Duke Street Transitway Advisory Group Recommendation
Adopted 5-25-23

The Advisory Group rejects the recommendation from the 2012 Transit Corridors Feasibility Plan for the corridor in favor of the following plan:

The long-term plan for the corridor should include center running bus lanes for the entirety of Duke Street with separate spaces for pedestrians and cyclists. This long-term plan would be partially dependent on redevelopment and available funding and should be assessed further during the Duke Street Small Area Plan process.

In the near-term, the City should work toward this long-term plan as much as possible, when finalizing a design that can be constructed with available funding. To that end, the following busway treatments should be advanced on the Duke Street corridor, along with signal technology improvements, while maintaining two general purpose travel lanes in each direction along the entirety of the corridor:

Segment 1 from Ripley to Jordan should consist of center running bus lanes.

Segment 2a from Jordan to Wheeler should consist of the mixed traffic option.

Segment 2b from Wheeler to Roth should consist of a single direction center running lane

Segment 3 from Roth to Callahan should consist of center running and mixed traffic to optimize busway operations while taking into account space constraints and ramp conflicts.

Station locations should be approximately every 1/4-1/2 miles, taking into account current and potential ridership demand, accessibility, safety, topography, and right of way constraints. These stations should have comfortable waiting environments with shelters and seating, enable safe access, and include technological elements to make the bus easy to use for all users.

The safety of pedestrians should be prioritized along the corridor**,** which means that continuous, uninterrupted sidewalks should be provided on both sides of the roadway and that the preferred treatment is a 10-foot sidewalk buffered from traffic and separated from other uses. In addition, the corridor should be prioritized for a speed limit reduction, as well as design treatments that encourage safe speeds, such as narrower lane widths when appropriate and intersection treatments. Special intersection treatments to enhance safety should be prioritized at high crash locations and take into consideration roadway usage by all vehicles, including emergency responders and trucks. Potential treatments include:

- Tight corner radii to slow turning vehicles and reduce crossing distances
- Removal or redesign of slip lanes for safer pedestrian crossings
- Pedestrian refuge islands should be provided for safer roadway crossings
- Means to encourage drivers to not block the intersection
- Fully ADA accessible pedestrian signals with leading pedestrian intervals
- Improved crosswalk visibility

People riding bicycles, scooters, and other forms of micro-mobility devices should be accommodated continuously on the north side of the corridor with a separate two-way cycle track for most of Segments 1 and 3: the section from Ripley to Jordan and Roth to the Telegraph ramp, where the right of way is available, as shown in Curb Concept Y.

Understanding that space and budget is limited:

- Segment 2B between Quaker and Roth may be implemented as mixed traffic in the near term as a cost saving measure
- Pedestrians may share space with bicycles and other micro-mobility devices on a shared use path
- There might be sections where pedestrians and bicyclists must share space, and these shared use paths should aim to be at least 10 feet wide with a buffer
- On some service roads, improved bicycle and pedestrian facilities may be accommodated using public street space to allow for separated bicycle and pedestrian facilities, or as a shared slow street, while ensuring access to homes, parking, and green space

If after further design, a continuous bicycle facility is deemed not feasible on the north side of the street due to constrained right of way in short stretches, bicyclists may share the sidewalk, requiring that they yield to pedestrians.

Green space should fit in to the concept in the following manner:

- The design should optimize opportunities for additional green space, stormwater management, tree canopy, and the consideration of undergrounding of utilities, while preserving existing tree canopy wherever possible.

Busway Corridor Concept A:
Mostly Center-running & Mixed Traffic

- **Segment 1:**
  - **Center bus lanes in both directions**

- **Segment 2A:**
  - **Mixed traffic bus operations**
  - **Avoids residential service roads for busway improvements**

- **Segment 2B:**
  - **Eastbound center bus lane, westbound mixed traffic**
  - **Requires widening**

- **Segment 3:**
  - **Eastbound mixed traffic through Telegraph Road to balance traffic and bus operations**
  - **Westbound center bus lane**

Proposed Curb Concept Y

(North Side of Duke Street)

KEY

- **Shared Use Path**
- **Cycle Track + Sidewalk**
- **Shared Slow Street on Service Road**

Shared Use Path

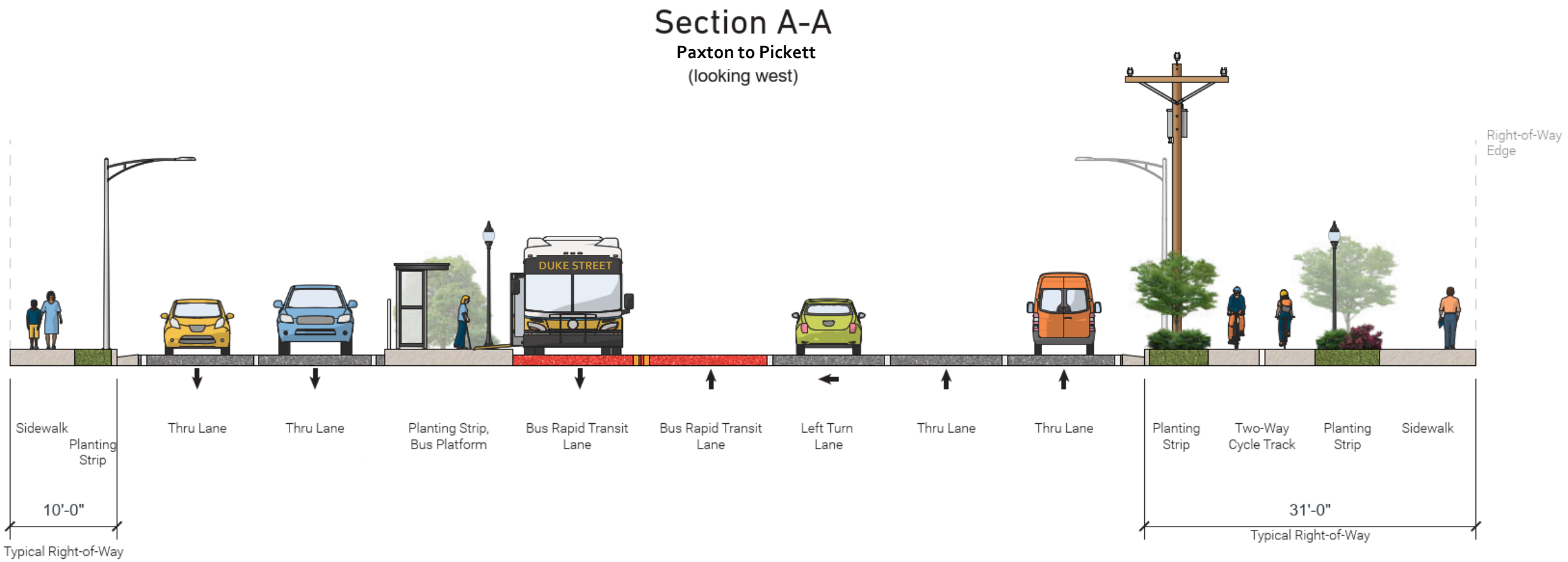
Two-Way Cycle Track

Cycle track locations reduce conflicts between pedestrians and cyclists

Sample Cross Sections + Roll Plot

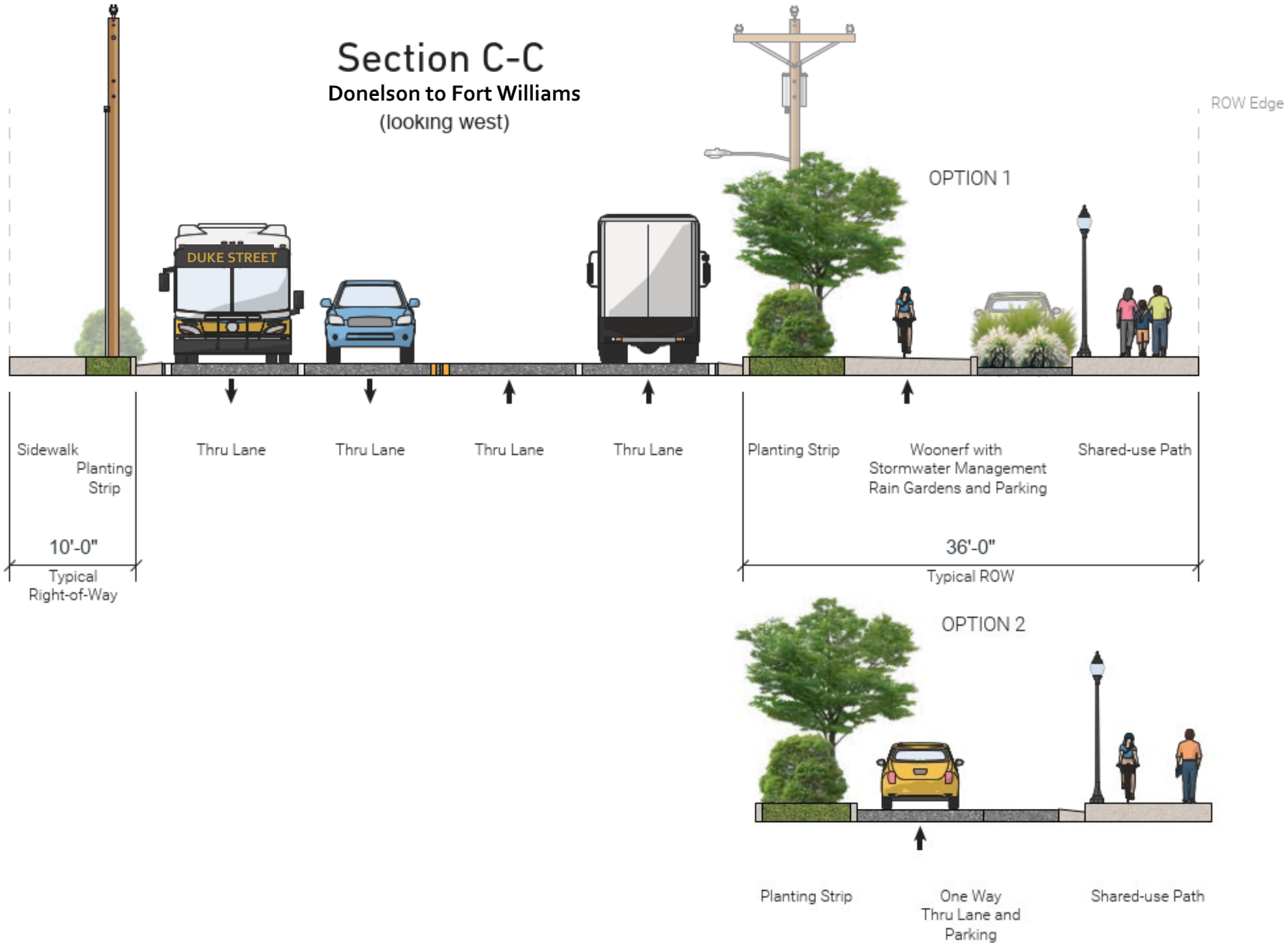
Busway Concept A-Curb Concept Y

Segment 1



DUKE STREET IN MOTION

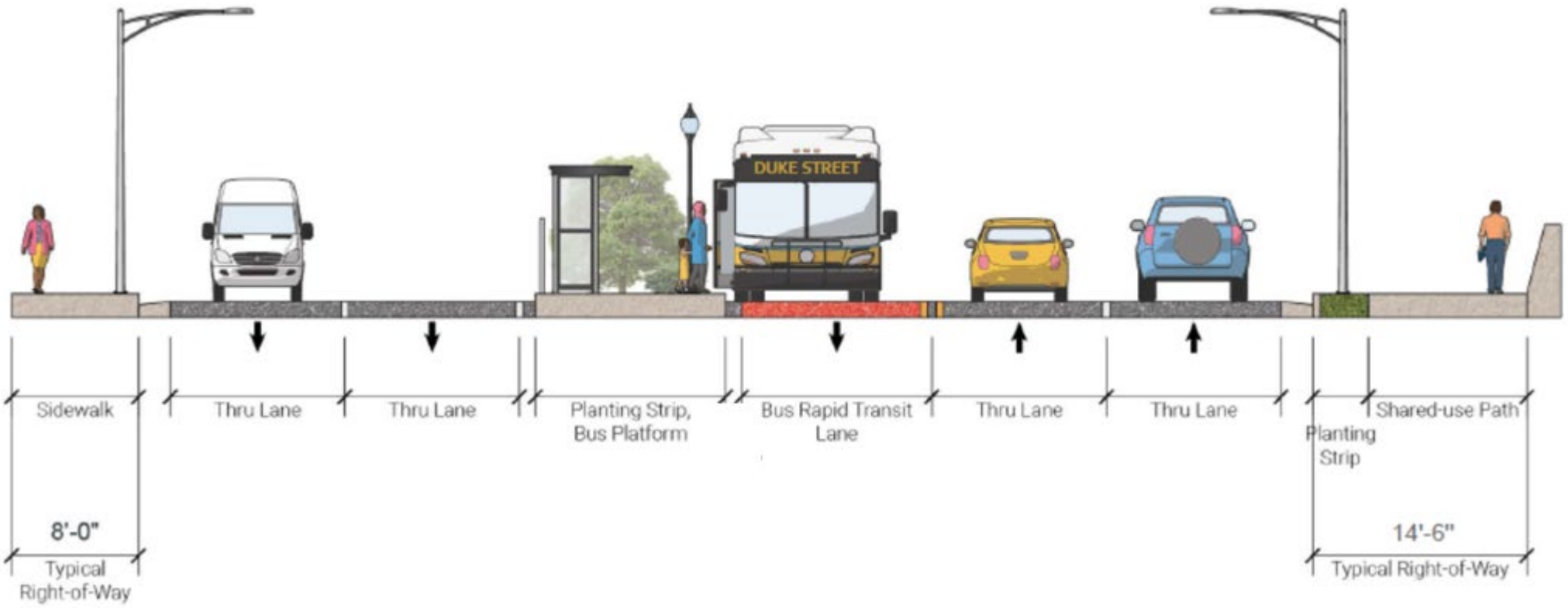
Segment 2A



STREET IN MOTION

Segment 2B

Yale Drive to Sweeley Street
(looking west)



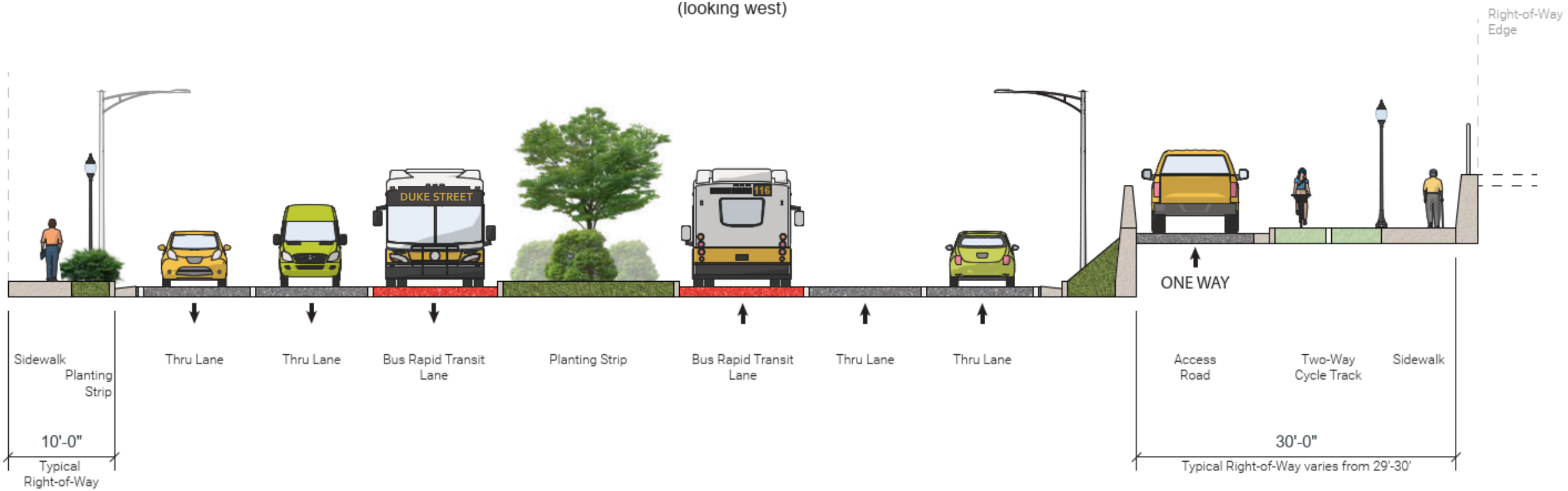
DUKE STREET IN MOTION

Segment 3

Section E-E

Roth to W. Taylor Run

(looking west)



DUKE STREET IN MOTION

www.BeyondDrive.com

DUKE STREET TIM MOTION

wsp

Locally Preferred Alternative

Concept A

DRAFT

NO SCALE
JUNE 2020

LEGEND:

- PROP. CURB
- PROP. CURB AND GUTTER
- EX. EDGE OF PAVEMENT
- PROP. PAVEMENT MARKING (WHITE)
- PROP. PAVEMENT MARKING (YELLOW)
- PROP. PAVEMENT MARKING (BLUE)
- EX. RIGHT-OF-WAY
- EX. 100 YR's BUFFER
- GREEN SPACE
- PROP. DEDICATED BUS LANE
- PROP. BUS LANE / TURN LANE
- PROP. LIGHT RAIL / DEDICATED BUS LANE
- PROP. SHARED USE PATH
- PROP. BIKE LANE
- PROP. SIDEWALK / CONCRETE PAVER
- PROP. PEDESTRIAN CROSSWALK
- PROP. BUS STATION
- PROP. TRAFFIC SIGNAL
- EX. TRAFFIC SIGNAL TO BE ADJUSTED
- PROPOSED SIGNAL
- EXISTING SIGNAL
- EXISTING SIGNAL TO BE REMOVED