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**EAST  
WEST BRT**  
a feasibility study

MILWAUKEE COUNTY EAST-WEST BUS RAPID TRANSIT

Tech Memo #1:  
Station Area  
Analysis

REVISION #1

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DATE June 28, 2016



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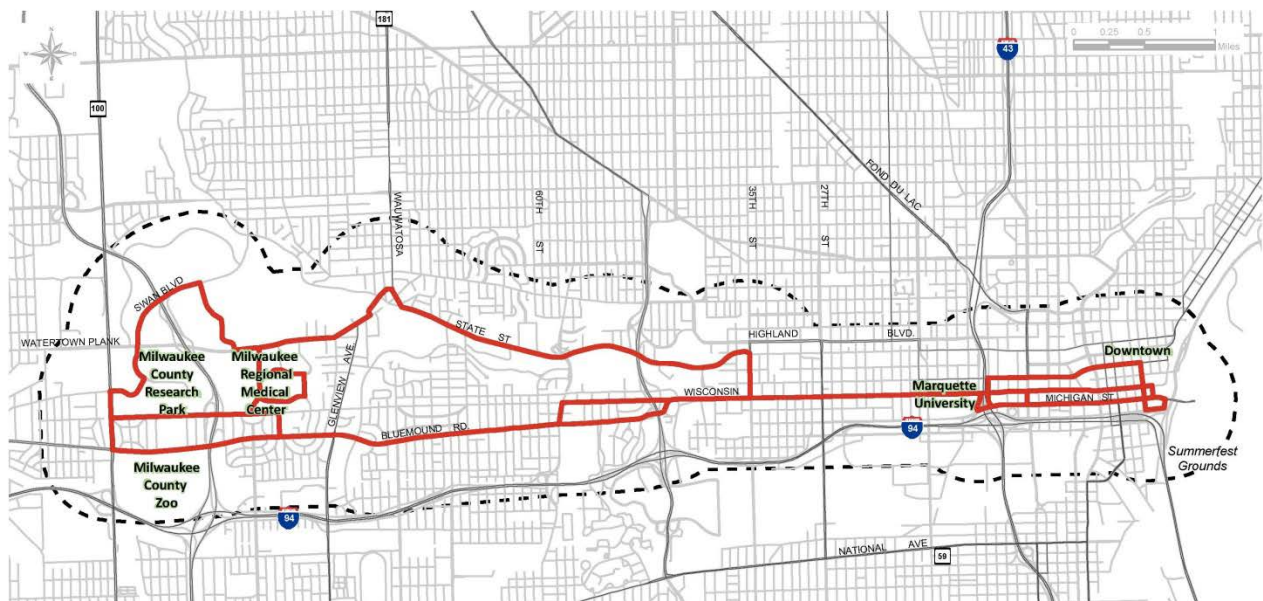
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# 1. INTRODUCTION

## 1.1 Project Description

Milwaukee County and its partners have initiated a feasibility study to evaluate transit investment in the seven-mile East-West Corridor connecting major employment and activity centers between downtown Milwaukee, the Milwaukee Regional Medical Center (MRMC), and Milwaukee County Research Park (MCRP). Completing the feasibility study is a first step towards applying for funding through the Federal Transit Administration’s (FTA) Small Starts program.

**Figure 1-1: East-West Study Corridor**



## 2. OVERVIEW OF PROJECT EVALUATION PROCESS

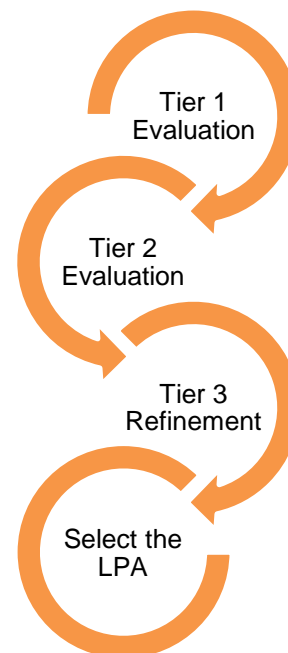
In order to evaluate the initial group of transit modes and alignment options and identify the appropriate mode-alignment pairings that will comprise the detailed alternatives, the East-West Corridor Study will follow a three-step method.

- The first step (“Tier 1 Evaluation”) will entail the assessment of each mode and alignment relative to overall implementation viability.
- The second step (“Tier 2 Evaluation”) will assess the mode/alignment pairings that passed the Tier 1 Evaluation and compare the benefits and impacts of each.
- The alternative(s) that fare(s) best against the detailed criteria in this second step will be identified as Preferred Alternative(s) and further refined in the third step (“Tier 3”). The Locally Preferred Alternative will be identified at the conclusion of the third step.

The evaluation criteria associated with each step are a combination of quantitative and qualitative performance measures.

- The Tier 1 Evaluation will apply fewer and broader measures, including information from previous corridor/area studies. The analysis will largely rely on order-of-magnitude estimates and the outcomes of similar transit projects from around the country.
- The Tier 2 Evaluation will apply more detailed and alternative-specific evaluation results.
- The Tier 3 Evaluation will evaluate the Preferred Alternative(s) against federal criteria to identify and refine the Locally Preferred Alternative.

This three-step process will result in the identification of an LPA that not only meets locally-identified project purpose and needs, but is also competitive for federal funding.



## 3. TECH MEMO #1 OVERVIEW

This report is the first in a series of technical memoranda (tech memos) that report the results of the Tier 2 Detailed Evaluation of Alternatives; the five other tech memos are available under separate cover:

- Tech Memo #1 (this memo): Station Area
- Tech Memo #2: Transportation
- Tech Memo #3: Environmental Impacts
- Tech Memo #4: Capital Costs
- Tech Memo #5: Operating and Maintenance Costs
- Tech Memo #6: Ridership

Results contained in the six tech memos are summarized in the Detailed Evaluation of Alternatives Report, also available under separate cover.

This tech memo includes the results of three sub-criteria that were used to evaluate the performance of the BRT alternatives that are under consideration as part of the Tier 2 evaluation. A station area is defined as the half-mile radius around a station location; this radius was selected because it is consistent with federal evaluation standards and because it reflects the distance that could be covered in a 10-minute walk (the typical distance a person is willing to walk to transit).

The Tier 2 alternatives and station locations under evaluation are described in Section 4.

The three station area evaluation sub-criteria are:

- Station Area Population and Employment
- Equitable Access to the Transit Investment
- Development Potential.

A summary of the station area evaluation results can be found in Section 5; the methodology, data sources, and results of the evaluation are presented in Section 6 through 8.

## 4. THE ALTERNATIVES

Four modes are being evaluated as part of Tier 2:

- No Build
- BRT in Mixed Traffic
- BRT in Dedicated Center Lane
- BRT in Dedicated Curb Lane

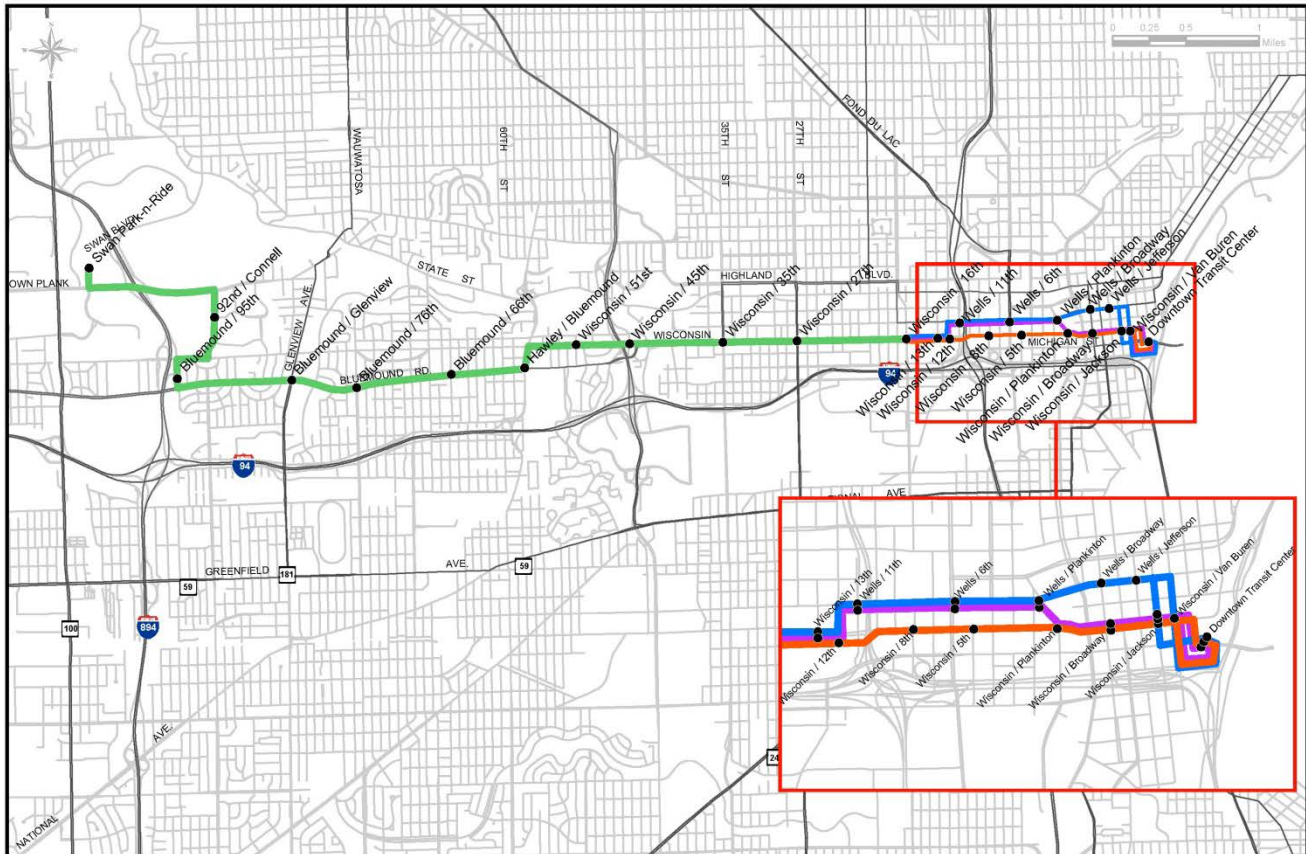
Three routes are being evaluated as part of Tier 2; any of the modes listed above (or combination of the modes) could operate on these routes:

- Alternative 1: from Swan Park-and-Ride lot to the Downtown Transit Center via Wisconsin Avenue through downtown Milwaukee
- Alternative 2: from Swan Park-and-Ride lot to the Downtown transit Center via Wells Avenue
- Alternative 3: from Swan Park-and-Ride lot to the Downtown Transit Center via a hybrid of Wisconsin Avenue and Wells Street through downtown Milwaukee (called the Hybrid alternative)

The routes and station locations are shown in Figure 4-1; the station locations for each alternative are listed in Table 4-1. Additional detail regarding these alternatives can be found in the Tier 2: Detailed Definition of Alternative Reports, which is available on the project website ([eastwestbrt.org](http://eastwestbrt.org)).



**Figure 4-1: Alternative Alignments and Stations**



- Legend
- Western Corridor Alternative Segment
  - Alternative 1 Wisconsin and Bluemound
  - Alternative 2 Wells and Bluemound
  - Alternative 3 Hybrid and Bluemound
  - Proposed Stations

**Table 4-1: Stop Location by Route Alternative**

Stop Locations	Route Alternatives		
	Alternative 1: via Wisconsin	Alternative 2: via Wells	Alternative 3: via Wells/Wisconsin Hybrid
Downtown Transit Center	X	X	X
Van Buren/Wisconsin		X	

Stop Locations	Route Alternatives		
	Alternative 1: via Wisconsin	Alternative 2: via Wells	Alternative 3: via Wells/Wisconsin Hybrid
Wisconsin/Jefferson	X	X	X
Wisconsin/Broadway	X		X
Wells/Jefferson		X	
Wells/Broadway		X	
Wisconsin/Plankinton	X		
Wells/Plankinton		X	X
Wisconsin/5th St.	X		
Wells/6th St.		X	X
Wisconsin/8th St.	X		
Wells/11th St.		X	X
Wisconsin/12th St.	X		
Wisconsin/13th St.		X	X
Wisconsin/16th St.	X	X	X
Wisconsin/27th St.	X	X	X
Wisconsin/35th St.	X	X	X
Wisconsin/45 <sup>th</sup> St.	X	X	X
Wisconsin/51st St.	X	X	X
Hawley/Bluemound	X	X	X
Bluemound/66th St.	X	X	X
Bluemound/76th St.	X	X	X
Bluemound/Glenview	X	X	X
Bluemound/95th St.	X	X	X
92nd & Connell (MRMC)	X	X	X
Swan Road Park & Ride	X	X	X

## 5. SUMMARY OF RESULTS

All three alternatives are anticipated to serve a similar number of people and jobs; one alternative did not stand out over another in terms of the population and employment served by the BRT service. The equitable access analysis did not reveal major differences in the protected populations that would be served by the BRT service. All alternatives had similar populations of people who live below the poverty line, are people of color and households that do not have access to a car.

The station areas with the highest potential for development are at the western and eastern ends of the alternatives. These are areas where development is already happening and is likely to continue to be where future development will be targeted going forward. The stations in the middle of the alignments have less potential for development because these areas are largely residential with little open space and land that can be readily developed.

## 6. STATION AREA POPULATION AND EMPLOYMENT

Population and employment densities are calculated for each station area to gain a better understanding of how many people and employees live and work near each proposed station. The following sections detail how these numbers were calculated, where the data came from and the results of the analysis.

### 6.1 Methodology

Employment and population density are measured within a half-mile radius of each station location.

- The population and employment data at the Traffic Analysis Zone (TAZ) geography is in a Geographic Information System (GIS) shapefile. This shapefile will be clipped to a half-mile radius around each station.
- To analyze station-area population and employment, the project team will develop estimates of the total population and employment within a half-mile of each station location, consistent with Federal Transit Administration (FTA) guidance.
- Per FTA guidance, estimates will be created by assigning population and employment totals to each station area based on the pro-rated amount of area that falls within the half-mile circle around the station.
  - For example, if 60 percent of the area of a TAZ falls within the half-mile radius of a station, it is assumed that 60 percent of the population and employment of that TAZ are also within the half-mile radius.
- Densities will be calculated by dividing the pro-rated population or employment total by the area using a square miles as the unit of measurement.

## 6.2 Data Sources

Existing (2010) and forecasted future (2035) population and employment data provided by the Southeast Wisconsin Regional Planning Commission, at the TAZ level, were used to determine the employment and population densities around the stations.

## 6.3 Summary of Results

The stations in the Western Corridor of the potential alignments, the population and employment densities are forecasted to remain relatively stable, with only three percent growth in the population density and one percent growth in the employment density (Table 6-1).

**Table 6-1: Western Corridor Stations**

Station	2010 Population	2010 Population Density	2035 Population	2035 Population Density	Population Density % Change	2010 Employment	2010 Employment Density	2035 Employment	2035 Employment Density	Employment Density % Change
Wisconsin / 16 <sup>th</sup>	10,301	13,133	10,084	12,856	-2%	15,343	19,561	15,714	20,034	2%
Wisconsin / 27 <sup>th</sup>	9,207	11,738	9,493	12,103	3%	4,785	6,100	5,175	6,598	8%
Wisconsin / 35 <sup>th</sup>	6,866	8,753	7,206	9,187	5%	5,376	6,854	5,420	6,910	1%
Wisconsin / 45 <sup>th</sup>	2,671	3,405	2,862	3,649	7%	3,175	4,048	3,155	4,022	-1%
Wisconsin / 51 <sup>st</sup>	2,715	3,461	2,905	3,704	7%	1,470	1,874	1,586	2,022	8%
Hawley / Bluemound	3,570	4,551	3,742	4,771	5%	1,764	2,249	1,874	2,389	6%
Bluemound / 66 <sup>th</sup>	4,997	6,371	5,142	6,556	3%	1,849	2,357	1,954	2,491	6%
Bluemound 76 <sup>th</sup>	4,150	5,291	4,192	5,344	1%	1,923	2,452	2,062	2,629	7%
Bluemound / Glenview	3,789	4,831	3,795	4,838	0%	6,906	8,804	7,040	8,975	2%
Bluemound / 95 <sup>th</sup>	2,452	3,126	2,490	3,175	2%	7,279	9,280	7,348	9,368	1%
92 <sup>nd</sup> / Connell (MRMC)	1,130	1,441	1,275	1,625	13%	16,744	21,347	15,205	19,385	-9%
Swan Road P&R	387	493	1,146	1,461	196%	4,027	5,134	4,174	5,321	4%
<b>Average</b>	<b>4,353</b>	<b>5,550</b>	<b>4,528</b>	<b>5,772</b>	<b>4%</b>	<b>5,887</b>	<b>7,505</b>	<b>5,892</b>	<b>7,512</b>	<b>0%</b>

Source: SEWRPC 2010 and 2035 Population and Employment Forecast

The Downtown Milwaukee stations in Alternative 1 via Wisconsin Avenue are anticipated to have a large increase (39 percent) in the population density around the station areas. Employment density is also anticipated to grow, but at a smaller percentage (five percent). See Table 6-2.

**Table 6-2: Alternative 1 via Wisconsin Downtown Milwaukee Stations (east of 16<sup>th</sup>)**

Station	2010 Population	2010 Population Density	2035 Population	2035 Population Density	Population Density % Change	2010 Employment	2010 Employment Density	2035 Employment	2035 Employment Density	Employment Density % Change
Downtown Transit Center	4,172	5,319	6,125	7,809	47%	33,964	43,301	37,849	48,254	11%
Wisconsin / Jackson	5,886	7,504	8,185	10,435	39%	43,480	55,433	47,256	60,247	9%
Wisconsin / Broadway	5,110	6,515	7,865	10,027	54%	51,985	66,276	55,116	70,267	6%
Wisconsin / Plankinton	4,381	5,585	7,990	10,186	82%	51,055	65,090	52,812	67,330	3%
Wisconsin / 5 <sup>th</sup>	4,825	6,151	7,865	10,027	63%	38,572	49,175	40,075	51,092	4%
Wisconsin / 8 <sup>th</sup>	6,633	8,456	8,678	11,064	31%	27,242	34,731	28,404	36,212	4%
Wisconsin / 12 <sup>th</sup>	9,721	12,393	9,922	12,650	2%	21,326	27,189	21,830	27,831	2%
<b>Average</b>	<b>5,818</b>	<b>7,418</b>	<b>8,090</b>	<b>10,314</b>	<b>39%</b>	<b>38,232</b>	<b>48,742</b>	<b>40,477</b>	<b>51,605</b>	<b>6%</b>

Source: SEWRPC 2010 and 2035 Population and Employment Forecast

The Downtown Milwaukee stations in Alternative 2 via Wells Street are also anticipated to have an increase in average population density (34 percent) and average employment density (seven percent) around the station areas. See Table 6-3.

**Table 6-3: Alternative 2 via Wells Downtown Milwaukee Stations (east of 16<sup>th</sup>)**

Station	2010 Population	2010 Population Density	2035 Population	2035 Population Density	Population Density % Change	2010 Employment	2010 Employment Density	2035 Employment	2035 Employment Density	Employment Density % Change
Downtown Transit Center	4,172	5,319	6,125	7,809	47%	33,964	43,301	37,849	48,254	11%
Van Buren / Wisconsin	5,698	7,264	7,934	10,115	39%	40,791	52,004	44,693	56,979	10%
Jackson / Wisconsin	5,886	7,504	8,185	10,435	39%	43,480	55,433	47,256	60,247	9%
Wells / Jefferson	7,508	9,572	10,523	13,416	40%	45,837	58,438	49,816	63,510	9%
Wells / Broadway	6,782	8,646	10,510	13,399	55%	50,565	64,465	53,883	68,695	7%
Wells / Plankinton	5,006	6,382	9,101	11,603	82%	49,040	62,521	51,055	65,090	4%
Wells / 6 <sup>th</sup>	6,013	7,666	9,095	11,595	51%	35,047	44,681	36,796	46,911	5%
Wells / 11 <sup>th</sup>	9,854	12,563	10,654	13,583	8%	23,406	29,840	24,186	30,835	3%
Wisconsin / 13 <sup>th</sup>	10,447	13,319	10,390	13,246	-1%	19,230	24,516	19,653	25,056	2%
<b>Average</b>	<b>6,818</b>	<b>8,693</b>	<b>9,169</b>	<b>11,689</b>	<b>34%</b>	<b>37,929</b>	<b>48,355</b>	<b>40,576</b>	<b>51,731</b>	<b>7%</b>

Source: SEWRPC 2010 and 2035 Population and Employment Forecast

The Downtown Milwaukee stations in the Alternative 3 Hybrid on both Wisconsin and Wells are also anticipated to have an increase in average population density (32 percent) and average employment density (six percent) around the station areas. See Table 6-4.

**Table 6-4: Alternative 3 Hybrid via Wisconsin/Wells Downtown Milwaukee Stations (east of 16<sup>th</sup>)**

Station	2010 Population	2010 Population Density	2035 Population	2035 Population Density	Population Density % Change	2010 Employment	2010 Employment Density	2035 Employment	2035 Employment Density	Employment Density % Change
Downtown Transit Center	4,172	5,319	6,125	7,809	47%	33,964	43,301	37,849	48,254	11%
Wisconsin / Jackson	5,886	7,504	8,185	10,435	39%	43,480	55,433	47,256	60,247	9%
Wisconsin / Broadway	5,110	6,515	7,865	10,027	54%	51,985	66,276	55,116	70,267	6%
Wells / Plankinton	5,006	6,382	9,101	11,603	82%	49,040	62,521	51,055	65,090	4%
Wells / 6 <sup>th</sup>	6,013	7,666	9,095	11,595	51%	35,047	44,681	36,796	46,911	5%
Wells / 11 <sup>th</sup>	9,854	12,563	10,654	13,583	8%	23,406	29,840	24,186	30,835	3%
Wisconsin / 13 <sup>th</sup>	10,447	13,319	10,390	13,246	-1%	19,230	24,516	19,653	25,056	2%
<b>Average</b>	<b>6,641</b>	<b>8,467</b>	<b>8,774</b>	<b>11,185</b>	<b>32%</b>	<b>36,593</b>	<b>46,653</b>	<b>38,844</b>	<b>49,523</b>	<b>6%</b>

Source: SEWRPC 2010 and 2035 Population and Employment Forecast



The three alternatives have very similar population and employment totals for 2010 and 2035, as well as very similar population and employment densities for 2010 and 2035. One alternative does not serve a significantly higher number of people or jobs than another; though all alternatives are anticipated to have an increase in population and employment densities by 2035. See Table 6-5.

**Table 6-5: Population and Employment Alignment Summary Results**

Station	2010 Population	2010 Population Density	2035 Population	2035 Population Density	Population Density % Change	2010 Employment	2010 Employment Density	2035 Employment	2035 Employment Density	Employment Density % Change
Alternative 1 via Wisconsin	46,591	5,788	53,524	6,650	15%	119,212	14,811	126,085	15,665	6%
Alternative 2 via Wells	48,516	5,941	55,985	6,856	15%	121,155	14,836	128,844	15,778	6%
Alternative 3 Hybrid via Wisconsin/Wells	47,083	5,812	54,248	6,697	15%	120,776	14,909	128,268	15,834	6%

Source: SEWRPC 2010 and 2035 Population and Employment Forecast

## 7. EQUITABLE ACCESS TO THE TRANSIT INVESTMENT

One of the goals of the East-West BRT Study is to evaluate equitable access to this transit investment in accordance with federal laws and regulations including Title VI (Title VI) of the 1964 Civil Rights Act and Executive Order (EO) 12898. The purpose of this section is to identify where populations protected by these laws and regulations reside in the vicinity of proposed stations in an effort to gauge whether the project may adversely affect or benefit low-income populations and people of color. This analysis may also serve as a guide to identifying communities that may benefit from additional outreach during subsequent phases of planning and design.

One way to measure equitable access is to determine how many people live in the three population groups that tend to have less access to transit: the population living below poverty, people of color and zero-car households. The following analysis summarizes where many people in each of these three groups live within a half-mile of each potential station and within a half-mile of each alternative alignment.

### 7.1 Regulatory Framework

The FTA provides two key documents to encourage compliance with Environmental Justice and Title VI requirements: Circular 4703.1 Environmental Justice Policy Guidance for Federal Transit Administration and Circular 4702.1B Title VI Requirements and Guidelines for Federal Transit Administration Recipients. The two circulars provide methods to fulfill the key goals of federal environmental justice policies:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.

- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Title VI prohibits discrimination on the ground of race, color, or national origin. Title VI imposes a statutory obligation on FTA recipients to: (1) ensure that the level and quality of public transportation service is provided equitably without regard to race, color, or national origin; (2) promote full and fair participation in public transportation decision-making without regard to race, color or national origin; and, (3) ensure meaningful access to transit-related programs and activities by persons with limited English proficiency (LEP). A separate Title VI analysis will be prepared for this study in a subsequent phase.

EO 12898 requires each federal agency “to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations”. Subsequent guidance further defines environmental justice by requiring that “each federal agency shall analyze the environmental effects, including human health, economic, and social effects, of federal actions including effects on minority and low-income communities, when such analysis is required by NEPA.” Guidance also directs each federal agency to “provide opportunities for community input in the NEPA process, identify potential effects and mitigation measures in consultation with affected communities, and improve the accessibility of meetings, crucial documents, and notices”.

This phase of the study does not require a NEPA-level analysis of environmental justice; however, in full compliance with Title VI and EO 12898, all efforts are being made to identify and document any adverse effects to protected populations and to ensure full and fair participation by affected communities.

## 7.2 Methodology

The total population and total number of households were calculated to determine the percentage of the population living below poverty, people of color, and zero-car households within a half-mile of each station and within a half-mile of each alignment.

- The population living below poverty, people of color, and zero-car households has been joined with the Census Block Group GIS shapefile. Half-mile buffers were created around each station location for each alternative.

- The total population and total number of households within a half-mile of each station were calculated.
- The population living below poverty, people of color, and zero-car households were calculated.
  - People of color, defined as minority in guidance documents, include American Indian and Alaska Native; Asian; Black or African American; Hispanic or Latino; Native Hawaiian and other Pacific Islander; and two or more races.
  - For this analysis, low-income populations were identified as persons living below poverty as defined by U.S. Census Bureau.
- The percentage of each group was determined by dividing the population or number of households by the total population or total households.
- Per FTA guidance, these estimates were created by assigning population totals to each station area based on the pro-rated amount of area that falls within the half-mile circle around the station.
  - For example, if 60 percent of the area of a Census Block Group falls within the half-mile radius of a station, it is assumed that 60 percent of the population lives below poverty, people of color, and zero-car households of that Block Group are also within the half-mile radius.

## 7.3 Data Sources / Limitations

Data from the United States Census Bureau American Community Survey 2010-2014 were used to calculate total population, total households, the population living below poverty, people of color, and zero-car households.

It is important to note that certain limitations may be apparent in the data and analysis. Data limitations may include margins of error associated with datasets. Other limitations may include alternative methods of interpreting measures of low income (e.g., median income) and other concepts related to equity and environmental justice including age, limited English proficiency, educational attainment, and disability status. Subsequent analyses may include these datasets to supplement equity and environmental justice considerations.

## 7.4 Summary of Results

The following discussion includes a summary of the selected socio-economic characteristics noted above for each alignment alternative and for potential stations in various subareas of the corridor. Table 7-1 includes a summary of the data for each proposed alignment. Table 7-2 includes stations west of 16<sup>th</sup> Street. Table 7-3, Table 7-4, and Table 7-5 depict stations in and around Downtown Milwaukee east of 16<sup>th</sup> Street; these tables are associated with the Wisconsin Avenue alignment, Wells Street alignment, and Hybrid (Wisconsin/Wells) alignment, respectively.

As seen in Table 7-1, there is little variation in population characteristics among the proposed alignment alternatives. The Wells Street corridor includes slightly denser, more populated neighborhoods within a half-mile buffer of its alignment; however, it shares a nearly identical distribution of persons below poverty (26 percent), people of color (40 percent), and percentage of households without access to a vehicle (24 percent) with nominally lower populations within the respective buffers of the remaining alignments. Furthermore, while these percentages are comparable across alternatives and generally reflect the distribution at a citywide level, concentrations of these populations, far-exceeding the average distributions, reside in the vicinity of specific segments of each alternative.

Generally, the areas surrounding the east and west termini for each alternative alignment have lower concentrations of low-income populations, people of color, and zero-car households, with higher distributions of each group residing between 11<sup>th</sup> Street and 51<sup>st</sup> Street. It is important to note that not only are the percentages higher in the central segments, these neighborhoods are also substantially denser and have higher populations than those at each terminus, particularly those at west termini. In other words, the data indicate that a significant number of people protected by Title VI and EO 12898 reside in each corridor and may be affected by or benefit from the proposed project.

As indicated in Table 7-2, several stations along western segments have populations below poverty, people of color, and zero-car households residing within a half-mile of the potential stations. With few exceptions, the areas surrounding stations west of 51<sup>st</sup> Street are home to the fewest number of persons below poverty, people of color, and zero-car households, with percentages half those of the corridor averages. The highest percentage of persons below poverty live near Wisconsin and 27<sup>th</sup> Street, with surrounding stations experiencing levels of poverty at or near double those of the corridor average.

Similarly, the highest number of people of color in the western segments resides around stations between 16<sup>th</sup> Street and 51<sup>st</sup> Street. The highest percentage and number of people of color live within a half-mile of the Wisconsin/27<sup>th</sup> (78 percent, 7,596) and Wisconsin/35<sup>th</sup> (81 percent, 5,912) stations. Again, the distribution of minority populations lessens moving both east and west, but the percentages dramatically drop west of 51<sup>st</sup> Street.

The percentage of households without access to a vehicle generally mirrors that of the other characteristics; however, the highest concentration of zero-car households can be found within a half-mile of the Wisconsin/16<sup>th</sup> (44 percent) and Wisconsin/27<sup>th</sup> (42 percent) stations. Generally, the presence of zero-car households decreases moving westward, but concentrations slightly increase in stations surrounding the MRMC and the MCRP.

As seen in Table 7-3, the areas surrounding stations along the eastern part of Wisconsin Avenue are home to a number of persons below poverty, people of color, and zero-car households; however, the proportions are, in most cases, less than those found in the central corridor but more than those in the west segments. The highest number (2,539) and percentage (30 percent) of persons below poverty reside within a half-mile of the Wisconsin/12<sup>th</sup> station. Generally, the proportion of the population below poverty decreases moving toward downtown. Similarly, the highest concentration of people of color and zero-car households along this segment of Wisconsin Avenue live within a half-mile of the Wisconsin/12<sup>th</sup> station, with each characteristic becoming less prevalent moving toward downtown.

The characteristics surrounding stations associated with the Wells Street alignment alternative (Table 7-4) and the Hybrid (Wisconsin/Wells) alignment alternative (Table 7-5) generally mirror those of the Wisconsin Avenue stations. Both the Wells Street and Hybrid alignments include a station at Wisconsin Avenue and 13<sup>th</sup> Street with the highest concentrations of persons below poverty (34 percent), people of color (39 percent), and zero-car households (43 percent). These concentrations slightly exceed those found at the Wisconsin/12<sup>th</sup> station along the Wisconsin Avenue alignment.

**Table 7-1: Equity Summary Results by Alignment**

Alignment	Total Population	Total Households	Below Poverty (#)	Below Poverty (%)	People of Color (#)	People of Color (%)	Zero-Car Households (#)	Zero-Car Households (%)
Alternative 1: via Wisconsin	49,386	20,832	12,692	26%	19,645	40%	4,785	23%
Alternative 2: via Wells	51,457	22,142	13,304	26%	20,406	40%	5,241	24%
Alternative 3: Hybrid	49,993	21,073	12,938	26%	20,098	40%	4,872	23%

**Table 7-2: Western Corridor Stations**

Station	Total Population	Total Households	Below Poverty (#)	Below Poverty (%)	People of Color (#)	People of Color (%)	Zero-Car Households (#)	Zero-Car Households (%)
Wisconsin / 16 <sup>th</sup>	10,146	2,879	4,192	41%	4,176	41%	1,273	44%
Wisconsin / 27 <sup>th</sup>	9,777	4,401	4,888	50%	7,596	78%	1,840	42%
Wisconsin / 35 <sup>th</sup>	7,331	3,292	3,195	44%	5,912	81%	1,236	38%

Station	Total Population	Total Households	Below Poverty (#)	Below Poverty (%)	People of Color (#)	People of Color (%)	Zero-Car Households (#)	Zero-Car Households (%)
Wisconsin / 45 <sup>th</sup>	3,110	1,382	597	19%	1,511	49%	241	17%
Wisconsin / 51 <sup>st</sup>	2,966	1,349	271	9%	534	18%	117	9%
Hawley / Bluemound	4,244	1,896	391	9%	632	15%	153	8%
Bluemound / 66 <sup>th</sup>	5,895	2,544	700	12%	937	16%	155	6%
Bluemound / 76 <sup>th</sup>	4,463	1,853	611	14%	719	16%	100	5%
Bluemound / Glenview	3,462	1,393	333	10%	328	9%	70	5%
Bluemound / 95 <sup>th</sup>	2,768	1,084	258	9%	440	16%	98	9%
92 <sup>nd</sup> / Connell (MRMC)	1,816	729	197	11%	203	11%	59	8%
Swan Road P&R	650	310	36	6%	75	12%	33	11%



**Table 7-3: Downtown Milwaukee Stations Alternative 1 via Wisconsin (east of 16<sup>th</sup>)**

Station	Total Population	Total Households	Below Poverty (#)	Below Poverty (%)	People of Color (#)	People of Color (%)	Zero-Car Households (#)	Zero-Car Households (%)
Downtown Transit Center	4,797	3,064	518	11%	1,008	21%	494	16%
Wisconsin / Jackson	6,407	4,050	761	12%	1,383	22%	706	17%
Wisconsin / Broadway	6,406	3,706	656	10%	1,459	23%	539	15%
Wisconsin / Plankinton	5,602	2,902	564	10%	1,514	27%	401	14%
Wisconsin / 5 <sup>th</sup>	4,862	1,520	431	9%	1,888	39%	231	15%
Wisconsin / 8 <sup>th</sup>	6,244	1,476	917	15%	2,490	40%	448	30%
Wisconsin / 12 <sup>th</sup>	8,411	1,909	2,539	30%	3,202	38%	798	42%

**Table 7-4: Downtown Milwaukee Stations Alternative 2 via Wells (east of 16<sup>th</sup>)**

Station	Total Population	Total Households	Below Poverty (#)	Below Poverty (%)	People of Color (#)	People of Color (%)	Zero-Car Households (#)	Zero-Car Households (%)
Downtown Transit Center	4,797	3,064	518	11%	1,008	21%	494	16%
Van Buren / Wisconsin	6,310	4,002	760	12%	1,349	21%	713	18%
Jackson / Wisconsin	6,407	4,050	761	12%	1,383	22%	706	17%
Wells / Jefferson	8,346	5,204	1,153	14%	1,880	23%	1,108	21%
Wells / Broadway	8,015	4,746	1,017	13%	1,992	25%	987	21%
Wells / Plankinton	5,835	2,780	610	10%	1,846	32%	432	16%
Wells / 6 <sup>th</sup>	5,763	1,566	700	12%	2,488	43%	246	16%
Wells / 11 <sup>th</sup>	8,632	1,979	2,466	29%	3,595	42%	809	41%
Wisconsin / 13 <sup>th</sup>	9,069	2,135	3,073	34%	3,500	39%	921	43%

**Table 7-5: Downtown Milwaukee Stations Alternative 3 via Hybrid (Wisconsin / Wells) (east of 16<sup>th</sup>)**

Station	Total Population	Total Households	Below Poverty (#)	Below Poverty (%)	People of Color (#)	People of Color (%)	Zero-Car Households (#)	Zero-Car Households (%)
Downtown Transit Center	4,797	3,064	518	11%	1,008	21%	494	16%
Wisconsin / Jackson	6,407	4,050	761	12%	1,383	22%	706	17%
Wisconsin / Broadway	6,406	3,706	656	10%	1,459	23%	539	15%
Wells / Plankinton	5,602	2,902	564	10%	1,514	27%	401	14%
Wells / 6 <sup>th</sup>	5,763	1,566	700	12%	2,488	43%	246	16%
Wells / 11 <sup>th</sup>	8,632	1,979	2,466	29%	3,595	42%	809	41%
Wisconsin / 13 <sup>th</sup>	9,069	2,135	3,073	34%	3,500	39%	921	43%

## 7.5 Equitable Access Study Implications

As seen in the summary above, protected populations including persons living below poverty, people of color and households without access to a vehicle are present in the vicinity of all potential stations and each alternative alignment under consideration. High concentrations of these populations can be found in the central segments; however, there is no threshold for the significance of the distribution of populations protected by Title VI and EO 12898. Benefits or adverse effects must be considered on an individual basis.

The data suggest that protected populations, particularly in central segments, may benefit from proximity to stations and access to the proposed transit investments. As implied by the high percentages of zero-car households along the corridor, many residents within a half-mile radius of a proposed station are dependent on transit.

Subsequent phases of the project will evaluate the degree to which populations protected by Title VI and EO 12898 may experience disproportionately high and adverse effect or delay of benefits, if investments are not made accessible. Furthermore, the degree to which effects may be disproportionately high and adverse must be assessed based on additional data analyses and through full and fair participation by all potentially affected populations. The extent to which protected populations may benefit from investments will also be evaluated in future phases.

## 8. DEVELOPMENT POTENTIAL

An evaluation measure for the East-West BRT study is the ability to foster development around station areas that is consistent with adopted planning, land uses and opportunities. This evaluation measure is consistent with criteria examined by the Federal Transit Administration (FTA) when rating potential projects for funding eligibility. This memorandum provides an overview of the methodology and results of an analysis of each alternative and its station site options for economic development potential.

## 8.1 Methodology

Based on research from the FTA and the experience of other communities, the potential for economic development in a proposed transit station area can be assessed by examining the factors described below:

- **Planning and policy support:** Local planning documents and development policies indicating that transit supportive development types (mixed-uses, higher densities) would be allowed or supported in an area.

Many of the plans from municipalities along the corridor – the City of Milwaukee, City of Wauwatosa, Milwaukee County and Southeastern Wisconsin Regional Planning Commission – provide insight into the community’s desired development strategies and identify redevelopment opportunity sites located in proposed station areas. A review of recent plans and zoning policies was conducted to specifically identify redevelopment areas appropriate for consideration of higher-density residential, commercial or mixed-use.

- **Existing or projected future market demand:** Existing and projected future market trends that indicate growth and development potential in the area.

Private market demand for higher-density residential, commercial and mixed use employment centers and employment has been documented primarily in downtown Milwaukee, near Marquette University, in the central and western areas of Wauwatosa and at the Milwaukee Regional Medical Center. Additional higher density residential development has been completed or planned in the area west of Marquette, in some cases driven by the availability of development tax credits. Development in the eastern portion of the corridor has been at considerable densities and urban in form; much of the design of new construction in the western portions of the corridor has been at more moderate densities in more auto-oriented configurations, featuring large areas devoted to surface parking, for example. This activity provides an indication of market demand. Regional planning calls for higher density infill development in most of the corridor.

- **Presence of underutilized opportunity sites:** Adjacent sites are undeveloped or underutilized, and physically suited and located for transit supportive development.

New development is unlikely to replace existing active uses, and requires consideration of existing site uses to identify parcels that are both likely to be available for redevelopment and properly configured for developer interest in a transit supportive setting. In addition, sites that are not suitable for development or redevelopment due to neighborhood, historical, or

environmental constraints should not be considered as having high potential for economic development. Based on surveys of each station area, an assessment of the developable property for each station has been developed.

## 8.2 Data Sources

The analysis of the development potential around the station areas in the alignment corridors used the following data sources: City of Milwaukee GIS data, Milwaukee County GIS data, Google Maps, City of Milwaukee Area Plans, City of Wauwatosa Comprehensive Plan and local knowledge.

## 8.3 Summary of Results

Based on an evaluation of the above factors (Planning Policy and Support, Market Demand and Opportunity Sites) for each potential station area along the alignments, each station was given a rating of High, Medium or Low as shown in Table 8-1. The table also provides a look at the existing population and employment in a one-half mile radius area around each of the station sites.

**Table 8-1: Station Area Development Potential**

Station	Alternatives	2014 Population	2010 Employment	Opportunity Sites	Planning Support	Market Trends
Downtown Transit Center	Alternative 1: via Wisconsin Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	4,797	33,964	High	High	High
Wisconsin/Jefferson	Alternative 1: via Wisconsin Alternative 3: Hybrid via Wisconsin and Wells	6,544	46,404	High	High	High

Station	Alternatives	2014 Population	2010 Employment	Opportunity Sites	Planning Support	Market Trends
Wisconsin/Broadway	Alternative 1: via Wisconsin Alternative 3: Hybrid via Wisconsin and Wells	6,406	51,985	Med	High	High
Wisconsin/Plankinton	Alternative 1: via Wisconsin	5,602	51,055	High	High	High
Wisconsin/5 <sup>th</sup>	Alternative 1: via Wisconsin	4,862	38,572	High	High	Med
Wisconsin/8 <sup>th</sup>	Alternative 1: via Wisconsin	6,244	27,242	High	High	Med
Wisconsin/12 <sup>th</sup>	Alternative 1: via Wisconsin	8,411	21,326	Med	High	Med
Wisconsin/16 <sup>th</sup>	Alternative 1: via Wisconsin Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	10,146	15,343	Med	High	Med
Wisconsin/27 <sup>th</sup>	Alternative 1: via Wisconsin Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	9,777	4,785	High	Med	Med
Wisconsin/35 <sup>th</sup>	Alternative 1: via Wisconsin Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	7,331	5,376	Med	High	Med

Station	Alternatives	2014 Population	2010 Employment	Opportunity Sites	Planning Support	Market Trends
Wisconsin/45th	Alternative 1: via Wisconsin Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	3,110	3,175	Med	High	Med
Wisconsin/51 <sup>st</sup>	Alternative 1: via Wisconsin Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	2,966	1,470	Low	Med	Low
Hawley/Bluemound	Alternative 1: via Wisconsin Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	4,244	1,764	Med	Med	Med
Bluemound/66 <sup>th</sup>	Alternative 1: via Wisconsin Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	5,894	1,849	Med	Low	Low
Bluemound/76 <sup>th</sup>	Alternative 1: via Wisconsin Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	4,463	1,923	Med	Med	Low



Station	Alternatives	2014 Population	2010 Employment	Opportunity Sites	Planning Support	Market Trends
Bluemound/Glenview	Alternative 1: via Wisconsin Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	3,462	6,906	Low	Med	Med
Bluemound/95 <sup>th</sup>	Alternative 1: via Wisconsin Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	2,768	7,279	Med	Low	Med
92 <sup>nd</sup> /Connell (MRMC)	Alternative 1: via Wisconsin Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	1,816	16,744	Low	High	Med
Swan Road P&R	Alternative 1: via Wisconsin Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	650	4,027	Low	High	Med
Van Buren/Wisconsin	Alternative 2: via Wells	6,310	40,791	High	High	High
Wells/Jefferson	Alternative 2: via Wells	8,346	45,837	Med	High	High
Wells/Broadway	Alternative 2: via Wells	8,015	50,565	Med	High	Med

Station	Alternatives	2014 Population	2010 Employment	Opportunity Sites	Planning Support	Market Trends
Wells/Plankinton	Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	5,835	49,040	High	High	High
Wells/6 <sup>th</sup>	Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	5,763	35,047	Med	High	High
Wells/11 <sup>th</sup>	Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	8,632	23,406	Med	High	Med
Wisconsin/13 <sup>th</sup>	Alternative 2: via Wells Alternative 3: Hybrid via Wisconsin and Wells	9,069	19,230	Med	High	Med

A closer look at development characteristics of each proposed station area are detailed below. This includes a description of adjacent land uses and key destinations, a description of primary opportunity sites within one-half mile of the location, and connecting transit routes (including the under development Milwaukee Streetcar).

**Station Area Development Characteristics: Downtown Transit Center**

Existing Land Use

- Land uses include high-density office developments, park land, and museums, institutional, including the Milwaukee Art Museum, Discovery World, Betty Brinn Children’s Museum, and the Milwaukee County War Memorial Center.

### Development Opportunities

- Several recent large-scale developments nearby, including 833 Michigan and the Northwestern Mutual tower, signal the market's recognition of this area's potential. Surface parking lots and underutilized parcels provide significant redevelopment opportunity.

### Planning and Policy Guidance

- City of Milwaukee Downtown Area Plan (2010)

### Transportation Connectivity

- Milwaukee Streetcar, 12, 31, 33, 40, 42U 43, 44, 46, 48, 79, 137

## **Station Area Development Characteristics: Wisconsin/Jefferson**

### Existing Land Use

- High density office and commercial, including many hotels and restaurants, surround this station in the central business district.

### Development Opportunities

- Development in downtown Milwaukee has accelerated in recent years, and the trend is expected to continue with more opportunities for high-density office, residential and commercial developments. Development opportunities include several large surface parking lots in the vicinity and under-utilized parcels that are targeted for redevelopment in the city's downtown plan.

### Planning and Policy Guidance

- City of Milwaukee Downtown Area Plan (2010)

### Transportation Connectivity

- Gold, 12, 14, 30, 30X, 31, 40, 42U, 43, 44, 46, 48, 49, 79, 137, 143

## **Station Area Development Characteristics: Wisconsin/Broadway**

### Existing Land Use

- Surrounding land uses include mainly high-density office and retail.

### Development Opportunities

- Development in downtown Milwaukee has accelerated in recent years, and the trend is expected to continue with more opportunities for high-density office, residential and commercial developments. Development opportunities include several large surface parking lots in the vicinity and under-utilized parcels that are targeted for redevelopment in the city's area plan.

### Planning and Policy Guidance

- City of Milwaukee Downtown Area Plan (2010)

### Transportation Connectivity

- Milwaukee Streetcar, Gold, 12, 14, 19, 30, 30X, 31, 40, 42U, 43, 44, 46, 48, 49, 79, 137, 143

## **Station Area Development Characteristics: Wisconsin/Plankinton**

### Existing Land Use

- Surrounding land uses are largely commercial, including restaurants, entertainment venues, and retail.

### Development Opportunities

- Development on West Wisconsin Avenue has accelerated in recent years, with the trend expected to continue. Additional residential units are expected in the coming years, along with more commercial uses as the area experiences a renewal. Large surface lots and underutilized parcels in the area present opportunities.

### Planning and Policy Guidance

- City of Milwaukee Downtown Area Plan (2010)

### Transportation Connectivity

- Gold, Blue, 12, 14, 19, 23, 30, 30X, 31, 40, 43, 44, 46, 48, 137, 143

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## **Station Area Development Characteristics: Wisconsin/5<sup>th</sup>**

### Existing Land Use

- This location is surrounded by large-scale commercial and institutional uses, including the Wisconsin Center convention hall, and several hotels. It is in close proximity to retail to the east, and additional institutional uses to the west.

### Development Opportunities

- A large surface parking lot on Wisconsin Avenue between 4th and 5th Streets presents a major redevelopment opportunity. The area has been targeted by the City of Milwaukee and other groups for redevelopment, and growing residential density in the area present development opportunities.

### Planning and Policy Guidance

- City of Milwaukee Downtown Area Plan (2010)

### Transportation Connectivity

- Gold, Blue, 12, 14, 23, 30, 30X, 31, 40, 43, 44, 46, 48, 79, 137, 143

## **Station Area Development Characteristics: Wisconsin/8<sup>th</sup>**

### Existing Land Use

- Land uses are largely institutional, including the Milwaukee Public Library, Milwaukee Public Museum, Milwaukee County Courthouse and a state office building. Other various commercial uses and offices fill in the area.

### Development Opportunities

- Large surface parking lots on 8th Street between Michigan Street and Wisconsin Avenue may be made available for redevelopment as market trends bring more activity and residential density to the area.

### Planning and Policy Guidance

- City of Milwaukee Downtown Area Plan (2010)

### Transportation Connectivity

- Gold, 12, 14, 23, 30, 30X, 31, 40, 43, 44, 46, 48, 79 137

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## **Station Area Development Characteristics: Wisconsin/12<sup>th</sup>**

### Existing Land Use

- This intersection is surrounded by Marquette University, with Aurora Sinai Medical Complex just to the north.

### Development Opportunities

- Some underutilized areas of each campus may be readied for development as the institutions continue to grow in the future, but development on private lands surrounding the institutional users will be more likely. Commercial uses and additional off-campus housing to support Marquette University's student population is anticipated in the future.

### Planning and Policy Guidance

- City of Milwaukee Near West Side Area Plan (2009)

### Transportation Connectivity

- Gold, Blue, 12, 14, 23, 30, 30X, 31, 44, 79

## **Station Area Development Characteristics: Wisconsin/16<sup>th</sup>**

### Existing Land Use

- This potential stop is located on Marquette University's campus. University buildings surround this stop, as well as high-density residential and commercial uses that support the university's population.

### Development Opportunities

- This location is largely developed, but some potential could remain through Marquette's future growth plans. Additionally, off-campus housing developments may develop in the surrounding neighborhood.

### Planning and Policy Guidance

- City of Milwaukee Near West Side Area Plan (2009)

### Transportation Connectivity

- Gold, Blue, 14, 23, 30, 30X, 44, 79

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## **Station Area Development Characteristics: Wisconsin/27<sup>th</sup>**

### Existing Land Use

- This location is surrounded by a wide variety of land uses, including many vacant lots, some institutional uses, and commercial. The area includes a mix of residential uses densities, with higher density housing on Wisconsin Avenue, and single-family or duplex housing throughout the neighborhood.

### Development Opportunities

- This intersection is a major vehicular and transit crossroads in the neighborhood and some redevelopment has occurred in recent years. Underutilized parcels present opportunities for high-density mixed-use development to develop.

### Planning and Policy Guidance

- City of Milwaukee Near West Side Area Plan (2009)

### Transportation Connectivity

- Gold, Purple, 27, 30, 30X

## **Station Area Development Characteristics: Wisconsin/35<sup>th</sup>**

### Existing Land Use

- Land use in this location is mixed, with major commercial and industrial developments to the west, and medium-density residential to the east. Marquette University High School directly abuts the intersection, and their athletic complex takes up a large tract of land southeast of the potential station.

### Development Opportunities

- Development opportunities in this area will be limited by Marquette University High School and the relatively low availability of vacant land in the immediate vicinity. However, some of the existing commercial and residential land may be able to intensify and become more mixed-use in nature.

### Planning and Policy Guidance

- City of Milwaukee Near West Side Area Plan (2009)

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### Transportation Connectivity

- Gold, 30, 30X, 35

### **Station Area Development Characteristics: Wisconsin/51<sup>st</sup>**

#### Existing Land Use

- Land use in this location is largely single-family and duplex residential, with Doyne Park Golf Course abutting the neighborhood to the north, and Calvary Cemetery to the south.

#### Development Opportunities

- Development opportunities in this area will be limited by zoning policies that call for this neighborhood to remain residential. Some mixed use or commercial redevelopment may occur along Bluemound Road, one block to the south, but should remain at the “neighborhood” scale.

#### Planning and Policy Guidance

- City of Milwaukee West Side Area Plan (2009)

### Transportation Connectivity

- Gold

### **Station Area Development Characteristics: Hawley/Bluemound**

#### Existing Land Use

- Land use in this area is mixed, with Bluemound road being a commercial spine surrounded by medium-density residential neighborhoods. In addition, Calvary Cemetery abuts the intersection to the southeast.

#### Development Opportunities

- Some commercial redevelopment may occur along Bluemound Road but should remain at the “neighborhood” scale.

#### Planning and Policy Guidance

- City of Milwaukee West Side Area Plan (2009)
- Wauwatosa Comprehensive Plan (2008)



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## Transportation Connectivity

- Gold, 64

### **Station Area Development Characteristics: Bluemound/66<sup>th</sup>**

#### Existing Land Use

- Land use in this area is largely residential single-family residential, with some multifamily and commercial developments along Bluemound Road.

#### Development Opportunities

- Some commercial redevelopment may occur along Bluemound Road but should remain at the “neighborhood” scale. The area is designated as a “neighborhood conservation” district in the Wauwatosa comprehensive plan, making any higher-density redevelopment difficult.

#### Planning and Policy Guidance

- City of Milwaukee West Side Area Plan (2009)
- Wauwatosa Comprehensive Plan (2008)

## Transportation Connectivity

- None

### **Station Area Development Characteristics: Bluemound/76<sup>th</sup>**

#### Existing Land Use

- This area is an auto-oriented commercial development surrounded by single-family and multi-family residential.

#### Development Opportunities

- Mixed-use and higher-density transit-oriented commercial redevelopment may be seen in the area immediately surrounding this intersection as the location becomes an activity center.

#### Planning and Policy Guidance

- City of Milwaukee West Side Area Plan (2009)
- Wauwatosa Comprehensive Plan (2008)

### Transportation Connectivity

- 85, 76

### **Station Area Development Characteristics: Bluemound/Glenview**

#### Existing Land Use

- Land uses in this area are mainly single-family residential, with commercial developments directly surrounding the intersection, along with Wisconsin Lutheran High School.

#### Development Opportunities

- Some mixed-use redevelopment and intensification of the existing commercial activities may occur centered around the station. However, development will be limited in the surrounding residential neighborhoods.

#### Planning and Policy Guidance

- City of Milwaukee West Side Area Plan (2009)
- Wauwatosa Comprehensive Plan (2008)

### Transportation Connectivity

- 85, 67

### **Station Area Development Characteristics: Bluemound/95<sup>th</sup>**

#### Existing Land Use

- Land uses include residential and institutional, including several churches and schools.

#### Development Opportunities

- The highway interchange at this location may be reconfigured during the Zoo Interchange project, freeing up possible land for development.

#### Planning and Policy Guidance

- Wauwatosa Comprehensive Plan (2008)

### Transportation Connectivity

- Gold, 67, 85

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## **Station Area Development Characteristics: 92<sup>nd</sup>/Connell (MRMC)**

### Existing Land Use

- This location is on the Milwaukee Regional Medical Center campus, surrounded by large institutional uses.

### Development Opportunities

- The Milwaukee Regional Medical Center has built several new facilities in recent years, and the campus plans to continue its growth into the future, presenting opportunities to convert some of the complexes surface parking land into productive use.

### Planning and Policy Guidance

- Wauwatosa Comprehensive Plan (2008)

### Transportation Connectivity

- Gold, 67, 31

## **Station Area Development Characteristics: Swan Road Park & Ride**

### Existing Land Use

- This location is on the Milwaukee Regional Medical Center campus, surrounded by large institutional uses.

### Development Opportunities

- Additional large-scale office development is expected to occur at the Milwaukee County Research Park and the UW-Milwaukee Innovation Campus in the coming years. A BRT line could reasonably be expected to accelerate this development.

### Planning and Policy Guidance

- Wauwatosa Comprehensive Plan (2008)

### Transportation Connectivity

- 79

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## **Station Area Development Characteristics: Van Buren/Wisconsin**

### Existing Land Use

- High-density office and commercial uses surround this location, with some high-density residential developments as well.

### Development Opportunities

- Much redevelopment has taken place downtown in the past few years, particularly as high-density office space, and the trend is expected to continue in this area.

### Planning and Policy Guidance

- City of Milwaukee Downtown Area Plan (2011)

### Transportation Connectivity

- Gold, 12, 14, 30, 30X, 31, 40, 43, 44, 79, 46, 48, 49, 137, 143

## **Station Area Development Characteristics: Wells/Jefferson**

### Existing Land Use

- High-density office and mixed-use developments surround this area, along with residential multi-family developments. This proposed station abuts Cathedral Square, a popular gathering space in downtown Milwaukee.

### Development Opportunities

- Development in downtown Milwaukee has accelerated in recent years, and the trend is expected to continue, including in this area. Opportunities include the many surface parking lots that could be targeted for alternative land uses and intensification.

### Planning and Policy Guidance

- City of Milwaukee Downtown Area Plan (2011)

### Transportation Connectivity

- None

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## **Station Area Development Characteristics: Wells/Broadway**

### Existing Land Use

- High-density office, mixed-use and commercial developments surround this area. This proposed station is within one block of Milwaukee City Hall.

### Development Opportunities

- Development in downtown Milwaukee has accelerated in recent years, and the trend is expected to continue, including in this area. Opportunities include the many surface parking lots that could be targeted for alternative land uses and intensification.

### Planning and Policy Guidance

- City of Milwaukee Downtown Area Plan (2011)

### Transportation Connectivity

- Milwaukee Streetcar

## **Station Area Development Characteristics: Wells/Plankinton**

### Existing Land Use

- Land uses include commercial and residential, with some vacant parcels in the area and much of the land dedicated to surface parking. The proposed station is within one block of the Milwaukee Riverwalk, a popular gathering place lined with restaurants and entertainment.

### Development Opportunities

- Development in on the west side of the river has accelerated in recent years, and the pace is expected to continue. Market trends have led to the intensification and redevelopment of existing buildings, but surface parking lots may also present opportunities for conversions to alternate uses.

### Planning and Policy Guidance

- City of Milwaukee Downtown Area Plan (2011)

### Transportation Connectivity

- 19, 33, 42U, 79

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## **Station Area Development Characteristics: Wells/6<sup>th</sup>**

### Existing Land Use

- Surrounding uses are largely institutional, including the Wisconsin Center convention hall, Milwaukee Public Museum, Milwaukee Public Library, Milwaukee County courthouse, and a federal office building.

### Development Opportunities

- Institutional users in the vicinity will make development more difficult than in other areas, but some opportunities do exist within walking distance of the station. Vacant parcels or surface parking lots along Wisconsin Avenue and Kilbourn Avenue may be expected to develop alternate uses, and the Wisconsin Center is looking toward an expansion in the future.

### Planning and Policy Guidance

- City of Milwaukee Downtown Area Plan (2011)

### Transportation Connectivity

- 40U, 40X, 49, 80, 143, 906

## **Station Area Development Characteristics: Wells/11<sup>th</sup>**

### Existing Land Use

- Land uses in this area are largely commercial and institutional, with the proposed station located between Marquette University and Aurora Sinai Medical Center.

### Development Opportunities

- Institutional users in the vicinity will make development more difficult than in other areas, but some opportunities do exist within walking distance of the station. Marquette University is expected to expand its footprint into the surrounding neighborhood in the near future, and expanding options for off-campus student housing and commercial development to support the university population may spur development.

### Planning and Policy Guidance

- City of Milwaukee Near West Side Area Plan (2008)

## Transportation Connectivity

- 49

### **Station Area Development Characteristics: Wells/13<sup>th</sup>**

#### Existing Land Use

- Land uses in this area are largely commercial, institutional, and multi-family residential, with the proposed station located on the Marquette University campus and near the Aurora Sinai Medical Center.

#### Development Opportunities

- Institutional users in the vicinity may make development more difficult than in other areas, but some opportunities do exist within walking distance of the station. Marquette University is expected to expand its footprint into the surrounding neighborhood in the near future, and expanding options for off-campus student housing and commercial development to support the university population may spur development.

#### Planning and Policy Guidance

- City of Milwaukee Near West Side Area Plan (2008)

#### Transportation Connectivity

- None

## **8.4 Station Area Planning Implications of Development Potential Analysis**

Redevelopment opportunities exist in the vicinity of all proposed stations. Redevelopment is supported by existing land use and zoning regulations and by adopted regional and municipal planning documents. Generally speaking the real estate market is highly supportive of redevelopment in the eastern end of the study corridor, particularly in downtown Milwaukee and in the area around Marquette University. In the central areas of the corridor, smaller scale redevelopment is more likely than high density residential or intense job-creating uses. Preserving the character of Wauwatosa neighborhoods is an important consideration in the City's planning. Finally, at the western end of the corridor, redevelopment is likely to be guided by activities at the Milwaukee Regional Medical Center and the Milwaukee Research Park.