Mobility in and around the I-195 District

Agenda

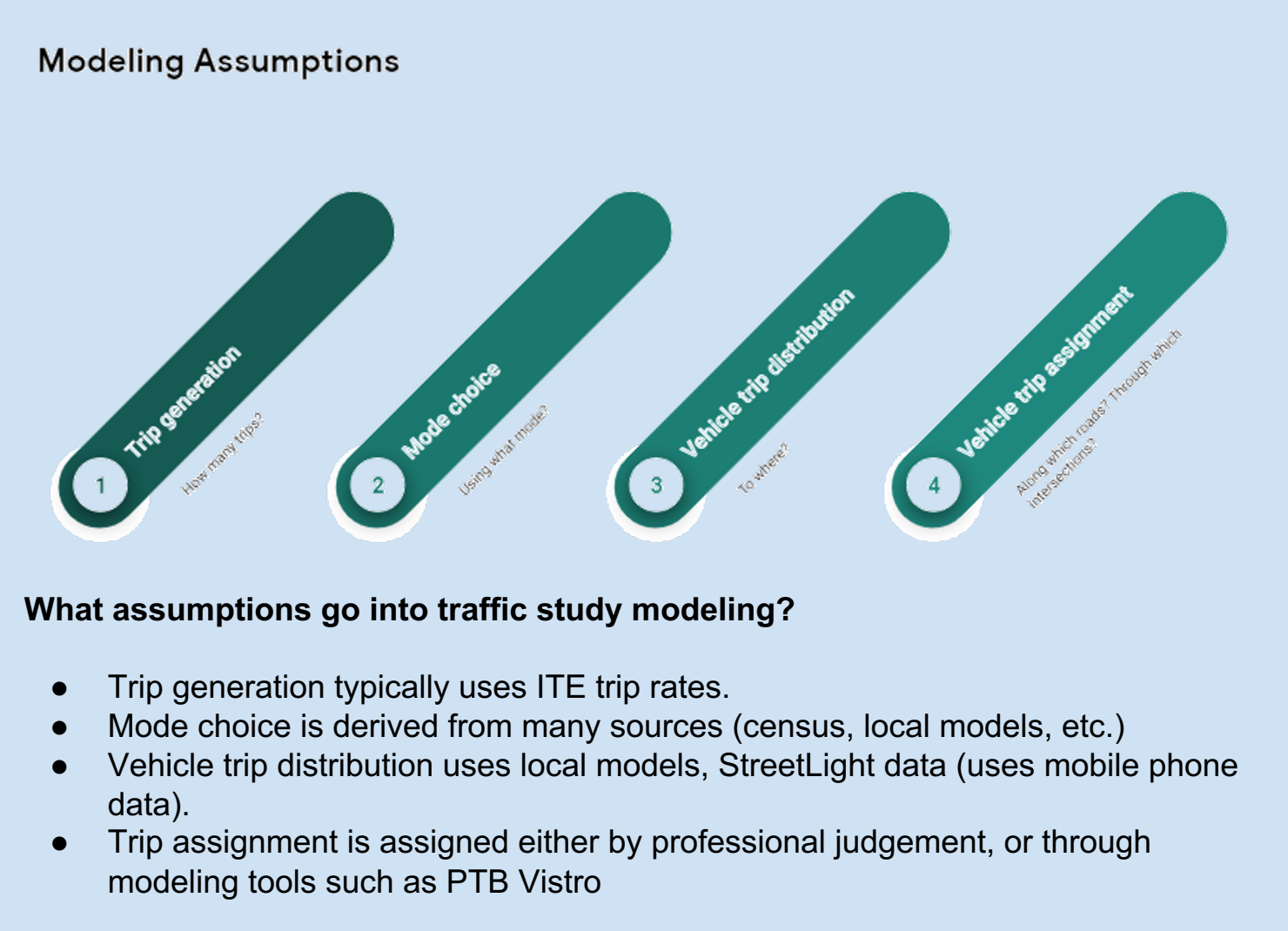
- Past traffic and parking studies in and around the District
- Recent progress toward fostering a vibrant multimodal District
- District's role in continuing to encourage multimodal transportation and reduce traffic

Previous Planning: The I-195 District and Greater Downtown

- I-195 Redevelopment District (2019)
- Parcel 6 Traffic Impact Report (2019)
- City walk Phase 1 Conceptual Design Report (2018)
- Wexford Plan B Parking Evaluation (2018)
- Project Definition Report for Downtown Transit Connector from Providence Station to Rhode Island Hospital (2018)
- Garrahy Judicial Complex Parking Garage Traffic Impact and Access Study
- Garrahy Courthouse Parking Garage Conceptual Analysis (2014)
- Redesigning Downtown Transit (2014)
- Providence I-195 Redevelopment District Design and Development Framework Parking Analysis (2013)
- Providence Downtown - Knowledge District Development Framework (2012)
- Providence Jewelry District Feasibility Study (2012)
- Improvements to Interstate Route 195 Contracts 14 and 15 (2012)
- Development of a Parking Plan for the City of Providence (2010)
- Redevelopment and Marketing Analysis Report (2009)

What does a traffic study tell us, and what assumptions are used?

- At their core, traffic studies identify potential trip delay of vehicles, by comparing total roadway capacity versus actual vehicles over a given period of time.
- Many studies look at peak travel times (e.g. am and pm peak commuting hours)
- Vehicle congestion - travel delay - occurs when more cars travel on a segment of road/intersection than it is designed to hold.

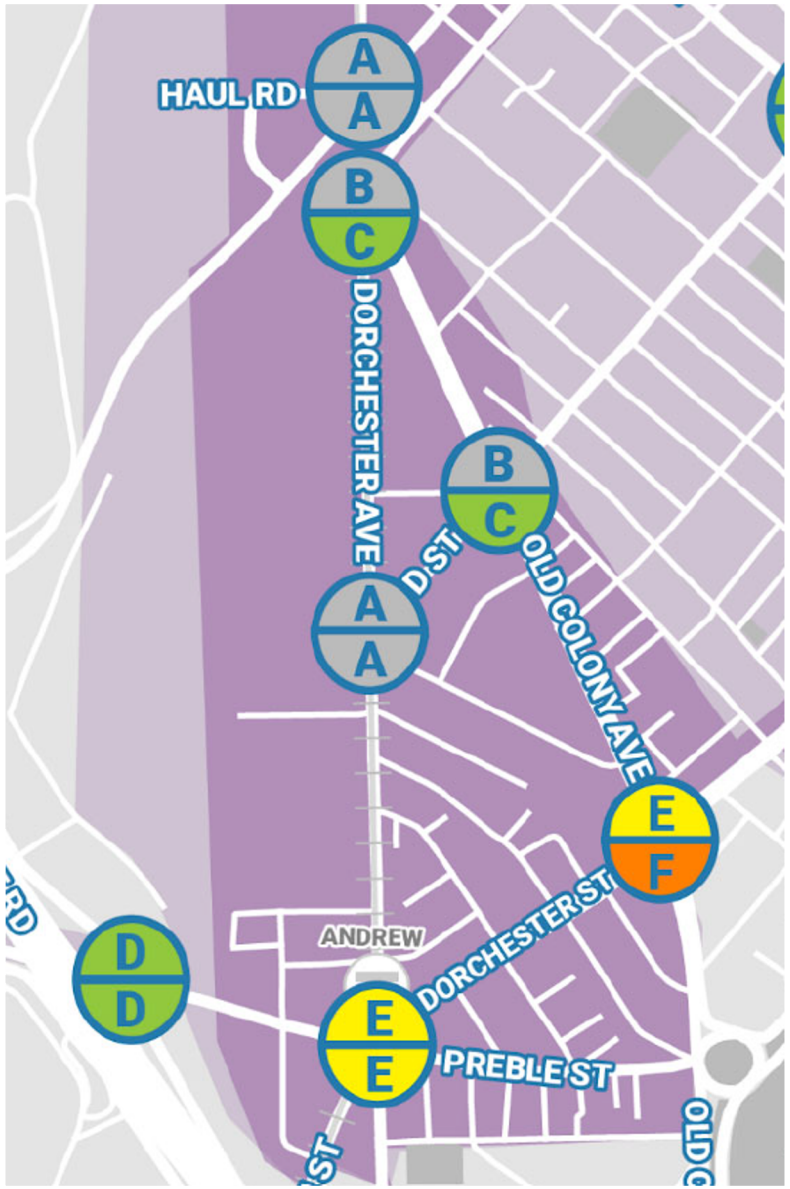


What assumptions go into traffic study modeling?

- Trip generation typically uses ITE trip rates.
- Mode choice is derived from many sources (census, local models, etc.)
- Vehicle trip distribution uses local models, StreetLight data (uses mobile phone data).
- Trip assignment is assigned either by professional judgement, or through modeling tools such as PTB Vistro

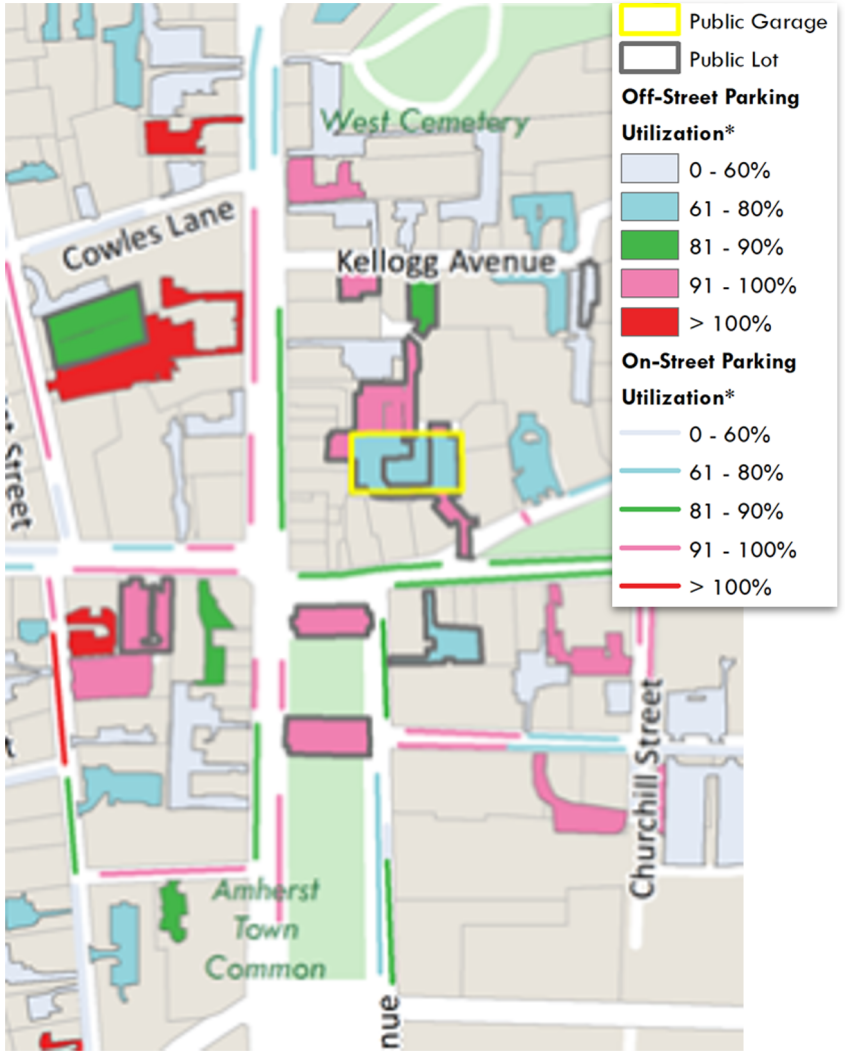
What's an acceptable level of traffic?

- Commonly measured as Level of Service (LOS)
  - LOS A-D all acceptable
  - LOS F = Fail (mitigation typically needed)
- Congestion: myth and reality
  - If a few cars back up at a red light but they clear in one cycle, that's not congestion
  - "Congestion" isn't necessarily a bad thing--it can be a sign that there's a lot of activity in an area
  - Lack of congestion can also be bad, as it encourages speeding, which is dangerous for all users



Why is a parking study valuable?

- Parking studies assess how parking is used within a particular facility or study area over a period of time, and provide recommendations to more effectively manage existing supply and/or identify where additional capacity is needed.
- Comprehensive parking studies are the most informative as they look at all parking within a larger district or study area. They include an assessment of the following:
  - Total Parking Inventory - Total number of spaces
  - Parking Utilization - Use of each space
  - Parking Policies and Regulations and how they influence parking behavior and choice?
  - Operations and Management Procedures
  - Alternative modes of transportation to access the study area.
  - Estimate future demand from new development.



What's the right amount of parking?
It depends on the facility or district purpose, but generally, **85%-90% Utilization** .

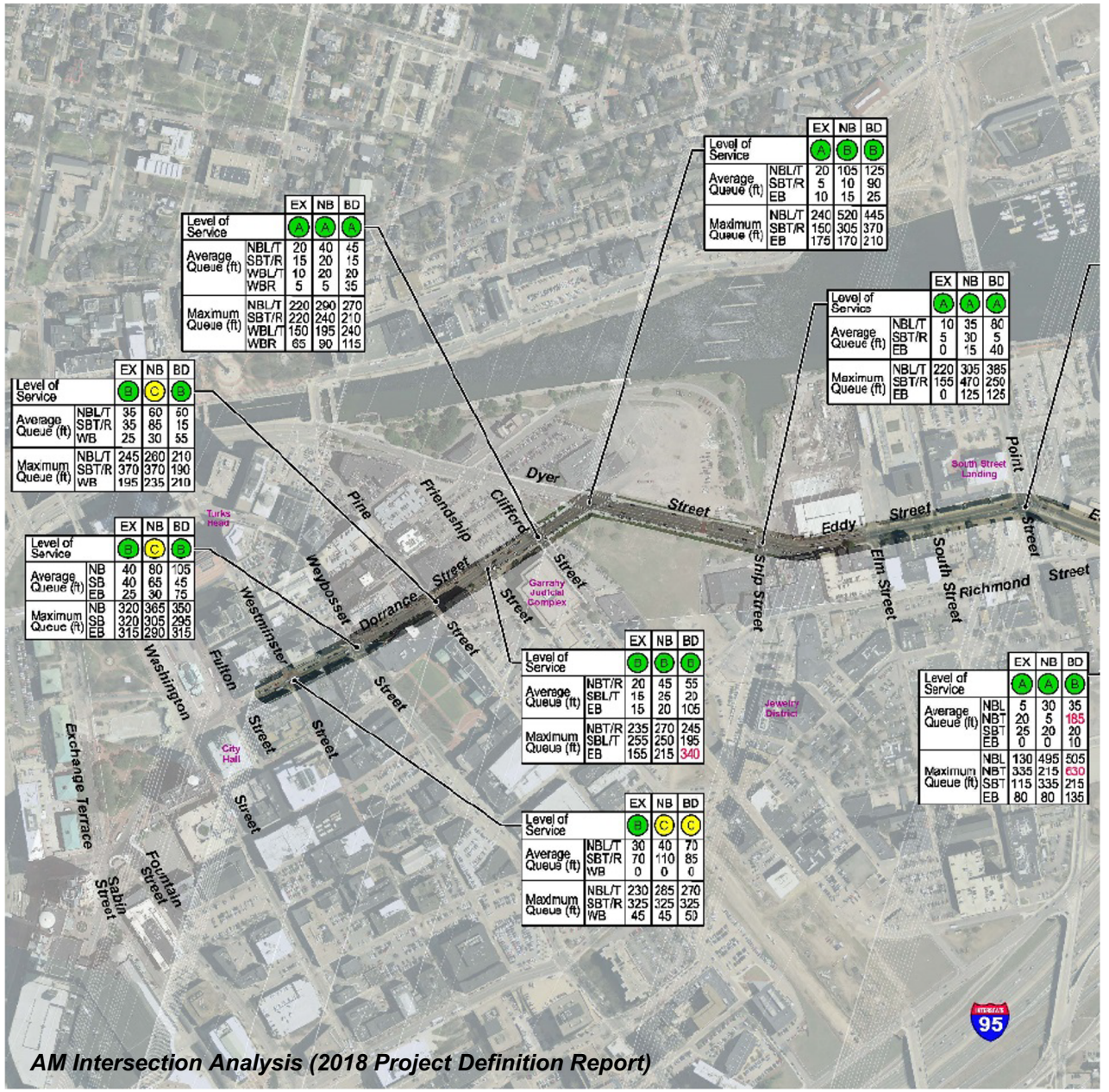
Downtown Transit Connector

TRAFFIC IMPACTS: Project improves all traffic flows.

- General traffic (e.g. vehicle) travel times projected to decrease by 1:09 minutes (16% faster)
- No intersections have LOS below a C (that is very good)
- Dedicated lanes for DTC will not impede traffic flows.

MULTIMODAL BENEFITS: Improves service for existing riders and attracts new R\riders

- Projected travel time savings for both RIPTA buses (1:21 minutes or 14%) attracts riders who may otherwise drive - reduces traffic.
- 2014 study projected increased ridership due to improved access for residents and workers.
  - More direct service with fewer transfers required.
  - Convenient connections, including bus-rail connections.



AM Intersection Analysis (2018 Project Definition Report)

Parcel 6 Traffic Study

TRAFFIC IMPACTS: The project will not have a detrimental impact on traffic safety and operations.

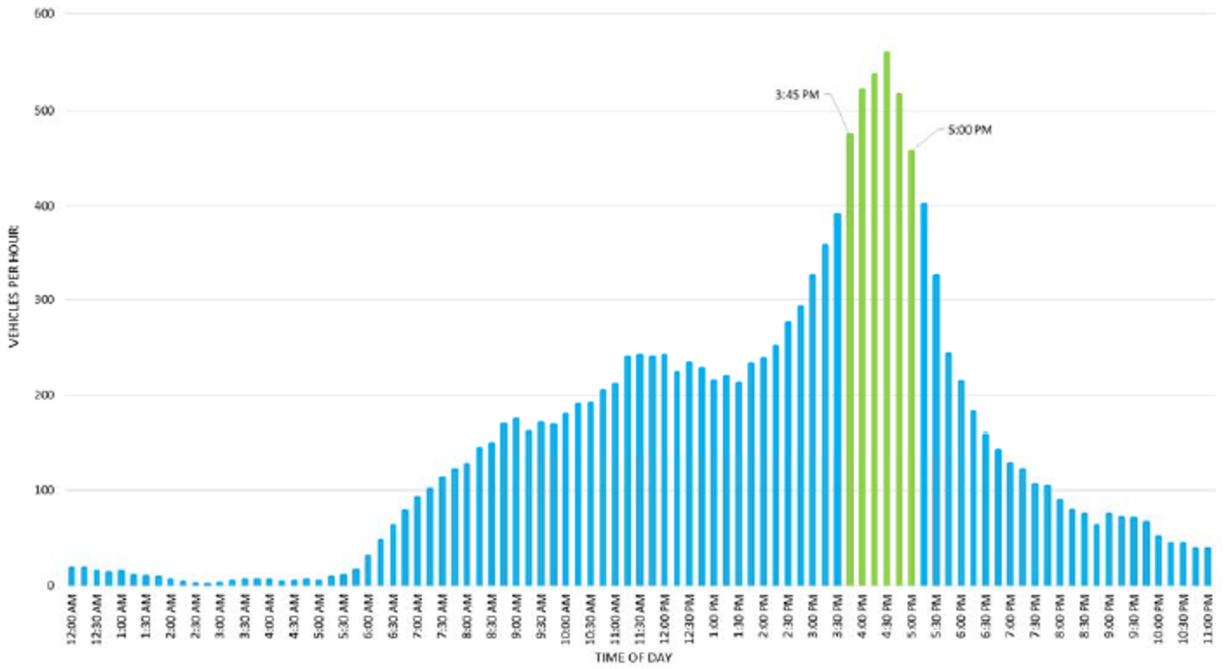
- Project will maintain a desirable level of traffic safety and efficiency.
  - South Main Street - No traffic safety of operational issues.
  - South Water Street - No traffic and safety or operational issues.
- Minor volume increase during the daily peak hours.
  - Won’t change of negatively affect the good operating conditions that presently exist on South Main and South Water Streets.

MULTIMODAL BENEFITS (Not assessed.)

City Walk

TRAFFIC IMPACTS: Impacts on vehicular traffic negligible.

- Clifford Street will see minor increases throughout day, but continue to have excess capacity. .
  - Greatest impact during afternoon peak (still has excess capacity). Still operate at LOS D or less.
    - Some decrease (from C to D),
    - Some improve (e.g. from F to C)
  - Interstate intersections operate similar to today.
- 2-way cycletrack will not increase traffic



Traffic volumes on weekdays on Clifford Street showing excess capacity (2018 City Walk Phase 1 Conceptual Design Report)

MULTIMODAL IMPACTS: Improves safety and access for pedestrians and bicyclists

- Project will reduce speed of cars = fewer pedestrian and bicycle crashes. (Currently, high number of crashes involving bikes and peds)
- Provides quality east-west low stress bicycle and pedestrian facility (i.e. safe and comfortable)

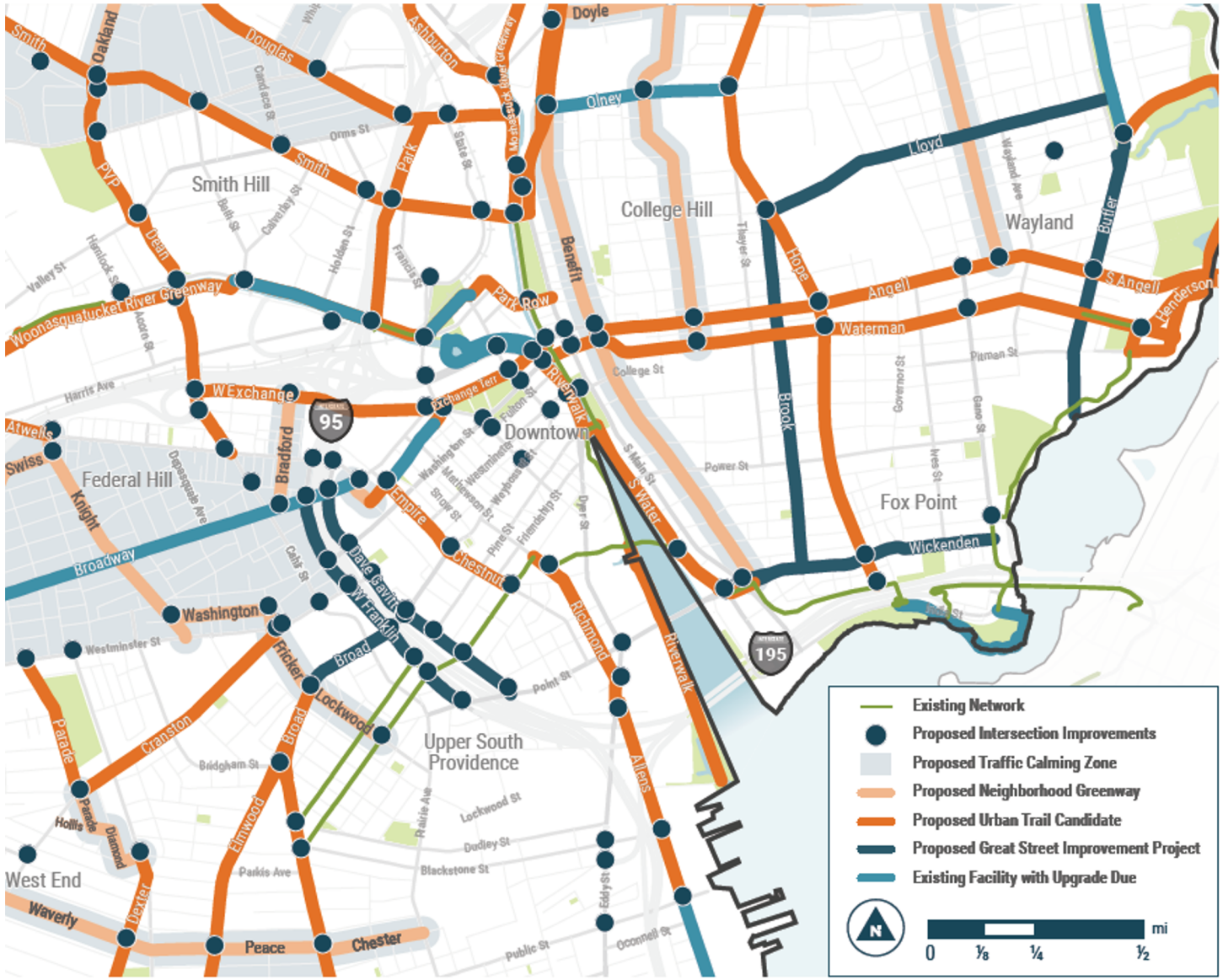
Great Streets

TRAFFIC IMPACTS: Likely to improve LOS (level of service).

- More options reduces the need to drive for many. Less traffic.

MULTIMODAL IMPACTS: Great Streets projects anticipated to make corridors safe for those walking, biking, or taking transit.

- **Lowers other context-sensitive factors such as:**
  - **Crash frequency**
  - **Crash severity**
  - **Vehicle speeds**
- **Improves**
  - **Safety**
  - **Person throughput**



Past studies on traffic found no congestion, but are outdated or not comprehensive

Study Name	Findings	Comments
2012 Improvements to Interstate Route 195 Contracts 14 and 15 (Maguire Group)	• No to little congestion on streets and intersections in District • Projected traffic from planned mixed-use development will not meaningfully increase congestion.	• Outdated traffic counts
2012 Providence Downtown – Knowledge District Development Framework (P+W)	• Driving connections to the District are ample and sufficient • Limited walking/biking/pedestrian connections to west, south, east	• Outdated development scenarios
2016 Garrahy Judicial Complex Parking Garage Traffic Impact and Access Study (Walker/VHB)	• No to little congestion on road network near Courthouse, except LOS C at 1 intersection during PM Peak • Projected traffic from 1,250 spot parking garage will not meaningfully increase congestion.	• LOS C is good.
2019 Parcel 6 Traffic Impact Assessment (BETA Group)	• No to little congestion on road network near Parcel 6 • Projected traffic from planned mixed-use development will not meaningfully increase congestion.	• Traffic counts consider new development

Past studies on parking found excess capacity, but were not comprehensive

Study Name	Findings	Comments
2013 Providence I-195 Redevelopment District Design and Development Framework – Parking Analysis (N\N)	• Parking is oversupplied, but will be undersupplied in full buildout • Recommends strategies to reduce parking demand.	• Outdated inventory and utilization data • Outdated development scenarios
2014 Garrahy Courthouse Parking Garage Conceptual Analysis	• 1,250 parking spot garage should limit need for additional parking structures in near- to mid-term, referencing Nelson\Nygaard 2013 study	• Outdated parking inventory
2018 Wexford Plan B Parking Utilization (Fuss & O'Neill)	• 5,708 parking spots owned by private, public and nonprofit entities available in Jewelry District (nearly 7,000 with Garrahy garage)	• No parking utilization and demand study

What we've learned from past studies - and what gaps remain

- Past studies did not find traffic congestion to be a concern in and around the District.
  - Included both studies of existing conditions and projections with future development and transit/bicycle improvements
- District-wide parking utilization (demand) has not been studied
  - Demand for both on- and off-street parking is unknown
  - Anecdotally, Point 225 tenants are not fully utilizing leased spaces in the Garrahy Garage
- District-wide traffic information is out of date
  - As build-out of the District progresses, traffic studies need to be periodically updated
- Incomplete/outdated data for walking, biking, and transit ridership
  - New investments in DTC, CityWalk, pedestrian bridge will increase walk/bike/transit mode share

Recent and ongoing developments strengthen the District's ability to thrive as a multimodal urban district

Key Factors:

- Dense, mixed-use development
- Active ground-floor uses and public spaces
- Convenient, reliable public transit
- Safe, attractive walking and biking networks
- Shared parking is more efficient and encourages a park-once-and-walk district

Density and a mix of land uses are key to minimizing vehicle traffic

SUBURBAN CONTEXT

URBAN CONTEXT

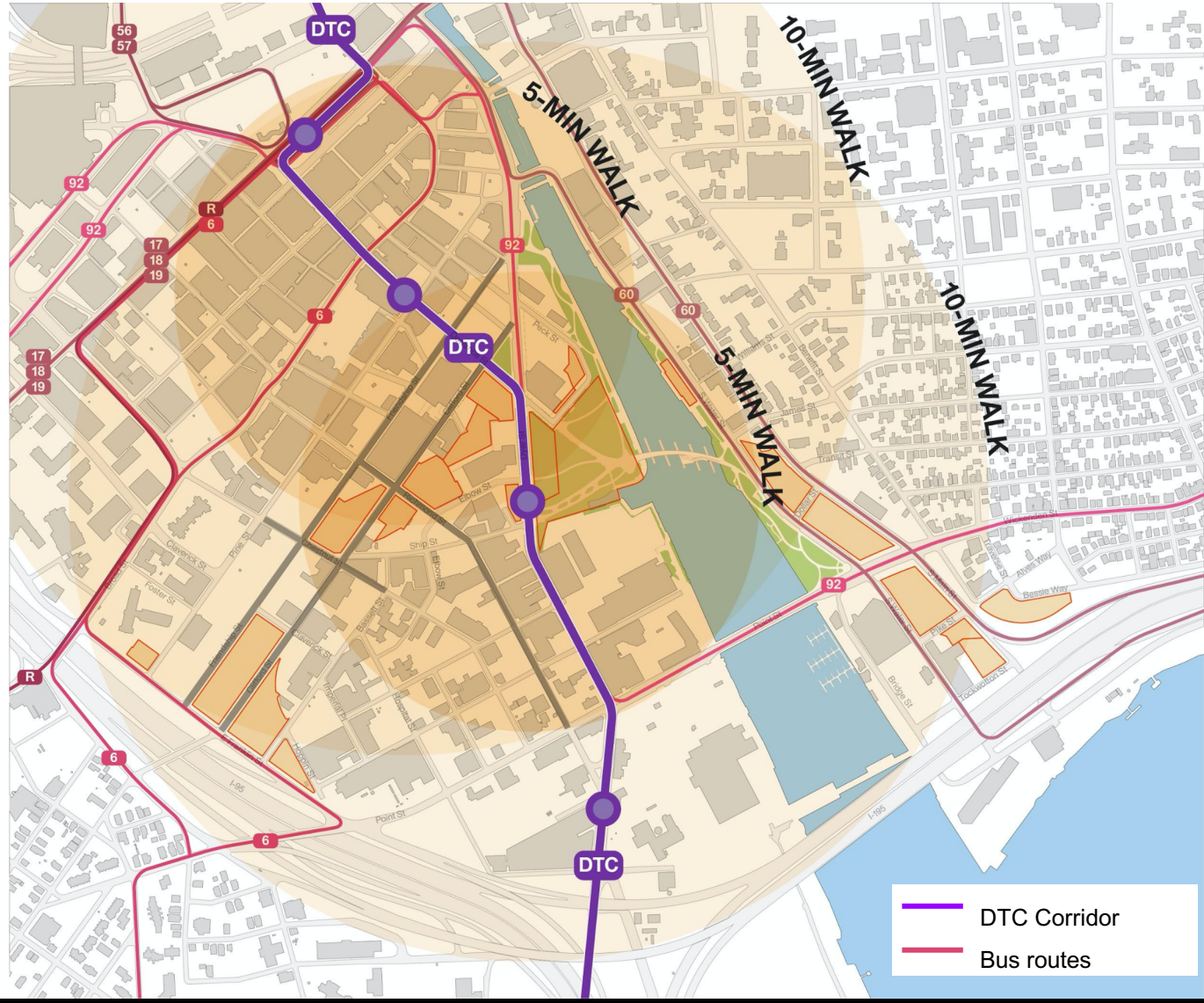
The District is densifying with a healthy mix of land uses

Active ground-floor uses and public spaces encourage walking and biking and create a vibrant district

- I-195 Development Plan encourages pedestrian-friendly development:
  - Active ground-floor uses such as retail, restaurants/bars, arts and culture uses, etc.
  - Design features that eliven the pedestrian environment, like transparent ground floor facades, frequent entrances, etc.
- East and West Side parks are linked to the Wexford plaza and the rest of the District by City Walk and the new pedestrian bridge

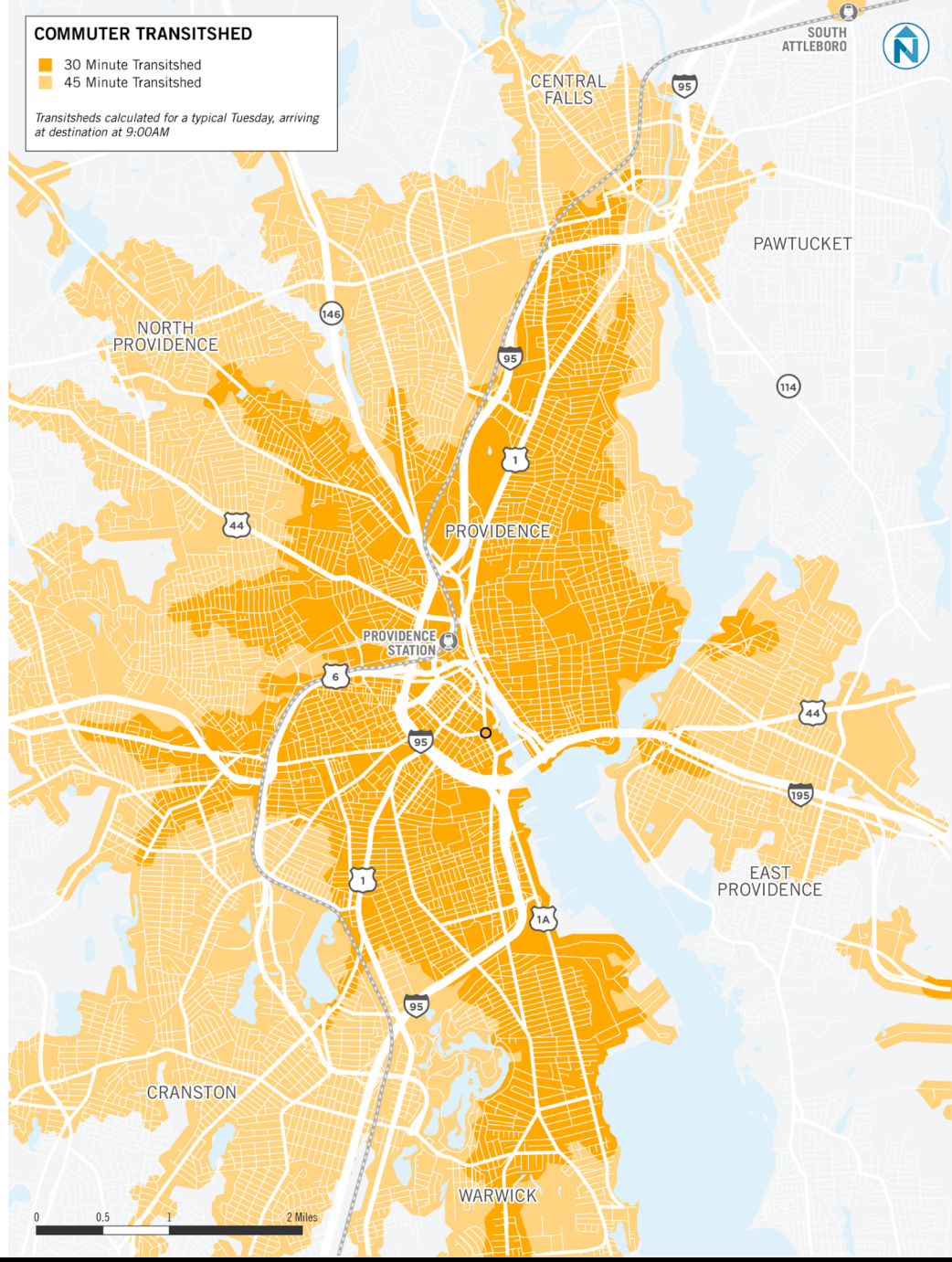
The DTC puts the entire District within a 10-minute walk to high-quality transit

- Existing transit network is dramatically enhanced with the DTC:
  - Service every 5 minutes in each direction
  - Enhanced stations
  - Dedicated lanes and signal priority to shorten travel times



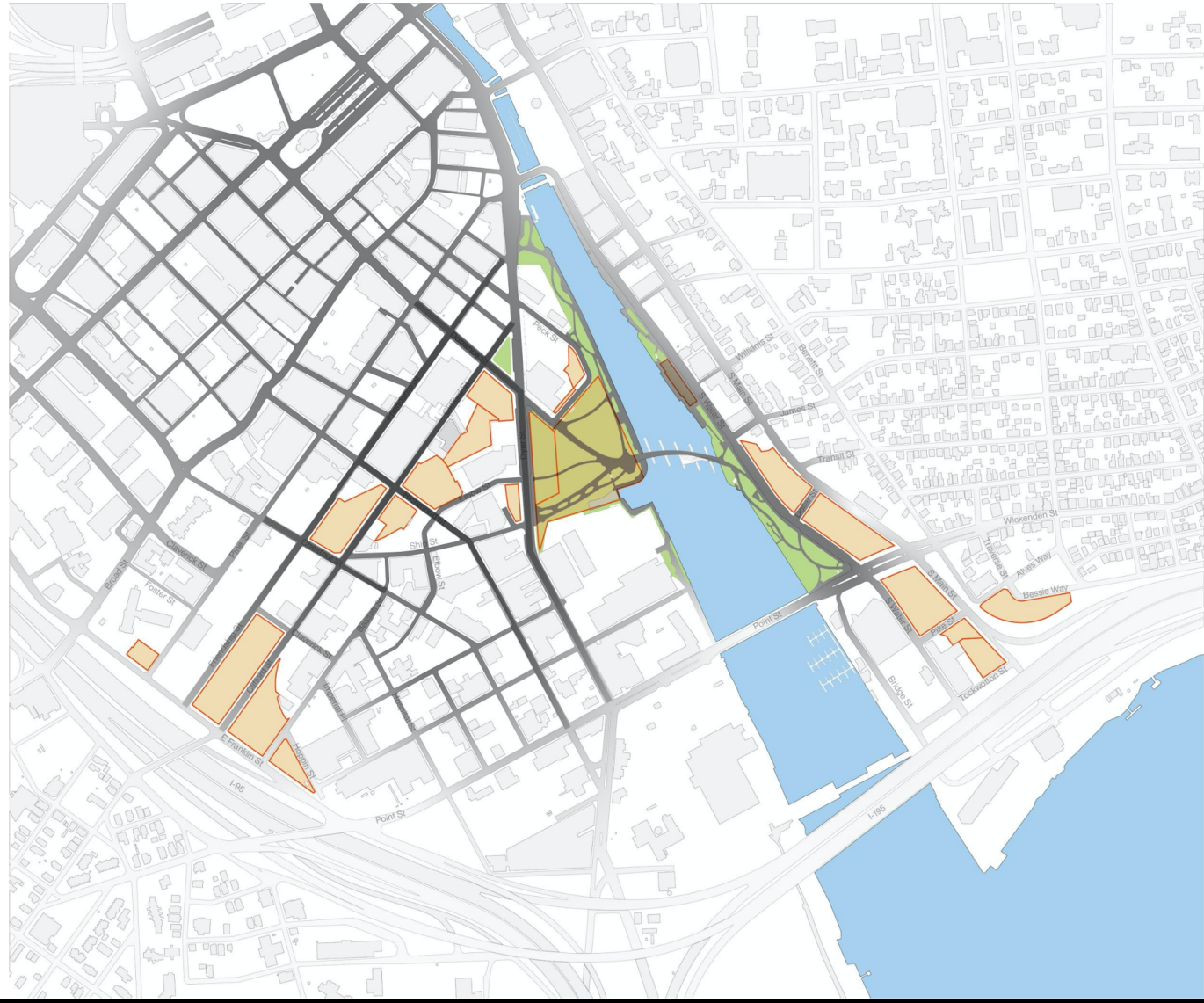
Much of Providence is within a 30-minute transit trip of the District

- For people who **work** in the District, transit provides direct connections to Fox Point and South Providence, with DTC connection to entire network at Kennedy Plaza
- For people who **live** in the District, DTC provides direct connection to major downtown employers and RI Hospital, and Greater Boston via Providence Station



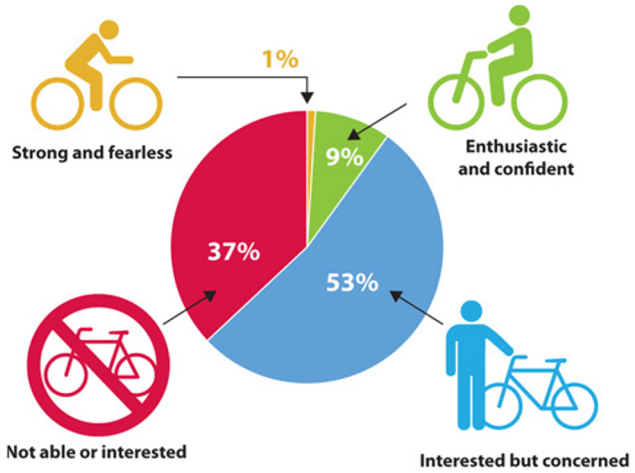
A dense street network makes it easy to walk

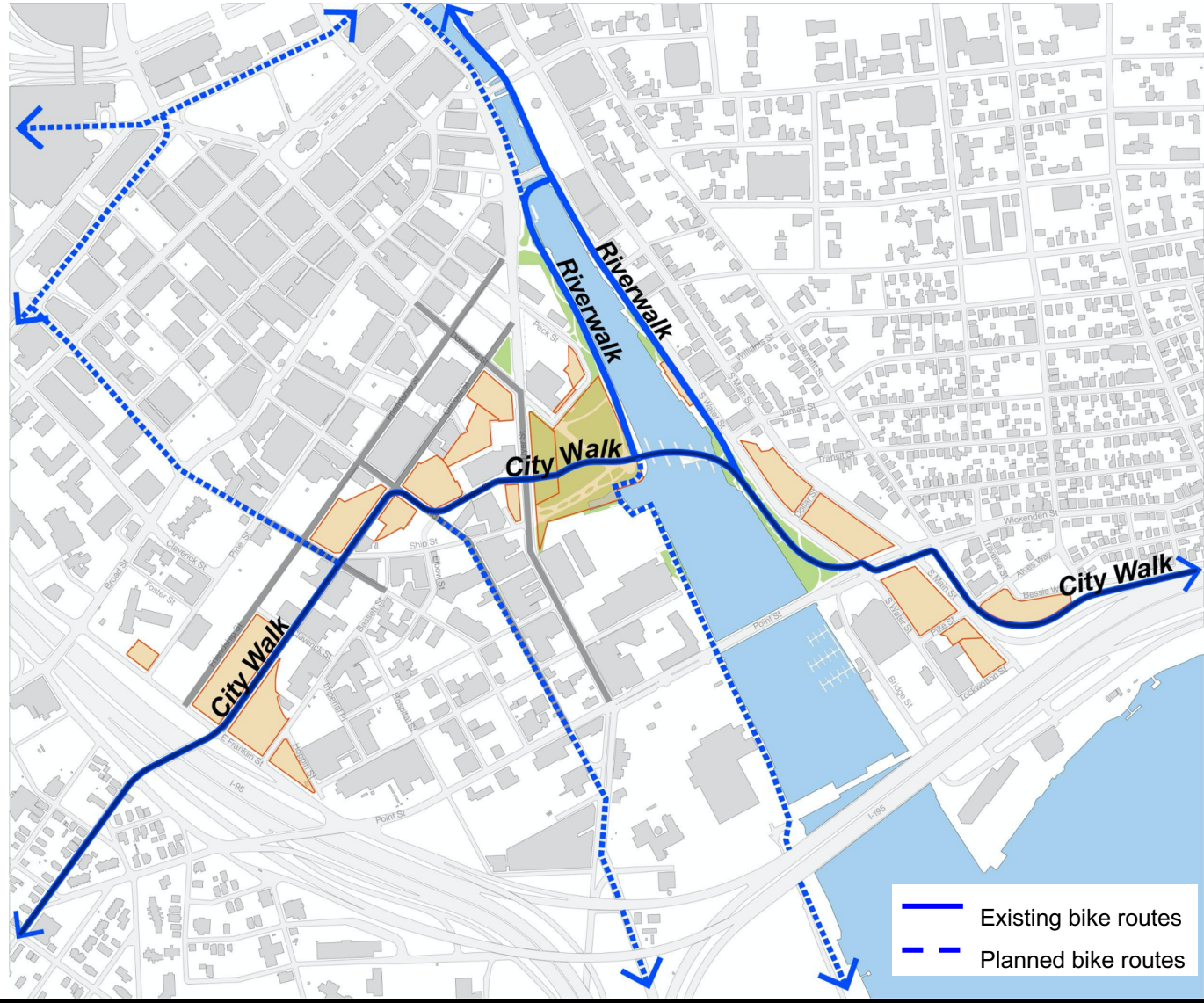
- Removal of the highway enabled reconnection of urban street grid
- City Walk, Riverwalk, and pedestrian bridge provide additional pedestrian connections
- Dense street network reduces the actual and perceived distance to destinations
- Residential neighborhoods, employment centers, shopping and entertainment destinations all within a short walk



Recent and planned projects provide high-quality bicycle routes

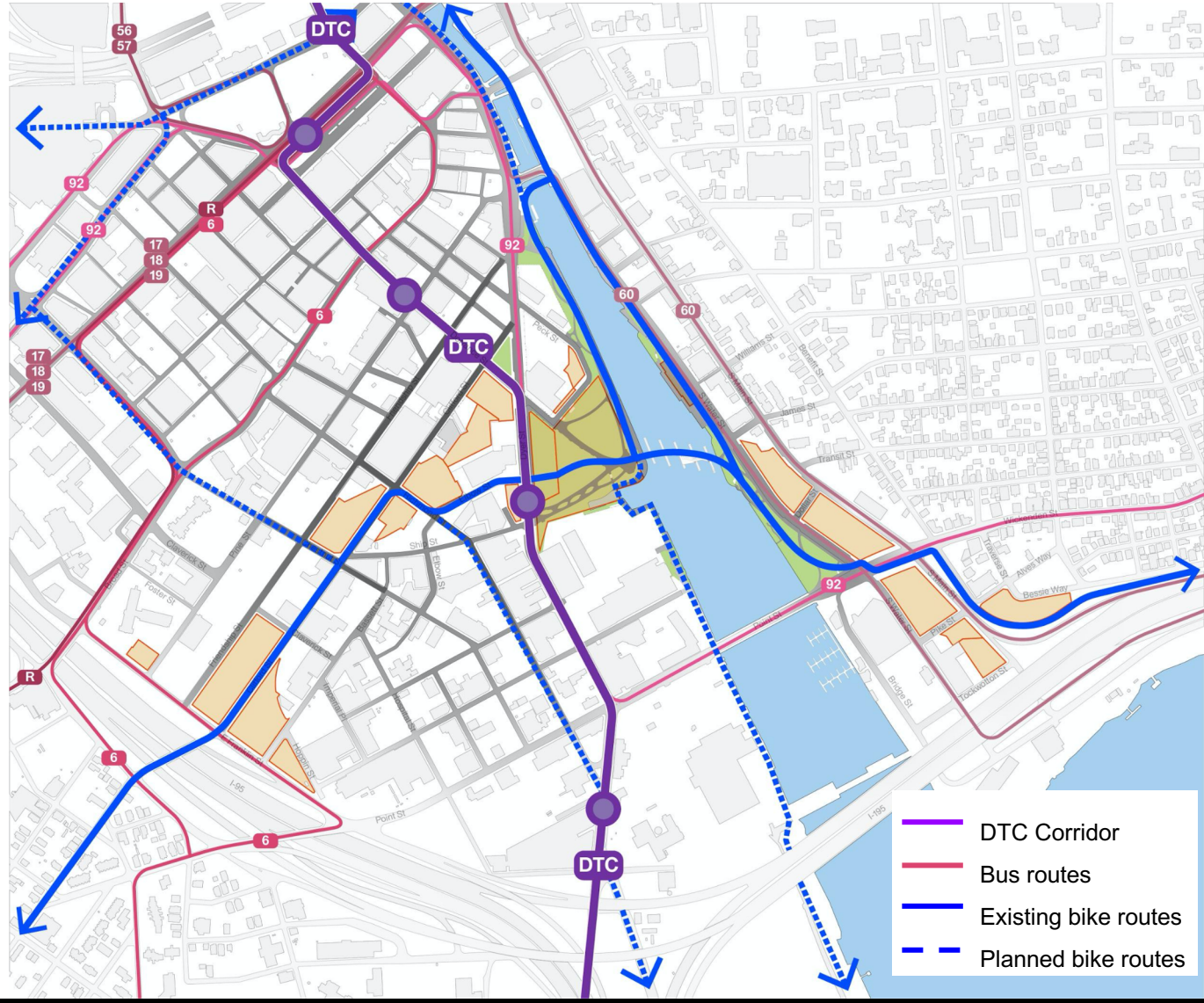
- Entire city of Providence is within a 3-mile radius of the District
- City Walk and planned Great Streets projects will provide a high-quality, protected, connected bike network
  - With protected lanes, majority would consider biking for transportation





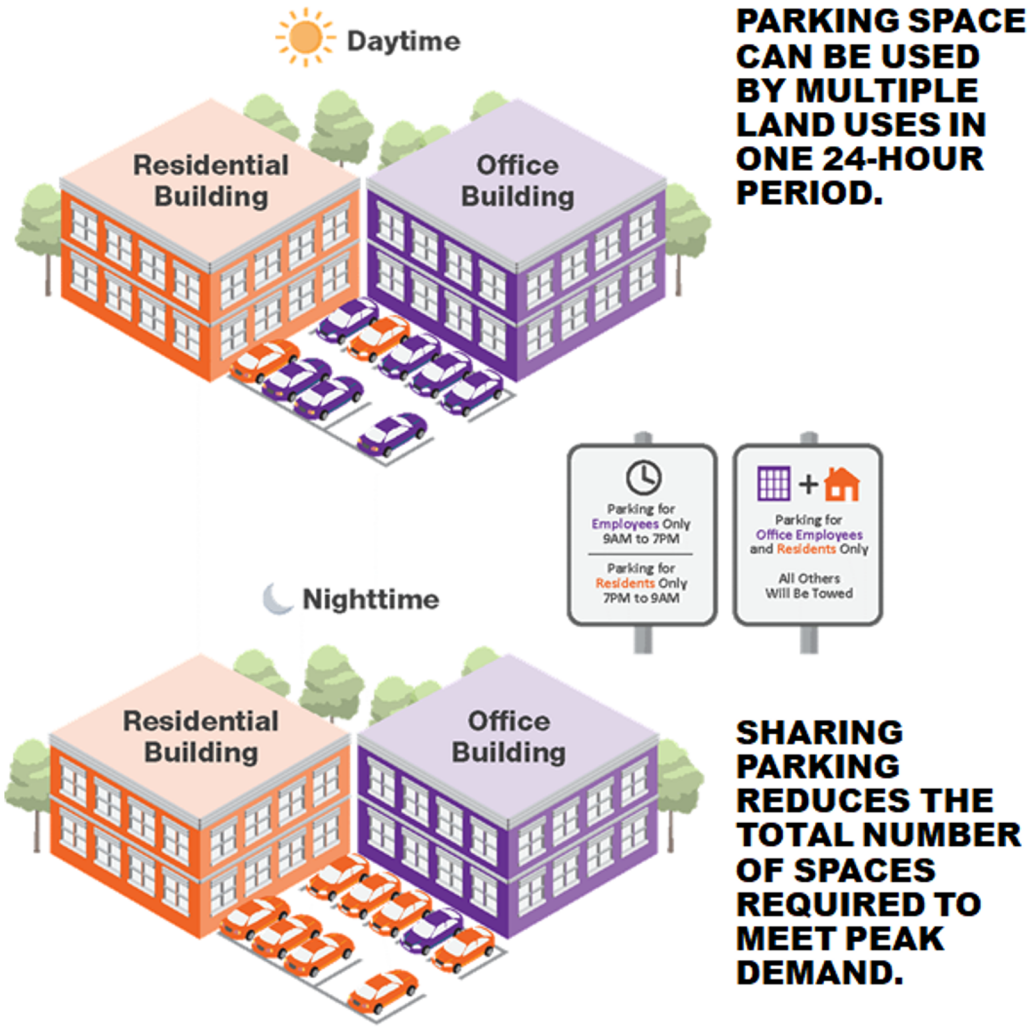
Multimodal access provides many options to get around

- Driving alone has traditionally been the primary mode for travel to/from the District, but that's changing:
  - Recent and ongoing improvements to walking, biking, and transit have made more options available and more attractive and convenient
  - Recent and ongoing mixed-use development means that more trips are contained within the District and nearby areas, making non-auto modes more viable



Shared parking is more efficient and encourages park-once-and-walk

- Shared parking enables the same spaces to be used at different times of day by different users, reducing the overall amount of parking needed to serve demand
  - Enables greater density of development, which further encourages multimodal transportation
  - Reduces cost of development by reducing/eliminating the need to build on-site parking
- Cost of parking is more likely to be borne by user, which encourages use of other modes
- Consolidated parking encourages walking for non-commute trips like shopping, dining, entertainment



What can the District do to keep moving in the right direction?

Keep doing what you're doing:

- Encourage dense, mixed-use development
- Encourage active ground floor uses
- Encourage development that supports multimodal transportation through pedestrian-friendly public realm, on-site bike parking, and reduced on-site vehicle parking

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- Facilitate investments by City, RIDOT, etc. that improve multimodal access

Continue to support DTC, City Walk, Great Streets, etc.

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- Promote shared off-street parking

→ Continue to leverage Garrahy Garage and monitor need for additional shared parking in the future

What can the District do to keep moving in the right direction?

Play a more active role in managing traffic and parking demand:

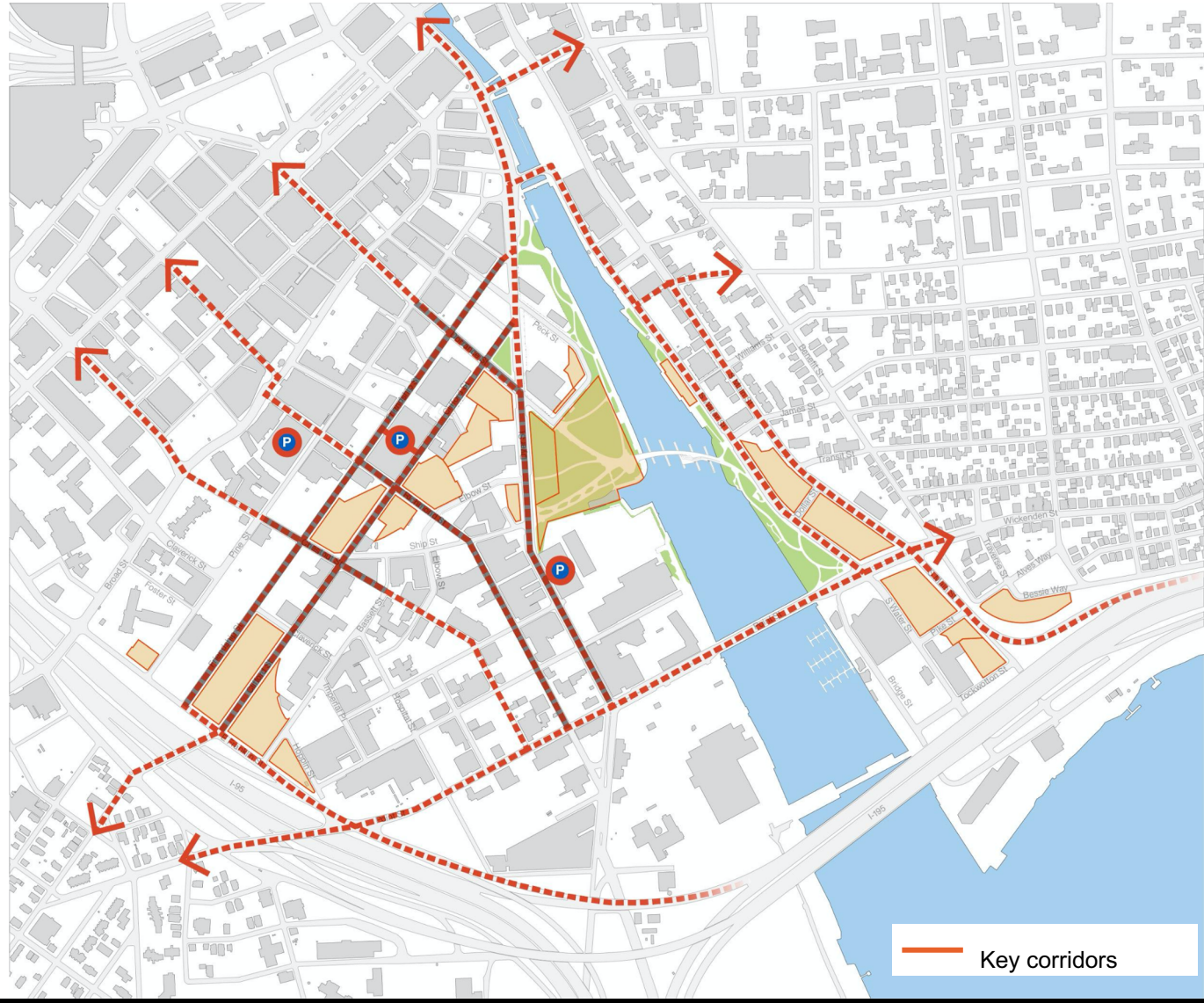
- Encourage Transportation Demand Management (TDM) programs by employers in the District
- Understand key corridors for vehicle traffic and consider potential impacts of new development on those corridors
- Work with the City to manage on-street parking

Transportation Demand Management (TDM)

- Employer incentives for non-driving modes:
  - Provide transit subsidies
  - Provide financial incentives for bike commuting
  - Provide secure bike parking, showers, etc.
  - Charge for parking
  - Support carpooling
  - Provide carsharing for work-related trips that require a car
- District can encourage these programs during development review

Monitor impact of new development on key corridors for vehicle trips

- Large generators of traffic at concentrated times, such as garages serving office uses, should be carefully sited to reduce impact on overall network performance
  - I-195 Development Plan already requires parking entrances on secondary streets wherever possible



Management of on-street parking management can avoid traffic

- If on-street parking isn't priced and regulated appropriately, it's difficult to find a space, causing drivers to:
  - circle the block, causing excess traffic
  - double-park, blocking travel lanes
- Lack of loading, pickup/dropoff zones can also cause double-parking in travel lanes
  - During design review, District can ensure that new developments provide off-street space for loading and dedicated curbside pickup/dropoff zones if necessary

Considerations moving forward

- Parking supply and utilization within the District is unknown; would be worthwhile to do a district-wide parking study once travel patterns return to normal. Based on results:
  - Work with City to optimize price and regulations for on-street parking
  - Encourage new development to take advantage of existing off-street parking resources