



Milwaukee County Transportation, Public Works and Transit Committee

October 20, 2021





COMMUNITY PARTNERS



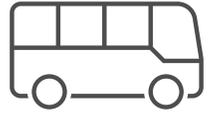
MEETING OVERVIEW

- Review feedback from last round of public involvement
- Draft Tier 1 Evaluation results
- Preliminary Tier 2 Evaluation results
- Next Steps



PUBLIC INVOLVEMENT

ONGOING PUBLIC ENGAGEMENT:



BUS STOP SURVEY



MAIL DROP



COMMUNITY EVENTS



ONLINE INPUT
OPPORTUNITIES

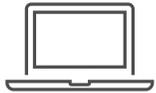


ROUND 2 – PUBLIC INVOLVEMENT



67

ROUND 2 VIRTUAL MEETING REGISTRANTS
(75 ROUND 1 VIRTUAL MEETING ATTENDEES)



132

RESPONSES TO **3** ONLINE SURVEYS



490

RESPONSES TO BUS STOP SURVEY



80+

STAKEHOLDER MEETINGS



DRAFT TIER 1 EVALUATION RESULTS

RANGE OF ALTERNATIVES



BUS RAPID TRANSIT (BRT)

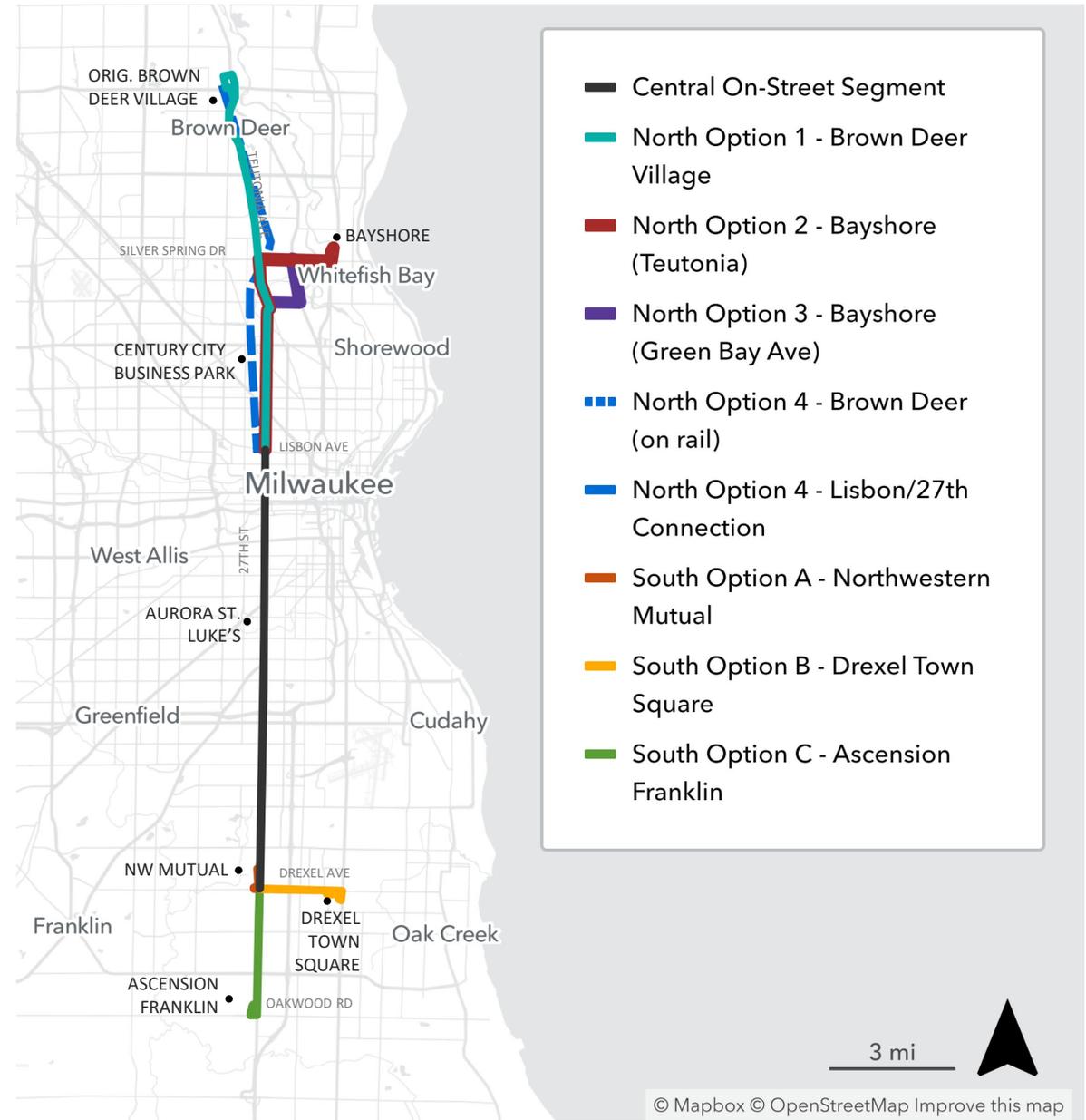


RAPID STREETCAR



LIGHT RAIL TRANSIT

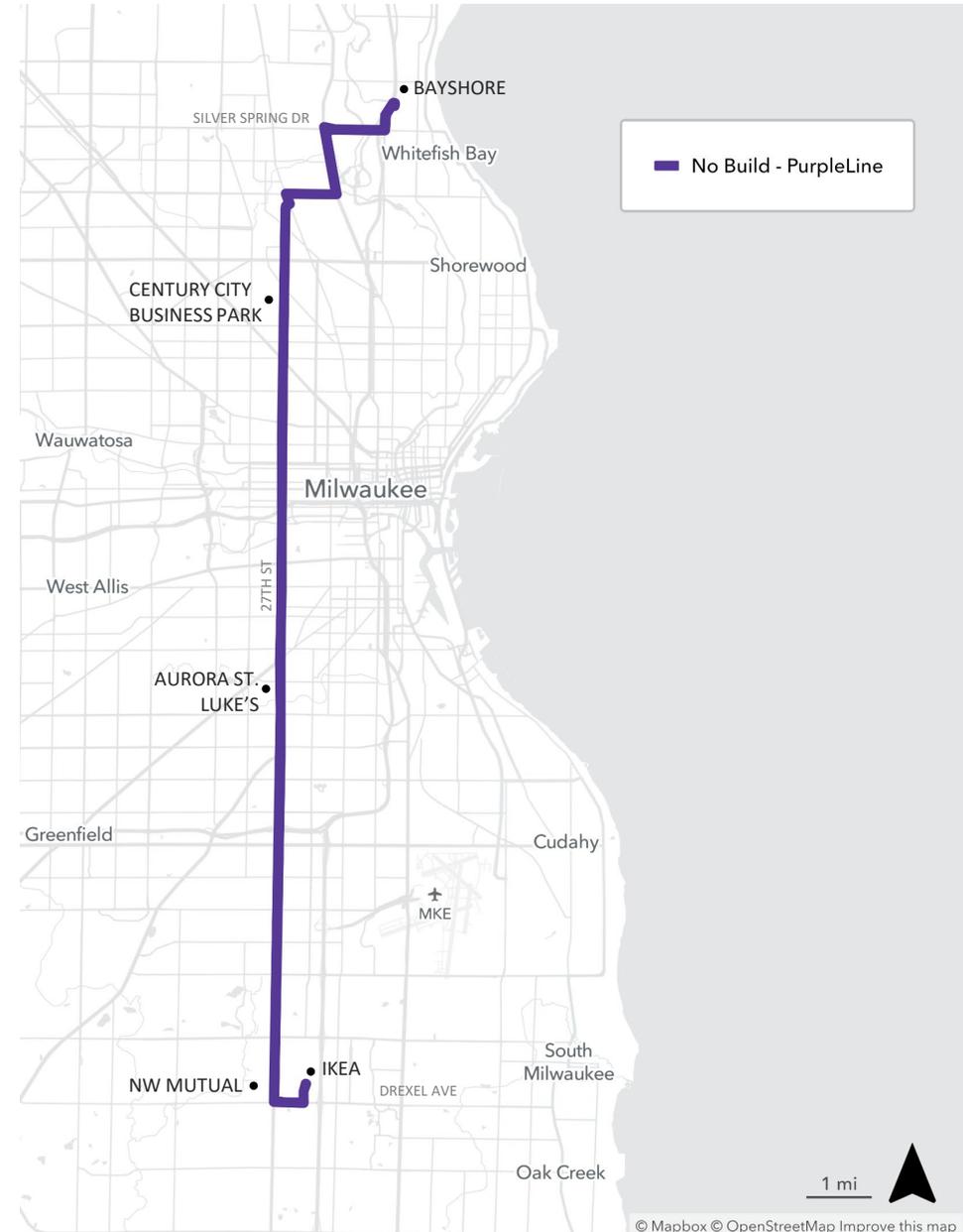
Milwaukee North-South Transit Enhancement Route Alternatives



NO BUILD OPTION

The “No Build” option will be evaluated with all alternatives to understand the benefit of possible improvements compared to making no changes

No Build Option (MCTS PurpleLine)



TRANSIT TYPES

Bus Rapid Transit (BRT)

- Bus runs on the roadway
- Route is in at least 50% dedicated lanes
- Station spacing approx. ½ mile
- Enhanced stations with level boarding and off-board ticketing



BRT in Grand Rapids, MI – Photo: HDR

Rapid Streetcar

- Streetcar vehicle (or tram) runs on track in the roadway
- Route is at least 50% dedicated lanes
- Station spacing approx. ¼ to ½ mile
- Enhanced stations with level boarding and off-board ticketing



Tramway in Avignon, France

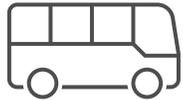
Light Rail

- Light rail vehicle (single or multiple unit trains) runs on track in the roadway
- Route is entirely (or nearly entirely) in dedicated lanes
- Station spacing approx. ½ mile+
- Enhanced stations with level boarding and off-board ticketing



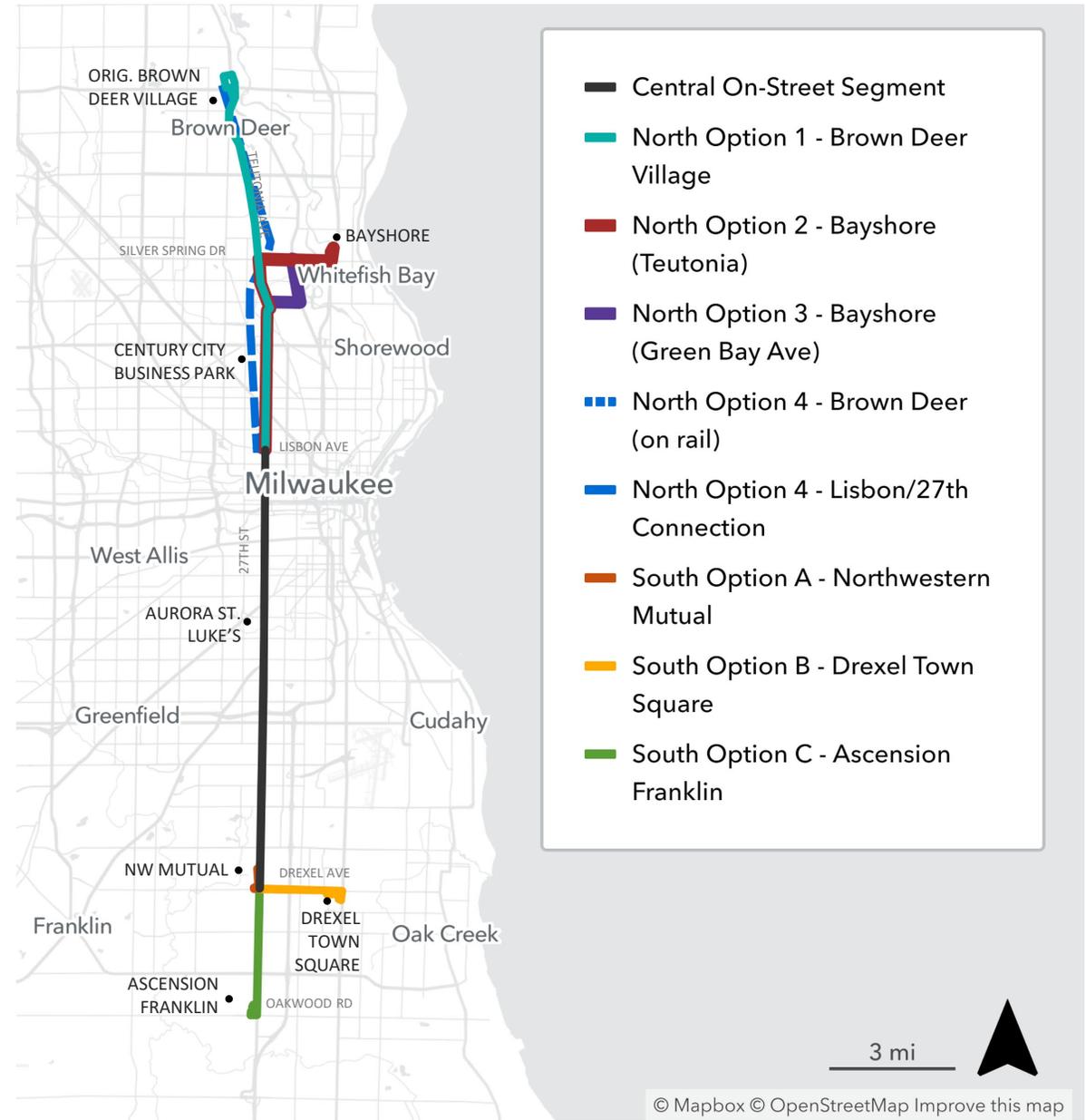
Light Rail in Phoenix, AZ – Photo: Valley Transit

RANGE OF ALTERNATIVES



BUS RAPID TRANSIT (BRT)

Milwaukee North-South Transit Enhancement Route Alternatives



ROUTE ALIGNMENT EVALUATION RESULTS

| Transit Route Alignments | Segment Characteristics | Congestion | Accessibility | Environmental Impacts | Consistency with Corridor Character | Advance to Tier 2 Evaluation? |
|--|-------------------------|------------|---------------|-----------------------|-------------------------------------|-------------------------------|
| North Option 1 <i>Brown Deer Village via Teutonia Avenue</i> | ● | ● | ● | ● | ● | Yes ^a |
| North Option 2 <i>Bayshore via Teutonia Avenue, Silver Spring Drive and Port Washington Road</i> | ● | ● | ● | ● | ● | Yes |
| North Option 3 <i>Bayshore via Hampton Avenue, Green Bay Avenue, Silver Spring Drive, and Port Washington Road</i> | ● | ● | ● | ● | ● | No |
| North Option 4 <i>Original Brown Deer Village via 30th Street rail corridor (to Lisbon Avenue)</i> | ● | ● | ● | ● | ● | No |
| Central Segment <i>27th Street from Drexel Avenue to Lisbon Avenue</i> | ● | ● | ● | ● | ● | Yes |
| South Option A <i>Northwestern Mutual Franklin Campus</i> | ● | ● | ● | ● | ● | Yes |
| South Option B <i>Drexel Town Square (via Drexel Avenue)</i> | ● | ● | ● | ● | ● | Yes |
| South Option C <i>Ascension Franklin (via S. 27th Street)</i> | ● | ● | ● | ● | ● | Yes ^a |

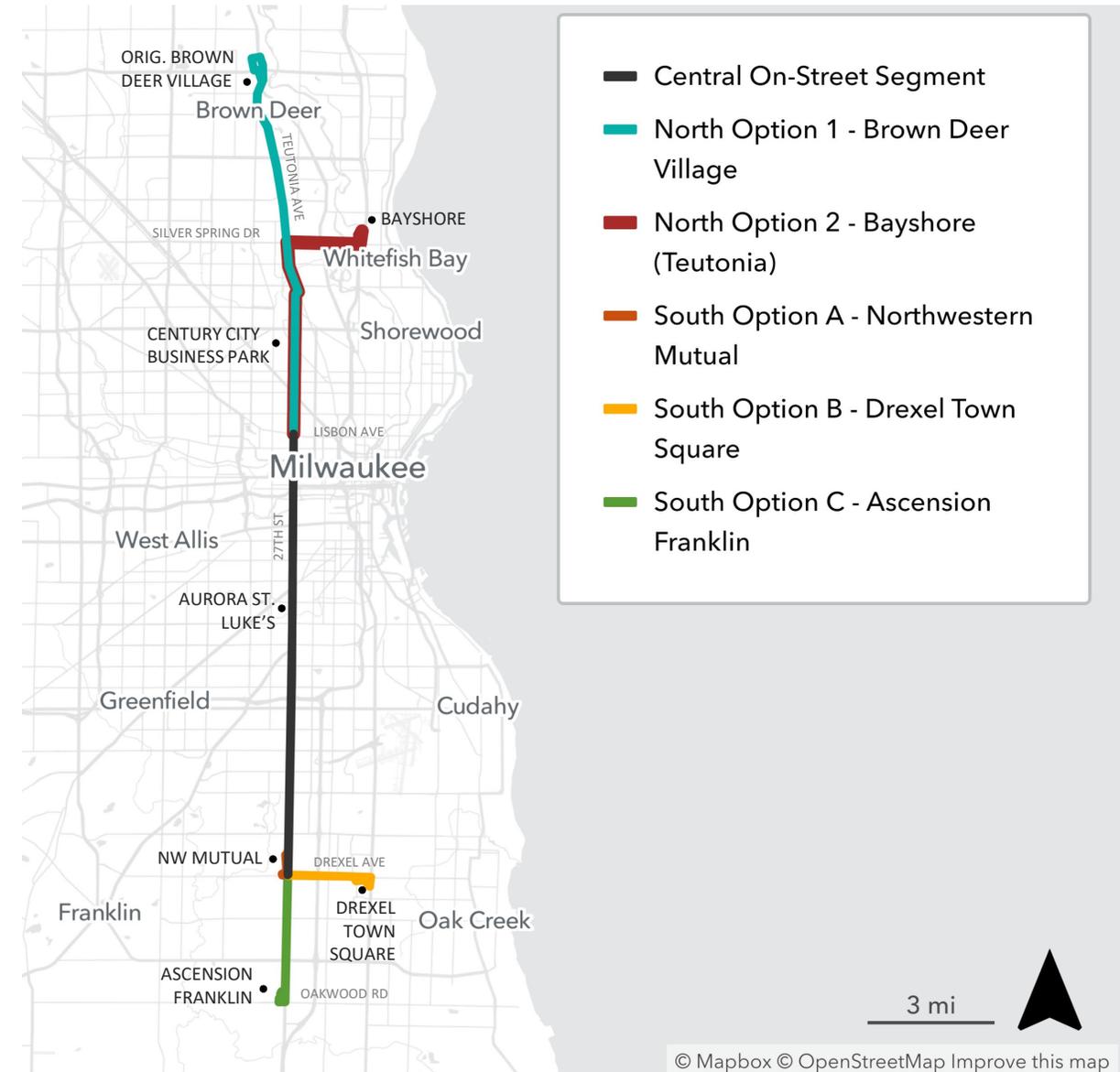
^a North Option 1 and South Option C will be further evaluated as part of an open BRT model that would be paired with North Option 2 and South Option B, respectively.

REMAINING RANGE OF ALTERNATIVES



BUS RAPID TRANSIT (BRT)

Milwaukee North-South Transit Enhancement Route Alternatives



PUBLIC FEEDBACK

North Route Options

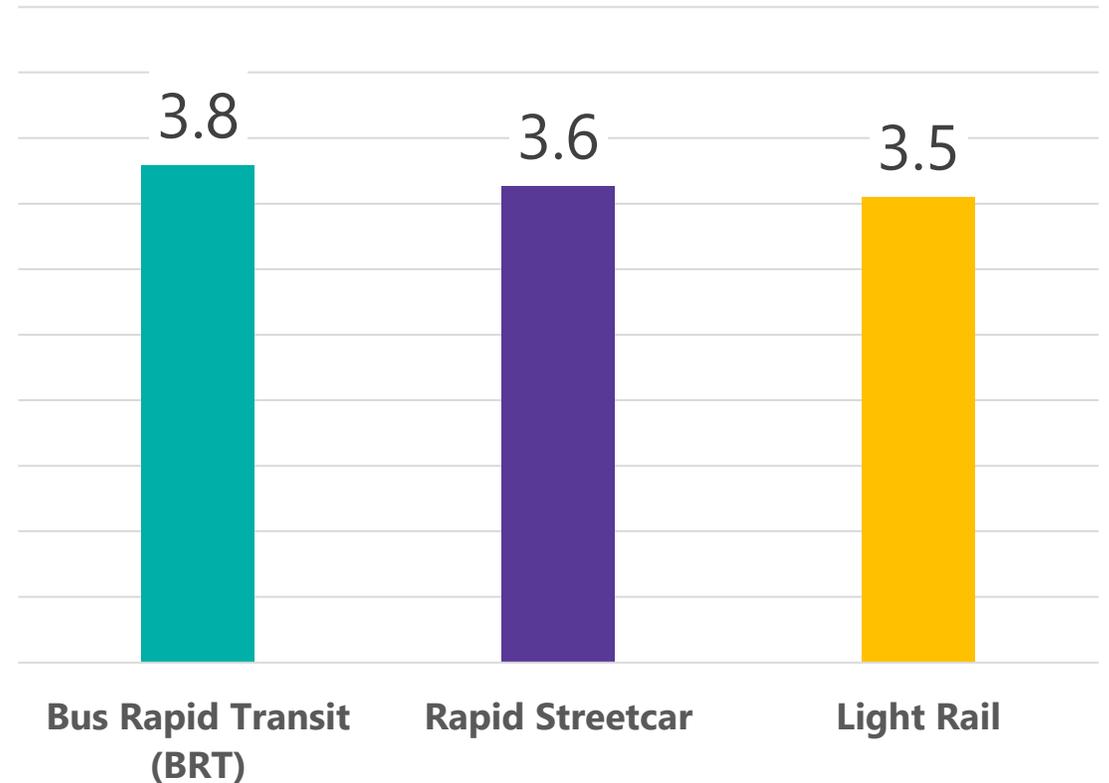
1. 30th Street Rail Corridor
2. Brown Deer Village (via Teutonia)
3. Bayshore (via Silver Spring)
4. Bayshore (via Hampton & Green Bay)

South Route Options

1. Drexel Town Square
2. Ascension Franklin
3. Northwestern Mutual

Rate how well you think each transit type fits in the 27th Street corridor:

Average Rating (1-5 stars)



PRELIMINARY TIER 2 EVALUATION RESULTS

TIER 2 EVALUATION

Evaluation will include:

- Understanding the benefits and impacts of bus-only lanes in locations throughout the corridor and configuration options
- Station area analysis
- Ridership estimates
- Cost estimates
- High-level environmental evaluation



BUS-ONLY LANES

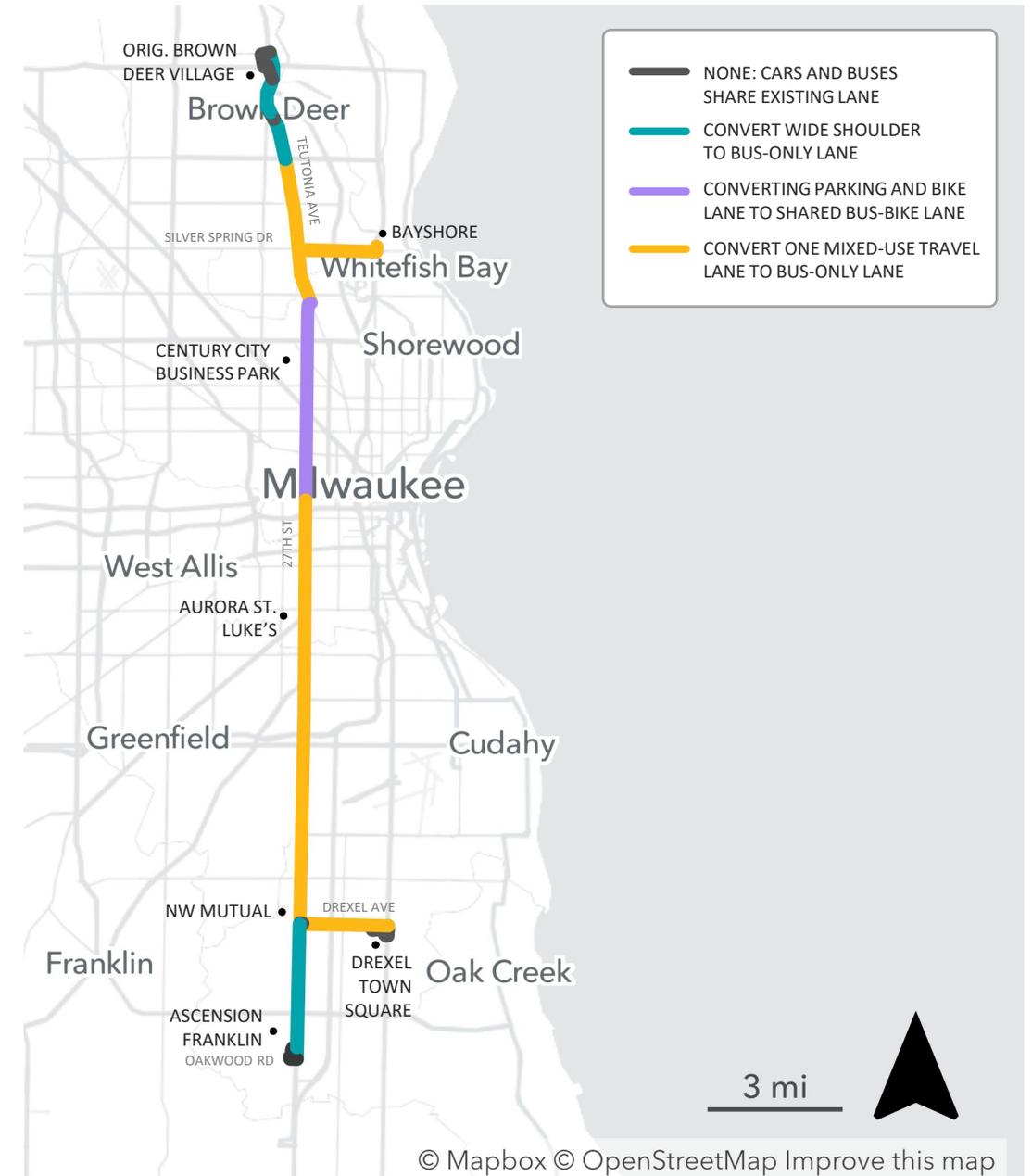
Benefits:

- Greatly improves reliability
- Provides traffic calming which improves safety
- Travel time savings

Impacts:

- Traffic delays in select locations are expected during short periods of the day
- Reduction of on-street parking for residents and businesses
- Bike lanes may be impacted or need to be modified

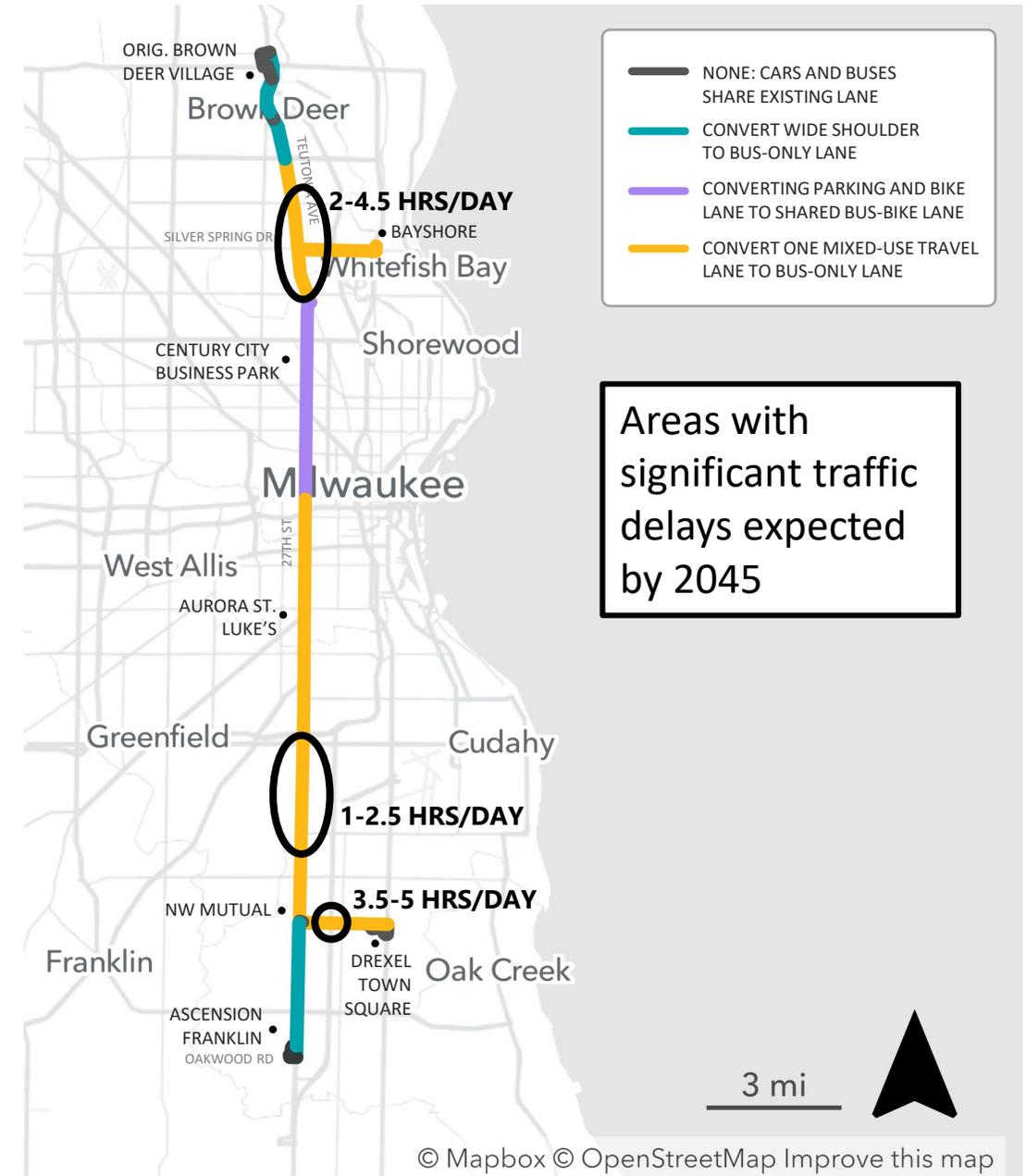
BUS-ONLY LANE CONVERSION OPTIONS



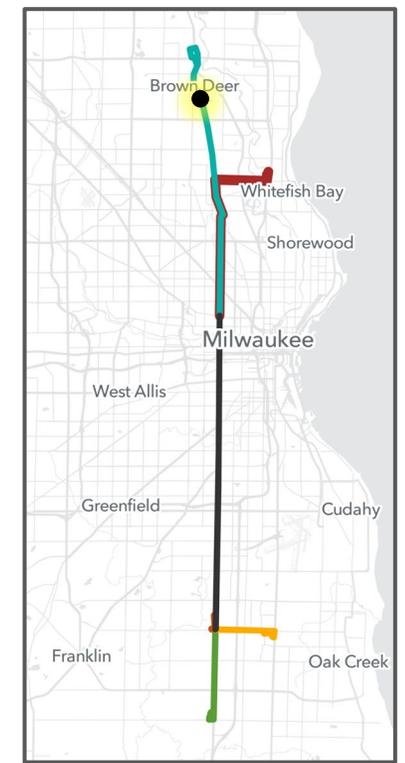
POSSIBLE TRAFFIC IMPACTS

- High-level traffic analysis shows traffic delays during peak times in select locations by 2045
- Significant traffic delay on surface streets:
 - Waiting more than 1 traffic signal cycle at an intersection
 - Slower driving speeds

TRAFFIC IMPACTS



CONFIGURATION OPTIONS: Teutonia Avenue from Bradley Rd to Calumet Rd



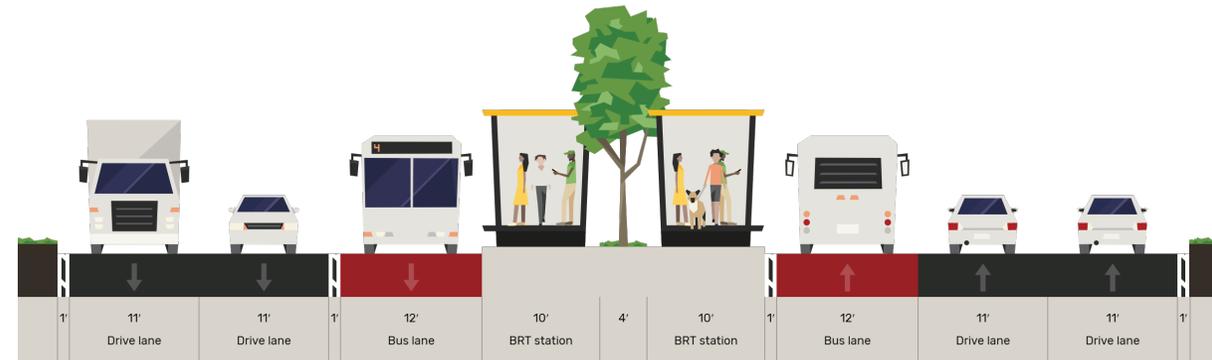
EXISTING



OPTION 1 – Curbside Bus-only Lanes



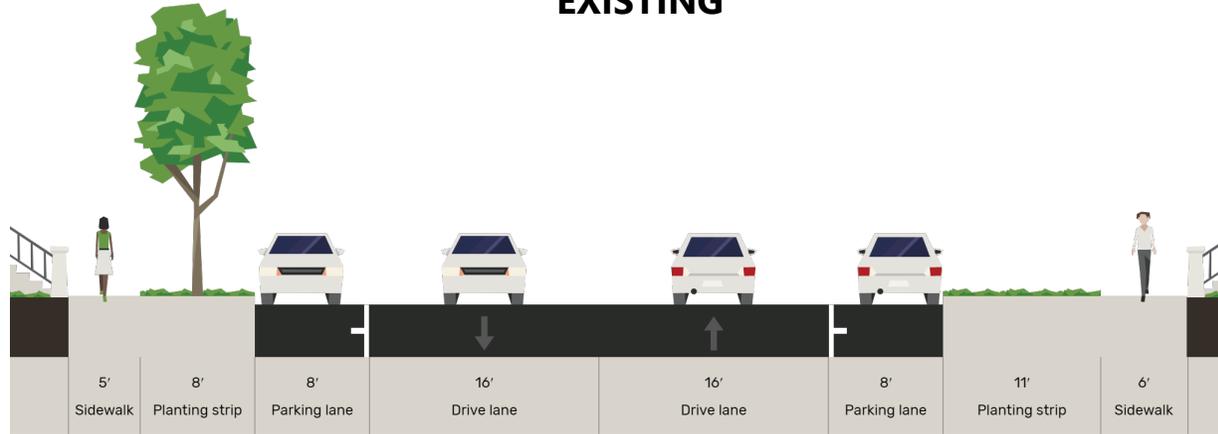
OPTION 2 – Center-running Bus-only Lanes



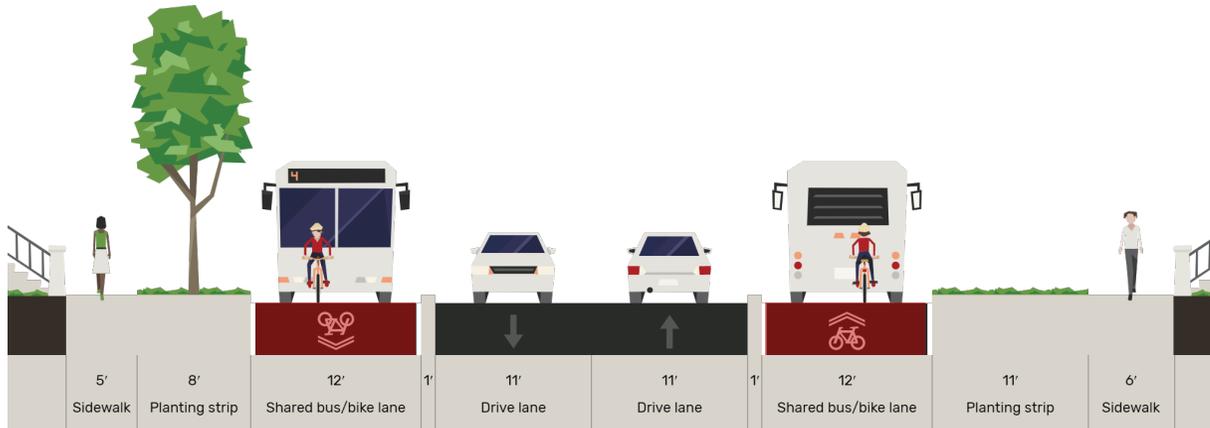
CONFIGURATION OPTIONS: 27th Street from Cornell St. to Atkinson Ave



EXISTING



OPTION 1 – Protected Curbside Shared Bus-Bike Lane



Example of Channeled Bike Lane at Stations



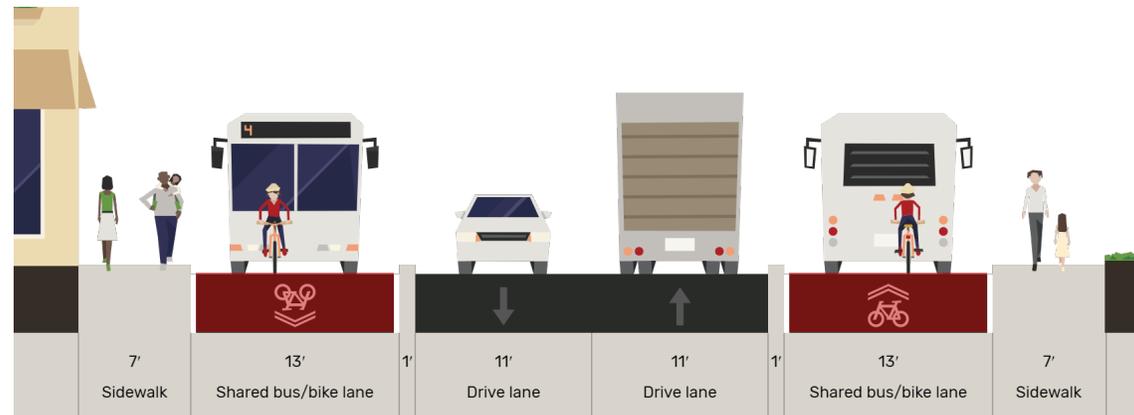
CONFIGURATION OPTIONS: 27th Street from North Ave. to Lisbon Ave.



EXISTING

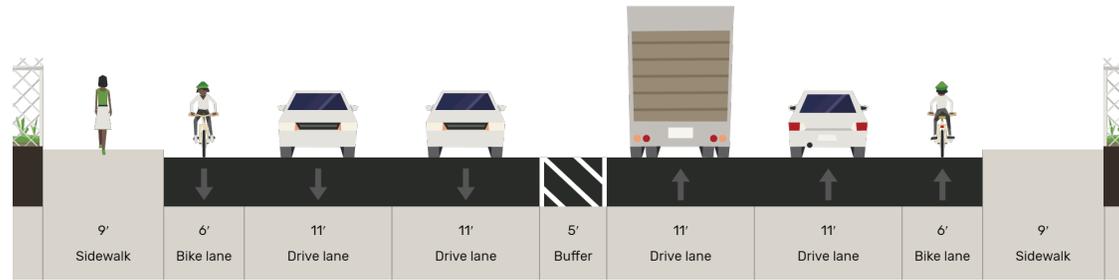


OPTION 1 – Curbside Shared Bus-Bike Lanes

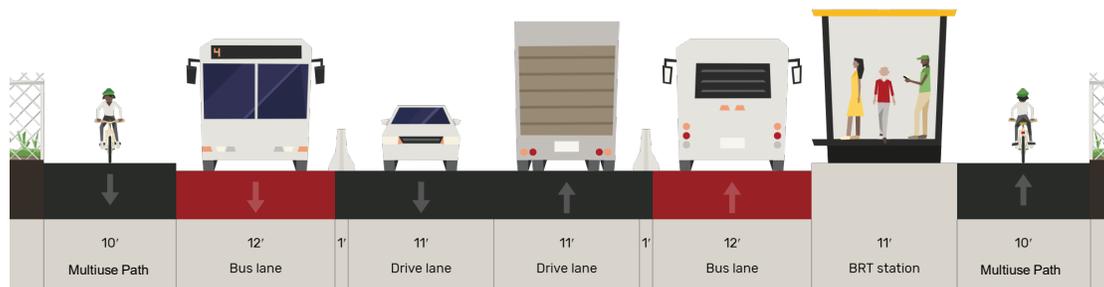


CONFIGURATION OPTIONS: 27th Street Viaduct

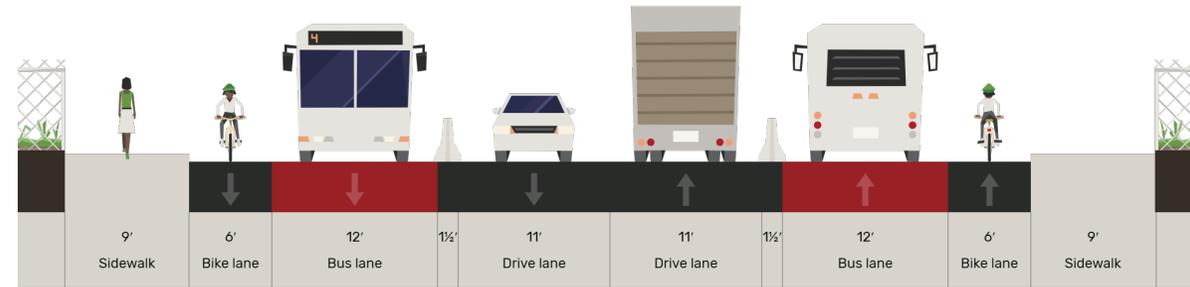
EXISTING



OPTION 1 – Outside Protected Bus-only Lane with Multiuse Paths (with Station)



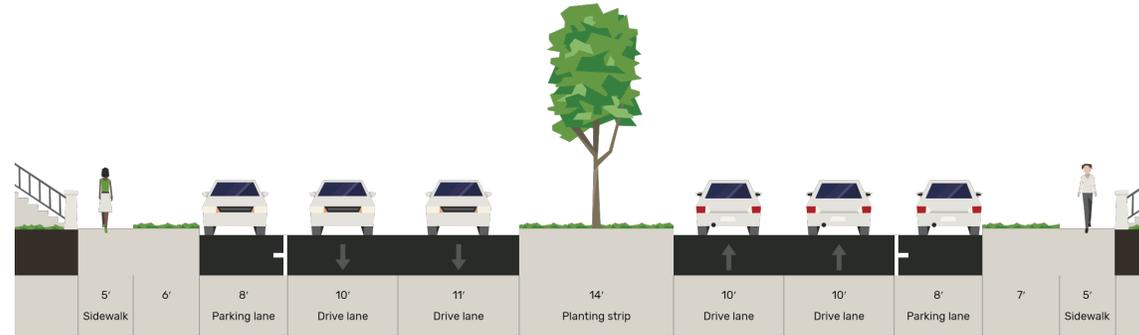
OPTION 2 – Outside Protected Bus-only Lane with Curbside Bike Lanes (without Station)



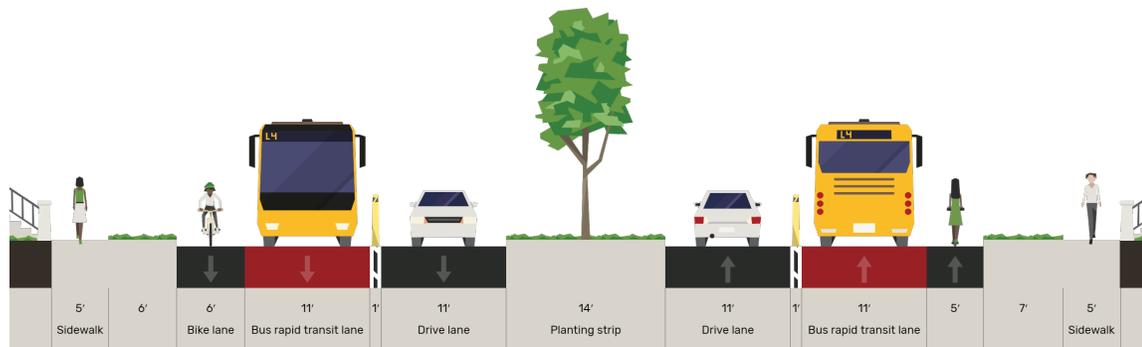
CONFIGURATION OPTIONS: Layton Blvd from National Ave to Lincoln Ave



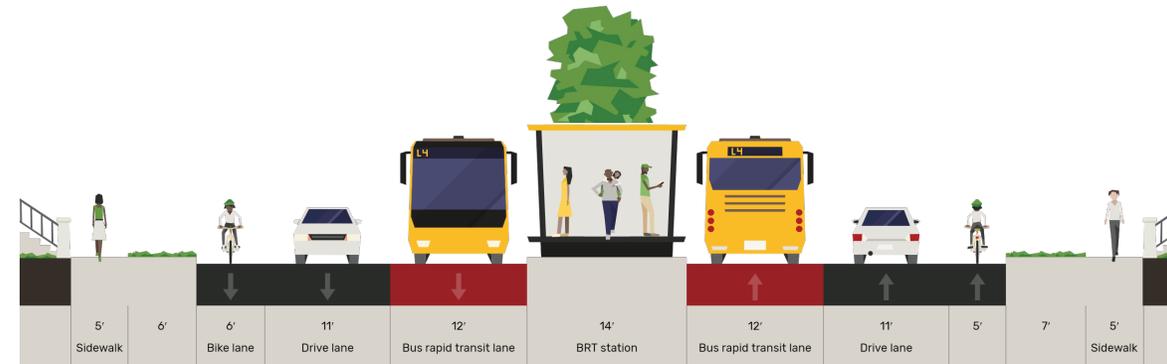
EXISTING



OPTION 1 – Outside Protected Bus-only Lane with Curbside Bike Lanes



OPTION 2 – Center-running Bus-only Lanes



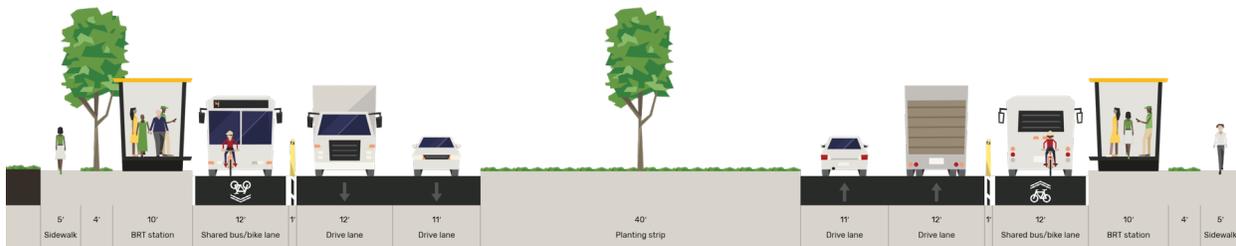
CONFIGURATION OPTIONS: 27th Street from Layton Ave. to College Ave.



EXISTING



OPTION 1 – Protected Curbside Shared Bus-Bike Lanes



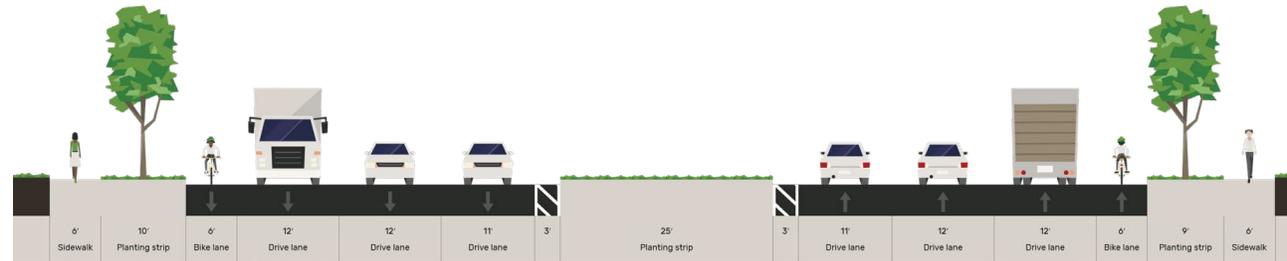
OPTION 2 – Protected Center-running Bus-only Lanes



CONFIGURATION OPTIONS: 27th Street from College Ave. to Sycamore Ave.

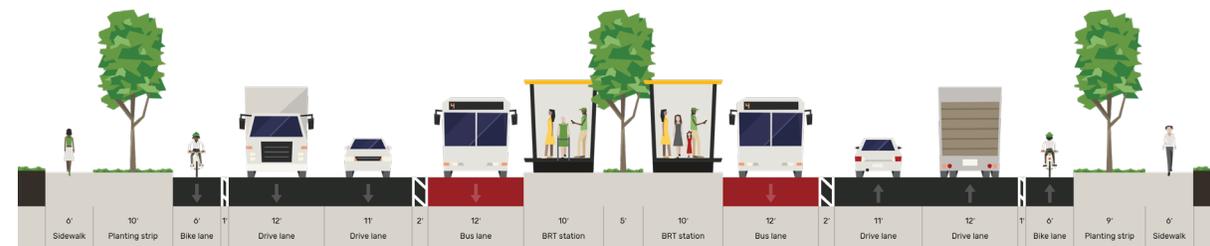
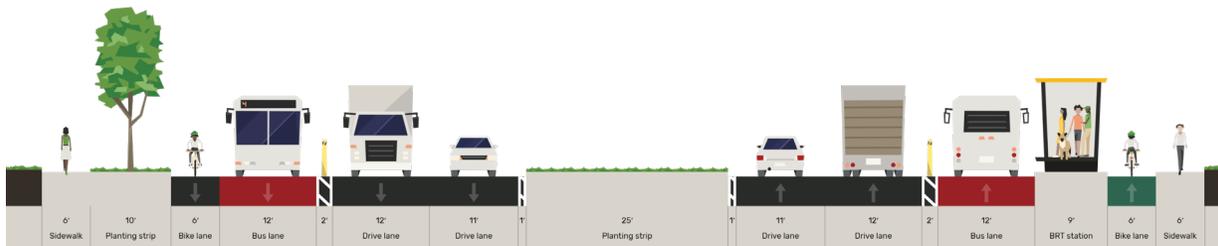


EXISTING



OPTION 1 – Protected Curbside Shared Bus-Bike Lanes

OPTION 2 – Protected Center-running Bus-only Lanes



CONFIGURATION OPTIONS: Protecting Bus-only Lanes

- Paint may not prevent drivers from using bus-only lanes
- Various physical barriers could be used to separate bus-only lanes from other travel lanes
- Consideration will be given to snow removal and other maintenance activities



Large Bumps



Pre-cast or cast-in-place concrete curb



Rigid bollards

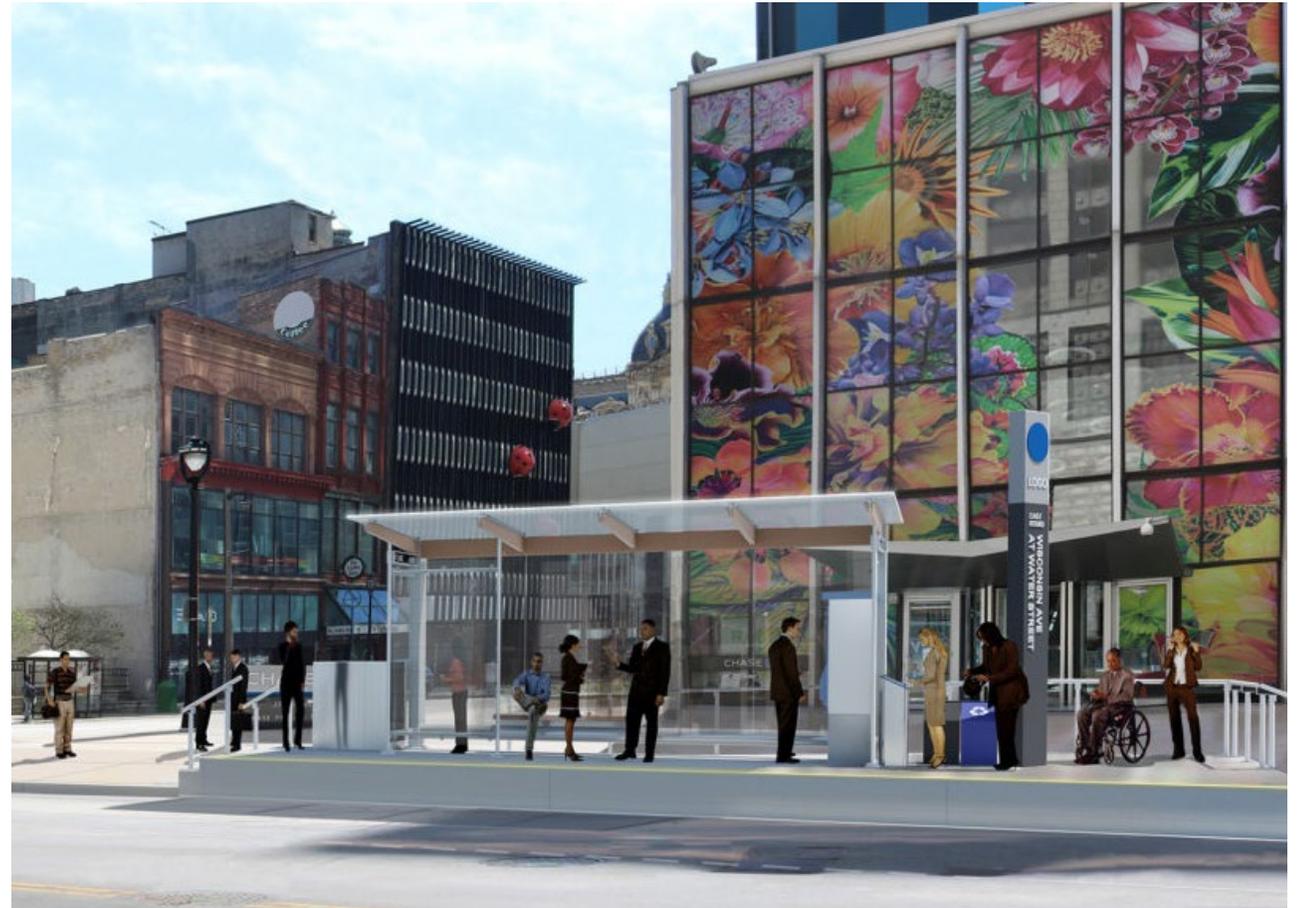
CONFIGURATION OPTIONS: Bike Channels

- In some places along the corridor shared bus-bike lanes may be necessary, due to limited space
- Bike channels behind station platforms could be used to safely allow bicyclists to pass



STATION FEATURES

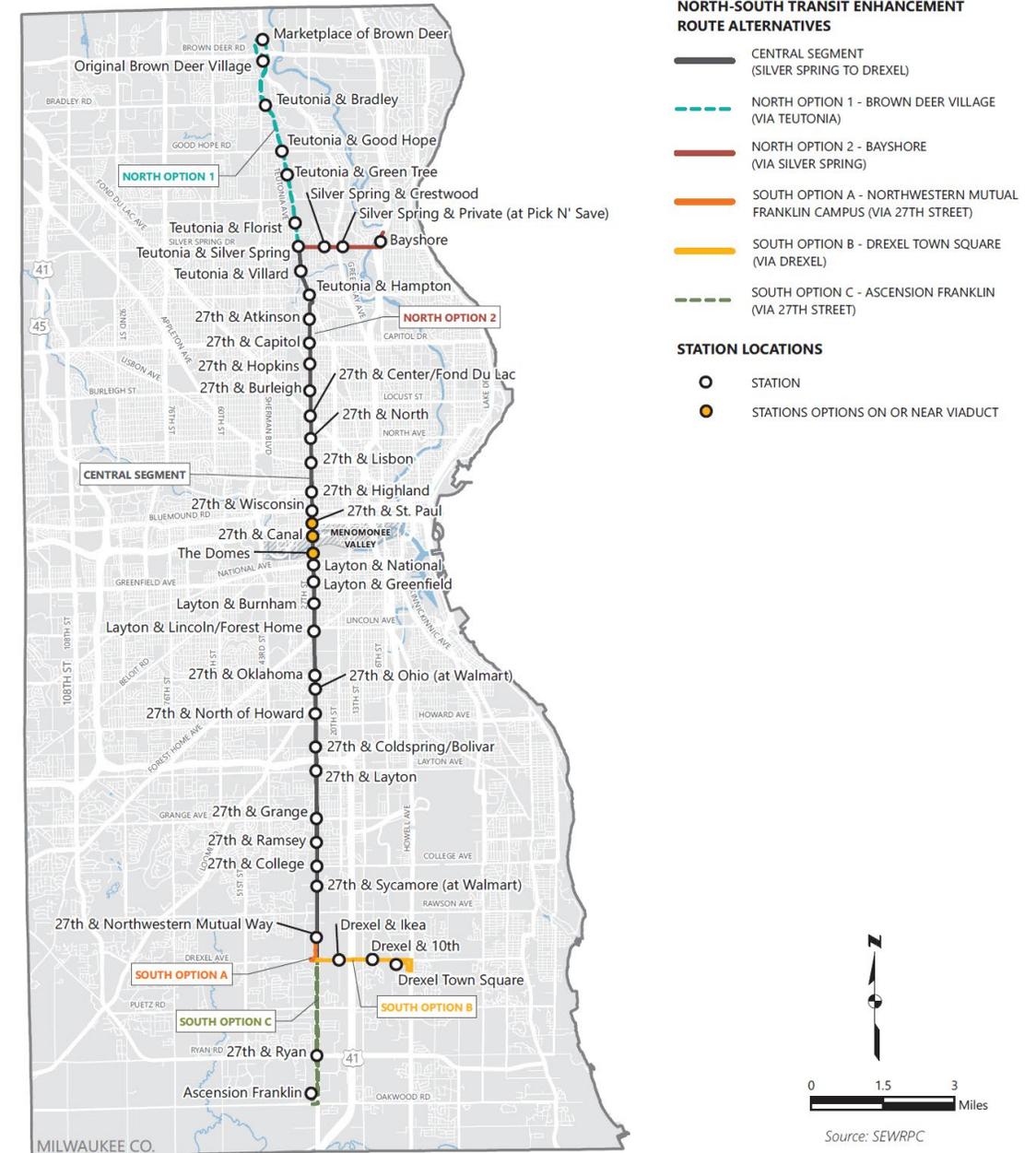
- Level boarding
- High-quality shelters with seating
- Off-board ticketing
- Real-time bus arrival information and schedules
- Fully ADA compliant
- Lighting



STATIONS

- 1/4 to 1/2 mile spacing
- Stations at intersections with other major streets, transit routes, and important destinations
- Will be looking at ridership, equity, population and job access around each station

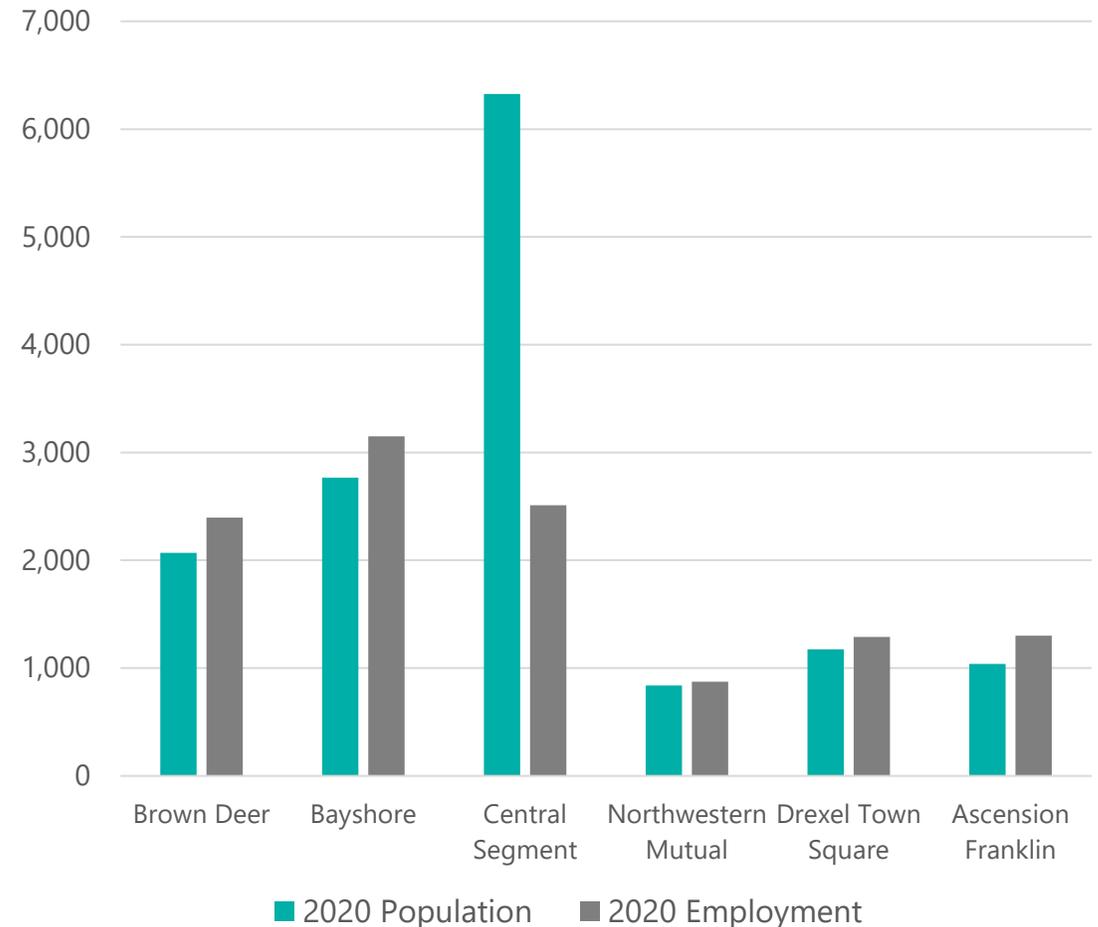
PRELIMINARY STATION INTERSECTION LOCATIONS



STATION AREA ANALYSIS

Comparing population, job, and demographic data around possible station locations helps to understand where to locate stations and which route options would serve the most people and jobs.

Average Number of People and Jobs Within ½ Mile of Stations by Route Option



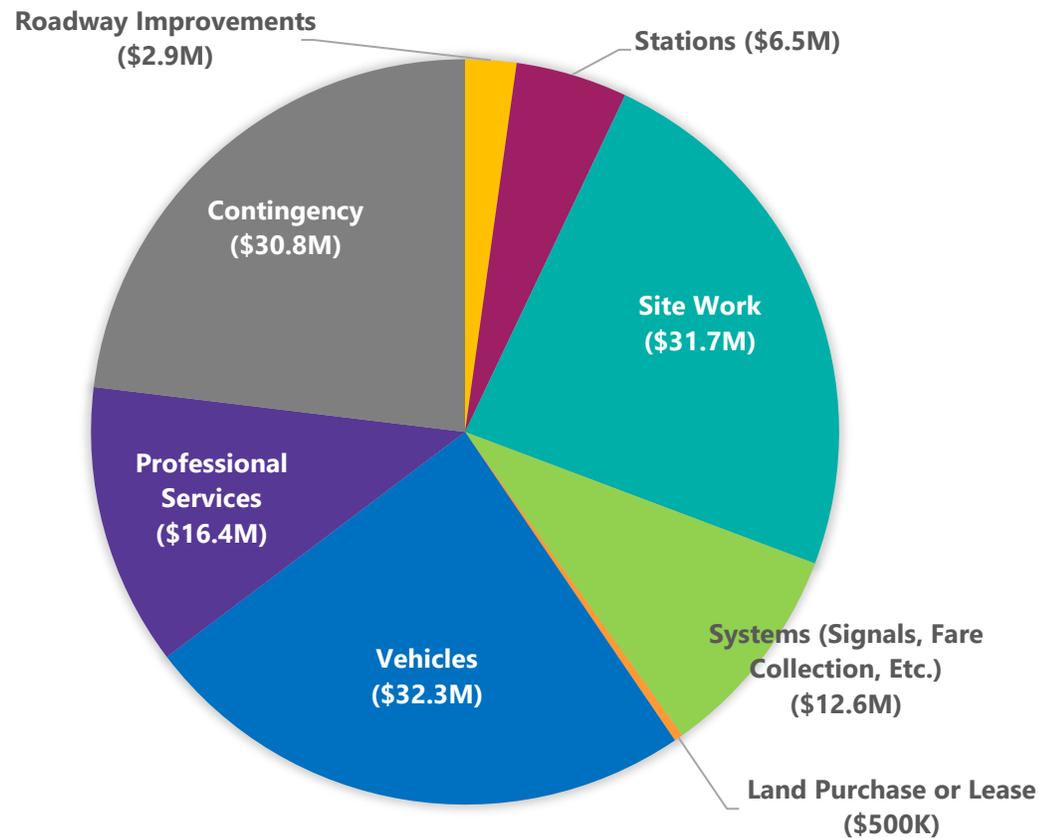
RIDERSHIP

- *Estimates in development*

RANGE OF COST ESTIMATES

SHORTEST ROUTE OPTION

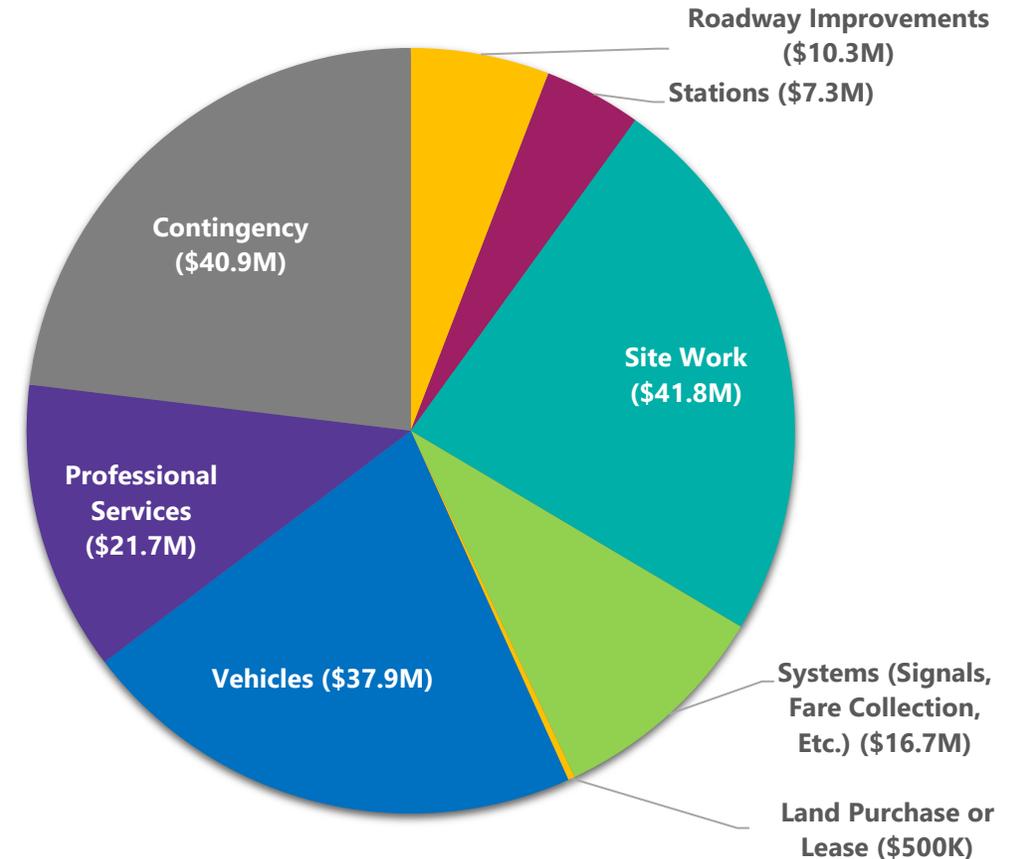
(BAYSHORE TO NW MUTUAL: 17.3 MILES, 32 STATION PAIRS, 23 BUSES)



ESTIMATED TOTAL: \$133.6M

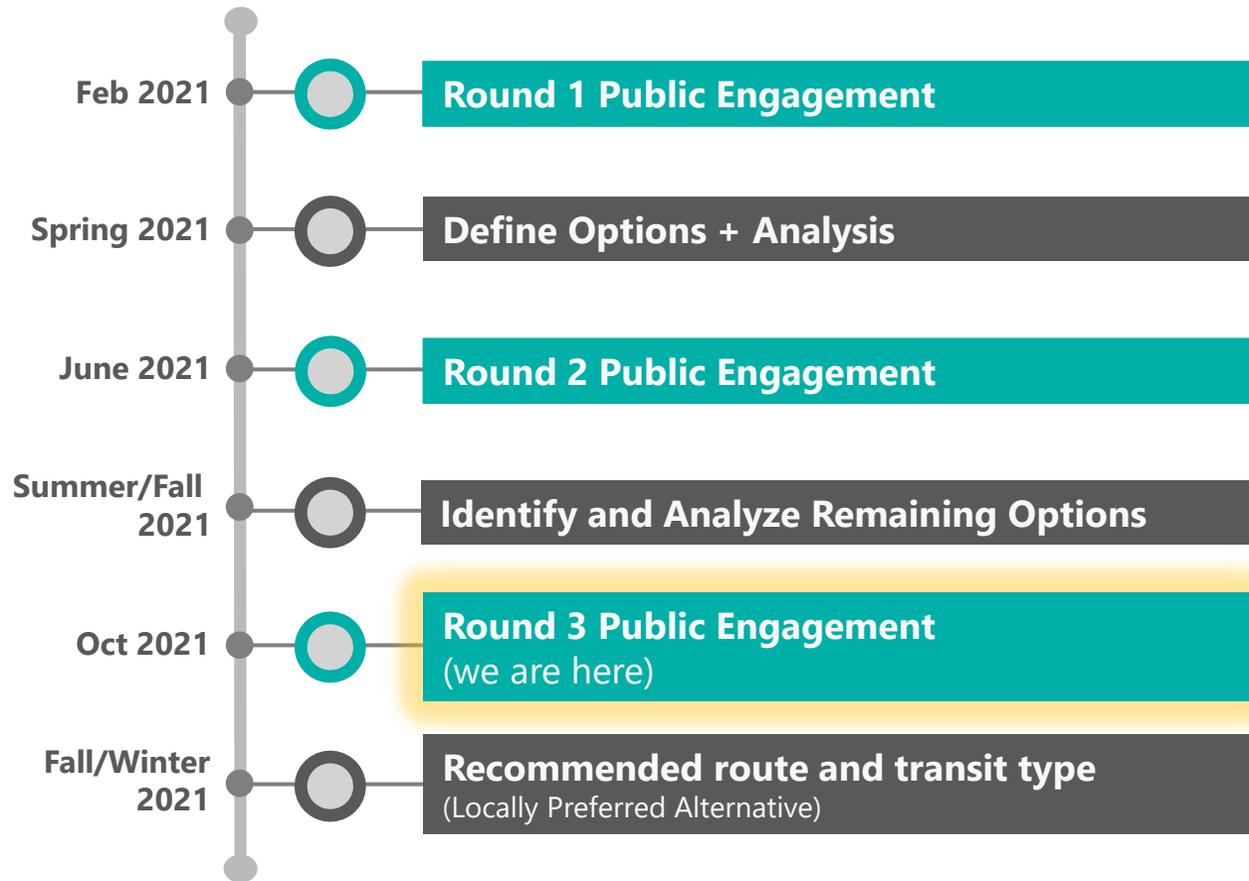
LONGEST ROUTE OPTION

(BROWN DEER TO ASCENSION FRANKLIN: 23 MILES, 36 STATION PAIRS, 27 VEHICLES)

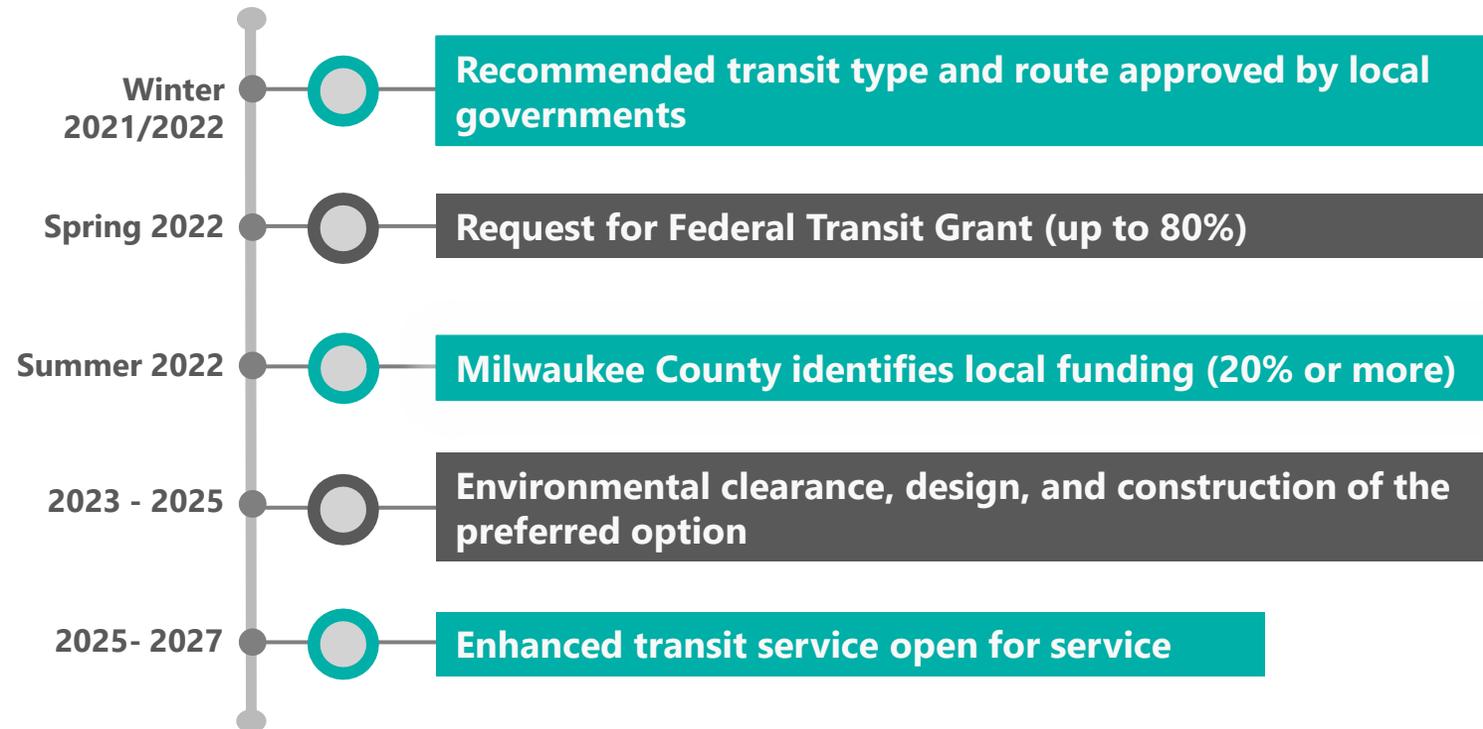


ESTIMATED TOTAL: \$177.1M

NEXT STEPS FOR THIS STUDY



AFTER THE STUDY: NEXT STEPS



UPCOMING PUBLIC MEETINGS:



REGISTER TODAY!
Virtual Public Meetings
October 25, 27, and 28, 2021

Share your feedback on future route options, preliminary stations, and other features for enhanced transit along 27th Street in Milwaukee County.

Monday, October 25
6:00 p.m. – 7:30 p.m.

Wednesday, October 27
6:00 p.m. – 7:30 p.m.

Spanish Only

Thursday, October 28
10:00 a.m. – 11:30 a.m.

Visit mkenorthsouth.com to register and learn more.

PROJECT CONTACTS

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