



# Green and Complete Streets

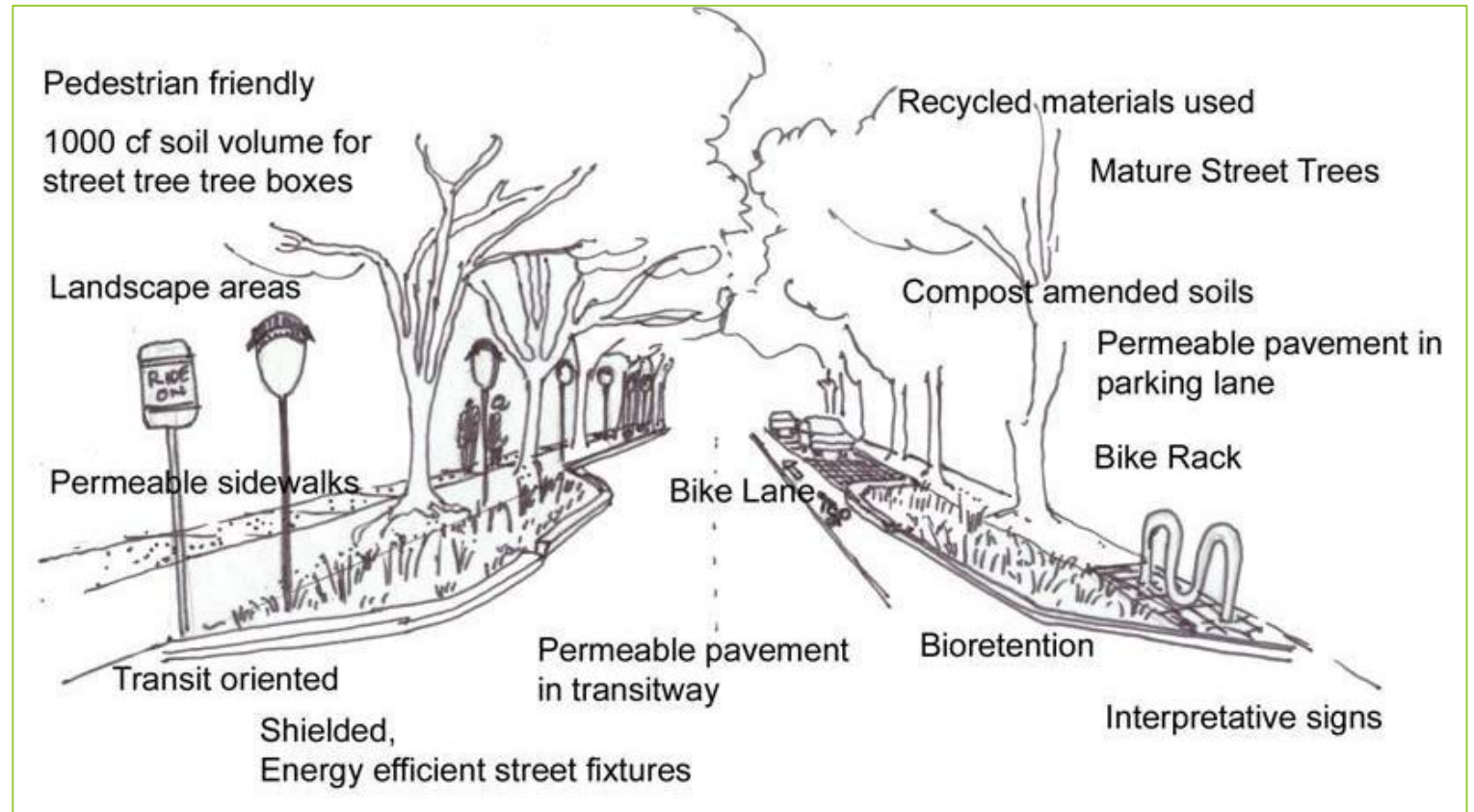
# The Green and Complete Streets Ordinance & Policy

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- ❖ The city council passed a resolution to adopt the G&C Streets Policy on October 13, 2021 and a new ordinance section requiring *that all street and public rights of way to be constructed by the City of Newport involving the creation of new streets or public rights of way or improvements to existing streets and public rights of way shall conform to the Green and Complete Streets Policy*
- ❖ Vision: every transportation project serves all road users; our transportation network is safe, comfortable, reliable, efficient, integrated and completely connected multimodal transportation system

# What is a Green Street?

A Green Street is a stormwater management approach that uses vegetation, soil, and engineered systems (e.g. permeable pavers) to reduce, slow, and filter stormwater runoff from impervious surfaces (EPA, 2022).



US EPA

# What is a Complete Street?

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A Complete Street is a planning and design approach that aims to safely and comfortably accommodate street users of all ages, abilities, and modes of transit.



The goal is to create a connected network of high-quality rights of way and open spaces, and to aspire towards Vision Zero – eliminating all traffic fatalities and severe injuries.

Complete Streets also emphasizes the transportation needs of those who have experienced systemic underinvestment, such as older adults, people with disabilities, people who don't have access to vehicles, and Black, Native, and Latine communities (Smart Growth America, 2023).

# The Green and Complete Streets Approach

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- ❖ Green and Complete Streets is **not** a single design prescription or project.
- ❖ It is changing the way we approach **all** transportation projects.
- ❖ Implementing complete streets is flexible and context-sensitive. Every project is different.

# Stormwater Issues with Conventional Streets



Atlas Scientific

- ❖ Conventional stormwater management systems are designed to capture large volumes of fast-moving runoff, quickly convey it off site with little to no treatment, and discharge it into local waterways.
- ❖ Conventional methods:
  - ❖ Prevent on-site groundwater recharge;
  - ❖ Increase the speed and volume of stormwater, leading to flooding and erosion;
  - ❖ Do not remove pollutants before runoff enters waterbodies, leading to habitat degradation, drinking water quality issues, and beach closures.

# Safety and Design Issues with Conventional Streets

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- ❖ Focused on the efficient movement of vehicles at the expense of all other roadway users.
- ❖ Excessive number and width of travel lanes encourage high vehicle speeds.
- ❖ Difficult to navigate, disconnected, or absent sidewalks.
- ❖ Fail to meet ADA requirements.



# Safety and Design Issues with Conventional Streets

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- ❖ Infrequent, wide crosswalks with poor signage and markings.
- ❖ Lack of bicycle facilities.
- ❖ Unappealing, often inaccessible bus stops.
- ❖ Unattractive, wide expanses of pavement with little to no vegetation and landscaping.

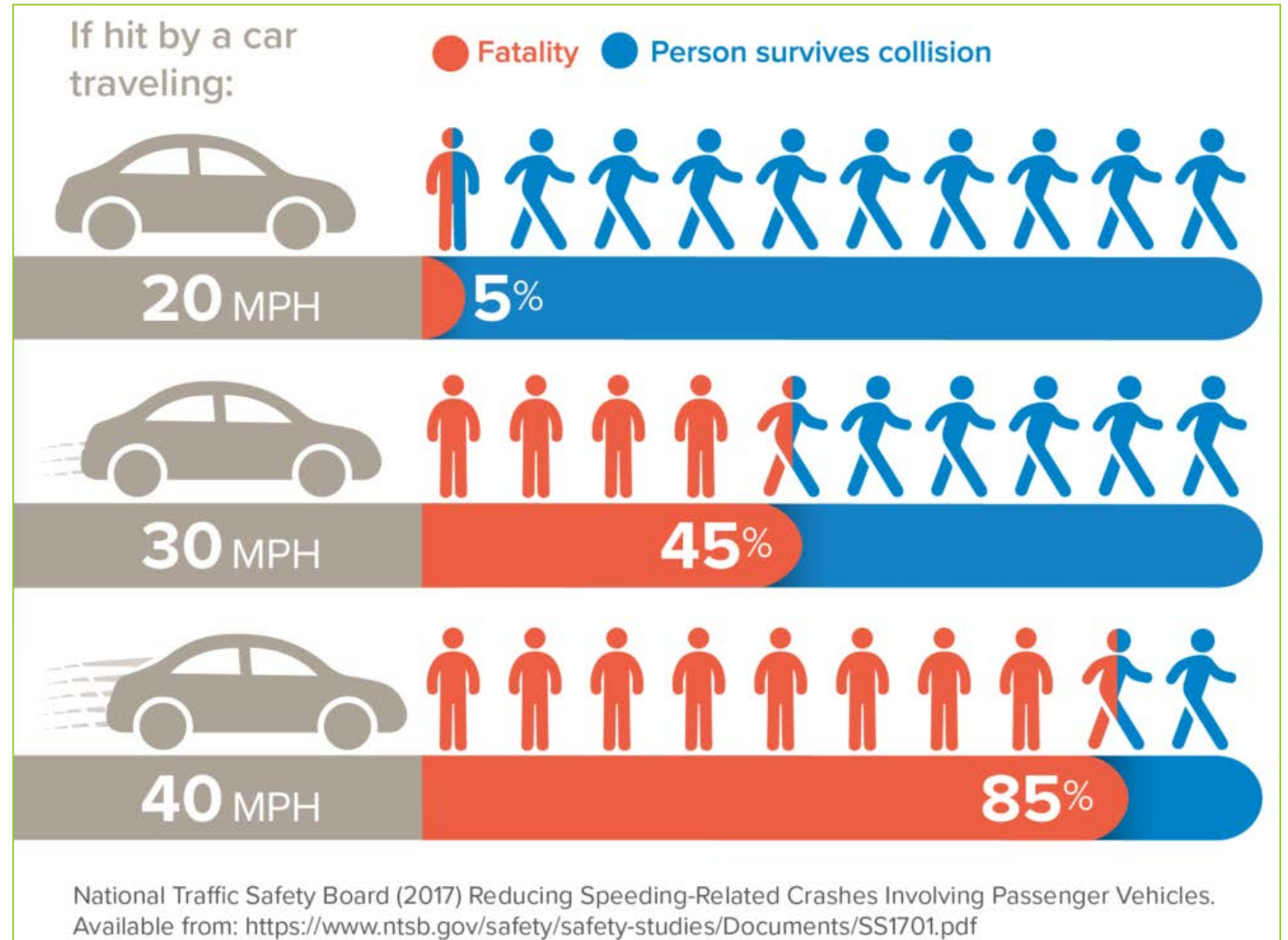




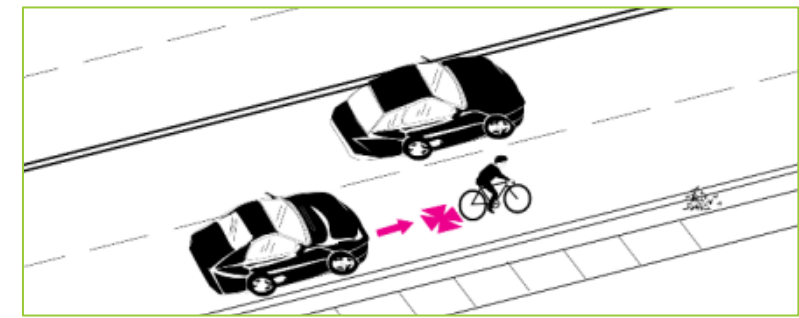
# Pedestrian Safety

Nationally, the most common type of accident leading to pedestrian fatalities is when crossing the road in a non-intersection location (midblock), especially where crosswalks are absent, far apart, or not very visible (FHWA, 2020).

Vehicle speed is the number one predictor of if the collision will result in injury or death.



# Bicyclist Safety



## BICYCLIST DESIGN USER PROFILES

### Interested but Concerned

**51%-56%** of the total population

Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separated bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.

### Somewhat Confident

**5-9%** of the total population

Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.

### Highly Confident

**4-7%** of the total population

Comfortable riding with traffic; will use roads without bike lanes.



**LOW STRESS TOLERANCE**

**HIGH STRESS TOLERANCE**

Nationally, the most common type of accident leading to bicyclist fatalities is a car overtaking a bicyclist from behind (FHWA, 2020).

Bicyclist fatalities are significantly decreased in communities with separated, protected bike lanes.

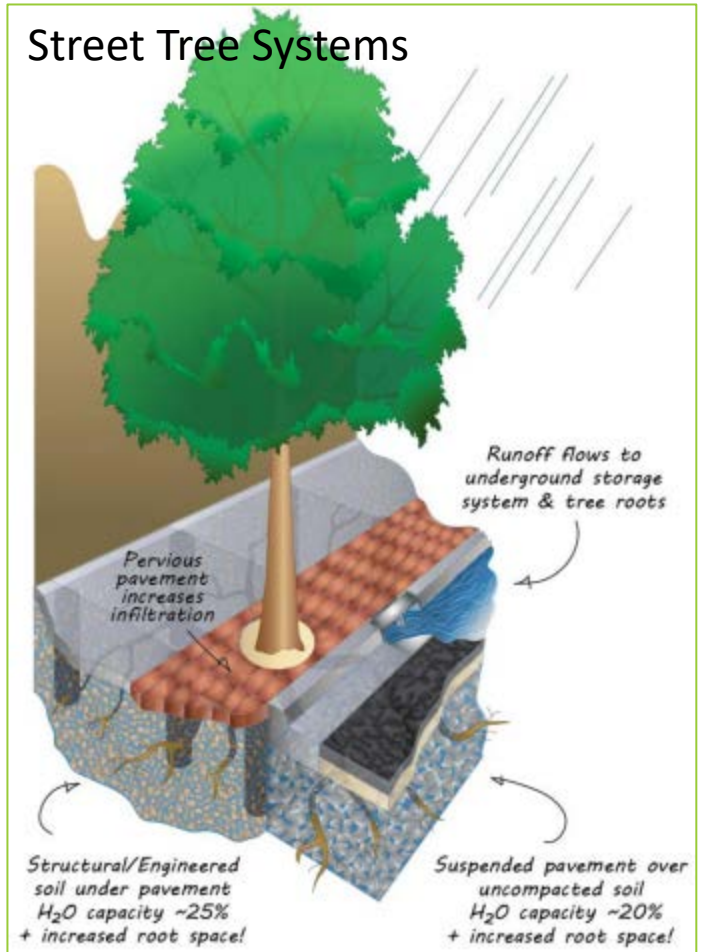
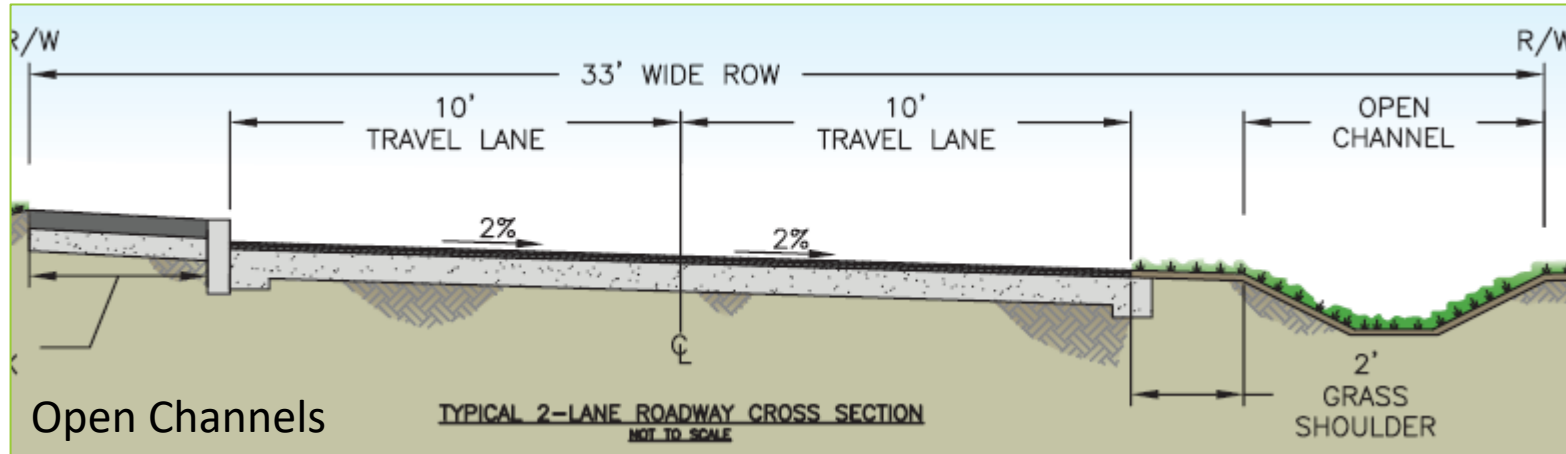
Separated bike lanes also meet the comfort needs of the majority of bicyclists.

# Green & Complete Streets – General Methods

- ❖ Manage stormwater with the principles of Low Impact Development (LID).
- ❖ Use traffic calming methods.
- ❖ Separate modes of travel to the extent possible.
- ❖ Prioritize pedestrian safety, accessibility, and visibility to motorists.
- ❖ Enhance walkability and beautify the public right-of-way.
- ❖ Connect modes of transportation.



# Stormwater Management



# Traffic Calming Measures

- ❖ Lane Diet – reduce travel lane width
- ❖ Road Diet – reduce number of lanes
- ❖ Short building setbacks
- ❖ Street parking
- ❖ Curb bump-outs
- ❖ Speed tables

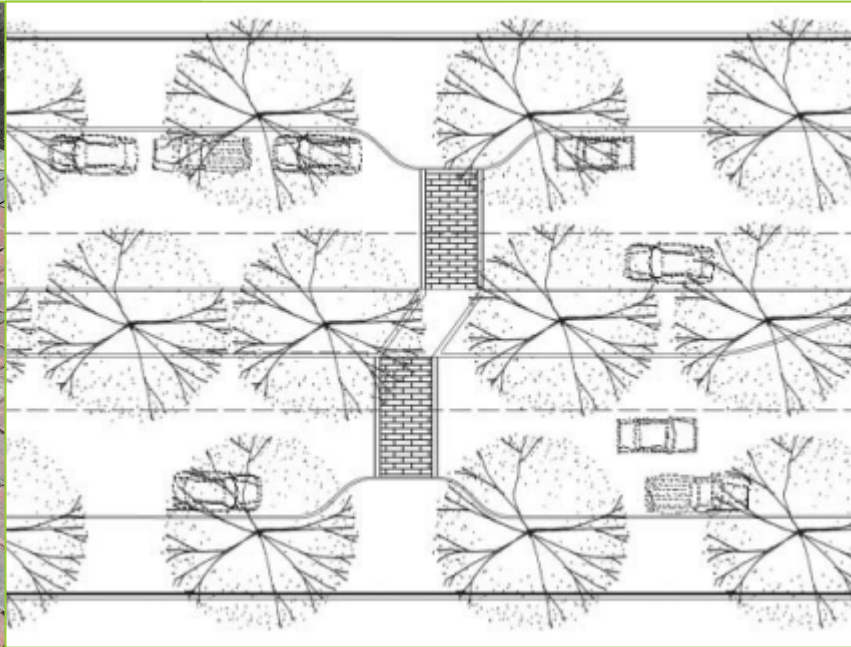


# Crosswalk Safety

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Distinctive Textures & Colors



Curb Extensions &  
Staggered Crosswalks

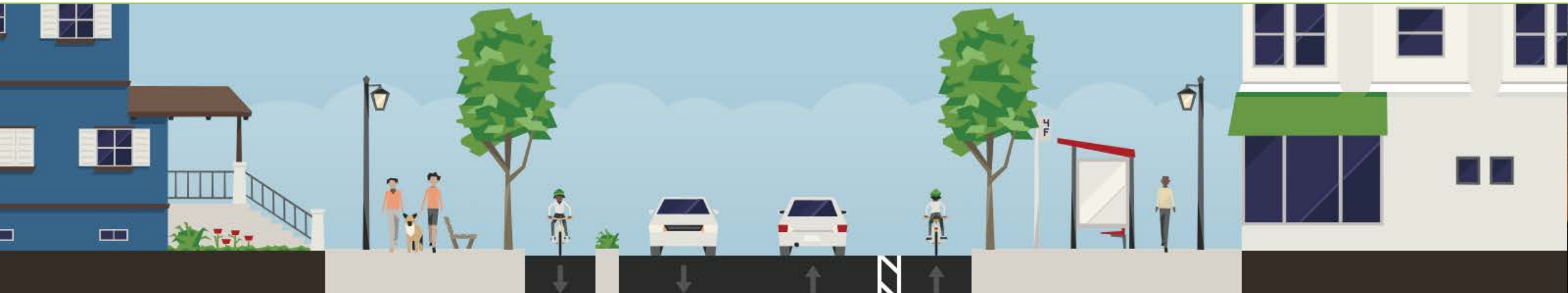


Refuge Islands & Stop Lights

# Sidewalk Enhancement

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- ❖ Sidewalk width depends on the volume of foot traffic & adjacent land uses (varies 3ft-10ft)
- ❖ ADA accessible curb ramps with tactile warning strips
- ❖ Landscaped buffer from motorized traffic
- ❖ Frequently spaced benches, trash cans, bike racks, and public spaces
- ❖ Sufficient pedestrian-scale lighting



# Bicycle Lanes

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Sharrow



Marked/Buffered  
Bike Lane



Separated Bike  
Lane



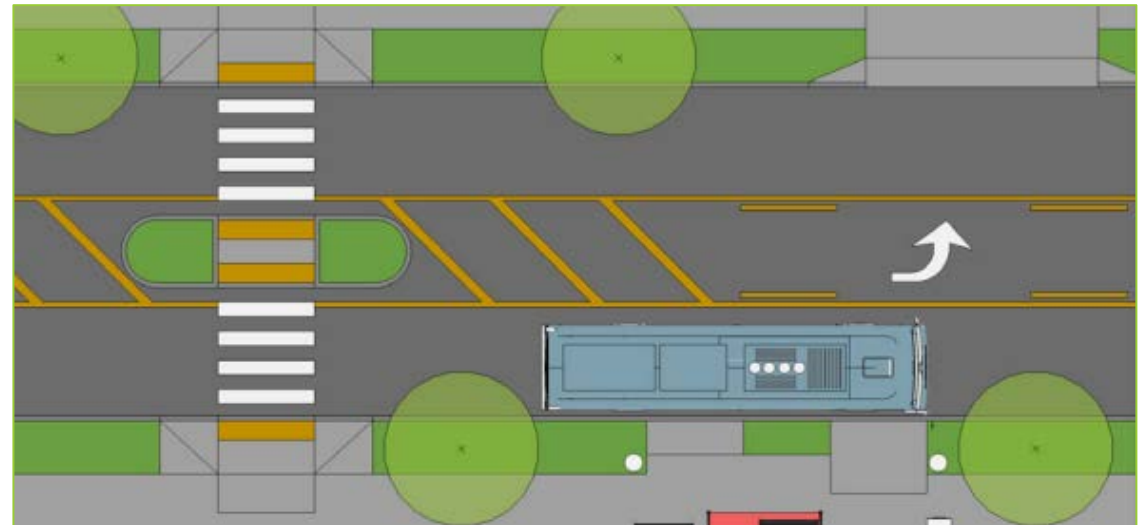
Shared/Multi-Use  
Path



# Bus Stops

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- ❖ Bus stops must be connected to ADA accessible sidewalk network. Riders will be pedestrians.
- ❖ Unobstructed concrete boarding area
- ❖ Consider bus stop location impacts on traffic, bike lanes, and street parking
- ❖ Enhance transit riders' comfort with street furniture and adequate lighting
- ❖ Connect with ride- & bike-share systems



# Benefits of Green and Complete Streets

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- ❖ Enhance community walkability and connections
- ❖ Reduce the need to drive
- ❖ Work towards Vision Zero
- ❖ Beautify the city
- ❖ Mitigate water pollution and flooding
- ❖ Street trees mitigate air pollution & the heat island effect