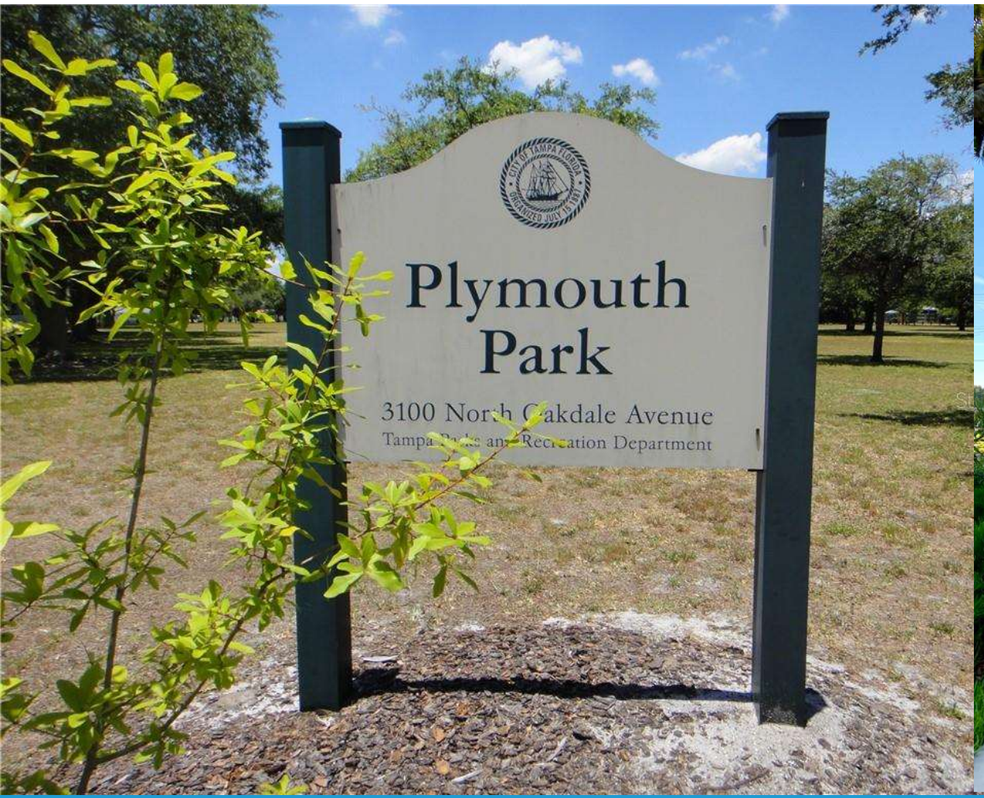
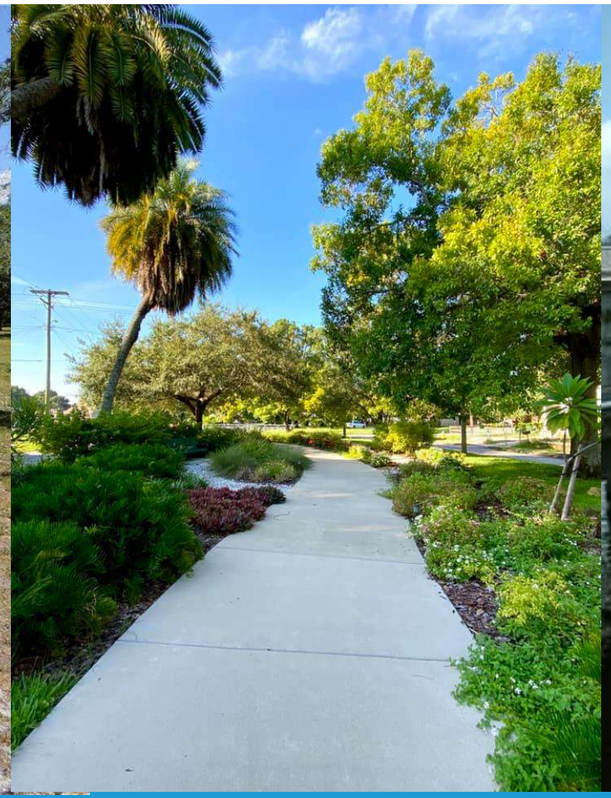




West Columbus Drive
Safety & Mobility Improvements

City of Tampa Mobility Department
Virtual Public Meeting
September 10, 2020

Title VI of the Civil Rights Act of 1964

No person shall, on the basis of his or her race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance pursuant to the requirements of Title VI of the 1964 Civil Rights Act.

The Mayor and City Council value diversity and welcomes input from all interested parties. Moreover, the City does not tolerate discrimination in any of its federally assisted programs, services or activities. The City of Tampa will not exclude participation in, deny the benefits of, or subject to discrimination anyone on the grounds of race, color, and national origin.

File a Complaint

Any person who believes that he or she has been subjected to discrimination based upon race, color, and national origin, may file a complaint with the City's Title VI Officer:

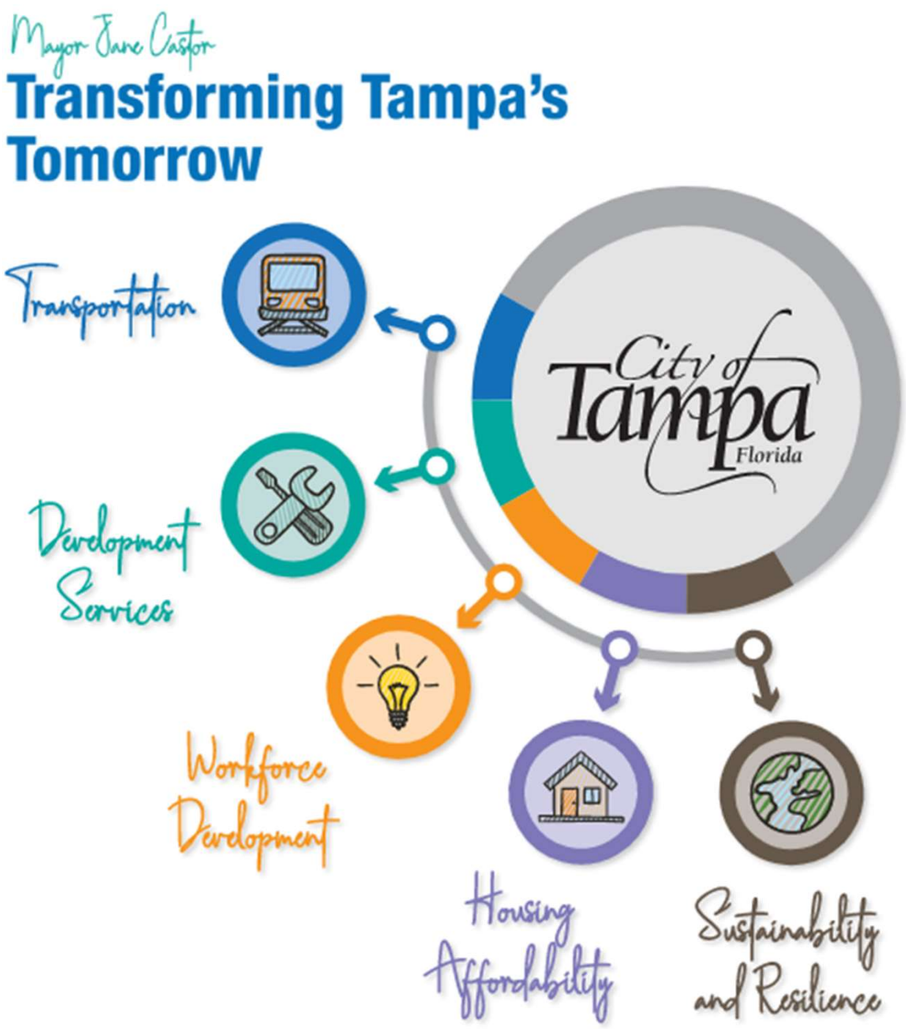
Maurice C. Foster
Supervisor, Tampa Office of Human Rights (TOHR)
Housing and Community Development Division
City of Tampa / 4900 W. Lemon St. / Tampa, FL 33609
p: (813)274-5856/ f: (813)274-7941/ e: Maurice.foster@tampagov.net

Please Visit us on the web at: https://www.tampagov.net/planning-and-development/human-rights for instructions on how to properly file a complaint.

Appeal a Decision

Any person who decides to appeal any decision(s), made with respect to any matter considered at this meeting, is advised that they will need a record of the proceedings. For such a purpose, they may need to hire a court reporter to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is to be based.

Mayor Castor's T3 Initiative

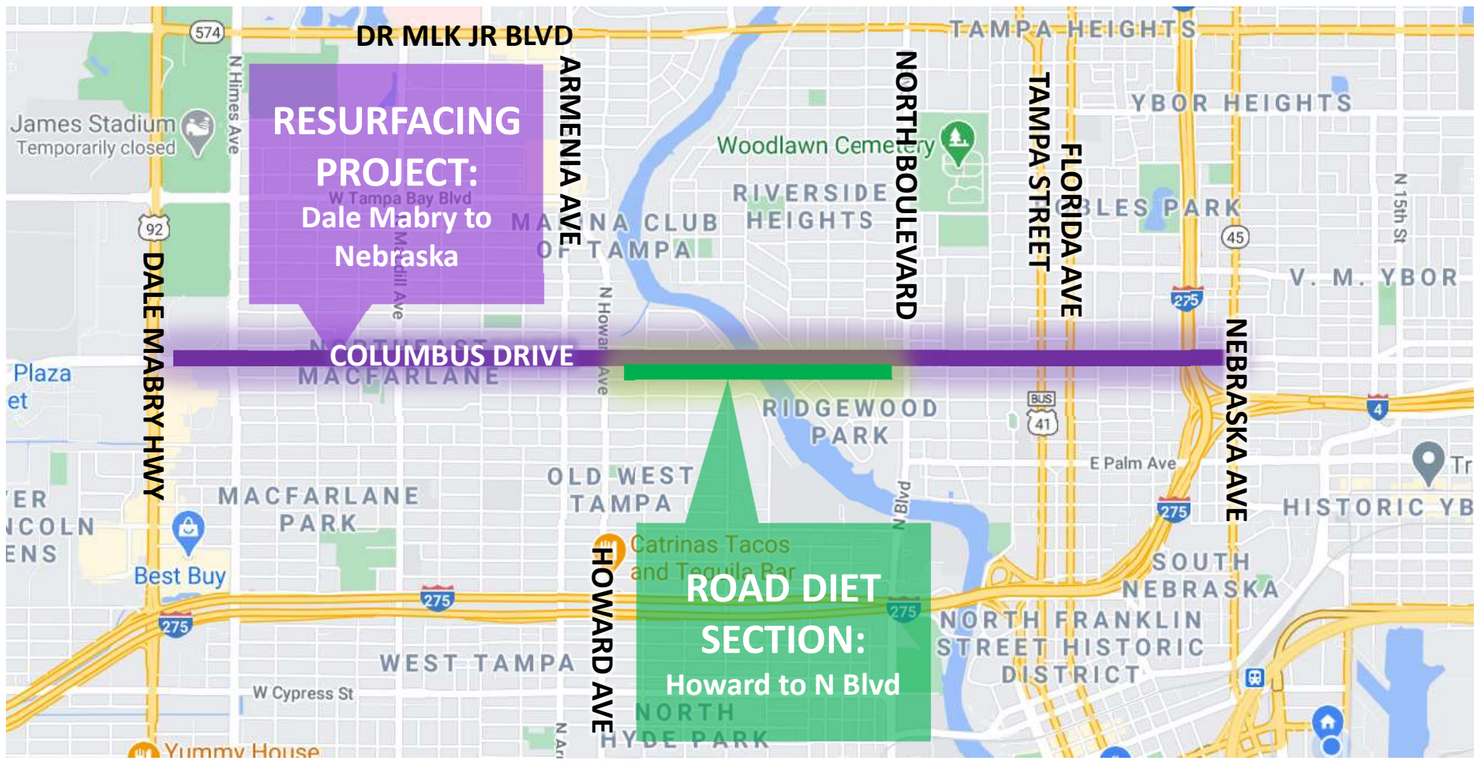


1. Implement Strategic Transit Projects
2. Reimagine Trails and Greenways as Viable Transportation Options
3. Adopt Vision Zero as a Citywide Policy
4. Reinvent Urban Parking and Mobility
5. Enhance Neighborhood Engagement Activities

VISION ZERO TAMPA

PROJECT OVERVIEW

Project Overview



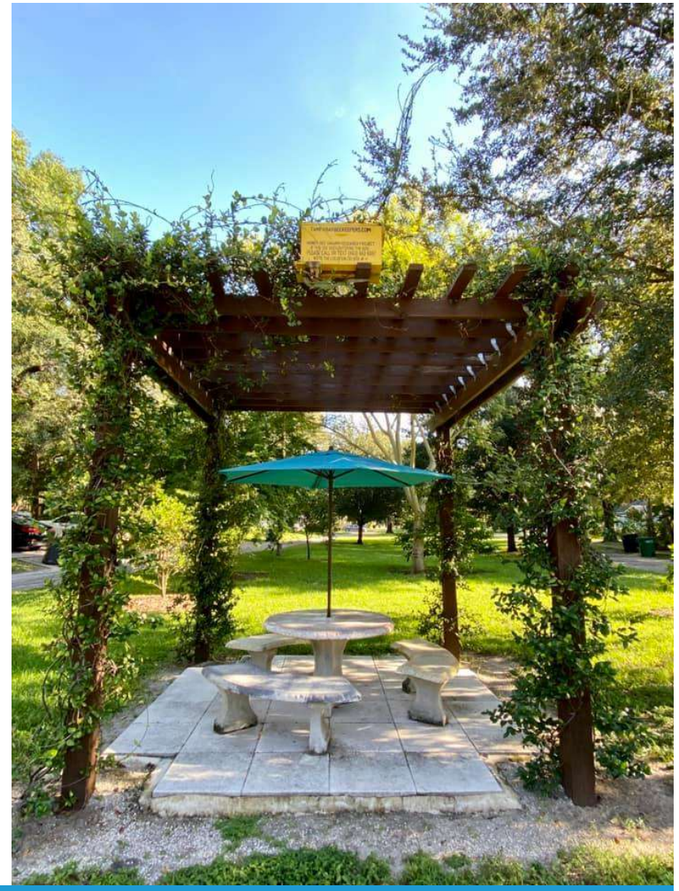
Phase	Estimated Schedule	Cost
Concept / Planning	Ongoing	In-House (City of Tampa)
Design	Nov. 2019 to March 2021	$247,000
Construction	Oct. 2022 to Sept. 2023	$3,508,000

Columbus Drive is a County Roadway and falls under the jurisdiction of Hillsborough County for regular maintenance and upkeep. Due to the condition of the pavement, Hillsborough County is developing plans to repave Columbus Drive, from Dale Mabry Highway to N. Nebraska Avenue.

The City of Tampa Mobility Department and Hillsborough County Public Works Department have collaborated to develop additional modifications to the roadway to improve safety and mobility. The purpose of this presentation is to present the proposed modifications and request community input.

City of Tampa Florida

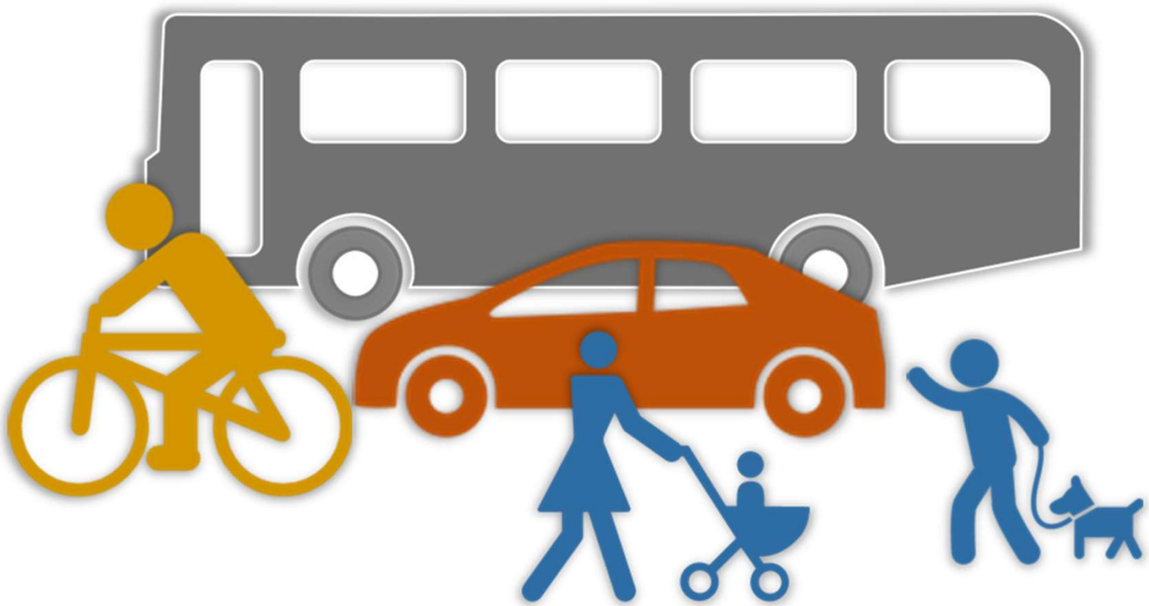
Hillsborough County Florida



PROJECT BACKGROUND

What are Complete Streets?

Complete Streets are designed so all modes of transportation can share the road safely.



The Right Street in the Right Place

There is no single design application for Complete Streets; each one is unique and responds to its community context.

What is W. Columbus Drive?

Transportation Corridor

- Connects East Tampa & West Tampa
- Historic Bascule Bridge over Hillsborough River (1926)

Business District

- Retail Stores
- Service Businesses
- Restaurants
- Corner Stores
- Coffee Shops

Transit Route

- HART Route 15
- 10 Bus Stops within Study Limits

Connects Parks & Neighborhoods

- Bowman Heights
- Ridgewood Park
- Riverside Heights
- West Tampa
- Multiple parks nearby

Residential Roadway

- Residential homes front both sides of the street

W. Columbus Drive

Existing Conditions

What's wrong with this picture?

Physical Condition
- Deteriorated pavement
- Narrow sidewalks

Functionally Obsolete
- No bike lanes
- Americans with Disabilities Act (ADA) Issues

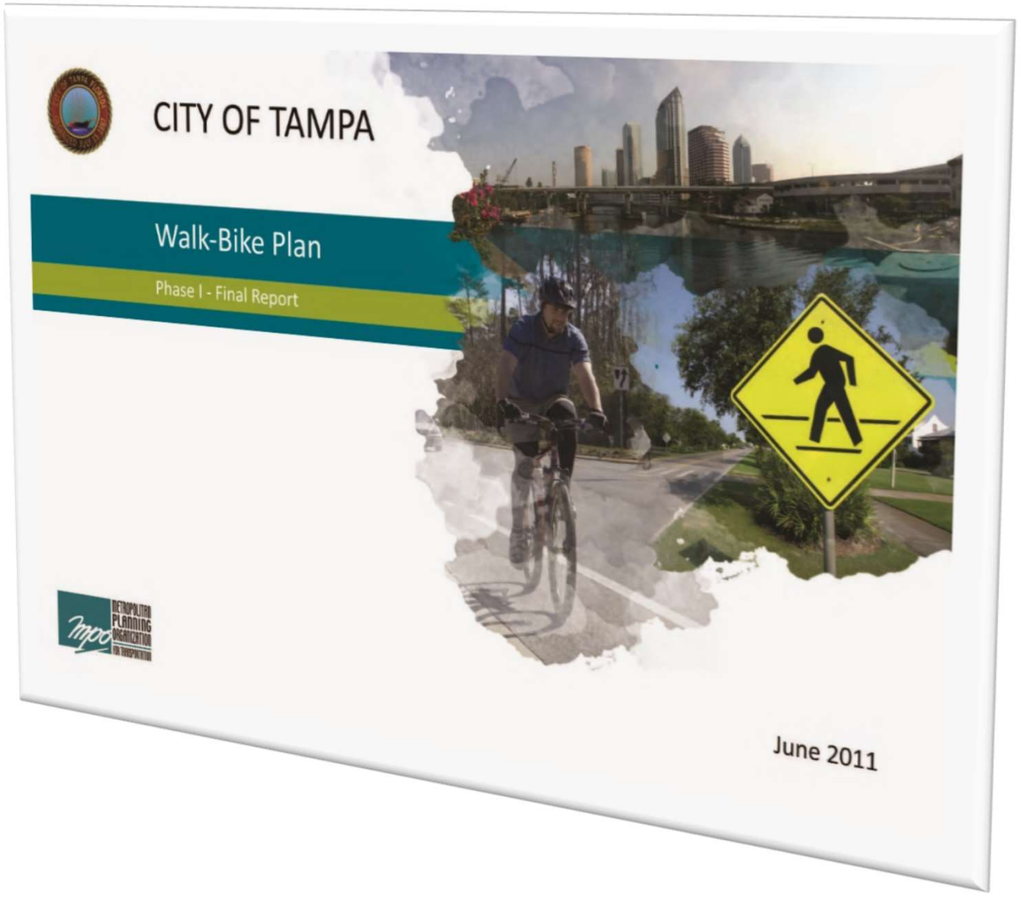
Safety
- Speed 40 MPH posted
- No crosswalks
- No turn lanes
- No buffer between sidewalks and cars

Community Context
- Street design does not reflect surrounding context of the neighborhood

How did this Project Originate?

City of Tampa Walk-Bike Plan, Phase 1, 2011

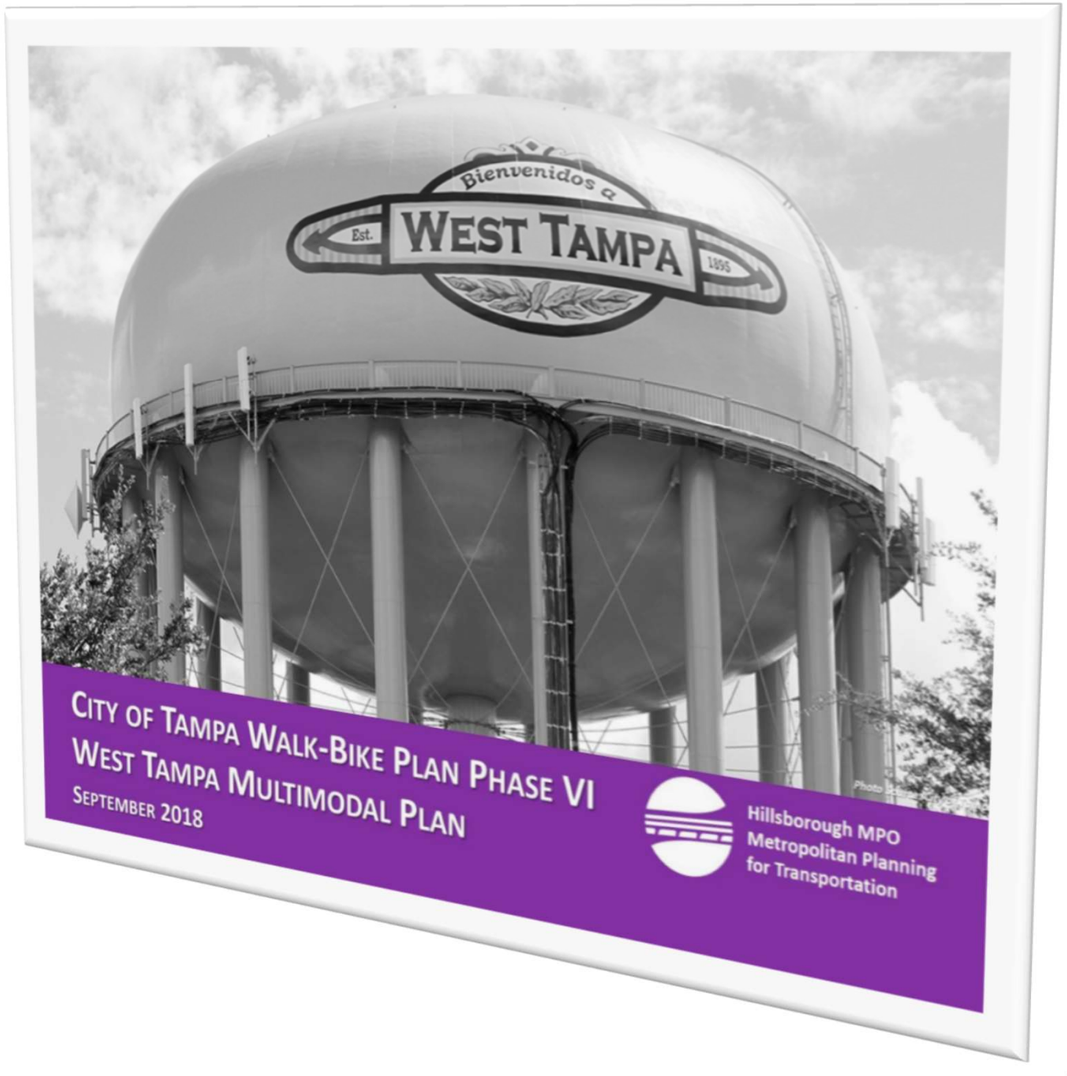
- Multi-Phased plan to identify opportunities for enhanced bicycle and pedestrian mobility throughout the City.
- Developed by the Hillsborough County MPO working in close coordination with the City of Tampa.
- Columbus Drive identified as a **complete street/road diet** candidate project



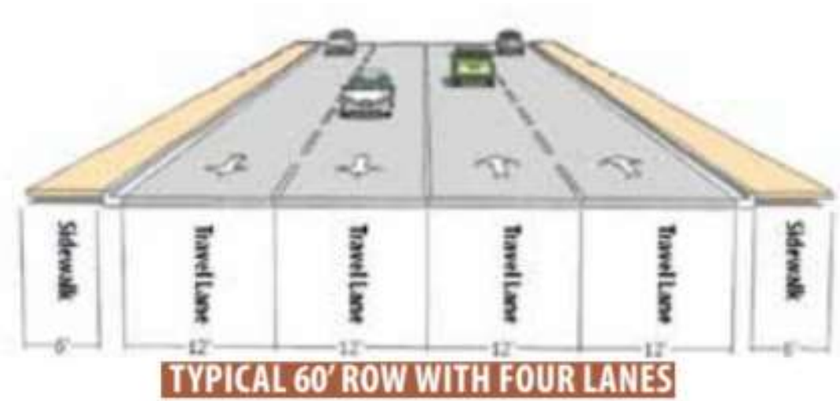
How did this Project Originate?

West Tampa Multi-Modal Plan

- Further refined & analyzed the road diet concept
- Emphasized importance of Columbus Drive corridor to the local network
- Columbus Drive Bridge could serve as a key multimodal connection across the River



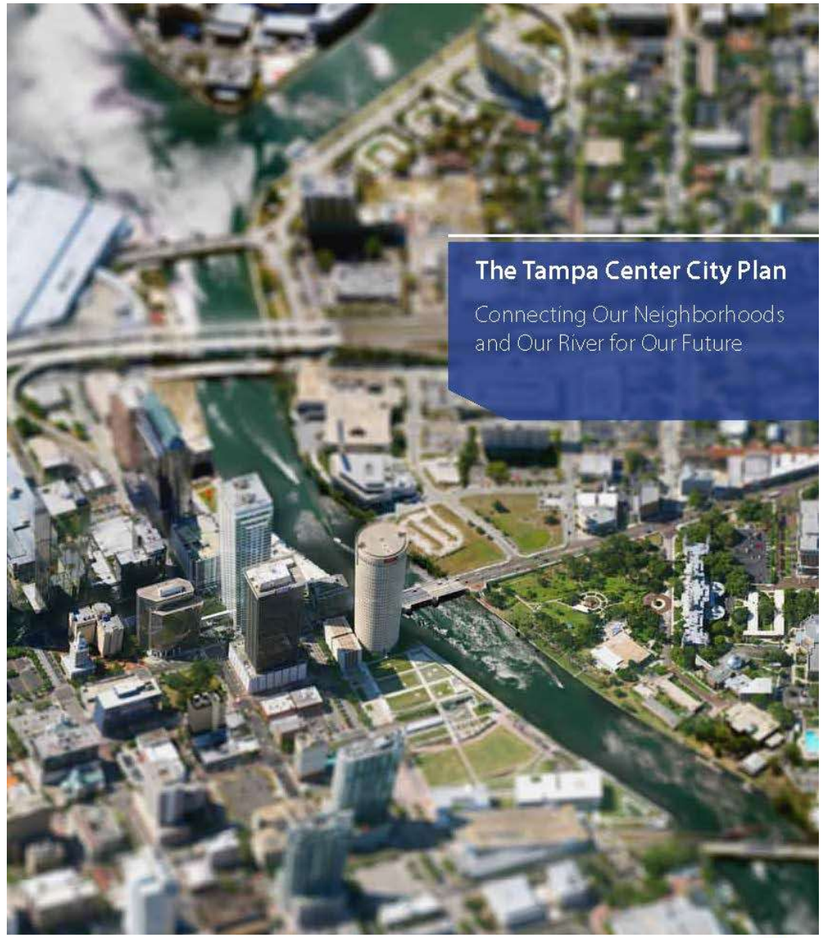
How did this Project Originate?



TYPICAL 60' ROW WITH FOUR LANES

CONVERSION TO THREE-LANES WITH BIKE LANES

INVISION TAMPA
People. Place. Progress.
CENTER CITY



INVISION TAMPA
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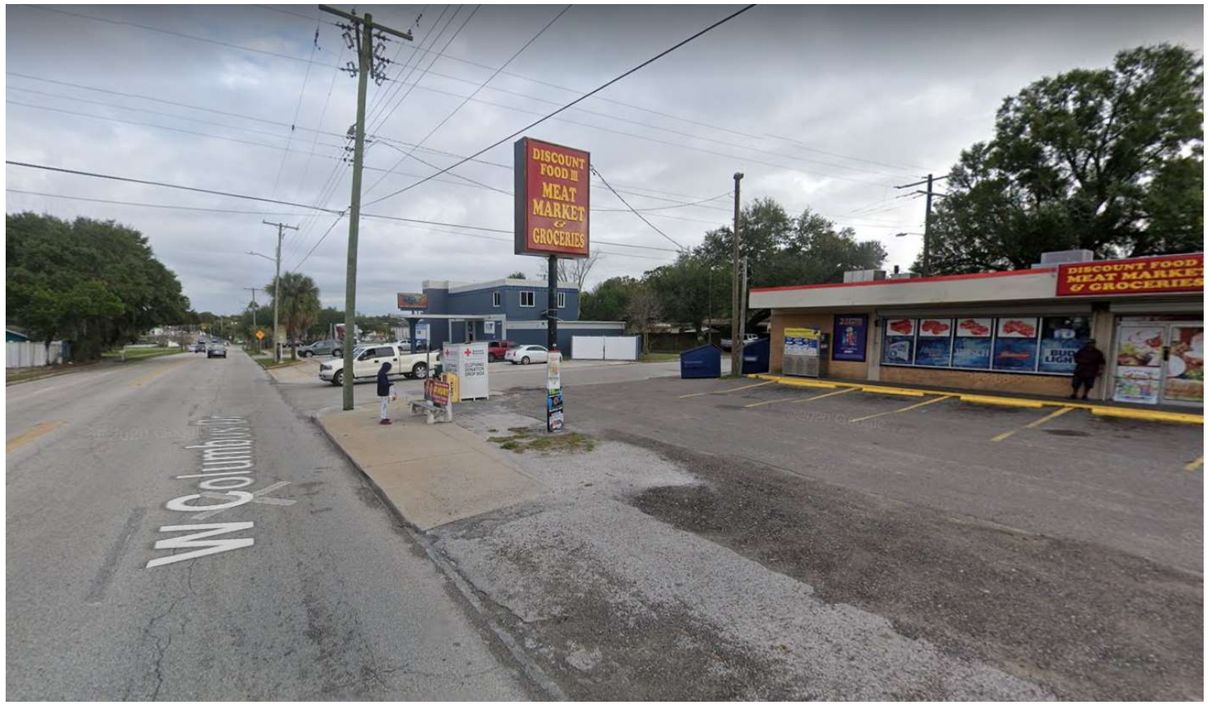
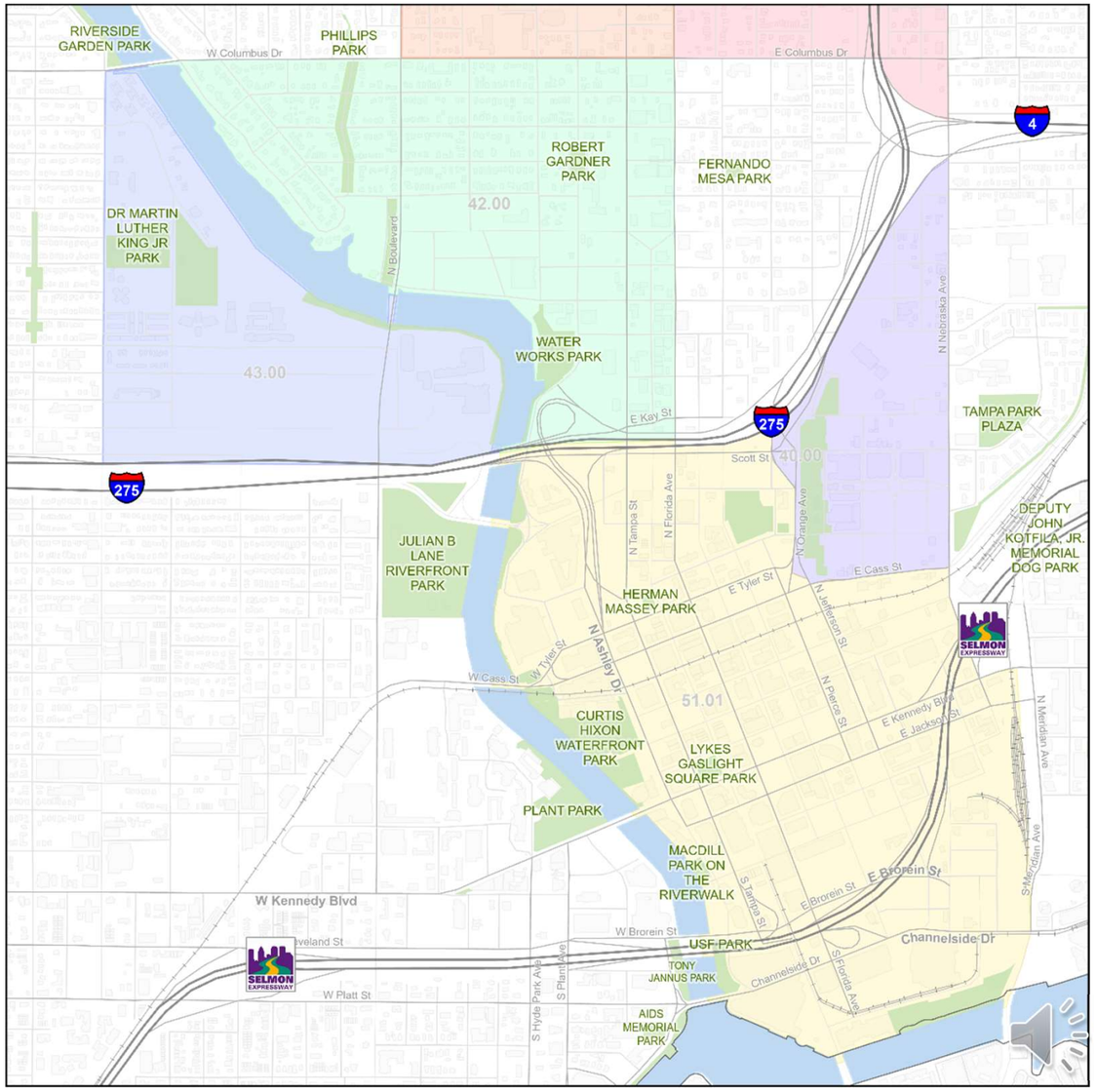


URBAN CORE NETWORK & CONTEXT

Urban Core: Network & Context

Opportunity Zones

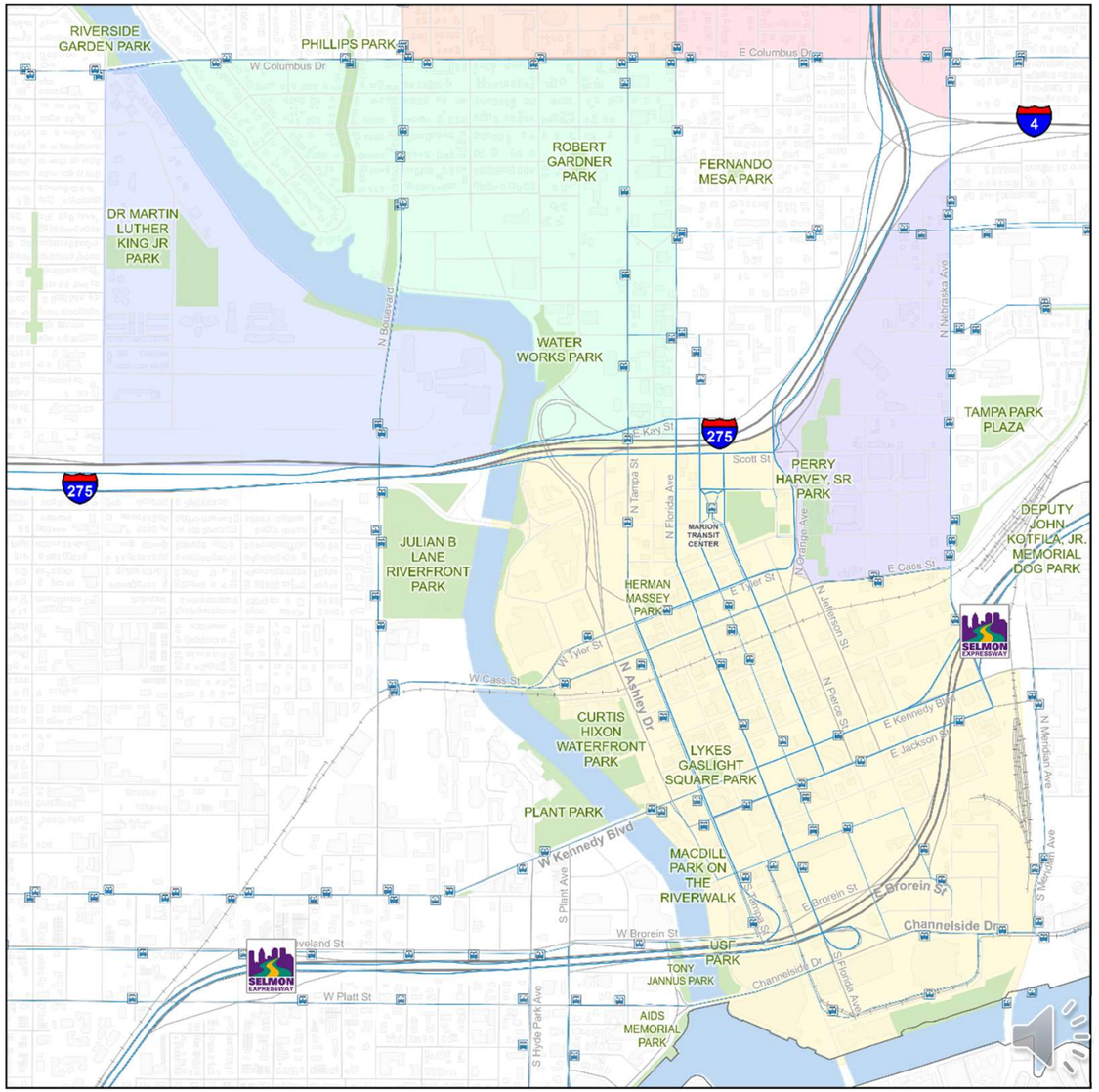
Areas where incentives are provided to encourage economic development and redevelopment.



Urban Core: Network & Context

HART Bus Routes & Stops

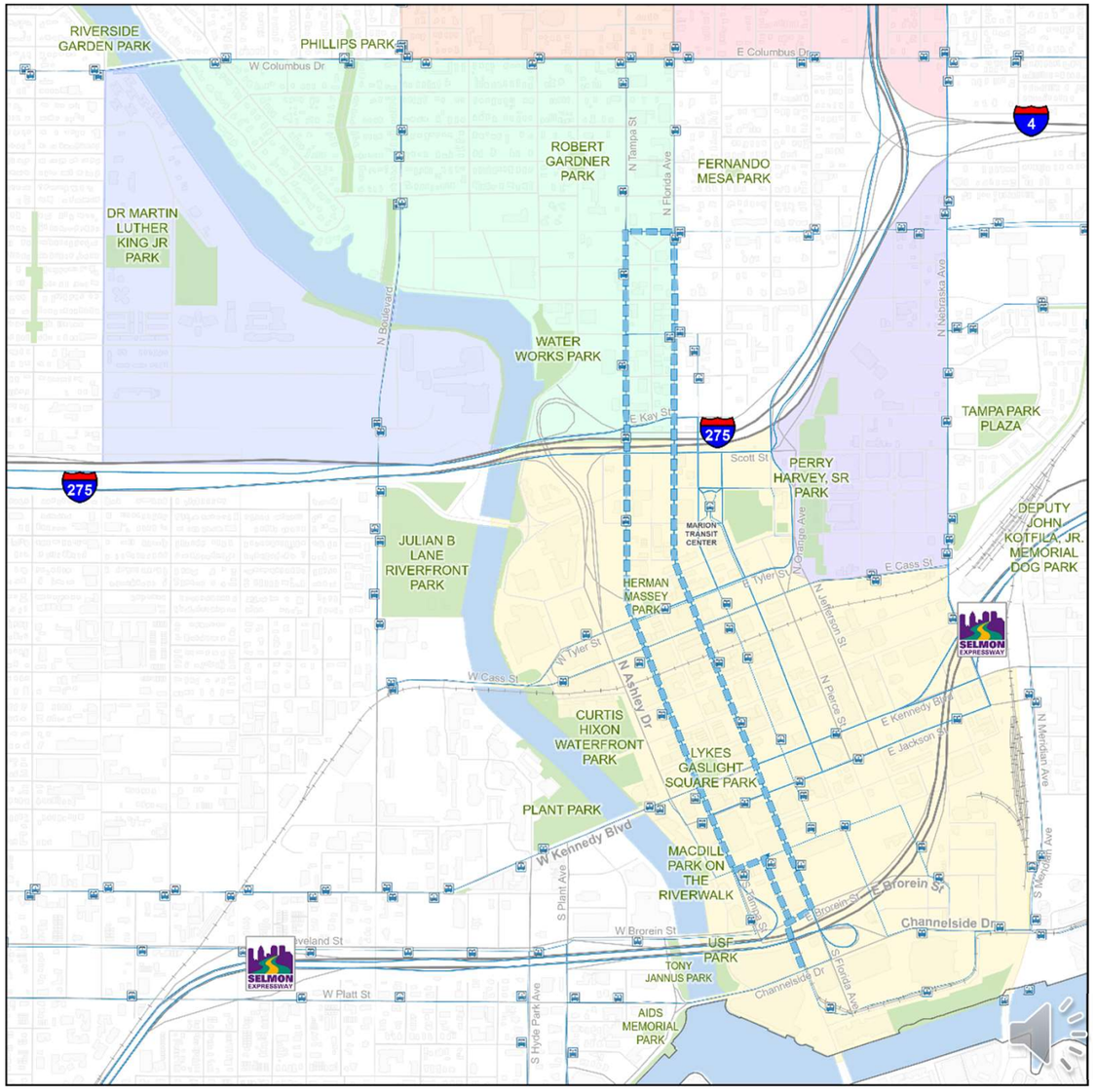
Several high-ridership and high-frequency bus routes serve this area.



Urban Core: Network & Context

Streetcar Extension

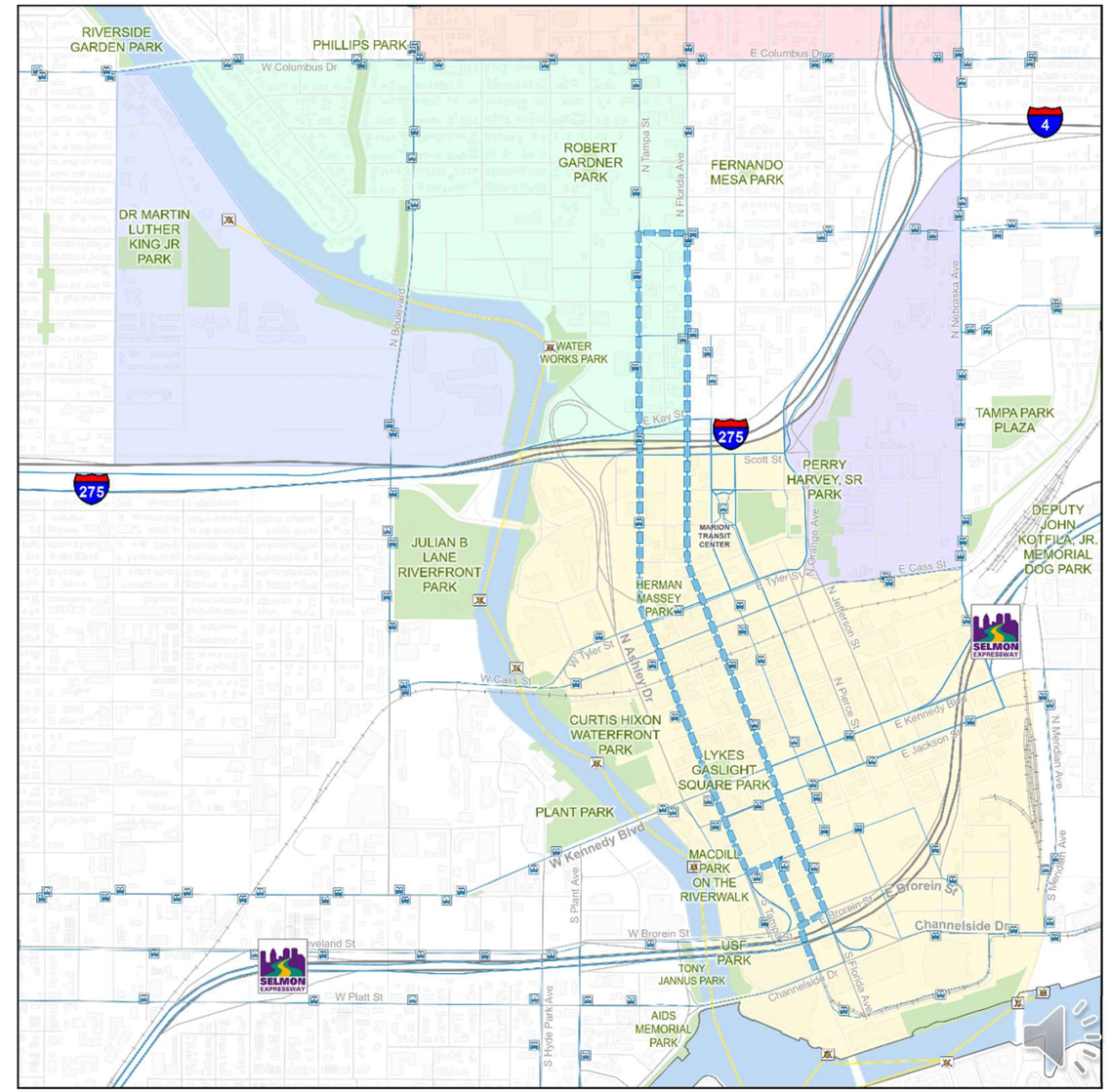
The City is beginning the engineering work on the extension of the Streetcar line. The planned terminus will be within walking distance of this corridor.



Urban Core: Network & Context

Water Taxi Route

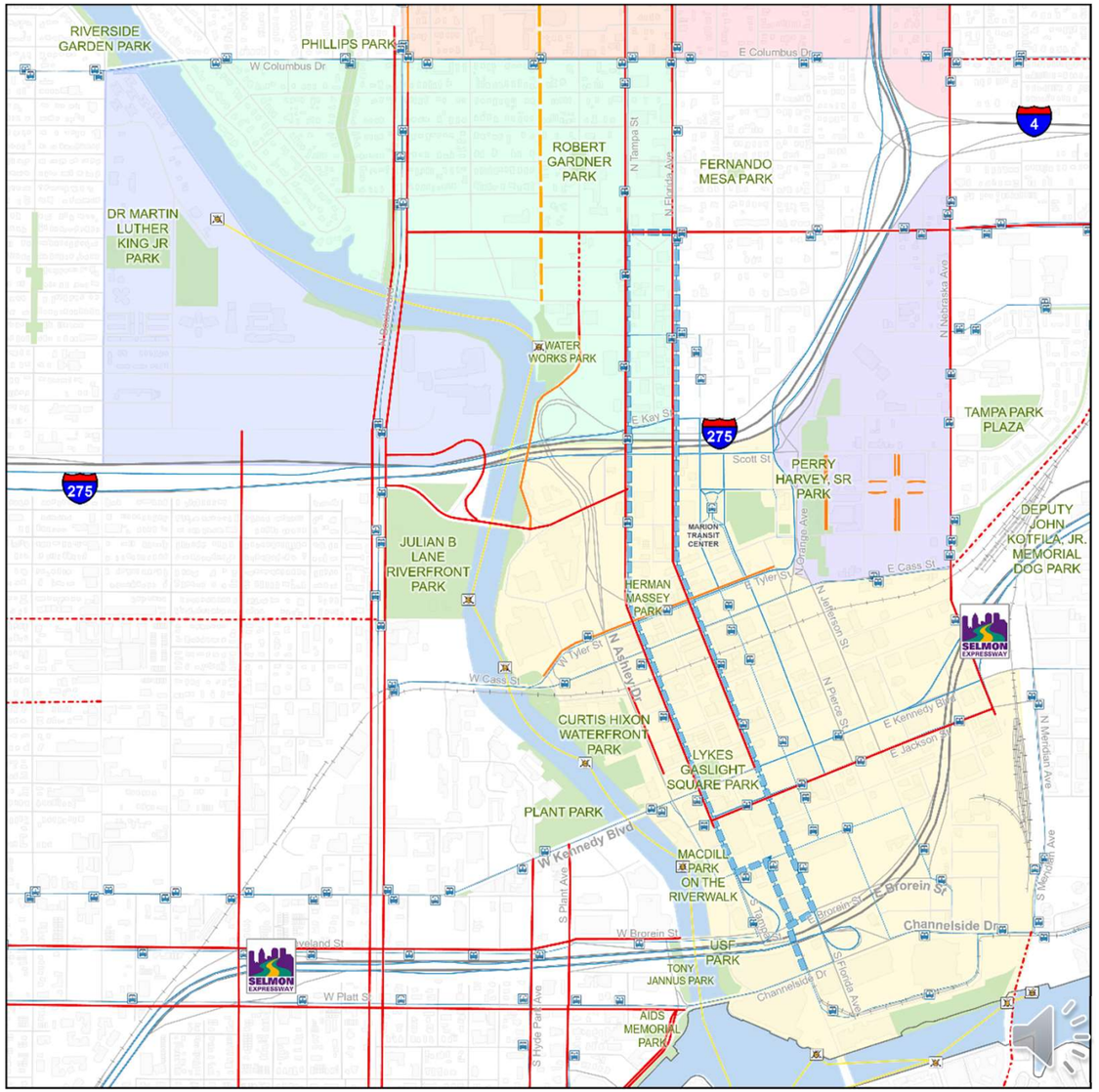
Private water taxi service serves nearby Rick's on the River and many other destinations along the Downtown waterfront.



Urban Core: Network & Context

Existing Bike Lane Network

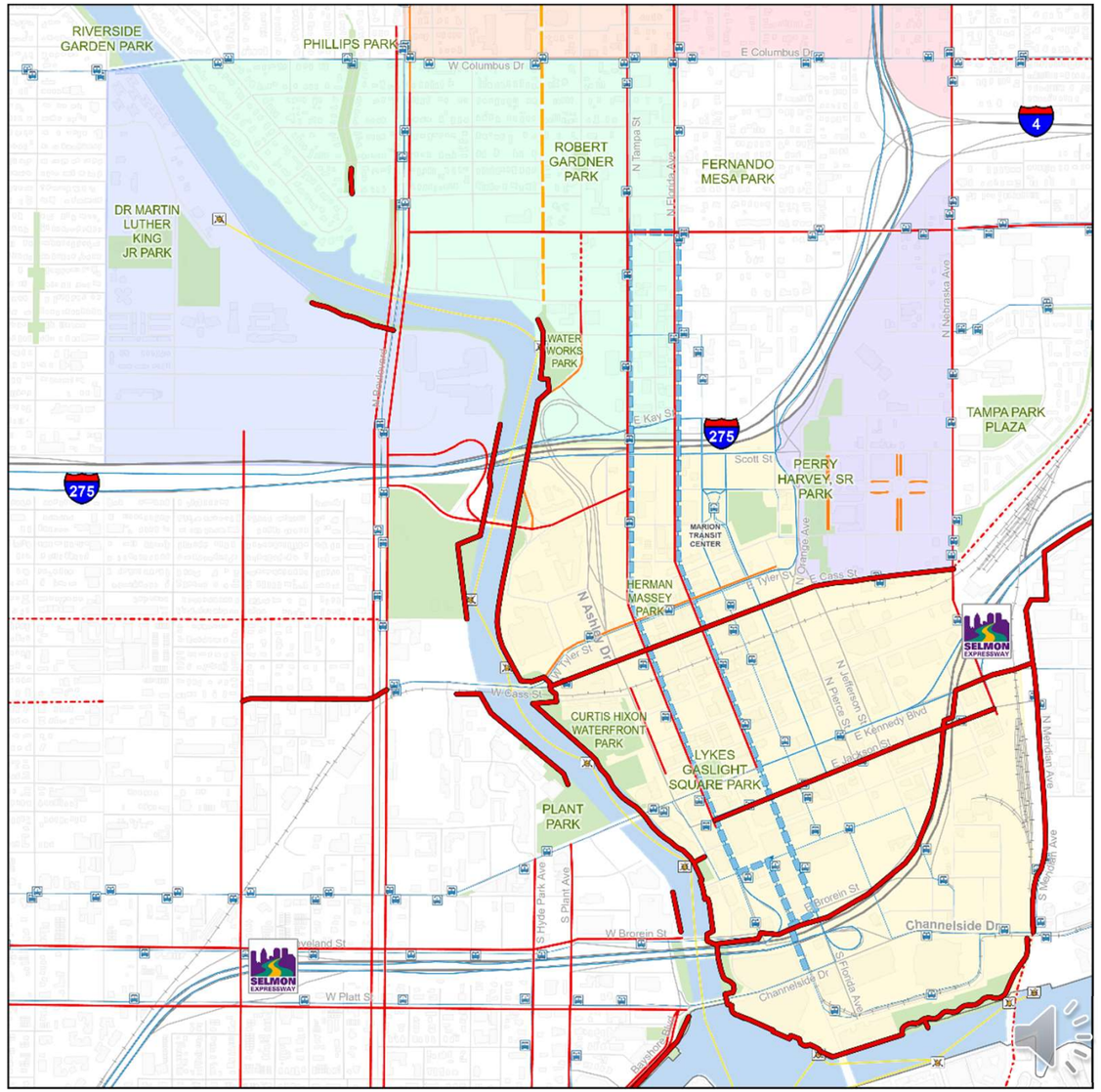
The City continues to invest significantly into the bike network in the urban core. This project serves as a key link for that bicycle network across the river.



Urban Core: Network & Context

Existing Multimodal Network

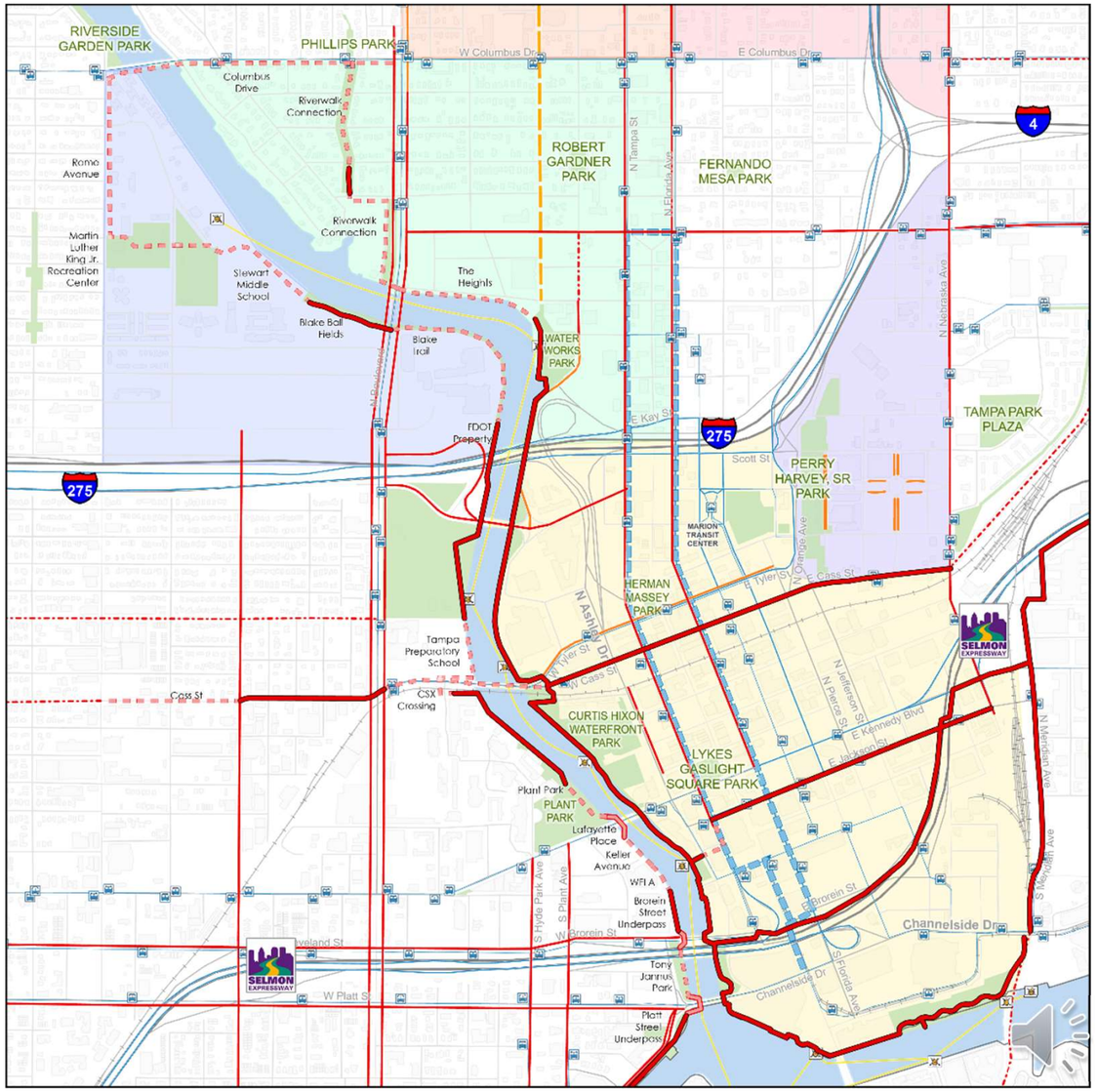
This project supports the investments the city has made in side-paths, trails and off-road facilities for walkers, cyclists and other users.



Urban Core: Network & Context

Planned Multimodal Network

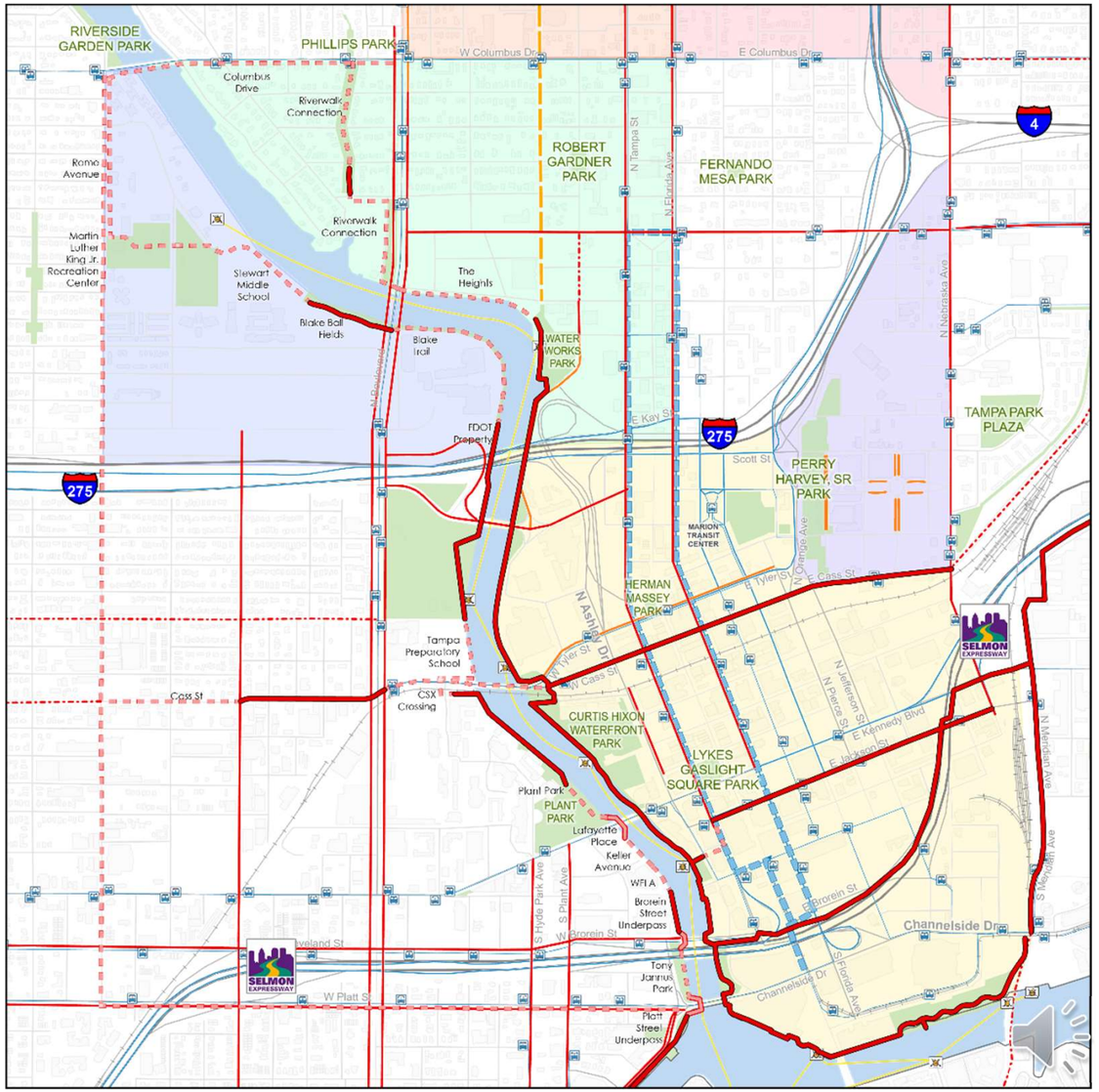
This project serves as a critical walk/bike link to connect West Tampa to the future extension of the Riverwalk.



Urban Core: Network & Context

Planned Rome Ave Complete Street Connection

The future project planned for Rome Ave will provide pedestrian and bicycle facilities, enhancing the connectivity to North Hyde Park and neighborhoods to the south as well as regional connections through the Green Spine.



WHAT IS A “ROAD DIET?”

Safety- Overview

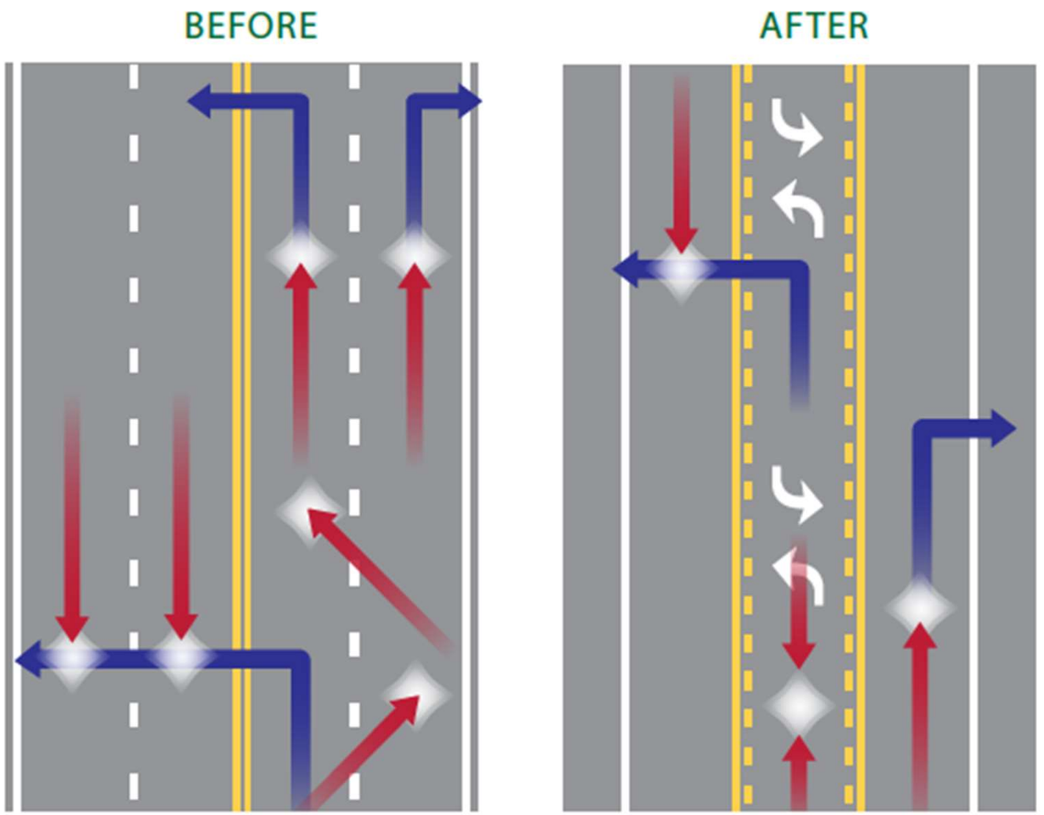
- A Federal Highway Administration (FHWA) **Proven Safety Countermeasure**

- Benefits include:
  - Safety
  - Ease of Use
  - Provision for Bike Lanes
  - Better Pedestrian Experience

Safety- Crash Statistics

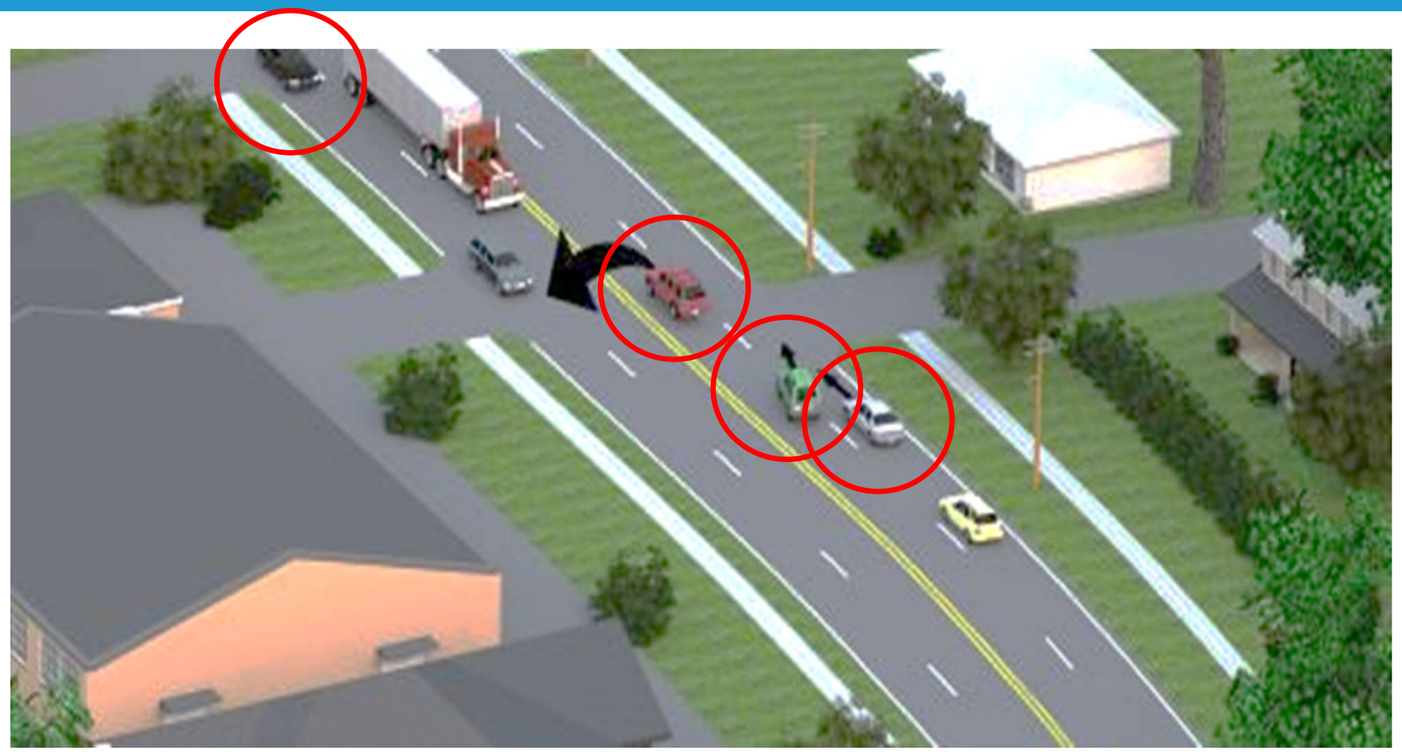
- Road Diets typically reduce total crashes **19% to 47%**
  - *Knapp, Keith et al. (November 2014). Road Diet Informational Guide (FHWA-SA-14-028)*

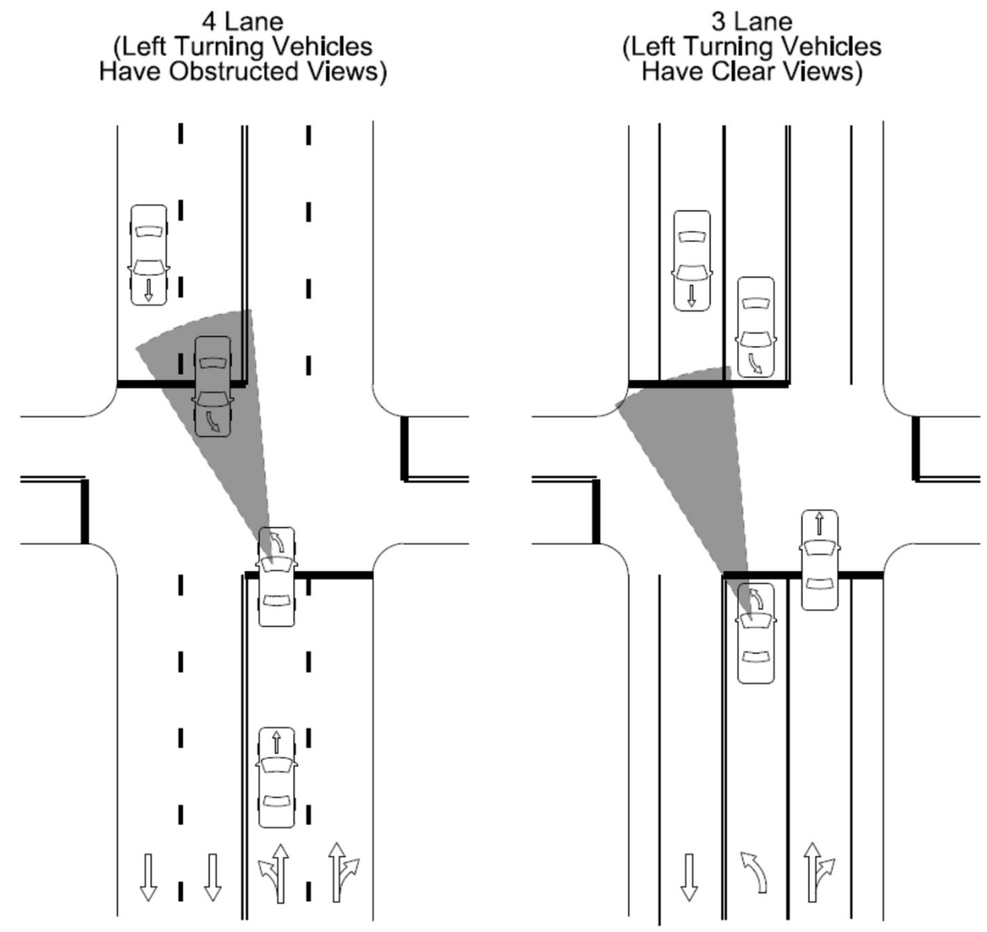
- **29% reduction in total crashes**
  - 15 Case Studies in Iowa, 30 sites in California and Washington
  - 7-15% Increase in Traffic
  - *Evaluation of Lane Reduction "Road Diet" Measures on Crashes, Publication Number: FHWA-HRT-10-053, June 2010,* FHWA



Conflict Points are areas where two vehicles cross paths. These areas are opportunities for crashes. The two pictures above show the reduction in conflict points associated with a road diet.

Safety- Left Turns

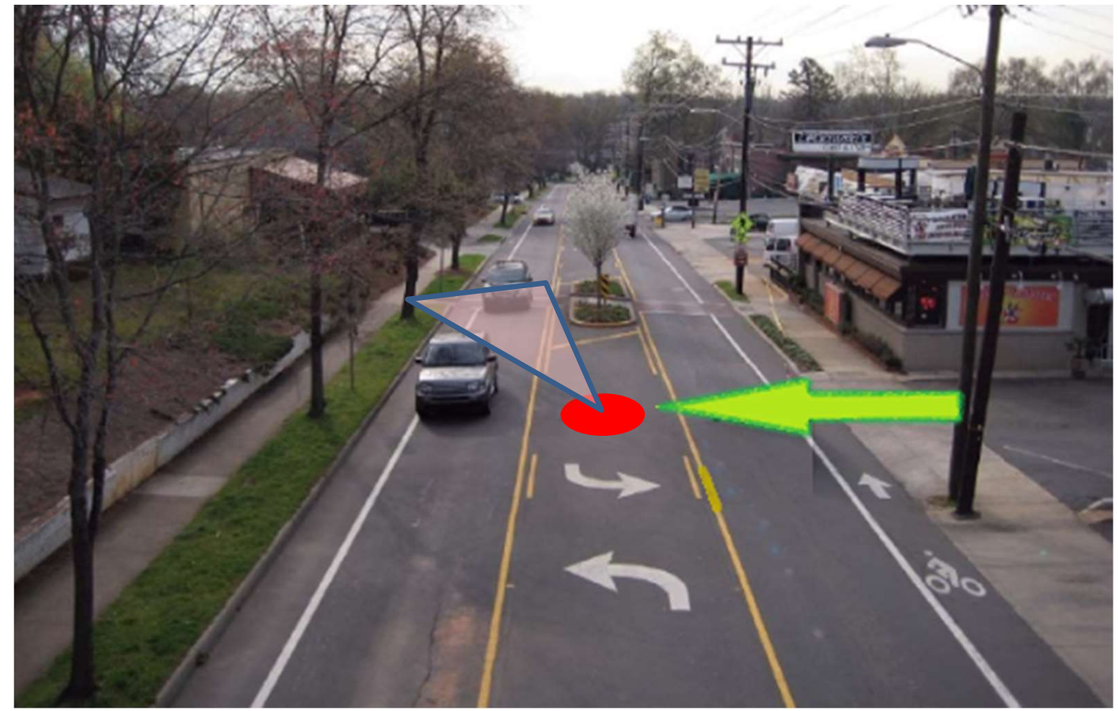




Offset Left Turns

- Easier and safer left-turns
  - Opposing left turning vehicles are out of sight line
  - Only one lane of opposing traffic to cross
  - No stopping in a through lane (less rear-end crashes)
  - Less Weaving

Left Turns from Side Streets and Driveways

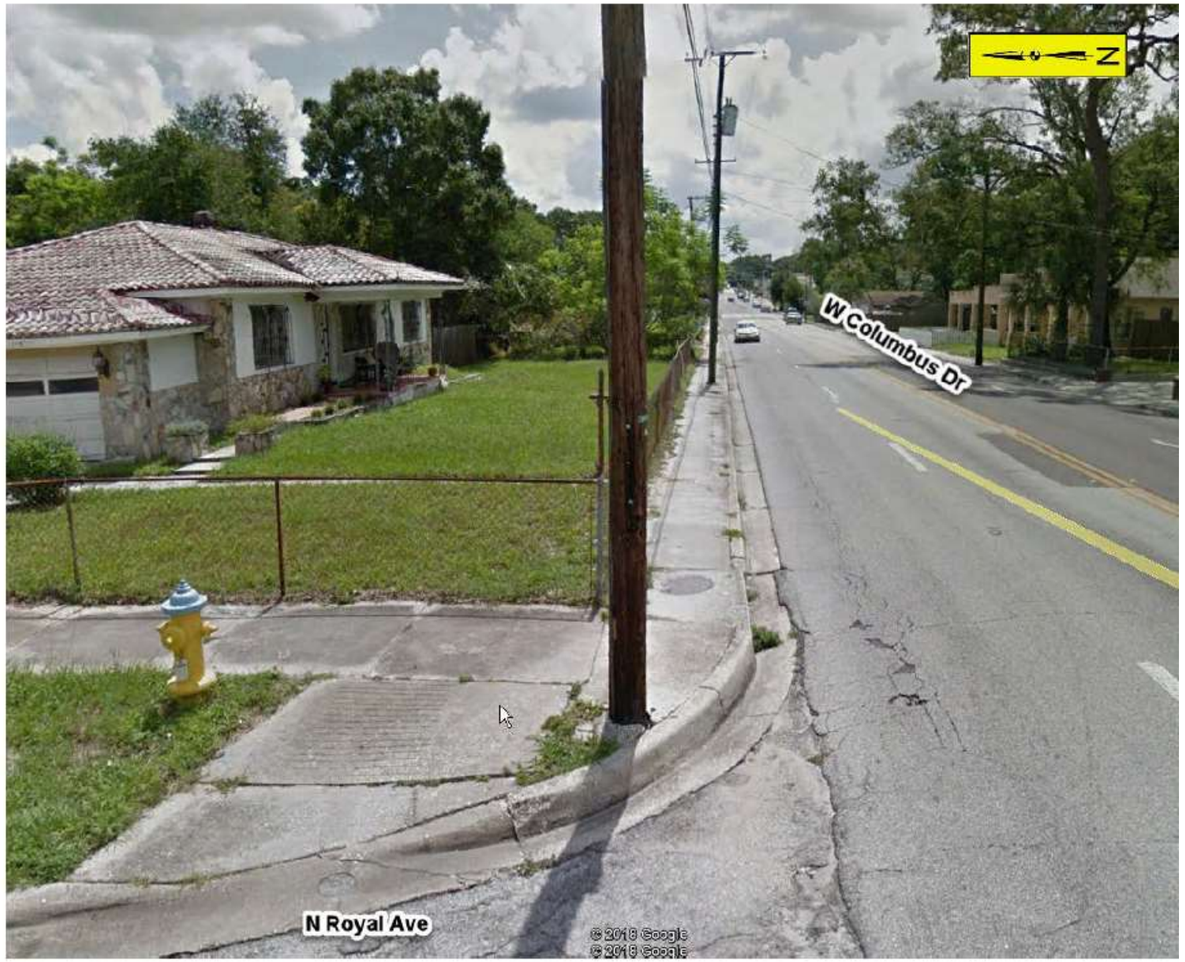


Left turns from side streets and driveways are safer and easier because a driver only crosses one lane at a time. The two-way left turn lane provides an area for a driver to pause and check oncoming traffic in the other direction.

Right Turns from Side Streets and Driveways

Right turns from side streets and driveways are safer and easier to maneuver because:

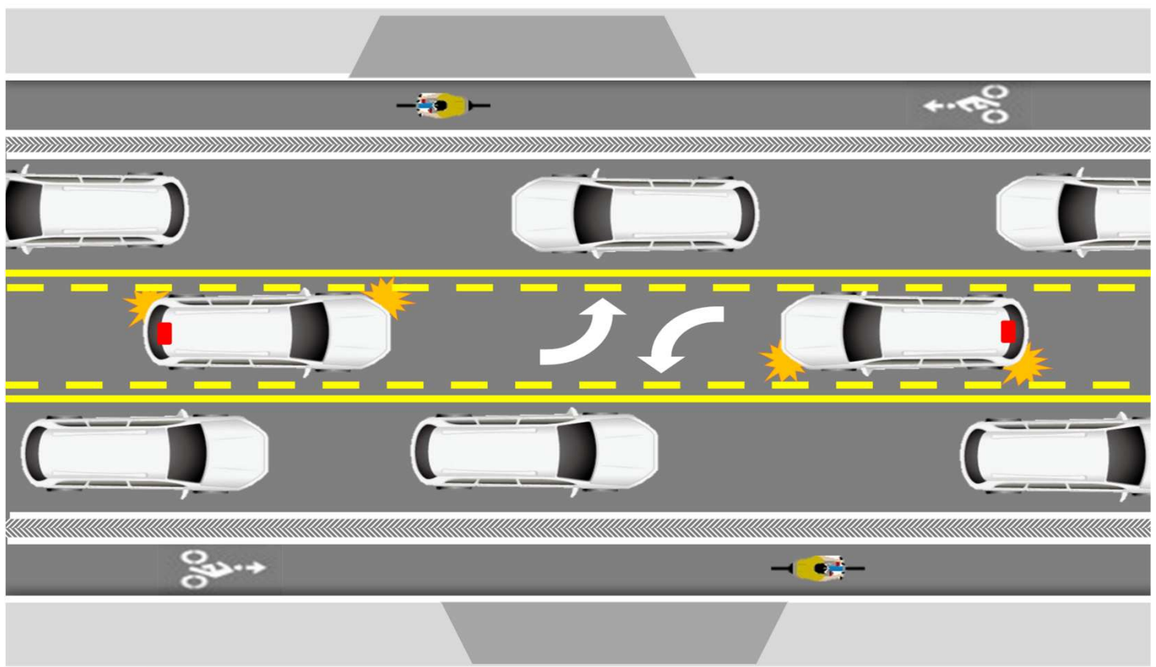
- A driver only has to merge into one lane (no passing)
- There is more room to make the turn since the travel lane is separated from the curb
- Vehicular lanes are further away from the curb allowing for greater sight distance from side streets.

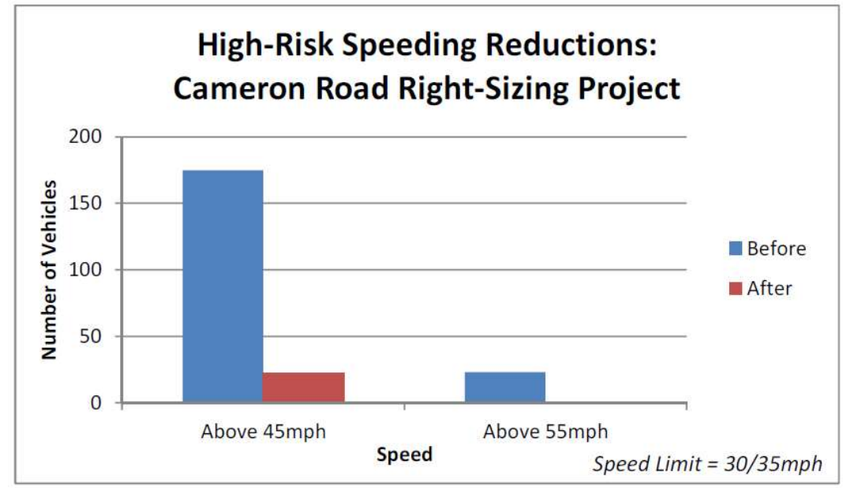


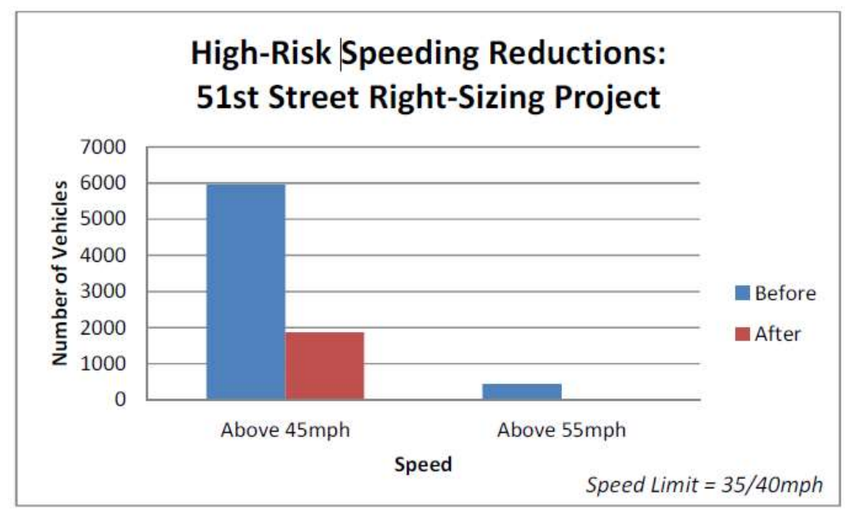
Current sight distance issues at side streets

Lower Speeds (No Passing)

- Slower Vehicular Speeds
  - One travel lane allows for effective speed controls as there is no passing lane







Source: *Redesigning the Street, 2014, City of Austin Texas*

Lower Speeds and Pedestrian Safety

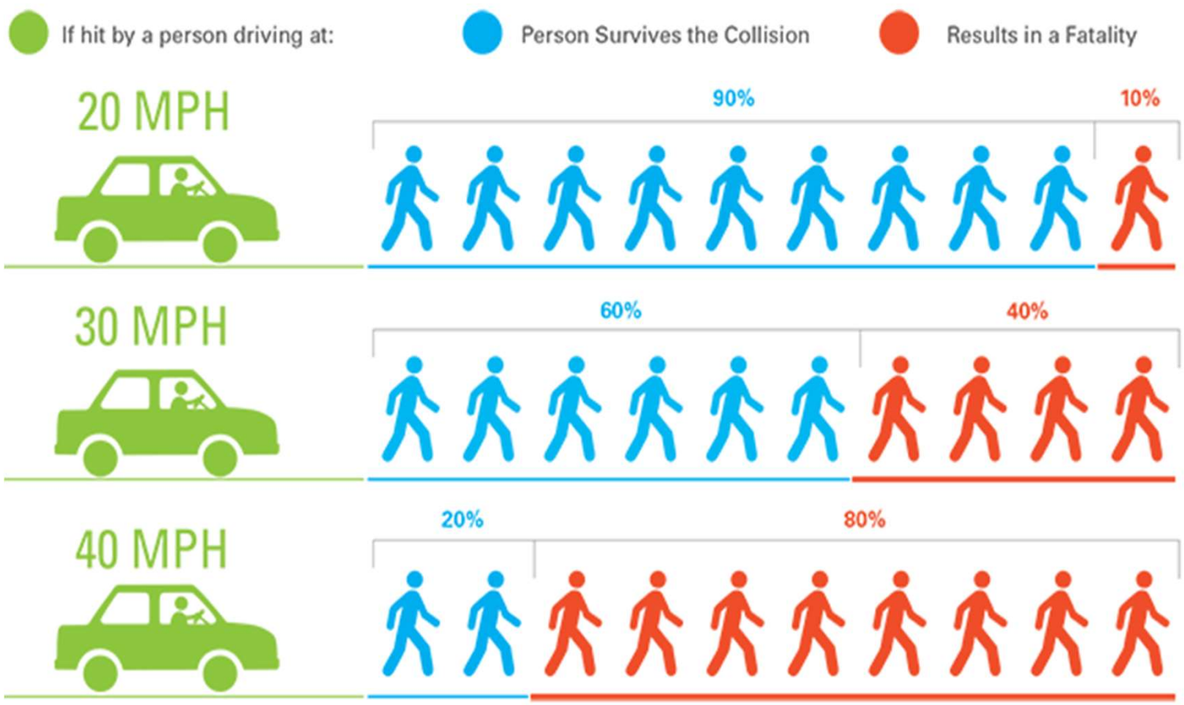


Figure 1: Speed is the number one contributing factor to pedestrian deaths

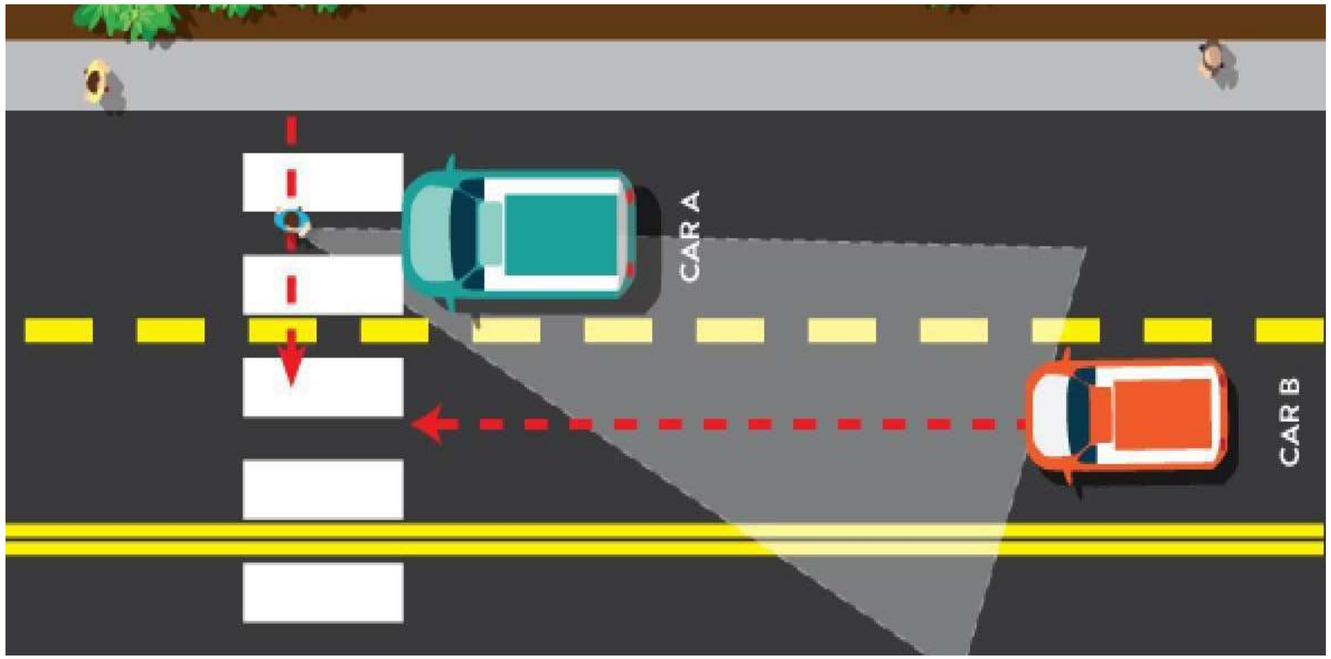


Figure 2: Removal of travel lanes eliminates the risk of Multiple Threat Crash with pedestrian/vehicle obscured.

What is Right-Sizing?

- Generally, as the City grew, roads were traditionally widened to add additional through lanes as that was the known practice at the time.
- Columbus Drive has excess space dedicated to vehicle movements that sits largely unused for most of the day.
- Right-sizing is the process of reallocating pavement and right-of-way space to better serve the context of the roadway and goals of the community.

Buffered Bicycle Lanes

- Appeal to a wider range of bicyclists
- Provide more space between bicycles and vehicles
- Benefit Pedestrians – increase space between motor vehicles and sidewalk
- Remove bikes from the vehicular lane

Source: tbo.com

Road Diet Candidates

LESS THAN 10,000 ADT	10,000 – 15,000 ADT	15,000 – 20,000 ADT	GREATER THAN 20,000 ADT
Great candidate for Road Diets in most instances. Capacity will most likely not be affected.	*Good candidate for Road Diets in many instances. Agencies should conduct intersection analysis and consider signal retiming to determine any effect on capacity.*	*Good candidate for Road Diets in some instances. Agencies should conduct a corridor analysis. Capacity may be affected at this volume depending on the "before" condition.*	*Agencies should complete a feasibility study to determine whether this is a good location for a Road Diet. There are several examples across the country where Road Diets have been successful with ADTs as high as 26,000. Capacity may be affected at this volume.*

1 FHWA, Road Diet Informational Guide, FHWA-SA-14-028 (Washington, DC: FHWA, 2014. Available at: http://safety.fhwa.dot.gov/road_diets/case_studies/roaddiet_cs.pdf.

2 City of Seattle Modeling Flow Chart for Road Diet Feasibility Determination. Available at: http://safety.fhwa.dot.gov/road_diets/info_guide/ch3.cfm#f1.

3 MnDOT Office of Traffic, Safety and Technology, Minnesota's Best Practices for Pedestrian/Bicycle Safety, Report 2013-22 (Roseville, MN: MNDOT, 2013). Available at: http://www.dot.state.mn.us/stateaid/trafficsafety/reference/ped-bike-handbook-09.18.2013-v1.pdf.

Columbus Drive (Howard Ave. to North Blvd.) AADT= **17,703**

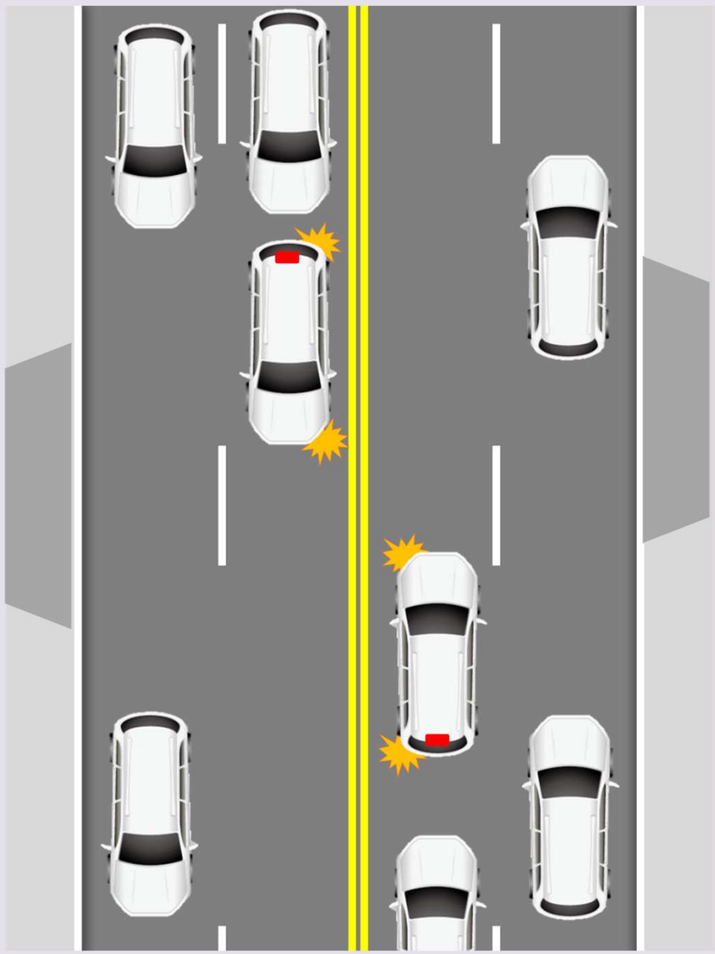
Hillsborough Metropolitan Planning Organization Traffic Counts, 2015

Roadway Performance

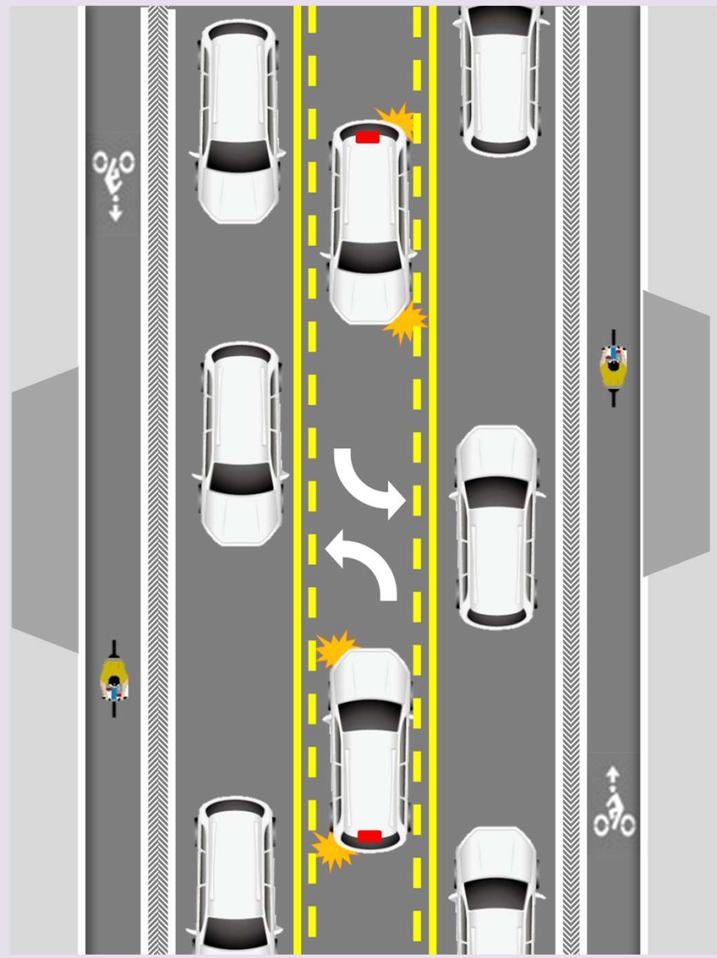
Terminology:

- **Volume** = amount of traffic that a roadway experiences
- **Capacity** = how much traffic volume a roadway can handle
- **Level of Service** = ranking or grade of how well a roadway operates

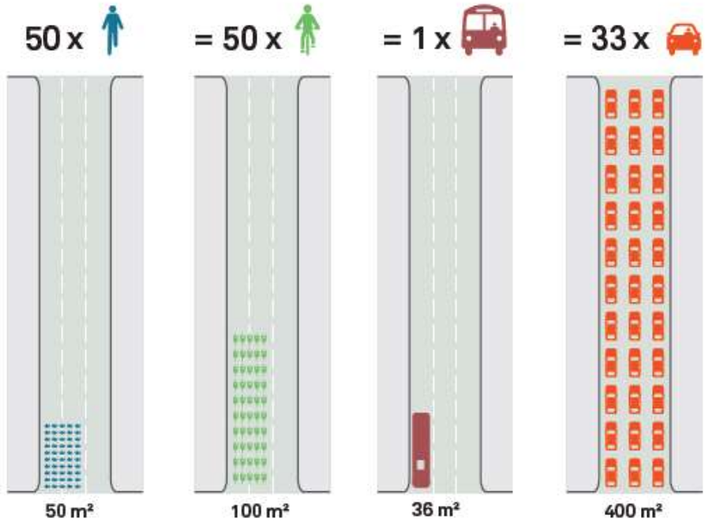
Capacity of a Three Lane Road



Turning vehicles often restrict movement in the middle lanes allowing only the outside lanes to flow.



A Road Diet provides left turning vehicles with a dedicated lane, while allowing additional space to be repurposed for other uses.



Space Occupied by 50 People

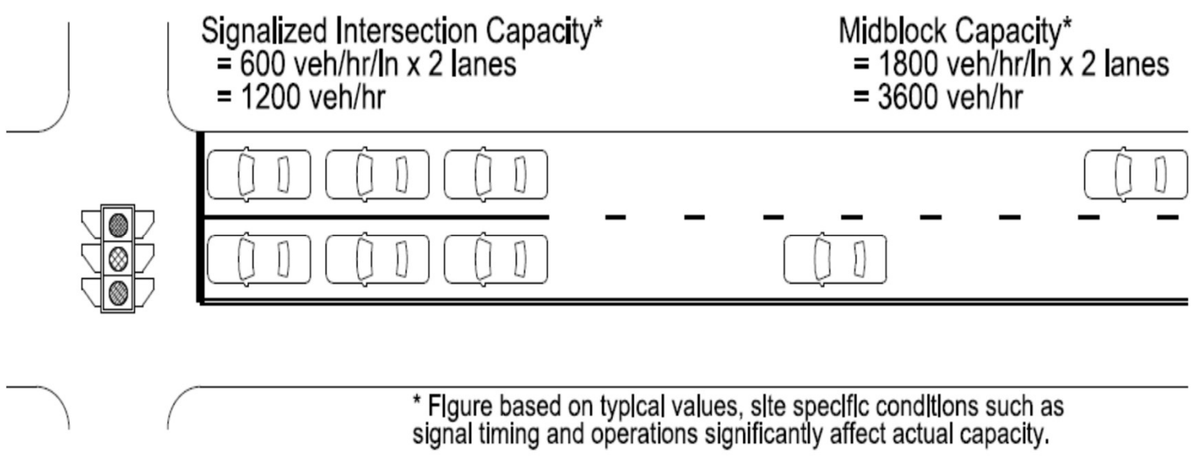
While a bus needs three times as much space as a car, its carrying capacity per lane is unrivaled among other on-street modes. As land in urban areas becomes increasingly scarce, use the space within the street most efficiently to serve the largest number of people.

How Intersections Affect Capacity?

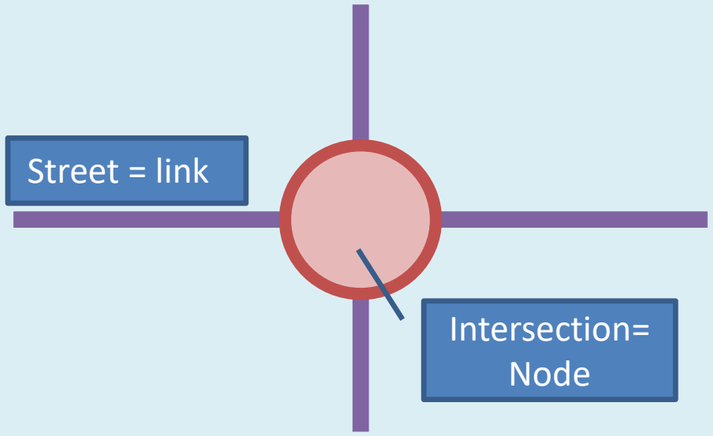
- Signalized intersections are the most significant constraint on roadway capacity
- Capacity "Rules of Thumb"
  - Single Mid-Block Travel Lane = **1,800 vehicles per hour**
  - Single Travel Lane through Signalized Intersection= **600 vehicles per hour**

Why the drop in capacity?

1. Conflicting movements
2. Vehicles slowing down
3. Delay to accelerate
4. Driver inattentiveness



Wide Nodes, Narrow Links



This concept refers to the fact that a street's capacity is predominantly determined by the operations at its stop-controlled and signalized intersections (the nodes), not the number of lanes on a street between those intersections (the links).

Roadway Performance

Six alternatives were analyzed using microsimulation software.

Overall, the **corridor itself can function acceptably with two travel lanes**.

Two constraint points were identified:

- Ridgewood Ave intersection
- Rome Ave intersection

Specific lane configuration recommendations were developed using microsimulation data to **optimize the operation of the road diet** at these constraint points and minimize delay under the road diet scenario.

Columbus Drive & Rome Ave Intersection

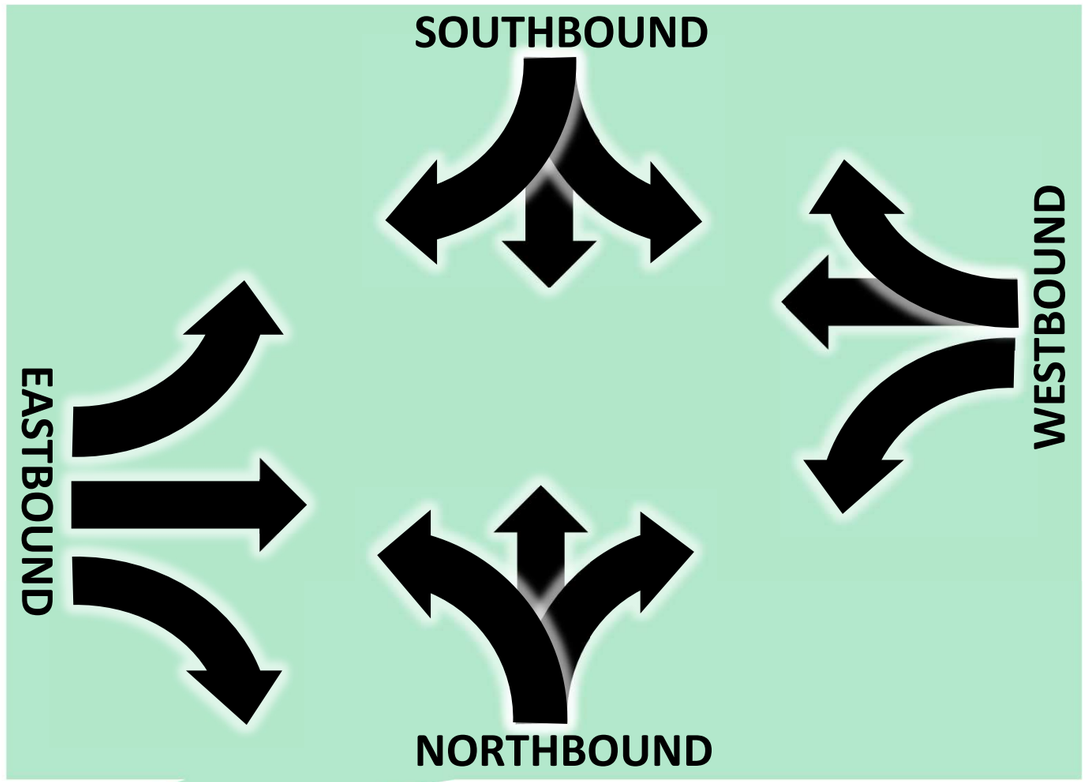
Roadway Performance

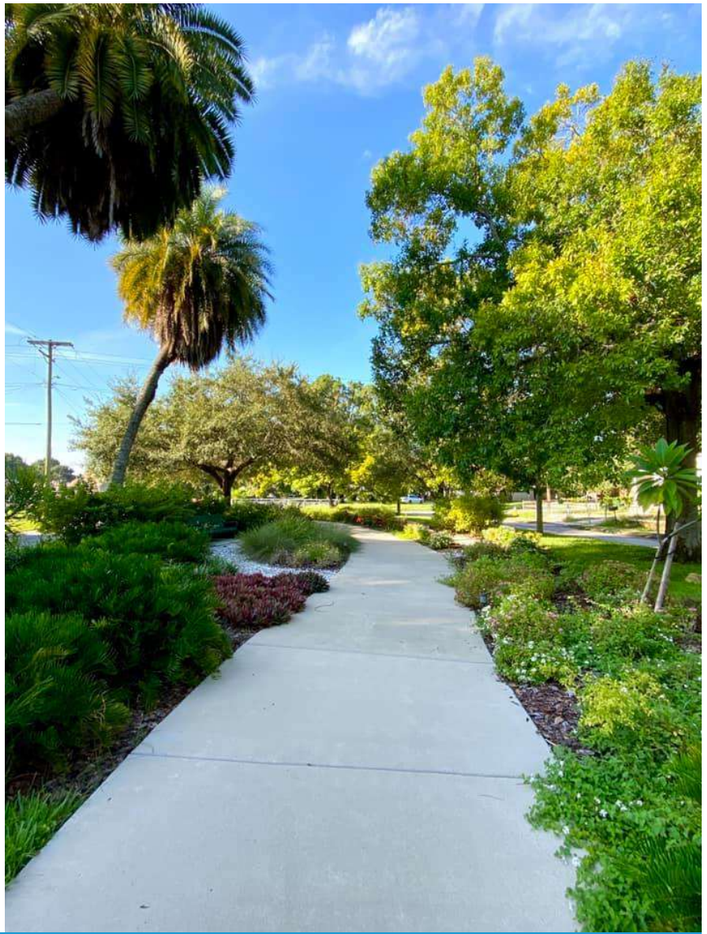
Excerpt from Draft Traffic Analysis Summary

Scenario	Description	Corridor Performance Index
No Build	No changes (four-lane undivided)	103.3 (AM) 89.8 (PM)
Alternative 1-1	Two-Way Left Turn Lane throughout with Signal at Rome Ave.	141.7 (AM) 92.6 (PM)
Alternative 1-2	Two-Way Left Turn Lane with signal at Rome Ave. Four-lane undivided eastbound and westbound approaches at both Rome Ave and Ridgewood Ave intersections	98.6 (AM) 71.5 (PM)

Scenario	Description of Rome Ave intersection lane configuration	Intersection Performance Index
Alternative 2-1	Traffic Control: Signalized Eastbound: Single through lane and a dedicated left-turn lane Westbound: Two through lanes with no dedicated left-turn lane	117.4 (AM) 91.1 (PM)
Alternative 2-2	Traffic Control: Two-way stop (no change) Eastbound: Single through lane with a dedicated left-turn lane Westbound: Single through lane with a dedicated left-turn lane	112.4 (AM) 708.3 (PM)
Alternative 2-3	Traffic Control: Two-way stop (no change) Eastbound: Two through lanes with no dedicated left-turn lane Westbound: Single through lane with a dedicated left-turn lane	114 (AM) 707.4 (PM)
Alternative 2-4	Traffic Control: Two-way Stop (no change) Eastbound: Single through lane with dedicated left turn lane and dedicated right turn lane Westbound: Single through lane with a dedicated left-turn lane	110.9 (AM) 140.4 (PM)

Recommended Configuration for Rome Avenue Intersection

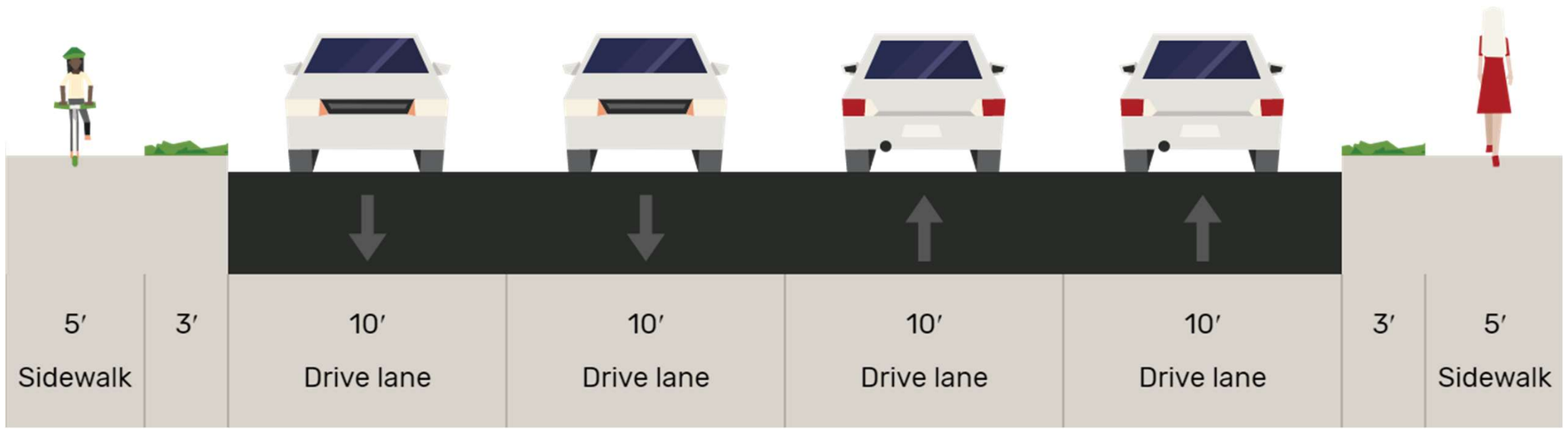




PROPOSED IMPROVEMENTS (HOWARD AVE TO NORTH BOULEVARD)

W. Columbus Drive - Existing

Current Speed Limit



Right-sizing the Street

Existing:

- Four wide through lanes
- No bike facilities
- No turn lanes

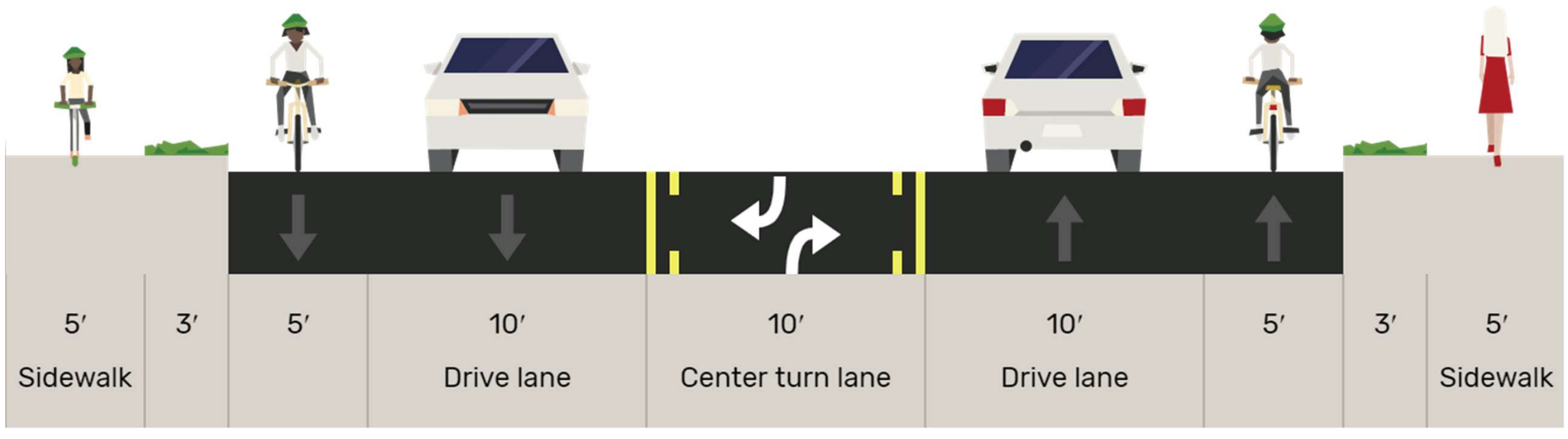
Proposed:

- Narrow 10’ travel lanes
- Two-way left turn lane
- Dedicated bike lanes
- Areas for future landscaped medians
- Areas for future pedestrian refuge islands
- Areas for enhanced bus stops

W. Columbus Drive - Proposed

Current Speed Limit

Proposed Speed Limit



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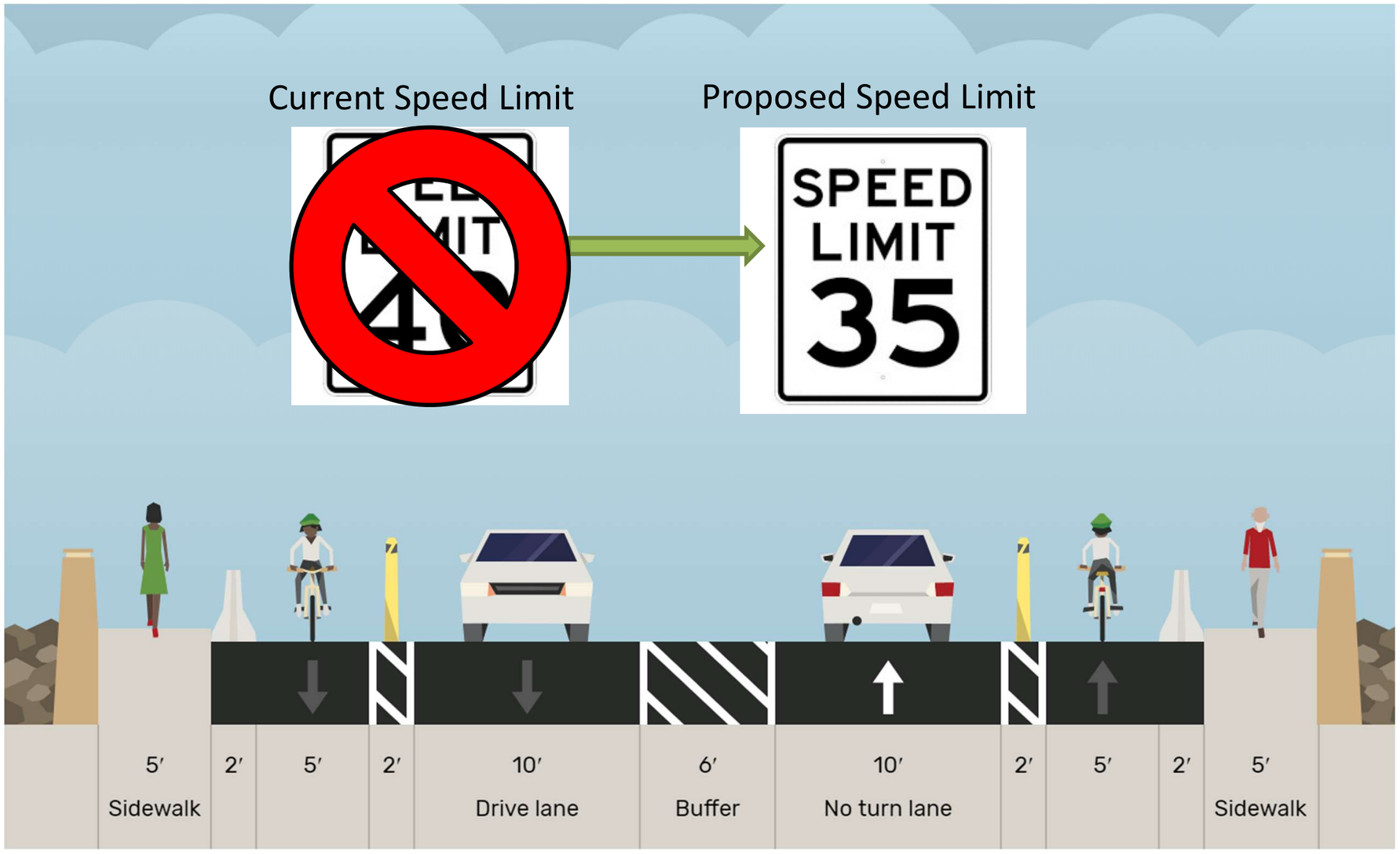
W. Columbus Drive - Proposed



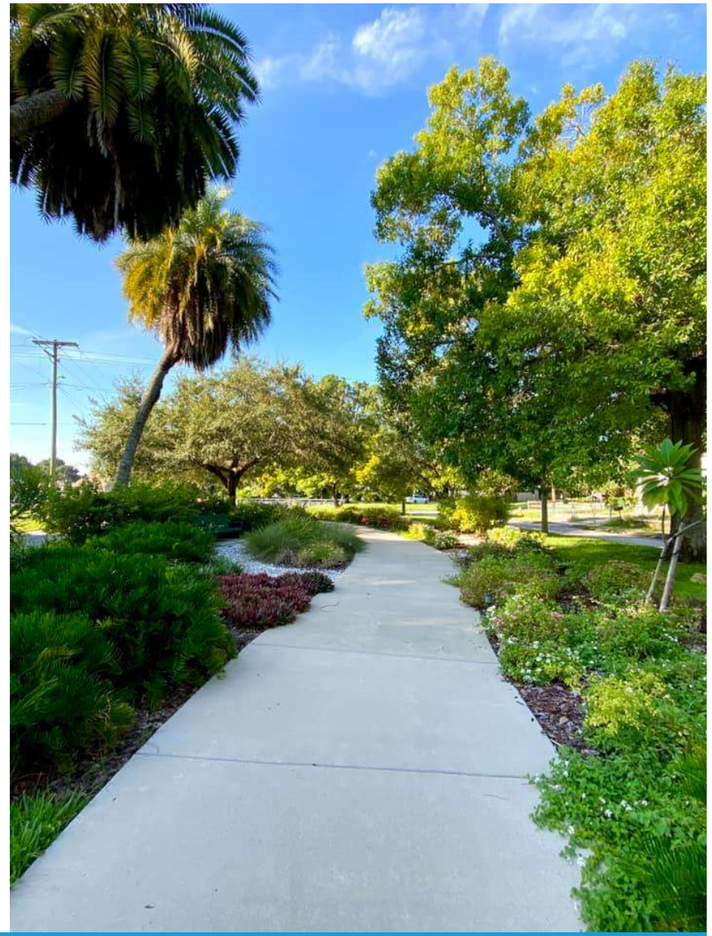
Right-sizing the Street

Existing:

- Four wide through lanes
- No bike facilities
- No turn lanes

Proposed:

- Buffered bike lanes on the Columbus Dr. Bridge



OTHER NEEDS & IMPROVEMENTS

Columbus Drive – New Pedestrian Crossings

Six new pedestrian crossings have been proposed:

- Columbus Drive at Rome Ave
- Columbus Drive at Riverside Drive
- Columbus Drive at Glenwood Drive
- Columbus Drive at Ola Ave
- Columbus Drive at Central Ave

Each crossing will have push-button activated Rectangular Rapid Flashing Beacons

Columbus Drive – Sidewalk deficiencies

Driveway Apron Reconstruction

ADA deficiencies

Sidewalk transitions

Tripping Hazards

Columbus Drive – Sidewalk deficiencies

Typical side-street condition:

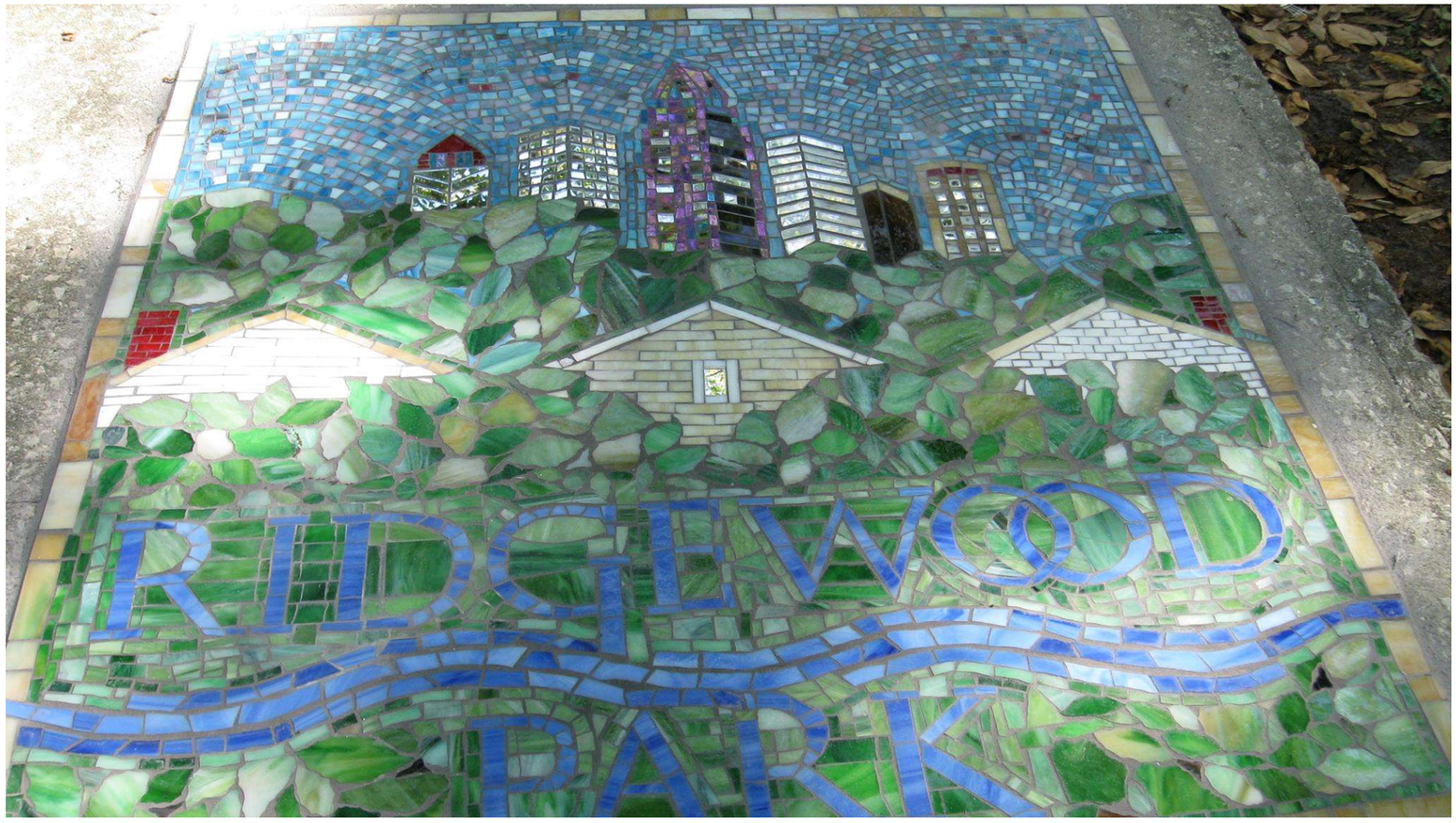
No crosswalk markings

No detectable warnings

ADA cross slope issues

How to contact us?

- Please send comments or questions:
  Stephen.Benson@tampagov.net
- The City asks that all comments be received no later than Friday, October 10, 2020.
- More information can be found at:
  https://www.tampagov.net/tss/west-Columbus-drive



QUESTIONS