



FUSS & O'NEILL

# One Way to Two Way Street Conversion Charrette Work in Progress

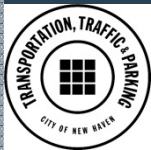
October 24<sup>th</sup>, 2013

City of New Haven

Department of Transportation, Traffic and Parking

# Process

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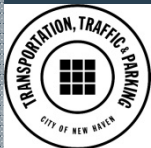
# Project Process

Preparation

Advisory Committee Meetings  
Data Collection  
Compile Prior Studies and Mapping  
Stakeholder Interviews

Three-Day Charrette

Follow-up on Work-in-Progress



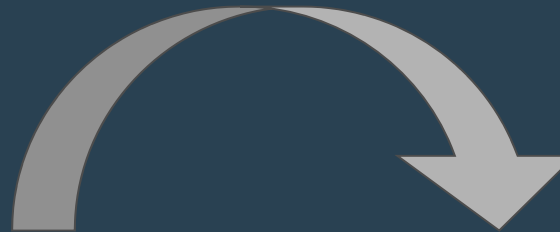
# What Makes the Charrette Unique?

Participants work in a series of short feedback loops



In charrette, everyone interested helps out in a team effort that incorporates their unique contribution

public review



Community members provide local information, feedback, and critique



concepts

alternatives

Professionals provide design and strategic input

refinement

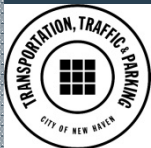
plan



public review



public review



# Charrette Schedule

## City of New Haven Downtown One-Way to Two-Way Conversion Study Design Charrette

Time	Monday Oct. 21st	Tuesday Oct. 22nd	Wednesday Oct. 23rd	Thursday Oct. 24th
10:00am		Hands-On Session New Haven Free Public Library Design Studio	Open Design Studio	Open Design Studio
11:00am				
12noon				
1:00pm				
2:00pm				
3:00pm		Open Design Studio	Open Design Studio	Design Consultant Presentation preparation
4:00pm				
5:00pm				
6:00pm				
7:00pm	6:30 pm Project Overview/ Educational Session	Hands-On Session Chapel West Special Services District 1205 Chapel Street	Open Design Studio	Work-in-Progress Presentation
8:00pm			Work Pin-up Session	

Key  public meetings  
 open studio

The public is welcome to stop by the design studio at any time. The design studio is located in the New Haven Free Public Library, lower level, in the performance arts space.



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# Day 1: Tours and Education

Study area tours and a kick-off presentation



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# Day 2: Public Vision

The team meets with key stakeholders and develops concept alternatives public hands-on visioning workshop

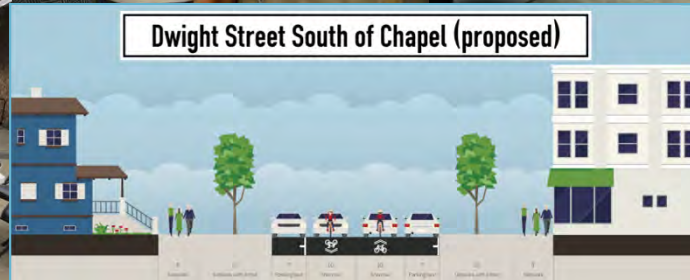


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# Day 3: Design and More Public Input

The team works to develop options and stakeholders give input and feedback at an evening pin-up session



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# Day 4: Refining Plans and Summary

Team refines and synthesizes concepts



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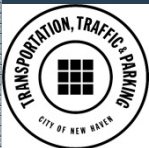
# What People Said

- **Two Way Street versus One Way Street Issues:**
  - Lots of Public Support in Favor of Two-Way Streets
  - One-way Streets Cause Faster Vehicular Travel Speeds
  - New Haven One-Way Streets are Confusing to Navigate and Add Commute Time
- **Bike Issues:**
  - Cyclists Ride Wrong Way down One-Way Streets for Convenience/Safety
  - Education Needed for Drivers, Pedestrians and Bicyclists
  - Lack of Connectivity between Train Station, Medical District, Wooster Square, and Downtown
  - Court and Hillhouse Two-Way for Bicyclists
- **Pedestrian Issues:**
  - Pedestrians Crossing Elm Street Mid-Block between High Street and College Streets
  - Pedestrians Crossing Church Street Mid-Block between George & Elm
  - Pedestrians Crossing Grove Street Mid-Block
  - Pedestrian Accidents at MLK Boulevard and South Frontage Road
  - Lack of Connectivity between Medical District and Downtown



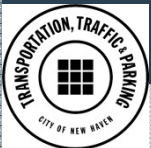
# Recommendations

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# Recommendations

- Two-Way Streets
- Simplify Bus Routes
- Expand Bike Network
- Improve Pedestrian Safety

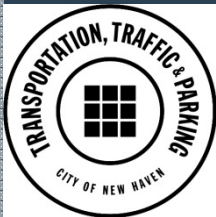


# Two-Way Streets

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# Wayfinding

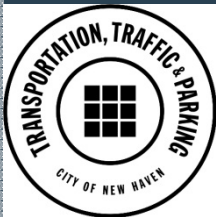


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# Two-Way Loop



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# Grove Street



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# Grove Street from High to York Option 1

70' width ▾



# Grove Street



# Grove Street



©2013 Google - Image Date: June 2011



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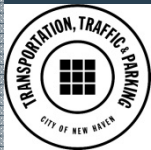
# Grove Street



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# Simplify Bus Routes

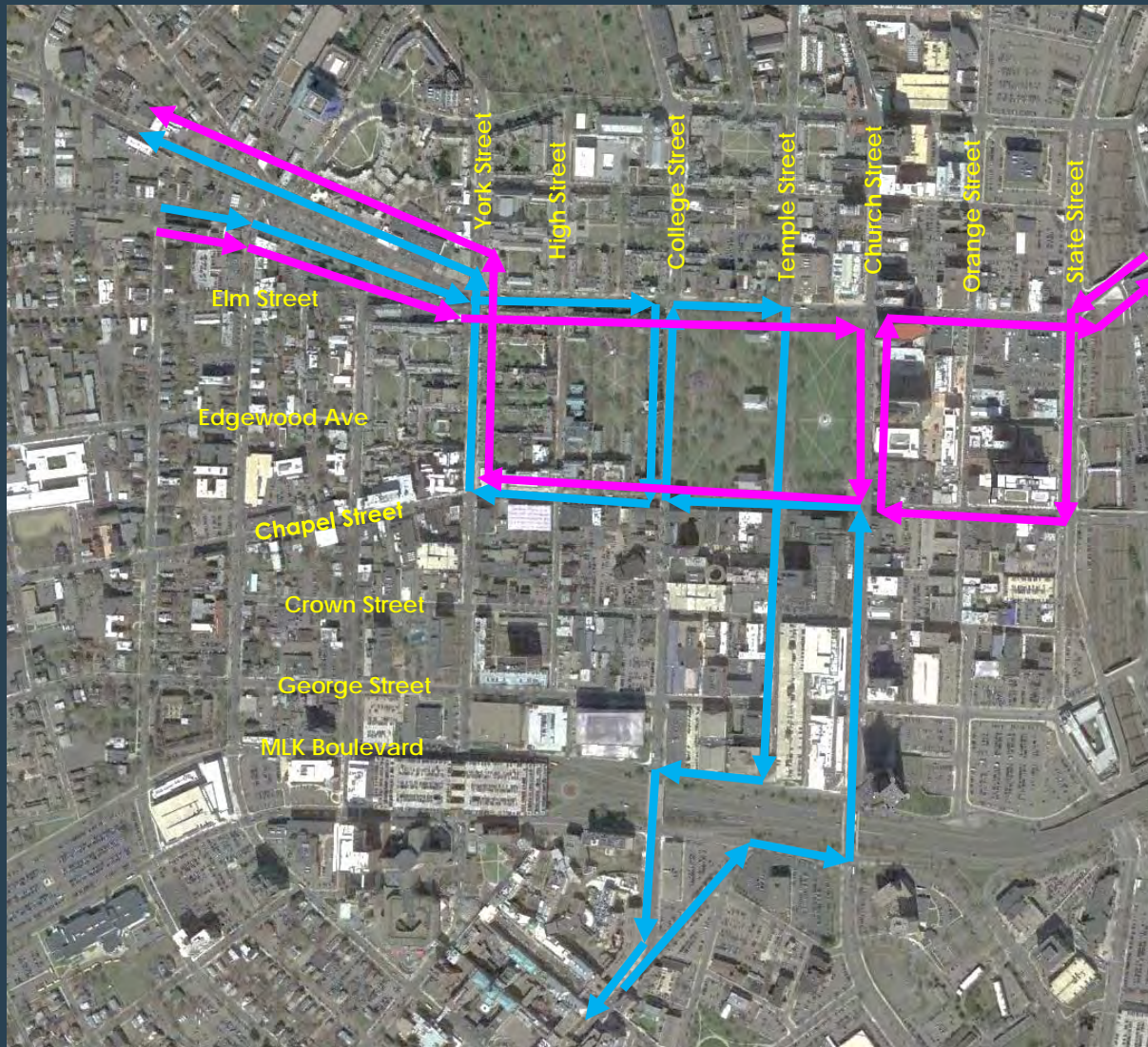
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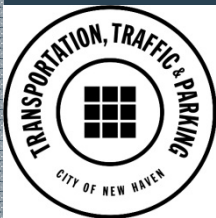
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# Conceptual Transit Routes



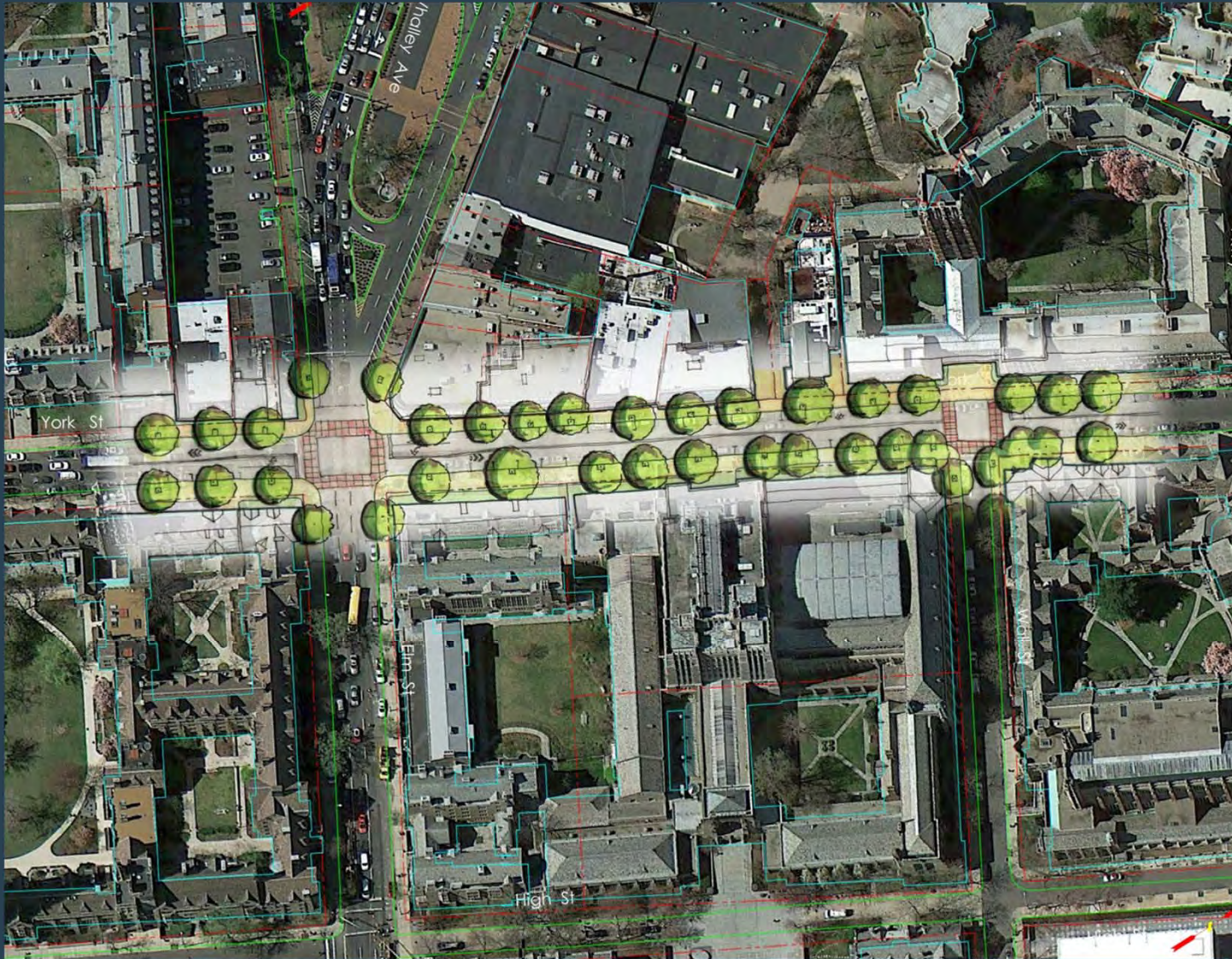
-  CT Transit B
-  CT Transit D



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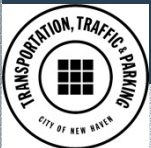


# York Street





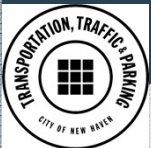
# York Street



# York Street Proposed



# York Street



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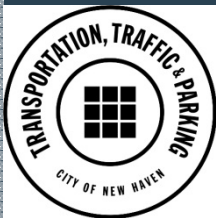
# York Street



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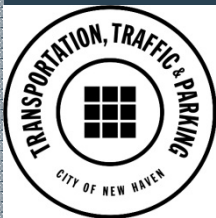
# Potential Parking Changes



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# City Traffic Signal Project



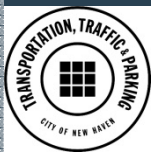
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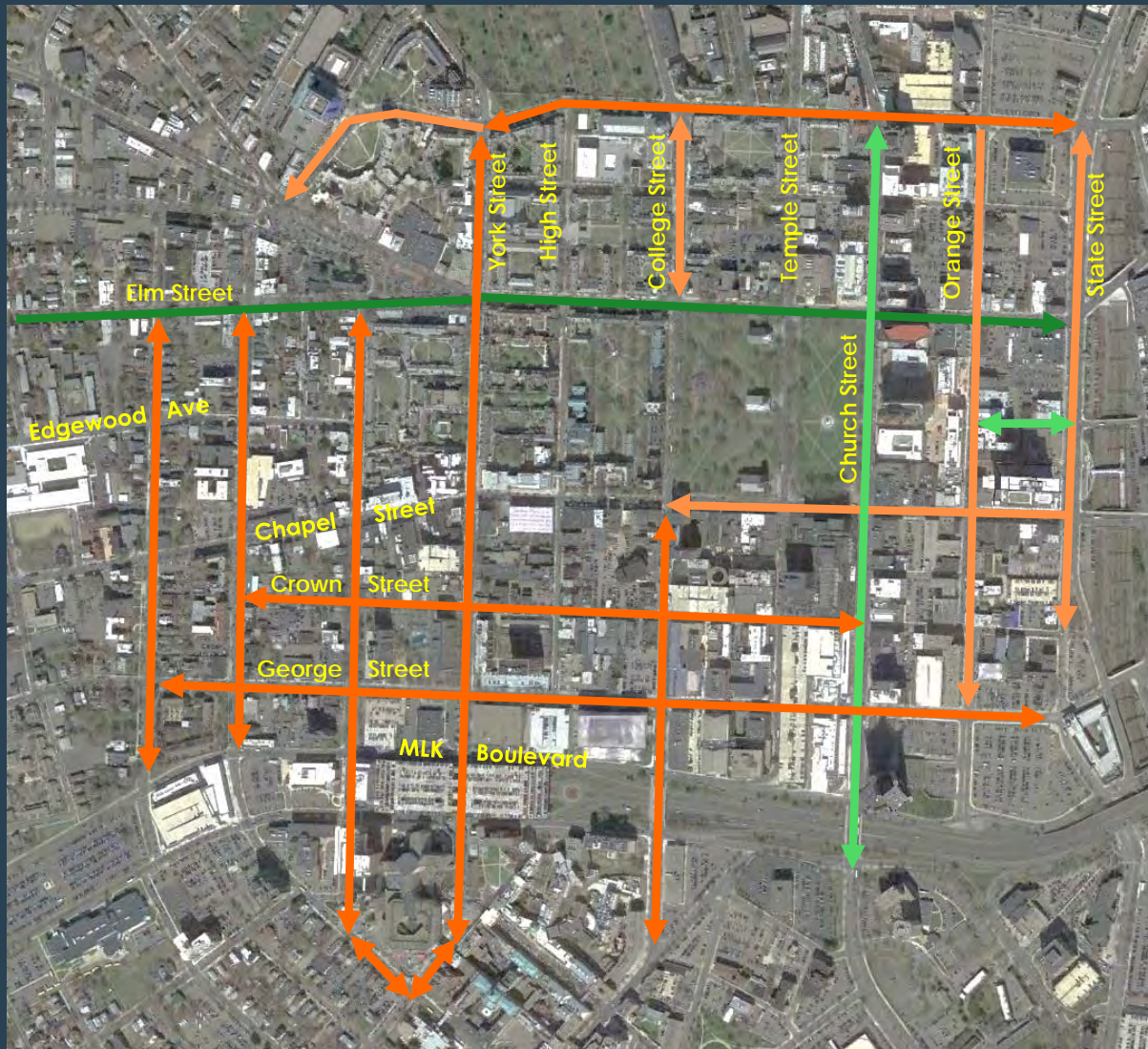


# Expand Bike Network

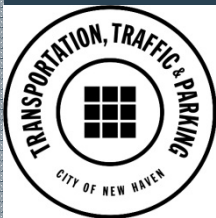
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# Bicycle Facilities



- Existing Lane
- Proposed Lane
- Existing Sharrows
- Proposed Sharrows



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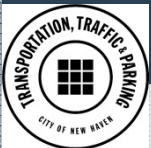


# Space between buildings as an asset

- Parking
  - Parallel
  - Bicycle
- Transit Stops/Amenities
- Loading Zones
- Wider Sidewalks
- Street Furniture
- Streetscape
- Stormwater
  - Rain Gardens
  - Bioswales
- Bike Facilities
  - Bike lanes
  - Cycle Tracks
  - Multi-use Paths
- Medians
  - Turn lanes
  - Planting opportunities



*Photo by Dan Gallagher, Charlotte DOT*



# Bike Facilities



## Shared Lanes:

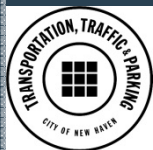
- Most appropriate for streets  $\leq 25$  mph
- Typically installed in middle of street

## Bike Lanes:

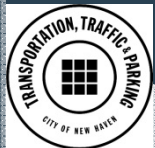
- 5-6' wide
- Between vehicle lanes & parking
- Most appropriate for streets 25-35 mph



*Images from NACTO Urban Bikeway Design Guide*



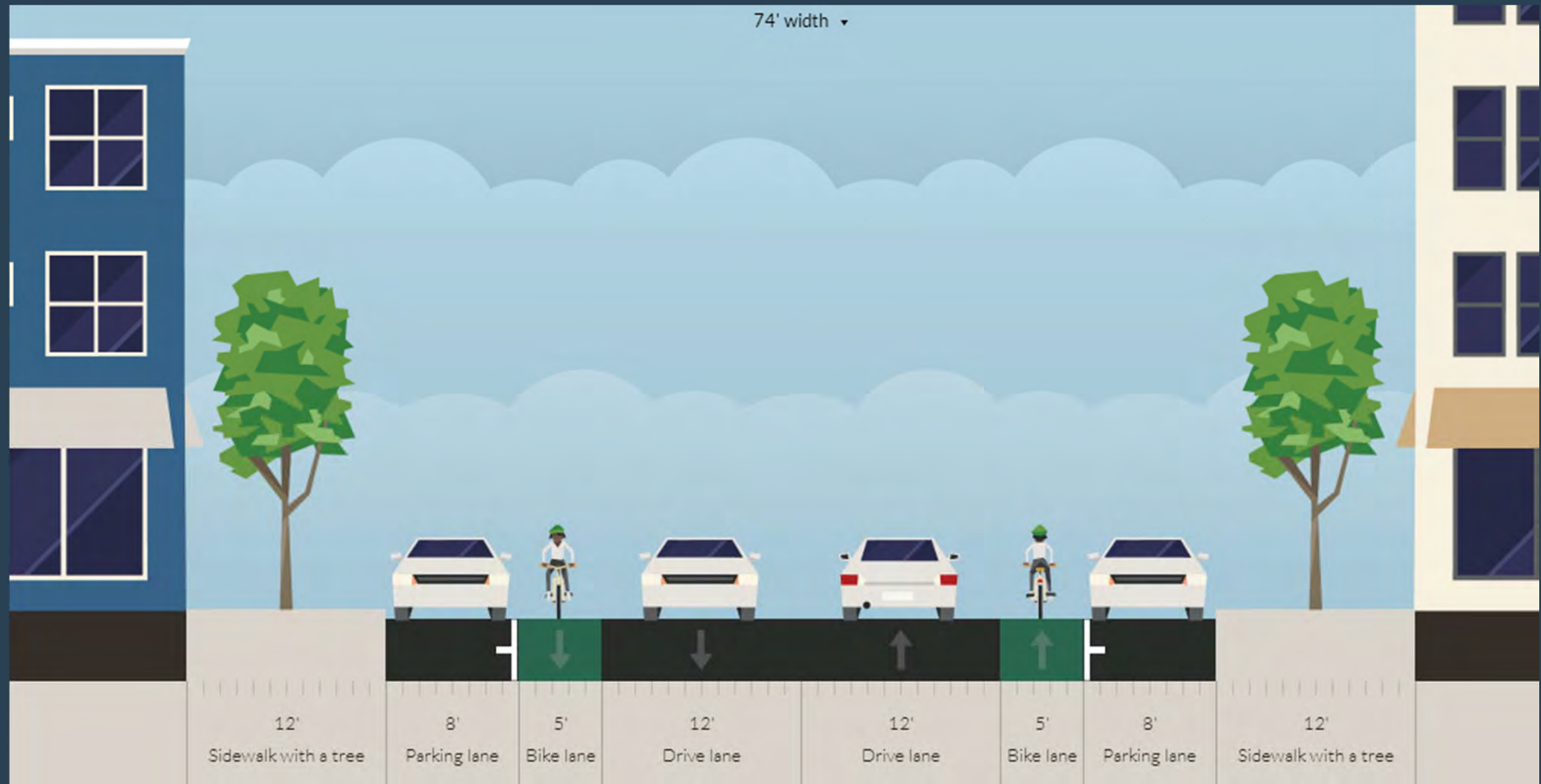
# Church Street



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# Church Street Proposed



# Church Street



# Church Street

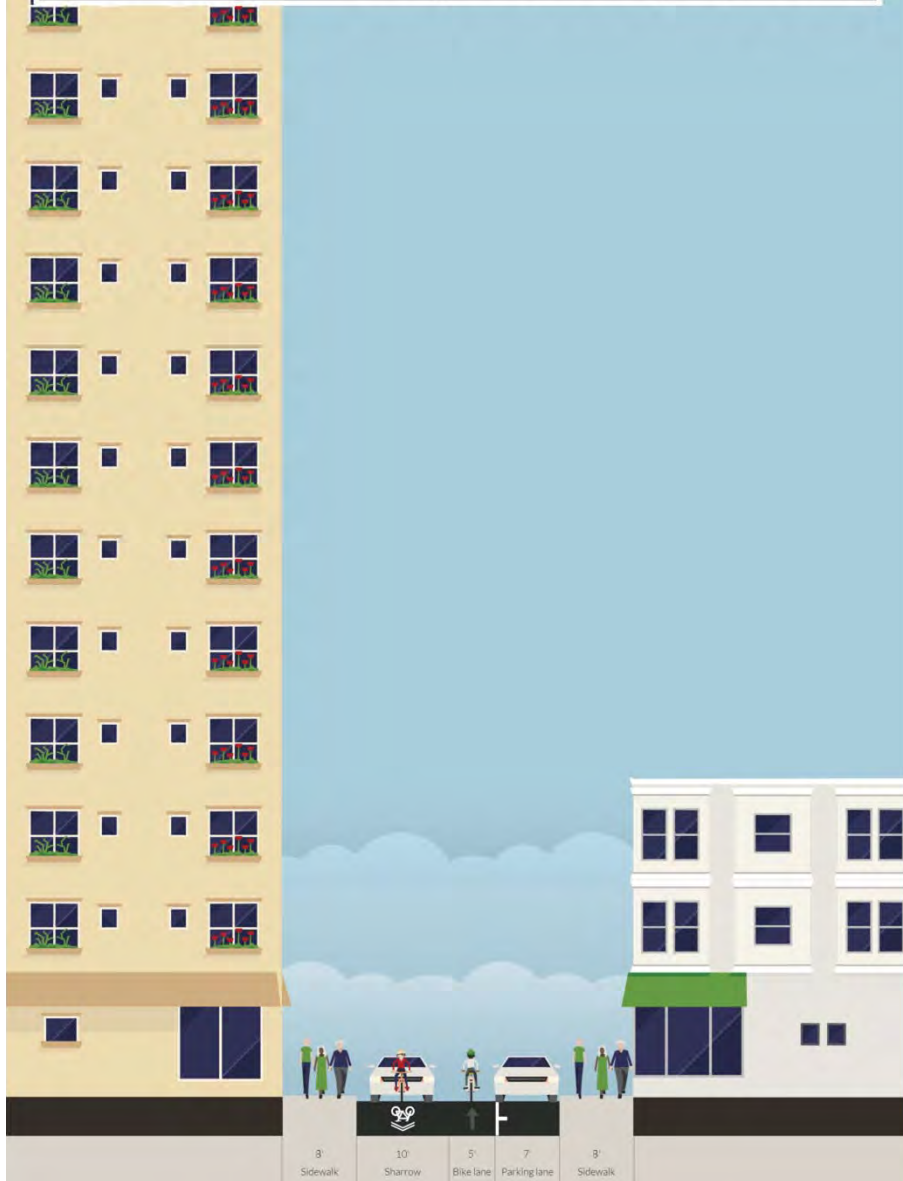


# Court Street



# Court Street – Contraflow Bike Lane

Court Street – Orange to State (propose...





# Court Street

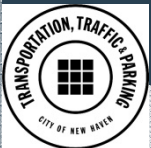


# Court Street



# Pedestrian Safety

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# Pedestrian Safety

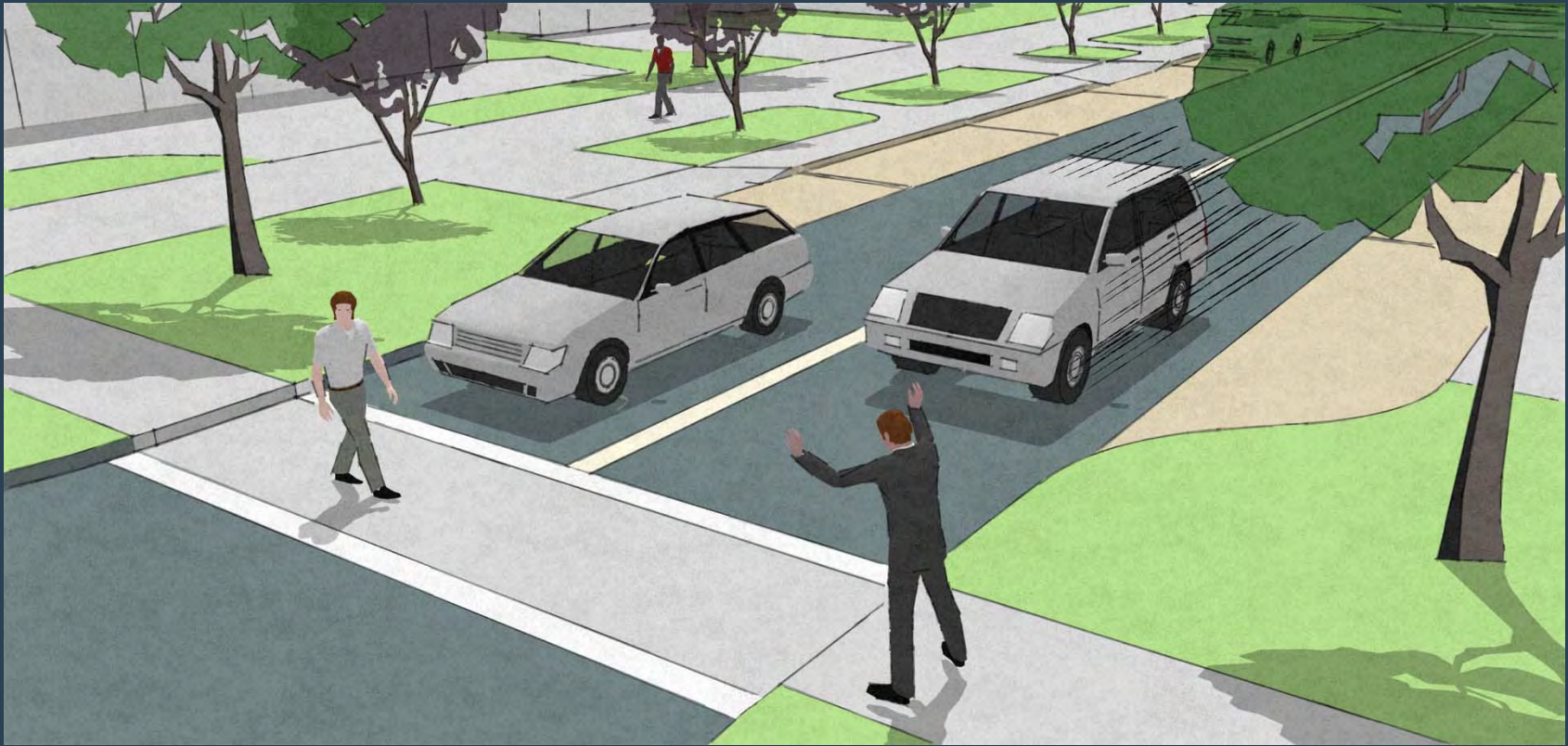


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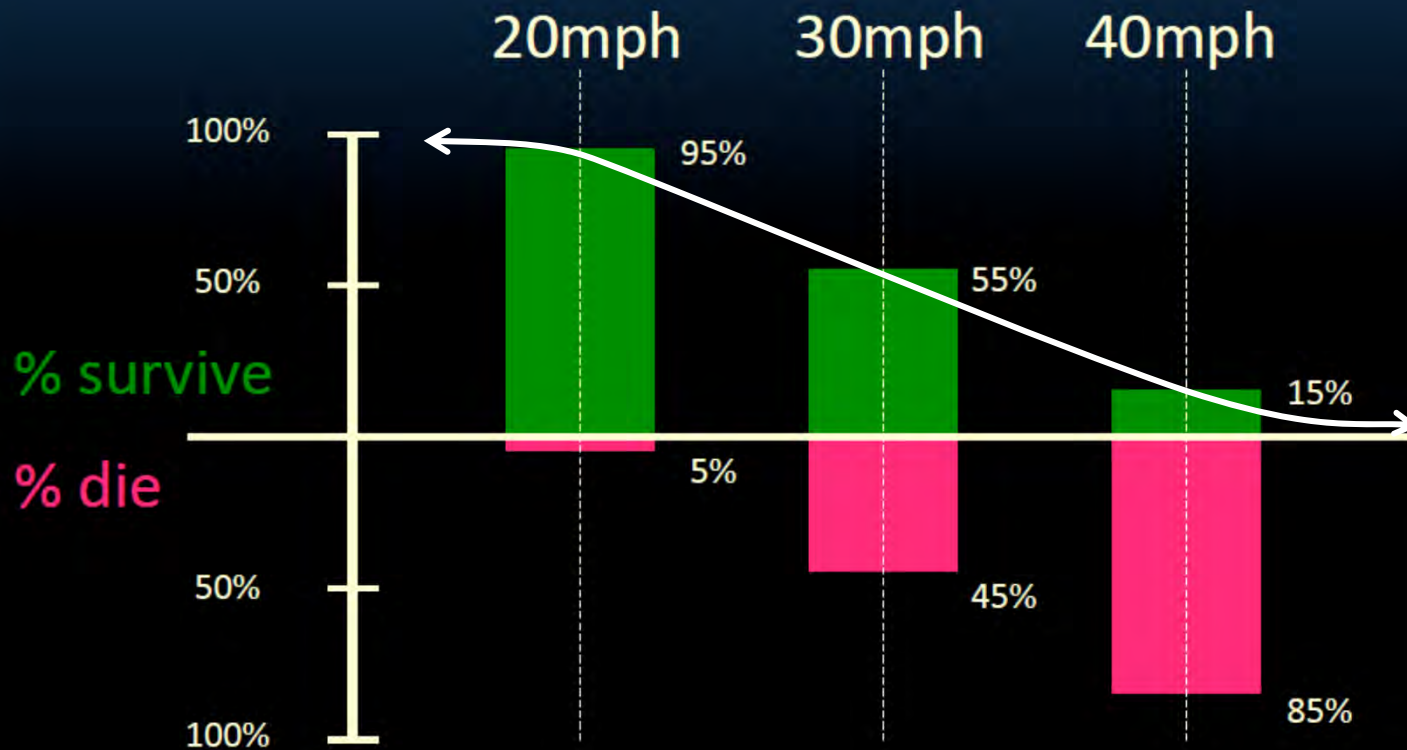
# Pedestrian Conflicts

## The “Multiple Threat” Pedestrian Conflict



# Speed Kills...Literally

## pedestrian survival rates & vehicle speed



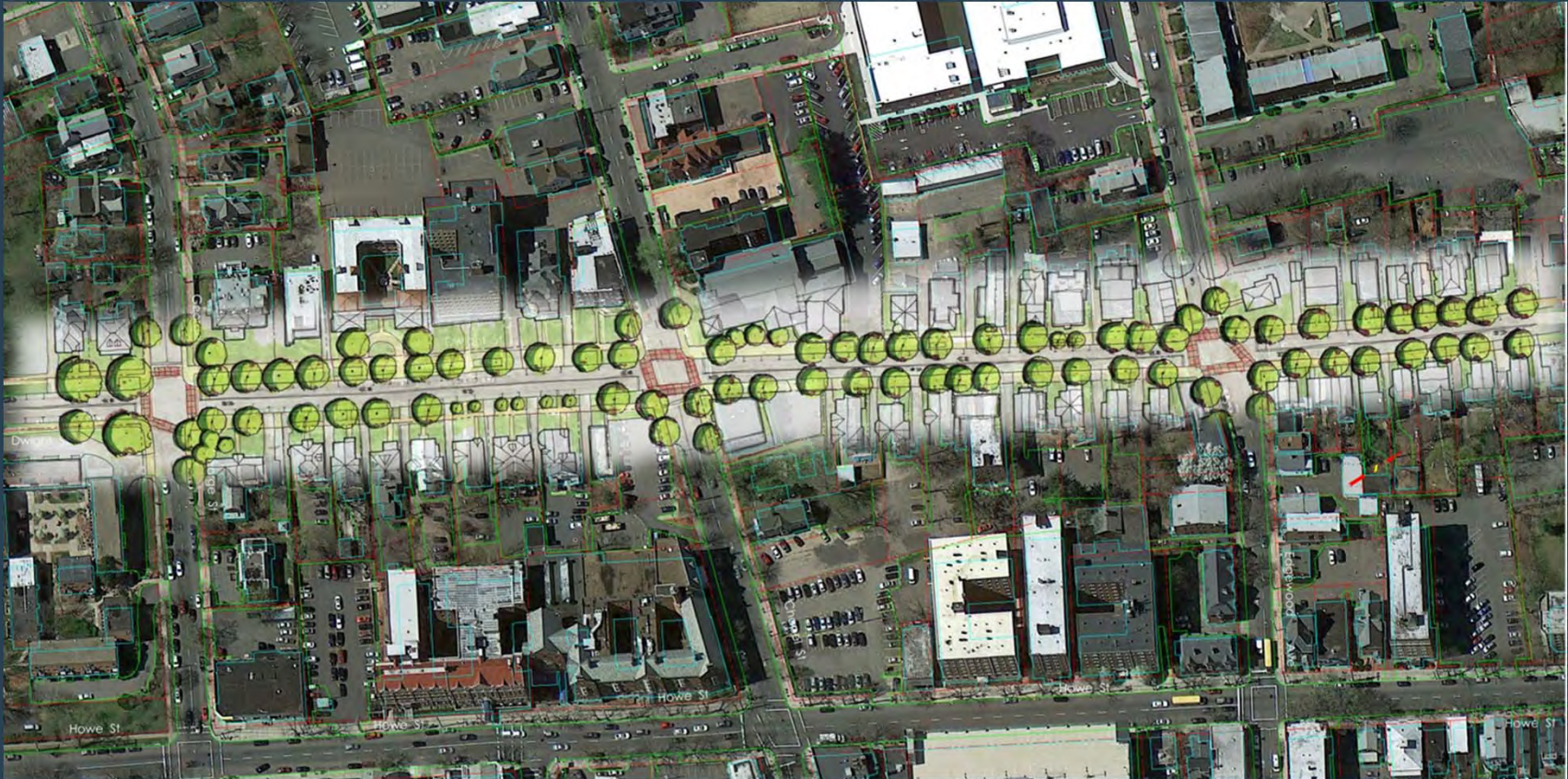
Source:  
"On a  
Collision  
Course?  
Smart  
Growth &  
Traffic  
Safety  
(Charlier,  
Garrick,  
Dumbaugh  
- 2011)



# Dwight Street

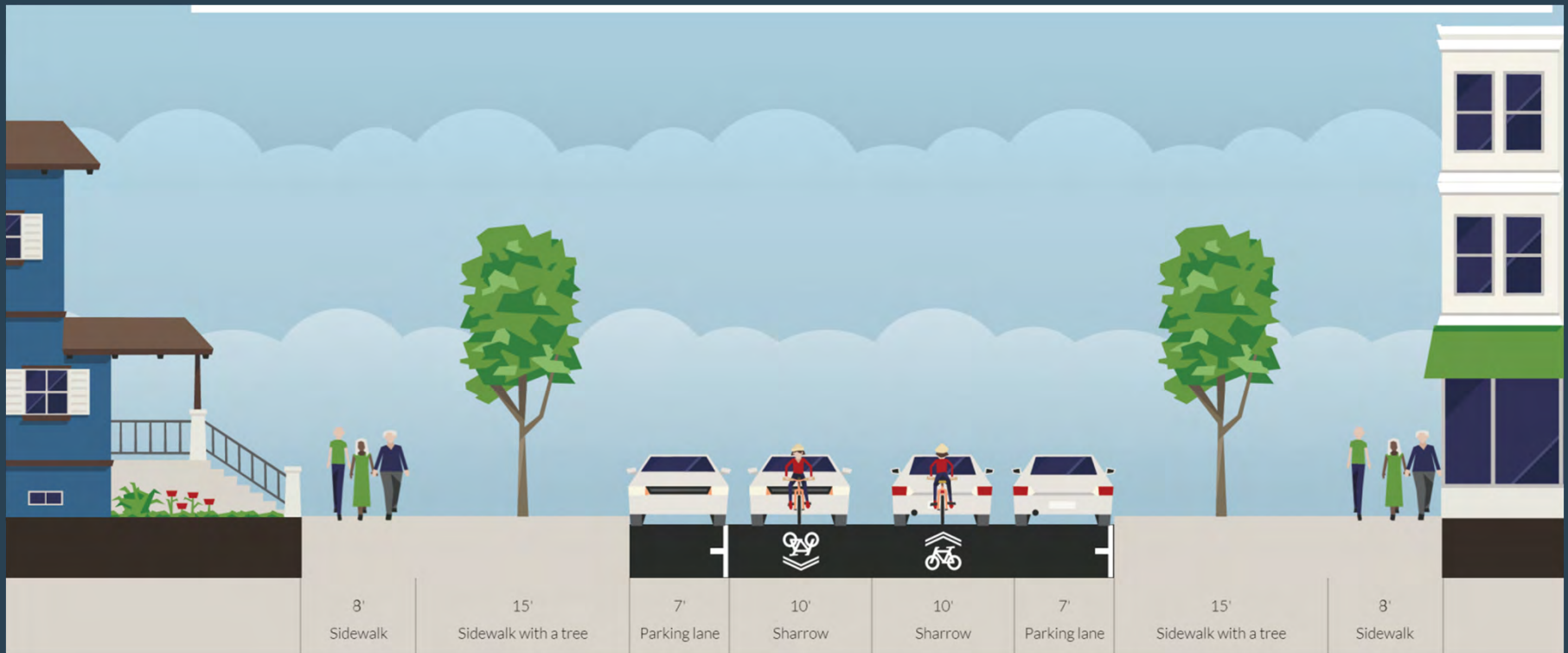


# Dwight Street





# Dwight Street Proposed



# Dwight Street



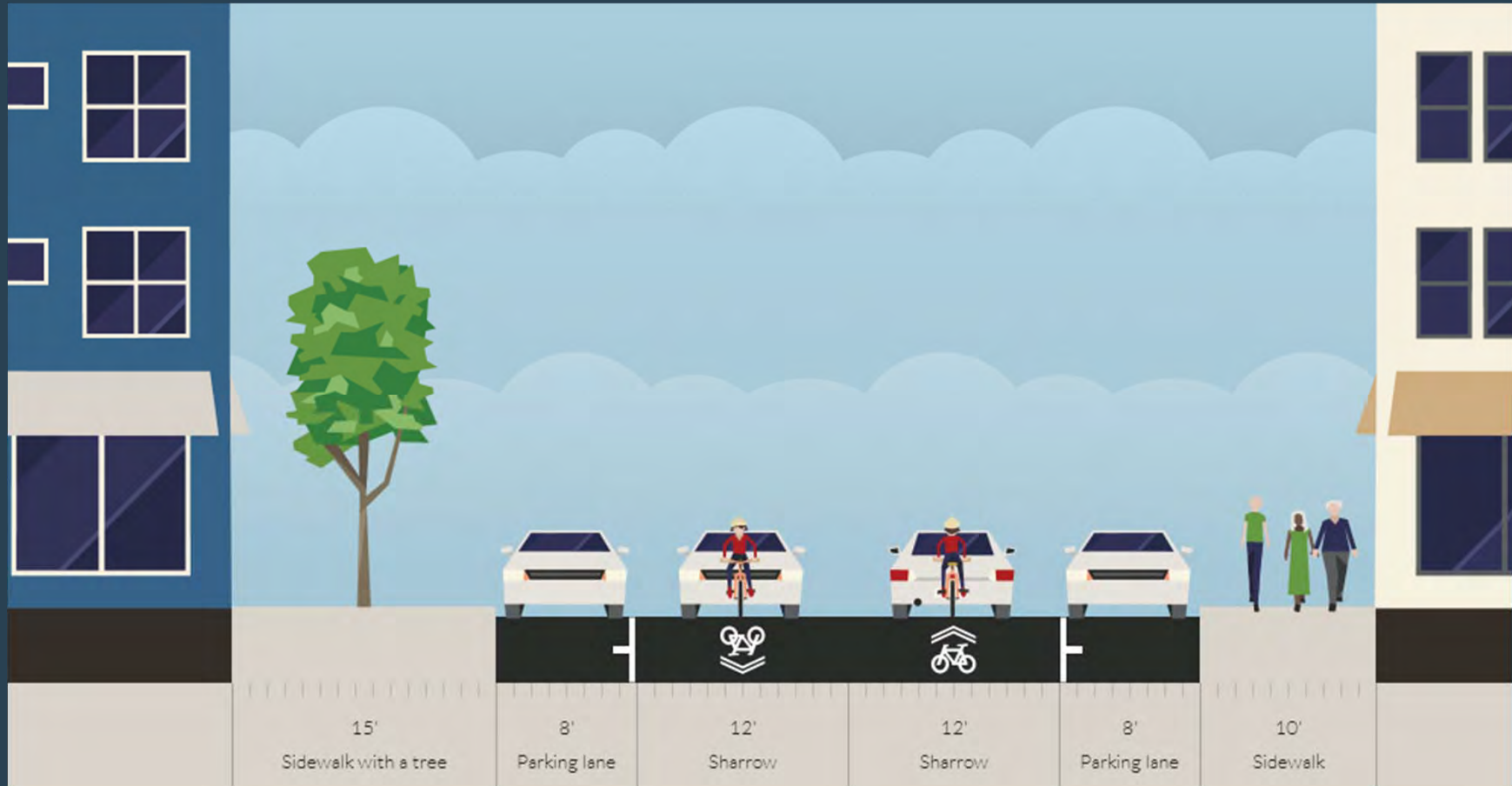
# Dwight Street



# Howe Street

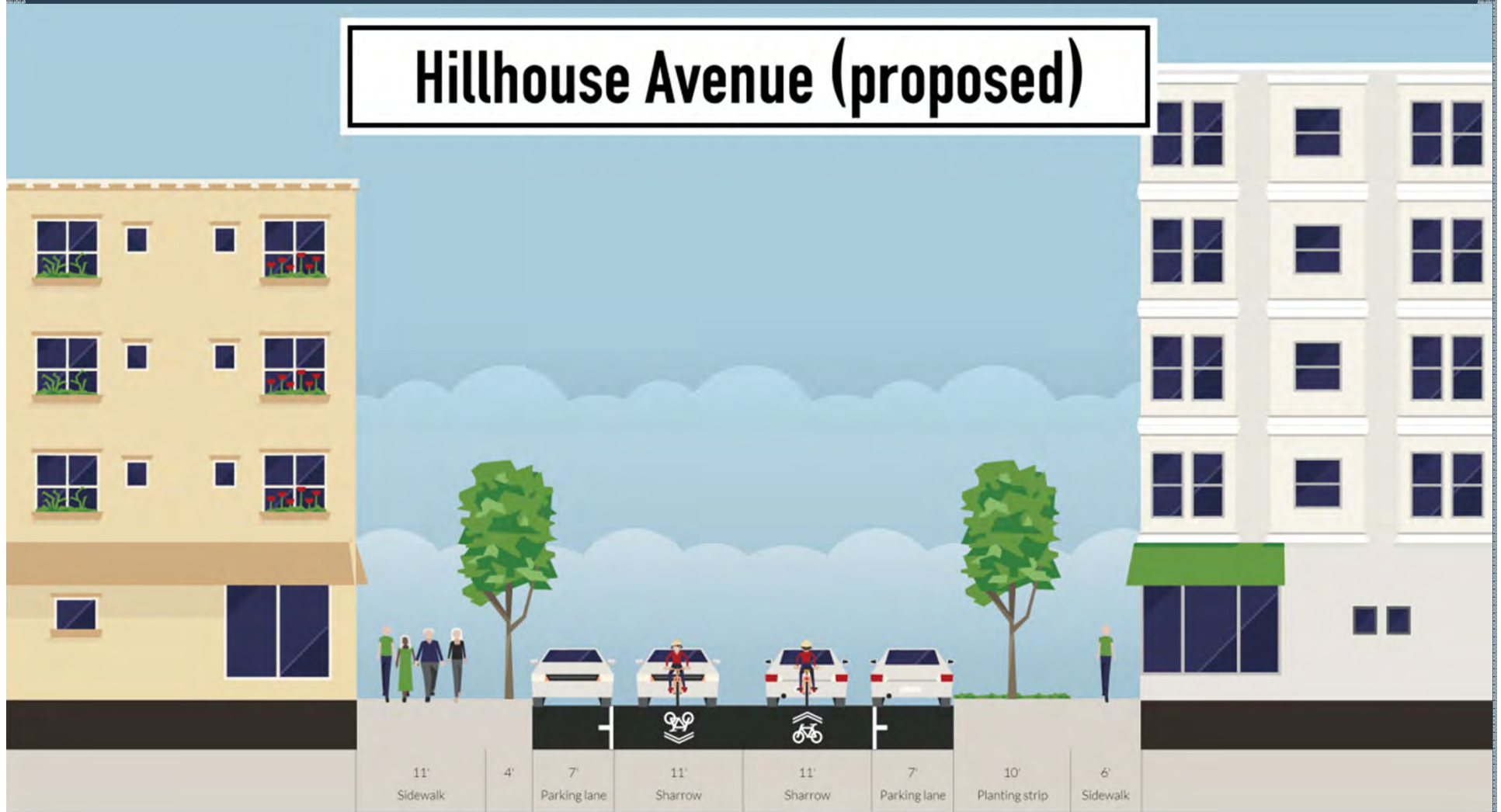


# Howe Street Proposed



# Hillhouse Avenue – Two Way (cars and bikes)

## Hillhouse Avenue (proposed)



Street	Description of Alternative	<div style="display: flex; justify-content: space-between; text-align: center;"> <div>Improves Vehicular Mobility</div> <div>Bicycle Designations</div> <div>Improved Transit Routing</div> <div>Provides Economic Development Opportunities</div> <div>Parking Impacts</div> <div>Possible Sidewalk Impacts</div> <div>Positive Environmental Impacts</div> <div>Construction Cost (\$, \$\$, \$\$\$)</div> <div>Potential for Future Funding</div> <div>Potential Phasing</div> </div>											General Notes on Impacts + Design and Constructability Considerations
Dwight Street	Proposed two-way street conversion entire length.		Sharrows			Limited			\$\$\$			Short	
Howe Street	Proposed two-way street conversion entire length.		Sharrows			Limited			\$\$\$			Short	
Park Street	Proposed two-way street conversion entire length.		Sharrows			Limited			\$\$\$			Short	
York Street	Proposed two-way street conversion entire length.		Sharrows			Limited			\$\$\$			Short	
High Street	Potential two-way street conversion between Crown and Grove Street		Sharrows			Significant			\$			Long	
College Street	Proposed two-way street conversion from Chapel Street to South Frontage Road		Sharrows			Limited			\$\$\$			Short	
Hillhouse Avenue	Proposed two way street conversion from Grove Street to Trumbull Street		Sharrows			Limited			\$			Short	
Temple Street	Potential two-way street conversion entire length.		Sharrows			Limited			\$\$\$			Long	
Church Street	Proposed two-way street conversion George Street to Grove Street		Designated Lanes			Limited			\$\$			Short	
Orange Street	Potential two-way street conversion between Elm Street and Crown Street		Sharrows			Significant			\$\$			Long	
George Street	Proposed two-way street conversion between Dwight Street and State Street, with exception of Temple to Church segment (longer term conversion due to Temple Garage access/egress locations)		Sharrows			Limited			\$\$\$*			Short	
Crown Street	Proposed two-way street conversion entire length between Church and Howe Streets; retain one-way WB between Church and State		Sharrows			Moderate			\$\$*			Short	
Chapel Street	Potential two-way street conversion between Dwight Street and College Street		Sharrows			Significant			\$\$*			Long	
Elm Street	Potential two-way street conversion from Park Street to State Street		Designated Lanes			Limited			\$\$*			Long	
Wall Street	Reverse direction from EB to WB between Orange Street and College Street in short term; Potential two-way street conversion entire length in long term		Sharrows			Significant			\$			Short/Long	
Grove Street	Proposed two-way street conversion between Orange Street and York Street		Sharrows			Limited			\$\$			Short	
Center Street	Reverse direction from one way westbound to one way eastbound to form one way couple with Crown Street.		Sharrows			None			\$			Short	
Court Street	Add WB contra flow bike lane entire length of road		Sharrows			None			\$			Short	

# Conclusions

- **2 Way Streets**
  - ✓ Less frustration for drivers and bikers
  - ✓ Loop around the 9 squares
- **Simplify bus routes**
  - ✓ Reliability of schedule
- **Expand bike network**
  - ✓ Sharrows
  - ✓ Church Street bike spine
- **Improve pedestrian safety**
  - ✓ Slower speed makes safer crossing

