Pedestrian Network Analysis
Better Walking Access to Transit in the Portland Metro Region

Technical Memo #2:
Analysis Results

Submitted to:
Project Technical Advisory Committee

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Technical Advisory Committee

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1.0 Introduction

This memo is the second of three technical memos, describing work conducted by TriMet as part of the agency’s Pedestrian Network Analysis project. The Pedestrian Network Analysis will provide TriMet and its partners with a way to prioritize and program investments that provide better pedestrian access to transit stops and stations.

Technical memo 1 provided the foundation for the project. It included an overview of the project, set project performance targets, and outlined a methodology that uses Geographic Information Systems (GIS) software to identify locations where changes to the pedestrian environment would be expected to improve actual and perceived pedestrian safety and increase the number of people walking and taking transit. Technical memo 2 communicates the results of applying this methodology at a region-wide level and recommends ten specific geographic areas for TriMet and its local partners to focus on first when making pedestrian infrastructure investments.

TriMet has more than 7,000 transit stops in its system, many of which could benefit from improved pedestrian access. Given the size of TriMet’s system and the breadth of pedestrian needs in the region, it is imperative the analysis be data-driven and as objective as possible. To accomplish this, the project team analyzed each of TriMet’s 7,000 + transit stops from a variety of perspectives, using GIS to understand how transit stops fit into their surroundings and perform relative to each other.

The steps involved in the GIS analysis are shown in Figure 1. Each transit stop received a score of zero, one or two for every step listed under the base and overlay analysis sections. The sum of these scores resulted in a composite score that was used to compare one transit stop to another.

This memo is organized around the analysis process. Sections 2, 3, and 4 of the memo walk through each step of the base, overlay, and composite analysis. For each step there is a page describing why the step is important, the scoring process, general findings, key assumptions, and caveats that might apply. Throughout these sections, a diagram illustrates where in the analysis that particular step falls and how it relates to the overall process.

Section 5 of the memo describes the qualitative review process used to evaluate the highest scoring stops. Section 6 introduces the ten focus areas. Detailed information about each focus area is provided with a map showing transit stops, essential destinations, road characteristics (speed/volume), addresses with a large number of paratransit requests, and pedestrian crash sites. Section 7 describes next steps for the project.
Figure 1: Pedestrian Network Analysis Methodology

- **Step 1 - Base Analysis** evaluated the overall transit supportiveness of an area, including density, mix of uses, street connectivity, stop level ridership, transfer opportunities, and the proximity of TriMet’s transit stops to a variety of essential destinations like grocery stores, schools, senior housing and services, social services, major employers, colleges, hospitals etc. This step allowed the project to identify areas where pedestrian improvements would likely have the highest impact on the largest number of existing or potential transit users.

- **Step 2 - Overlay Analysis** identified deficiencies and opportunities near TriMet’s transit stops. Deficiencies were defined as characteristics that make a place unpleasant or unsafe to walk like high auto traffic speeds, missing sidewalks, etc. Opportunities included potential resources such as urban renewal and providing more access to fixed route transit service, where by reducing the need for TriMet’s paratransit LIFT service.

- **Step 3 - Composite Score** Composite scores were calculated for each of TriMet’s 7,000+ transit stops, using scores generated in the base and overlay quantitative analysis steps. Based on the composite scores, clusters of high scoring stops were identified and compared to census tract maps that illustrate where there are above average concentrations of low-income households and communities of color.

Once these three steps were complete, the top scoring stops were evaluated from a qualitative perspective, including how well they fit with local planning activities, TriMet’s long-term planning goals, and overall geographic distribution.
2.0 Base Analysis Results

**Step 1 - Base Analysis** evaluated the overall transit supportiveness of an area, including density, mix of uses, street connectivity, stop level ridership, transfer opportunities, and the proximity of TriMet’s transit stops to a variety of essential destinations like grocery stores, schools, senior housing and services, social services, major employers, colleges, hospitals etc. This step allowed the project to identify areas where pedestrian improvements would likely have the highest impact on the largest number of existing or potential transit users.
Combined Residential and Employment Density

*Findings*

- Areas with high employment density are not typically the areas with high residential density, with the exception of a few areas including Portland’s Central City and Inner Eastside and the 2040 Regional Centers;
- Areas with the highest combined employment/residential density are typically located along TriMet’s existing High Capacity Transit and Frequent Bus lines.

*Key Assumptions*

- Data Source: Metro’s 2005 TAZ population and employment layer (2,013 TAZs);
- Roadways, waterways, and parks/open space were subtracted from the overall area of the TAZs and a new area was calculated for purpose of calculating density;
- The number of residents and/or employees was divided by the new number of acres in the TAZ to find the density.

*Caveats*

- More recently collected 2010 Census data will be available soon, but we do not expect results, using the new census data, to be fundamentally different from these results.
Figure 2
Transit Environment Analysis
Employment Density by Transportation Analysis Zone (TAZ)

Employment per Acre
- Top Quintile: 5.57 - 541.7
- Middle Range (three quintiles): 0.12 - 5.56
- Bottom Quintile: 0 - 0.11

Metro 2013 TAZs with 2005 employment estimate divided by TAZ area exclusive of water, highway, and parkland.

TriMet Service
- Frequent Bus
- MAX Blue Line
- MAX Green Line
- MAX Red Line
- MAX Yellow Line
- WES
Figure 3
Transit Environment Analysis
Population Density by Transportation Analysis Zone (TAZ)

Persons per Acre
- Top Quintile: 10.94 - 91.05
- Middle Range (three quintiles): 50 - 10.93
- Bottom Quintile: 0 - 4.99

Metro 2013 TAZs with 2005 population estimate divided by TAZ area exclusive of water, highway, and parkland.

TriMet Service
- Frequent Bus
- MAX Blue Line
- MAX Green Line
- MAX Red Line
- MAX Yellow Line
- WES
Jobs / Housing Balance

Findings

- There were very few TAZs where the balance between residents and employees were even;
- The Central City and some of the Regional Centers, including Beaverton, Tigard, Oregon City, Gateway, and Gresham have TAZs with relatively balanced jobs/housing ratios.

Key Assumptions

- Data Source: Metro’s 2005 TAZ population and employment layer (2,013 TAZs);
- Roadways, waterways, and parks/open space were subtracted from the overall area of the TAZ and a new area was calculated for purpose of calculating density.

Caveats

- More recently collected 2010 Census data will be available soon, but we do not expect results, using the new census data, to be fundamentally different from these results;
- TAZ boundaries influence the job/housing ratio calculation. For example, if a TAZ with a high amount of employment was combined with a nearby TAZ with high amount of housing, then the ratio would be more even.

Why is this Important?

The greater the mix of land uses, the more transit service an area can typically support. A mix of uses allows people to move more easily from one activity to another without having to travel great lengths.

Scoring

To understand the jobs/housing balance we analyzed the ratio of employees to residents in each Transportation Analysis Zone (TAZ). Residents to employee ratios for each TAZ were calculated and broken into fifths. TAZs with a ratio closest to one were considered high performing and received a score of 1.
Figure 5
Transit Environment Analysis
Population to Employment Ratio by Transportation Analysis Zone (TAZ)

Population/Employment
- Many persons, few jobs: 1.16 - 964
- 1.11 - 1.15
- Persons and jobs nearly equal: 0.91 - 1.10
- 0.86 - 0.90
- Few persons, many jobs: 0.85

Population / Employment for TAZs with 2005 Metro estimates. A ratio of persons per job in each area.

Trimet Service
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- MAX Blue Line
- MAX Green Line
- MAX Red Line
- MAX Yellow Line
- WES
Street Network Connectivity

Findings

- Portland’s Inner Eastside is very well connected. East of I-205 has less street connectivity;
- Generally, areas West of the Willamette River, with the exception of the Central City have poor street connectivity; Pockets of residential development on the Westside have good street connectivity;
- The majority of TriMet’s high capacity transit and frequent bus service is located in areas with a highly connected street grid.

Key Assumptions

- Data Sources: Metro’s 2005 TAZ population and employment layer (2,013 TAZs) and RLIS road layer;
- A point was created at each location where roads intersect;
- The sum of points located in each TAZ was calculated and divided against the area of TAZ, using the same TAZ area calculated for the density analysis.

Caveats

- If this analysis is done at a local level, intersection points should be reviewed to ensure things like highway interchanges do not get counted as walkable intersections. For this high-level analysis, this type of data clean-up was not conducted.

Why is this Important?

Direct, short paths from one place to another make walking easier and more desirable. The more connected the street system is in an area, the easier it is to access transit.

Scoring

To understand street connectivity we analyzed the number of intersections in each Transportation Analysis Zone (TAZ). Intersection density for each TAZ was calculated and broken into fourths. TAZs in the top fourth were considered high performing and received a score of 1.
Figure 6
Transit Environment Analysis
Average Intersection Density by Transportation Analysis Zone (TAZ)

Intersections per Acre (Quartile)
- 0.70 - 4.82
- 0.47 - 0.69
- 0.17 - 0.46
- 0 - 0.16

2006 Metro intersection data. Density per TAZ developable acreage, not street length.

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- MAX Green Line
- MAX Red Line
- MAX Yellow Line
- WES
Highest Ridership Transit Stops

**Why is this Important?**

Ridership is a primary factor TriMet considers when deciding how much to invest in a stop or a transit line. If pedestrian improvements are placed at stops with high ridership, many existing riders will benefit immediately.

**Scoring**

The top twenty five percent of stops (n=1,804) with the greatest amount of ridership were considered high performing and received a score of 2.

**Findings**

- 25% of transit stops have greater than 54 total ons and offs each weekday;
- 8 MAX stations have greater than 5,000 weekday ons and offs – Gateway, Lloyd Center, Rose Quarter, Pioneer Square, Beaverton TC;
- 22 MAX stations have greater than 3,000 weekday ons and offs;
- 76 transit stops have greater than 1,500 weekday ons and offs. Most of these stops are at MAX stations. A few of them are on the transit mall;
- 241 transit stops have greater than 500 weekday ons and offs.

**Key Assumptions**

- Data Source: TriMet’s FY 2009 fall transit stop layer and ridership census.

**Caveats**

- Transit stop ridership census data is reported on a bi-annual basis. As of the time of this report, data for FY 2009 - fall was the most recent data available. We do not expect updated TriMet ridership census data to show significantly different results.
Figure 7
Base Transit Stop Analysis
Stops with Highest Ridership

Top 25% Boardings and Alightings (n = 1,804)
Fall 2009, Weekdays

- 5491 - 7302
- 3679 - 5490
- 1867 - 3678
- 54 - 1866

Transit Environment Composite Score

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<th>Description</th>
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<td>WES</td>
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</table>

TriMet Service

- Frequent Bus
- MAX Blue Line
- MAX Green Line
- MAX Red Line
- MAX Yellow Line
- WES

0 1 2 3 4
0 1 2 3 4 Miles
Distance to Nearest High School

Findings

• 25% of transit stops are located within .4 miles of a high school in the region;
• The majority of high schools in the region, 78%, have transit stops located within .4 miles;
• Schools without transit service within .4 miles are primarily located on the far Westside of the region, in areas with low density development, an uneven balance of jobs and residents, and poor street connectivity.

Key Assumptions

• Data Sources: Metro’s RLIS school layer and TriMet’s FY 2009 fall transit stop layer;
• Both public and private schools were considered in the analysis.

Caveats

• The City of Portland recently implemented a fully subsidized transit pass program for high school students. If a more local analysis is conducted, it may be beneficial to consider the walking environment from transit stops to high schools with students who receive subsidized transit passes. It is likely that these high schools will see, or have the potential to see, a higher percentage of their students taking transit.

Why is this Important?

A large number of high school students are at an age where they are dependent on others for transportation, but mature enough to travel alone. It is imperative that the paths from a transit stop to any school be safe. Recent “safe-route-to-schools” initiatives are working to prioritize pedestrian improvement near schools.

Scoring

The top twenty-five percent of stops (n=1,804) nearest to a high school were considered high performing and received a score of 1.
Figure 8
Base Transit Stop Analysis
Stops Located Nearest to a High School

Nearest Stops to High Schools:
Top 25% are <= .41 miles (n = 1,804)
High School

Transit Environment Composite Score
4
3
2
1
0

TriMet Service
Frequent Bus
MAX Blue Line
MAX Green Line
MAX Red Line
MAX Yellow Line
WES

N. Bonds - 5 May 2018 - _Red_Net_BLOCK_map.cool
Distance to Nearest Pre-School, Middle or Elementary School

Findings

- 25% of transit stops are located within .2 miles of a pre-school, elementary, or middle school;
- The majority of pre-schools, elementary, and middle schools in the region, 59%, have transit stops located within .2 miles;
- Pre-schools, elementary, or middle schools without transit service within .2 miles are primarily located on the far Westside and Eastside of the region, in areas with low density development, an uneven balance of jobs and residents, and poor street connectivity.

Key Assumptions

- Data Sources: Metro’s RLIS school layer and TriMet’s FY 2009 fall transit stop layer;
- Included both public and private schools.

Caveats

- None
Distance to Nearest Grocery Store

Findings

- 25% of transit stops are located within .18 miles of a grocery store;
- The majority of grocery stores in the region, 83%, have transit stops located within .18 miles.

Key Assumptions

- Data Sources: TriMet’s FY 2009 fall transit stops layer and all establishments with a NAICS code of 445110 listed in Metro’s Employer database. This NAICS code includes:
  - Commissaries, primarily groceries
  - Delicatessens primarily retailing a range of grocery items and meats
  - Food (i.e. groceries) Stores
  - Grocery Stores
    - Supermarkets

Caveats

- Some establishments included in this NAICS code, like commissaries of groceries, may not be full service grocery stores. For a more local analysis, it would be beneficial to conduct a more thorough clean up of the data;
- While we did not explicitly look at the proximity of transit stops to farmer’s markets, we recommend, if possible, farmer’s markets be included in local analysis.

Why is this Important?

Grocery trips are a necessity for everyone. The proximity of transit stops to the region’s grocery stores is important to consider when ensuring that everyone has sufficient and easy access to food in the region. Under the right land use and design circumstances, grocery trips can be short, frequent, and conducted on foot. Furthermore, grocery stores near transit stops provide more opportunities to combine travel trips.

Scoring

The top twenty five percent of stops (n=1,804) nearest to a grocery store were considered high performing and received a score of 1.
Distance to Nearest Major Attractors

Findings

- 25% of transit stops are located within .3 miles of a major attraction;
- The majority of major attractors in the region, 87%, have transit stops located within .3 miles.

Key Assumptions

- Data Sources: TriMet’s FY 2009 fall transit stops layer; Metro’s RLIS city hall, library, hospital, and schools data layers; Metro’s employer data; and, TriMet Trip Planner data to identify regional shopping centers.
- Major attractors included City Halls, Hospitals, Libraries, Colleges or Universities, Regional Shopping Centers, and Employers with greater than 500 employees;

Caveats

- It would be beneficial to analyze the proximity of transit stops to major multi-family housing developments. Unfortunately, there was not good data, at a regional level, to do this type of analysis. If data does become available, or if local jurisdictions have it for their particular area, we recommend adding this to the list of major attractors, or doing a separate analysis step that evaluates the transit stop’s proximity to multi-family residential developments. Likewise, in future analysis it would be good to analyze the proximity of transit stops to clusters of medium/small employers, which taken together, would be equal or greater than 500 employees.

Why is this Important?

Major attractions are important because they tend to be, or have the potential to be, major ridership generators. Furthermore, many major attractors are public facilities or employment sites.

Scoring

The top twenty five percent of stops (n=1,804) nearest to a city hall, hospital, library, college, university, regional shopping center, or employer with greater than 500 employees were considered high performing and received a score of 1.
Figure 11
Base Transit Stop Analysis
Stops Located Nearest to a Major Attractor

Nearest Stops to Major Attractors
Top 25% are < .34 Miles (n = 1,804)

Attractor Type
- City Hall (150)
- Large (500+) Employer (735)
- Hospital (106)
- Library (510)
- Regional Shopping Mall (67)
- College or University (236)

Transit Environment Composite Score

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<td>MAX Yellow Line</td>
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TrMet Service

- WES

Legend:
- 0 - 1 Mile
- 1 - 2 Miles
- 2 - 3 Miles
- 3 - 4 Miles

N. Books - 5 May 2010 - TriMet_Mapping_Tools.mxd
Distance to Nearest Multi-Modal Facility

Findings

- 25% of transit stops are located within .5 miles of a multi-modal facility;
- All multi-modal facilities in the region have transit stops located within .5 miles.

Key Assumptions

- Data Sources: TriMet’s FY 2009 fall transit stops and transit center bike stations layers; Metro’s RLIS airport, transit center, tram, park and ride, and railroad layers;

Caveats

- If possible, local analysis should consider the proximity of transit stops to bike stations outside of TriMet’s transit centers, electric vehicle charging stations, car sharing locations, and/or trail access points.

Why is this Important?

Multi-modal facilities tend to be places where people make transfers. A smooth transition from one mode to another is something TriMet wants to facilitate.

Scoring

The top twenty five percent of stops (n=1,804) nearest to an airport, Amtrak station, park & ride, transit center, transit center bike station, or aerial tram were considered high performing and received a score of 1.
Figure 12: Base Transit Stop Analysis
Steps Located Nearest to a Multi-Modal Facility

Nearest Stops to Multi-Modal Facilities
Top 25% are ≤ .52 Miles (n = 1,804)

Facility Type
- Airport (2)
- Amtrak (76)
- Park and Ride (1151)
- Transit Center (425)
- Transit Center with Bike Station (79)
- Portland Aerial Tram (72)

Transit Environment Composite Score
TrMet Service

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Distance to Nearest Park

**Findings**

- 25% of transit stops are located within .05 miles of a park;
- 21% of parks in the region have transit stops located within .05 miles of their location.

**Key Assumptions**

- Data Sources: TriMet’s FY 2009 fall transit stops layer and Metro’s RLIS park layer.

**Caveats**

- This analysis only looked at the distance from a transit stop to the perimeter of a park. It does not guarantee that there is always an access point to the park where the transit stop is located. If possible, future analysis should look at transit stops in relation to park access points.

**Why is this Important?**

The proximity of transit stops to the region’s parks is important to consider when ensuring everyone has sufficient and easy access to recreational opportunities and open space. Access to open space and parks contribute to a more livable environment for residents. Parks can offer a place to take a walk, relax, play, and exercise.

**Scoring**

The top twenty-five percent of stops (n=1,804) nearest to a park were considered high performing and received a score of 1.
Figure 13
Base Transit Stop Analysis
Stops Located Nearest to a Park

Nearest Stops to Parks
Top 25% are ≤0.05 miles (n = 1,804)

Parks

Transit Environment
Composite Score

3
2
1
0

TriMet Service
Frequent Bus
MAX Blue Line
MAX Green Line
MAX Red Line
MAX Yellow Line
WES

0 1 2 3 4
Miles
Transfer Opportunities

Findings

- 27% of transit stops have two or more transfer opportunities within 300 feet of their location;
- There are more transfer opportunities in areas with a more connected street grid;
- There are far fewer transfer opportunities on the far east side of the City of Portland, than there are in other parts of the City;
- There are relatively fewer transfer opportunities in Washington County, in the areas between Beaverton-Hillsdale Highway and 99W and between Westside MAX and Tualatin-Valley Highway.

Key Assumptions

- Data Sources: TriMet’s FY 2009 fall transit stops layer.

Caveats

- 300 ft was chosen because we wanted to encapsulate a scenario where someone had to cross an intersection to get to another connecting line on the other side of the street. This distance could be modified, depending on how far a person wants the transfer catchment area to be.

Why is this Important?

Easy, reliable, safe, and accessible transfers between transit lines allow people greater access to a variety of destinations and more routing options.

Scoring

For every stop, the number of transfer opportunities within 300 ft was calculated. Anything with two or greater transfer opportunities was considered high performing and received a score of 2. (n=1,989)
Distance to Nearest Social Service Sites

Findings
- A large number of social service sites are concentrated in Portland’s Central City and Inner Eastside and in 2040 Regional Centers. This is also where a large portion of the region’s transit service is located;
- 25% of transit stops are located within .1 miles of a social service site;
- The majority, or 66%, of social service sites in the region have transit stops located within .1 miles.

Key Assumptions
- Data Sources: TriMet’s FY 2009 fall transit stops layer and all establishments listed in Metro’s Employer database with a NAICS code of:
  - 621410 – Family Planning Centers
  - 623990 – Other Residential Care Facilities (Youth Correctional and Disabled Person Communities)
  - 624110 – Child and Youth Services
  - 624190 – Other Individual and Family Services
  - 624210 – Community Food Services
  - 624221 – Temporary Shelters
  - 624230 – Emergency and Other Relief Services
  - 624310 – Vocational Rehabilitation Services
  - 624410 – Child Day Care Services

Caveats
- Local level analysis may want to concentrate on additional social service NAICS codes.

Why is this Important?
Social service sites tend to be, or have the potential to be, major ridership generators, often serving people who are dependent on transit for their mobility needs. The proximity of transit stops to social service sites is important to consider when ensuring everyone has sufficient, safe, and easy access to social services in the region.

Scoring
The top twenty five percent of stops (n=1,804) nearest to a social service site were considered high performing and received a score of 1.
Figure 15
Base Transit Stop Analysis
Stops Located Nearest to Social Services

Nearest Stops to Social Service Sites
Top 25% are <= .11 miles (n = 1,804)

Social Service Site
Number of Employees
- 5 or fewer
- 6 - 10
- 11 - 25
- 26 - 50
- 51 or greater

Transit Environment Composite Score
- 4
- 3
- 2
- 1
- 0

TriMet Service
- Frequent Bus
- MAX Blue Line
- MAX Green Line
- MAX Red Line
- MAX Yellow Line
- WES
Distance to Nearest Senior Housing & Senior Service Sites

<table>
<thead>
<tr>
<th>Environment</th>
<th>Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
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<tr>
<td>Job &amp; Housing Balance</td>
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<tr>
<td>Street Connectivity</td>
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</table>

<table>
<thead>
<tr>
<th>Transit Stop</th>
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<tbody>
<tr>
<td>Boardings &amp; Alightings</td>
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<tr>
<td>High Schools</td>
<td></td>
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<tr>
<td>Pre, Elementary, Middle Schools</td>
<td></td>
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<tr>
<td>Grocery Stores</td>
<td></td>
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<tr>
<td>Major Attractors</td>
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<tr>
<td>Multi-Modal Facilities</td>
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<tr>
<td>Parks</td>
<td></td>
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<tr>
<td>Transfer Opportunities</td>
<td></td>
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<tr>
<td>Social Service Sites</td>
<td></td>
</tr>
<tr>
<td>Senior Housing &amp; Service Sites</td>
<td></td>
</tr>
</tbody>
</table>

Why is this Important?

Seniors are often dependant on transit for their mobility needs. Fixed route transit service to locations serving seniors offers people an inexpensive and flexible way to maintain their mobility as they age. The proximity of transit stops to the region’s senior housing and service sites is important when ensuring the region’s senior population has sufficient, safe, and easy access to transit service.

Scoring

The top twenty five percent of stops (n=1,804) nearest to senior housing or a senior service site were considered high performing and received a score of 1.

Findings

- Senior housing and service sites are spread throughout the region. There are high concentrations of sites located in Portland’s Central City and in 2040 Regional Centers. This is also where a large portion of the region’s transit service is provided. The far West side has notably fewer senior sites.
- 25% of transit stops are located within .3 miles of a social service site;
- The majority, or 89%, of Senior Housing & Service Sites in the region have transit stops located within .3 miles.

Key Assumptions

- Data Sources: TriMet’s FY 2009 fall transit stops layer and establishments in Metro’s Employer database with a NAICS code of:
  - 623311 - Continuing Care Retirement Communities
  - 623312 - Homes for the Elderly
  - 624120 - Services for the Elderly and Persons with Disabilities

Caveats

- Local level analysis may want to concentrate on other or additional NAICS codes.
Figure 16
Base Transit Stop Analysis
Stops Located Nearest to Senior Housing or Services

Nearest Stops to Senior Housing or Service Sites
Top 25% are <= .3 miles (n = 1,804)

Senior Housing or Service Site
Number of Employees
- 10 or fewer
- 11 - 25
- 26 - 50
- 51 - 100
- 101 or greater

Transit Environment
Composite Score
- 4
- 3
- 2
- 1
- 0

TriMet Service
- Frequent Bus
- MAX Blue Line
- MAX Green Line
- MAX Red Line
- MAX Yellow Line
- WES
3.0 Overlay Analysis Results

Step 2 - Overlay Analysis identified deficiencies and opportunities near TriMet’s transit stops. Deficiencies were defined as characteristics that make a place unpleasant to walk like high auto traffic speeds, missing sidewalks, etc. Opportunities included potential resources such as urban renewal and providing more access to fixed route transit service, where by reducing the need for TriMet’s paratransit LIFT service.
Sidewalk Incompleteness

Findings

- Portland’s Central City, the Inner-Eastside, and some 2040 Regional Centers have very complete sidewalk networks;
- Sidewalks are incomplete East of I-205 in the City of Portland and are sparse on the Westside, between SW Portland and the WES alignment and between Tualatin Valley Highway and the Westside MAX line;
- 27% of transit stops are located in areas with a sidewalk greater than 50 feet away.

Key Assumptions

- Data Sources: TriMet’s FY 2009 fall transit stops layer and Metro’s sidewalk layer, with some additions from local jurisdictions;
- If a road segment had a sidewalk on at least one side, it was counted as being part of the road network with sidewalks;

Caveats

- Metro’s sidewalk layer was developed in 2001. With the exception of a few additions to the sidewalk layer in 2040 Centers, it has not been significantly updated, nor does it have a regular update cycle.

Why is this Important?

The completeness of the sidewalk network is fundamental to understanding if people can safely walk to and from a transit stop.

Scoring

For every transit stop, the distance to the nearest sidewalk was calculated. Any stop with a sidewalk located further than 50ft was considered low performing and received a score of 2. (n=1,973)
Figure 17
Overlay Transit Stop Analysis - Deficiencies
Stop Proximity to Sidewalks

Stop - Sidewalk Proximity
- 50' or less (5,244)
- Greater than 50' (1,973)

Sidewalk Network

Transit Environment Composite Score
- 4
- 3
- 2
- 1
- 0

TriMet Service
- Frequent Bus
- MAX Blue Line
- MAX Green Line
- MAX Red Line
- MAX Yellow Line
- WES

N. Banks - 5 May 2010 - _Ped_Net_Master_Map.mxd
High Traffic Volumes

Findings

- The majority of high traffic volume roads, with transit stops layer located on them, are state or county owned facilities;
- Many highly used frequent service bus lines operate on high traffic volume roads;
- 25%, of transit stops are located on roadways with segments carrying greater than 2,500 vehicles in the PM 2-hour peak.

Key Assumptions

- Data Sources: TriMet’s FY 2009 fall transit stops and Metro’s 2005 travel demand model road network outputs with PM 2-hour peak traffic volume assumptions for each road segment;
- High volume defined as greater than 2,500 vehicles in the PM 2-hour peak.
- Transit stops considered to be located on a high volume road were within 200 ft of the high volume road segment.

Caveats

- Traffic volumes assumed for each road segment will not necessarily always match count information. These model results are intended for use in analysis at a regional- or corridor-level, and are not intended to provide specific information for micro-level analysis. The information should be used to make general assessments. The results should be used along with other analysis tools to make complete evaluations.

Why is this Important?

Roadways with high traffic volumes are less conducive to a safe and pleasant walking environment than roads with low traffic volumes.

Scoring

Every stop located on a roadway carrying greater than 2,500 vehicles in the PM 2-hr peak was considered low performing and received a score of 1. (n=1,804)
Figure 18
Overlay Transit Stop Analysis - Deficiencies
Stops Located on High-Traffic-Volume Roads

Nearest Stops to High Volume Streets (n = 1,804)
(> 2,500 vehicles in PM 2-hr peak)

<table>
<thead>
<tr>
<th>Transit Environment Composite Score</th>
<th>TriMet Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Frequent Bus</td>
</tr>
<tr>
<td>3</td>
<td>MAX Blue Line</td>
</tr>
<tr>
<td>2</td>
<td>MAX Green Line</td>
</tr>
<tr>
<td>1</td>
<td>MAX Red Line</td>
</tr>
<tr>
<td>0</td>
<td>MAX Yellow Line</td>
</tr>
<tr>
<td>0</td>
<td>WES</td>
</tr>
</tbody>
</table>

N. Banks - 5 May 2010 - Fig_18_Transit_Stop_Analysis_Score.pdf
High Traffic Speeds

Findings

- The majority of high speed roads, with transit stops located on them, are state or county owned facilities;
- Many highly used frequent service bus lines operate on high speed roads;
- Nearly half, or 49%, of transit stops are located on roadways with speeds greater than 35mph.

Key Assumptions

- Data Sources: TriMet’s FY 2009 fall transit stops layer and Metro’s 2005 travel demand model road network outputs with posted speed limit assumptions for each road segment;
- High speed defined as a speed limit greater than 35 mph;
- Transit stops considered to be located on a high speed road were within 200 ft of the road segment.

Caveats

- Traffic volumes assumed for each road segment will not necessarily always match count information. These model results are intended for use in analysis at a regional- or corridor-level, and are not intended to provide specific information for micro-level analysis. The information should be used to make general assessments. The results should be used along with other analysis tools to make complete evaluations.
Figure 19
Overlay Transit Stop Analysis - Deficiencies
Stops Located on High-Speed Roads

Stops 200ft from Roads with Speeds of
35-55 mph (n = 3,334)

<table>
<thead>
<tr>
<th>Transit Environment Composite Score</th>
<th>TriMet Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Frequent Bus</td>
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<tr>
<td>0</td>
<td>MAX Yellow Line</td>
</tr>
<tr>
<td>0</td>
<td>WES</td>
</tr>
</tbody>
</table>

N. Banks - 5 May 2010 - Ped_net_Master Map.rmd
High Pedestrian Crash Rates

Findings

• The majority of pedestrian crash locations are in the City of Portland. It is unclear whether this is because there are higher pedestrian volumes in the City;
• Many pedestrian crashes occurred along highly used, frequent service bus lines and on high speed roadways;
• 31 stops are located within 500 ft of locations where a pedestrian was killed in 2007;
• 532 stops are located within 500 ft. of locations where a pedestrian suffered a non-fatal injury in 2007.

Key Assumptions

• Data Sources: TriMet’s FY 2009 fall transit stops and 2007 Oregon Department of Transportation crash data.

Caveats

• Crashes that do not occur on a state facility may go unreported in this dataset;
• Region-wide, geo-coded crash data was not available for any year other than 2007. The City of Portland has a much more robust historical, geo-coded database of crash data, and ODOT is currently working to geo-code 2008 crash data. For the purpose of this analysis, only 2007 data was used. Because of this, pedestrian crash locations may be under represented.
Figure 20
Overlay Transit Stop Analysis - Deficiencies
Stops Located Nearest to Pedestrian Crash Locations

Stops within 500' of Pedestrian Crash Locations (2007)

Severity of Injury:
- Fatal (31 stops)
- Non-Fatal (532 stops)

Transit Environment Composite Score

<table>
<thead>
<tr>
<th>Composite Score</th>
<th>TriMet Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Frequent Bus</td>
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<td>MAX Red Line</td>
</tr>
<tr>
<td>0</td>
<td>MAX Yellow Line</td>
</tr>
</tbody>
</table>

Note: WES (Wheaton Express Service)
Paratransit Requests

Why is this Important?
LIFT is TriMet’s paratransit service. LIFT service is available for people who are unable to use regular buses or trains due to disability. At roughly $29/ride (FY09), it is an expensive service to operate. LIFT locations are important to understanding where there may be an opportunity to improve the accessibility of a transit stop that is serving someone who currently is unable to take fixed route transit because of a deficiency in the walking environment.

Scoring
The top twenty five percent of stops (n=1,804) nearest to an address with greater than 500 LIFT requests annually was considered high performing and received a score of 2.

Findings

- High LIFT activity occurs throughout the region. However, there is more activity in Portland’s Central City and on the East side of the Willamette River, than there is on the West side.
- 25% of transit stops are located within .15 miles of a place with high LIFT activity;
- There are 652 places with greater than 500 LIFT events annually. Of those places, the majority, or 76%, have a transit stop located within .15 miles.

Key Assumptions

- Data Sources: TriMet’s FY 2009 fall transit stops layer and LIFT activity records for FY 2009.
- High LIFT activity is defined as a place with greater than 500 pick up or drop off LIFT events within the fiscal year.

Caveats

- Some LIFT eligible customers have conditions that would prevent them from taking fixed route transit service under any circumstance. Places with high LIFT activity may have only a few individuals taking many trips to the location.
Figure 21
Overlay Transit Stop Analysis - Opportunities
Stops Located Nearest to High Activity LIFT
(paratransit) Locations

Nearest Stops to Top Lift Events
Top 25% are <= .16 miles (n = 1,804)

- Annual Lift Events (2009)
  - 9,800 - 29,532
  - 4,128 - 9,799
  - 1,539 - 4,127
  - 502 - 1,538

Transit Environment
Composite Score

<table>
<thead>
<tr>
<th>Transit Environment Composite Score</th>
<th>TriMet Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
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<tr>
<td>0</td>
<td>MAX Yellow Line</td>
</tr>
<tr>
<td>0</td>
<td>WES</td>
</tr>
</tbody>
</table>

N. Books - 5 May 2010 - _Red Bank Master Map_.pdf
Top Stops with Fixed Route Ramp Deployment

Why is this Important?
It is important to ensure people with mobility devices, strollers, shopping carts, etc. who chooses to take fixed route transit, are able to safely and easily access transit stops. Stops with a number of high vehicle ramp deployments indicate where people are currently taking fixed route transit service and are in need of a walking environment that meets universal access standards.

Scoring
The top twenty five percent of stops (n=1,804) with the greatest vehicle ramp deployments were considered high performing and received a score of 1.

Findings
- A large number of vehicle ramp deployments occur on frequent service bus routes and in areas with higher density, mix of uses, and connectivity;
- The top 25% of stops considered to have high ramp deployment have greater than 4 ramp deployments a month;
- 337 stops have 30 or greater ramp deployments per month. Most of these stops are located at a transit centers, on the transit mall, or at high ridership stops.

Key Assumptions
- Data Source: TriMet’s FY 2009 fall transit stop layer and ridership census.

Caveats
- Ramp deployment is reported as an average monthly total, rather than an average weekday total.
Recent TriMet Bus Stop Improvements

Why is this Important?
TriMet recently made, or plans to make, improvements to select bus stops in the region. While these improvements are useful, they are sometimes limited in the pedestrian access they provide. The purpose of this factor is to capitalize on investments that TriMet already made, or plans to make.

Scoring
Stops where TriMet recently invested money to improve the stop area were considered high performing and received a score of 2. (n=320)

Findings
• Stops planned for, or having received, improvements are dispersed throughout the region.

Key Assumptions
• Data Source: TriMet’s FY 2009 fall transit stop layer and list of bus stop improvements planned using regional flex funds.

Caveats
• Many of the stops chosen for improvements were chosen using elements of this analysis. For example, they are typically high-ridership stops located near to some deficiency.
Figure 23
Overlay Transit Stop Analysis - Opportunities
Stops Targeted for TriMet Bus Stop Improvements

MTIP Cycle 2010-11, MTIP Cycle 2012-13,
TV Highway Sidewalk Improvements
(n = 320)

<table>
<thead>
<tr>
<th>Transit Environment Composite Score</th>
<th>TriMet Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Frequent Bus</td>
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<td>0</td>
<td>MAX Yellow Line</td>
</tr>
<tr>
<td>0</td>
<td>WES</td>
</tr>
</tbody>
</table>
Pedestrian Network Analysis

Urban Renewal Areas

Findings

- 1,364 stops, or 19%, of stops fall in an urban renewal area.
- Five jurisdictions on the Westside have urban renewal areas: Washington County, Tigard, Tualatin, Sherwood, Wilsonville, and Lake Oswego;
- Five jurisdictions on the Eastside have urban renewal area: Clackamas County, Gladstone, Gresham, Troutdale, and Oregon City;
- Portland Development Commission is charged with eleven urban renewal areas in the City of Portland;

Key Assumptions

- Data Source: TriMet’s FY 2009 fall transit stops layer and Metro’s urban renewal area layer.

Caveats

- There are urban renewal area proposals being considered in Hillsboro and Beaverton. These areas were not included in the analysis, because the urban renewal areas have not been formally established. When, or if, they are formally established, they should be included in any local or detailed analysis of an area.

Why is this Important?

Some pedestrian investments may be eligible for urban renewal funds. Additional sources of funding provide an opportunity for faster implementation.

Scoring

Stops located in an urban renewal zone were considered high performing and received a score of 1. (n=1,364)
Figure 24
Overlay Transit Stop Analysis - Opportunities
Stops Located in Urban Renewal Areas

Stops Located in Urban Renewal Areas
• (n = 1,364)

Metro Region URA

Transit Environment Composite Score
4
3
2
1
0

TriMet Service
Frequent Bus
MAX Blue Line
MAX Green Line
MAX Red Line
MAX Yellow Line
WES

N. Banks - 5-May-2018 - RedNet Maker_template
4.0 Composite Scores

**Step 3 – Composite Score** Composite scores were calculated for each of TriMet’s 7,000+ transit stops, using scores generated in the base and overlay quantitative analysis steps. Based on the composite scores, clusters of high scoring stops were identified and compared to census tract maps that illustrate where there are above average concentrations of low-income households and communities of color.
Composite Score – Environment / Transit Supportiveness

Findings

- 12% of TAZs had high density and high street connectivity;
- 4% percent of TAZs had high density and a balanced mix of residential and employment;
- 2% of TAZs had high density, a balanced mix of residential and employment, and high street connectivity.

Key Assumptions

- TAZs with the most residential & employment density received a weight of 2 (Figure 4)
- TAZs with a jobs/housing ratio closest to one received a weight of 1 (Figure 5)
- TAZs with the most connected street systems received a weight of 1 (Figure 6)

Caveats

- We refrained from limiting the rest of the analysis to only stops located in high scoring TAZs, because from the outset it would have considerably limited the number of stops we would be considering. Rather, the transit supportive environment score was used as a base map for the rest of the analysis, to understand how stops performed in relation to it, and not as a factor that was rolled into the final scoring of the stops for the overall composite score.
Figure 25
Transit Environment Analysis
Composite Score by Transportation Analysis Zone (TAZ)

Pop+Emp Density = 2
Pop/Emp Ratio = 1
Intersection Density = 1

TrIMet Service
- Frequent Bus
- MAX Blue Line
- MAX Green Line
- MAX Red Line
- MAX Yellow Line
- WES
Composite Score – Transit Stops

Findings

- The best score a stop could receive in the base analysis was 12. Only one stop received this score. Stop ID 1606, located at NW Everett and Broadway;
- 3% of stops had a score greater than 9;
- 23% of stops had a score between 5 and 8.

Key Assumptions

- Transit stops with the highest ridership received a weight of 2 (Figure 7)
- Transit stops with greater than two connecting lines received a weight of 2 (Figure 14)
- Transit stops nearest to any analyzed essential destination received a weight of 1 (Figures 8–13 and 15–16)

Caveats

- None
Figure 26
Base Transit Stop Analysis
Stops with Highest Composite Scores

Stop Composite Score (n = 1,864)
- 5 - 6 (1109)
- 7 - 8 (549)
- 9 - 10 (177)
- 11 - 12 (29)

Transit Environment Composite Score
- 4
- 3
- 2
- 1
- 0

TriMet Service
- Frequent Bus
- MAX Blue Line
- MAX Green Line
- MAX Red Line
- MAX Yellow Line
- WES
Composite Score - Deficiencies

Findings

• The worst possible deficiency score a stop could receive was 7.
• 20% of stops received a score greater than 4;

Key Assumptions

• Transit stops more than 50ft from a sidewalk received a weight of 2 (Figure 17)
• Transit stops less than 200 ft from a road with traffic volumes greater than 2,500 vehicles in the PM 2-hr peak received a weight of 1 (Figure 18)
• Transit stops less than 200 ft. from a road with speeds greater than 35 mph received a weight of 2 (Figure 19)
• Transit stops located less than 500 ft. from a pedestrian crash location received a weight of 2 (Figure 20)

Caveats

• None
Composite Score - Opportunities

Findings

- The best possible opportunity score a stop could receive was a 6. 15% of stops received a score greater than 3;
- Many of the stops receiving a high opportunity score are located in the Central City, 2040 Regional Centers, and along frequent service transit routes.

Key Assumptions

- Transit stops near addresses with a high number of LIFT requests received a weight of 2 (Figure 21)
- Transit stops with a high number of fixed route vehicle ramp deployments received a weight of 1 (Figure 22)
- Transit stops with recently completed or planned TriMet investments received a weight of 2 (Figure 23)
- Transit stops located in urban renewal areas received a weight of 1 (Figure 24)

Caveats

- None
Composite Score – Full Quantitative Analysis

Findings

- 9% of transit stops had high scores in all sections of the analysis;
- Many of the highest scoring stops are clustered together;
- Stops that scored well are spread throughout the region. High concentrations of them are located along frequent service bus lines and near 2040 Centers.

To understand where and how the 621 stops were concentrated, a density surface was created using GIS. Figure 29 shows where there were clusters of stops that scored highest in the transit supportiveness, opportunities, and deficiencies analysis steps.
Figure 29
Top Stop Areas of Concentration

Top Stop Areas

Top Stops
- Combined Deficiency & Opportunity + Base (n=621)

Proposed Focus Areas

2040 Concept Centers
Main Streets

TriMet Service
- Frequent Bus
- MAX Blue Line
- MAX Green Line
- MAX Red Line
- MAX Yellow Line
- WES
5.0 Qualitative Review of Highest Scoring Stops

After narrowing 7,000+ transit stops to 621 stops, a final step was needed to determine ten areas to place attention first. The project’s technical advisory committee provided the following guidance:

- The Central City and each 2040 Regional Center should be represented within at least one of the ten focus area;
- Each pedestrian generator included in the analysis to be represented within at least one of the ten focus areas (major attractor, grocery store, high school, pre-, elementary/middle school, senior housing/services, social services, multi-modal facility, parks);
- Each type of fixed route transit service in the region (WES, MAX, Frequent Service Bus, Standard Bus, Rush Hour Bus) should be represented within at least one of the ten focus areas;
- Areas with above average low-income and minority populations should be strongly considered. See Figures 31 and 32 to understand where the recommended focus areas fall in relation to low-income and minority populations;
- At least one Oregon Department of Transportation (ODOT) facility to fall within a focus area;
- Areas recommended as focus areas should be consistent with, and if possible support, local planning initiatives already underway or complete.

Using the guidance above, TriMet worked with TAC members, to select ten sites that were desirable to both the local jurisdiction and TriMet to focus on first. The ten focus areas are meant as a starting place. If for some reason another place that scored well in the analysis becomes more feasible than one selected by the jurisdiction in this initial process, then we could choose to focus on that area instead.
6.0 Ten Recommended Focus Areas

Figure 32 displays the general location of the ten recommended focus areas. The numbers associated with the focus areas do not represent any prioritization. Focus areas are listed in alphabetical order, according to the primary jurisdiction’s name.

The ten focus areas recommended for further, on-the-ground, analysis are outlined in Table 1.

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Name</th>
<th>Primary Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SW Farmington Rd. &amp; SW Murray Blvd.</td>
<td>City of Beaverton</td>
</tr>
<tr>
<td>2</td>
<td>Clackamas Town Center Transit Center</td>
<td>Clackamas County</td>
</tr>
<tr>
<td>3</td>
<td>SE Division St. &amp; SE 182nd Ave.</td>
<td>City of Gresham</td>
</tr>
<tr>
<td>4</td>
<td>Tanasbourne Town Center</td>
<td>City of Hillsboro</td>
</tr>
<tr>
<td>5</td>
<td>Clackamas County Red Soils Campus</td>
<td>Oregon City</td>
</tr>
<tr>
<td>6</td>
<td>SE Division St. &amp; SE 122nd Ave.</td>
<td>City of Portland</td>
</tr>
<tr>
<td>7</td>
<td>SE Powell Blvd. &amp; SE 82nd Ave.</td>
<td>City of Portland</td>
</tr>
<tr>
<td>8</td>
<td>Hillsdale</td>
<td>City of Portland</td>
</tr>
<tr>
<td>9</td>
<td>Tigard Transit Center</td>
<td>City of Tigard</td>
</tr>
<tr>
<td>10</td>
<td>SW Beaverton-Hillsdale Hwy. &amp; SW Scholls Ferry Rd.</td>
<td>Washington County</td>
</tr>
</tbody>
</table>

For each focus area, there is a site specific map and a summary table. The site maps show roughly a half-mile buffer around clusters of stops that performed well in the analysis. Because the half mile buffer was applied to clusters of stops, the areas represented on the map are not uniform in size. However, they are roughly the same size.

The maps and summary tables are intended to provide a quick, high-level synopsis of site areas. Not all places are represented on the maps or in the tables. Going forward, TriMet will ask members of the Technical Advisory Committee to help identify key places in the focus area where additional attention should be placed.
Figure 30
Focus Area Overview

Focus Areas
1. SW Farmington Rd. & SW Murray Blvd. - Beaverton
2. Clackamas Town Center Transit Center - Clackamas County
3. SE Division St. & SE 182nd Ave. - Gresham
4. Tanasbourne Town Center - Hillsboro
5. Clackamas County Red Soils Campus - Oregon City
6. SE Division St. & SE 122nd Ave. - Portland
7. SE Powell Blvd. & SE 82nd Ave. - Portland
8. Hillsdale - Portland
9. Tigard Transit Center - Tigard
10. SW Beaverton-Hillsdale Hwy. & SW Scholls Ferry Rd. - Washington County

Legend
Focus Areas
- TriMet Bus Lines
- TriMet Rail Lines
- MAX Blue Line
- MAX Green Line
- MAX Red Line
- MAX Yellow Line
- WES
Figure 32
Title VI Analysis
Minority Populations

Focus Areas
1. SW Farmington Rd. & SW Murray Blvd. - Beaverton
2. Clackamas Town Center Transit Center - Clackamas County
3. SE Division St. & SE 182nd Ave. - Gresham
4. Tansbourne Town Center - Hillsboro
5. Clackamas County Red Soils Campus - Oregon City
6. SE Division St. & SE 122nd Ave. - Portland
7. SE Powell Blvd. & SE 82nd Ave. - Portland
8. Hillsdale - Portland
9. Tigard Transit Center - Tigard
10. SW Beaverton-Hillsdale Hwy. & SW Scholls Ferry Rd. - Washington County

Legend
TriMet Bus Lines
TriMet Rail Lines
- MAX Blue Line
- MAX Green Line
- MAX Red Line
- MAX Yellow Line
- WES

Minority persons include the following:
American Indian and Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian or Other Pacific Islander

Percent of Population (Census Block Group)
TriMet District Average: 21.3%

Less than or equal to 21.3%
Greater than 21.3%
Census Blocks with No Population

Data: TriMet, Metro, US Census Census 2000, Summary File 1, Table PB: Hispanic or Latino by Race
## Focus Area 1 - SW Farmington Rd. & SW Murray Blvd.

<table>
<thead>
<tr>
<th>Jurisdiction (s)</th>
<th>City of Beaverton, Washington County</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Type</strong></td>
<td>Frequent Service Bus (Line 57), Local Bus (Lines 52, 62, 88)</td>
</tr>
<tr>
<td><strong>Land Use/Ridership</strong></td>
<td>Combined Residential/Employment Density = All nearby areas scored high Housing/Employment Balance = Area to the East scored high Street Connectivity = None of the areas scored high Combined Ridership at Transit Stops (ons &amp; offs) = 1,165</td>
</tr>
<tr>
<td><strong>Pedestrian Attractors Nearby</strong></td>
<td>Major Attractors: Nike, Providence Health Plans, Wilshire Credit Corporation Grocery Stores: Beaverton Grocery Outlet, Safeway High Schools: Valley Catholic, Beaverton High School Pre-to Middle-Schools: St. Mary of the Valley Elementary, Sunshine Montessori Preschool, German American School of Portland Senior Housing/Services: Creekside Village Social Services – Other: Beehive Adult Foster Care, Kid’s Kastle Learning Center, Little Flower Development Center, Loaves &amp; Fishes Multi-Modal Facilities: Milikan Way Park &amp; Ride Parks: Roy Dancer Park, Brookview Park, Lilly K Johnson Park, Beaverton Creek Wetland Park, Willow Park, Eichler Park, Schiffler Park</td>
</tr>
<tr>
<td><strong>Deficiencies</strong></td>
<td>Stop Near Sidewalk Gap: Yes High Speed Roads: Tualatin-Valley Hwy (45mph), Farmington (40mph), Murray Blvd. (35 mph) High Traffic Volumes: Yes Pedestrian Crash: No</td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td>Monthly Weekday Vehicle Ramp Deployments: 129 TriMet Existing/Planned Stop Improvement: No Located in an Urban Renewal Area: No High Activity LIFT Locations: Lifeworks NW, Maryville Nursing Home, Stephane Terrace</td>
</tr>
<tr>
<td><strong>Other Considerations</strong></td>
<td>• Intersection of Murray &amp; Farmington is planned for major bicycle and pedestrian improvements by the City of Beaverton. Plans are at 90% design; • High School student on a bike was hit and killed by a bus in early 2008; • Major shopping centers are located to the east, west, and south of the area.</td>
</tr>
</tbody>
</table>
### Focus Area 2 – Clackamas Town Center Transit Center

<table>
<thead>
<tr>
<th>Jurisdiction(s)</th>
<th>City of Clackamas, Clackamas County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Type</td>
<td>MAX (Green Line), Frequent Service Bus (72), Standard Bus (71,28,29,30,31, 79,152,155)</td>
</tr>
<tr>
<td>Land Use/Ridership</td>
<td>Combined Residential/Employment Density = All nearby areas scored high Housing/Employment Balance = Area to the East scored high Street Connectivity = None of the areas scored high Combined Ridership at Transit Stops (ons &amp; offs) = 10,992</td>
</tr>
<tr>
<td>Proximity to Rider/Pedestrian Attractors</td>
<td>Major Attractors: Sunnyside Hospital, Kaiser Sunnyside Medical Center, Clackamas Town Center, Ross Center Shopping Center, Oregon Institute of Technology</td>
</tr>
<tr>
<td></td>
<td>Grocery Stores: None</td>
</tr>
<tr>
<td></td>
<td>High Schools: None</td>
</tr>
<tr>
<td></td>
<td>Pre- to Middle- Schools: Mount Scott Elementary, Little Engineers Preschool,</td>
</tr>
<tr>
<td></td>
<td>Senior Housing/Services: Town Center Village, Gables at Town Center Village, Monterey Center Alzheimer’s</td>
</tr>
<tr>
<td></td>
<td>Social Services - Other: Goodwill, Changes Foundation, Damascus Counseling Center, Children’s World Learning Center, New Hope Community Gymboree Play &amp; Music Center</td>
</tr>
<tr>
<td></td>
<td>Multi-Modal Facilities: Clackamas Town Center Parking Garage</td>
</tr>
<tr>
<td></td>
<td>Parks: North Clackamas Aquatic Park, North Clackamas District Park, Mt. Talbert Nature Park</td>
</tr>
<tr>
<td>Deficiencies</td>
<td>Stop Near Sidewalk Gap: Yes</td>
</tr>
<tr>
<td></td>
<td>High Speed Roads: 82nd Ave. (45mph), Harmony Rd. (35mph), Sunnyside Rd. (35mph), Sunnybrook Blvd. (45mph)</td>
</tr>
<tr>
<td></td>
<td>High Traffic Volumes: Yes</td>
</tr>
<tr>
<td></td>
<td>Pedestrian Crash: No</td>
</tr>
<tr>
<td>Opportunities</td>
<td>Monthly Weekday Vehicle Ramp Deployments: 1,096</td>
</tr>
<tr>
<td></td>
<td>TriMet Existing/Planned Stop Improvement: Yes</td>
</tr>
<tr>
<td></td>
<td>Located in an Urban Renewal Area: Yes</td>
</tr>
<tr>
<td></td>
<td>High Activity LIFT Locations: Winco Foods, Goodwill, Town Center Village, New Hope Community Church, Eastside Athletic Club, Providence Medical Group, Kaiser Clinics/Hospitals.</td>
</tr>
<tr>
<td>Other Considerations</td>
<td>Clackamas County submitted an Active Transportation proposal to improve connections from the Clackamas Town Center to the MAX green line station;</td>
</tr>
<tr>
<td></td>
<td>ODOT submitted an Active Transportation proposal to improve connections to the I-205 trail running parallel to Green Line MAX;</td>
</tr>
<tr>
<td></td>
<td>The Clackamas Transportation Management Association initiated a pilot project to run a shuttle between Clackamas Town Center MAX station and the Red Soils Campus in Oregon City</td>
</tr>
</tbody>
</table>
Focus Area 3 - SE Division St. & SE 182nd Ave.

<table>
<thead>
<tr>
<th>Jurisdiction (s)</th>
<th>City of Gresham, Multnomah County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Type</td>
<td>Frequent Service Bus (4), Standard Bus (82)</td>
</tr>
<tr>
<td>Land Use/Ridership</td>
<td>Combined Residential/Employment Density = All nearby areas scored high Housing/Employment Balance = None of the areas scored high Street Connectivity = None of the areas scored high Combined Ridership at Transit Stops (ons &amp; offs) = 1,002</td>
</tr>
<tr>
<td>Proximity to Rider/Pedestrian Attractors</td>
<td>Major Attractors : Rockwood Plaza Shopping Center Grocery Stores : Grocery Outlet, ASAP Market, Asian Food Market High Schools: Centennial High School Pre- to Middle- Schools : Lynch Meadows Elementary, Lynch Wood Elementary, Centennial Middle School, Centennial Learning Center, Ascension Early Childhood Center Senior Housing/Services : Encore Senior Village, Lambert Adult Day Center House Social Services – Other: Alina Adult Care, Coda Inc., Volunteers of America, Morrison Center Child &amp; Family, Toy &amp; Joy Makers – East County, Hope Family Services, Pixie Child Care Adventure Multi-Modal Facilities: None Parks: Lynchwood Park, Grant Butte Reservoir, Southwest Community Park, Vance Neighborhood Park, Rockwood Central Neighborhood Park</td>
</tr>
<tr>
<td>Deficiencies</td>
<td>Stop Near Sidewalk Gap: Yes High Speed Roads: 182nd Ave. (35 mph), Division St. (35 mph) High Traffic Volumes: No Pedestrian Crash: No</td>
</tr>
<tr>
<td>Opportunities</td>
<td>Monthly Weekday Vehicle Ramp Deployments : 216 TriMet Existing/Planned Stop Improvement: Yes Located in an Urban Renewal Area: No High Activity LIFT Locations: residence - 177th &amp; Haig Dr.</td>
</tr>
<tr>
<td>Other Considerations</td>
<td>Place of Worship located at 186th contacted City of Gresham regarding lack of sidewalks; TriMet has plans to develop a new Outer Division/Inner Powell On-Street BRT line on this stretch of Division; City of Gresham submitted Active Transportation Proposal to Metro for this portion of Division St.</td>
</tr>
</tbody>
</table>
# Focus Area 4 – Tanasbourne Town Center

<table>
<thead>
<tr>
<th>Jurisdiction (s)</th>
<th>City of Hillsboro, Washington County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Type</td>
<td>Standard Bus (47,48,52)</td>
</tr>
</tbody>
</table>
| Land Use/Ridership                       | Combined Residential/Employment Density = All nearby areas scored high  
Housing/Employment Balance = All nearby areas scored high 
Connectivity = None of the areas scored high 
Combined Ridership at Transit Stops (ons & offs) = 266 |
| Proximity to Rider/Pedestrian Attractors | Major Attractors: The Streets of Tanasbourne, Tanasbourne Library, Tanasbourne Village Mall, Oregon Graduate Institute, Wells Fargo Bank, Oregon Institute of Technology – Capital Center, Sunset Square Shopping Center 
Grocery Stores: India Imports, Trader Joe’s, Safeway, Plaid Pantries 
High Schools: None 
Pre- to Middle- Schools: None 
Senior Housing/Services: Rock Creek Retirement Residence 
Social Services – Other: Amberglen YMCA, Learning Years Landmark 
Multi-Modal Facilities: None 
Parks: Rock Creek Greenway, Ashland Park, Orchard Park, Evergreen Park |
| Deficiencies                              | Stop Near Sidewalk Gap: Yes  
High Speed Roads: Evergreen Pkwy (45mph), Aloclek Dr. (35mph), Cornell Rd. (45mph), 206th (35 mph), Amberglen Pkwy. (35mph), Walker Rd. (45mph)  
High Traffic Volumes: Yes  
Pedestrian Crash: No |
| Opportunities                             | Monthly Weekday Vehicle Ramp Deployments: 60  
TriMet Existing/Planned Stop Improvement: No  
Located in an Urban Renewal Area: No  
High Activity LIFT Locations: Landmark Apartments, Safeway |
| Other Considerations                      | • City of Hillsboro recently adopted the AmberGlen Community Plan;  
• Hillsboro submitted an Active Transportation proposal where Cornell Rd. was identified as a major multi-modal corridor. |
# Focus Area 5 - Clackamas County County Red Soils Campus

<table>
<thead>
<tr>
<th>Jurisdiction(s)</th>
<th>Oregon City, Clackamas County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Type</td>
<td>Standard Bus (33,32), Rush-Hour Bus (99)</td>
</tr>
<tr>
<td>Land Use/Ridership</td>
<td>Combined Residential/Employment Density = Immediate areas scored low, area to the East scored High Housing/Employment Balance = Immediate area scored high, area to the East scored low Street Connectivity = None of the areas scored high Combined Ridership at Transit Stops (ons &amp; offs) = 619</td>
</tr>
<tr>
<td>Proximity to Rider/ Pedestrian Attractors</td>
<td>Major Attractors: Clackamas County Offices, Oregon City Hall, Oregon City Public Library Grocery Stores: Plaid Pantries, Grocery Outlet High Schools: Crossroads Alternative School Pre-to Middle-Schools: Gardner Middle School, Mt. Pleasant Elementary School Senior Housing/Services: Connors Care Home, Inc., Lausche Gardens, McLoughlin Place Senior Living Social Services – Other: Alberta Kerr Center, Men’s Resource Center, Casa Clackamas County, Clackamas County Crisis Hotline, Adult &amp; Family Services Multi-Modal Facilities: First Presbyterian Church Park &amp; Ride Parks: Hillendale Park, Chapin Park, Stafford Park, Singer Creek Park, Rivercrest Park</td>
</tr>
<tr>
<td>Deficiencies</td>
<td>Stop Near Sidewalk Gap: No High Speed Roads: Molalla Ave. – South of Beavercreek Rd. (35mph) High Traffic Volumes: No Pedestrian Crash: No</td>
</tr>
<tr>
<td>Opportunities</td>
<td>Monthly Weekday Vehicle Ramp Deployments: 98 TriMet Existing/ Planned Stop Improvement: No Located in an Urban Renewal Area: No High Activity LIFT Locations: Residence – Roundtree Dr., Fernwood Apts., Oregon Dept. of Human Services, SERP, Goodwill</td>
</tr>
<tr>
<td>Other Considerations</td>
<td>• Oregon City has plans for sidewalk and bike improvements on Molalla Ave. and Warner Milne Rd. from Linn Ave. to Beavercreek Rd. • The Clackamas Transportation Management Association initiated a pilot project to run a shuttle between Clackamas Town Center MAX station and the Red Soils Campus in Oregon City</td>
</tr>
</tbody>
</table>
**Focus Area 6 – SE Division St. & SE 122nd Ave.**

<table>
<thead>
<tr>
<th>Jurisdiction(s)</th>
<th>City of Portland, Multnomah County</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Type</strong></td>
<td>Frequent Service Bus (4), Standard Bus (17,27,71)</td>
</tr>
</tbody>
</table>
| **Land Use/Ridership**   | Combined Residential/Employment Density = All nearby areas scored high  
                          Housing/Employment Balance = None of the areas scored high  
                          Street Connectivity = None of the areas scored high  
                          Combined Ridership at Transit Stops (ons & offs) = 4,565 |
| **Proximity to Rider/  
  Pedestrian Attractors** | Major Attractors: Division Crossing Shopping Center  
                          Grocery Stores: Roman Russian Food Store, El Grande, Safeway, Usa Market, Albertsons, Powell Sunshine Market  
                          High Schools: None  
                          Pre-to Middle Schools: West Powellhurst Elementary, Mill Park Elementary, Lincoln Park Elementary, Portland Christian Elementary, Mt. Hood College Head Start  
                          Senior Housing/Services: Home for Our Parents, Adult Foster Care Home  
                          Social Services - Other: Nordahl Counseling Adult and Family Services, Midland Care Home, Horgos & Horgos, Options Counseling Service of Oregon, Tlc Counseling, Good Sheppard Lutheran, Servicios Latino, Shannon’s Child Care - preschool, David Douglas Day Care, Mere Center Bush Street  
                          Multi-Modal Facilities: None  
                          Parks: West Powellhurst Park, Kelly Butte Natural Area, Mill Park, Lincoln Park, Cherry Park |
| **Deficiencies**          | Stop Near Sidewalk Gap: No  
                          High Speed Roads: 122nd Ave. (35mph), Powell Blvd. (35mph), Division (35mph)  
                          High Traffic Volumes: Yes  
                          Pedestrian Crash: 1 crash - 122nd & Mill (injury), 2 crashes - 122nd & Lincoln (injury), 1 crash - 122nd & Division (injury), 1 crash - 113th & Division (injury), 3 crashes – 125th & Division (injury), 1 crash – 122nd & Powell (injury) |
| **Opportunities**         | Monthly Weekday Vehicle Ramp Deployments: 681  
                          TriMet Existing/Planned Stop Improvement: Yes  
                          Located in an Urban Renewal Area:  
                          High Activity LIFT Locations: Albertsons, Ica’s Adult Foster Care, Bush St. Group Home |
| **Other Considerations**  | • Area of Interest in the East Portland Action Plan;  
                          • City of Portland 122nd Ave. Pilot Project;  
                          • ODOT Active Transportation proposal to connect 122nd to the Division St. MAX Green Line station;  
                          • TriMet has plans to develop a new Outer Division/Inner Powell On-Street BRT line on this stretch of Division. |
## Focus Area 7 – SE Powell Blvd. & SE 82nd Ave.

<table>
<thead>
<tr>
<th>Jurisdiction(s)</th>
<th>City of Portland, Multnomah County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Type</td>
<td>MAX (Green Line), Frequent Service Bus (72,9, 4), Standard Bus (17)</td>
</tr>
</tbody>
</table>
| Land Use/Ridership | Combined Residential/Employment Density = All nearby areas scored high  
Housing/Employment Balance = Areas to the South scored high  
Street Connectivity = Areas to the West and South scored high  
Combined Ridership at Transit Stops (ons & offs) = 11,647 |
| Proximity to Rider/Pedestrian Attractors | Major Attractors: Eastport Plaza, Holgate Library  
Grocery Stores: Hongland Grocery, Lents Park Grocery, Good Neighbor Store, Food 4 Less, Fubonn Supermarkets, Pin Seng Trading Company  
High Schools: Portland Youth Builders, Marshall High School  
Pre- to Middle- Schools: Training and Education Center, Marysville Elementary, Morrison Center Adolescent Day Program, Lents Elementary, Lents Head Start,  
Senior Housing/Services: Up & Out Inc., Kirkland Union Manors, St. Anthony Village  
Social Services – Other: Living Hope International, YMCA  
Multi-Modal Facilities: SE Powell Blvd and SE Holgate Blvd. Park & Rides  
Parks: Essex Park, Multnomah park Cemetery, Lents Park Kelly Butte Natural Area |
| Deficiencies | Stop Near Sidewalk Gap: Yes  
High Speed Roads: 82nd Ave (35mph), Powell Blvd. (35mph)  
High Traffic Volumes: Yes  
Pedestrian Crash: 4 crashes - 82nd & Powell (injury), 1 crash – 84th & Powell (fatality), 2 crashes – 86th & Powell (injury), 2 crashes – 84th & Francis (injury), 2 crashes – 85th & Division (injury) |
| Opportunities | Monthly Weekday Vehicle Ramp Deployments: 1,266  
TriMet Existing/Planned Stop Improvement: Yes  
Located in an Urban Renewal Area: Yes  
High Activity LIFT Locations: Canton Grill, St. Anthony’s Village, Kirkland Union Manor, Goodwill, WalMart;  
Area of Interest in the East Portland Action Plan;  
City of Portland Powell Blvd. Streetscape Planning;  
City of Portland Active Transportation proposal for bike improvements in Lents neighborhood;  
ODOT Active Transportation proposal for bike/ped access improvements to the I-205 bike path, running parallel to Green Line MAX;  
TriMet has plans to develop a new Outer Division/Inner Powell On-Street BRT line on this stretch of Division. |

*TriMet*
# Focus Area 8 - Hillsdale

<table>
<thead>
<tr>
<th>Jurisdiction(s)</th>
<th>City of Portland, Multnomah County</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Type</strong></td>
<td>Frequent Service Bus (12, 54,56), Standard Bus (39,44,45,61), Rush-Hour Bus (1,38,55,61,64,65,94,92)</td>
</tr>
<tr>
<td><strong>Land Use/Ridership</strong></td>
<td>Combined Residential/Employment Density = Area to the Southwest scored high Housing/Employment Balance = None of the areas scored high Street Connectivity = Immediate and Southwest area scored high Combined Ridership at Transit Stops (ons &amp; offs) = 3,783</td>
</tr>
<tr>
<td><strong>Proximity to Rider/Pedestrian Attractors</strong></td>
<td><strong>Major Attractors</strong>: Hillsdale Library, Hillsdale Shopping Center <strong>Grocery Stores</strong>: Safeway, Fred Meyer <strong>High Schools</strong>: Wilson High School <strong>Pre-to Middle-Schools</strong>: Portland Jewish Academy, Alpha Bet Jewish Day School, West Hills Christian, Gray Middle School, Reike Elementary <strong>Senior Housing/Services</strong>: None <strong>Social Services – Other</strong>: MJCC Early Childhood Center, A True Leaf Career &amp; Life Design, <strong>Multi-Modal Facilities</strong>: None <strong>Parks</strong>: Stephens Creek Natural Area, Custer Park, Burlingame Park, Fulton Community Garden, George Himes Park</td>
</tr>
<tr>
<td><strong>Deficiencies</strong></td>
<td>Stop Near Sidewalk Gap: Yes High Speed Roads: Capitol Highway (35mph), Barbur Blvd. (35mph) High Traffic Volumes: Yes Pedestrian Crash: No</td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td>Monthly Weekday Vehicle Ramp Deployments : 154 TriMet Existing/Planned Stop Improvement: Yes Located in an Urban Renewal Area: No High Activity LIFT Locations: Jewish Community Center</td>
</tr>
<tr>
<td><strong>Other Considerations</strong></td>
<td>• City of Portland w/ other partners submitted an Active Transportation Proposal to enhance pedestrian connections to Barbur Blvd (99W); • SW Corridor (in the vicinity of 99W) chosen as next High Capacity Transit Corridor for study in the Portland Metro Region.</td>
</tr>
</tbody>
</table>
## Focus Area 9 - Tigard Transit Center

<table>
<thead>
<tr>
<th>Jurisdiction(s)</th>
<th>City of Tigard, Washington County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Type</td>
<td>WES, Frequent Service Bus (12), Standard Bus (45,76,78), Rush-Hour Bus (64,94)</td>
</tr>
<tr>
<td>Land Use/Ridership</td>
<td>Combined Residential/Employment Density = All nearby areas scored high Housing/Employment Balance = All nearby areas scored high Street Connectivity = None of the areas scored high Combined Ridership at Transit Stops (ons &amp; offs) = 4,465</td>
</tr>
<tr>
<td>Proximity to Rider/Pedestrian Attractors</td>
<td>Major Attractors: Tigard City Hall, Tigard Plaza Shopping Center Grocery Stores: Cash &amp; Carry, Main Street Store High Schools: Quest Academy Pre-to Middle-Schools: St. Anthony’s, KinderCare Learning Center, Portland Faith Senior Housing/Services: None Social Services – Other: House of Aura, Cais, Westside Academy After School, private practices – counseling services Multi-Modal Facilities: Tigard Park &amp; Ride Parks: Ash Street Dog Park, Fanno Creek Park, Commercial Park, Liberty Park, Main Street Park</td>
</tr>
<tr>
<td>Deficiencies</td>
<td>Stop Near Sidewalk Gap: Yes High Speed Roads: Barbur Blvd. (35mph), Tigard St. (35mph), SW Greenberg (35mph), Hall Blvd. (40mph) High Traffic Volumes: Yes Pedestrian Crash: No</td>
</tr>
<tr>
<td>Other Considerations</td>
<td>• SW Corridor (in the vicinity of 99W) chosen as next High Capacity Transit Corridor for study in the Portland Metro Region; • City of Tigard w/ other partners submitted an Active Transportation proposal to develop pedestrian routes to Barbur Blvd. (99W); • City of Tigard recently completed a planning effort for Downtown Tigard; • City of Tigard w/ other partners submitted an Active Transportation proposal for Fanno Creek Regional Trail project improvements.</td>
</tr>
</tbody>
</table>
# Focus Area 10 – SW Beaverton-Hillsdale Hwy. & SW Scholls Ferry Rd.

<table>
<thead>
<tr>
<th>Jurisdiction(s)</th>
<th>Washington County, City of Beaverton, City of Portland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Type</td>
<td>Standard Bus (54,55,56), Rush-Hour Bus (61,92)</td>
</tr>
<tr>
<td>Land Use/Ridership</td>
<td>Combined Residential/Employment Density = Area to the Southwest scored high</td>
</tr>
<tr>
<td></td>
<td>Housing/Employment Balance = Area to the Southwest scored high</td>
</tr>
<tr>
<td></td>
<td>Street Connectivity = None of the areas scored high</td>
</tr>
<tr>
<td></td>
<td>Combined Ridership at Transit Stops (ons &amp; offs) = 1,425</td>
</tr>
<tr>
<td>Proximity to Rider/Pedestrian Attractors</td>
<td>Major Attractors: Slope Community Library</td>
</tr>
<tr>
<td></td>
<td>Grocery Stores: Zupan’s Market, New Seasons Market, Safeway</td>
</tr>
<tr>
<td></td>
<td>High Schools: None</td>
</tr>
<tr>
<td></td>
<td>Pre- to Middle- Schools: Raleigh Park Elementary, Raleigh Hills Elementary</td>
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<tr>
<td></td>
<td>Senior Housing/Services: Raleigh Hills Assisted Living, Courtyard Village, Rose Schnitzer Manor, Cedar Sinai Park Adult Day Services</td>
</tr>
<tr>
<td></td>
<td>Social Services - Other: After-school Care West, multiple private practices - counseling services</td>
</tr>
<tr>
<td></td>
<td>Multi-Modal Facilities: None</td>
</tr>
<tr>
<td></td>
<td>Parks: Raleighwood Park, Fanno Creek Natural Area, Raleigh Swim Center/Park, Bauman Park</td>
</tr>
<tr>
<td>Deficiencies</td>
<td>Stop Near Sidewalk Gap: Yes</td>
</tr>
<tr>
<td></td>
<td>High Speed Roads: Beaverton-Hillsdale Hwy. (35 to 40 mph), Oleson Rd. (35mph) Scholls Ferry Rd. (35 to 40 mph)</td>
</tr>
<tr>
<td></td>
<td>High Traffic Volumes: Yes</td>
</tr>
<tr>
<td></td>
<td>Pedestrian Crash: 1 crash - SW Laurelwood &amp; Apple Way (injury), 2 crashes - Beaverton-Hillsdale Highway &amp; SW 62nd (injury)</td>
</tr>
<tr>
<td>Opportunities</td>
<td>Monthly Weekday Vehicle Ramp Deployments: 131</td>
</tr>
<tr>
<td></td>
<td>TriMet Existing/Planned Stop Improvement: No</td>
</tr>
<tr>
<td></td>
<td>Located in an Urban Renewal Area: No</td>
</tr>
<tr>
<td></td>
<td>High Activity LIFT Locations: Courtyard Village, Fred Meyer, Marquis Care Center - Autumn Hills, Cedar Sinai Adult Day Center, Rose Schnitzer Manor</td>
</tr>
<tr>
<td>Other Considerations</td>
<td>- Washington County Raleigh Hills / Garden Home Community Plan</td>
</tr>
</tbody>
</table>
7.0 Next Steps – Focus Area Site Evaluation

The next step in the pedestrian network analysis project is to decide on a common site level evaluation tool and to assess each of the ten focus areas. There are a number of site level evaluation tools available that can help city planning practitioners, engineers, elected officials and community members assess an area’s overall level of pedestrian accessibility. Once all of the assessments are complete the results will be published as the third technical memo.

A general list of traffic calming and pedestrian-oriented treatments will be suggested, with order of magnitude costs associated with each. This will serve as a toolbox that jurisdictions can look to when thinking about how to make pedestrian investments that provide better access to transit stops. If or when a jurisdiction would like to pursue an investment strategy to make one of the focus areas more pedestrian friendly, then TriMet, the jurisdiction, and community members can work together to figure out which specific strategies to pursue and which tools to apply.

In addition to the ten site level focus area evaluations, suggestions on how to conduct similar analysis for local planning activities, like transportation system plan updates, area plans, or site plans will be provided. These suggestions will draw from the methodology used in this study and from existing, already published, pedestrian and transit stop design guidelines.