidewalk means less chance of having lifted or damaged sidewalk, reducing tripping hazards.

CALMS TRAFFIC

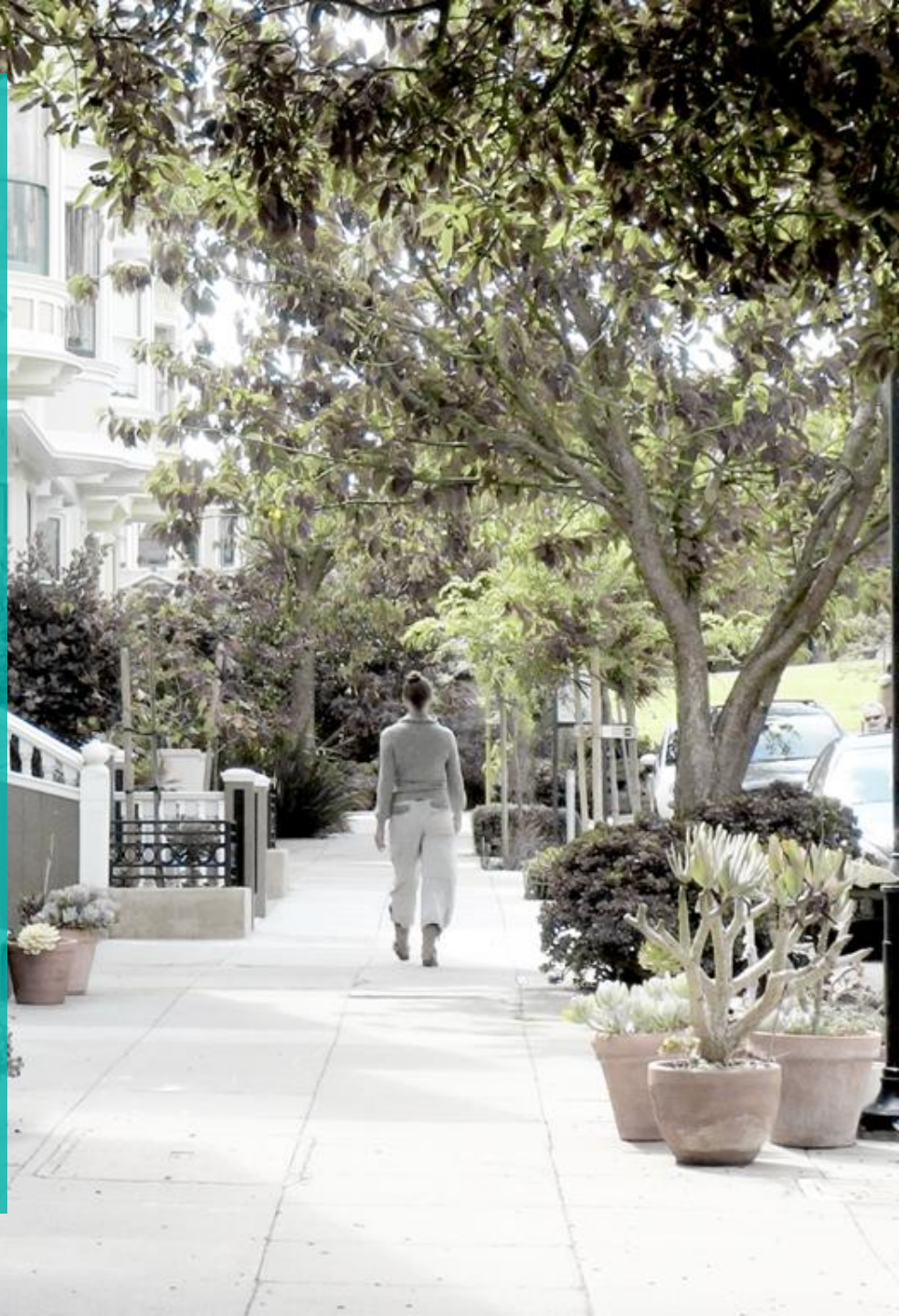
The degree of negative response to a stressful experience is less if a view of nature preceded the stressful situation.

In addition, greening helps reduce the speed of drivers, reduces frequency and severity of crashes, as well as absorbs traffic noise.

PROMOTES ACTIVE + HEALTHY LIVING

People judge walking distances to be less in a neighborhood with more green, therefore promoting traveling via foot. Greenery also promotes a greater sense of community and alleviates mental fatigue.

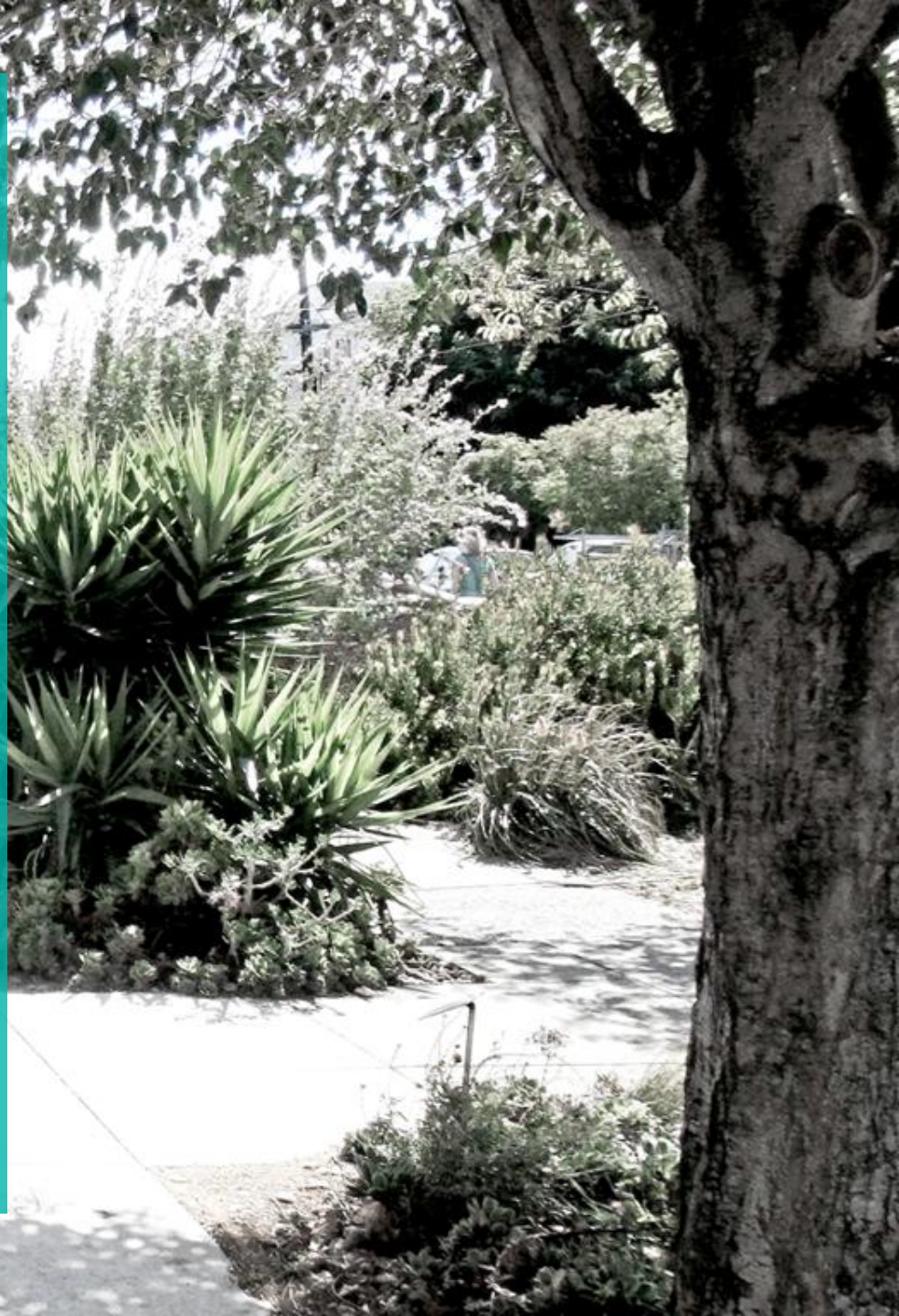
Studies have also shown that greenery improves attention and reduces feelings of fear and anger, lowering blood pressure and reducing muscle tension.



REDUCES CRIME

Greening helps people relax and renew, reducing aggression. It also brings people together, increasing observation and discouraging criminals. Well maintained greenery cues would-be criminals that the property owners and residents in the area care about their property as well as their neighbors'.

A 2001 study conducted in Chicago showed that there were 48% fewer incidences of property crime and 56% fewer violent crimes in public housing developments surrounded by trees and greenery, than buildings with little or no vegetation.



community benefits

- Draws communities together
- Enhance neighborhood aesthetics
- Trees mean business

DRAWS COMMUNITIES TOGETHER

When provided with a healthy, useful and beautiful green space, the community is more likely to be engaged and invested in their neighborhood. Residents experience a stronger sense of community, develop closer relationships with neighbors and report feeling safer.

ENHANCE NEIGHBORHOOD AESTHETICS

Well-placed plantings offer privacy and tranquility by screening out busy street noises and reducing glare from headlights. Planting also provide structure, texture and identity to City streets and public spaces. Property values also increase in neighborhoods with green “curb appeal”.

TREES MEAN BUSINESS

Money does not grow on trees, but it can definitely help businesses who invest in them. It is a well known fact that people prefer to spend their time in an inviting and attractive area.

Research shows that 3 of 4 consumers prefer shopping in places that are enhanced with trees and landscaping and are willing to spend more time in the area, which results in spending more money.

WHAT CAN I DO?

By being aware of our own carbon footprint, we have already taken the first step.

The following are various greening options you can contribute to the neighborhood that can help green our City.

LOW IMPACT DESIGNS

Storm-water management approach that mimics the natural hydrologic processes of the landscape by increasing retention, detention, and filtration of storm-water runoff at its source. LID methods use small decentralized storm-water treatment facilities to treat runoff before it reaches the sewer pipes.

Landscaping + Planters

Converting gray to green, or in other words, hardscape to landscape, using various greening options such as plants, planters, hedges, and flowers.

Resources :

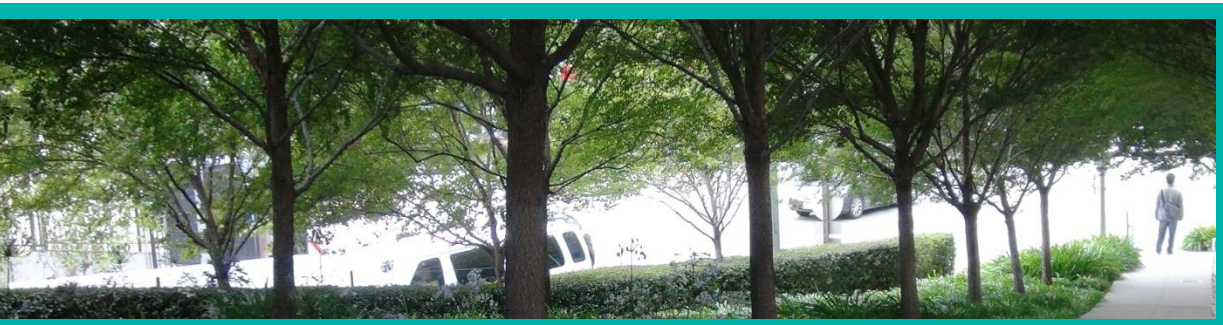
- Better Streets Plan
- Construction Details
- Grey2Green Videos
- Paving, Mulch, Edging
- Plant List + Palettes
- Sample Layouts

Streetscapes

Visual elements of a street, including tree planting and various greening options to form the street's character and aesthetics.

Resources :

- Better Streets Plan
- Better Streets Plan - Trees
- DPW Trees
- Grey2Green Videos
- Helpful Resources
- Recommended Trees
- Paving, Mulch, Edging



Permeable Surfaces

A range of sustainable materials and techniques for permeable pavements with a base and sub-base that allow the movement of storm-water through the surface.

In addition to reducing runoff, this effectively traps suspended solids and filters pollutants from the water.

Resources :

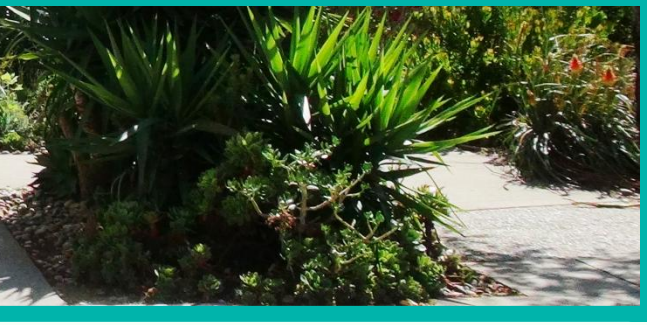
- Better Streets Plan
- Pervious Concrete
- Plastic Grids
- Porous Asphalt
- Interlocking Concrete
- Clay Brick
- Resin Bound

Swales + Rain Gardens

Swales and Rain Gardens are also known as bioretention planters that are designed to collect and absorb storm-water runoff. It is a combination of engineered storm-water control and treatment with aesthetic landscaping.

Resources :

- BSP – Rain Gardens
- BSP – Swales
- SFPUC



For More Information

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