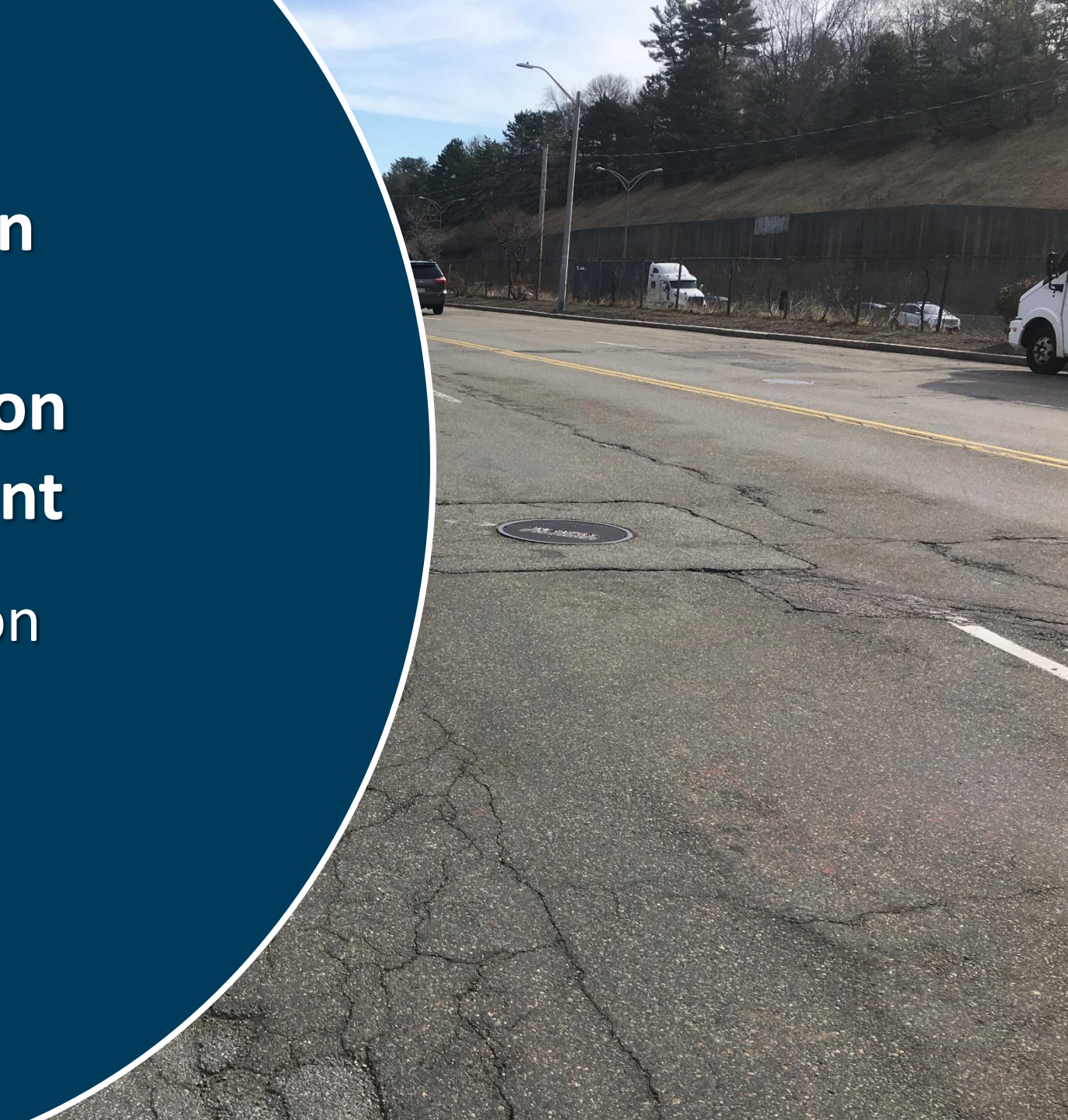
The Dunstan Residences West Newton Development

Transportation Peer Review

City of Newton



BETA Group, Inc.

April 22, 2020

Peer Review Presenters

- Jeff Maxtutis, Project Manager, Transportation Planner, BETA Group, Inc.
- Jaklyn Centracchio, PE, PTOE, LEED Green Associate, Senior Project Engineer, BETA Group, Inc.

Peer Review Process

- Conducted site visits
- Reviewed:
  - Transportation and Access Study - November 2019, VHB, Inc.
  - Site Plans - November 25, 2019, VHB, Inc.
- Discussed with Applicant and VHB
- Focus of presentation on major transportation issues for all modes

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Peer Review Process

- Review included:
  - Traffic data/analysis
  - Pedestrian & Bicycle
  - Transit
  - Parking
  - Internal Circulation
  - Loading & curbside activity
  - Transportation Demand Management (TDM)
  - Consistency with Zoning and Newton Street Design Guide
- Overall, the study met state and industry professional practice standards

Traffic

Traffic Review

- More specifically reviewed:
  - Study Area
  - Volume & Speed Data
  - Crash Data
  - Analysis Methodology
  - Analysis Results
  - Mitigation

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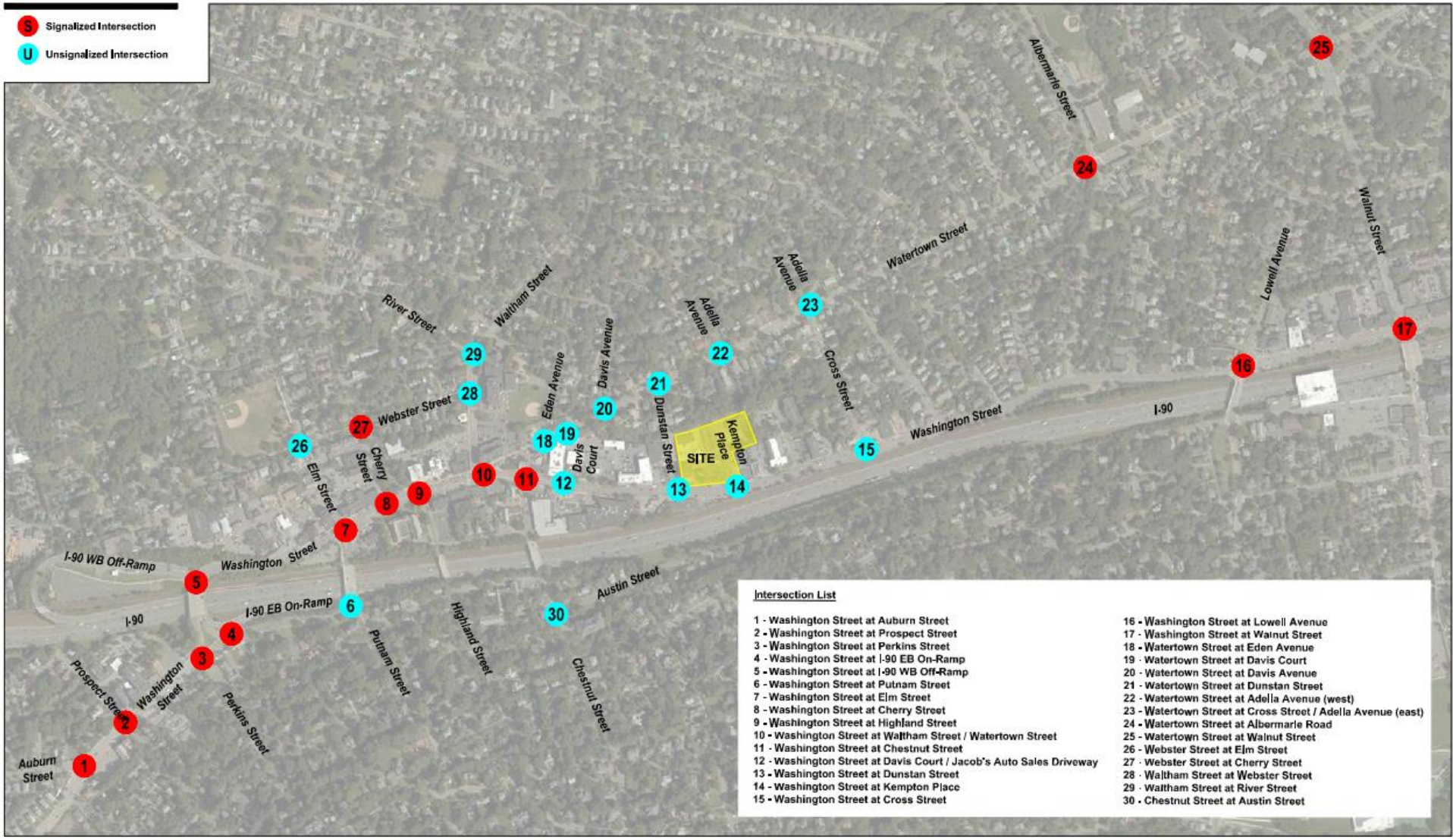
Study Area


S Signalized Intersection
U Unsignalized Intersection
SITE
Kempton Place
Washington Street
I-90
I-90 WB Off-Ramp
I-90 EB On-Ramp
Austin Street
Auburn Street
Prospect Street
Perkins Street
Putnam Street
Highland Street
Chestnut Street
Elm Street
Cherry Street
Webster Street
River Street
Waltham Street
Eden Avenue
Davis Avenue
Davis Court
Dunstan Street
Adella Avenue
Cross Street
Watertown Street
Albermarle Street
Lowell Avenue
Walnut Street
Intersection List
1 - Washington Street at Auburn Street
2 - Washington Street at Prospect Street
3 - Washington Street at Perkins Street
4 - Washington Street at I-90 EB On-Ramp
5 - Washington Street at I-90 WB Off-Ramp
6 - Washington Street at Putnam Street
7 - Washington Street at Elm Street
8 - Washington Street at Cherry Street
9 - Washington Street at Highland Street
10 - Washington Street at Waltham Street / Watertown Street
11 - Washington Street at Chestnut Street
12 - Washington Street at Davis Court / Jacob's Auto Sales Driveway
13 - Washington Street at Dunstan Street
14 - Washington Street at Kempton Place
15 - Washington Street at Cross Street
16 - Washington Street at Lowell Avenue
17 - Washington Street at Walnut Street
18 - Watertown Street at Eden Avenue
19 - Watertown Street at Davis Court
20 - Watertown Street at Davis Avenue
21 - Watertown Street at Dunstan Street
22 - Watertown Street at Adella Avenue (west)
23 - Watertown Street at Cross Street / Adella Avenue (east)
24 - Watertown Street at Albermarle Road
25 - Watertown Street at Walnut Street
26 - Webster Street at Elm Street
27 - Webster Street at Cherry Street
28 - Waltham Street at Webster Street
29 - Waltham Street at River Street
30 - Chestnut Street at Austin Street

Volume & Speed Data

- Volume data collection days and times were reasonable.
- Vehicle Speeds:
  - Along **Washington St** corridor 4 MPH above posted speed limit at peak periods, which is within an acceptable range.
  - Along **Watertown St** corridor 9 MPH above posted speed limit at peak periods, which is not within an acceptable range.
- Verify with MassDOT that the posted speed limits are consistent with regulatory speed limits.

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Crash Data

- Vehicle Crashes Above MassDOT Average:
  - Washington Street/Highland Street
  - Washington Street/Waltham Street/Watertown Street
  - Washington Street/Chestnut Street
  - Webster Street/Elm Street
  - Webster Street/Cherry Street
  - Waltham Street/Webster Street
- First three intersections in process of redesign.
- Last three - consider safety improvements.

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Crash Data

- Highway Safety Improvement Program (HSIP) locations are eligible for federal and state funds to improve safety.
  - Nine intersections within the study area are eligible.
  - Many of the intersections are currently undergoing redesign.
  - One is located adjacent to site and consideration should be given to conducting a Road Safety Audit (RSA) or Pedestrian Assessment:
    - Washington Street/Davis Court/Jacob's Auto Sales Driveway

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Analysis Methodology

- 0.5% Annual Growth Rate to 2026
- Background Growth
  - Over a dozen other projects included
  - Sunrise Assisted Living and Memory Care Facility was not included
- Roadway Improvements
  - West Newton Square
  - Washington Street at Walnut Street Improvements

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Mode Share

Newton Mode Share (2014-2018)

	Vehicle	Transit	Walk/ Bike	Worked at Home
Residential	70%	12.5%	8%	9.5%
Retail	90%	5%	5%	NA

Trip Generation

Trip Generation Peak Hour & Mode Summary

Net New Project-Generated Trips by Mode	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
Vehicle Trips	167	82	53
Transit Trips	26	20	21
Walk and Bike Trips	22	16	16

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Future Traffic Conditions

- The intersections adjacent to the site that are not undergoing redesign or timing adjustments are all **unsignalized**.
- The following unsignalized movements will degrade from LOS B to LOS C:
  - Dunstan St SB approach to Washington St (AM & PM)
  - Kempton Pl SB approach to Washington St (AM)
  - Davis Ave SB approach to Watertown St (AM)
- The following movements at unsignalized intersections **would continue to operate at LOS E or worse** under Build conditions.
  - Waltham Street/River Street EB LOS F (AM & PM)
  - Chestnut Street/Austin Street WB LOS E (PM)

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Future Traffic Conditions

- Washington Street Road Diet Vision Plan
  - All side street movements would operate at an acceptable LOS D or better

Parking, Access, Circulation & Loading

Project Parking

Project Parking Summary

Project Element	Garage Spaces	Surface Spaces	Total
244 Residential Units	244	0	244
11,563 SF Retail + 7,986 SF Office	40	5	45
Total	284	5	289

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Project Parking

- **664 parking spaces** required per Newton Zoning Ordinance (2 spaces/dwelling unit).
- Waiver of **375 spaces** is required through the Comprehensive Permit in lieu of a special permit.
- Proposed **1.0 space per DU** meets MBTA/MassDOT TOD guidelines and MAPC Metro Boston Perfect Fit Parking Initiative recommendations.
- Based on TOD guidelines the project would require between **211 and 445** parking spaces

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Project Parking

- Need additional information on how spaces will be managed/shared in garage.
- Where will visitors park?
- Are **40** garage spaces for retail/office use adequate to meet demand?
- **11** on-street spaces fronting project:
  - 6 spaces on west side of Kempton Place (private)
  - 5 public spaces on north side of Washington Street. Currently no regulation.
- Garage spaces are 18 feet long, City requires 19 feet.

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Site Access, Circulation, Loading

- The garage driveways on Kempton Place are off-set. Can these be aligned as a 4-way intersection?
- 2 pickup/drop-off areas on Washington Street for retail deliveries and resident pickup/drop-off. City would need to regulate these areas.
- Need additional information on truck loading/deliveries including garbage trucks for each building.

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Pedestrians and Bicycles

Pedestrians and Bicycles

- West Newton Square planned roadway, sidewalk, and streetscape improvements along Washington Street.
- Applicant proposes to reconstruct sidewalks along Washington Street and at Kempton Place and Dunstan Street.
- Confirm that effective sidewalk width will be at least **5’.**
- Confirm pedestrian access to open spaces.
- Brook Street (private road) proposed as a raised shared-roadway. Details needed on separation with sidewalk and transitions to Dunstan Street and Kempton Place.

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Transit

Public Transportation

- Project served by 3 MBTA bus routes (170, 553, 554) and West Newton Commuter Rail Station (10- minute walk).
- No bus shelters currently provided near project.
- VHB provided supplemental information on transit ridership and capacity for Existing and Future Conditions.
- One Inbound Commuter Rail train (8:19 AM) over-capacity in No-Build (+34) and Build (+45)

Mitigation

Applicant Proposed Mitigation

- Signal Timing Adjustments
  - Washington Street at Prospect Street
  - Washington Street at Elm Street
  - Watertown Street at Albermarle Street
- Pedestrian Improvements
  - Upgrade sidewalks, curb ramps and crosswalks surrounding the site
  - Cheesecake Brook boardwalk

Potential TDM Mitigation

- **Transportation Demand Management (TDM) Program Elements**
  - TDM Coordinator
  - Rideshare options
  - Information center
  - Hosting events
  - Monitor TDM effectiveness through surveys and counts
  - Report results to City
  - Indoor/outdoor bike parking
  - Bike-sharing
  - Car-sharing
  - EV charging and parking
  - Unbundling parking costs from leases

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Potential TDM Mitigation

- **Additional TDM Measures to Consider:**
  - Confirm TDM Program.
  - Develop a set of transportation goals and how these will be measured, monitored, and adjusted as necessary.
  - Provide transit passes or subsidies.
  - Provide new bus shelters.

Conclusions

- **Traffic & Safety**
  - Verify with MassDOT that the posted speed limits are consistent with regulatory speed limits.
  - Consider safety improvements at:
    - Webster Street/Elm Street, Webster Street/Cherry Street, Waltham Street/Webster Street
  - Consider RSA or Ped Assessment at:
    - Washington Street/Davis Court/Jacob's Auto Sales Driveway
  - Minimal traffic impacts to surrounding intersections.

Conclusions

- **Parking**
  - 1.0 space/DU appears reasonable
  - Visitor parking?
  - Additional information needed on commercial parking operations
- **Access, Circulation, Loading**
  - Additional information needed
- **Pedestrians and Bicycles**
  - Additional information required
- **Transportation Demand Management**
  - Provide details of plan elements, goals, and monitoring

Thank You

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