

Beverly Depot Station Area Planning & Design

Open House

November 21, 2019



WHY ARE WE HERE TONIGHT?



WHAT IS A MOBILITY HUB?



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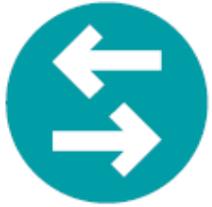
Mobility Hubs are more than your typical transit stations or park & rides. They are welcoming, well-designed places where multiple modes of transportation converge to make transit service more attractive and inviting rather than a last resort.

Mobility Hubs A GREAT TRANSIT EXPERIENCE



WHAT MAKES A MOBILITY HUB SUCCESSFUL?

Transit Transfer Point



Mobility Hubs make transferring between different transportation modes and services easy, safe and efficient.

Comfortable Walking Destination For All



A great pedestrian environment makes Mobility Hubs accessible to everyone — not just the very dedicated.

Context-Sensitive Designs Are Well Adapted to Site



Mobility Hubs are more than just functional. They are also welcoming, enjoyable, safe, intuitive and enticing.

Popular Place for Private Mobility Services



Successful Mobility Hubs need to be in places that make sense for transportation users and providers alike.

AMENITIES MATTER

**Small
Concession
Area**

**Improved Shelters
and Pedestrian
Facilities**

**Bike Lockers
and Shower
Facilities**

**High-Visibility
Pick-Up and
Drop-Off Area**

**High-Visibility
Pick Up and
Drop Off Area**



DESIGN MATTERS



PROJECT SCHEDULE

Where are we in the process?



EXISTING CONDITIONS

- Background
- Survey
- Traffic Counts



STAKEHOLDER WORKSHOP



CONCEPTUAL DESIGNS & PUBLIC FEEDBACK



30% DESIGN AND PLAN

EXISTING CONDITIONS OVERVIEW





BEVERLY DEPOT

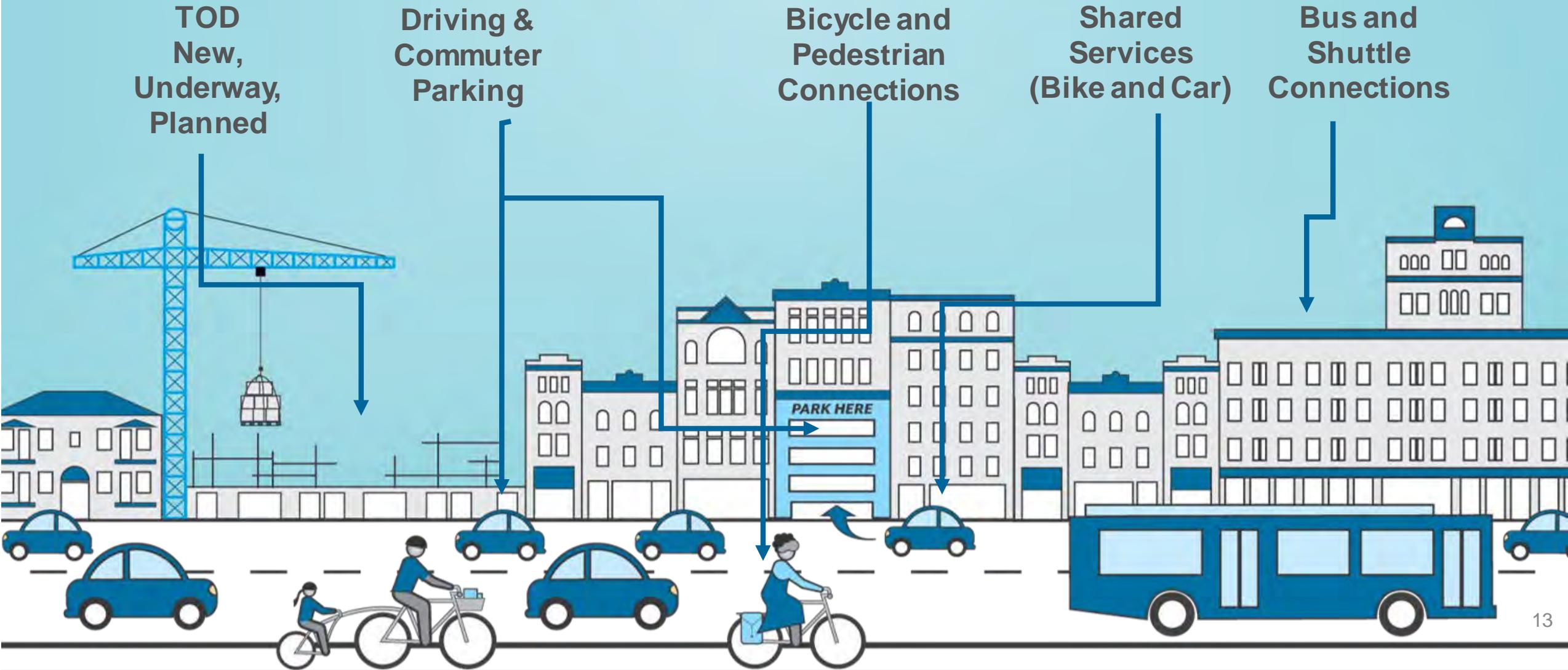


COMMUTER RAIL SERVICE 30+ TRIPS IN- AND OUTBOUND

**THIS PROJECT
DOES NOT
ADDRESS THE
MBTA R.O.W. AND
PLATFORM AREA**



STATION AREA PLANNING CONSIDERATIONS



STATION AREA (FORMAL) AMENITIES ARE LACKING

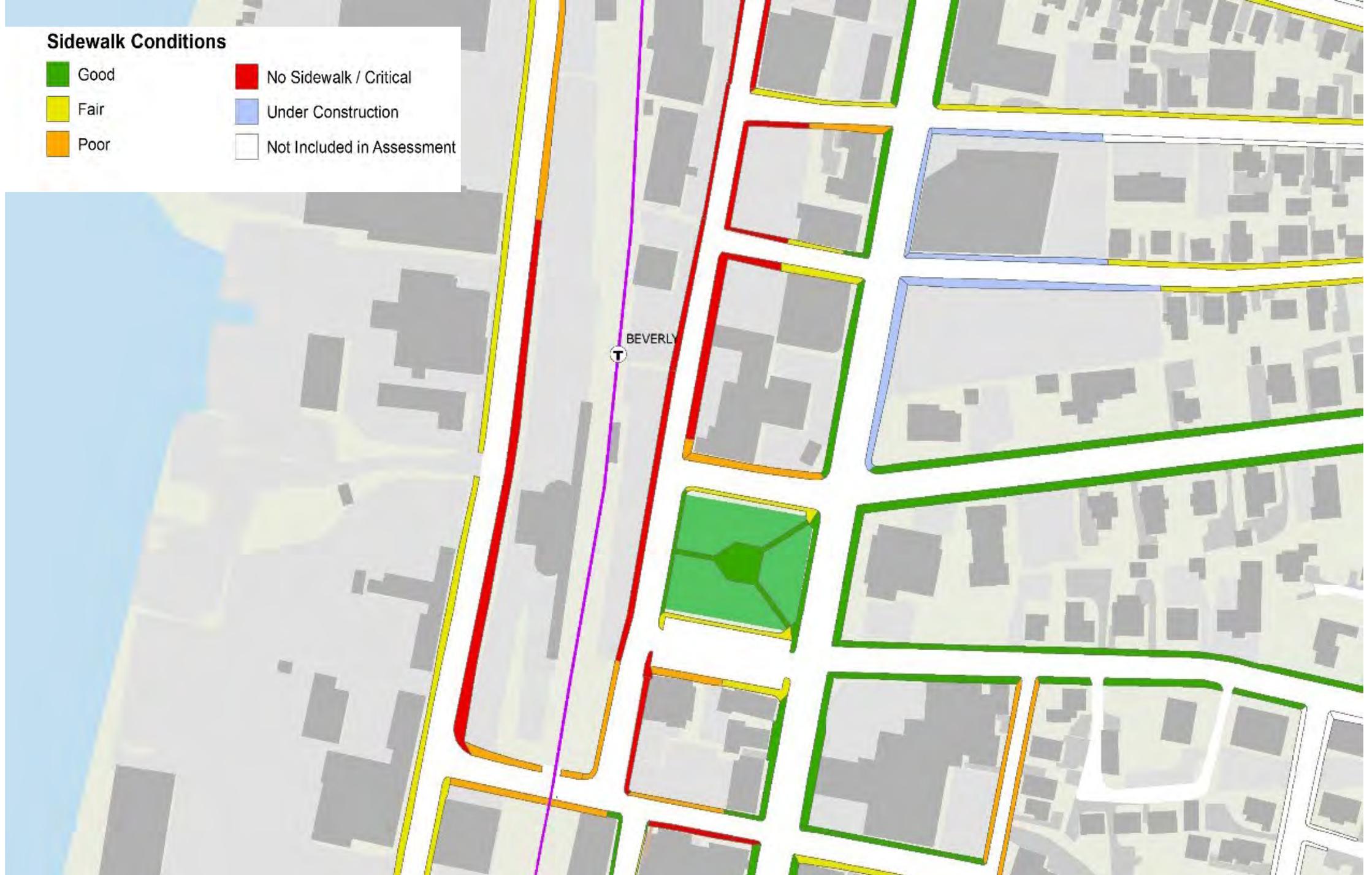


CARS, SHUTTLES, KISS AND RIDE, TAXIS AND MORE



Sidewalk Conditions

- Good
- Fair
- Poor
- No Sidewalk / Critical
- Under Construction
- Not Included in Assessment



RECENT IMPROVEMENTS STOP AT RANTOUL



POOR PEDESTRIAN CONDITIONS TO STATION



POOR PEDESTRIAN CONDITIONS TO STATION



**SIDEWALK ON
HEAVILY TRAVELED
SIDE IN DISREPAIR.
SPALLING.**

POOR PEDESTRIAN CONDITIONS TO STATION

NEW DEVELOPMENT
LIKELY TO INCREASE
PEDESTRIAN
TRAFFIC

SIDEWALK ON LESS
TRAVELED SIDE IN
FAIR CONDITION.



NO CROSSWALK OR
CURB RAMPS

SIDEWALK ON
HEAVILY TRAVELED
SIDE IN DISREPAIR.
SPALLING.

DESIRE PATHS SHOW WHERE PEOPLE WANT TO GO



NO CROSSWALK OR CURB RAMPS

Bike rack on “grass” with no paved access.



Erosion along a desire path.

ACCESSIBILITY IS A PROBLEM



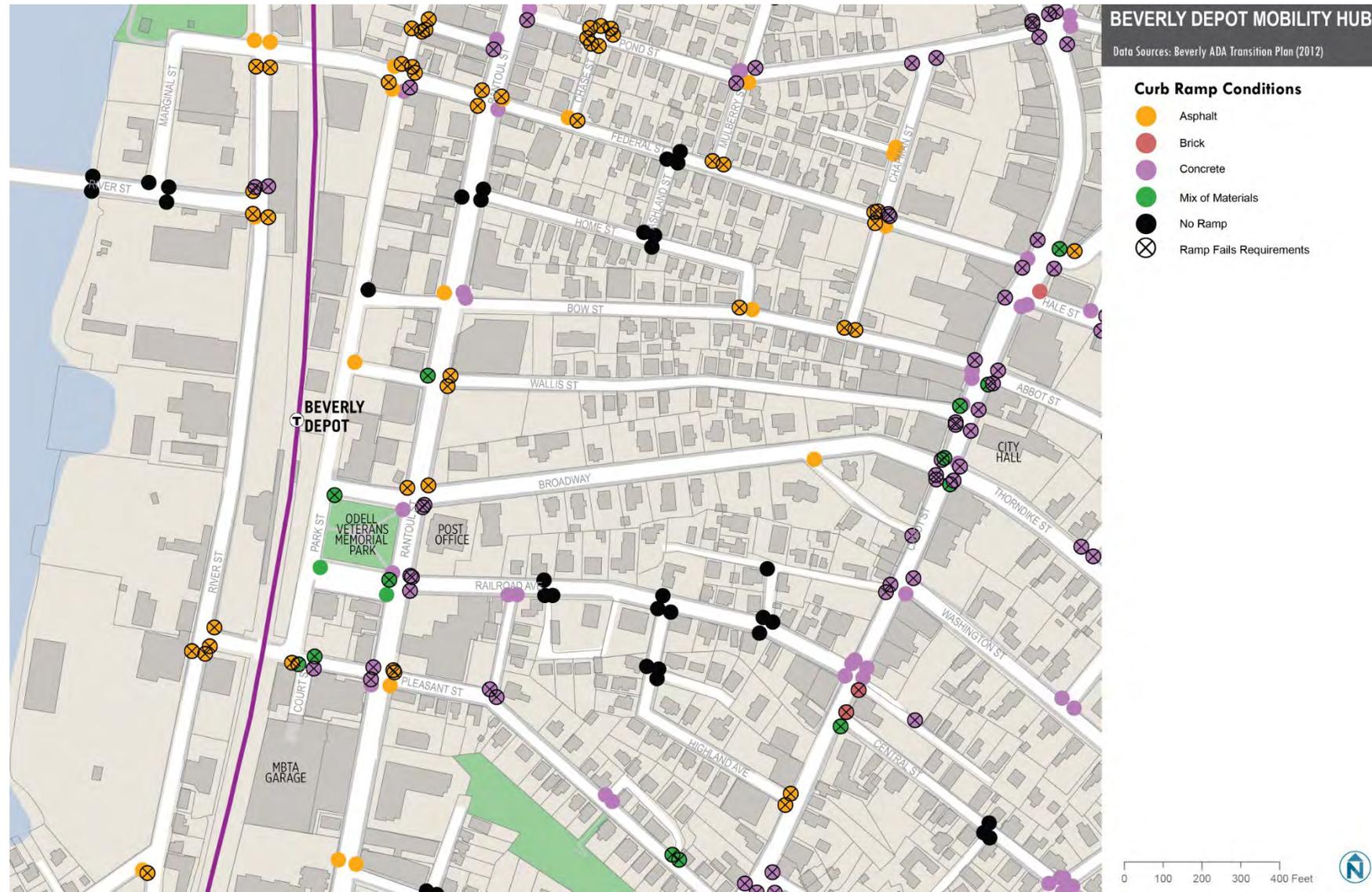
CROSSWALK IS 20+ FEET FROM PARK WALKWAY, BUT STILL NO ADA

NO CROSSWALK OR ADA RAMP LEADING TO MAIN SIDEWALK THROUGH PARK

ACCESSIBILITY IS A CHALLENGE

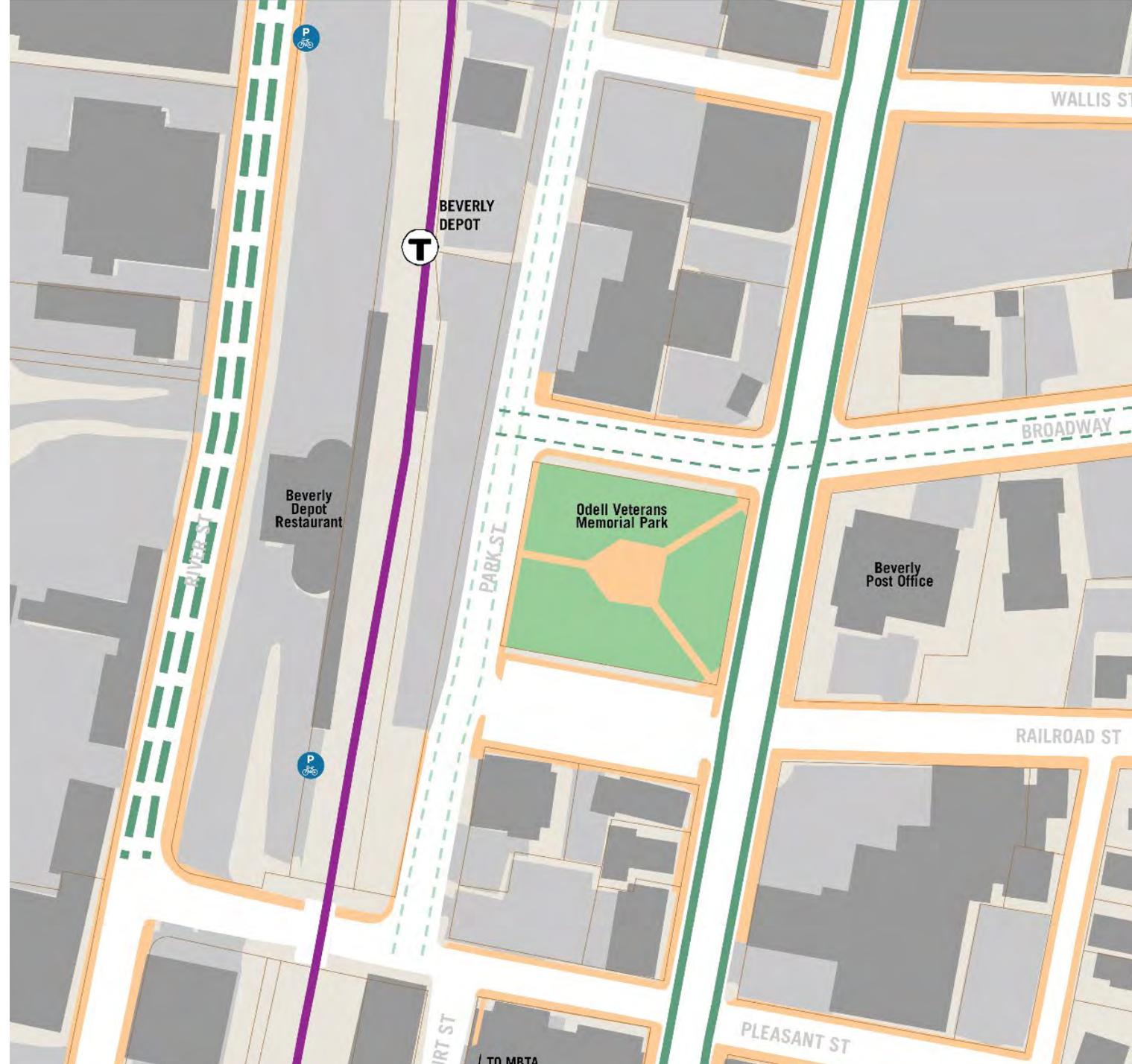
ADA Accessibility Issues

- 1) Rantoul Street/1A & Broadway reconstruction vastly improved accessibility
- 2) No improvements were made between Rantoul and station area.
- 3) Existing ADA conditions are poor in and around the station
 - 1) Few ADA ramps proximate to the station
 - 2) Existing ramps proximate to the station mostly fail.
- 4) No sidewalks to the north of the Depot



LIMITED BICYCLE CONNECTIVITY AND AMENITIES

- 1) Bike lanes Rantoul
- 2) No lanes or bike markings to/from the station
- 3) Two bike racks at station
- 4) Bike parking at MBTA garage inconvenient
- 5) Proposed additions would greatly increase bicycle connectivity



BICYCLE FACILITIES AND AMENITIES LACKING



BIKE PARKING NOT HIGHLY USED



Existing racks do not meet bicycle parking best practices.

Access to existing bike parking is not intuitive.

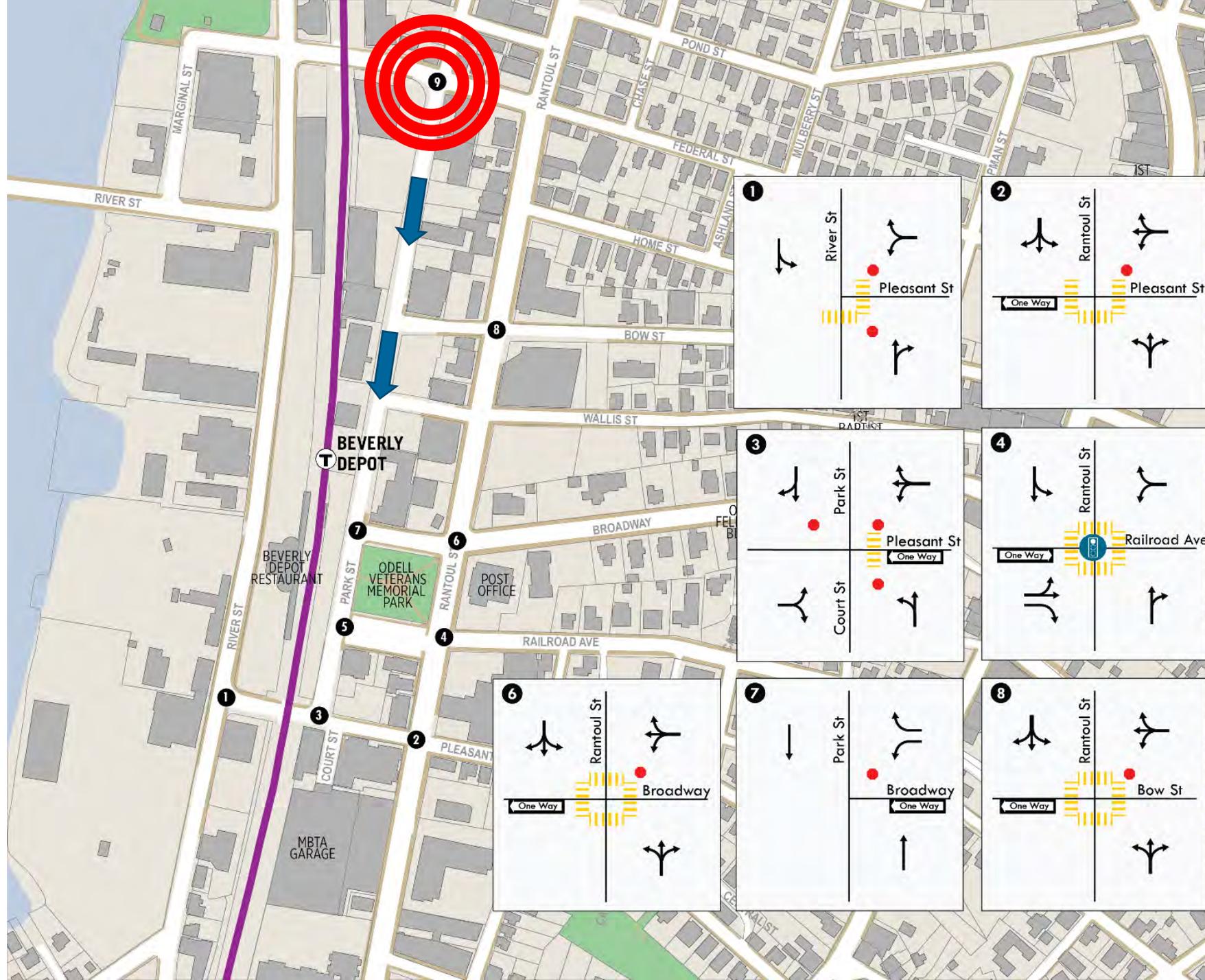
TRAFFIC MANAGEMENT NEEDED

**BICYCLE RIDER –
NO FACILITIES**

**SHUTTLE/VAN
PICKUP.
NO DEDICATED STOP**

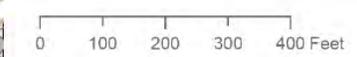
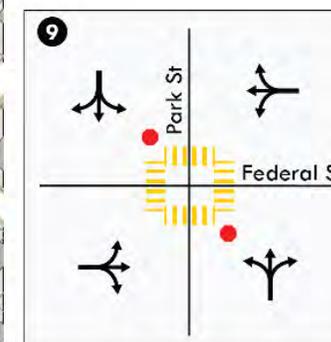
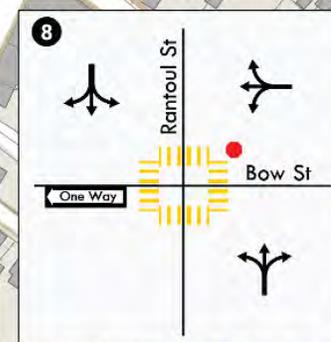
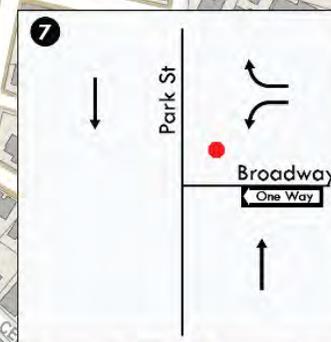
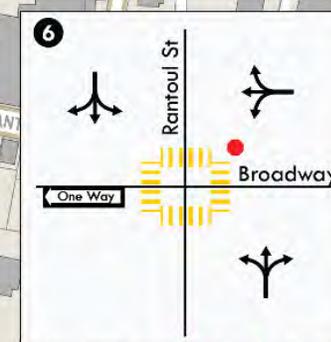
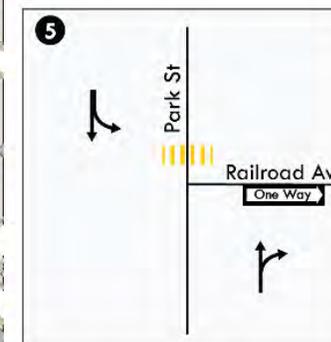
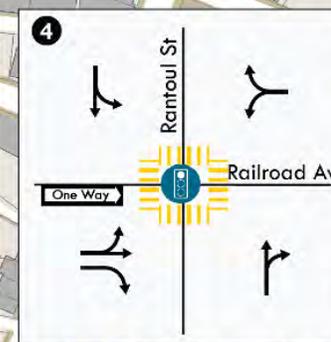
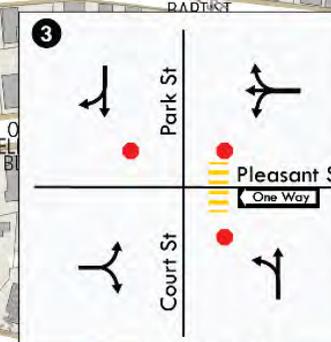
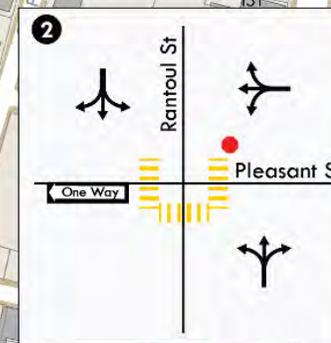
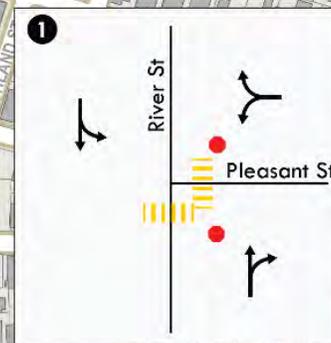
**PEDESTRIANS
CROSSING – NO
CROSSWALKS**





Intersection Layouts

-  Study Intersection
-  Existing Stop Sign
-  Existing Crosswalk
-  Existing Traffic Signal
-  Lanes and Permitted Movements



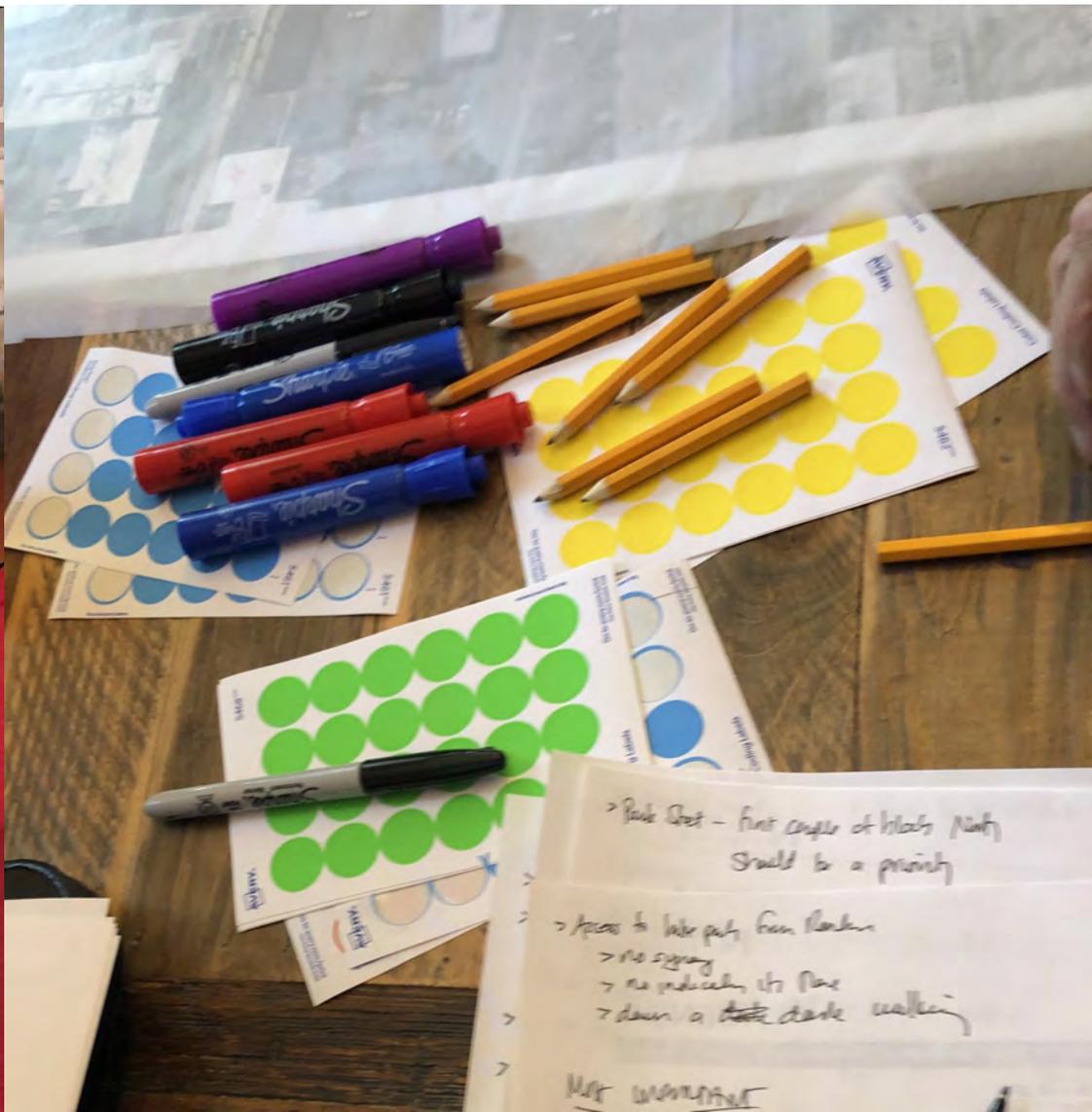
CONSIDERATIONS FOR BEVERLY DEPOT



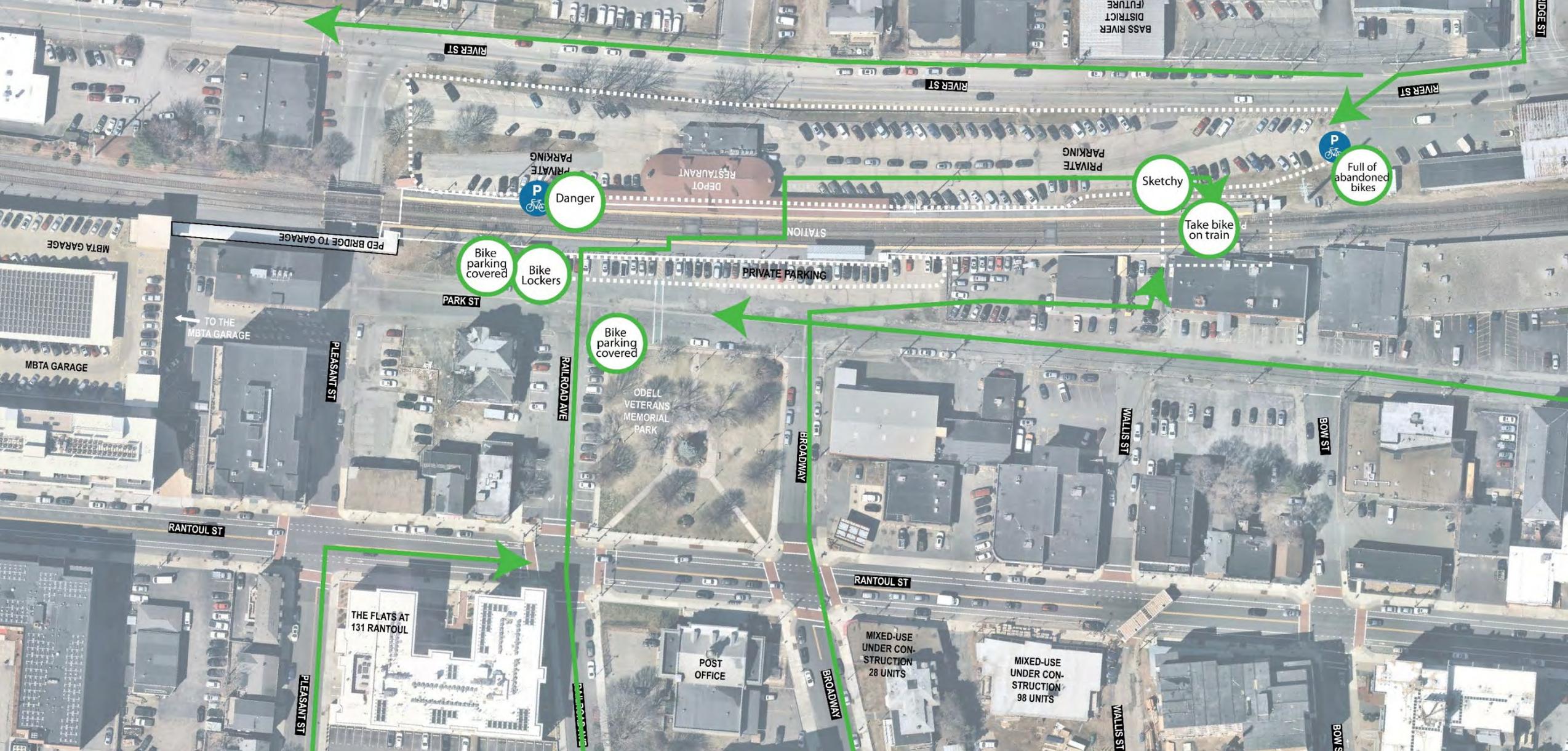
IMAGINE WHAT COULD BE?



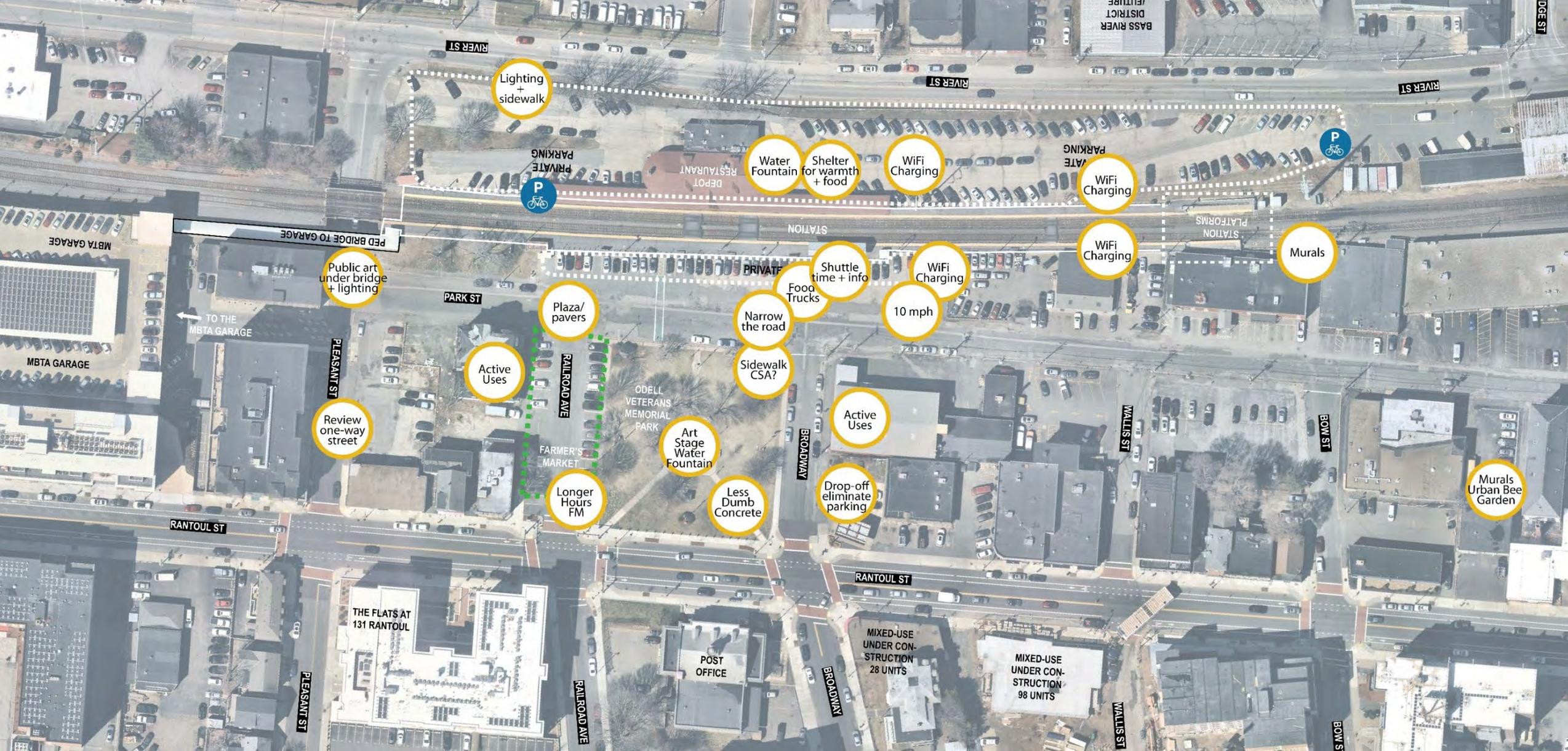
STAKEHOLDER WORKSHOP



BICYCLE PATTERNS AND CONDITIONS



AMENITIES AND PLACEMAKING IDEAS



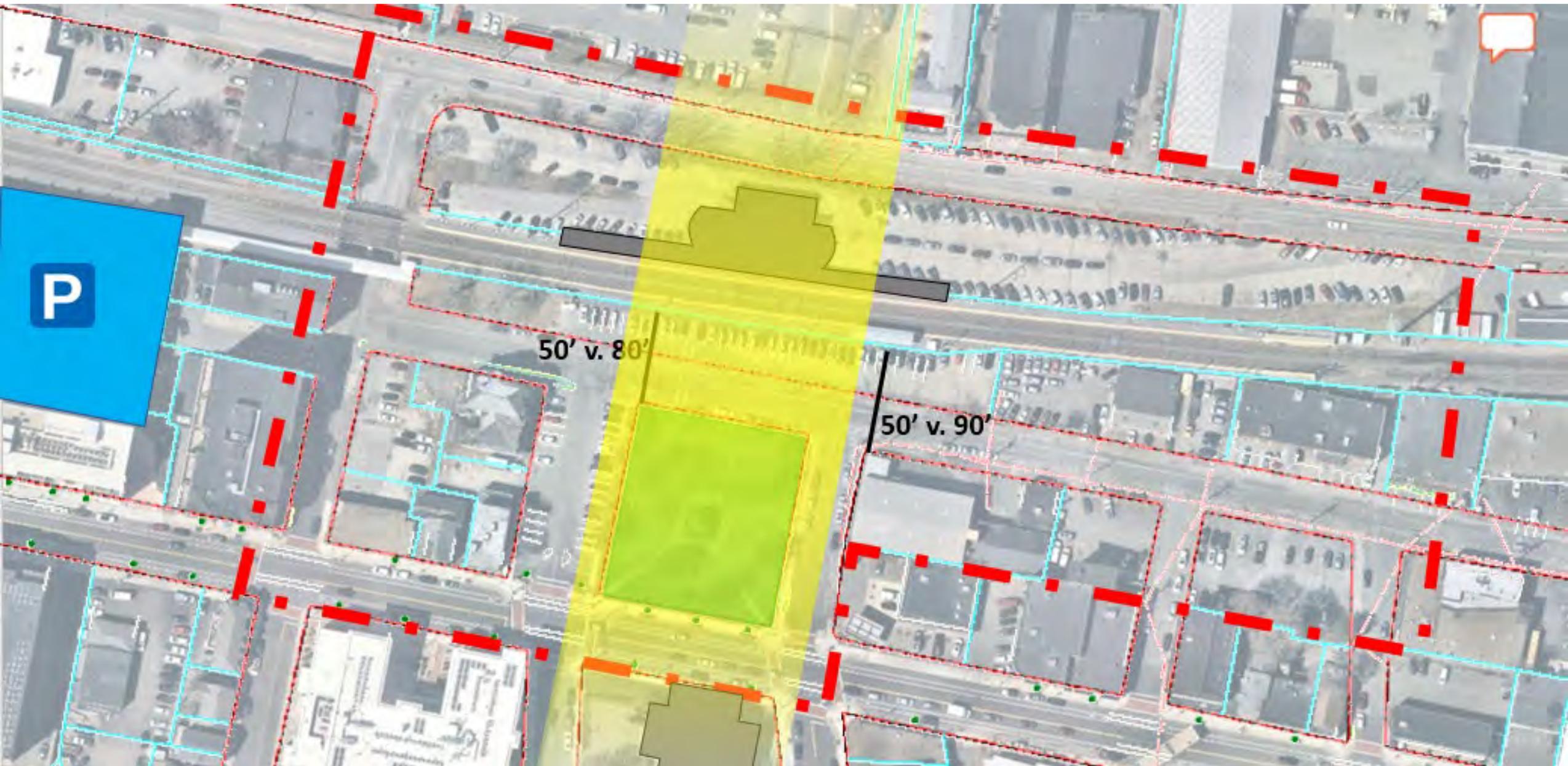
STAKEHOLDER WORKSHOP



KEY TAKEAWAYS

- Reduce Park Street chaos
- Enhance safety – especially pedestrian/bike in front of Depot
- Bike access and storage needs major upgrades
- Car share, bike share and other options are needed
- Enhance comfort
 - shelter, seating, greening
- Signage and wayfinding a must.
 - “If you aren’t from here, you have no idea where to go.”
- Enhance public realm
 - “Create a park/center for the growing residential community.”
 - Maintain character and history

MAINTAIN CHARACTER AND HISTORY



STATION AREA CONSIDERATIONS

How does the station meet the roadway?



STATION AREA CONSIDERATIONS

How do you provide enough room to safely accommodate multiple users?

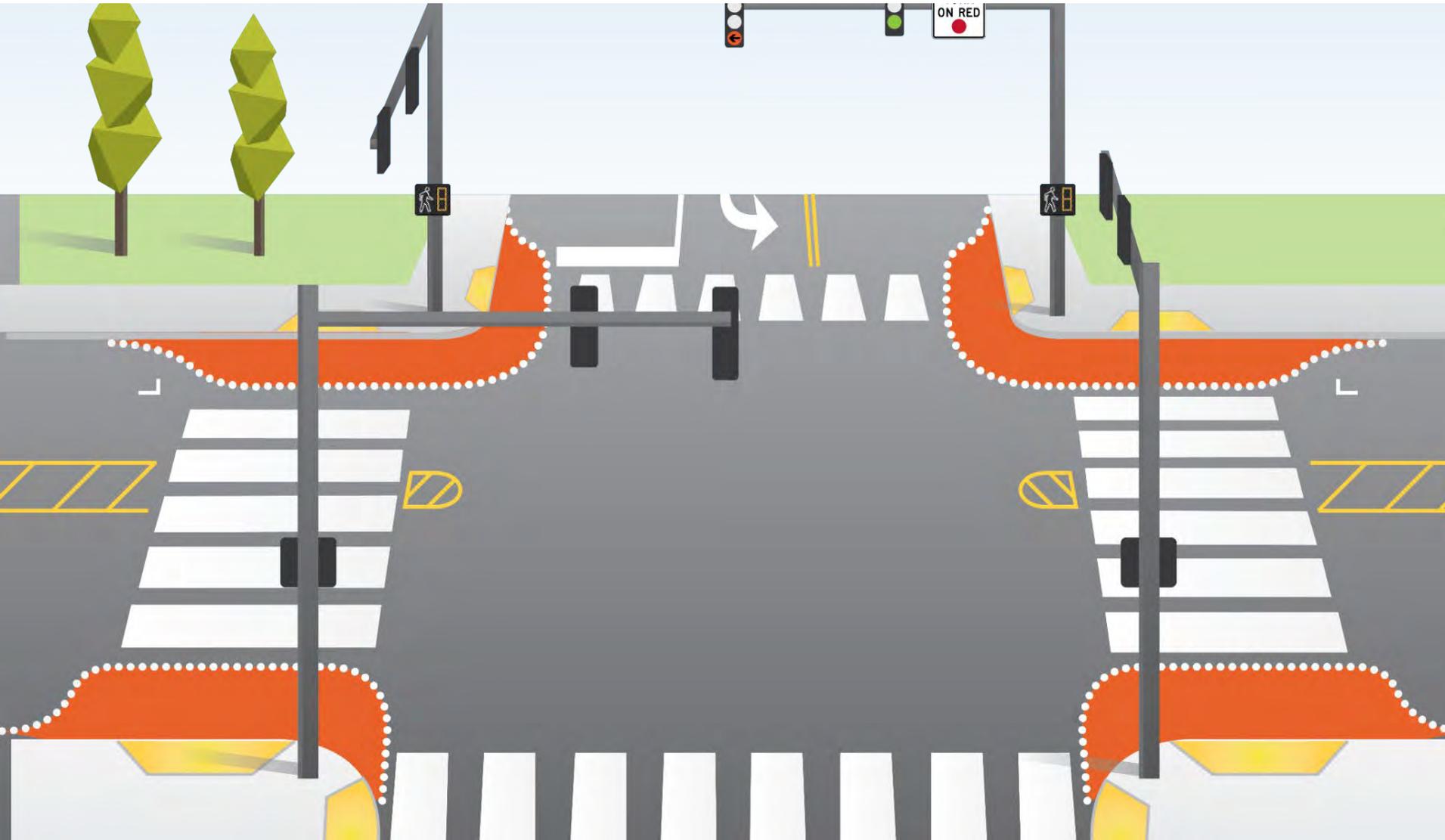


Curb extensions provide:

- Safer and shorter **pedestrian crossings**
- **Increase available space** for street furniture, plantings & street trees
- **Alleviate pedestrian queuing** at crossings
- Provide **space for transit shelters** without impeding pedestrian movement

STATION AREA CONSIDERATIONS

How to ensure pedestrian safety is prioritized?



Corner bump outs also improve safety:

- Safer and shorter **pedestrian crossings**
 - Draw attention to pedestrian – now in the line of site
- **Alleviate pedestrian queuing** at crossings
- Slow vehicles (mini road diet)

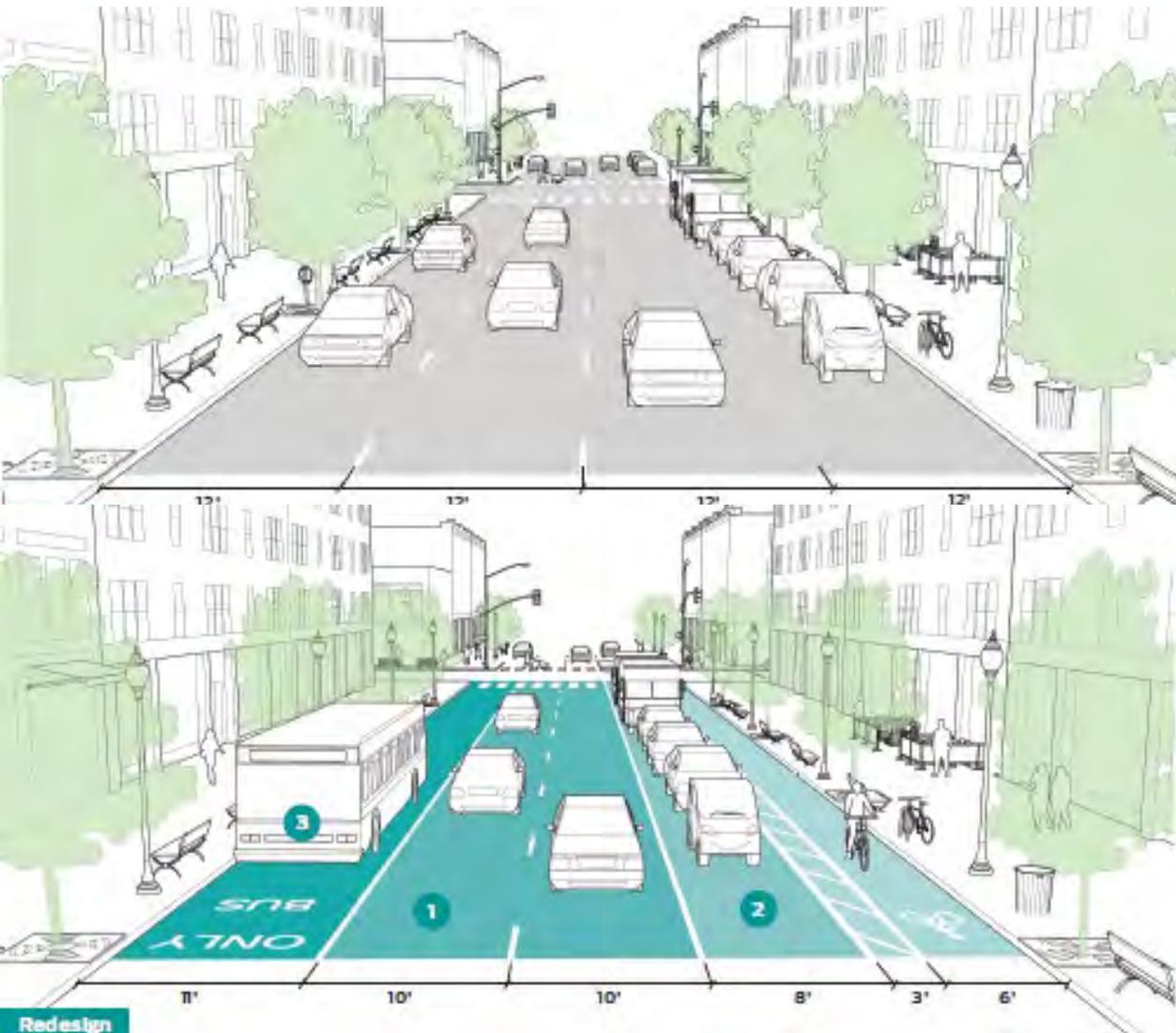
STATION AREA CONSIDERATIONS

How to effectively incorporate bicycles and buses and other users?



STATION AREA CONSIDERATIONS

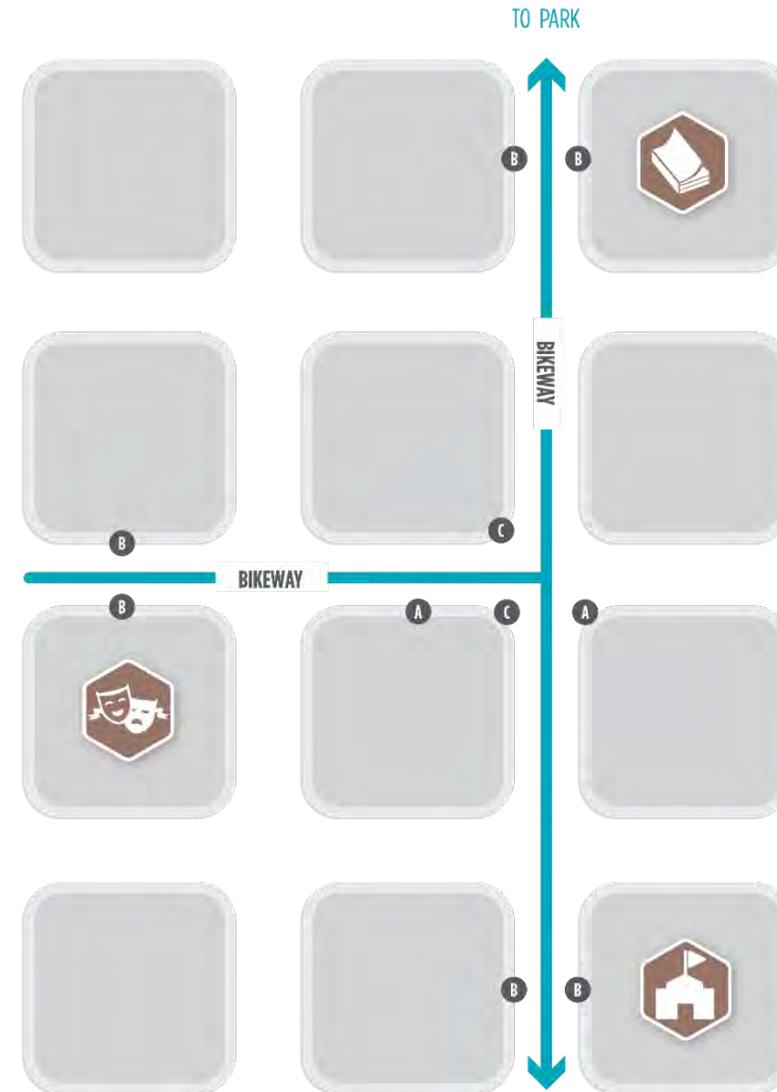
**Narrowing lanes allows for more uses in same space
(and slows driver speeds).**



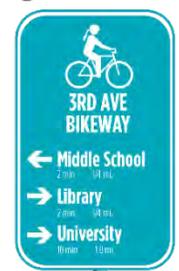
- Same ROW (48'), more lanes and uses.
 - Bus only lane (10 feet)
 - Two travel lanes (22 feet – 11 feet each)
 - Parking or Loading Land (8 feet)
 - Door buffer (3 feet)
 - Bike Lane (5 feet)
- Every foot counts!
- Research correlates wider lanes with higher speeds

STATION AREA CONSIDERATIONS

How do you get there from here? Wayfinding matters!



A DECISION SIGN



B CONFIRMATION SIGN



C TURN SIGN

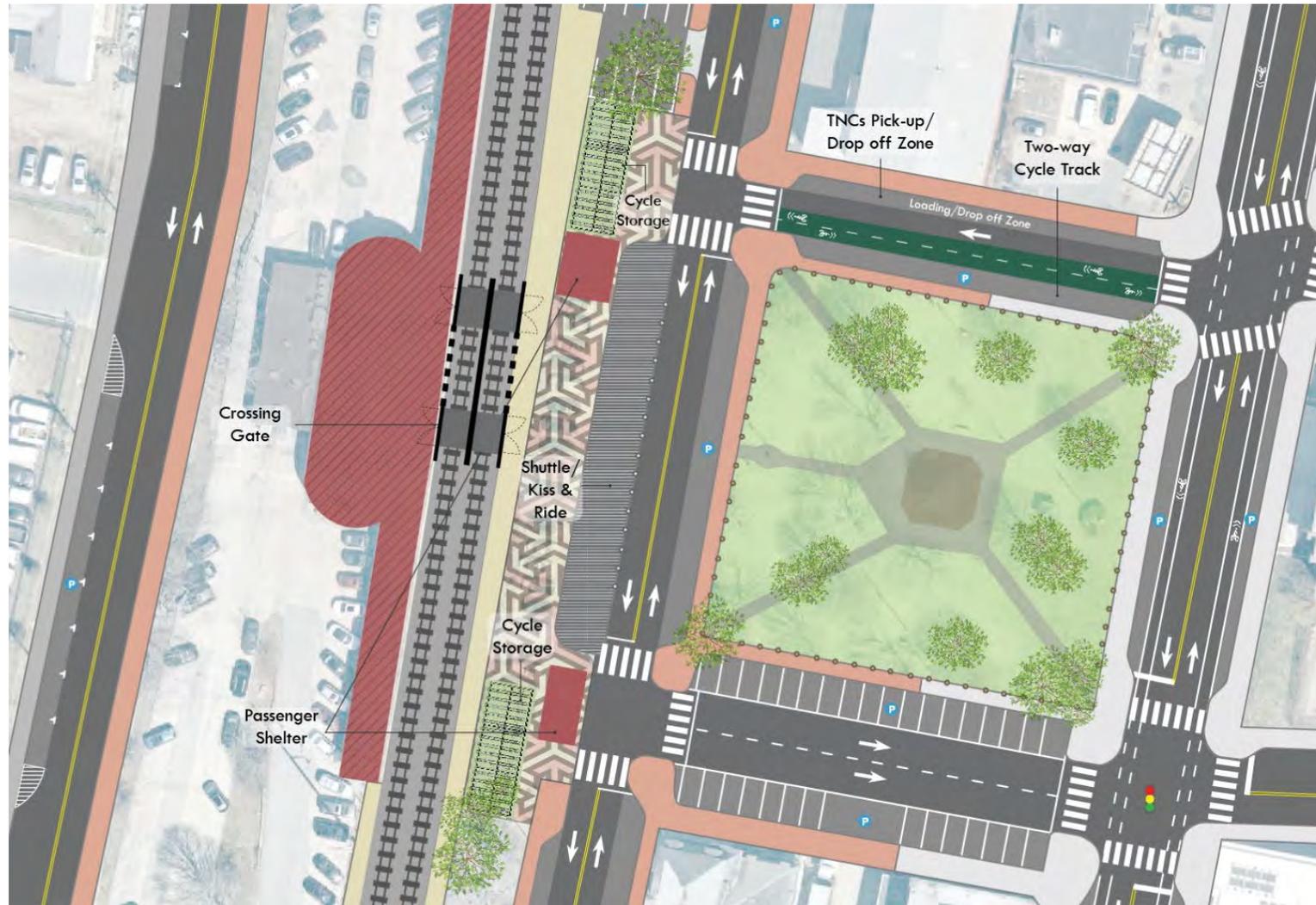
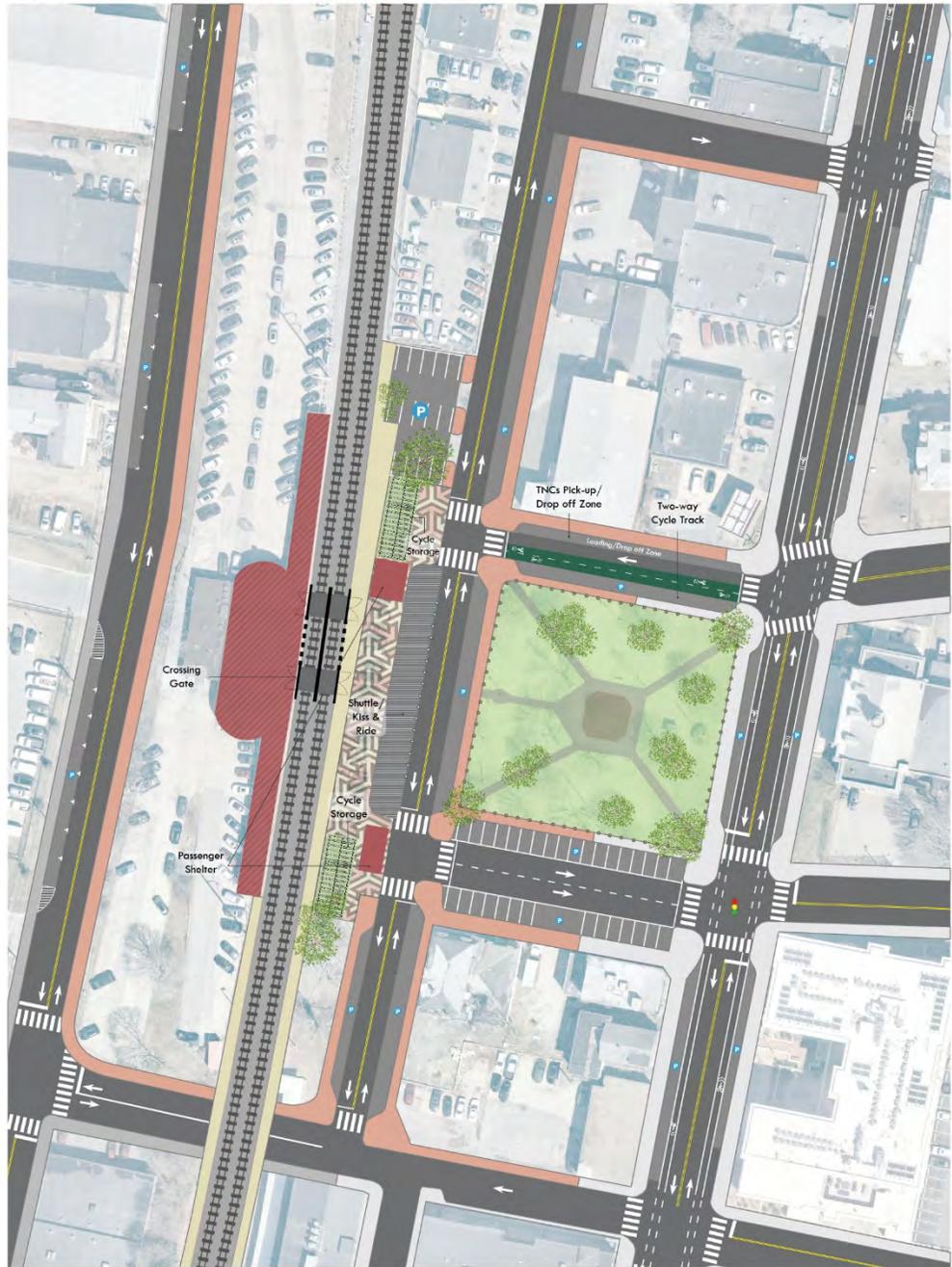


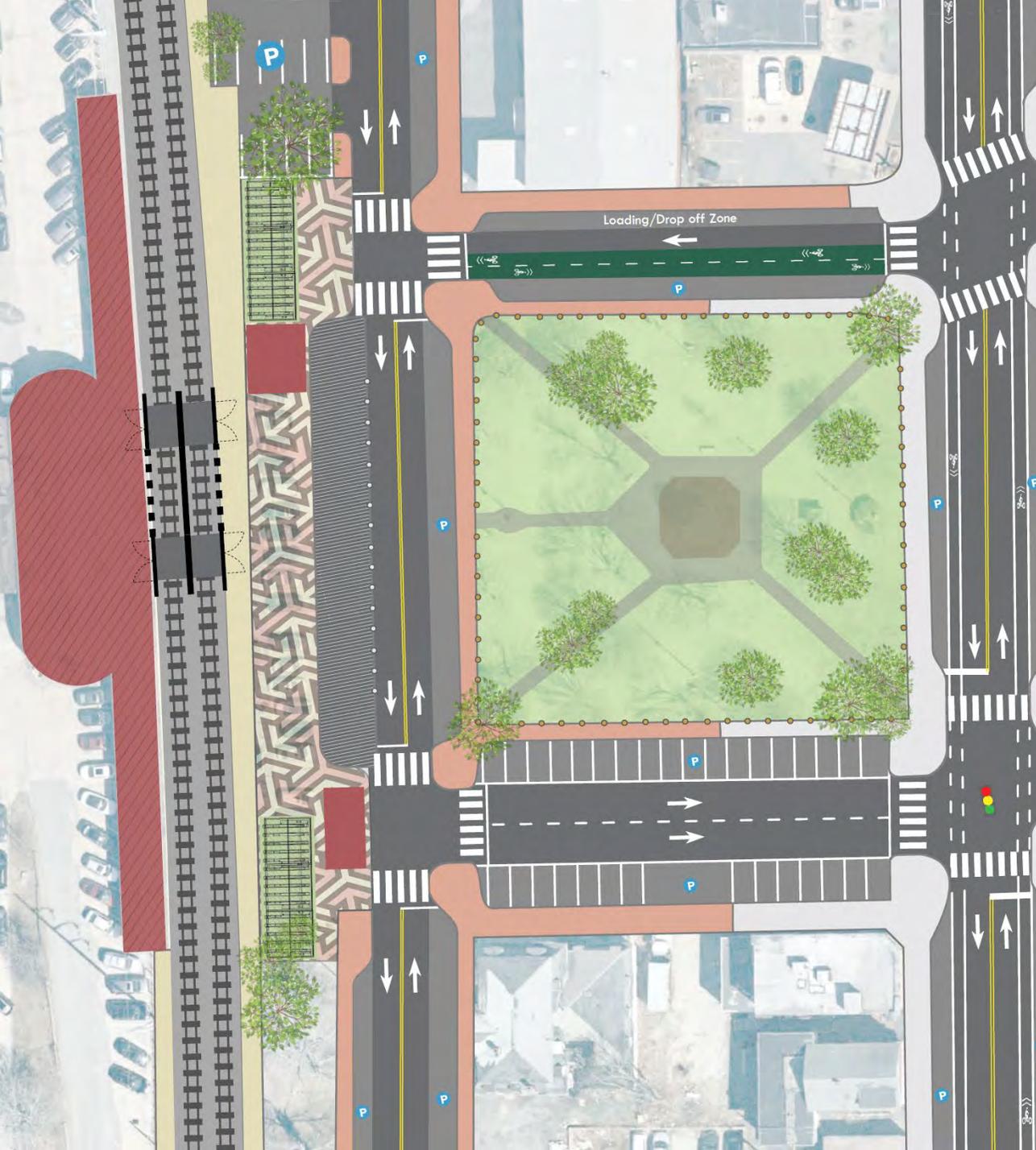
Adapted from the NACTO Urban Bikeway Design Guide

CONCEPTS

Design Concept 1

City of Beverly | Beverly Depot Transit Hub Plan



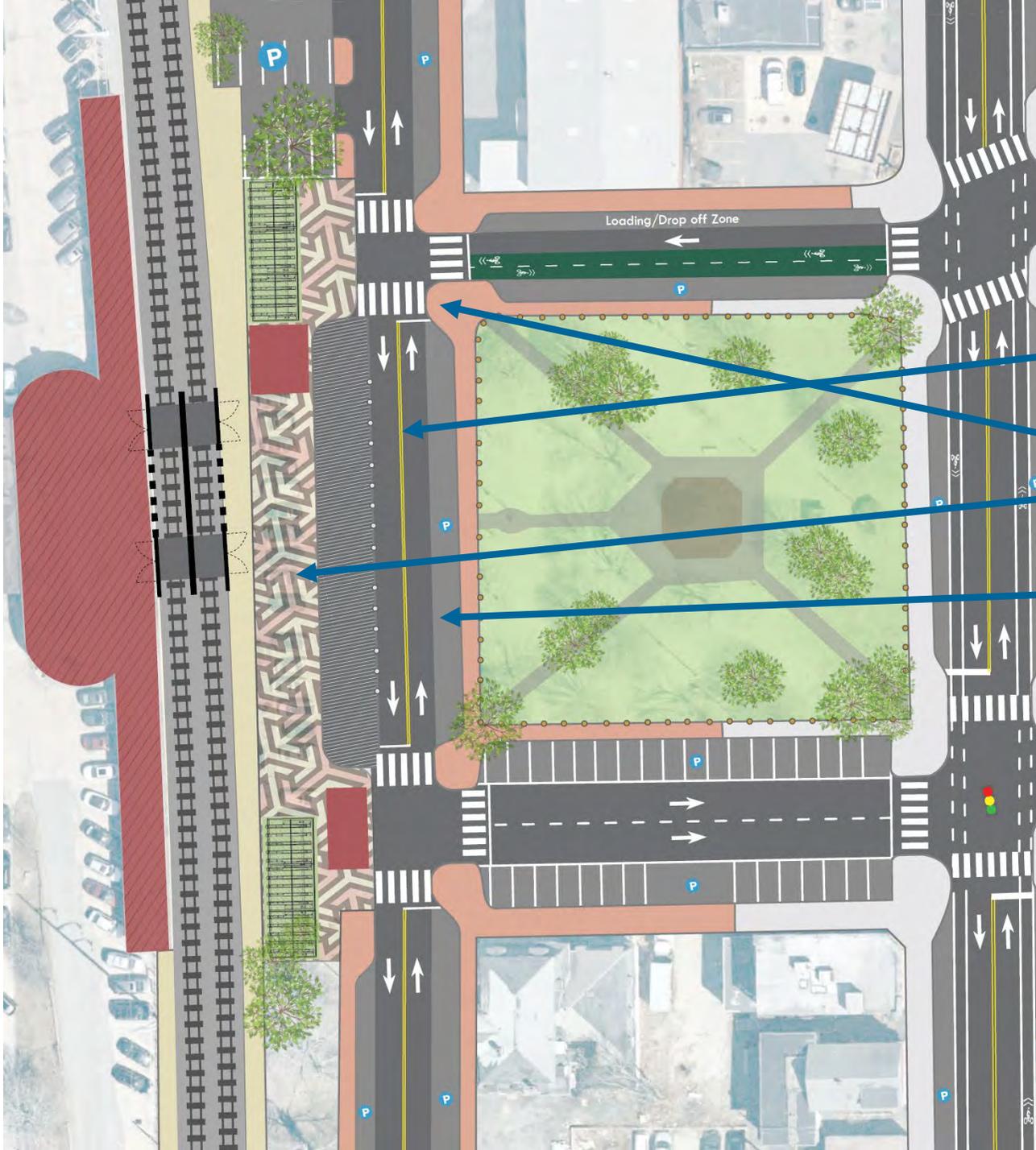


CONCEPT 1

Park Street Reconfiguration

- Road Diet
 - Formalize car travel patterns
- Improved pick-up and drop-off
- Improved station plaza
- Enhanced pedestrian connectivity
- Bicycle connectivity to Rantoul





CONCEPT 1

Park Street Road Diet

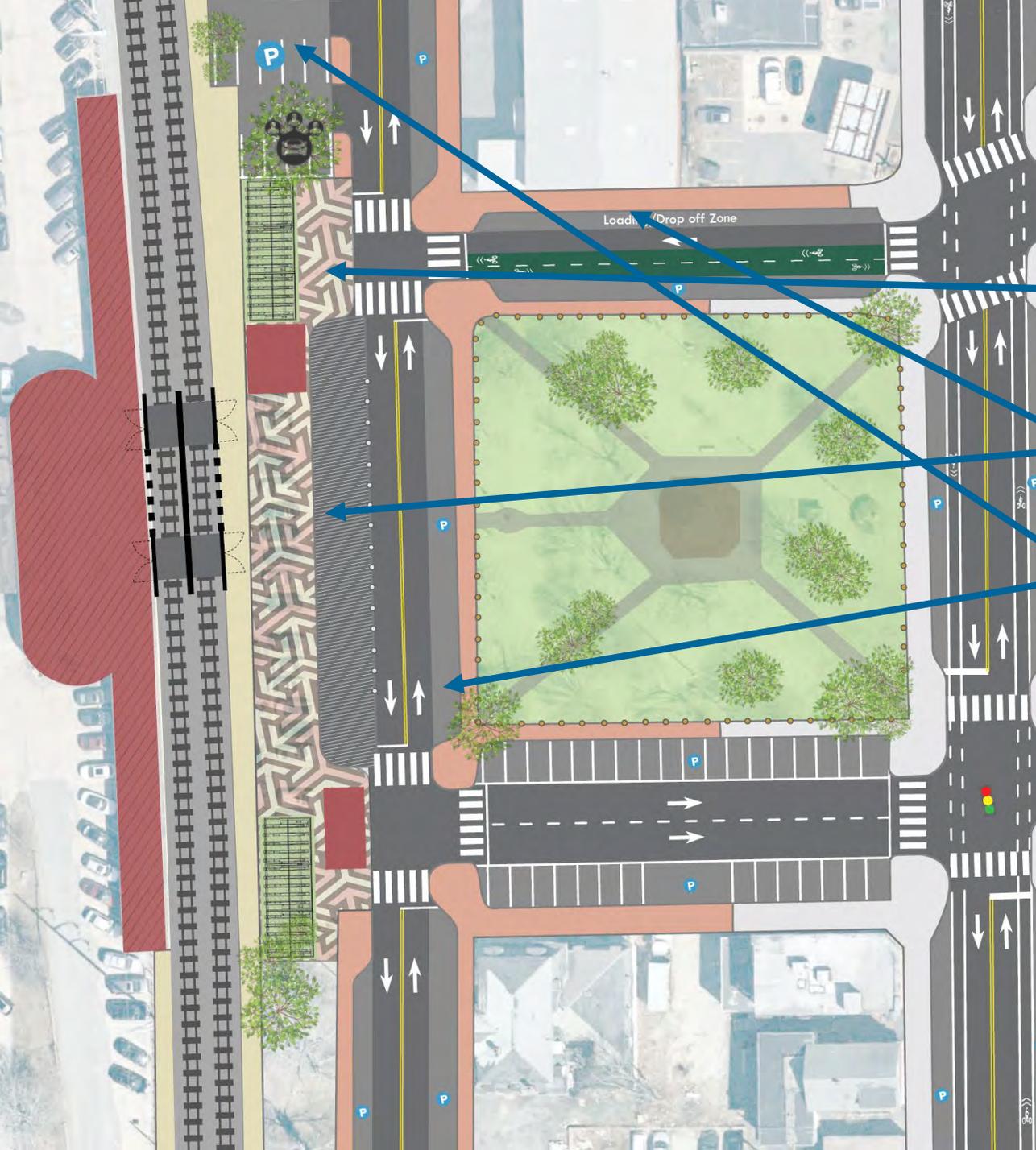
- Reduces width of road and travel speeds
- Travel lanes inform behavior to reduce confusion and reduce informal queuing
- Bumpouts/crosswalks enhance safety
- Removal of parking in front of Depot reduces conflicts (next slide)
- On-street parking added along park

OPPORTUNITIES:

- Reduces user confusion
- Improves safety for most
- All in public right-of-way

ISSUES/CONSTRAINTS:

- Ownership of parking (next slide)
- Lacks full bike network



CONCEPT 1

Improved pick-up and drop-off

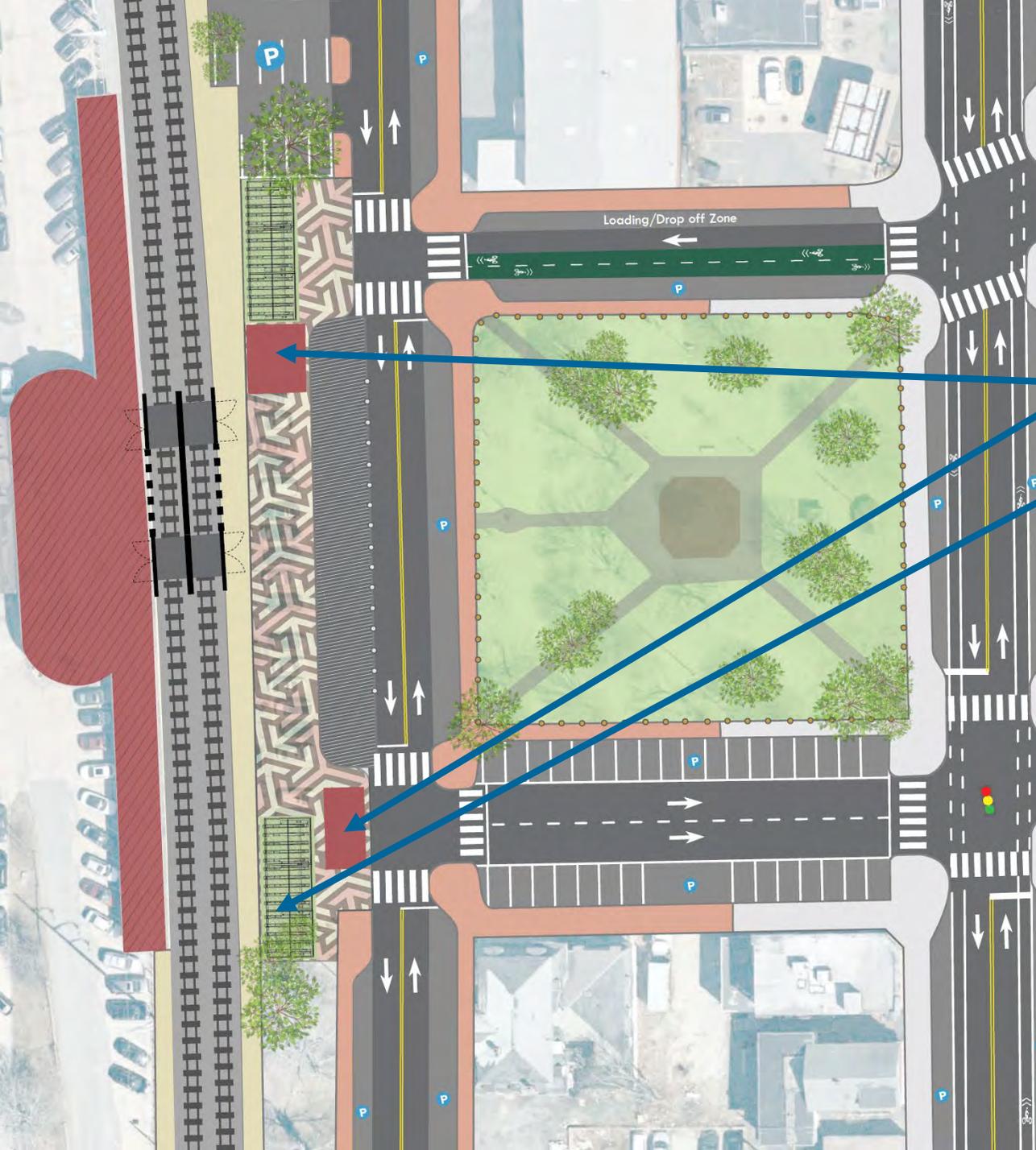
- Parking removed
 - Reduces existing conflicts between parking and drop-off/pick-up
 - Provides visual connection between Depot and park
- Formalized pick-up and drop-off area
 - Bollards provide separation from car traffic
 - Formalizes bus and shuttle drop off
- On-street parking and new lot offsets loss of parking
 - Car-share vehicle(s) also provided

OPPORTUNITY:

- Improves safety and comfort
- Enhanced public realm

CONSTRAINTS:

- Parking area is private property
- Potential conflicts between shuttle/drop-off
- Opportunities for double parking remain



CONCEPT 1

Enhanced Station Plaza

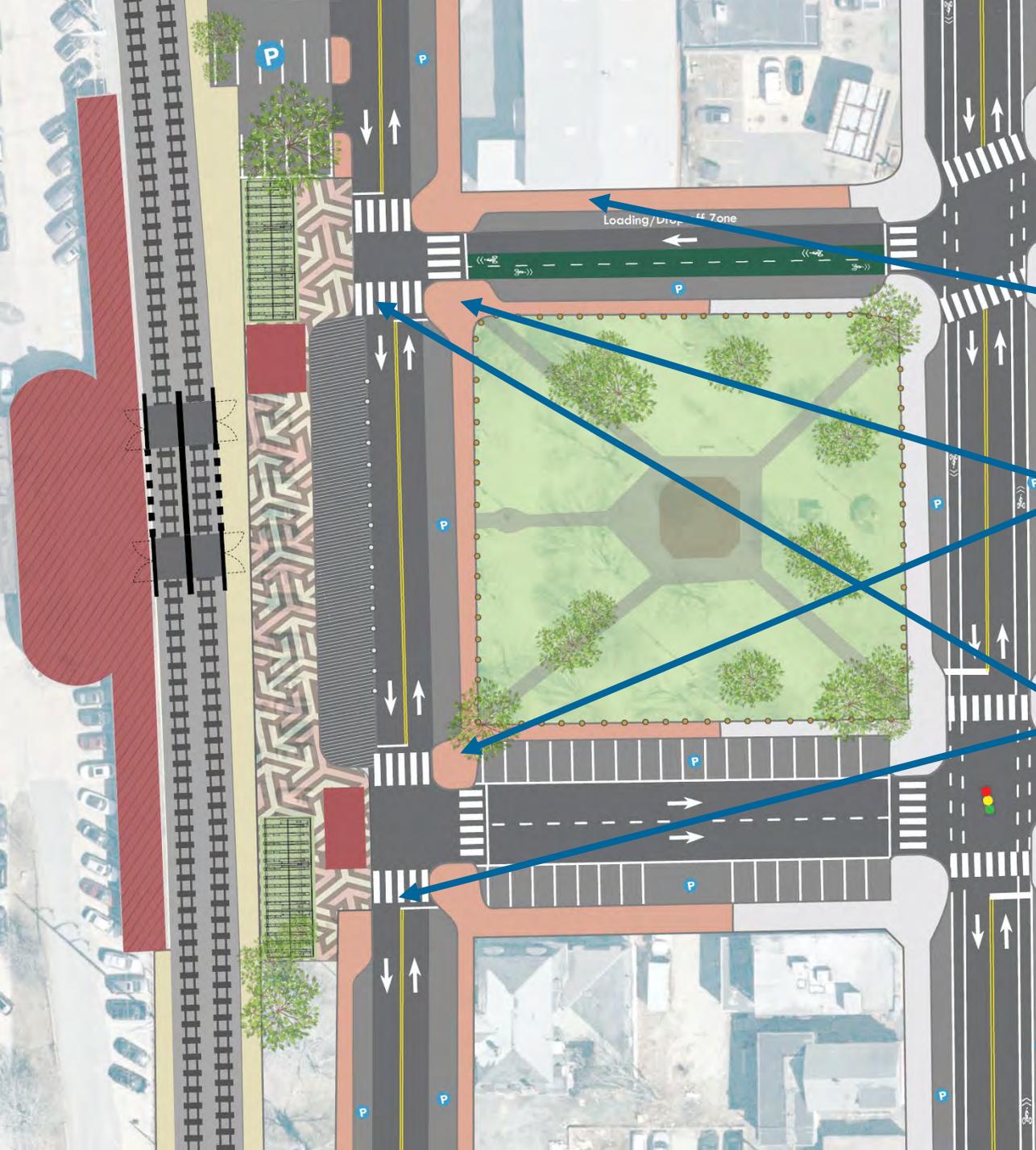
- Creates a sense of place, an “outdoor room”
 - Seating, programming, information
- Shelters provide protection from rain, snow, and sun.
- Bicycle parking accommodated on east side of tracks
- Provides visual connection between Depot, park and Post Office

OPPORTUNITY:

- Improves safety and comfort
- Enhanced public realm

CONSTRAINTS:

- Parking area is private property
- Many opportunities for double parking



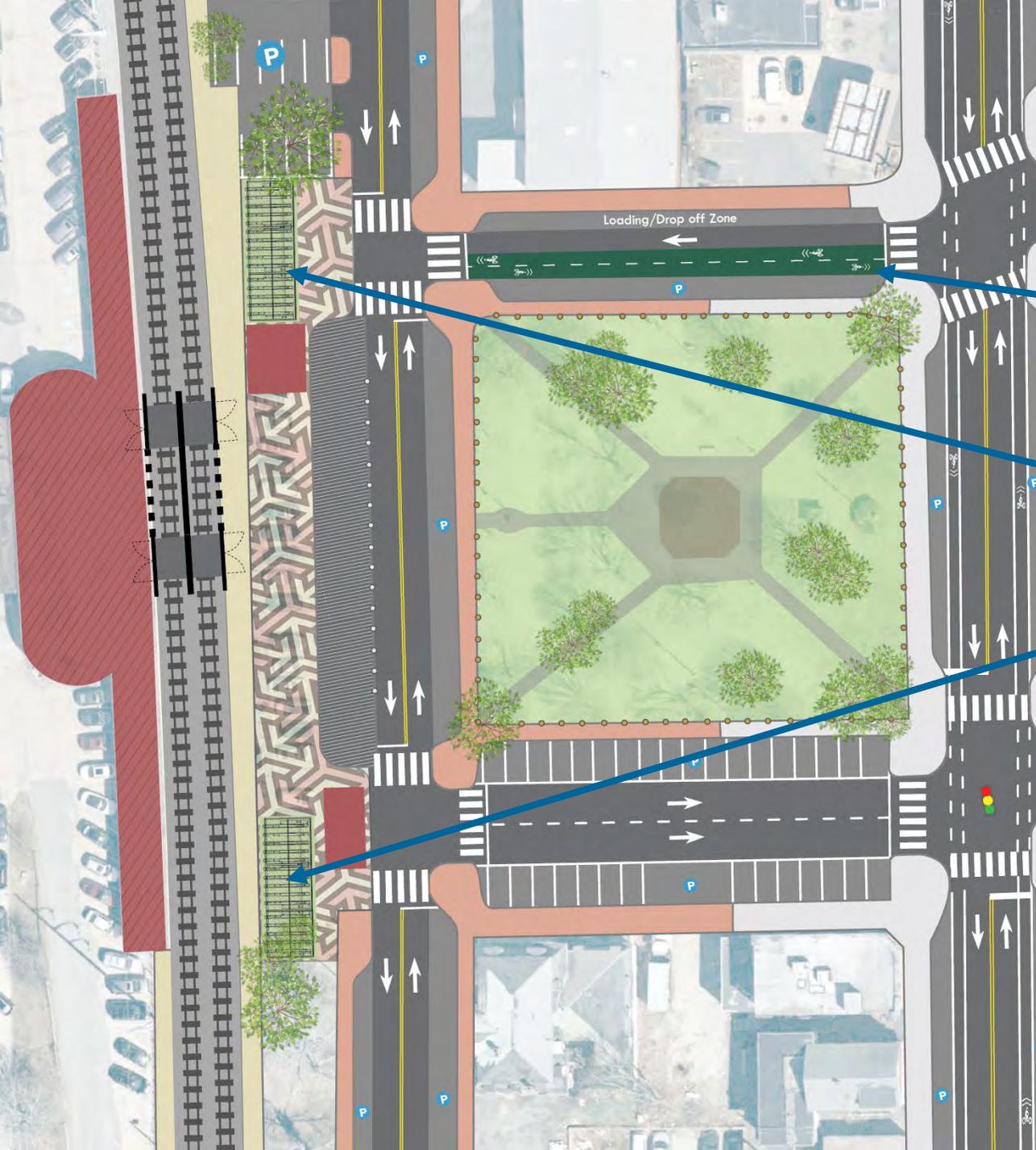
CONCEPT 1

Enhanced Pedestrian Connections

- New sidewalks throughout study area enhance pedestrian comfort
 - Match design with Rantoul
- Corner bumpouts reduce pedestrian crossing distances
 - Provide opportunity for wayfinding, public art, etc.
- Crosswalks and ADA compliant ramp systems enhance accessibility and safety

OPPORTUNITY: ALL IN PUBLIC ROW

CONSTRAINTS: MINIMAL



CONCEPT 1

Bicycle connectivity to Rantoul

- Two-way cycle track on Broadway
 - Connects station to bike lanes on Rantoul
- Bike parking added
 - Provides convenience (bike parking at station, not garage)
- Bike share opportunity

OPPORTUNITY:

- Improves bicycle connectivity and safety
- Encourages bicycling (with bike share)

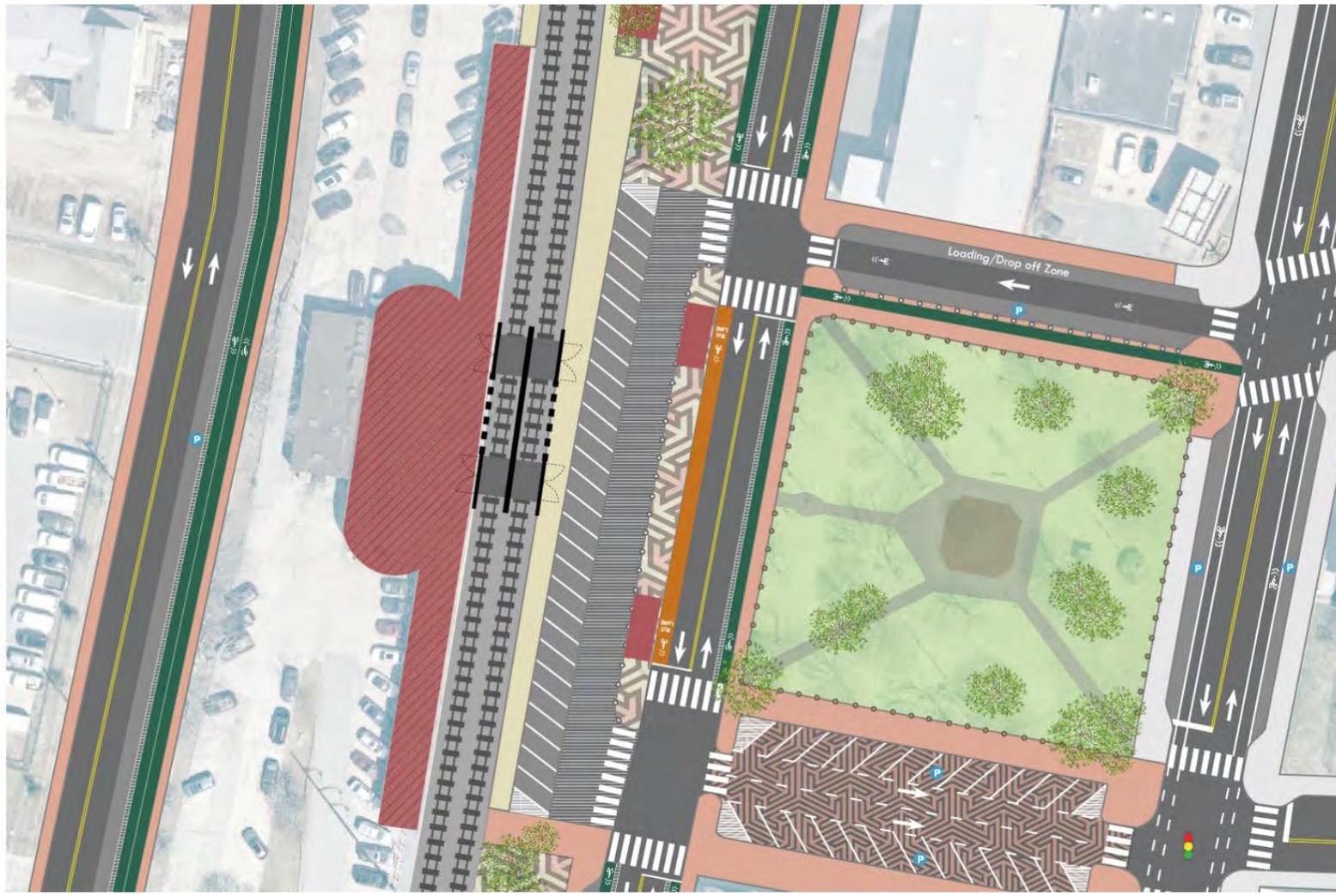
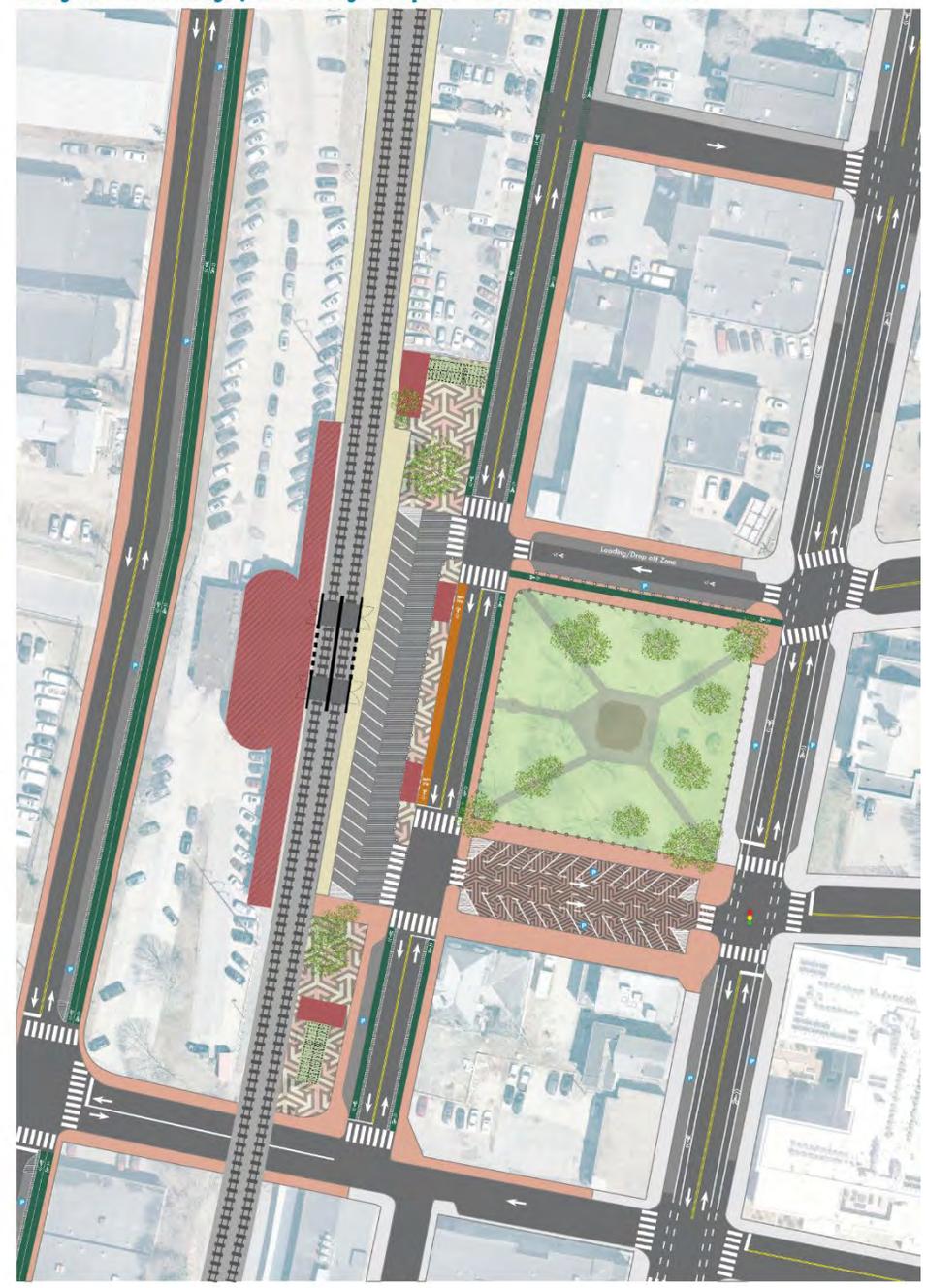
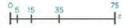
ISSUES/CONSTRAINTS

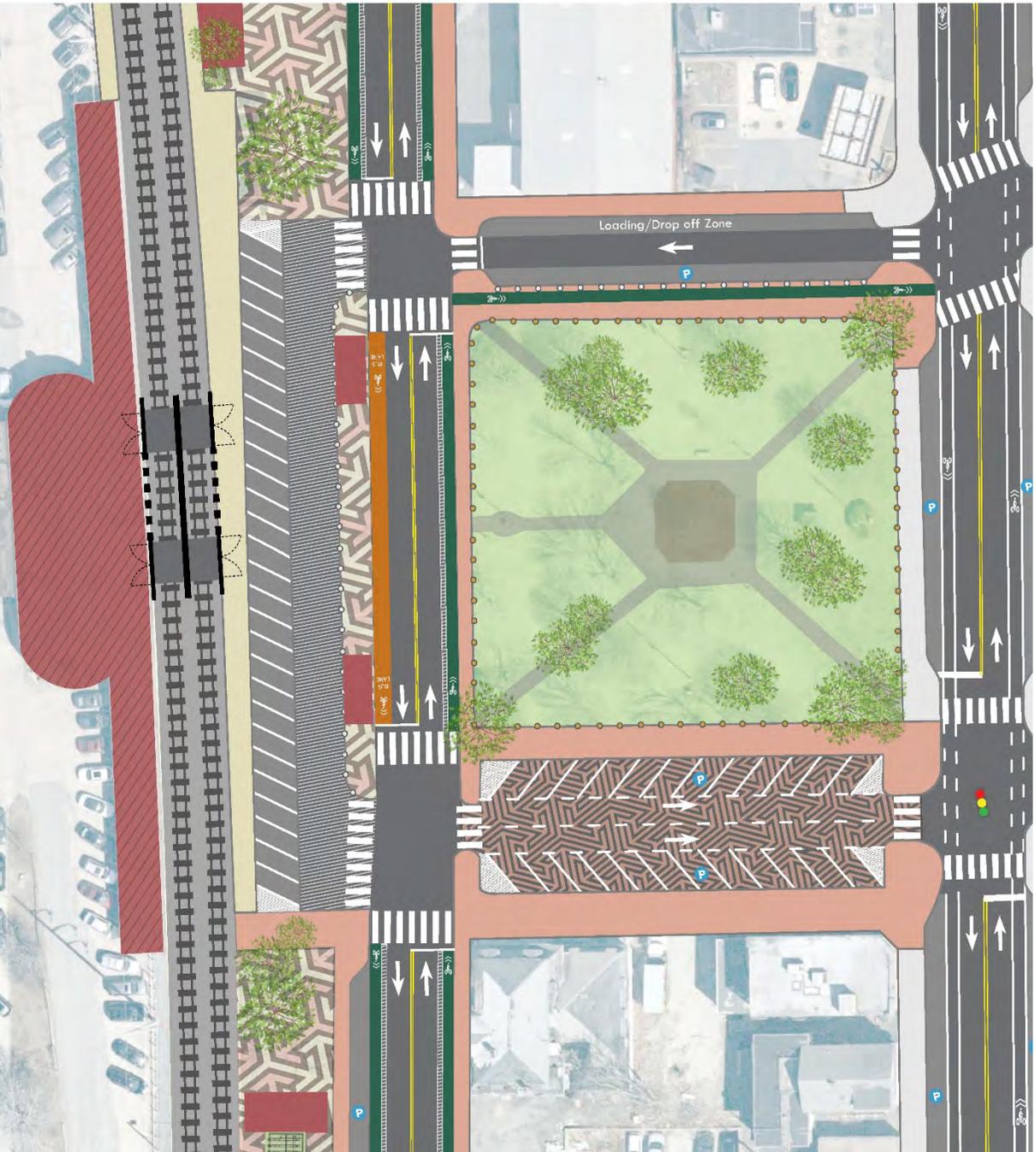
- No bicycle facilities on Park
- Bike parking and share on private property

CONCEPT 2: STATION DESTINATION

Design Concept 2

City of Beverly | Beverly Depot Transit Hub Plan



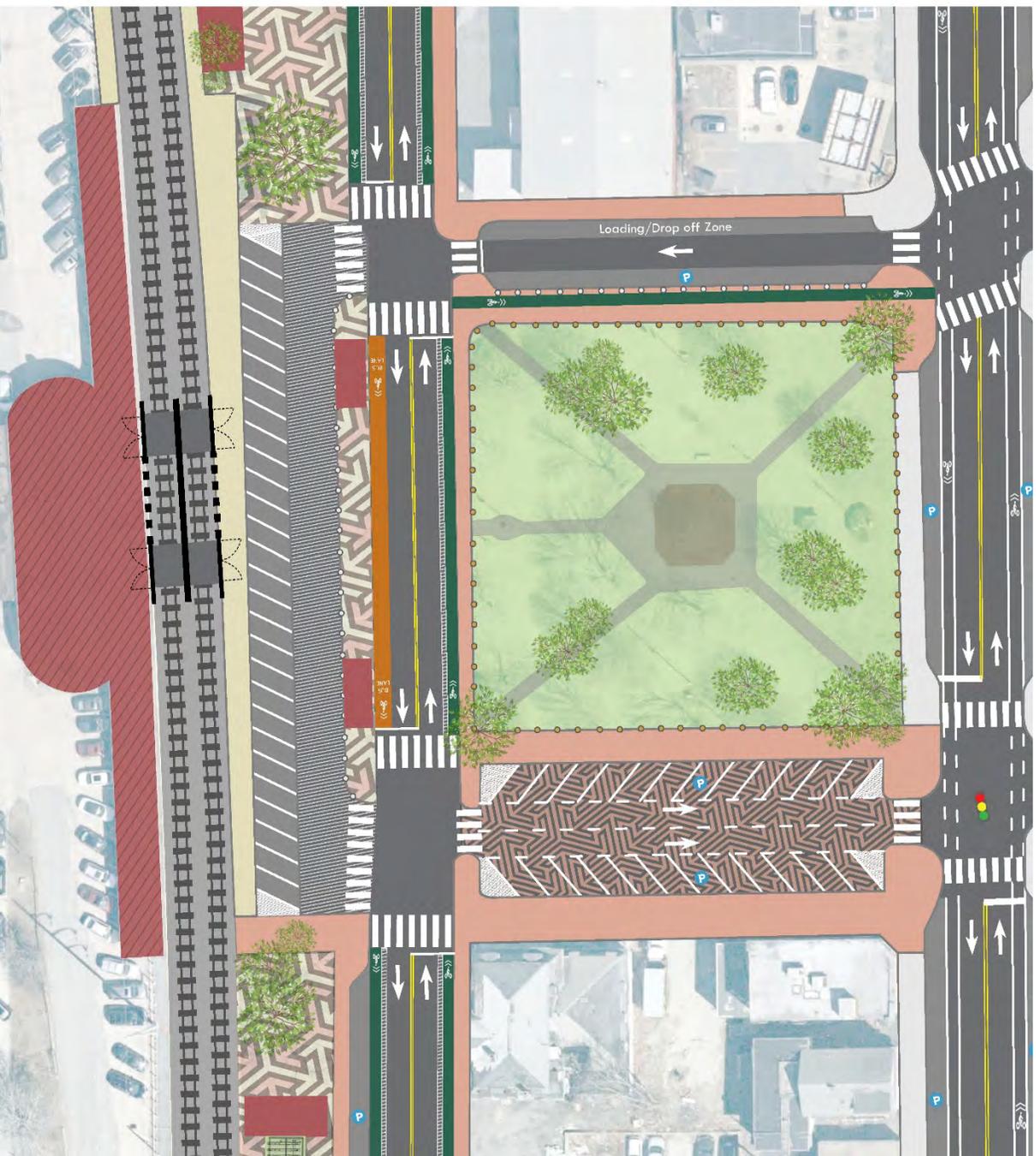


CONCEPT 2

Station Destination

- Parking Remains
- Enhanced pedestrian connectivity
- Bicycle network connectivity
- Bus/shuttle priority
- Flex Event Space/Programming
- Station Plazas





CONCEPT 2

Depot Parking Remains

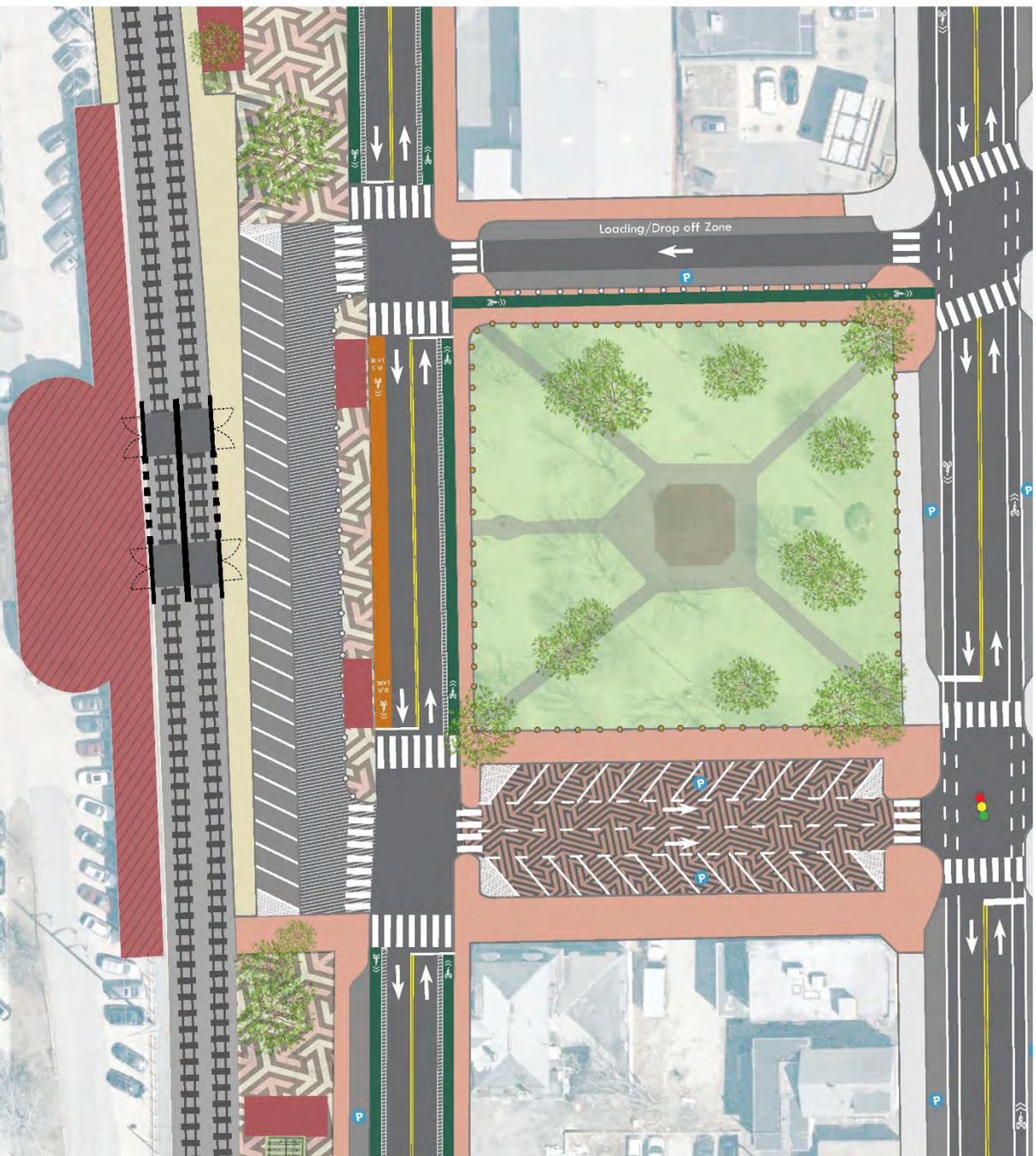
- Majority of private parking at Depot remains
 - Back-in angled parking
- Most n-street parking in public ROW removed to allow for bicycle and bus priority

OPPORTUNITY:

- Limits reliance on private property
- Private parking remains

CONSTRAINTS:

- Requires agreement with private property owner (to do angled)
- Conflicts with drop-off and pick-up may continue



CONCEPT 2

Enhanced Pedestrian Connectivity

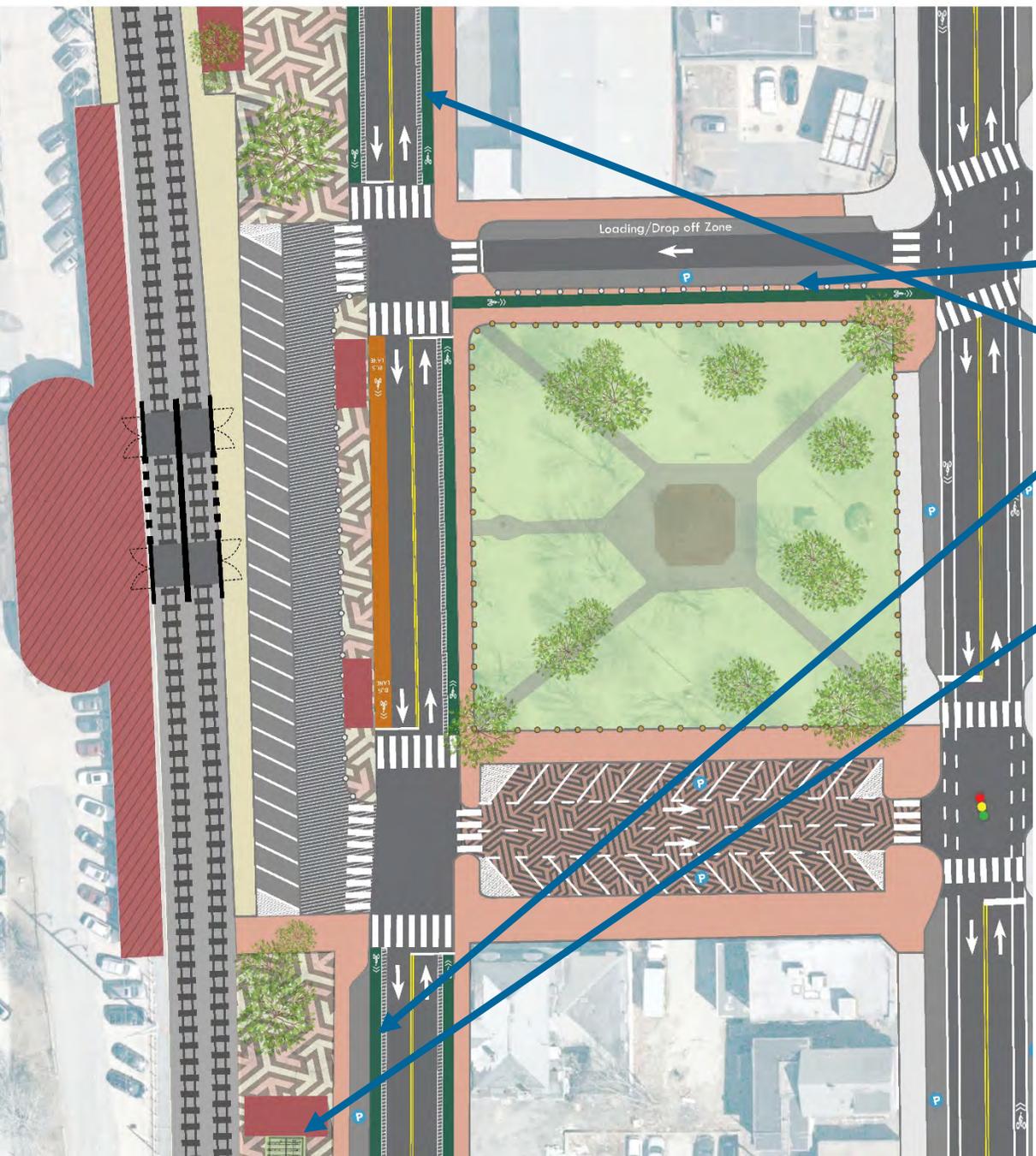
- New sidewalks throughout study area enhance pedestrian comfort
 - Match design with Rantoul
- Corner bumpouts reduce pedestrian crossing distances
 - Provide opportunity for wayfinding, public art, etc.
- Crosswalks and ADA compliant ramp systems enhance accessibility and safety

OPPORTUNITY:

- Major enhancements in public ROW

CONSTRAINTS:

- Final connections on private property.



CONCEPT 2

Bicycle Network

- Contraflow / sidewalk level bike lane connects to Rantoul lanes
- Buffered bike lanes on Park Street
 - Connect to Federal (future bike lane)
 - Connect to Pleasant/River (future bike lane)
- Bike Parking and Bike share

OPPORTUNITY:

- Improves bicycle connectivity and safety
- Encourages bicycling (with bike share)

ISSUES/CONSTRAINTS

- Identify bike share provider.
- Bike parking on private property



CONCEPT 2

Station Plazas

Plaza areas provide space for amenities

- Seating
- Bike Parking
- Information Kiosks
- Programming

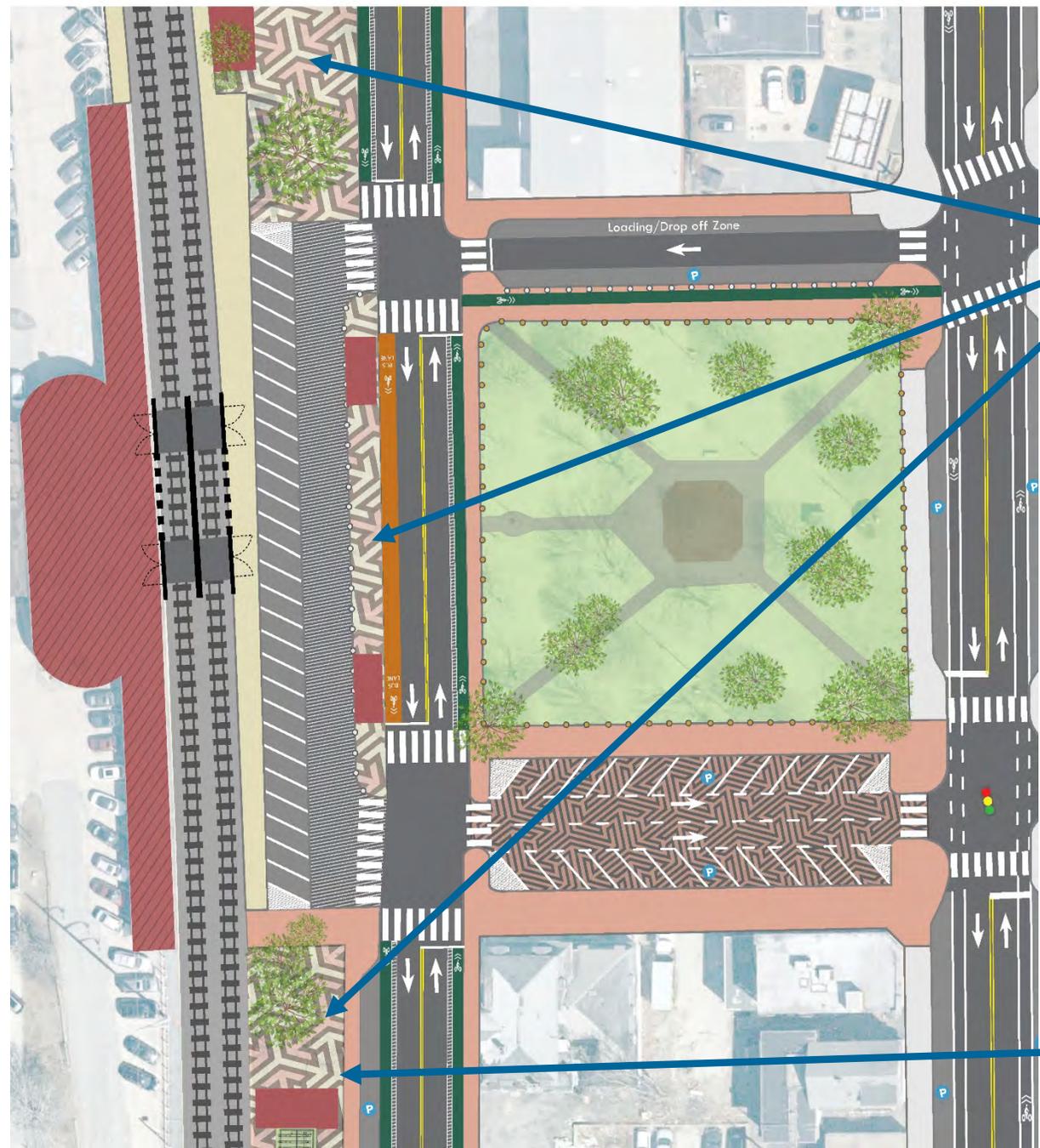
- North / South placement flexible to potential future high platform locations

OPPORTUNITY:

- Enhances comfort and sense of place

ISSUES/CONSTRAINTS

- Steep grades = higher costs



OPEN HOUSE ACTIVITIES: WHAT DO YOU THINK?

WHAT DID WE HEAR?

NEXT STEPS

THANK YOU!



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