



## Transportation and Transit Committee Meeting

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July 12, 2022



# PRESENTATION OVERVIEW

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- Background
- Public Involvement
- Draft Tier 2 Analysis—will be out for comment
- BRT Recommended Alternative
- Next Steps



# BACKGROUND

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# PURPOSE STATEMENT

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The purpose of the Milwaukee North-South Transit Enhancement Study is to build upon Milwaukee's existing transit infrastructure and investment to **support mobility throughout Milwaukee County, focusing on underserved residents in the corridor**, supporting the local commitment to racial equity and social justice investments. This study is one step in helping Milwaukee County government to identify and address policies, practices and power structures that, whether intentionally or unintentionally, favor white people and create barriers for black, brown, and indigenous people. Racial equity is a top priority of Milwaukee County government.



# BENEFITS OF ENHANCED TRANSIT

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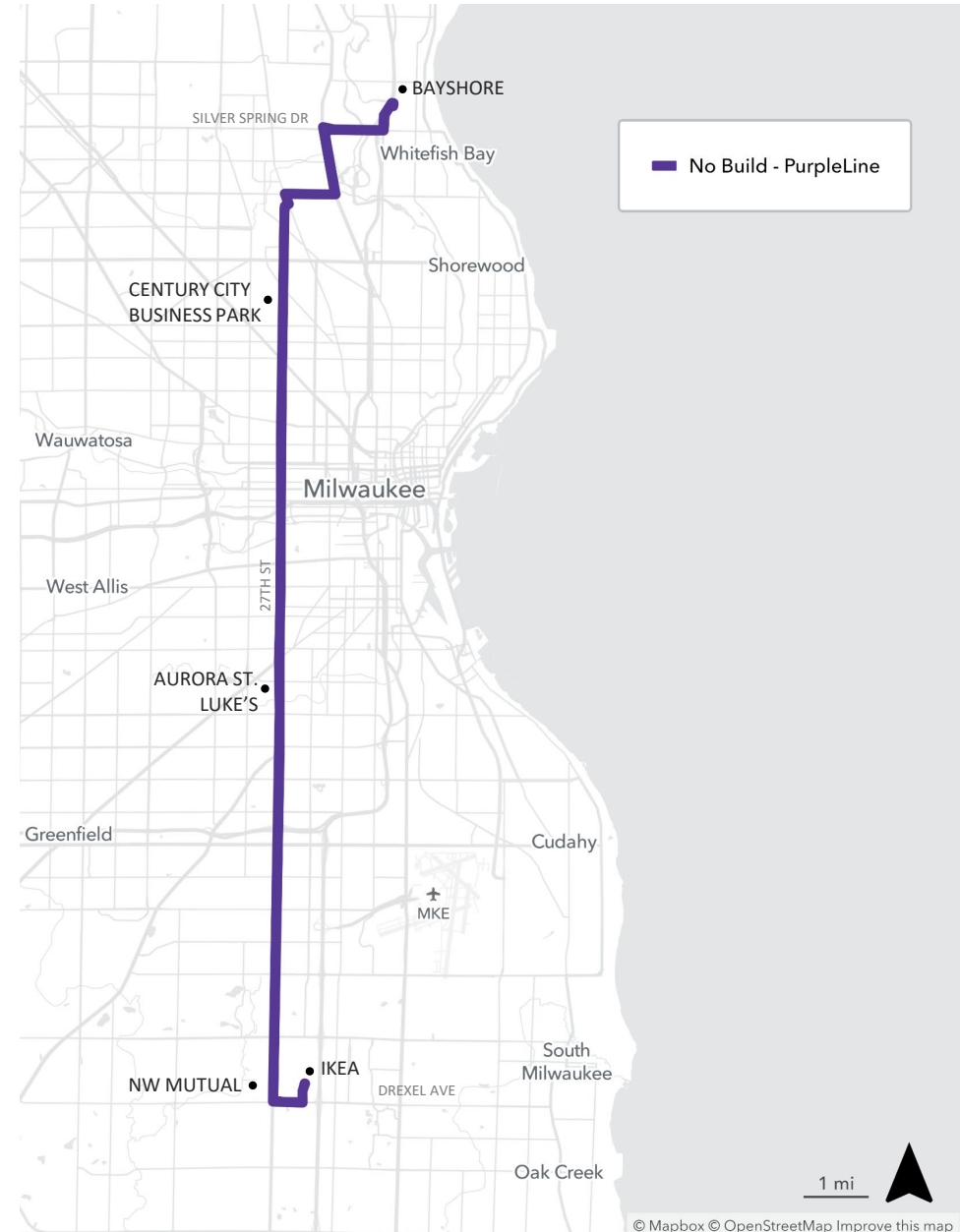
- Faster, more reliable access to jobs, education, healthcare, and other destinations by transit
- A better experience for riders with improved stations
- Traffic calming and pedestrian safety enhancements near stations
- Support for businesses by providing better access for workers and customers
- Encourage development and redevelopment near stations
- Better connections to other transit routes including East-West BRT



# NO BUILD OPTION

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

## No Build Option (MCTS PurpleLine)



# RANGE OF ALTERNATIVES



BUS RAPID TRANSIT (BRT)

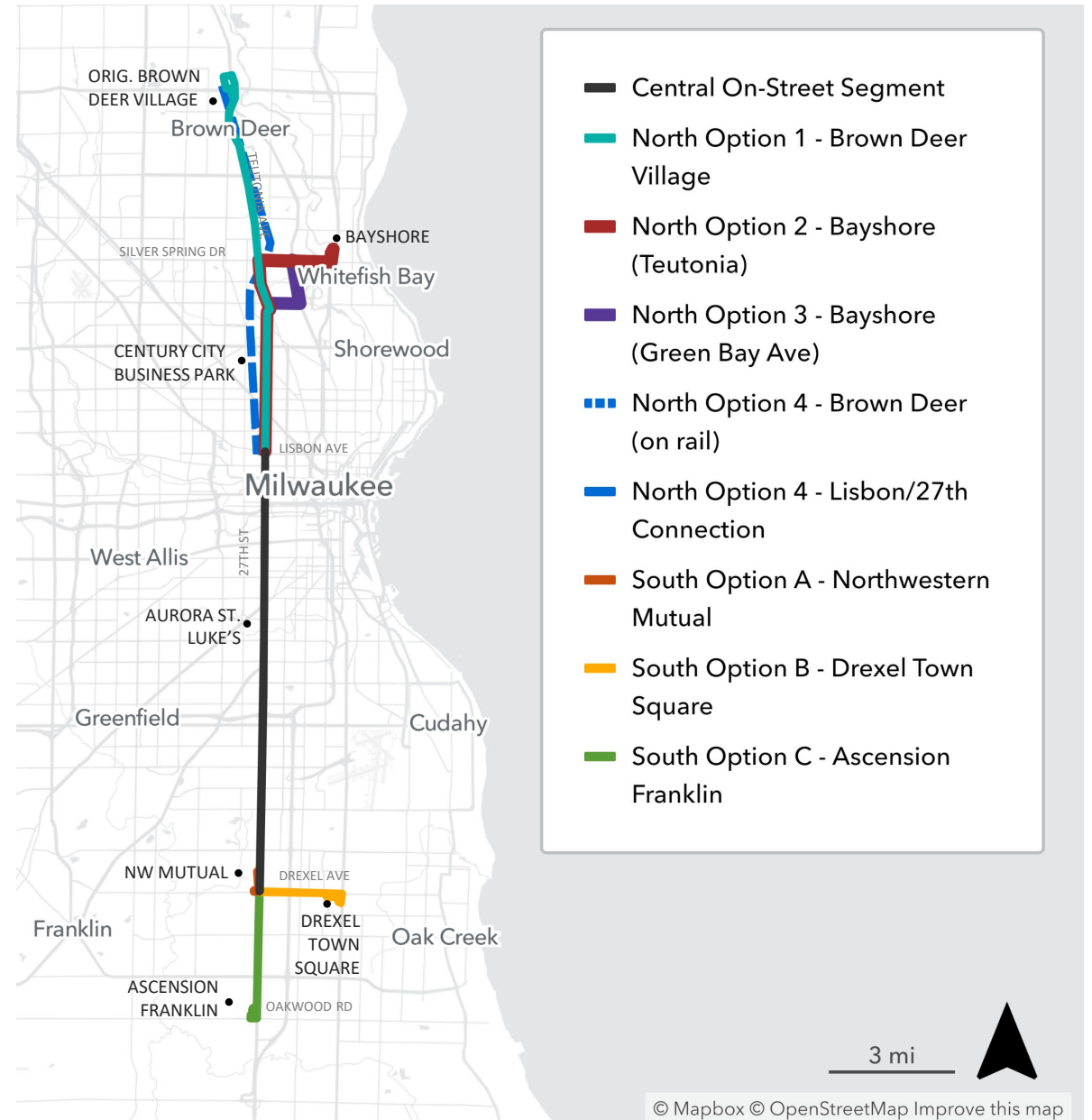


RAPID STREETCAR



LIGHT RAIL TRANSIT

## Milwaukee North-South Transit Enhancement Route Alternatives



# STATION FEATURES

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- Level boarding
- High-quality shelters with seating
- Off-board ticketing
- Real-time bus arrival information and schedules
- Accessible to everyone
- Lighting

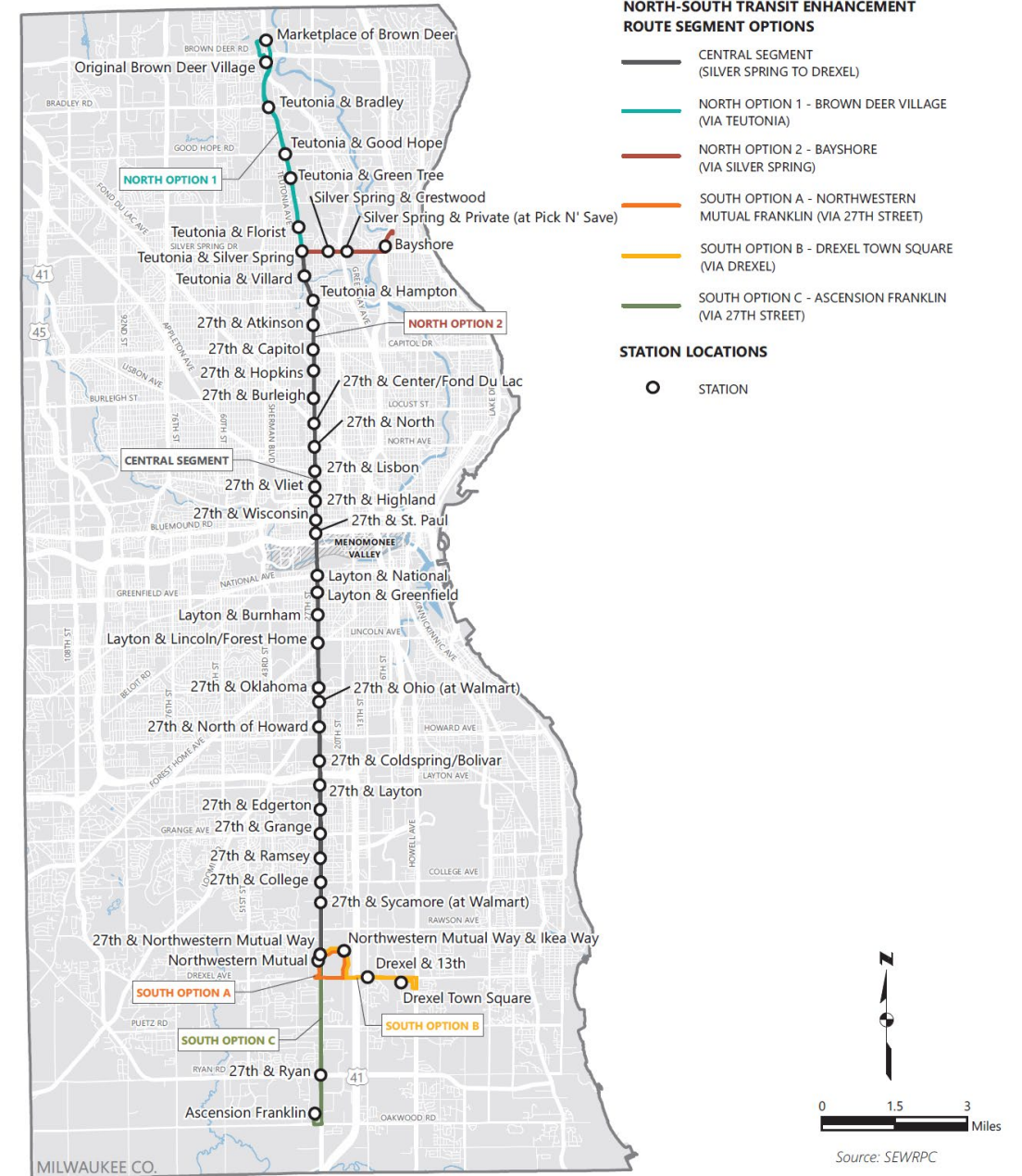




# STATIONS

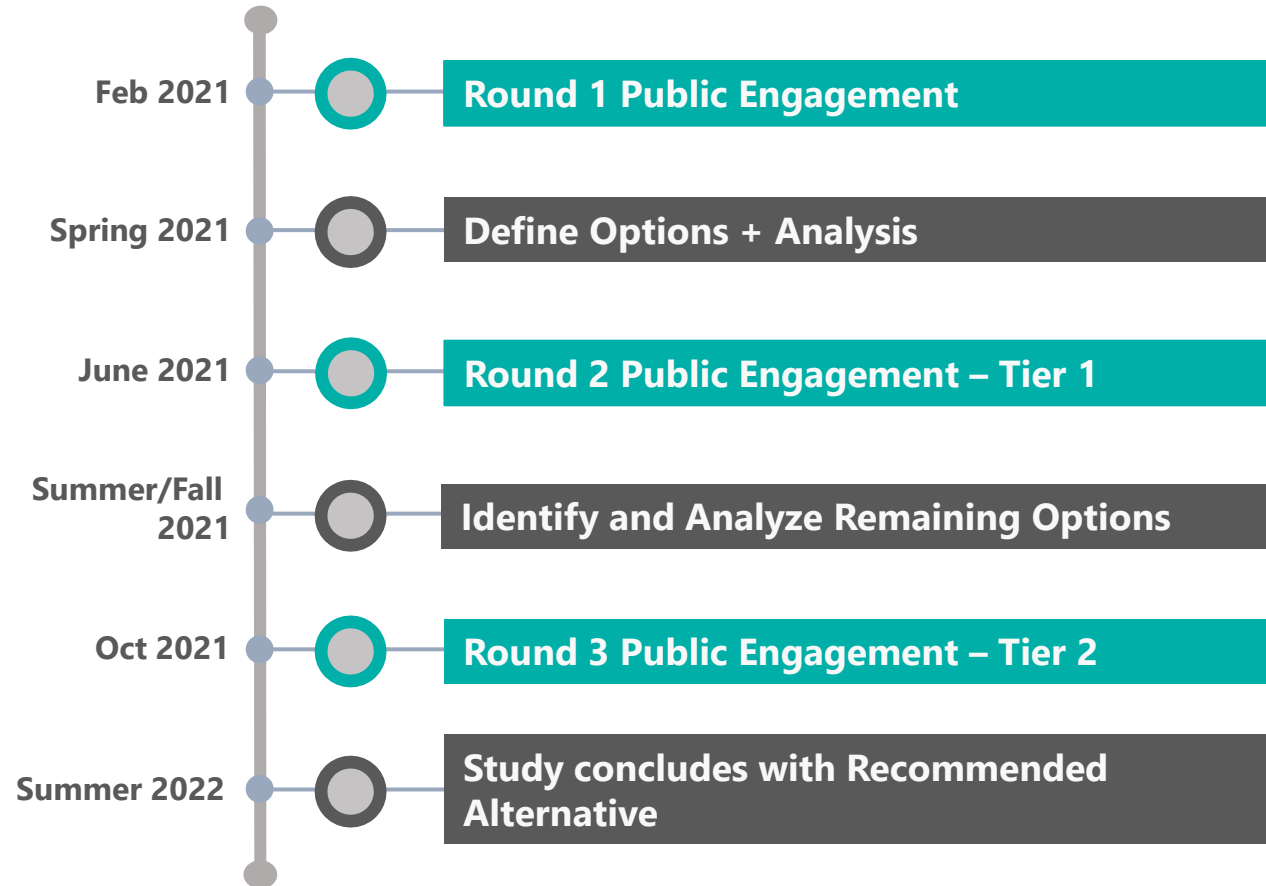
- 1/4 to 1/2 mile spacing
- Stations at intersections with other major streets, transit routes, and important destinations
- Looked at ridership, equity, population and job access around each station

## Preliminary Station Intersection Locations



# STUDY TIMELINE

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# **PUBLIC INVOLVEMENT**

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# PUBLIC INVOLVEMENT

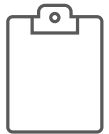
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**3** ROUNDS OF VIRTUAL MEETINGS



**306** RESPONSES TO **8** ONLINE SURVEYS



**490** RESPONSES TO BUS STOP SURVEY



**90+** STAKEHOLDER MEETINGS (IN-PERSON AND VIRTUAL)



Photo: Century City Tri Angle Neighborhood Association





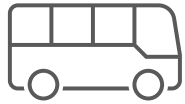
# COMMUNITY PARTNERS



# TIER 2 ANALYSIS

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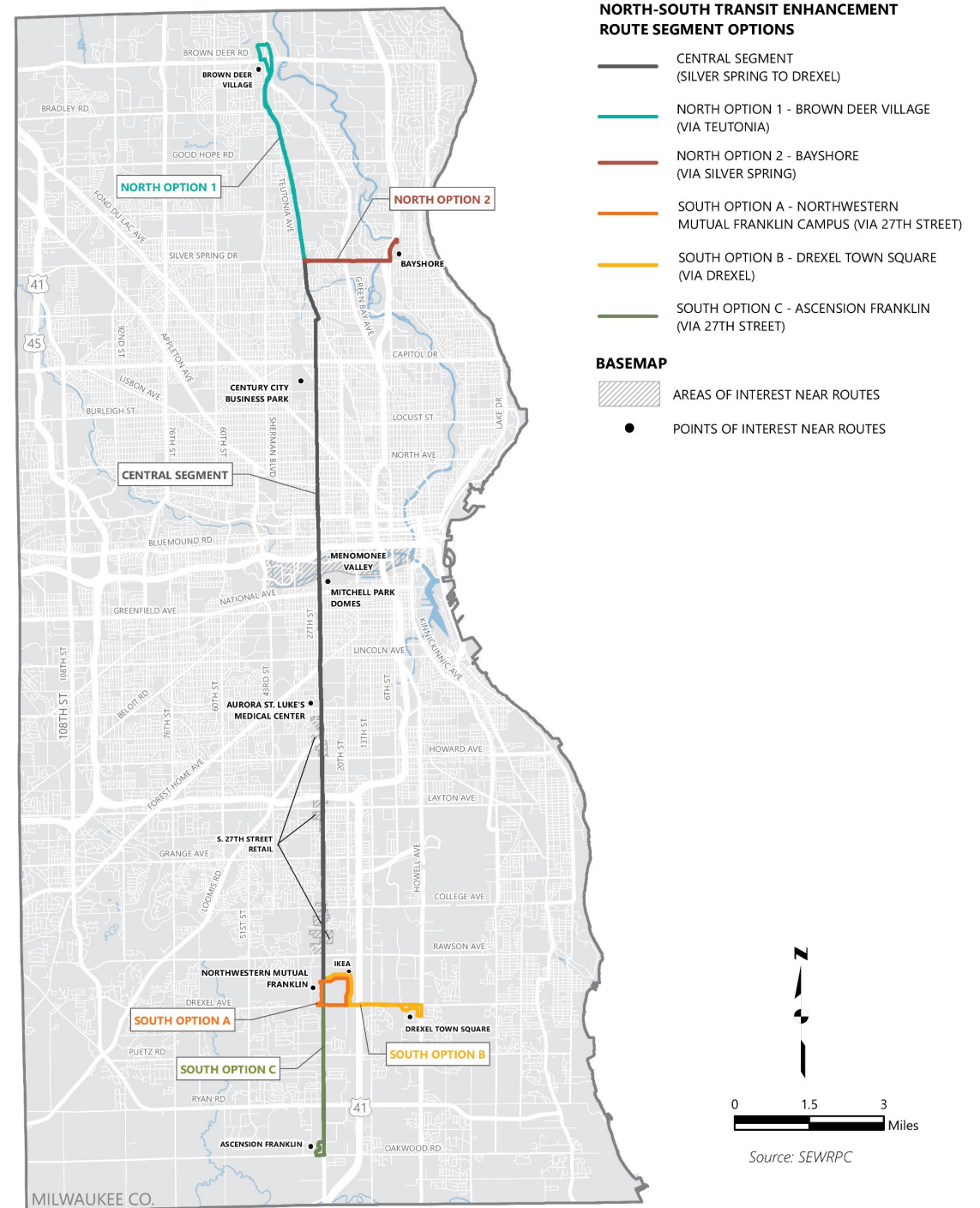
# TIER 2: RANGE OF ALTERNATIVES



## BUS RAPID TRANSIT (BRT)

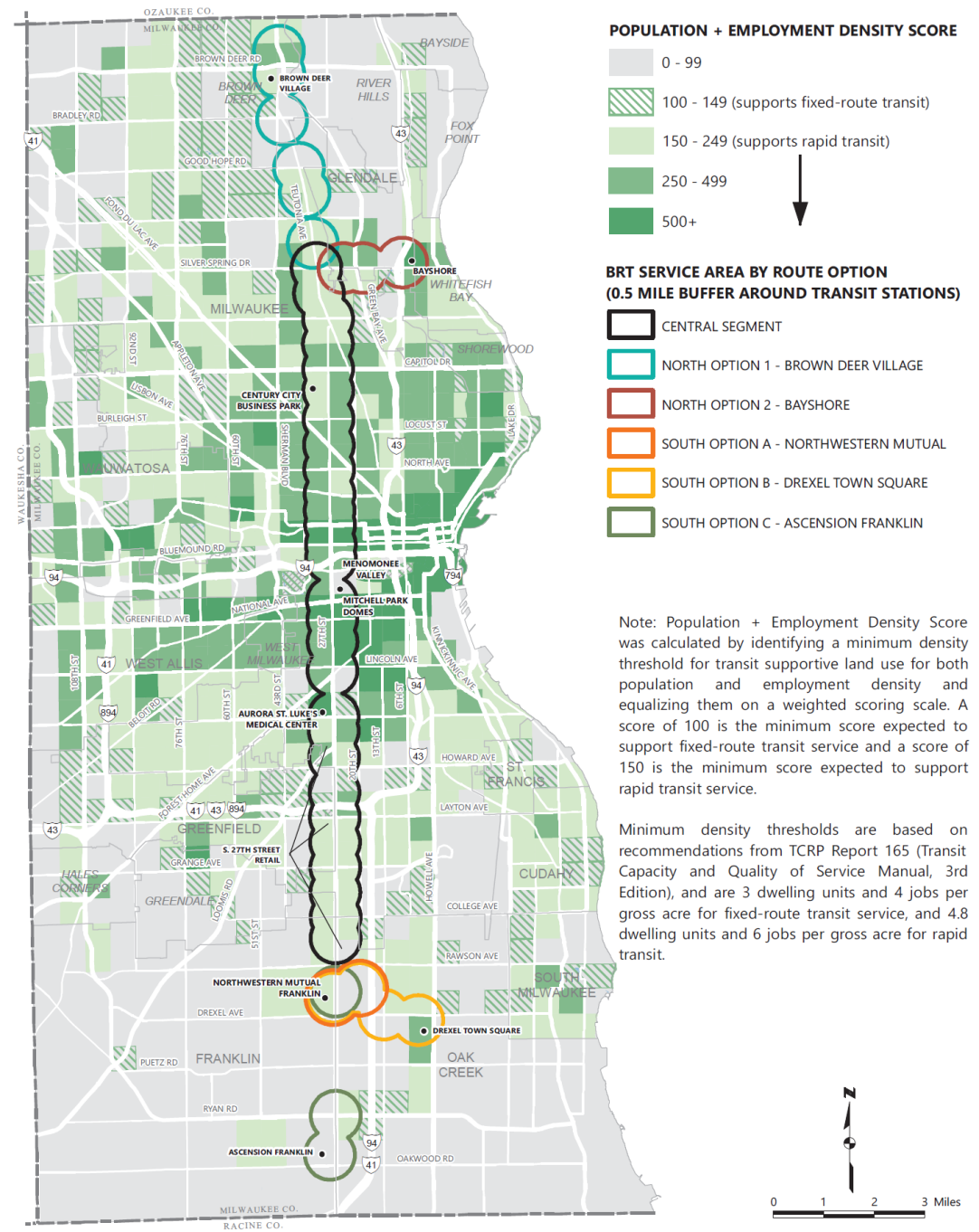
A new Route 27 will be added with less frequent service to cover existing stops.

Changes to better connect the existing Routes 12 and 80 to proposed BRT route options were also evaluated but not included in the recommended alternative.



# POPULATION + EMPLOYMENT DENSITY SCORES

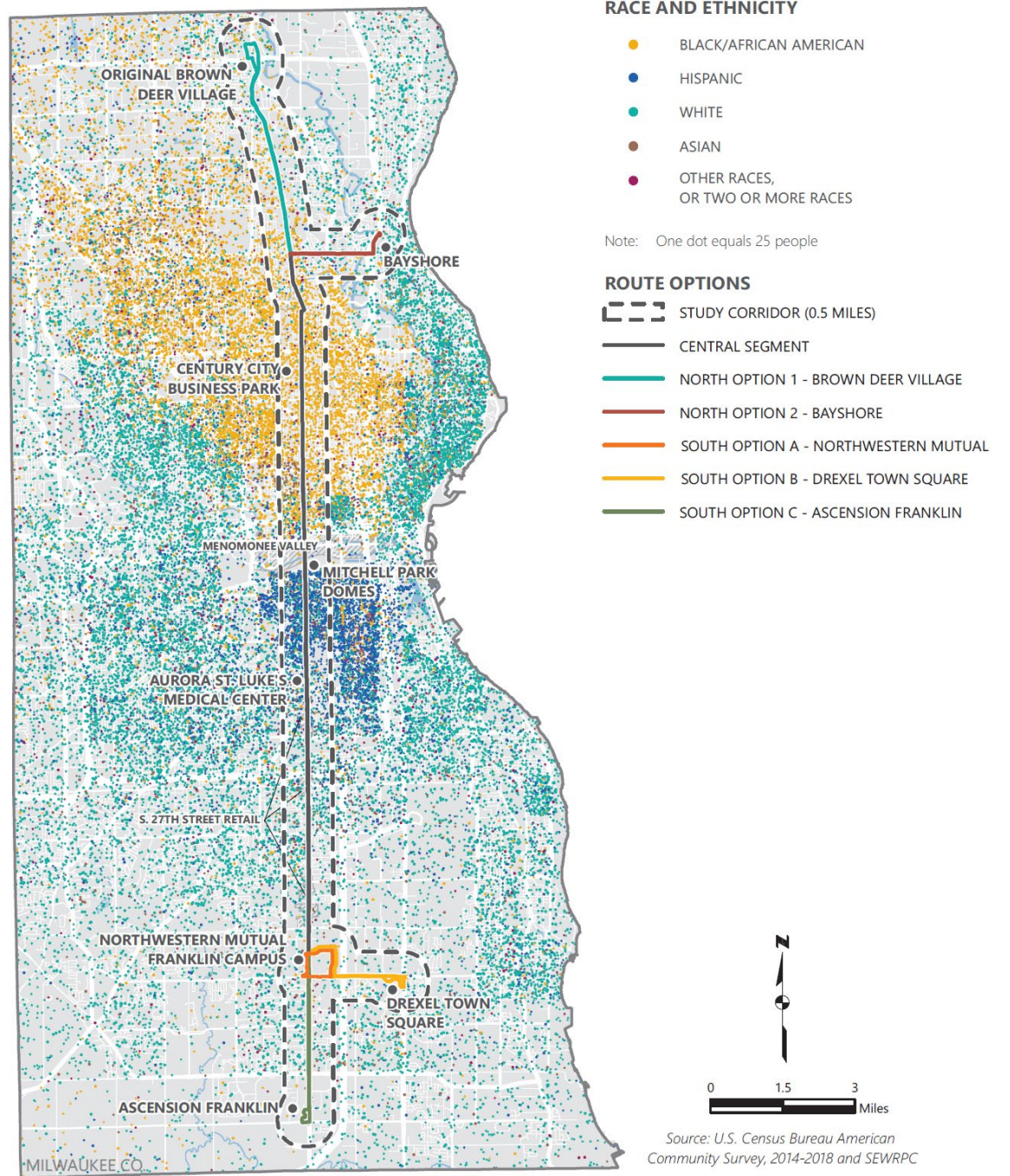
- Density scores rate transit supportive areas considering people and jobs and served
- Scores above 150 would support rapid transit service





# RACE AND ETHNICITY

Distribution of Black/African American, Hispanic, White, Asian, and other populations within a half mile of the route options



# POPULATION BY RACE AND ETHNICITY

Summary Results by Route Alternative  
(using a half mile buffer around stations)

Route Option	People of Color					White Alone, Non-Hispanic		Total People of Color		Total Population
	Black/African American	American Indian and Alaska Native	Asian and Pacific Islander	Other Race, Two or More Races	Hispanic/Latino	Number	Per Mile	Number	Per Mile	
North Option 1 to South Option A	44,600	560	7,400	4,100	33,700	23,900	1,170	90,400	4,420	114,300
North Option 1 to South Option B	44,700	570	7,600	4,200	34,000	25,500	1,150	91,000	4,120	116,500
North Option 1 to South Option C	44,600	560	7,600	4,100	33,800	24,600	1,070	90,700	3,950	115,300
North Option 2 to South Option A	40,500	550	7,000	3,800	33,500	23,500	1,310	85,400	4,750	108,900
North Option 2 to South Option B	40,600	560	7,200	3,900	33,700	25,200	1,290	86,000	4,390	111,200
North Option 2 to South Option C	40,500	550	7,200	3,800	33,500	24,200	1,180	85,700	4,180	109,900

Source: U.S. Bureau of the Census (2020) and SEWRPC

# HOUSEHOLDS WITHOUT A CAR

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<b>Route Option</b>	<b>Total Households</b>	<b>Households Without a Car</b>	<b>Per Mile</b>
North Option 1 to South Option A	41,660	9,400	460
North Option 1 to South Option B	42,480	9,410	430
North Option 1 to South Option C	41,980	9,420	410
North Option 2 to South Option A	39,330	9,110	510
North Option 2 to South Option B	40,150	9,130	470
North Option 2 to South Option C	39,650	9,140	450

*Source: U.S. Bureau of the Census American Community Survey (2015-2019) and SEWRPC*

# PEOPLE WITH DISABILITIES

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<b>Route Option</b>	<b>Total Population</b>	<b>People with Disabilities</b>	<b>Per Mile</b>
North Option 1 to South Option A	112,500	16,740	820
North Option 1 to South Option B	114,470	16,960	770
North Option 1 to South Option C	113,370	16,810	730
North Option 2 to South Option A	107,360	16,090	890
North Option 2 to South Option B	109,330	16,310	830
North Option 2 to South Option C	108,230	16,160	790

Source: U.S. Bureau of the Census American Community Survey (2015-2019) and SEWRPC



# FAMILIES IN POVERTY

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<b>Route Option</b>	<b>Total Families</b>	<b>Families in Poverty</b>	<b>Per Mile</b>
North Option 1 to South Option A	24,060	6,410	310
North Option 1 to South Option B	24,580	6,430	290
North Option 1 to South Option C	24,280	6,410	280
North Option 2 to South Option A	22,850	6,220	350
North Option 2 to South Option B	23,370	6,240	320
North Option 2 to South Option C	23,080	6,220	300

Source: U.S. Bureau of the Census American Community Survey (2015-2019) and SEWRPC

# RIDERSHIP

Ridership forecast ranges using base numbers from 2021 (lowest) and pre-Covid 2019 (highest)

<b>Route Option</b>	<b>2025 Ridership Range</b>	<b>Percent Increase from PurpleLine</b>	<b>Per Mile Range</b>
North Option 1 to South Option A	5,770 to 11,750	57% - 78%	280 - 570
North Option 1 to South Option B	5,770 to 11,690	57% - 77%	260 - 530
North Option 1 to South Option C	6,560 to 12,280	78% - 86%	290 - 530
North Option 2 to South Option A	5,390 to 10,510	47% - 59%	300 - 580
North Option 2 to South Option B	5,440 to 10,570	48% - 60%	280 - 540
North Option 2 to South Option C	6,000 to 10,800	63%	290 - 530
No Build - PurpleLine	3,670 to 6,610	--	200 - 370

Source: SEWRPC

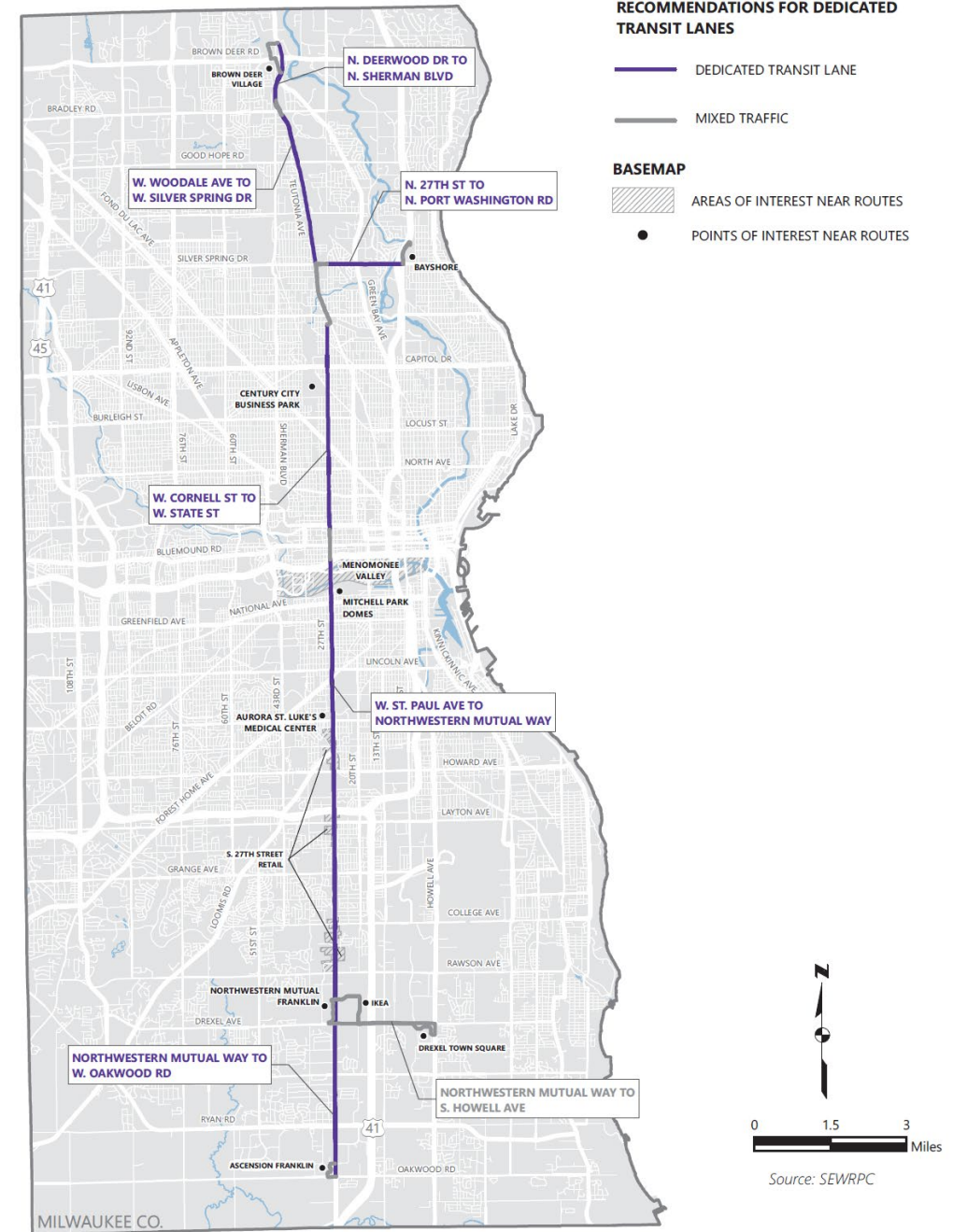
# BUS-ONLY LANES

## 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



# CONFIGURATION OPTIONS: Protecting Bus-only Lanes

- Recommendation for lane protection to reduce reckless driving
- 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

# CAPITAL COST

<b>Route Option</b>	Route Length (one way, miles)	Cost (year of expenditure, 2022 - 2026)
North Option 1 to South Option A	20.4	\$163,738,600
North Option 1 to South Option B	22.1	\$175,582,100
North Option 1 to South Option C	23.0	\$175,266,300
North Option 2 to South Option A	18.0	\$148,150,700
North Option 2 to South Option B	19.6	\$162,084,100
North Option 2 to South Option C	20.5	\$162,885,400

Source: SEWRPC



# OPERATING COST

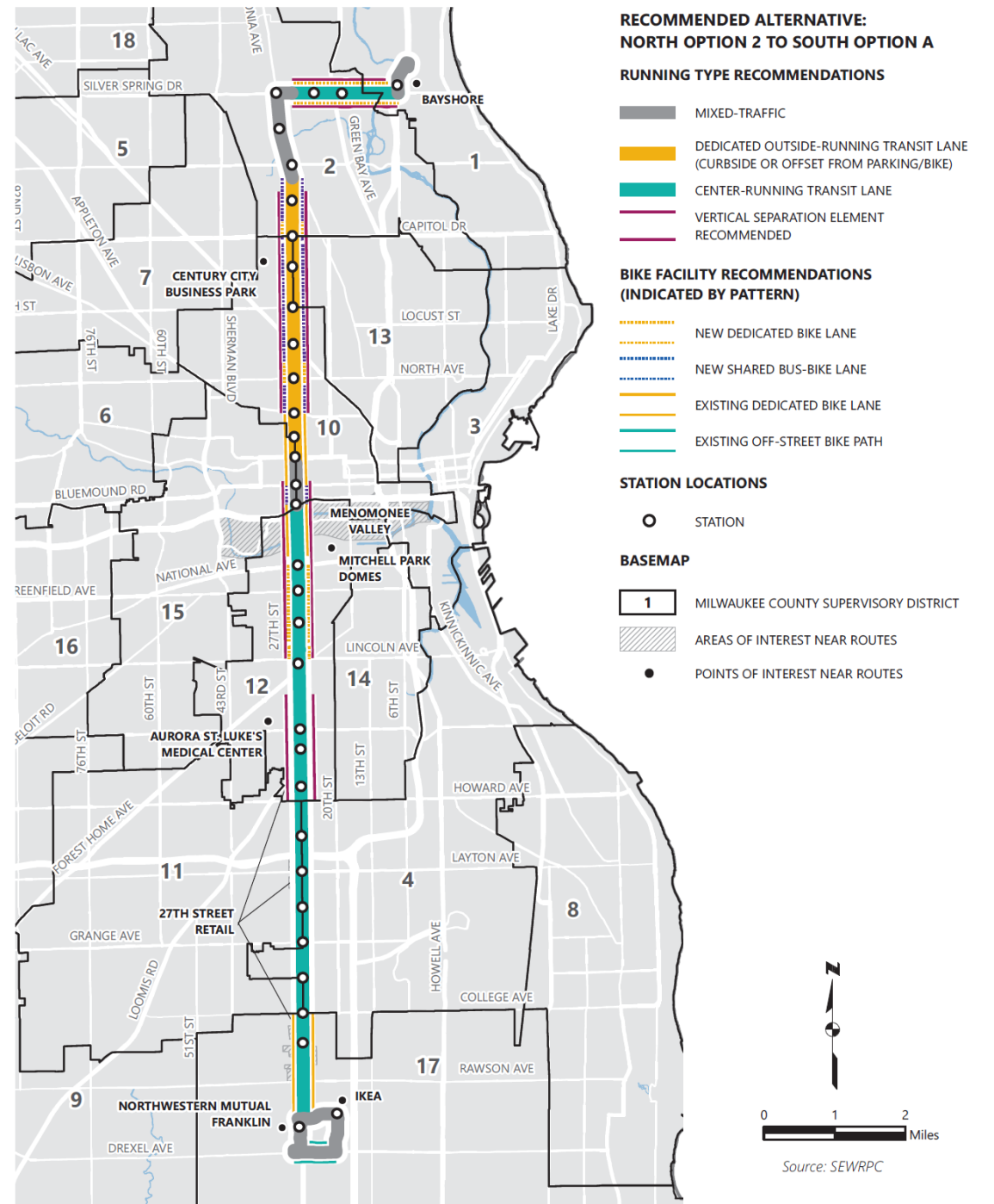
Route Option	Operating and Maintenance Costs (includes changes to other transit routes)	
	Annual Platform Hours	Net Change to Annual O&M Cost (2027)
North Option 1 to South Option A	94,591	\$4,745,100
North Option 1 to South Option B	103,369	\$5,910,000
North Option 1 to South Option C	97,271	\$5,100,800
North Option 2 to South Option A	86,553	\$4,027,700
North Option 2 to South Option B	93,357	\$4,930,600
North Option 2 to South Option C	91,818	\$4,726,300

Source: SEWRPC

# **RECOMMENDED ALTERNATIVE**

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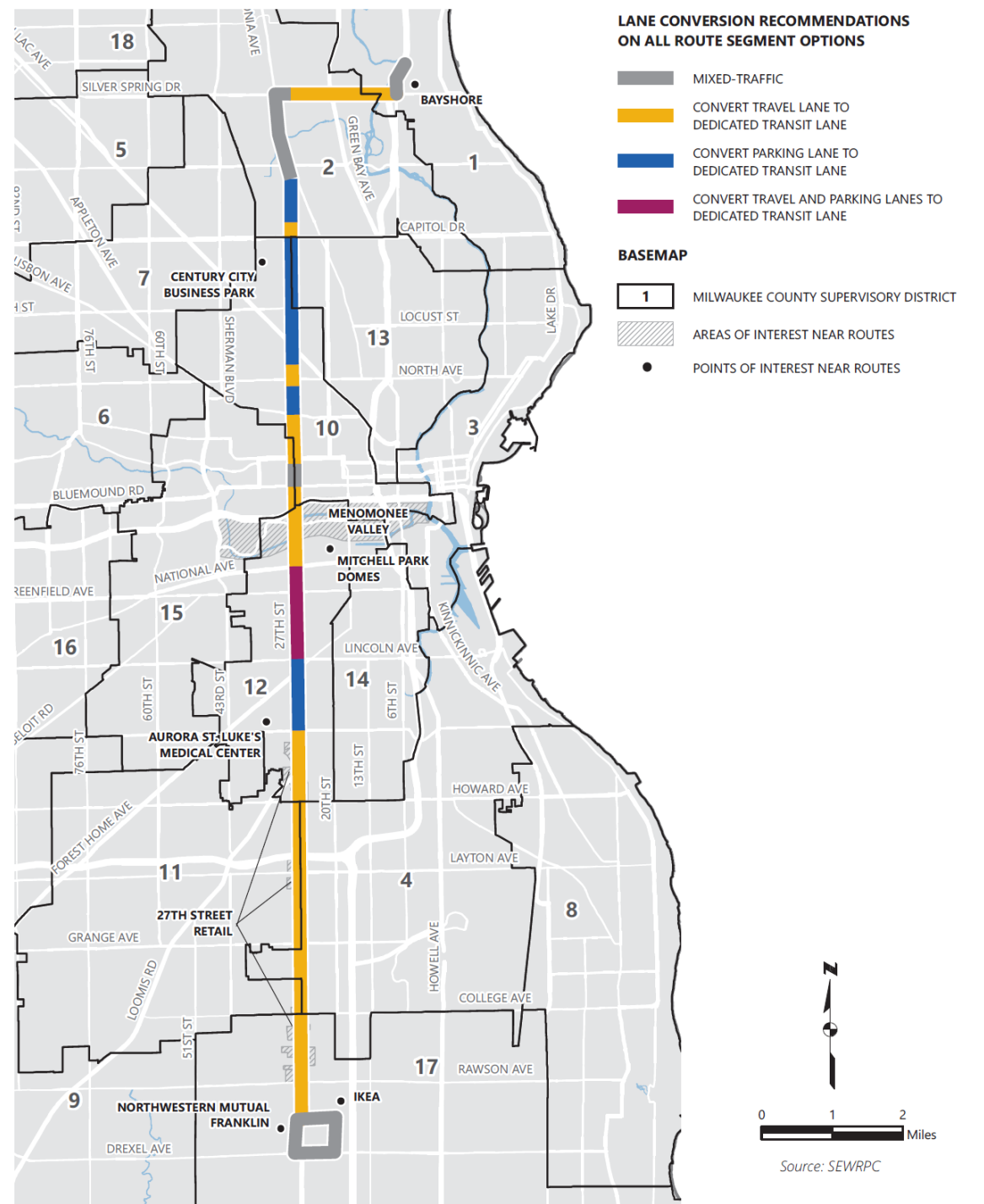
# RECOMMENDED ALTERNATIVE: North Option 2 to South Option A



# TRAVEL AND PARKING LANE CONVERSIONS TO DEDICATED TRANSIT

## Parking Spaces Impacted

Route Alternative	Number of Parking Spaces Impacted	Percent Residential	Percent Commercial	Total Parking Spaces	Percent of Total Parking Impacted
North Option 1 to South Option A	2,438	58	42	3,464	70
North Option 1 to South Option B	2,438	58	42	3,489	70
North Option 1 to South Option C	2,438	58	42	3,464	70
North Option 2 to South Option A	1,527	74	26	2,416	63
North Option 2 to South Option B	1,527	74	26	2,441	63
North Option 2 to South Option C	1,527	74	26	2,416	63



# RECOMMENDED ALTERNATIVE: N2SA

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- Capital Cost: \$148.15M
- Net Operating Cost (includes changes to other transit routes in 2027): \$4.03M per year
- BRT Stations: 63
- Electric BRT Vehicles: 24
- Route Length: 18 Miles (one way)
- Dedicated Transit Lanes: 14.2 Miles (79%)
- New Dedicated Bike Lanes: 6.7 Miles
- Existing bike lanes converted to shared bike/bus lanes: 6.2 Miles
- Converted Travel Lanes: 10.4 Miles
- Travel time savings: approximately 15 minutes during congested periods
- Converted Parking Spaces: 1,527

<b>Number of Parking Spaces Impacted</b>	<b>Percent Residential</b>	<b>Percent Commercial</b>	<b>Total Parking Spaces</b>	<b>Percent of Total Parking Impacted</b>
1,527	74	26	2,416	63



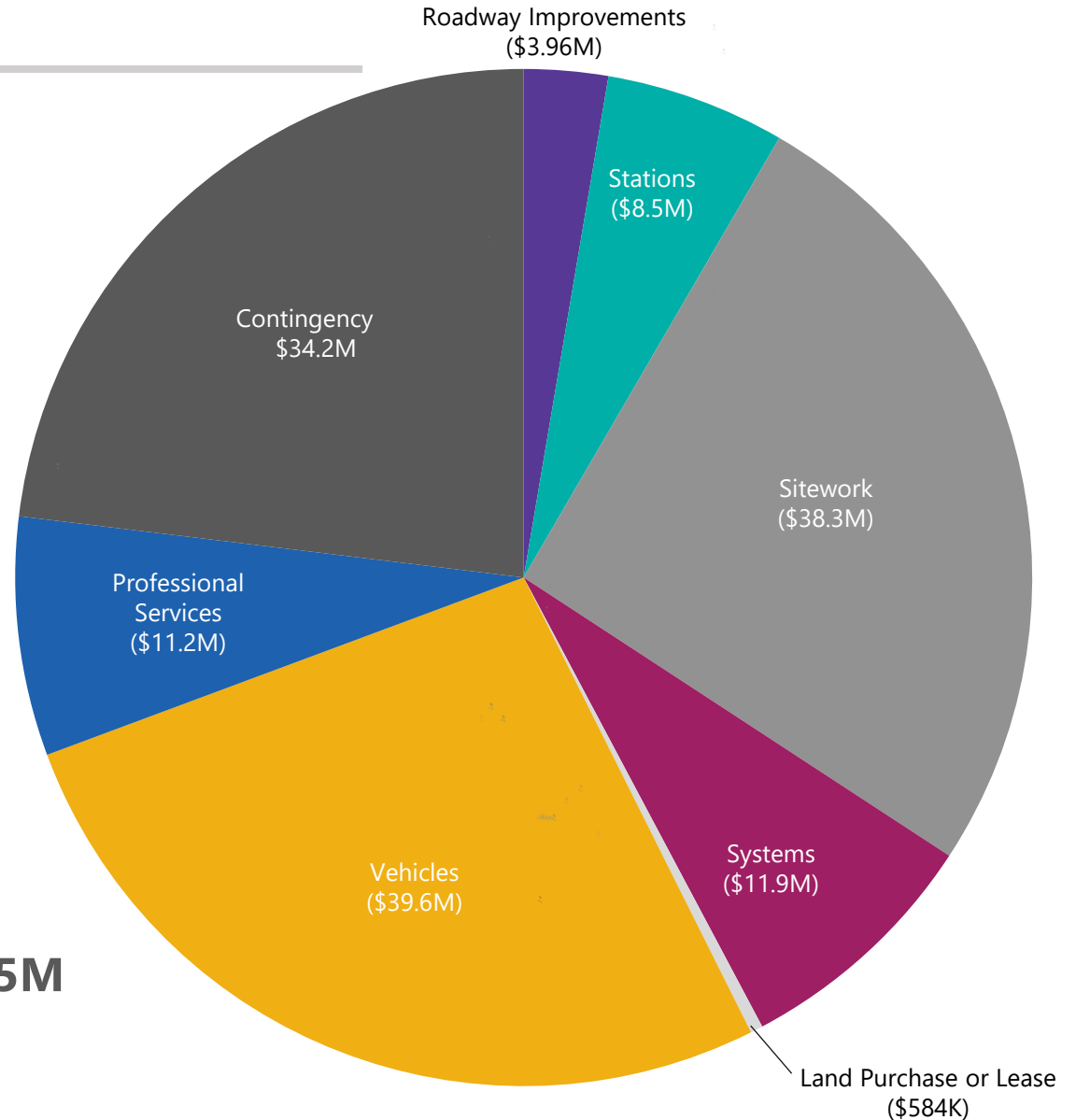
# N2SA: CAPITAL COST ESTIMATES

(Potentially Up to 80% Federal Funding)

## RECOMMENDED ALTERNATIVE: N2SA

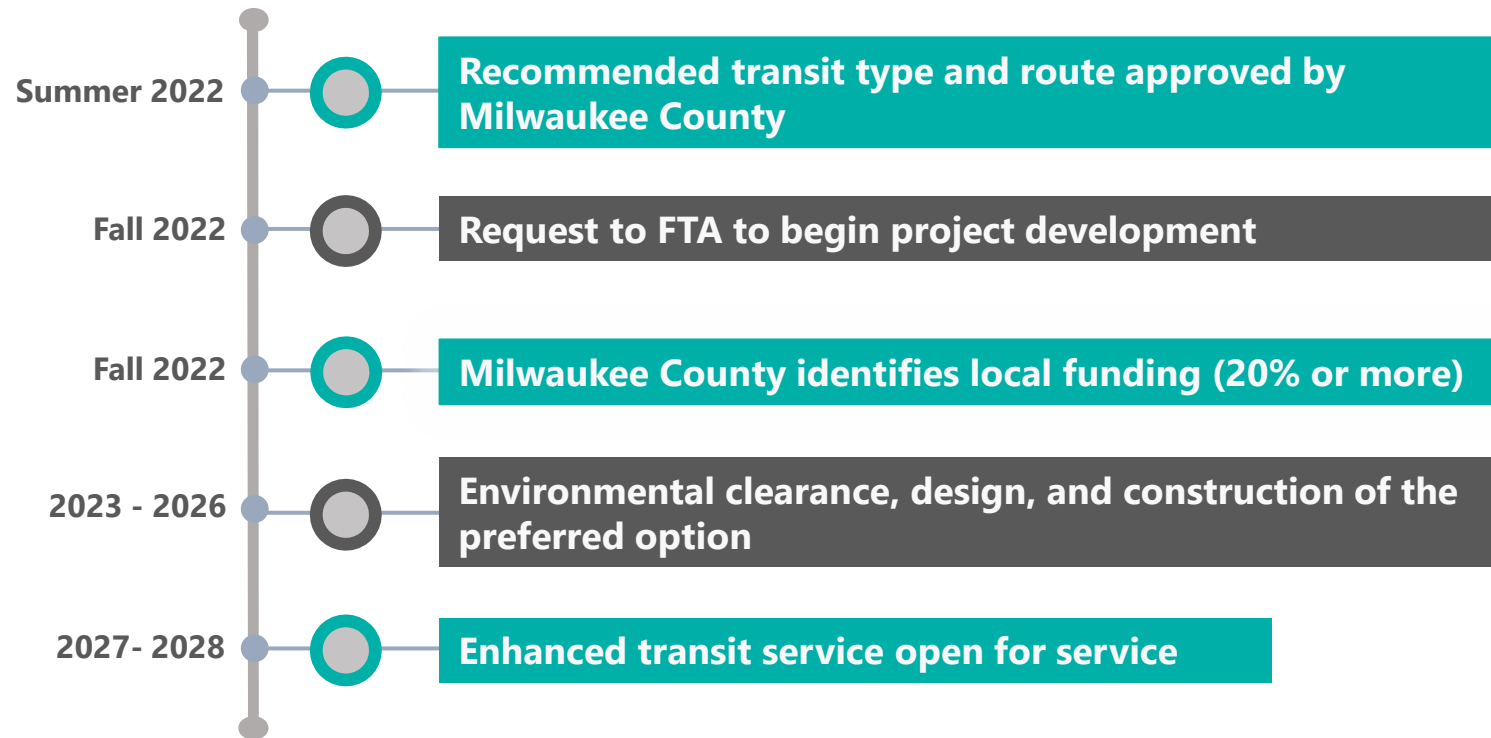
(BAYSHORE TO NORTHWESTERN MUTUAL:  
18 MILES, 63 STATIONS, 24 BUSES)

**ESTIMATED TOTAL: \$148.15M**



# AFTER THE STUDY: NEXT STEPS

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# PROJECT CONTACTS

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