

Chapel Hill Downtown Mobility Study

Council Update

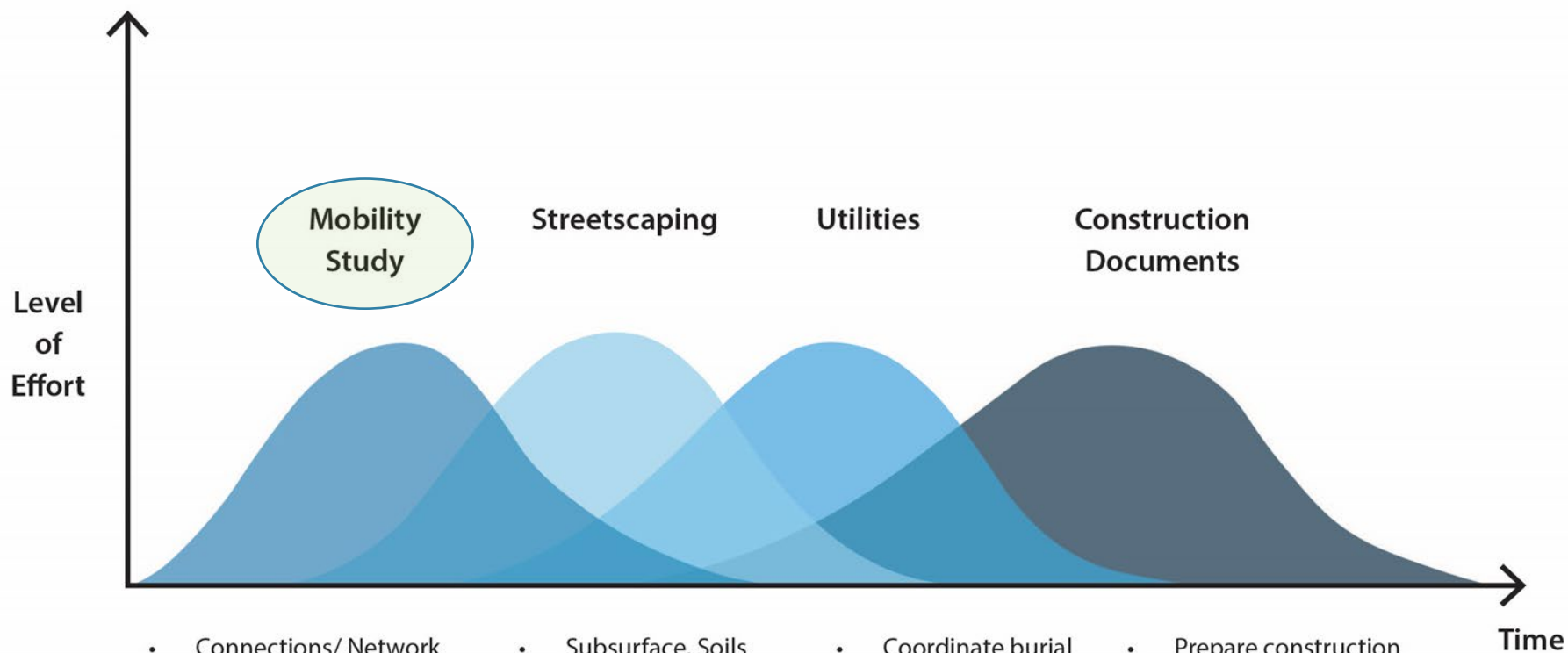
Design Charrette: Reveal and Discussion

June 7, 2023



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Implementing Streetscape Changes



- Connections/ Network
- Cross-Sections
- Intersections
- Multimodal/ Inclusiveness
- Flexibility
- Allocation of Space: mobile users/ static users

- Subsurface, Soils
- Materials Selection
- Green Infrastructure
- Art
- Detailed Plan View, Section, and Elevations

- Coordinate burial of wires
- Stormwater
- Sanitary
- Communications
- Gas
- Potable Water
- Small Utilities

- Prepare construction drawings, engineering, bid documents, specifications

Why do we need a vision for Mobility in Downtown?

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Feedback on current conditions

- Current mobility patterns are **degrading the Place**
 - *People are traveling through rather than to*
- **Improvements have been piecemeal and uncoordinated**
 - Results in low levels of trust among stakeholders
- Everyone is concerned about **conflicts between users**
 - Resulting in frustration for everybody
- **Businesses need safe, easy access**
 - Solutions may vary but change needs to be thoughtful

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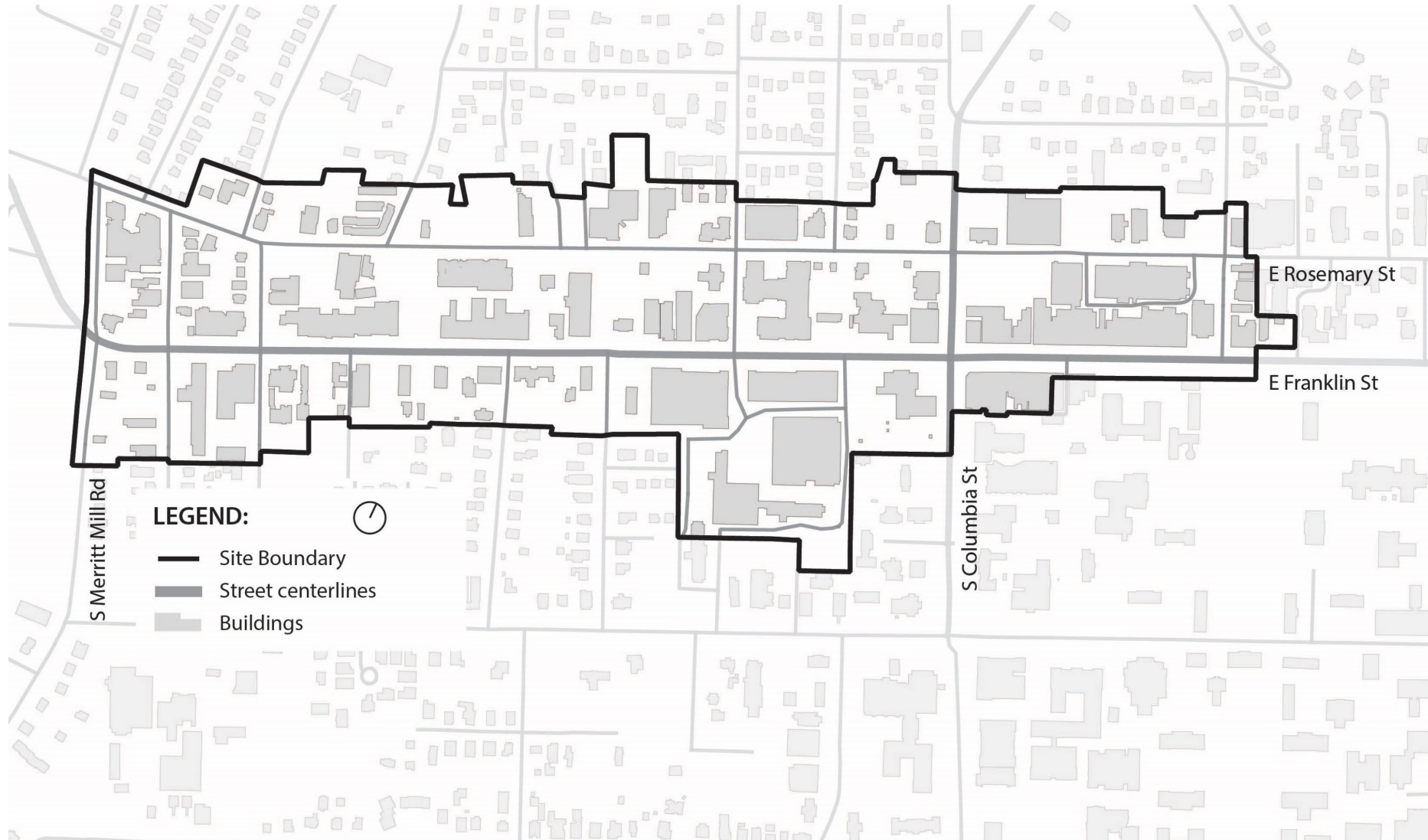
Path as Place

What does Path as Place mean?

- **PATH** → A road, street, parkway, trail, path, highway (any linear feature for moving things)
- **AS** → Through its design and composition is
- **PLACE** → A defined, memorable location within the built or natural environment

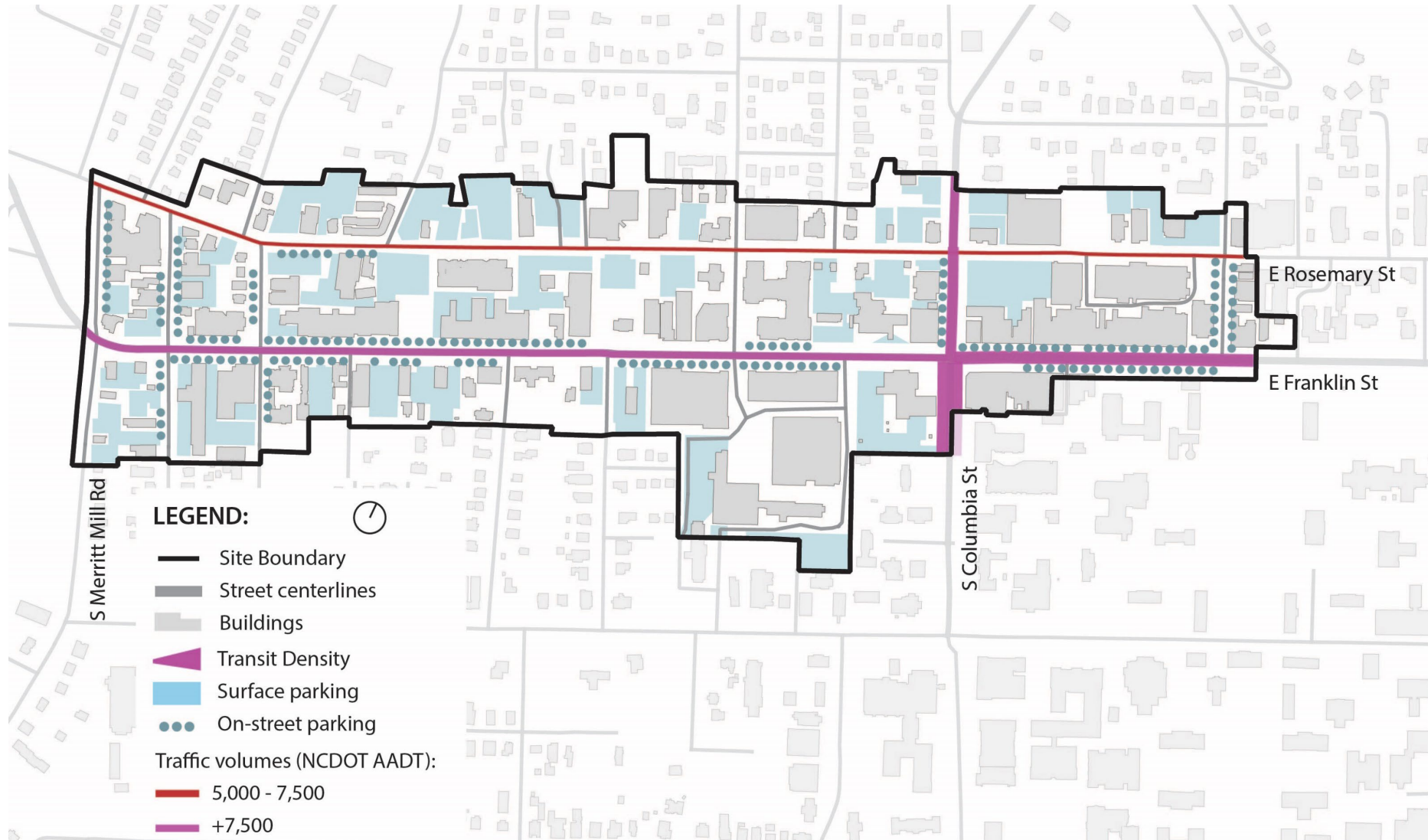


Current Street Conditions



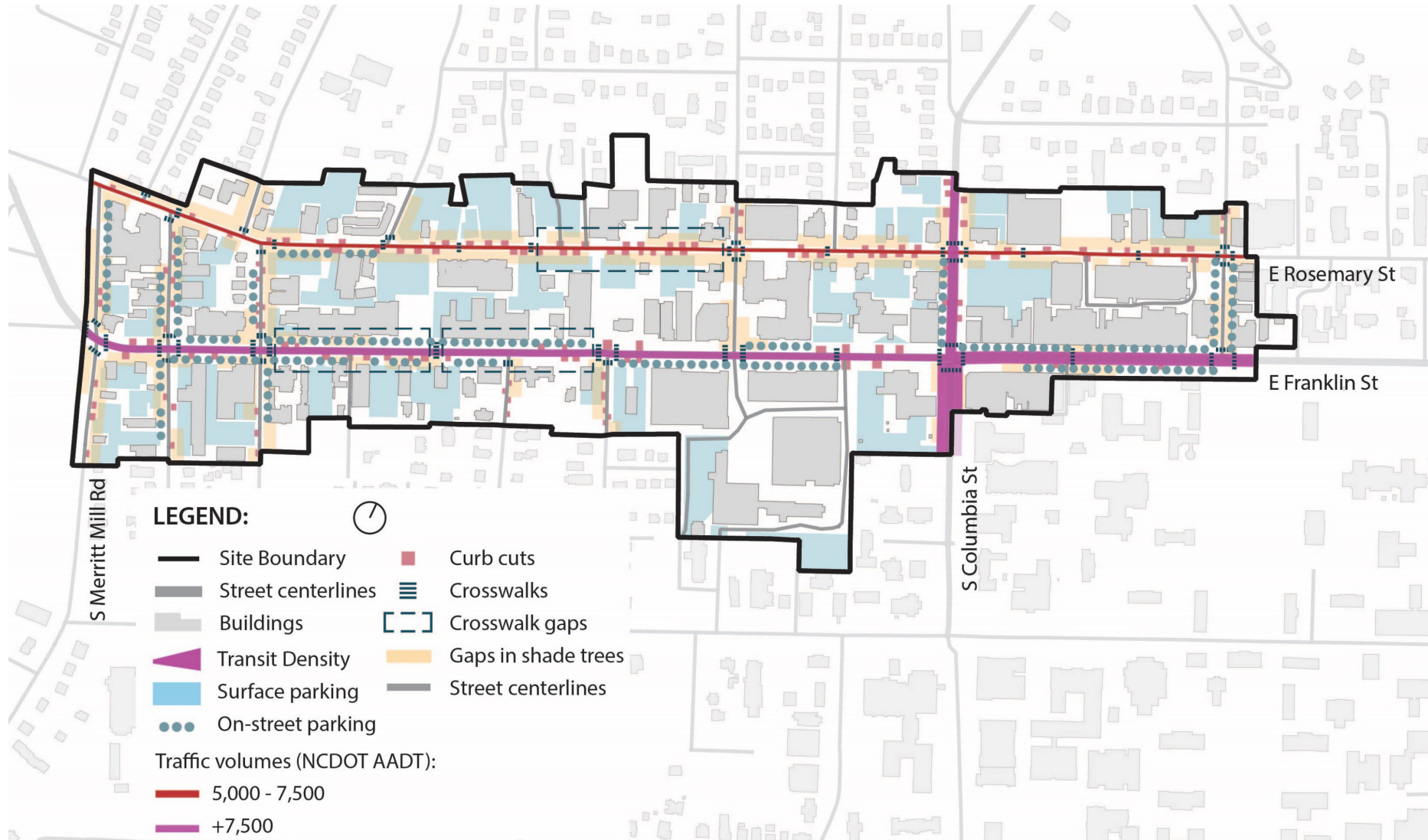
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Current Street Conditions



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Current Street Conditions



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Background

- Purpose of Streets
- A & B Streets
 - Franklin and Rosemary as A Streets
 - Networks
 - Rosemary, Franklin, and Cameron working as a SYSTEM

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Fundamental

The purpose of cities: to advance efficient & effective exchange.

- Labor
- Trade
- Innovation
- Culture
- Capitol
- Ideas
- Goods
- Education
- Services
- Employment
- Specialization
- Entertainment
- Housing
- Governance
- Security
- Health Care
- Opportunity
- Social Contact

The “transportation” purpose of cities is to minimize long trips.

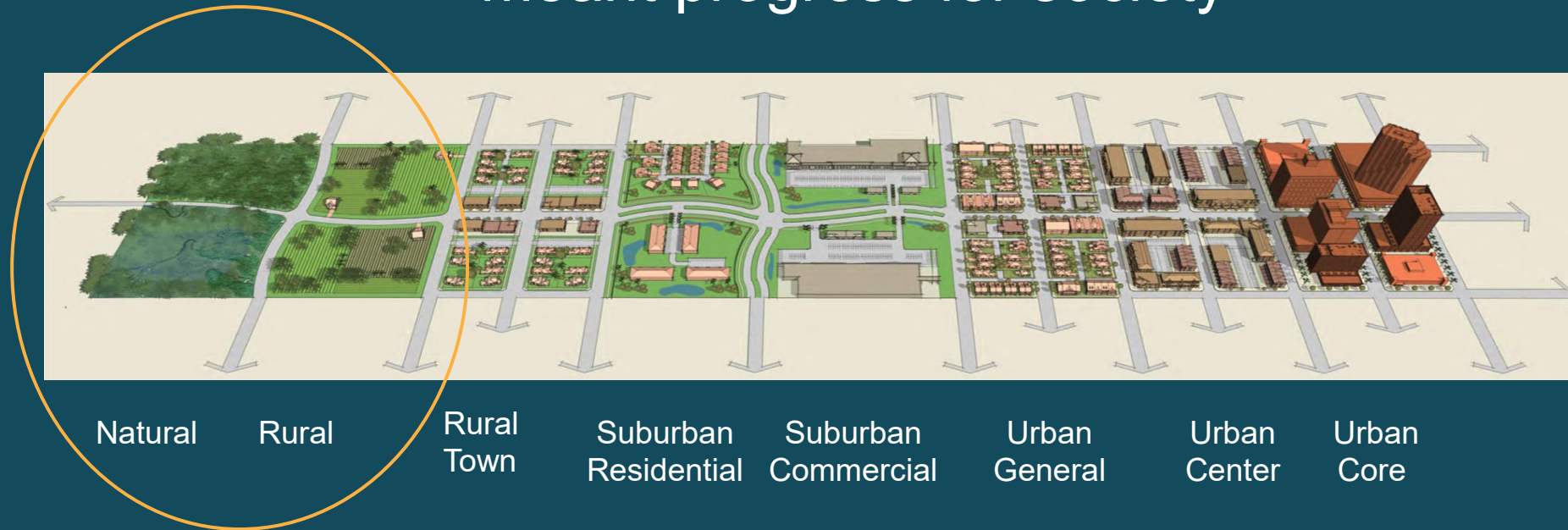
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Mobility

Outside of cities & metro areas

The movement of people and goods.

Assumption: faster, farther, and in greater numbers meant progress for society

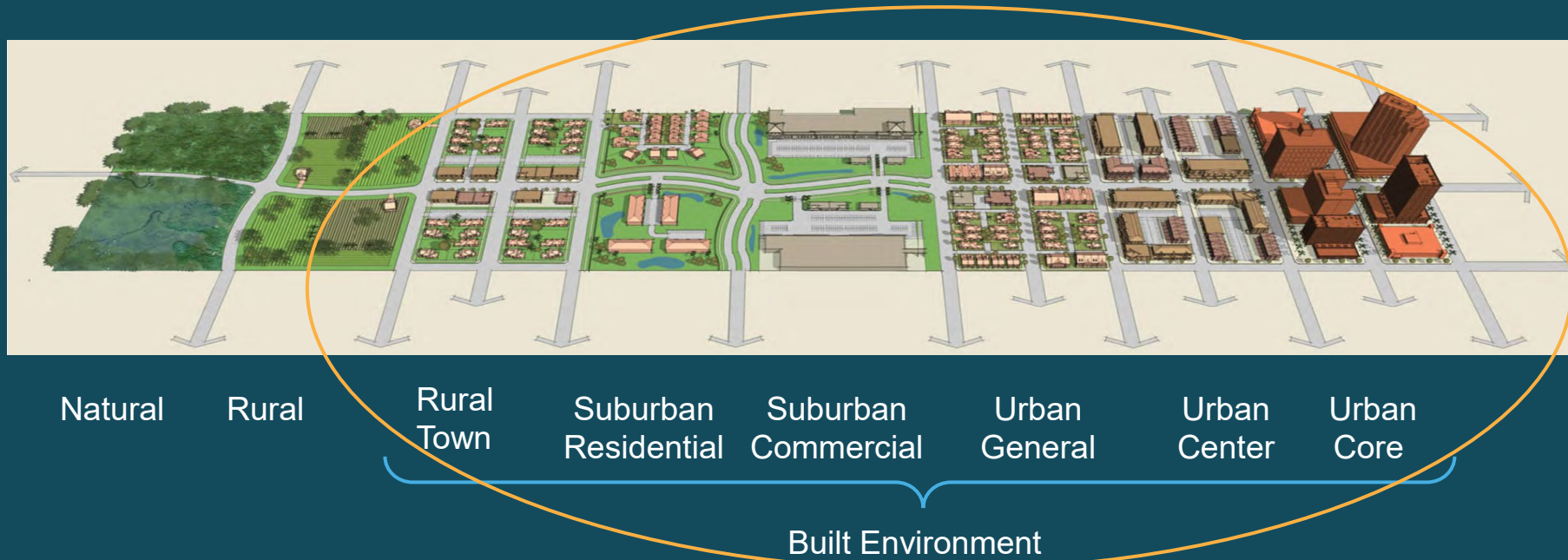


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Mobility

Within cities and metro areas

The populations' capabilities and strategies to move in order to access what they need to live and thrive within the city/metro area.



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Mobility (now & in the future)

The **populations'** capabilities and strategies **to move in order to access** what they need to live and thrive within the city/metro area.

Young, elderly, disabled, genders, different income levels, walkers, pedestrians, cyclists, transit users, students,...

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Mobility (now & in the future)

The **populations'** capabilities and strategies **to move in order to access** what they need to live and thrive within the city/metro area.

→ Movement is purposeful. →

Trip Type

%

work	18.0
work-related	2.6
shopping	20.2
doctor/dentist	1.5
family/personal	24.2
church/school	8.8
social/recreational	24.5
other	0.2

Mobility (now & in the future)

The **populations'** capabilities and strategies **to move in order to** **access** what they need to live and thrive within the city/metro area.

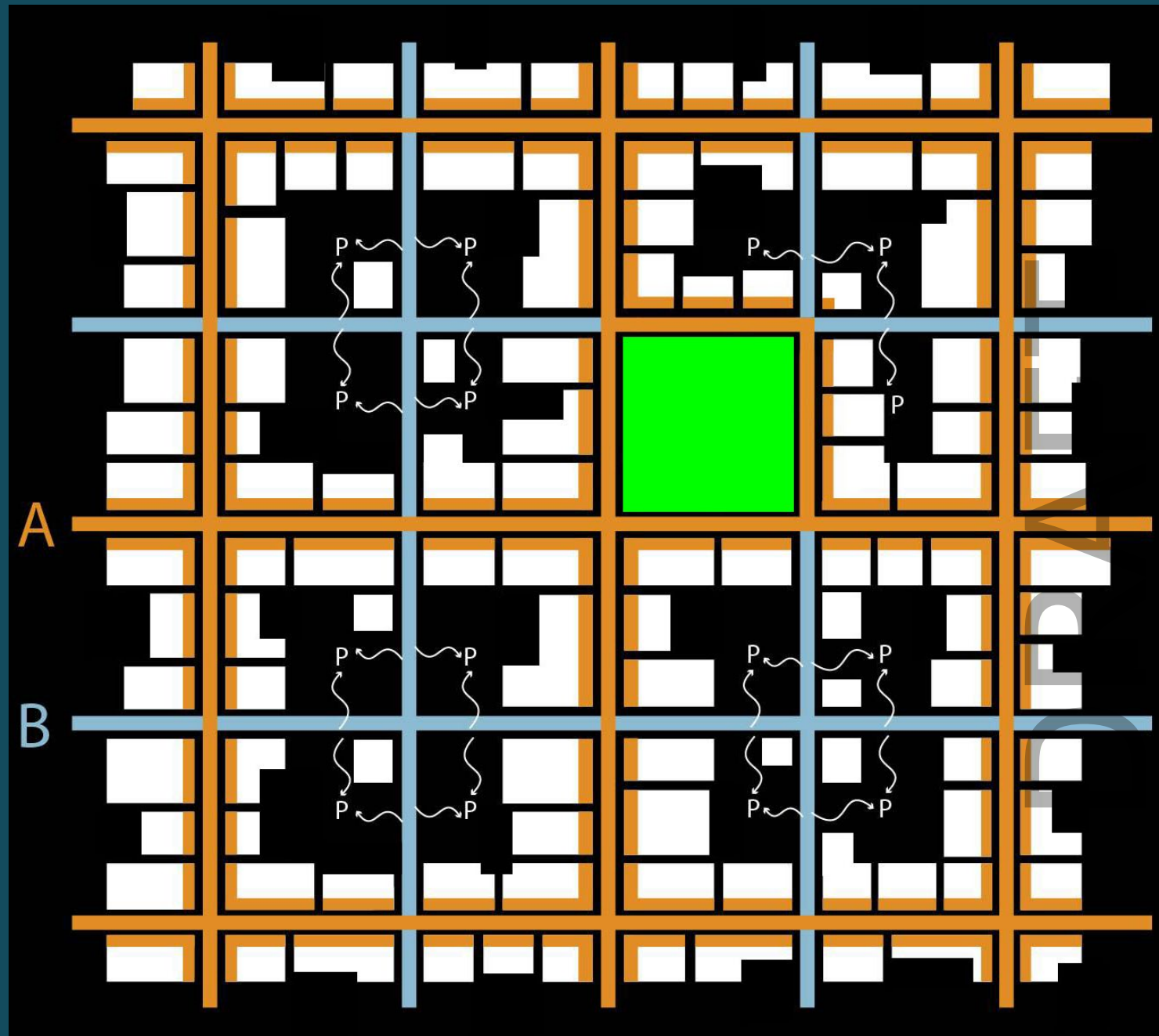
Equity

Young, elderly, disabled, genders, different income levels, walkers, pedestrians, cyclists, transit users, students,...

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A-Frontage Streets

B-Frontage Streets

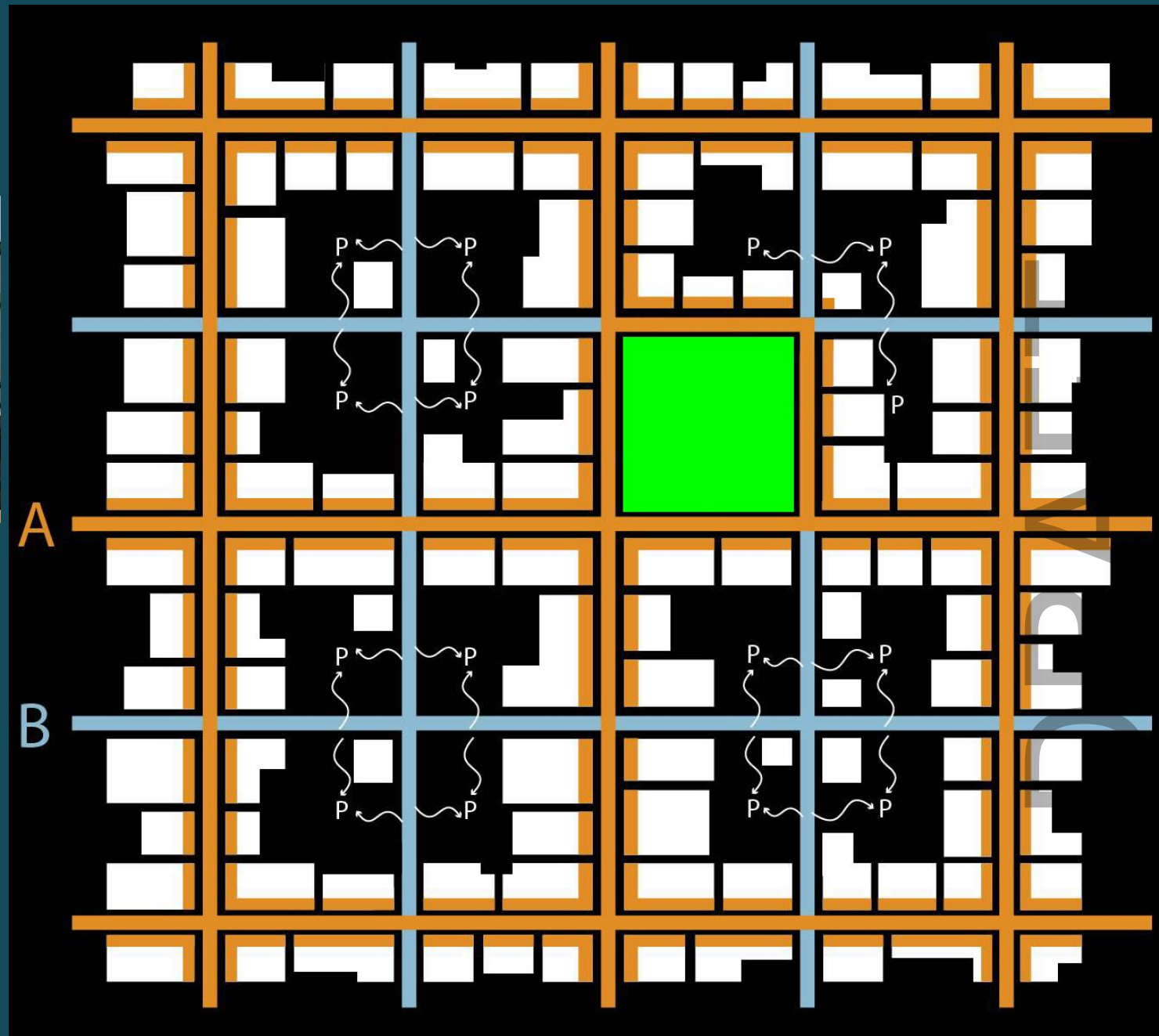


A-Frontage Streets

A-frontage streets are addressed by buildings, have engaging facades, and have no driveways or service functions.



B-Frontage Streets



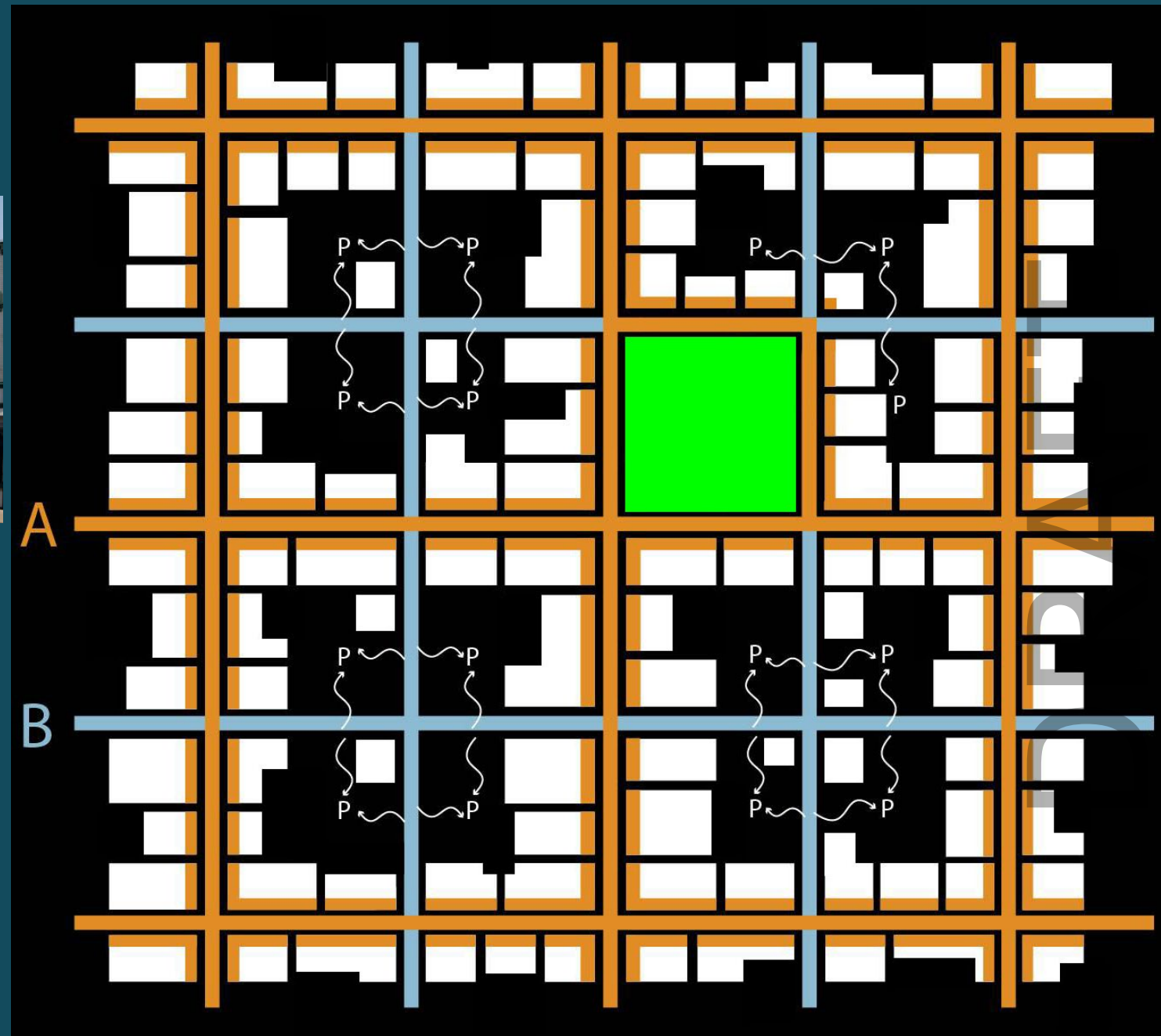
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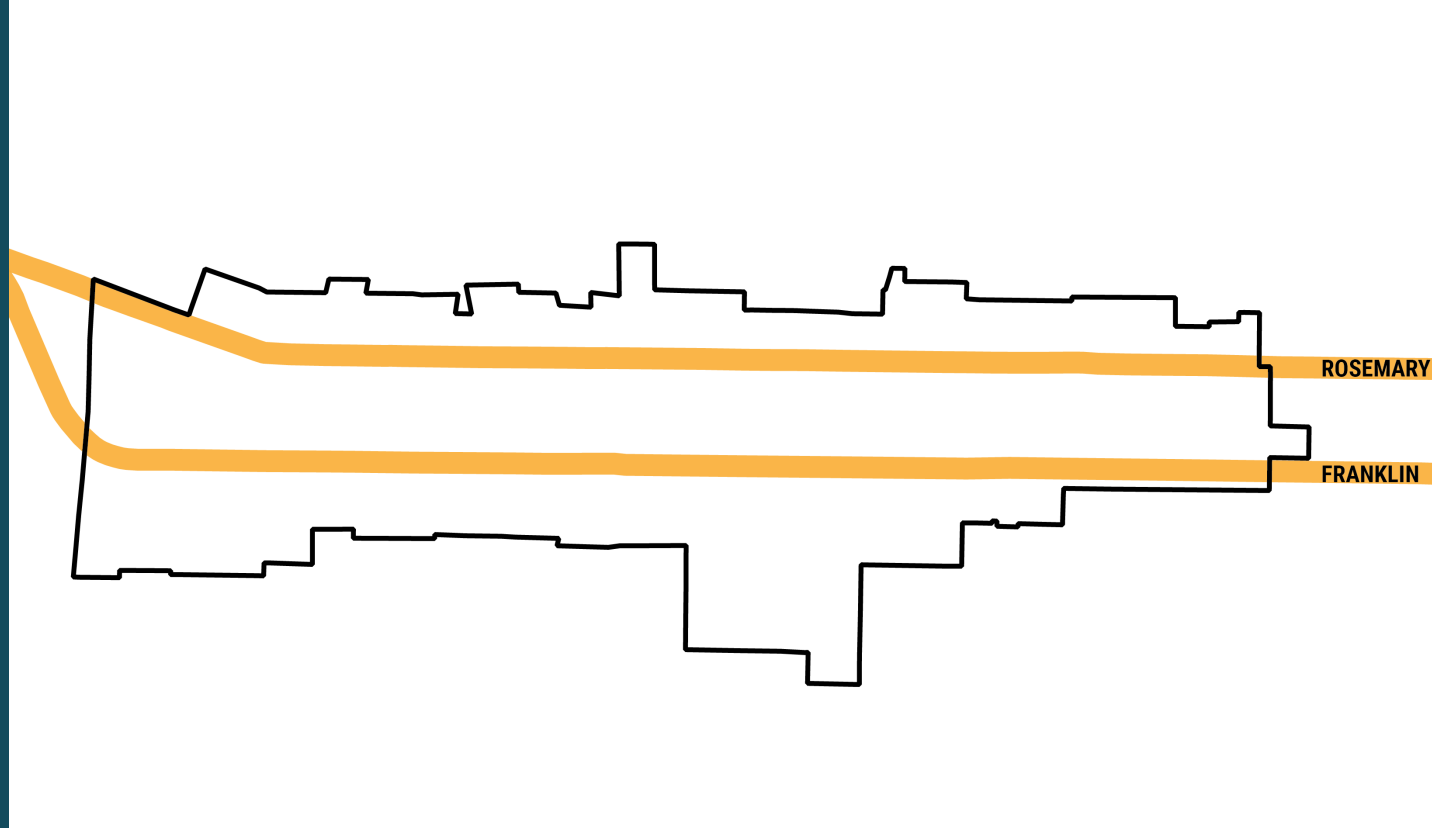


B-Frontage Streets

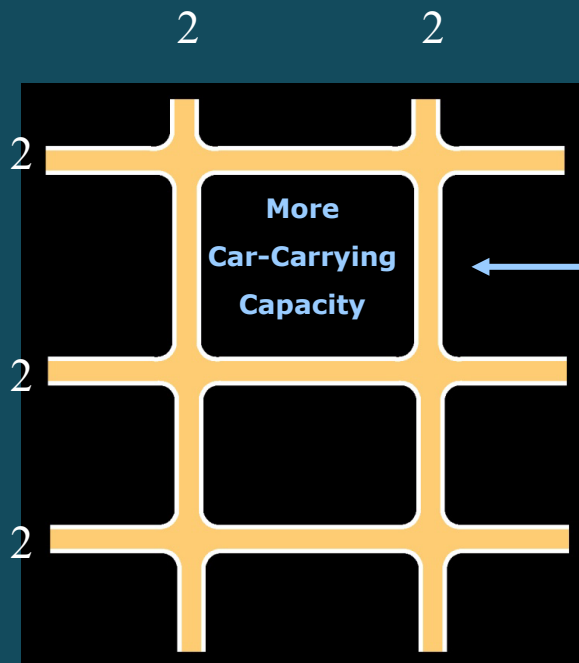
B-frontage streets may or may not be addressed by buildings and provide access for parking and services.



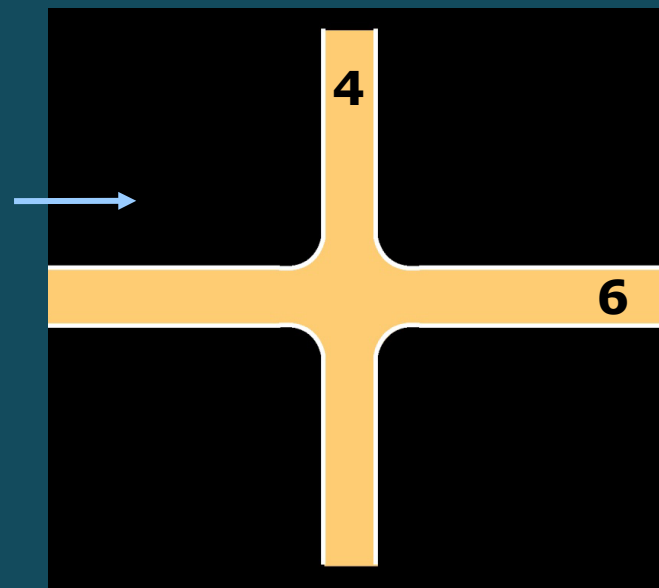
Chapel Hill's A Streets: Rosemary and Franklin



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Same
Total
Lanes



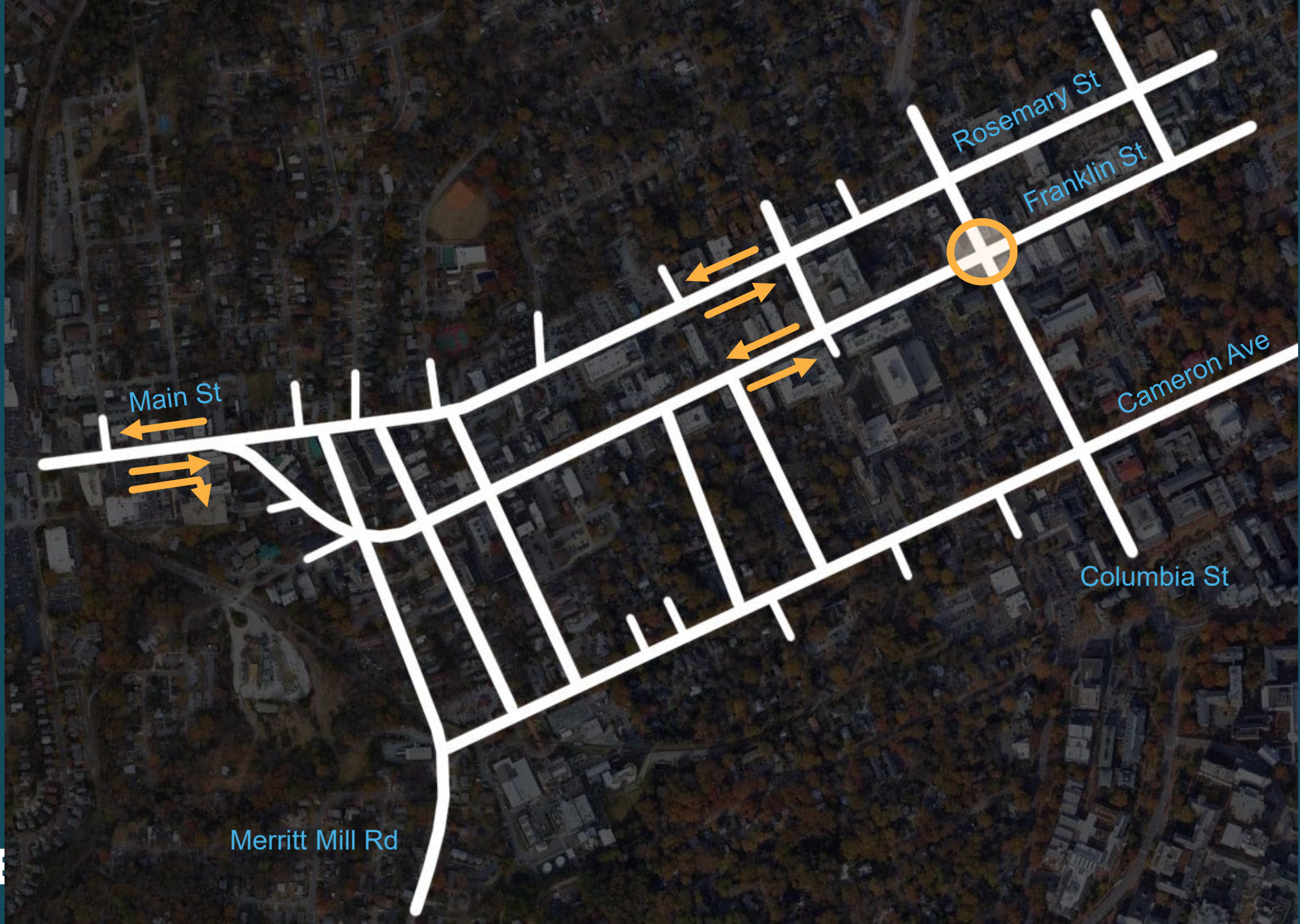
Network
&
Scale

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“A Streets” Rosemary and Franklin: Working in the Network



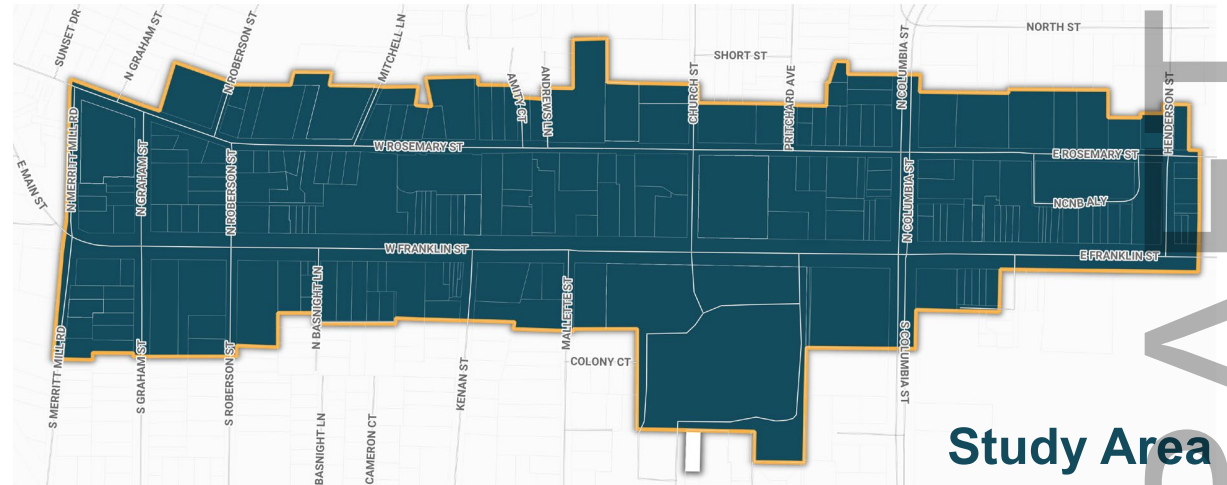
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Leaving a Legacy

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Project Purpose

- Establish vision for streets in downtown that provides:
 - Safety for all
 - Vibrancy and economic vitality
 - Connectivity to/between destinations
 - Functionality of streets to access and serve businesses



Guiding Principles

- 
- More pedestrian space and comfort
 - Design for the system
 - Establish Rosemary and Franklin as *A Streets*
 - Reduce conflicts
 - Traffic flow...but slow
 - Path as Place



Slowing Speeds on Rosemary and Franklin streets

1) Enclosure:

outdoor room, street trees, on-street parking, bulb outs, valley gutters, close buildings



Slowing Speeds on Rosemary and Franklin streets

1) Enclosure:

outdoor room, street trees, on-street parking, bulb outs, valley gutters, close buildings

2) Engagement:

Interesting things to look at, uncertainty, parked cars, crossings, narrow lanes, texture, short blocks, shop windows, art



Slowing Speeds on Rosemary and Franklin streets

1) Enclosure:

outdoor room, street trees, on-street parking, bulb outs, valley gutters, close buildings

2) Engagement:

Interesting things to look at, uncertainty, parked cars, crossings, narrow lanes, texture, short blocks, shop windows, art

3) Deflection:

horizontal and vertical deflection, physical sensation, roundabouts, lateral shifts, raised intersections



Design Week Reveal

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DRAWING



East/West Connections

LEGEND:

— Street Centerlines (major)



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Street Network

- LEGEND:
- Street Centerlines (major)
 - Street Centerlines (minor)

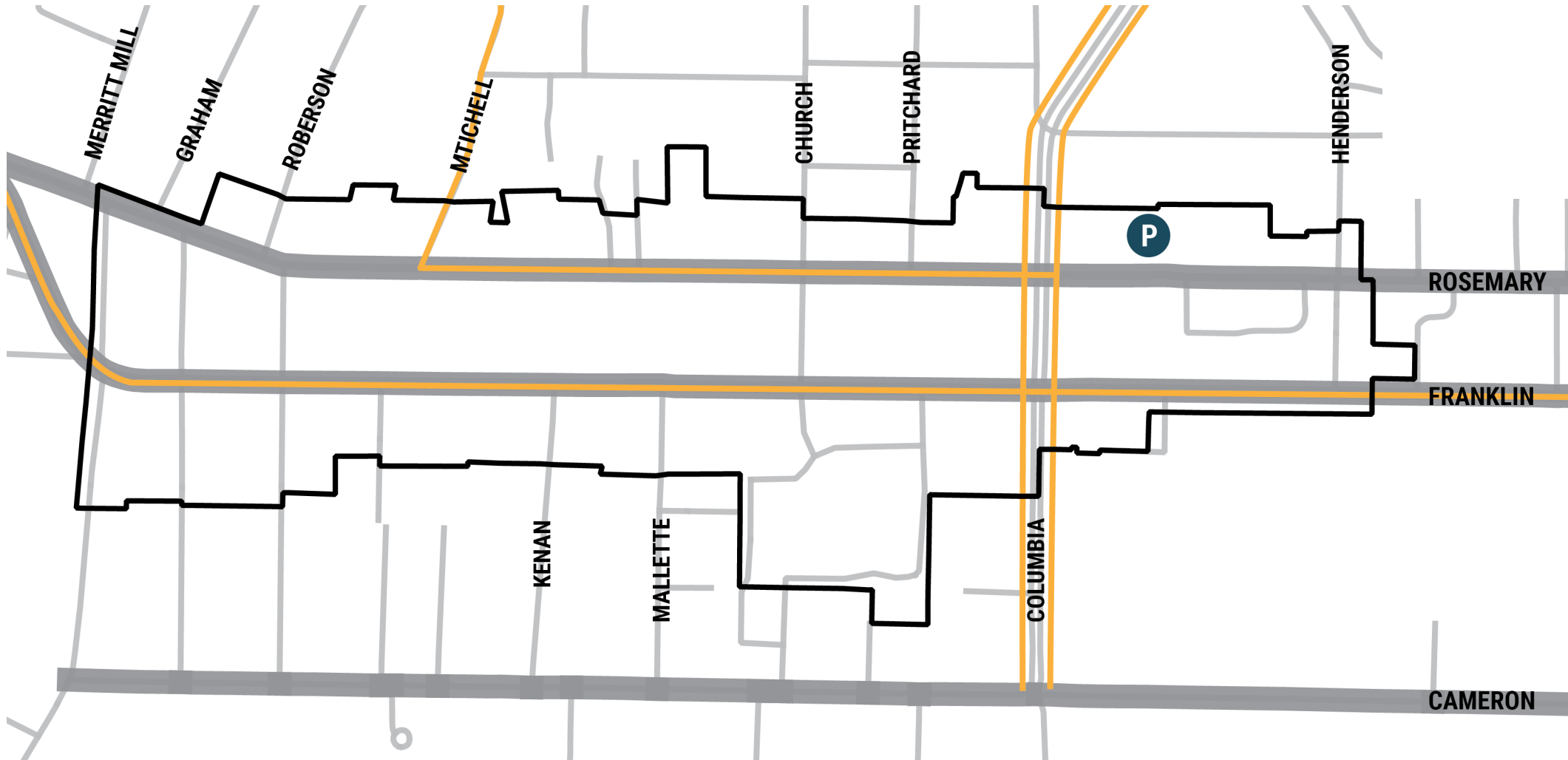


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Transit Connections

LEGEND:

- Street Centerlines (major)
- Street Centerlines (minor)
- Transit Routes

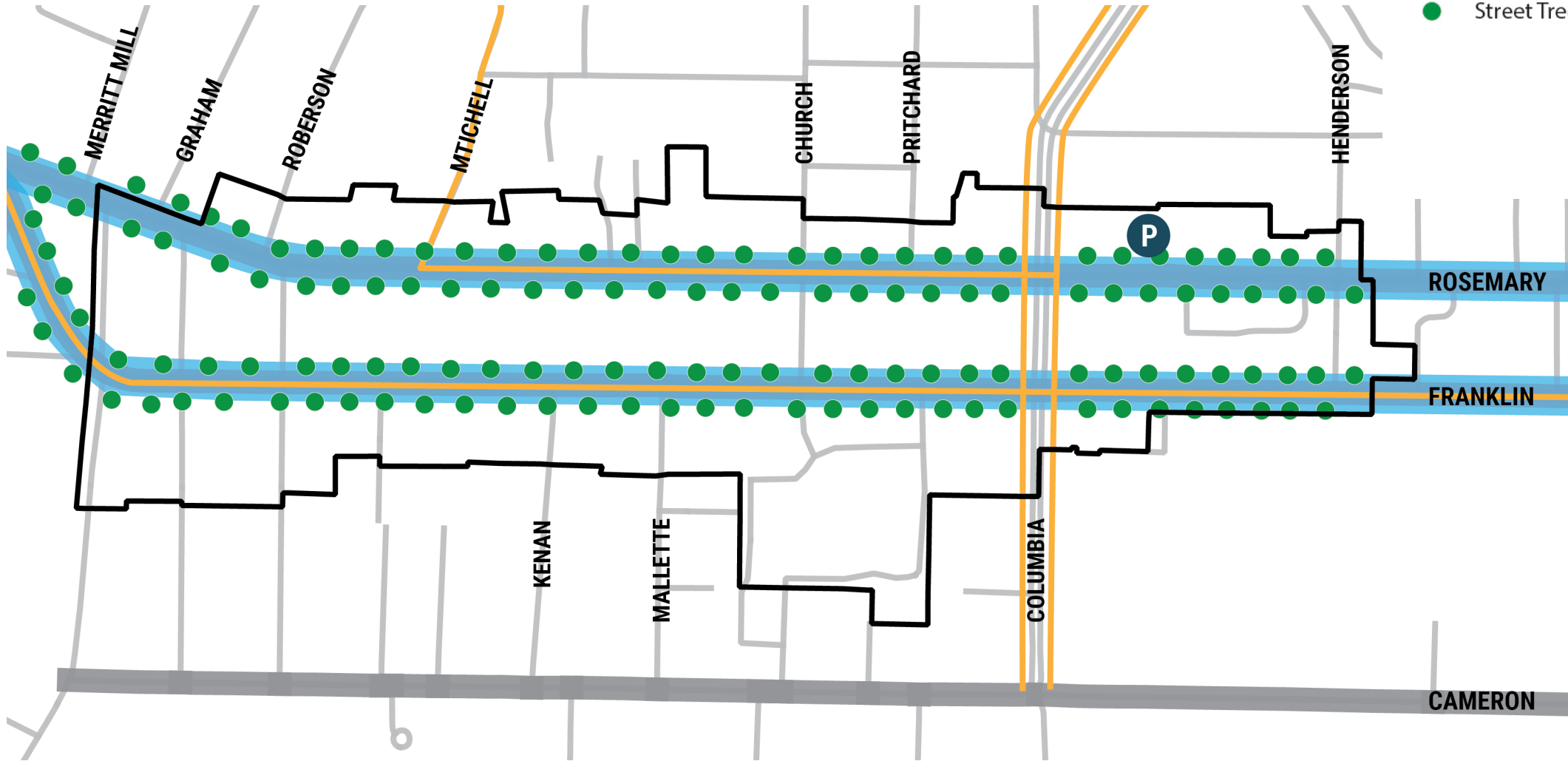


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Comfortable Pedestrian Space

LEGEND:

- Street Centerlines (major)
- Street Centerlines (minor)
- Transit Routes
- Street Trees (conceptual)

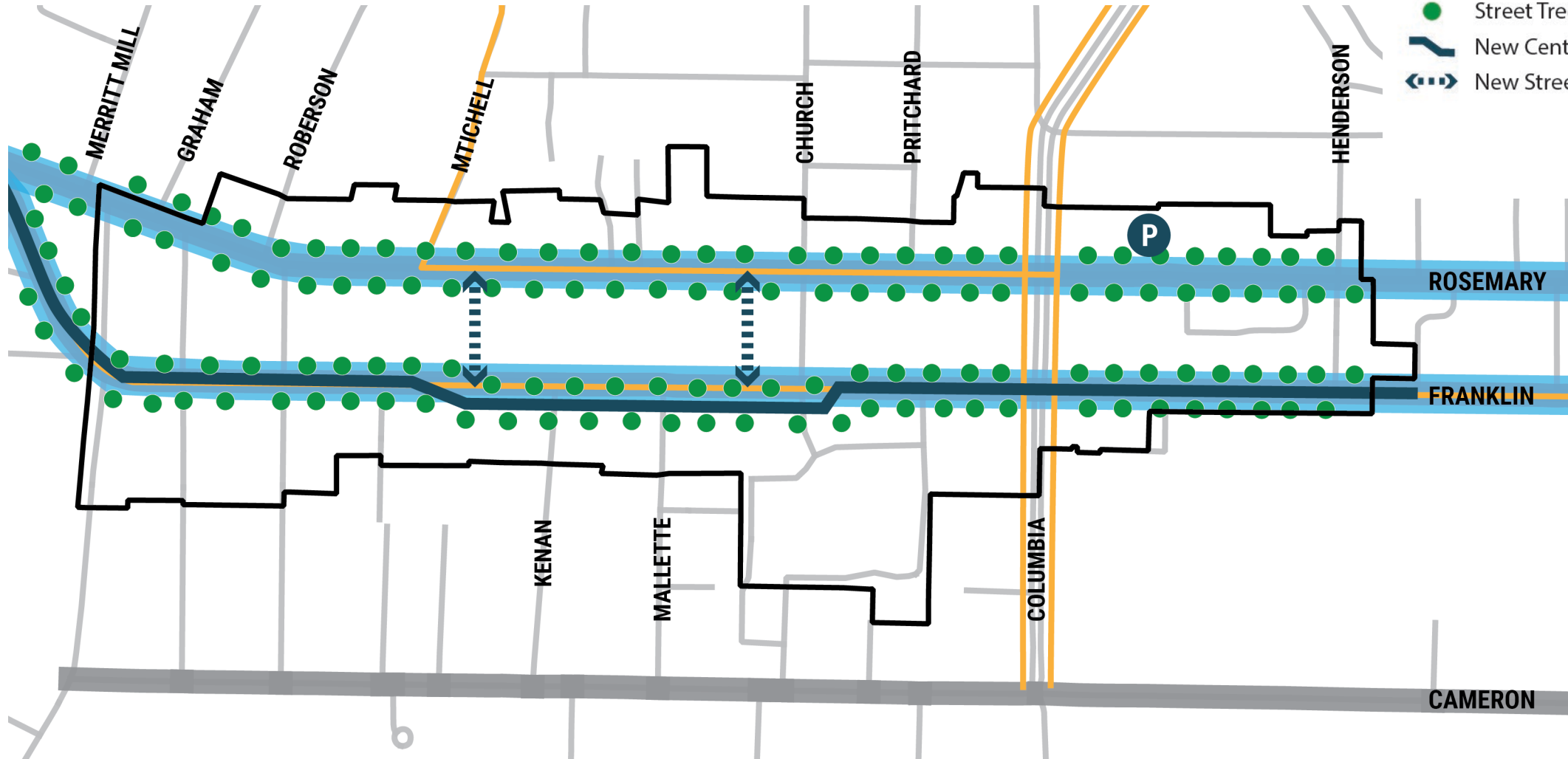


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New Connections

LEGEND:

- Street Centerlines (major)
- Street Centerlines (minor)
- Transit Routes
- Street Trees (conceptual)
- New Centerline Shift
- New Street Connections

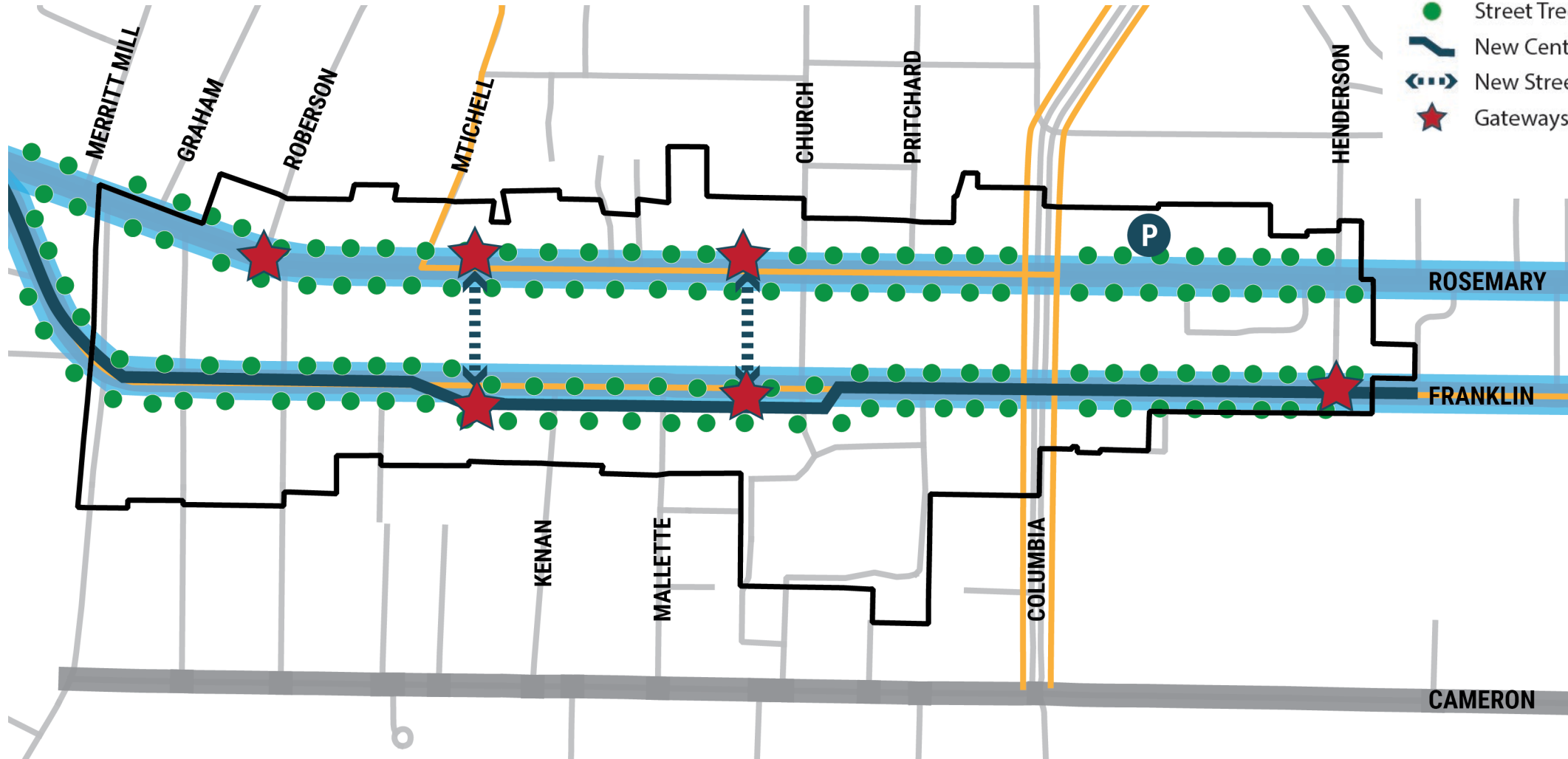


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Gateways

LEGEND:

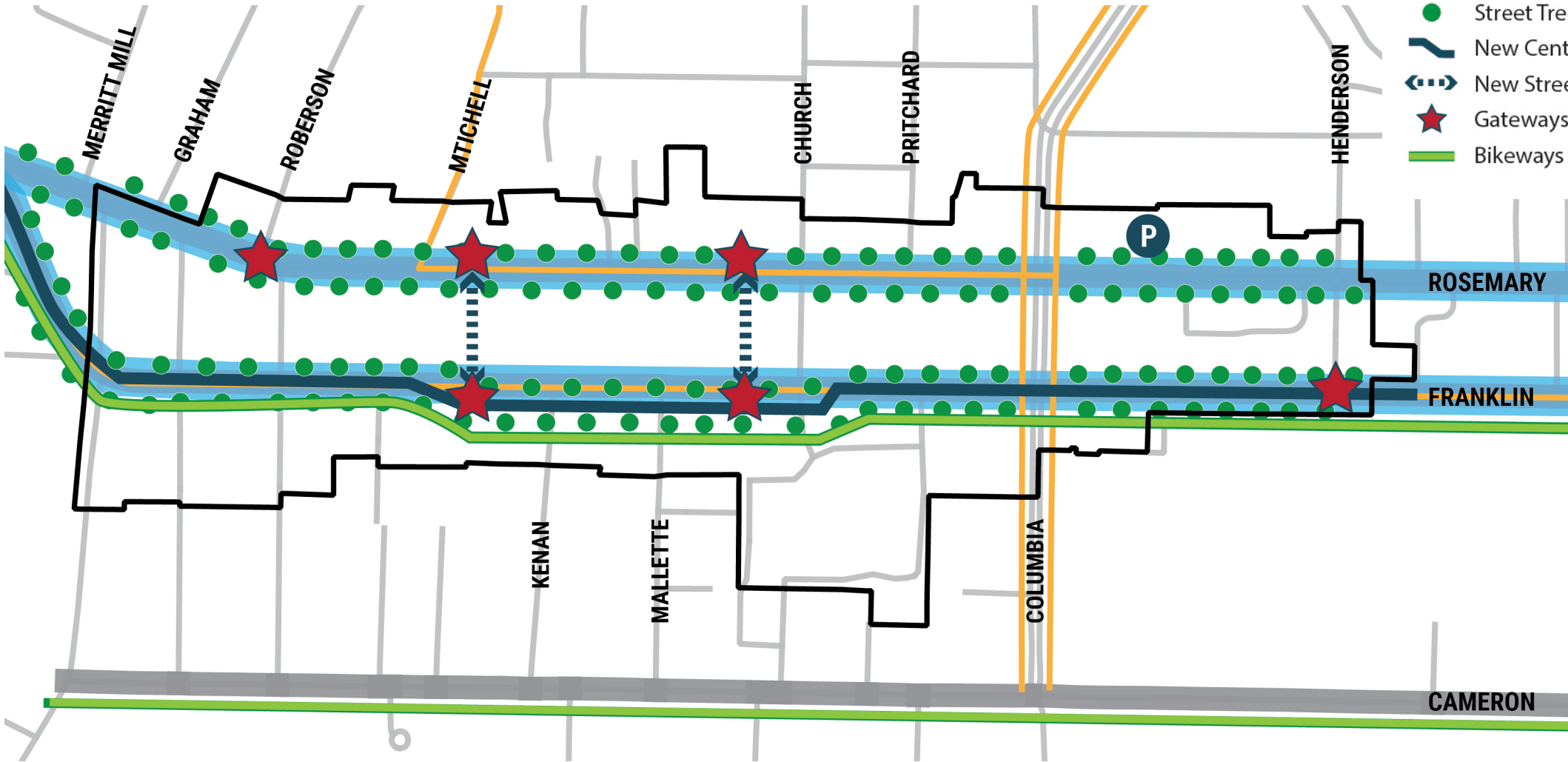
- Street Centerlines (major)
- Street Centerlines (minor)
- Transit Routes
- Street Trees (conceptual)
- New Centerline Shift
- New Street Connections
- Gateways



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High-Quality Bikeways

- LEGEND:
- Street Centerlines (major)
 - Street Centerlines (minor)
 - Transit Routes
 - Street Trees (conceptual)
 - New Centerline Shift
 - New Street Connections
 - Gateways
 - Bikeways



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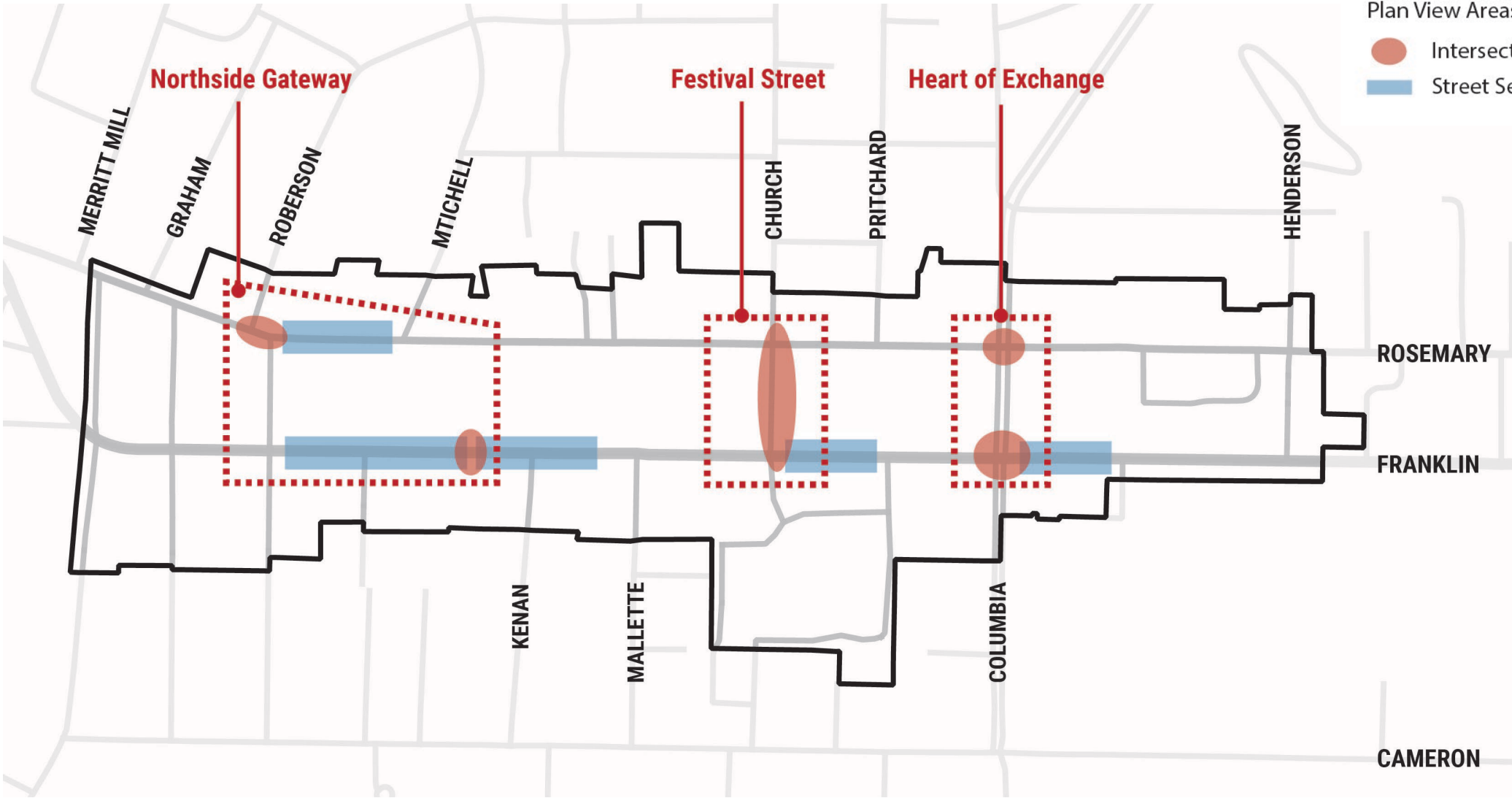
A Closer Look at Rosemary & Franklin

- ***Rosemary St. is a Front Door to the Downtown District***
 - Wider pedestrian space
 - Comfortable: Lighting and street trees
 - Uses: Residential, Office/Institutional Employment, Civic
- ***Franklin St. is the center of exchange***
 - Wider pedestrian space
 - Comfortable: Lighting and street trees
 - Uses: Restaurant, Civic, Retail, University

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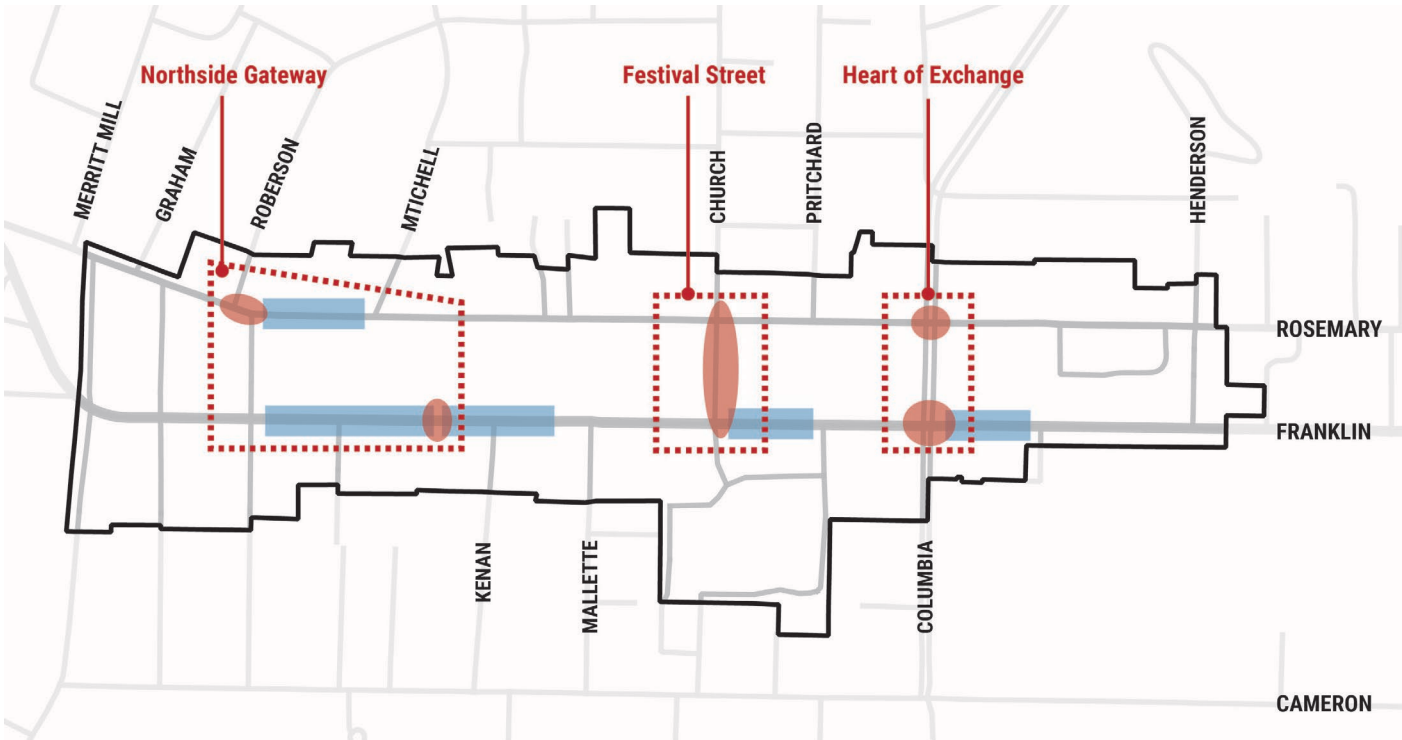
Key Map

- LEGEND:
- Street Centerlines
 - Plan View Areas:
 - Intersections/ Special Places
 - Street Segments



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Key Changes



LEGEND:

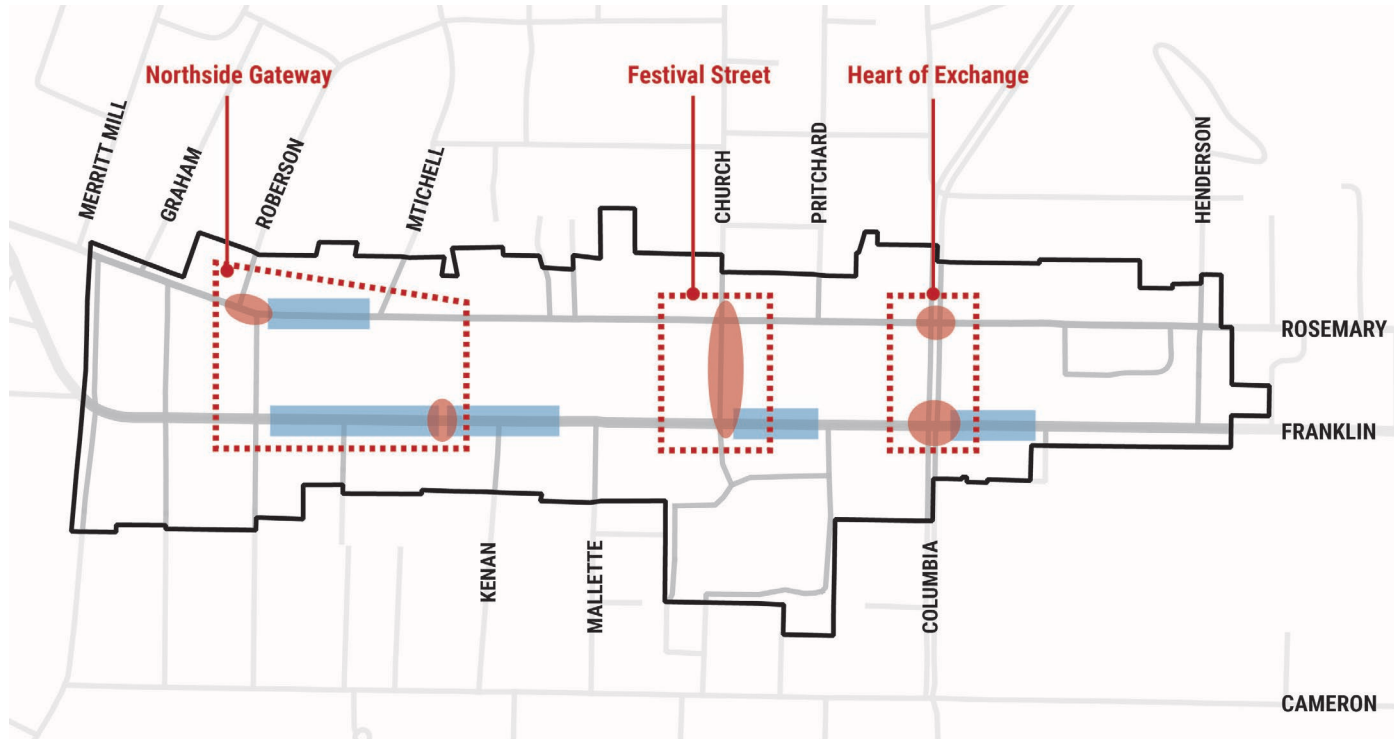
- Street Centerlines
- Plan View Areas:
 - Intersections/ Special Places
 - Street Segments

Rosemary St.

- No bike lanes
- Continuous street trees
- Designated loading zones

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Key Changes



LEGEND:

— Street Centerlines

Plan View Areas:

● Intersections/ Special Places

■ Street Segments

Rosemary St.

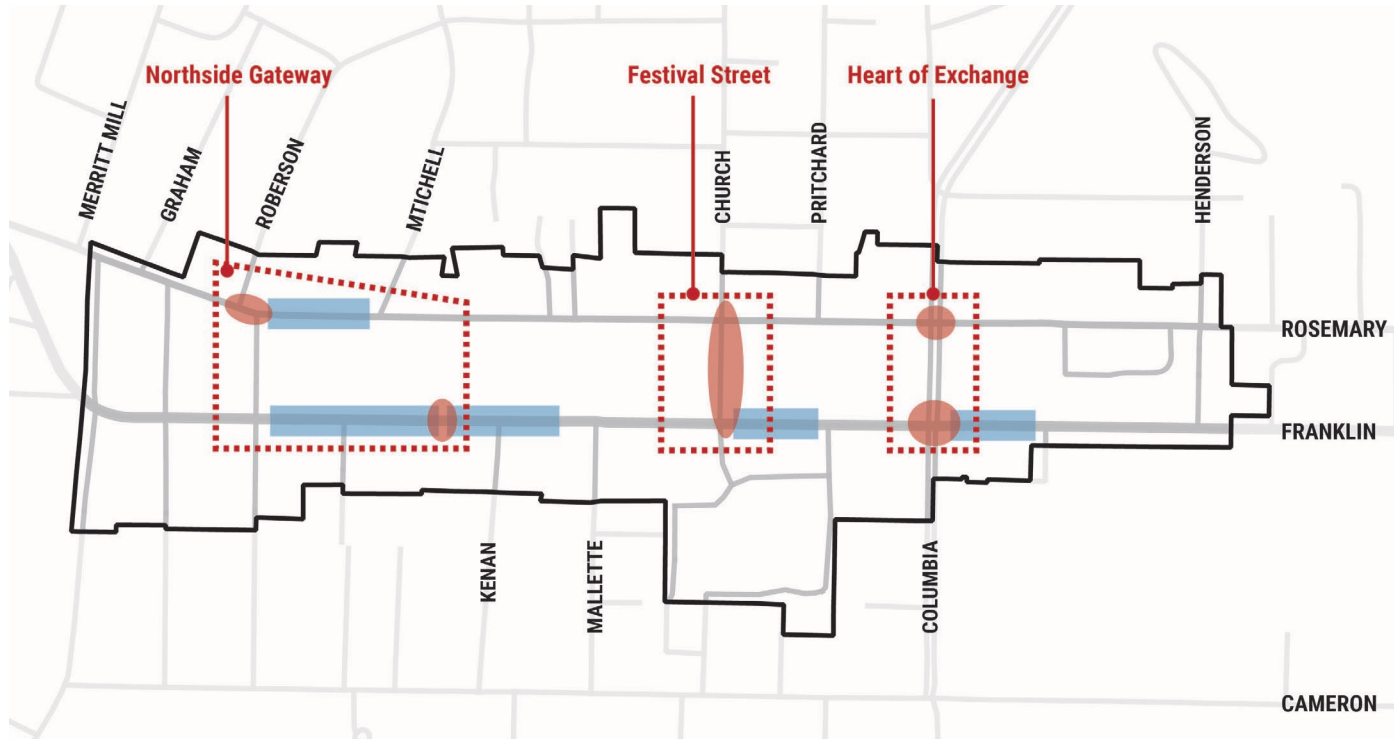
- No bike lanes
- Continuous street trees
- Designated loading zones

Franklin St.

- Designated bike facility on E. Franklin
- New bikeway type
- Designated loading zones

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Key Changes



LEGEND:

— Street Centerlines

Plan View Areas:

● Intersections/ Special Places

■ Street Segments

Rosemary St.

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Franklin St.

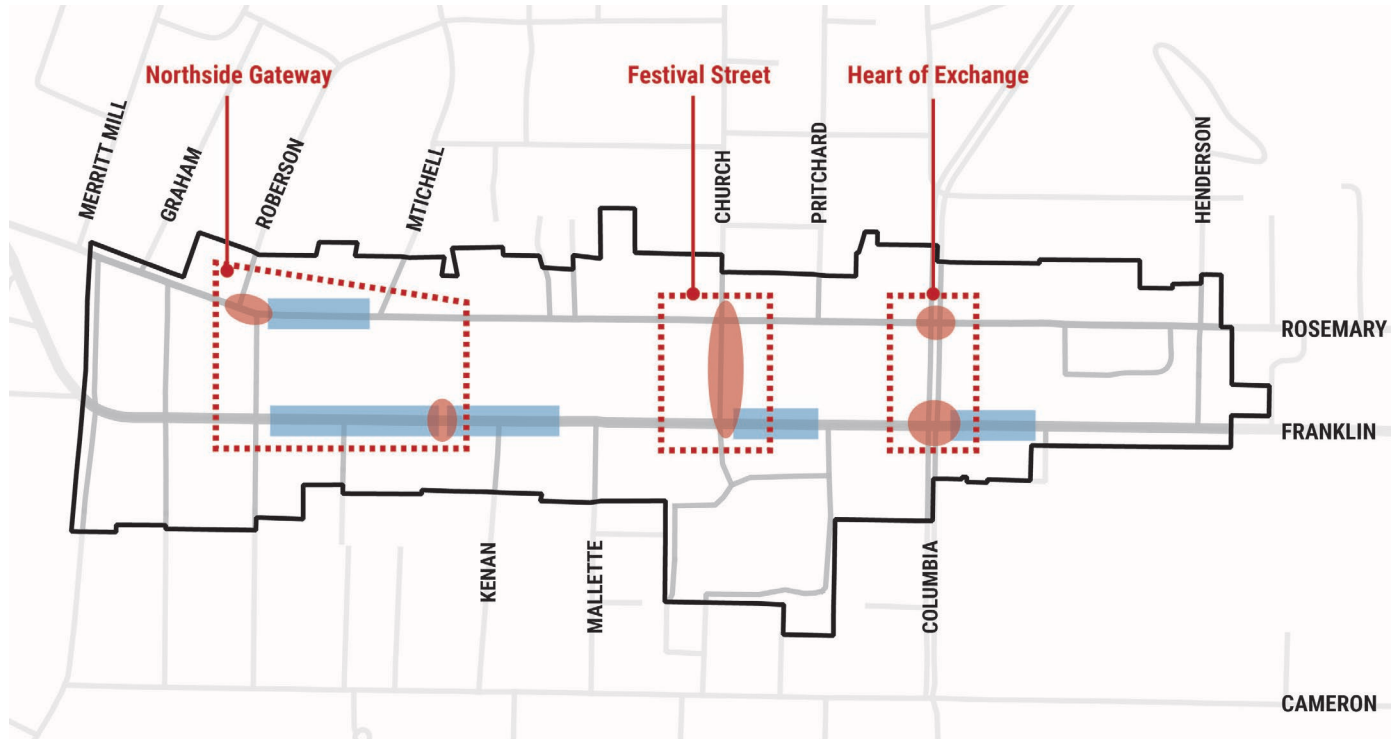
- Designated bike facility on E. Franklin
- New bikeway type
- Designated loading zones

Cameron Ave.

- New bikeway type

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Key Changes



LEGEND:

— Street Centerlines

Plan View Areas:

● Intersections/ Special Places

■ Street Segments

Rosemary St.

- No bike lanes
- Continuous street trees
- Designated loading zones

Franklin St.

- Designated bike facility on E. Franklin
- New bikeway type
- Designated loading zones

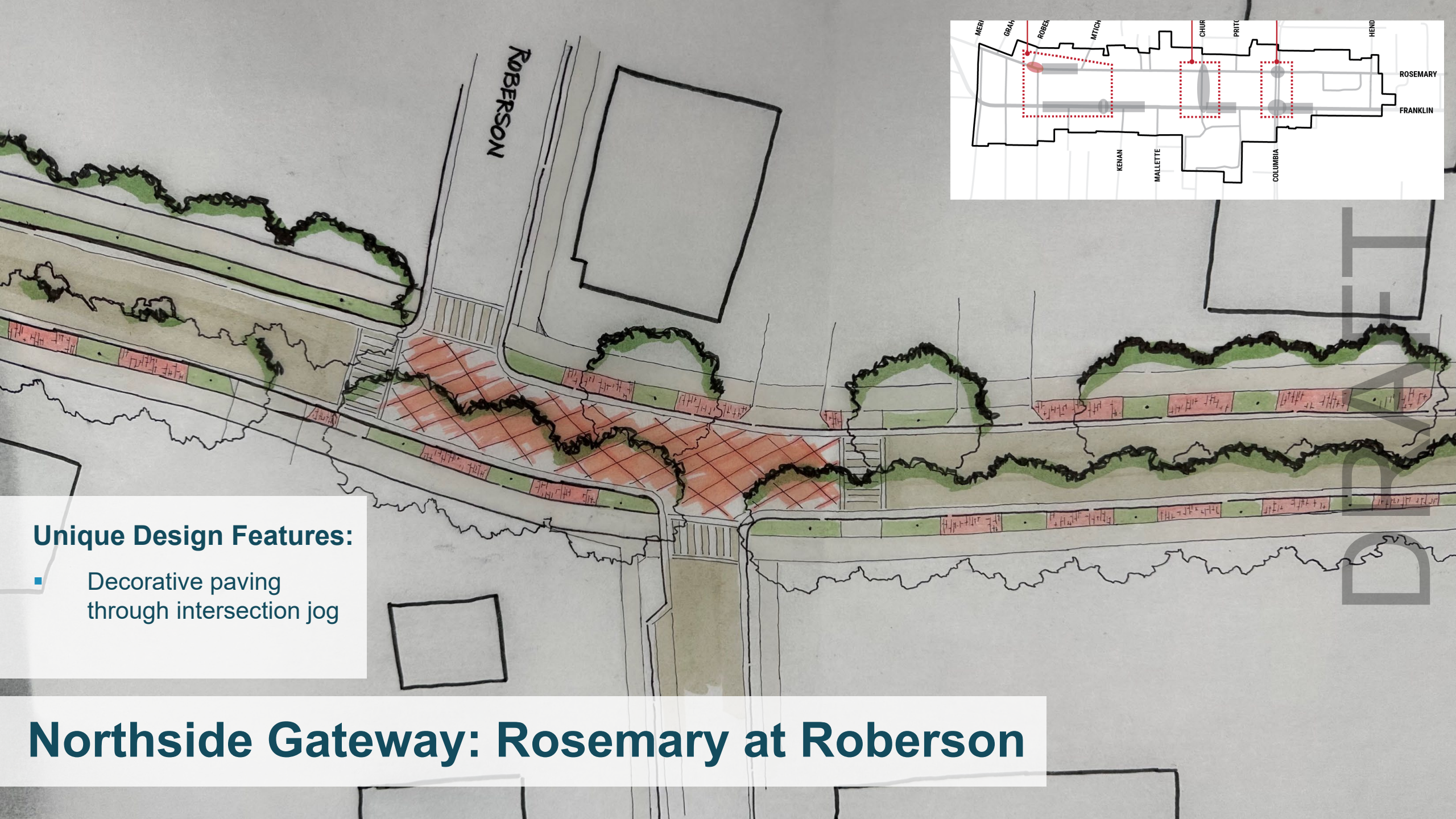
Cameron Ave.

- New bikeway type

Network-wide

- Distributing turns across the network to relieve pressure on Columbia St.
- Making Rosemary

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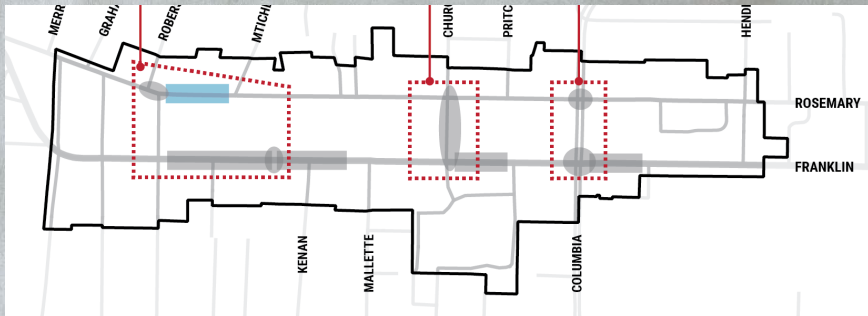
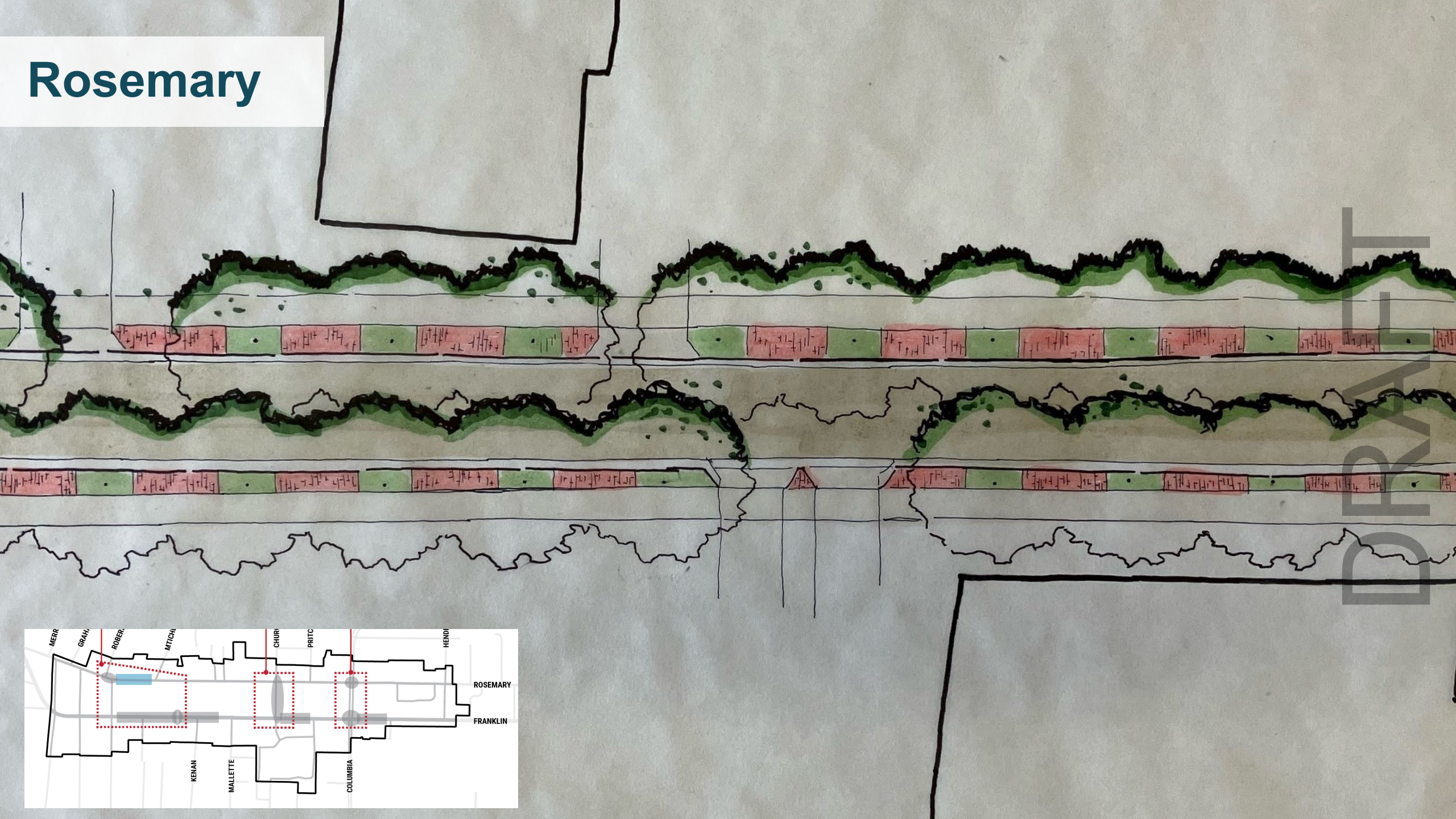


Unique Design Features:

- Decorative paving through intersection jog

Northside Gateway: Rosemary at Roberson

Rosemary



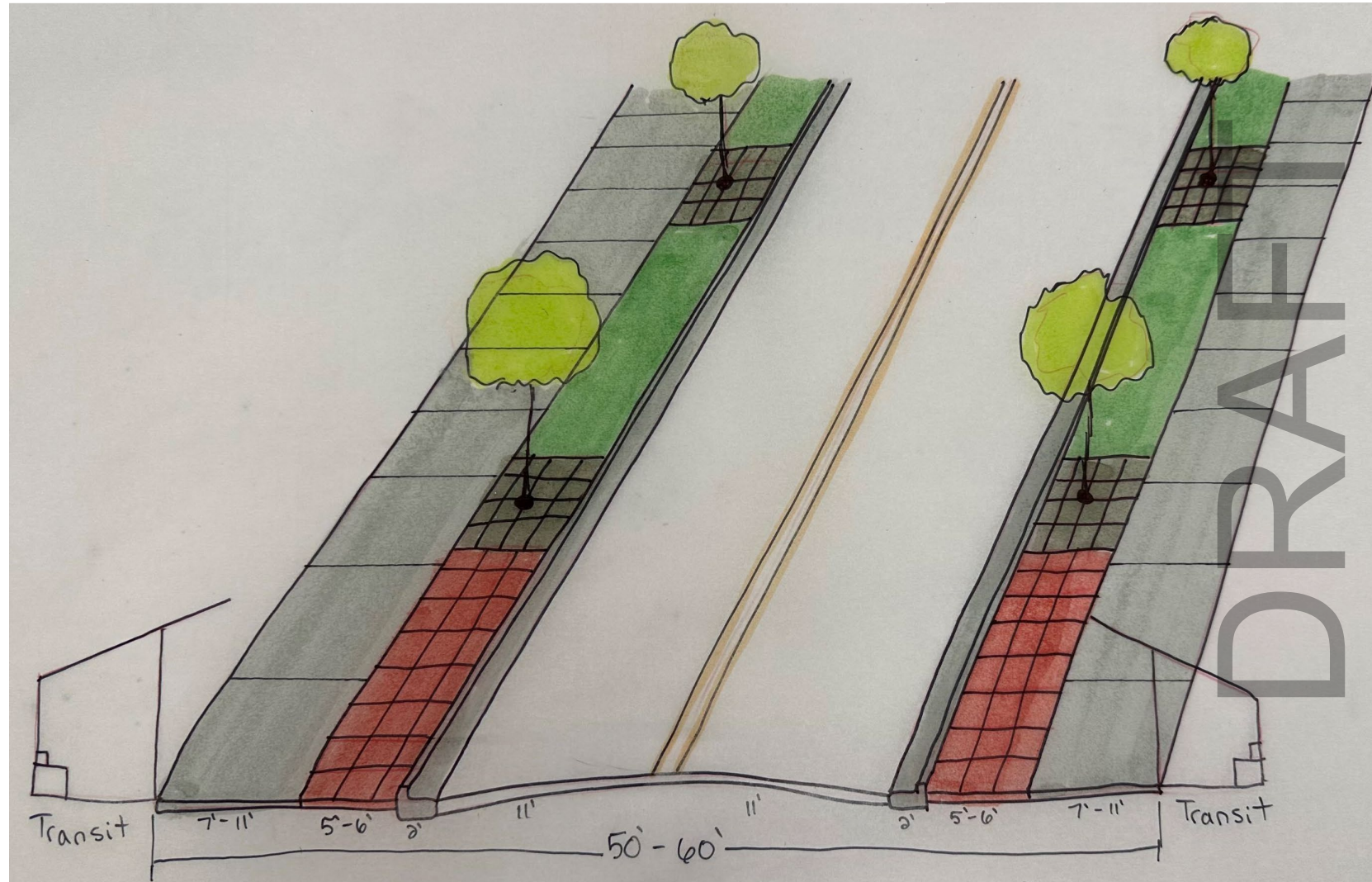
Rosemary

Achieving Goals Through Design:

- **Pedestrian comfort:** wider sidewalks, shade, shorter crossings
- **Design the system:** new loading zones, supportive of transit
- **A Streets:** quality pedestrian experience with robust transit
- **Reduce conflicts:** shorter pedestrian crossings
- **Slower traffic:** narrower lanes
- **Path as Place:** connections to distinct streets and intersections

Considerations:

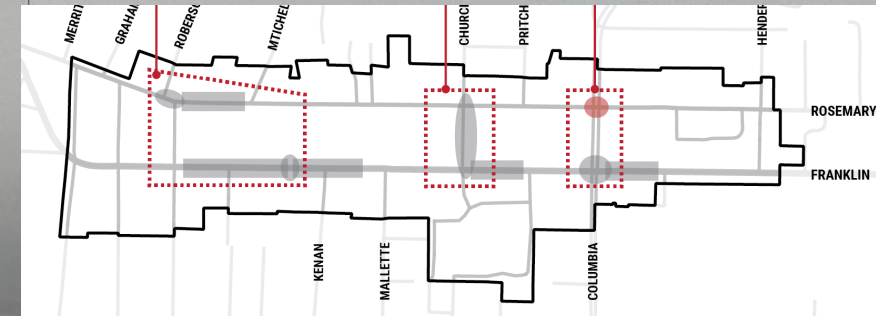
- Street tree health & soils
- Right-of-way negotiations
- Partnerships for transit stops
- Connections to Franklin



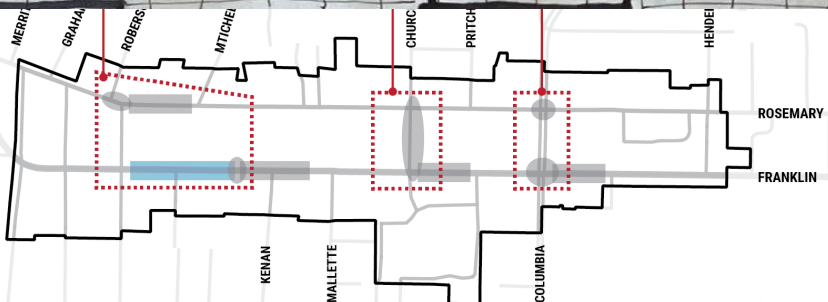
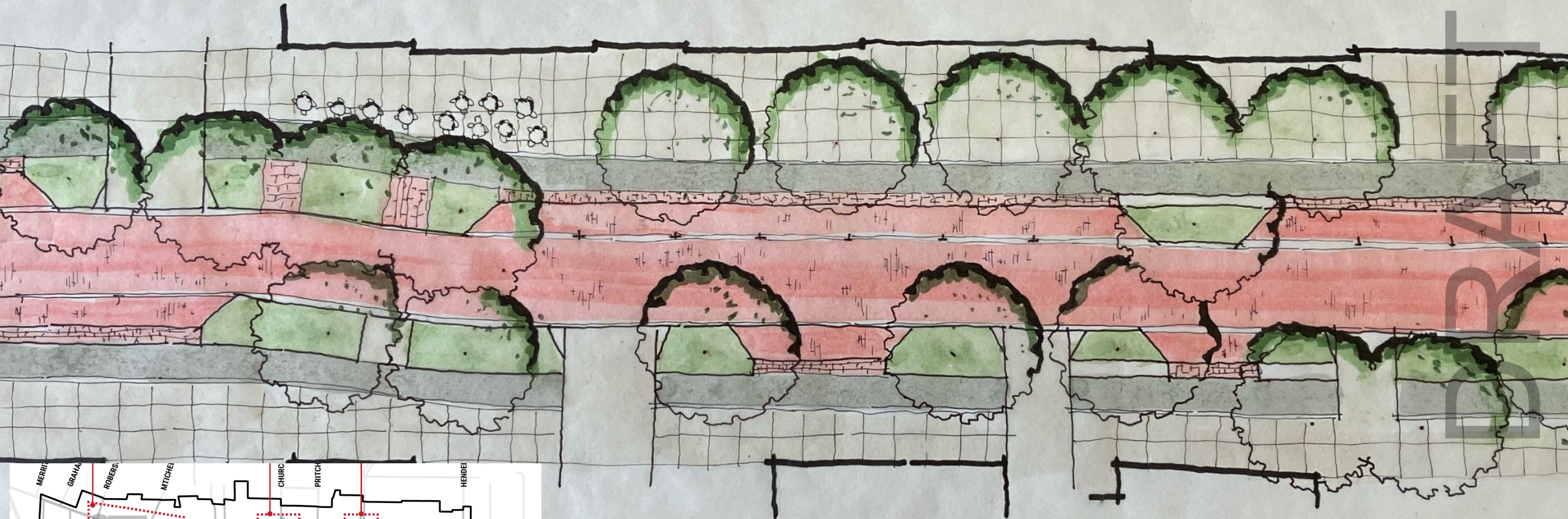
Unique Design Features:

- Additional shade
- High-visibility crosswalks
- Anticipated future features: Bus Rapid Transit (BRT) lanes, public park connection

The Center of Exchange: Rosemary at Columbia



W. Franklin: Directional SBLs and Parallel Parking



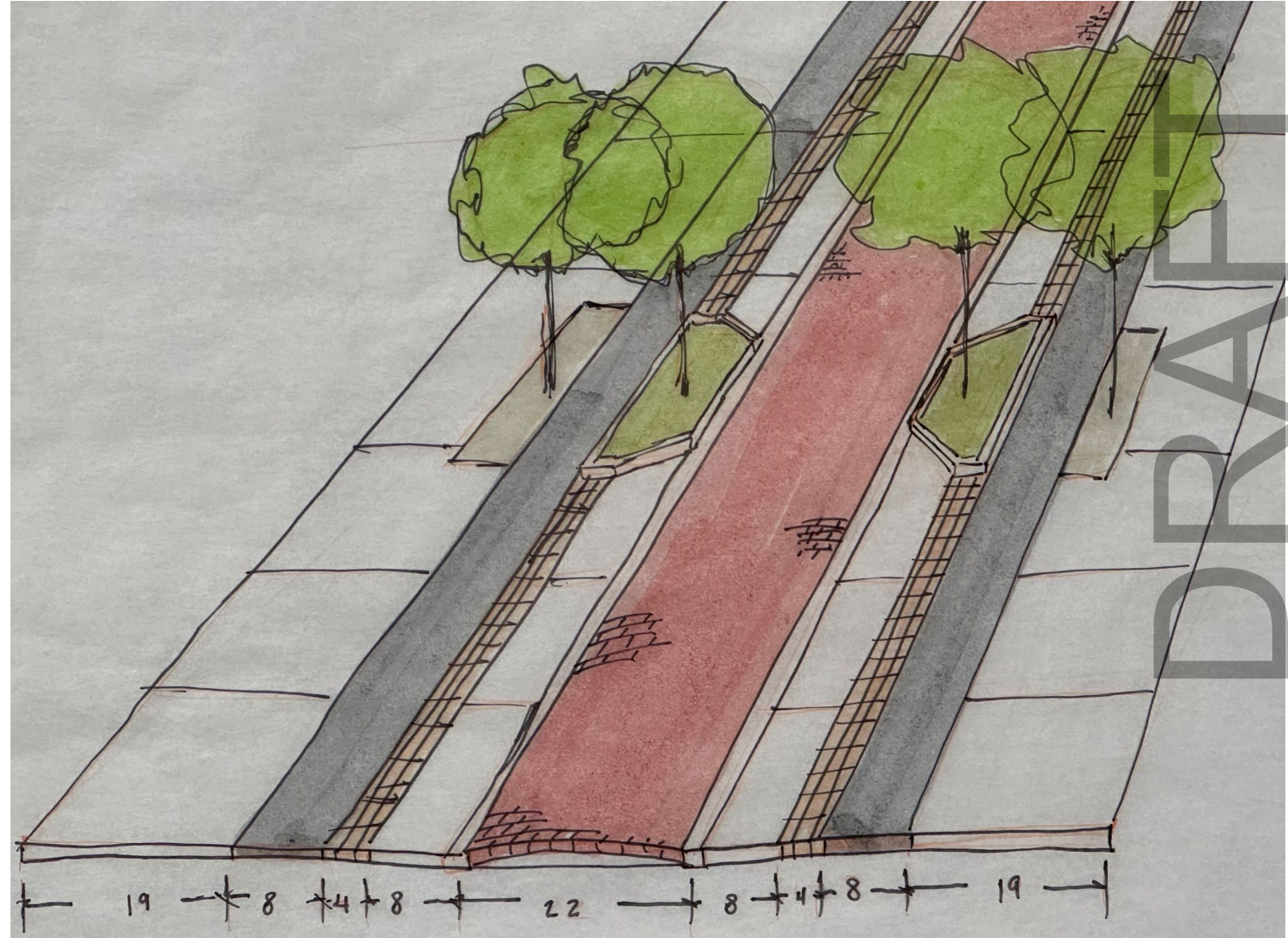
W. Franklin: Directional SBLs and Parallel Parking

Achieving Goals Through Design:

- **Pedestrian comfort:** trees in parking islands
- **Design the system:** provides greatest bicycle access to destinations
- **A Streets:** refines current configuration
- **Reduce conflicts:** shorter crossings, parking-protected bike lanes, door zones
- **Slower traffic:** narrower lanes, narrower roadway, tighter corner radii
- **Path as Place:** brick street

Considerations:

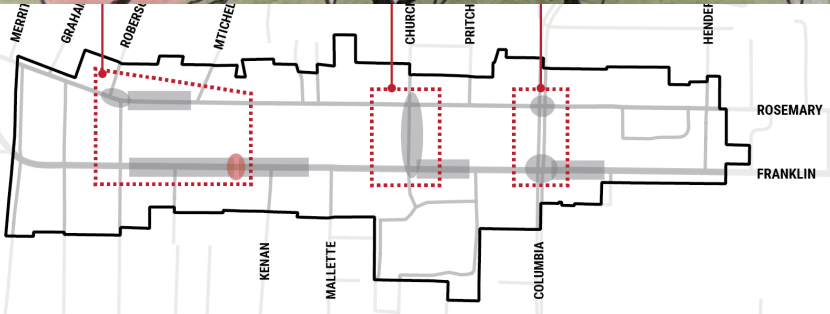
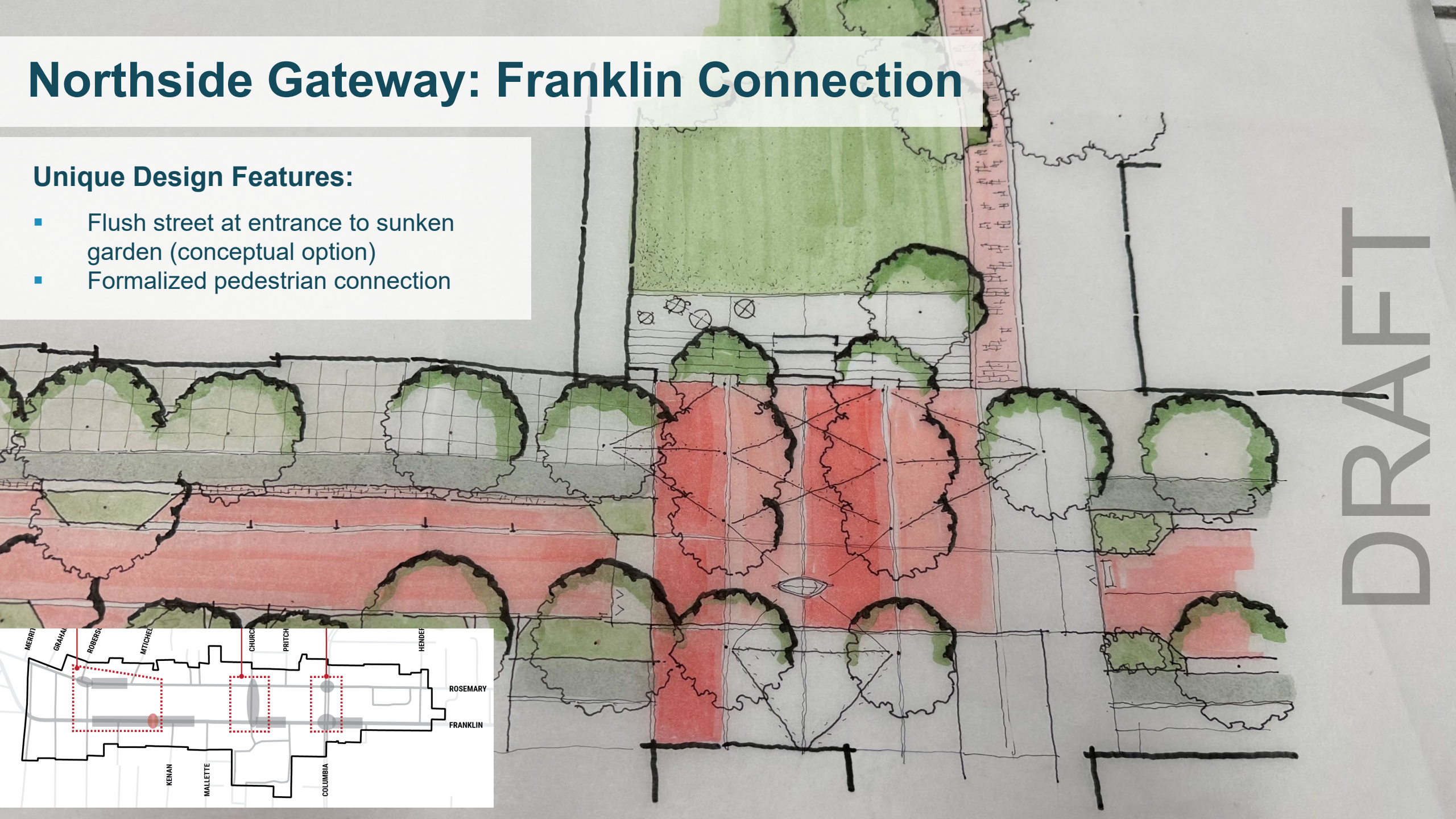
- Space needed for bike lane buffer on each side
- Transition to E. Franklin two-way SBL
- Retaking ownership from NCDOT?



Northside Gateway: Franklin Connection

Unique Design Features:

- Flush street at entrance to sunken garden (conceptual option)
- Formalized pedestrian connection

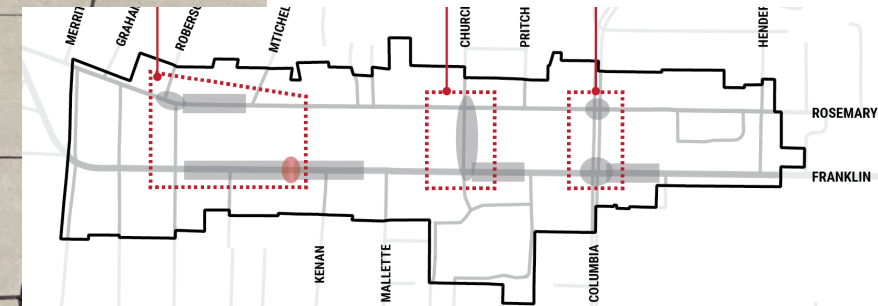


Northside Gateway: Franklin Connection



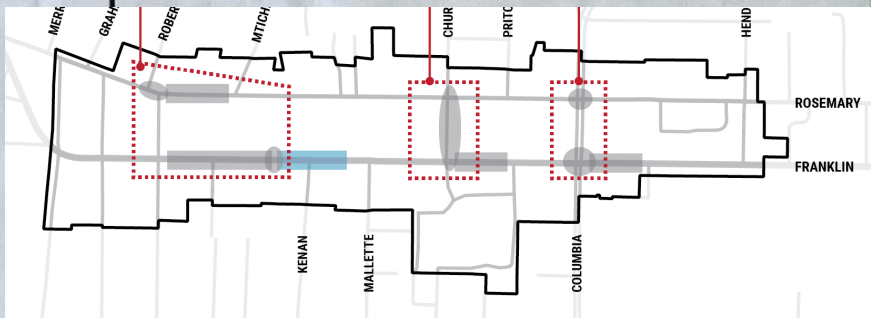
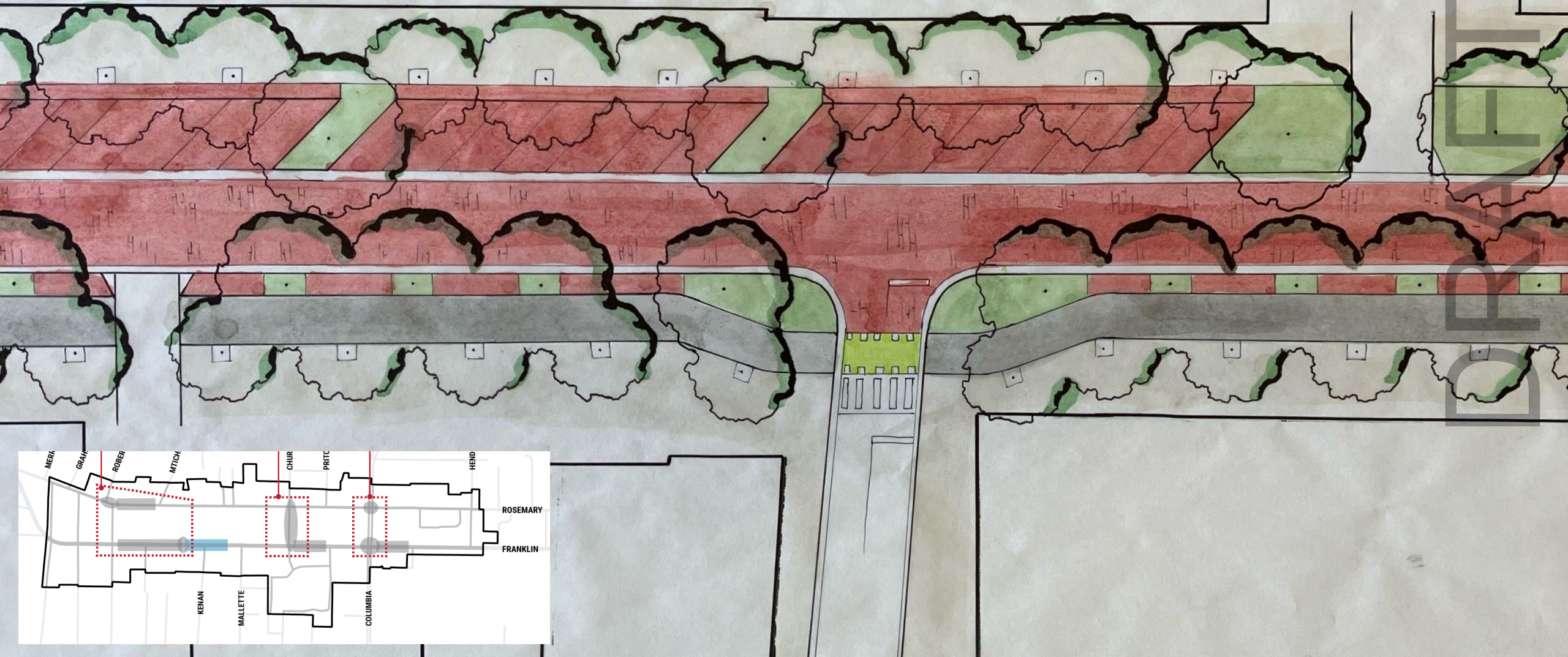
Unique Design Features:

- Lateral shift in roadway with monumental pedestrian refuge at entrance to sunken garden (conceptual option)



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W. Franklin: Two-Way SBL and Reverse Angle Parking



W. Franklin:

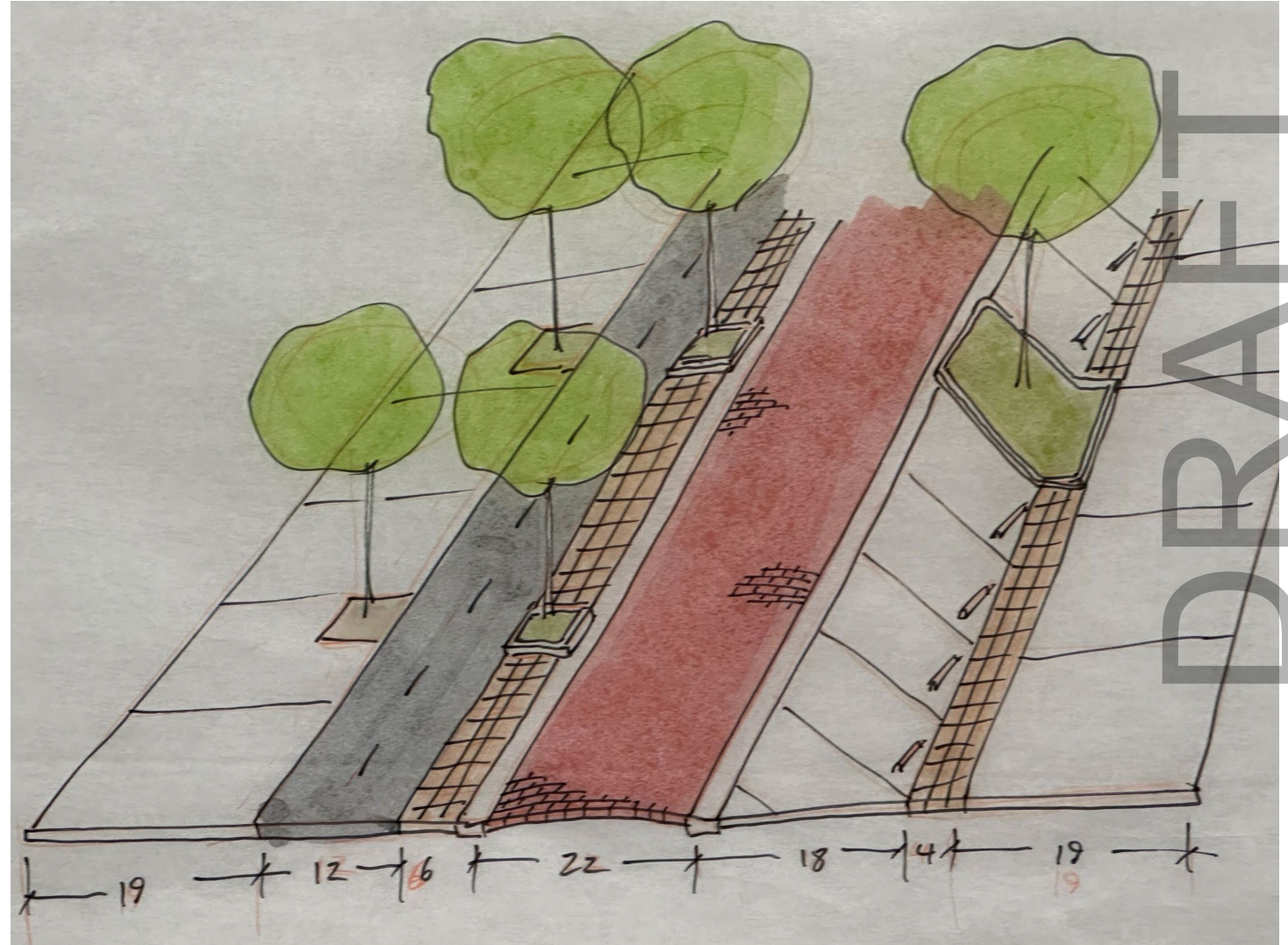
Two-Way SBL and Reverse Angle Parking

Achieving Goals Through Design:

- **Pedestrian comfort:** trees in parking islands,
- **Design the system:** consistent bicycle facility
- **A Streets:** one-of-a-kind street
- **Reduce conflicts:** shorter crossings, no chance of dooring, clear sight lines while entering & exiting parking stall
- **Slower traffic:** narrower lanes, narrower roadway, tighter corner radii
- **Path as Place:** brick street

Considerations:

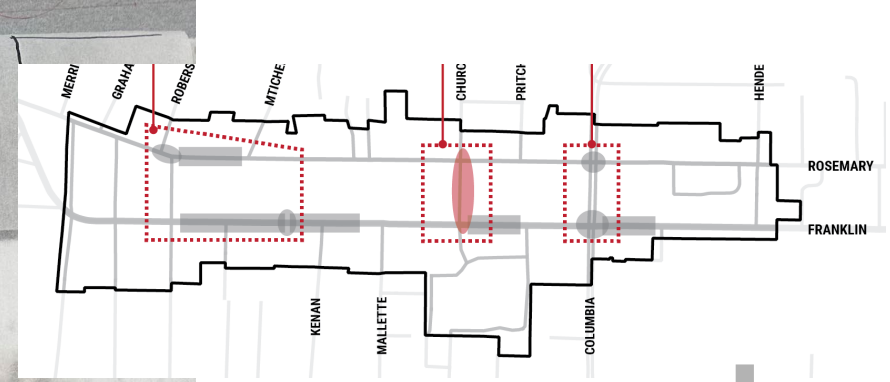
- Loading zones in parking lane
- Bike movements at intersections
- Transition to E. Main (Carrboro) directional bike lanes
- Retaking ownership from NCDOT?



Church Street: Festival Connector

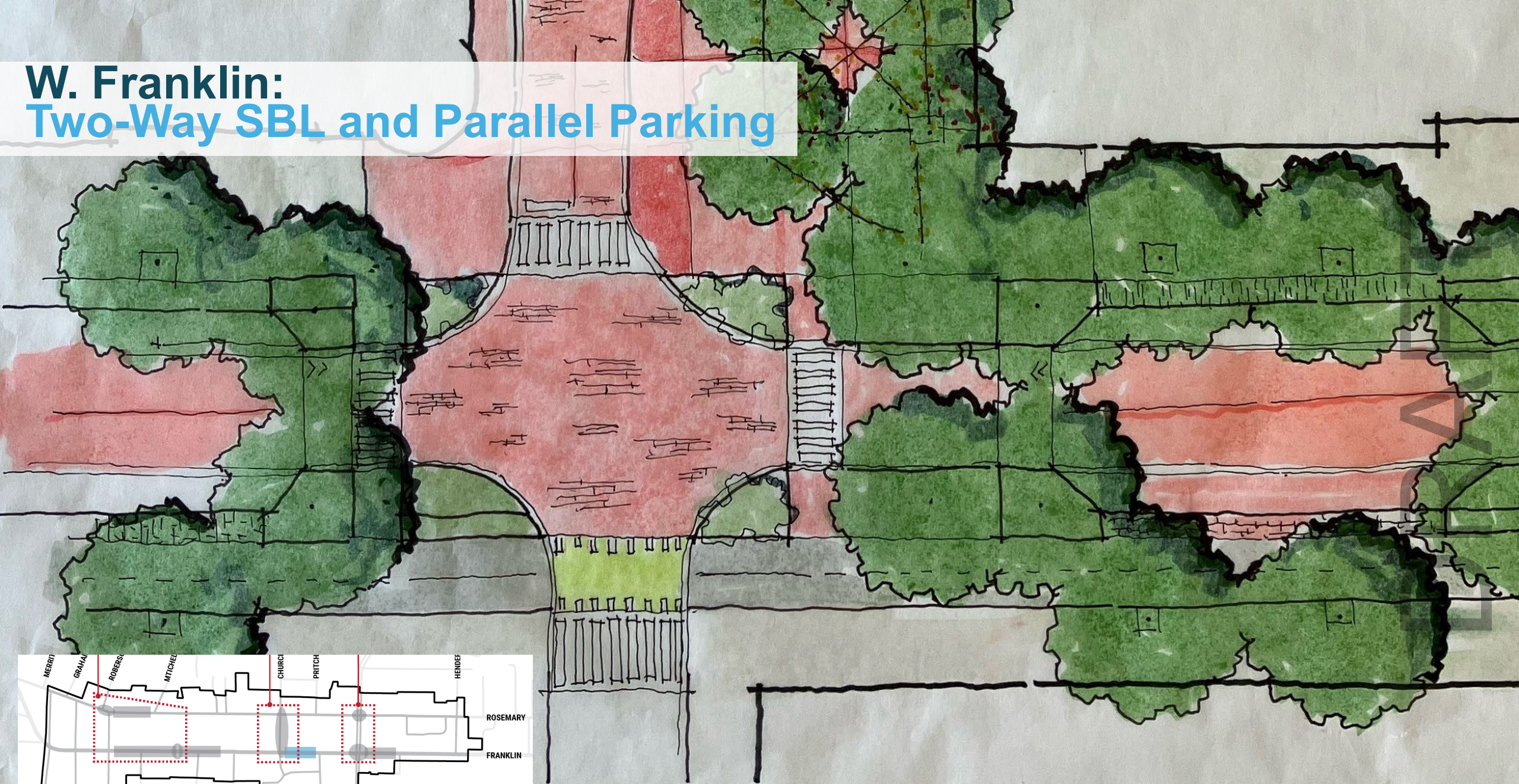
Unique Design Features:

- Flush street with seamless transition into 140 W. Franklin plaza
- Catenary lighting
- Ample trees for shade and sense of enclosure
- Lateral shift on Franklin just east of Church for traffic calming



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W. Franklin: Two-Way SBL and Parallel Parking



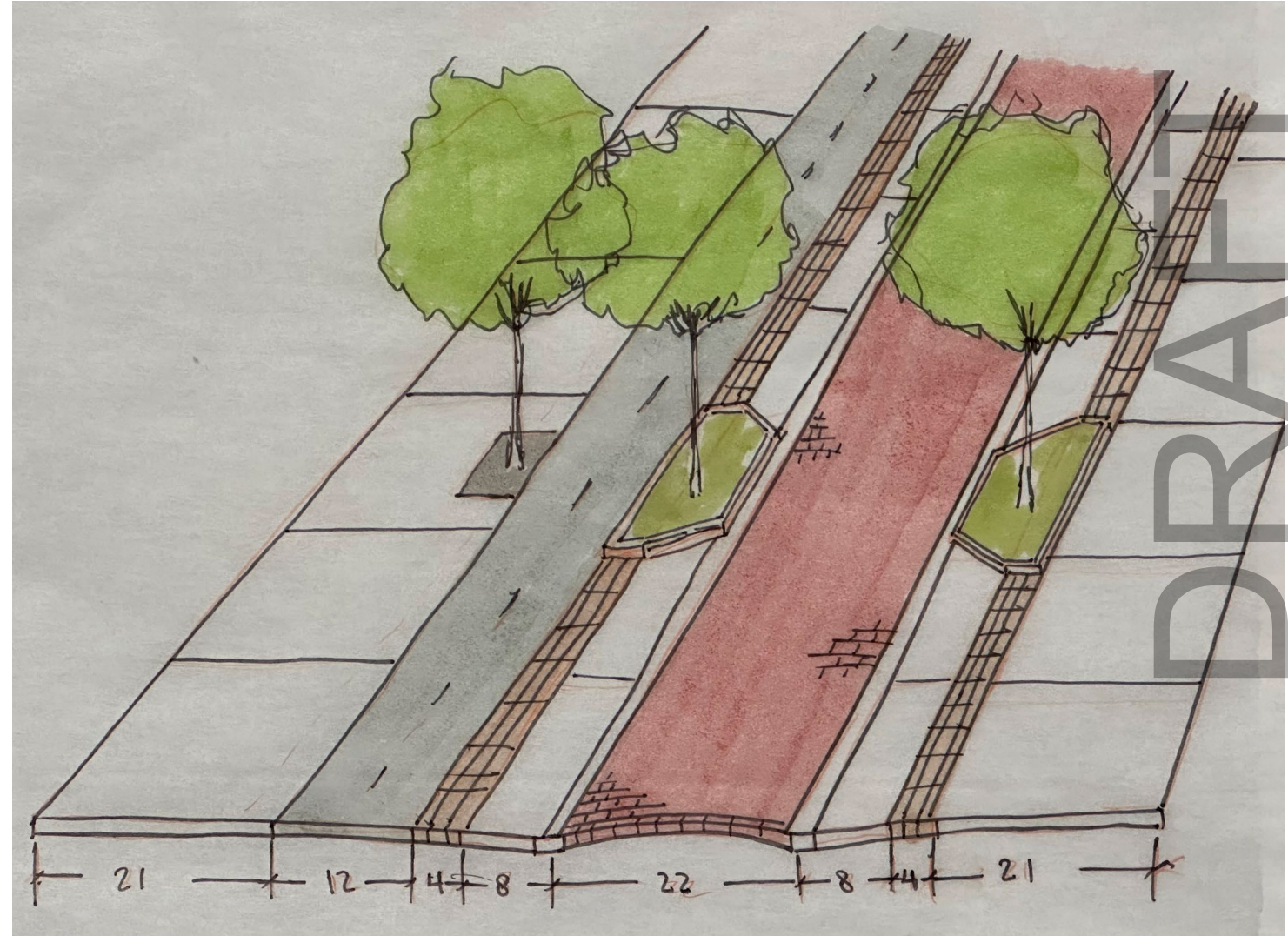
W. Franklin: Two-Way SBL and Parallel Parking

Achieving Goals Through Design:

- **Pedestrian comfort:** trees in parking islands, wider sidewalks
- **Design the system:** consistent bicycle facility
- **A Streets:** more space for outdoor dining and gathering
- **Reduce conflicts:** shorter crossings, parking-protected bike lanes, door zone
- **Slower traffic:** narrower lanes, narrower roadway, tighter corner radii
- **Path as Place:** brick street

Considerations:

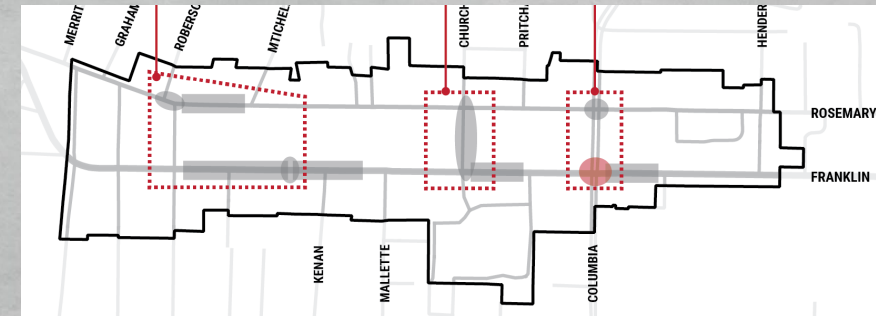
- Bike movements at intersections
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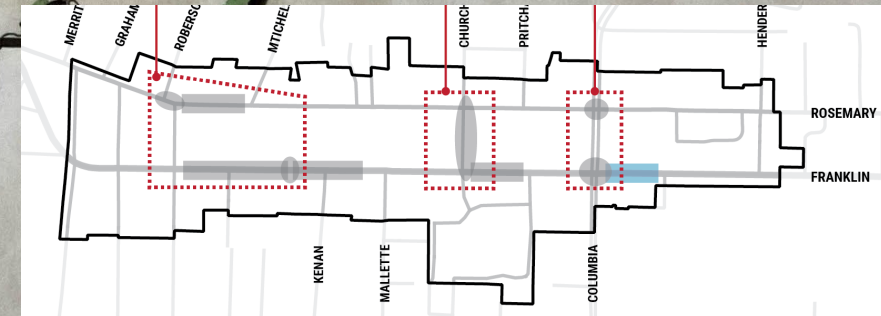
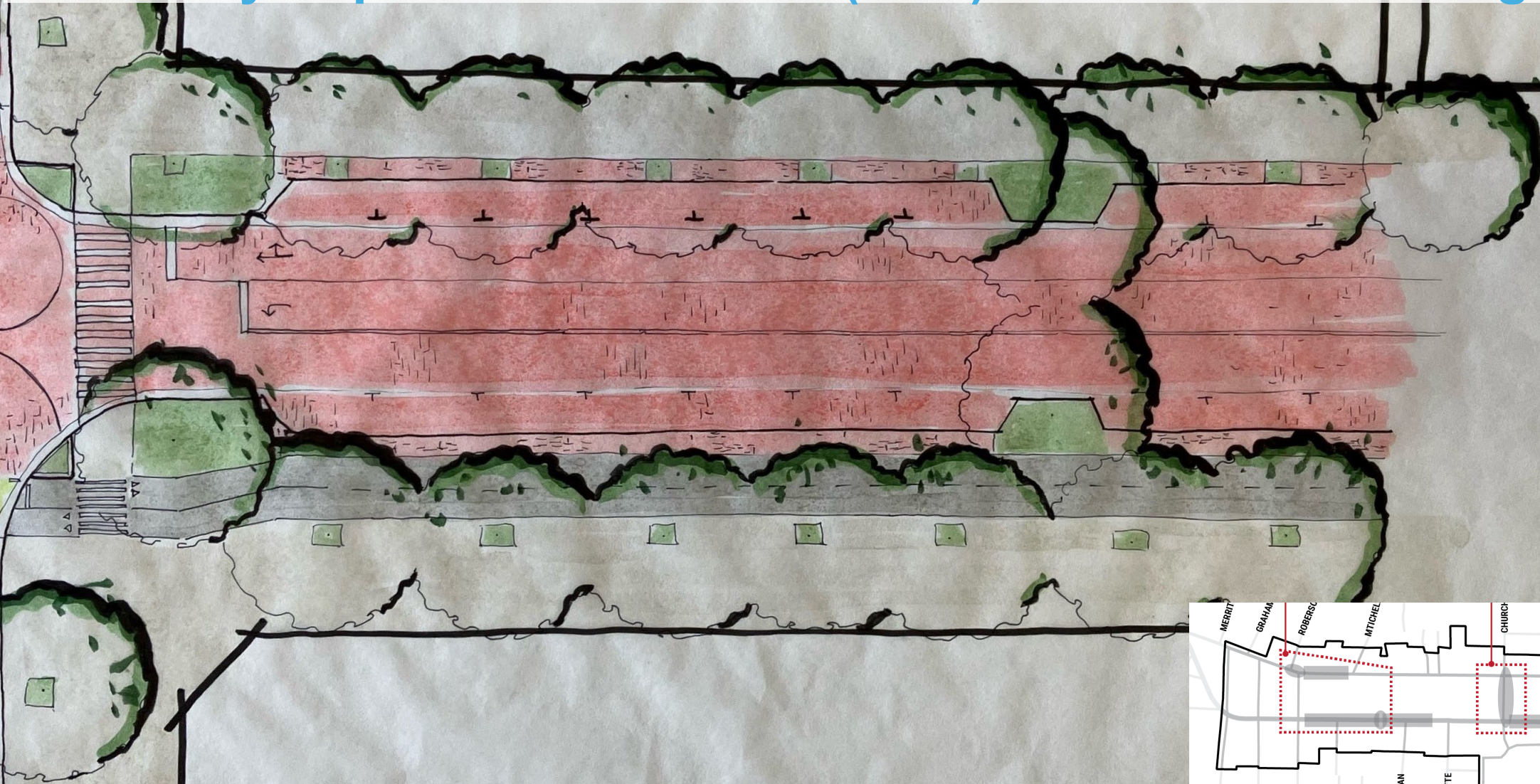
Unique Design Features:

- Flush intersection with seamless transition into flush street on E. Franklin
- Curb extensions
- On Franklin, removes right-only lanes & one eastbound lane
- Anticipated future features: BRT lanes

The Center of Exchange: Franklin at Columbia



E. Franklin: Two-Way Separated Bike Lane (SBL) and Parallel Parking



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E. Franklin:

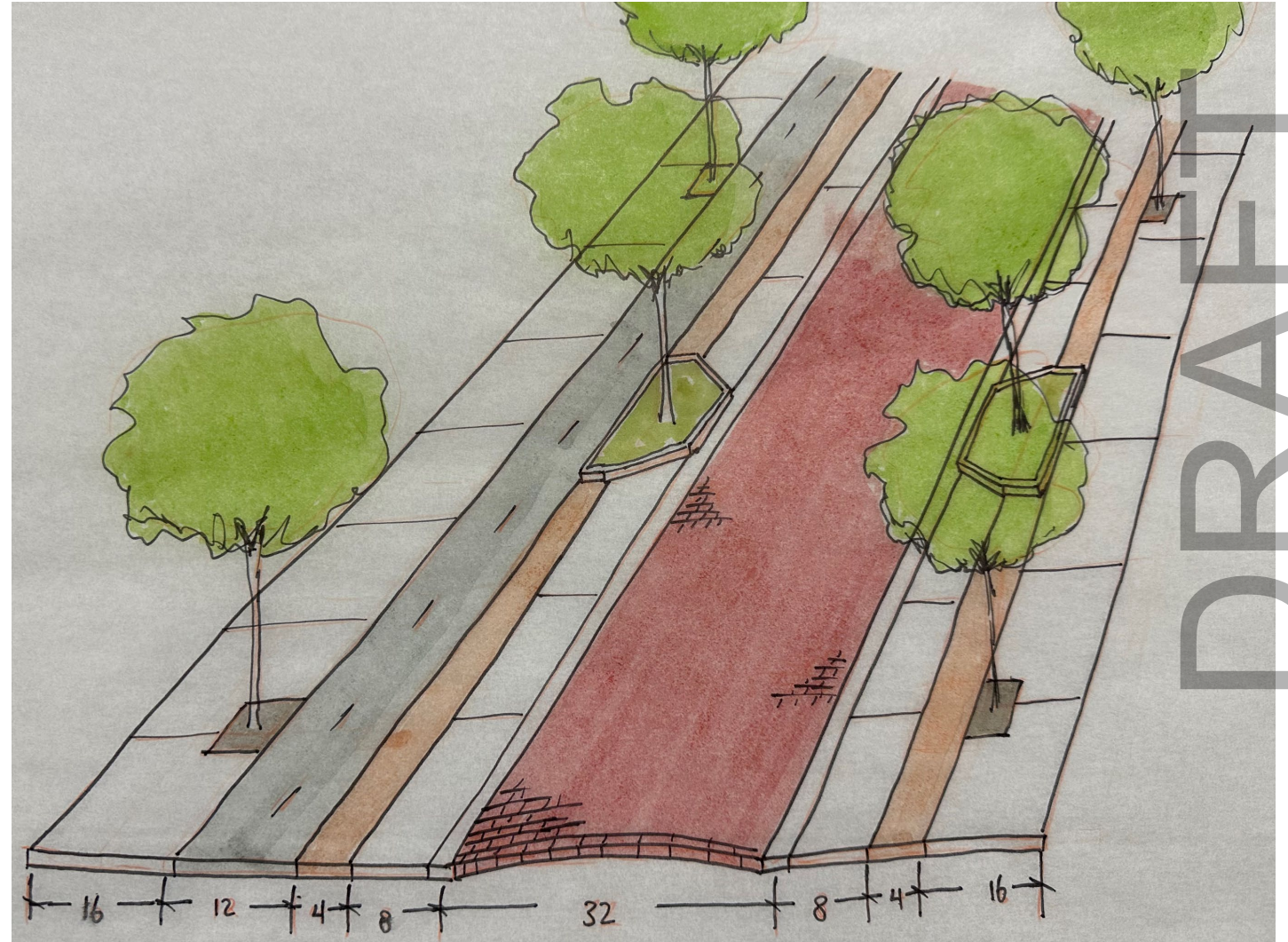
Two-Way Separated Bike Lane (SBL) and Parallel Parking

Achieving Goals Through Design:

- **Pedestrian comfort:** trees in parking islands, more separation from traffic
- **Design the system:** diverts thru-traffic, encourages use of Rosemary
- **A Streets:** New space for landscape and furnishings
- **Reduce conflicts:** shorter crossings, new bike facility, parking-protected bike lanes, door zones
- **Slower traffic:** narrower roadway, tighter corner radii
- **Path as Place:** brick street

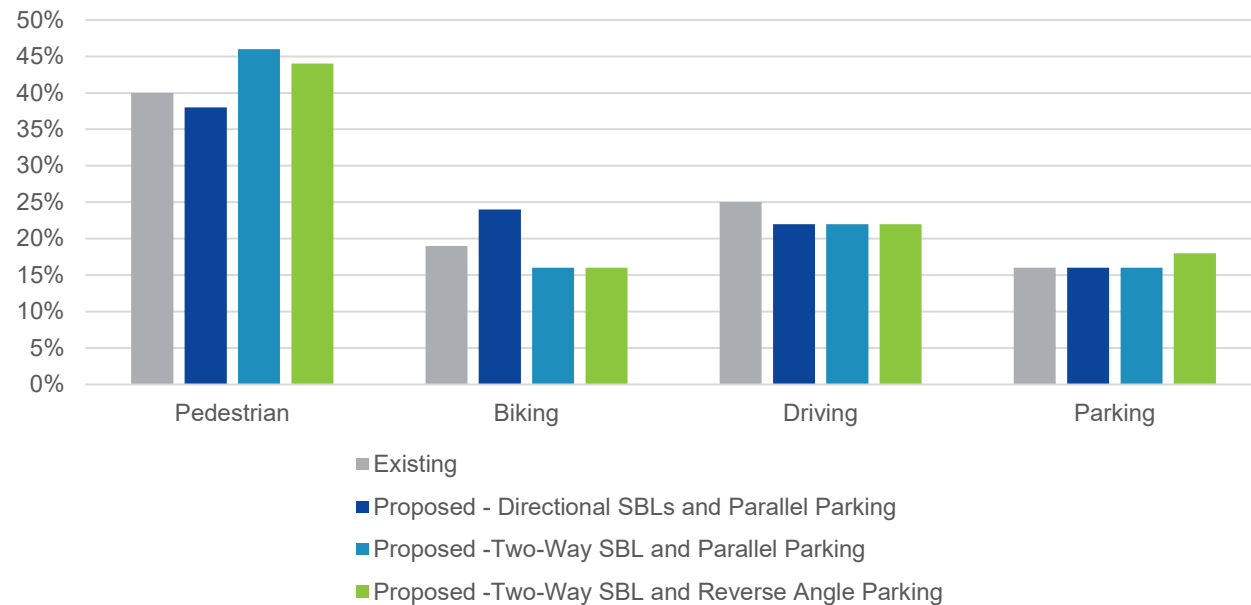
Considerations:

- Testing proposed lane removal
- Bike transition into McCorkle Place
- Emphasizing existing alleys
- Retaking ownership from NCDOT?

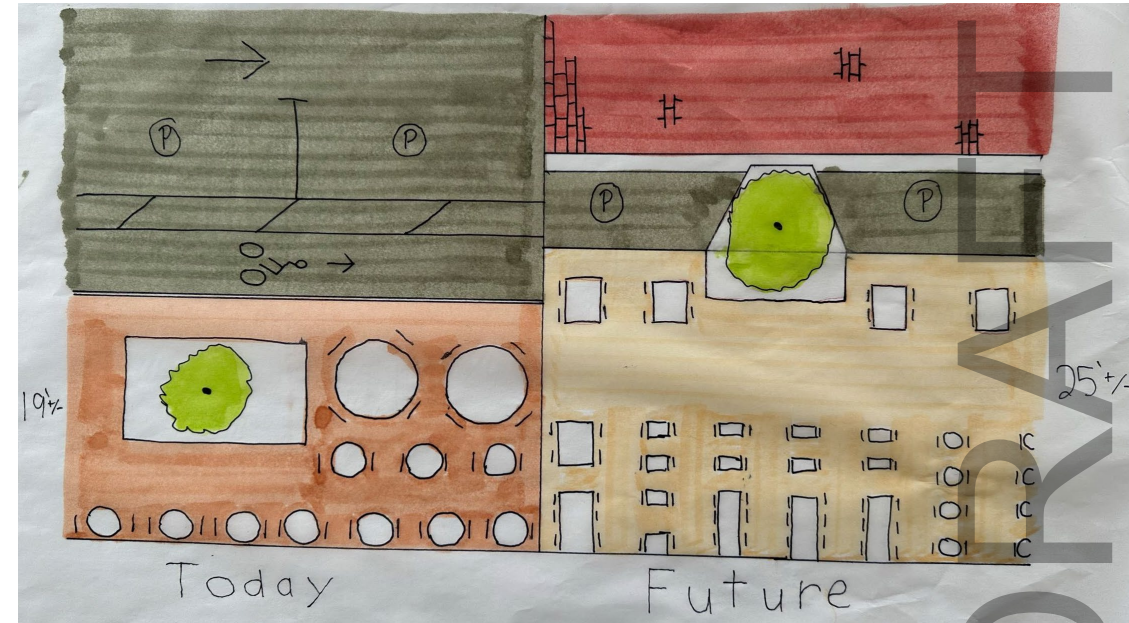


Street Space by User

W. FRANKLIN ST.
Approximate Space by User



* Design details (e.g., bike lane buffers, landscape placement, etc.) influence these percentages



Next Steps

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Mobility Study Document

- Refinement
- Comments will be considered during document creation
- Deliver Mobility Vision
- Set the foundation for streetscape effort

