B. Existing Conditions Memorandum

University Area Transportation Action Strategy

Existing Conditions Summary

Prepared for:

Seattle Department of Transportation

700 Fifth Avenue, Suite 3900
Seattle, Washington

Prepared by:

Mirai Transportation Planning and Engineering

11410 NE 122nd Way, Suite 320
Kirkland, Washington 98034-6927
(425) 820-0100

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SUMMARY OF FINDINGS

The Existing Condition analysis updates and develops the UATS baseline information. The following provides an overview of the findings found in this analysis:

Pedestrian Conditions

- Walking conditions were evaluated on four factors:
  1. the width of sidewalks;
  2. the buffer space between pedestrians on the sidewalk and moving traffic;
  3. the time people must wait to cross the street; and
  4. the level of conflict between turning vehicles and people in the crosswalk.
- Sidewalks generally provide adequate width but few meet the desired width standards described in the City's *Right of Way Improvement Manual*.
- Sidewalks that meet the *Right of Way Improvement Manual* do so by having parking areas that separate them from traffic during off-peak hours.
- Turning vehicles create major conflicts with pedestrians crossing the street at about one in five intersections. At one intersection, in the peak hour alone, nearly 700 vehicles drive through the crosswalk while people are crossing the street.
- At some intersections, long signal cycles result in delays for pedestrians. Twelve of the study intersections failed to meet the cycle length standard of the associated street type classification.

Bicyclist Conditions

- Bike-Level-of-Service (BLOS) is measured based on a combination of roadway design and traffic conditions.
- More than half of the bicycle corridors analyzed failed to meet the Bike-Level-of-Service standard.
- Of the corridors identified in the Bicycle Master Plan, the worst locations for bicyclists are NE 45th Street from I-5 all the way to the 17th Avenue NE entrance to the University of Washington and NE 50th Street crossing I-5. Other corridors that fail to meet the BLOS include: NE 65th Street, Roosevelt Way NE, the Eastlake/11th/12th corridor and

20th Avenue NE. These corridors will require improvements, such as those suggested by the Bicycle Master Plan, to improve the appropriateness and comfort of bicyclists.

- There were 39 bike-vehicle collisions in the last three years, twelve of which occurred at only 3 locations. At one location, all three collisions were between right-turning vehicles and bicyclists at a street-crossing of the Burke-Gilman Trail.

Transit Conditions

- The City's Urban Village Transit Network establishes five performance standards for bus service relating to:
  1. frequency
  2. hours of service
  3. travel speed
  4. on-time performance (reliability)
  5. crowding
- Of the ten designated transit corridors in the study area all failed at least one of the UVTN performances standards, and six failed three or more.
- King County Metro standards call for a bus shelter at any stop serving 50 or more boarding passengers a day; 19 stops in the study area failed this standard including two that serve over 400 bus riders a day.

Traffic Conditions

- For the most part, traffic in the study area has remained flat or in some corridors decreased slightly over the last 16 years.
- Of 35 corridors analyzed, only 11 achieve PM peak speeds of 18 mph or faster while 20 operate at 14 mph or slower; Montlake is the slowest corridor with PM peak speeds of 3 mph, slower than a person can walk.
- Of 80 intersections studied, 11 had PM peak hour average delays of a minute or longer.
- All of the signalized intersections studied met safety standards with regards to vehicle collisions, but five midblock locations failed the safety standards.

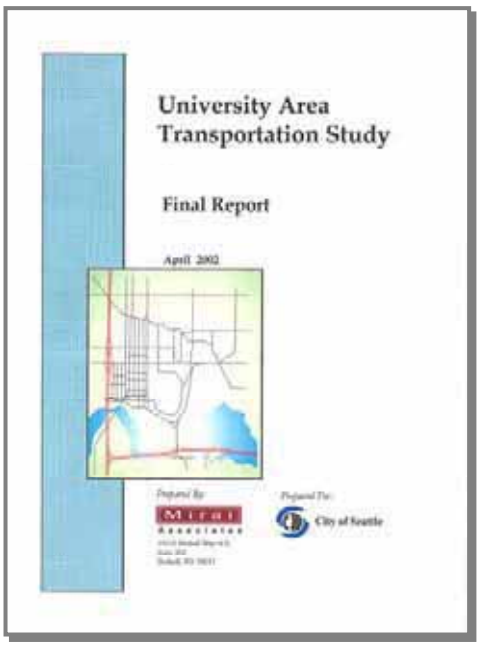
EXISTING CONDITIONS

This chapter updates the existing conditions section of the 2002 University Area Transportation Study (UATS) to identify the transportation conditions, issues and performance for the study area. The study area is bounded by NE 65th Street on the north; the Ship Canal on the south; Interstate 5 on the west and 35th Avenue NE on the east.

This section reviews and updates the data from the UATS study and evaluates the data against a set of performance measures that help identify problems and opportunities for the area. The performance measures are presented by transportation mode (pedestrian, bicycle, transit and auto) and each measure evaluates how well an existing roadway or intersection serves that mode's needs.

Background

The 2002 University Area Transportation Study (UATS) drew upon a rich history of prior planning, programs and projects to help identify existing transportation conditions and problems. It developed future traffic forecasts for 2010 and 2020 and Level of Service (LOS) analysis for 2010 in order to measure anticipated congestion and delay. The UATS also developed a prioritized list of transportation projects and program improvements across all modes including travel demand reduction strategies. In addition, the UATS developed cost estimates for the recommended improvements and identified possible funding sources – both local and outside the City – that might be available for transportation improvements.



The UATS was based around two primary goals:

- Provide a comprehensive multimodal transportation plan for the University area
- Serve as a blueprint for financing and programming transportation improvements in the University area over the next decade

Since completion of the UATS, very few of the recommendations have been implemented due, in part, to the statewide reduction in funding for transportation. The notable exception is the University Avenue Improvement Project which includes new sidewalks, repaving, traffic signal upgrades, art

features and pedestrian improvements. This project was programmed prior to the UATS and completed in 2004.

Changing Conditions Necessitate Plan Update

Other issues which complicated the plan implementation were the uncertainties related to the feasibility and locations of the proposed light rail stations within the study area and the choice of the Preferred Alternative for the SR 520 Replacement Project. While Sound Transit is now committed to three stations within the study area – near Husky Stadium, at Brooklyn Avenue/between NE 43rd and 45th Street and at Roosevelt Avenue/NE 65th Street – funding is currently available for the Husky Stadium station only. Voter approval will be needed to extend the rail alignment beyond the south campus and on to Northgate.

The SR 520 Replacement Project has faced considerable challenges in its attempt to balance Seattle and Eastside interests and the concerns of the Seattle communities most impacted by the new freeway.

Two other relevant events occurred in the University Area in 2006. The City ended the 25-year old lease lid in the U-District, a move which is expected to stimulate new development, and Safeco Insurance sold its headquarters building on 45th Street and adjacent properties to the University of Washington.

Purpose of the Plan Update

The purpose of the University Area Transportation Action Strategy (UATAS) is to review, refine and update the 2002 University Area Transportation Study. To achieve these goals, the UATAS includes an updated existing conditions report, a new forecast of future traffic demand to a horizon year of 2030 and an updated and comprehensive set of transportation improvement projects and programs to manage the growth anticipated to occur between 2006 and 2030.

The UATAS recommendations will also provide the basis for a voluntary developer fee mitigation program that will assign an appropriate share of the cost of transportation improvements to new growth. Consistent with the Seattle Comprehensive Plan and Transportation Strategic Plan, the UATAS emphasizes the movement of *people and goods* rather than taking the more traditional vehicle focus.

Coordination with Other Plans

The UATAS builds upon the 2002 UATS for source material. In addition, the UATAS coordinates and maintains consistency with the following planning projects:

- SR 520 Bridge Replacement and HOV Project
- Link Light Rail North Alignment
- University of Washington Master Plan
- Bicycle Master Plan
- Pedestrian Master Plans (upcoming)
- Seattle Transit Plan
- Freight Mobility Action Plan

PEDESTRIAN SYSTEM

The University Area transportation network is characterized by high levels of pedestrian activity throughout, with intense areas of pedestrian activity in the proximity of the University of Washington, the retail areas along University Way NE and NE 65th Street, the connecting and crossing facilities to the Burke-Gilman Trail, parks and schools, and along transit routes.

Pedestrian Study Streets

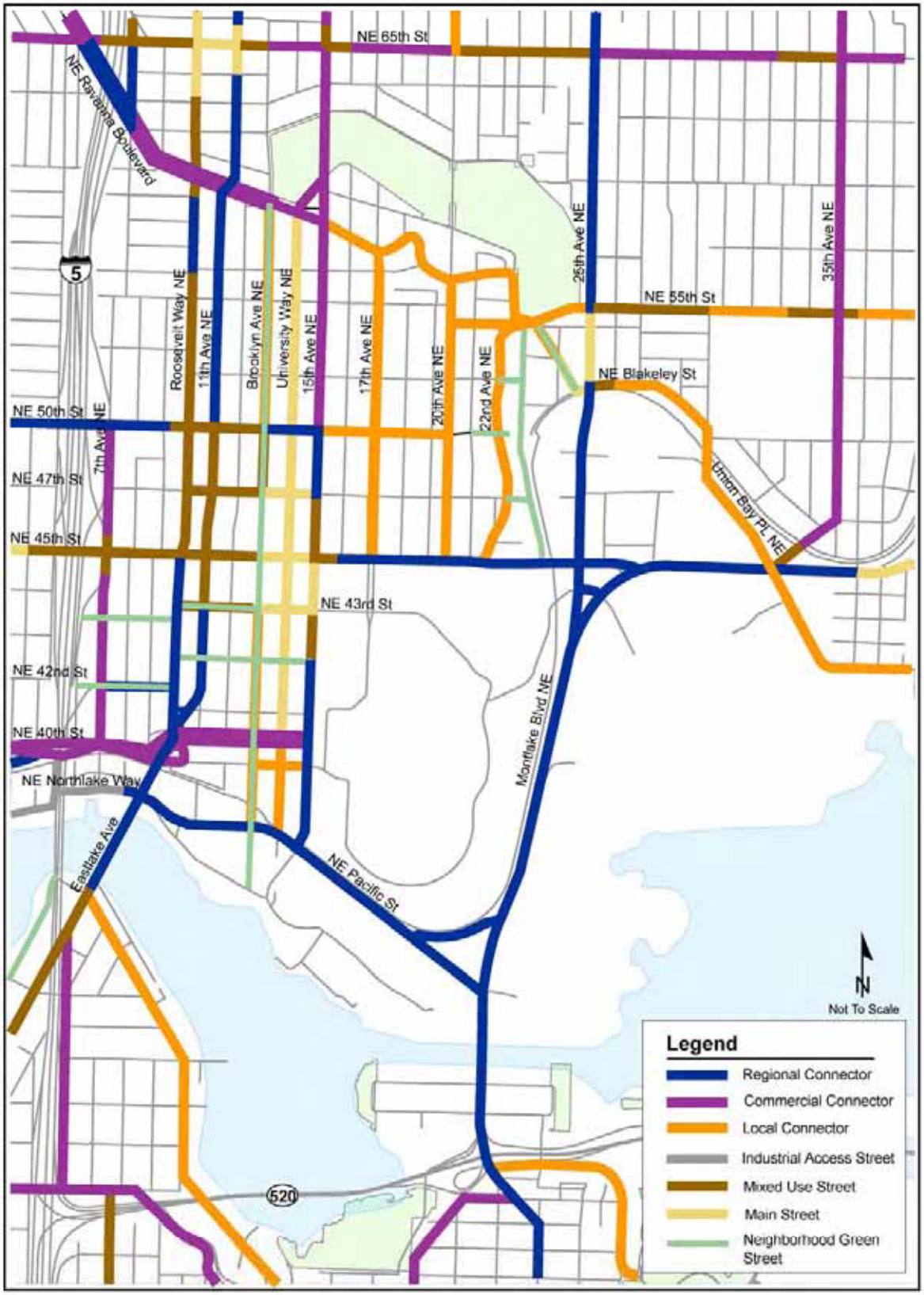
Since it is not practical to evaluate pedestrian conditions on all streets in the study area, the study focused on the pedestrian facilities located on the six street type classifications defined in Seattle's *Right-of-Way Improvement Manual*, and on Green Streets. **Table 1** lists the street type classifications which combine the street's classification and the surrounding land use.

Table 1. Street Type Classification

Name of Street Type	Street Classification	Adjacent Land Use
Regional Connector	Principal Arterial	Industrial, Commercial, Residential
Commercial Connector	Minor Arterial	Commercial, Residential
Local Connector	Collector Arterial	Residential, Institutional (community service)
Main Street	Arterial—all	Neighborhood commercial with a pedestrian designation
Mixed Use Street	Arterial—all	Neighborhood commercial
Industrial Access Street	Arterial—all, non-arterials in commercial areas	Industrial, Maritime
Green Street	Non-arterial in Downtown Seattle	Residential
Neighborhood Green Street	Non-arterial outside of Downtown Seattle	Residential

The street types from the *Right-of-Way Improvement Manual* are shown in **Figure 1**. Street types also include those designated as Green Streets. Where a street segment is designated as one of the street types, as well as a Green Street, the Green Street designation is shown on the map.

Figure 1. Street Type Classifications



Pedestrian Collisions

Collisions between vehicles and pedestrians are due to a wide variety of factors that can be difficult to predict or correct. Historical collision data can provide an understanding of the location and frequency of pedestrian collisions. Based on the City's database from 2004 to 2006, the data indicate high pedestrian collisions generally occur in areas where there are high levels of pedestrian activity coupled with high traffic volumes. Between 2004 and 2006, one fatality occurred where the Burke-Gilman Trail crosses Pend-Oreille Road within the University of Washington campus. **Figure 2** summarizes the pedestrian collisions at intersections and at mid-block locations.

Detailed review of police records found that most collisions were a result of drivers being unable to see pedestrians (weather/darkness) and inattention of drivers. Also, vehicles making left turns fail to look for pedestrians while waiting for a gap in the opposing vehicle traffic flow.

Findings – Pedestrian Collisions

- Forty-six pedestrians were hit by vehicles in the last three years.
- One pedestrian was killed, where the Burke-Gilman Trail crosses Pend-Oreille Road on the University of Washington Campus.
- The 46 pedestrian collisions occurred at 34 different locations.
- Two intersections, 15th Avenue NE/NE Campus Parkway (westbound) and Roosevelt Way NE/NE 65th Street, had three pedestrian/vehicle collisions in the last three years, compared to only one vehicle/vehicle collision in the same time period.
- About one of every four pedestrian collisions occurred at mid-block locations.

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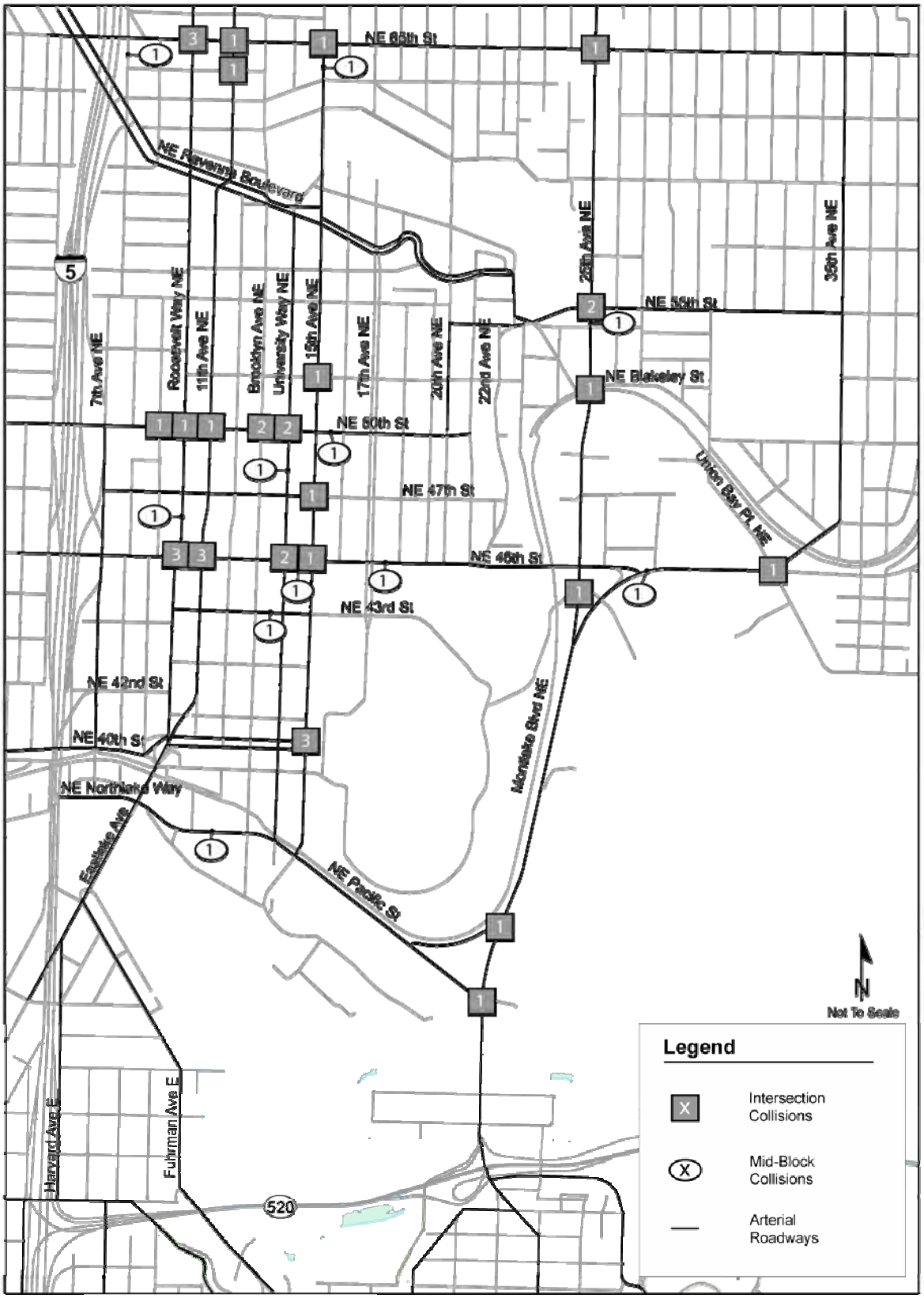
Figure 2. Three-Year Pedestrian-Auto Collision Total (2004-2006)



Pedestrian System Performance

The evaluation of the pedestrian system in the University area focused on the provision of sidewalk facilities, the adequacy of space between the pedestrian facilities and adjacent vehicle traffic and the degree of ease for pedestrians to cross streets at signalized intersections. Performance measures for pedestrian facilities were defined based on their relationship to the street and adjacent land uses. Specific thresholds, tied to the adjacent land uses were set for each performance measure. To evaluate the pedestrian system, the analysis applied the following performance measures:

- Pedestrian walking space: The percentage of pedestrian facilities (sidewalk only) that meets the minimum width as described by the Right-of-Way Improvement Manual.
- Pedestrian facilities: The percentage of pedestrian facilities that meets the Right-of-Way Improvement Manual guidelines for sidewalk, planting strip and other spaces that separate moving vehicles and pedestrians such as on-street parking, and bike lanes.
- Ease of street crossings at intersections: Two measures are used: 1) The number of vehicles conflicting with pedestrians, such as right-turning and left-turning vehicles in a permissible signal phase, and 2) the length of the traffic signal cycles.

Pedestrian Walking Space

The basic facilities for pedestrian travel within an urban environment are sidewalk and crosswalks. The minimum sidewalk width required by *Right–of-Way Improvement Manual* (Chapter 4.11 Sidewalks) is 6 feet. The performance measure calculates, by street type, the percentage of the sidewalks that are greater than the minimum 6-foot sidewalk width. The following formula was used to calculate the percentage of the adequacy of walking space:

Percent Adequate Walking Space = SUM (the length of the block face having averaged sidewalk width greater than 6 feet) / (the length of pedestrian segment) X 100.

This level of service indicator provides an overall view about the adequacy of sidewalks within the UATAS study area. **Table 2** defines the LOS and thresholds for adequacy of sidewalks. The thresholds vary based upon the street type

classifications. For Local Connector streets, a threshold of LOS B is required. All other street types have a LOS C threshold.

Table 2. Level of Service for Adequacy of Walking Space (AWS-LOS)

Level of Service	Percent Meeting Threshold
AWS-LOS A	95 to 100 percent
AWS -LOS B	90 to 95 percent
AWS -LOS C	85 to 90 percent
AWS -LOS D	80 to 85 percent
AWS -LOS E	70 to 80 percent
AWS -LOS F	less than 70 percent
Thresholds LOS B for Regional Connector, Commercial Connector, Main Street/Mixed Use and Green Street LOS C for Local Connector	

Higher levels of service (LOS A or B) indicate adequate sidewalks. Lower levels of service may require improvements to correct substandard facilities. This indicator addresses pedestrian facilities at a macro-scale level, and does not address important issues such as compliance with the Americans with Disability Act (curb ramps), sidewalk maintenance or other facility issues. **Figure 3** shows the sidewalk widths along individual segments (blocks) of University area street types. **Figure 4** displays these segments relative to meeting the threshold standards for each street type.

Figure 3. Existing Walking Space Widths

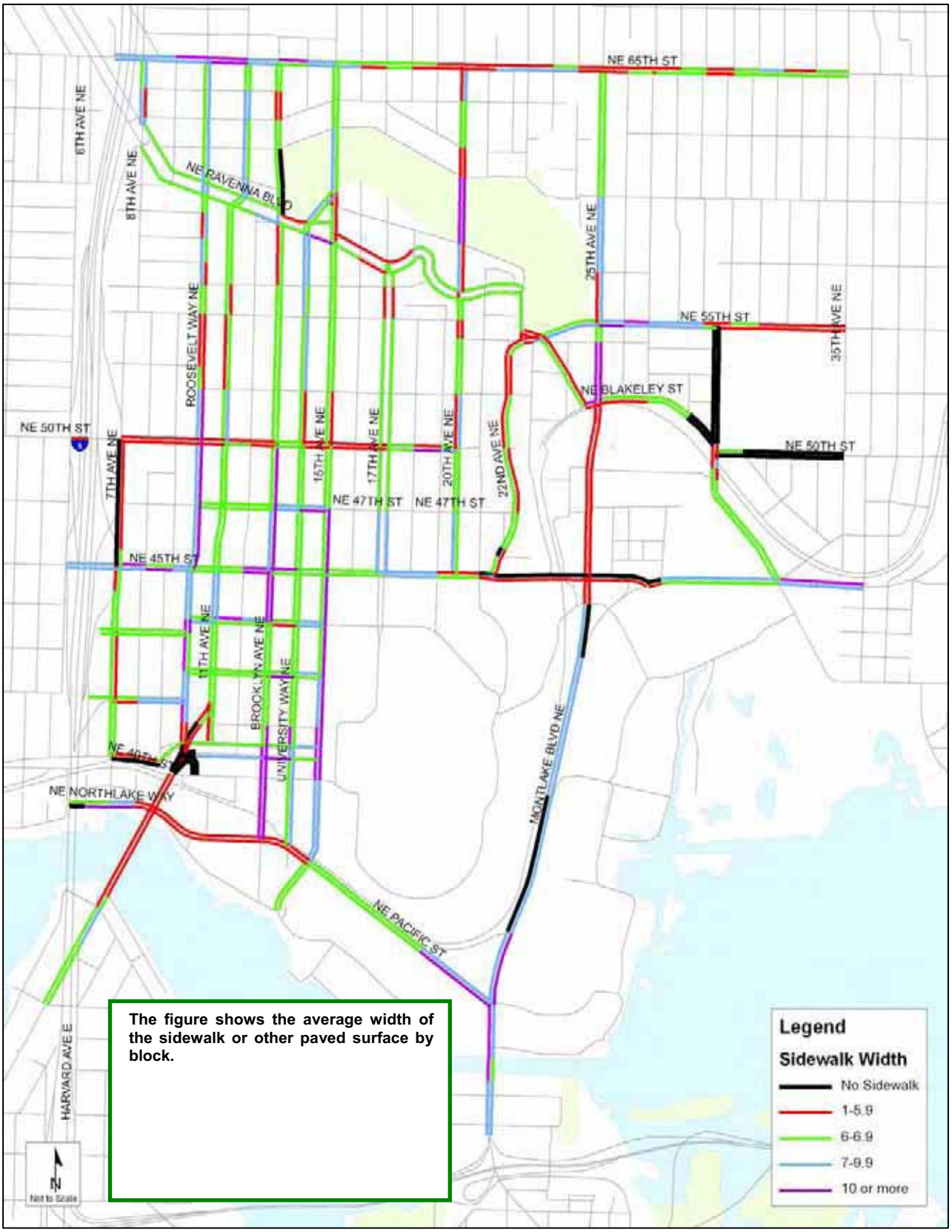
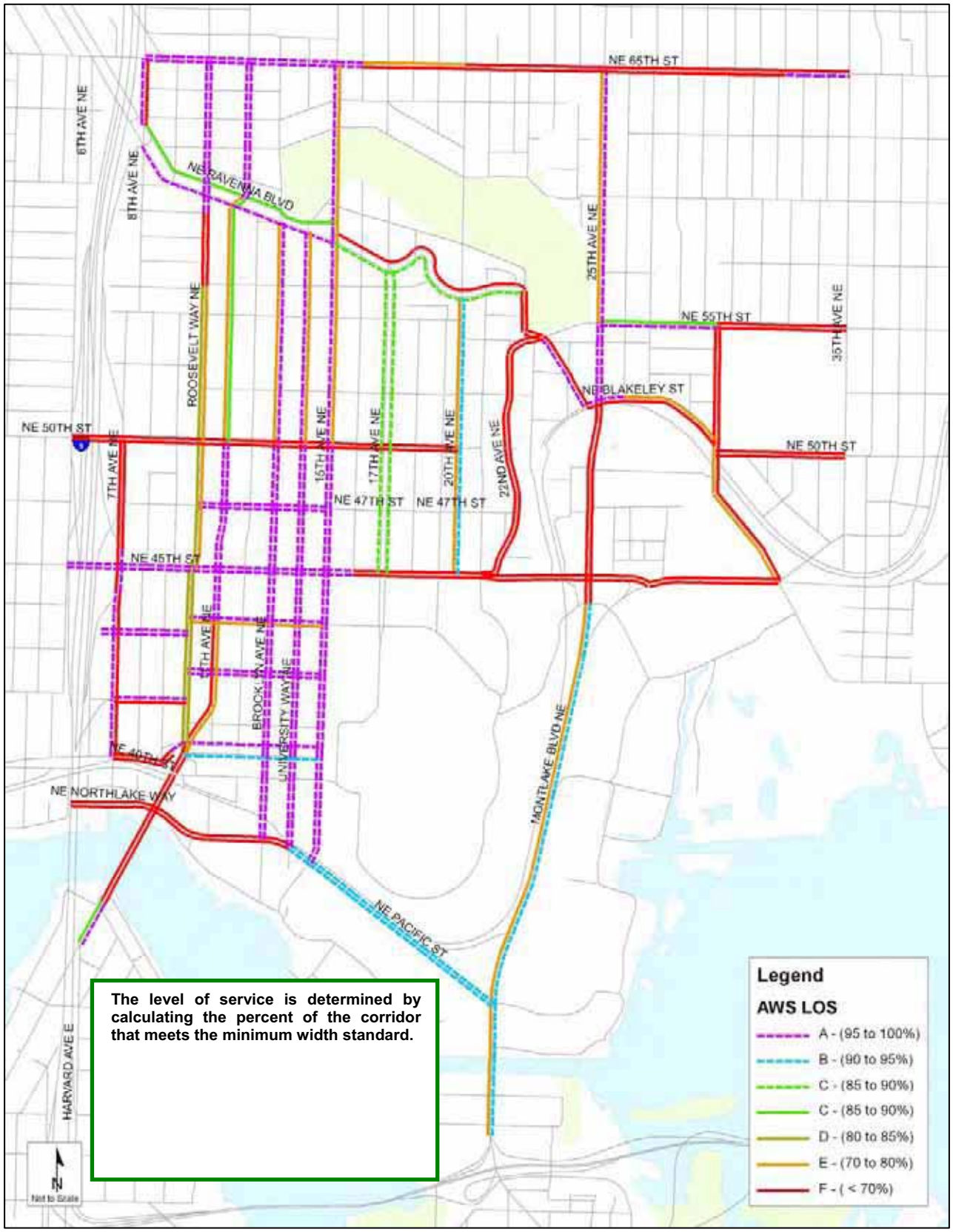


Figure 4. Level of Service for Walking Space Width



The level of service is determined by calculating the percent of the corridor that meets the minimum width standard.

Findings – Walking Space Adequacy

- Almost all the sidewalks within the University District commercial area provide adequate walking space.
- Portions of six streets in the study area lack sidewalks altogether, on one or both sides.
  - NE 40th Street (south side) between 7th Avenue NE and Eastlake Avenue E.
  - 30th Avenue NE (both sides) between NE 55th Street and NE Blakeley Street. (Note: City has a planned improvement for the west side).
  - Brooklyn Avenue NE (east side) between NE Ravenna Boulevard and NE 62nd Street
  - Ravenna Avenue NE (east side) between NE Ravenna Boulevard and NE 54th Street
  - NE 45th Street (Viaduct – north side) between 22nd Avenue NE and University Village Entrance
  - NE 50th Street between 30th Avenue NE and 35th Avenue NE.
- Portions of six streets in the study area have sidewalks that are inadequate.
  - *NE 50th Street* between 5th Avenue NE and Roosevelt Way NE
  - *NE Northlake Way* (south side) between 6th Avenue NE and the University Bridge
  - *University Bridge* (west side) from Furhman Avenue E to NE 40th Street
  - *Montlake Boulevard* (west side) from SR 520 to NE 44th Street
  - *NE 45th Street* (both sides) east of 16th Avenue NE
  - *25th Avenue NE* (both sides) from NE 45th Street to NE Blakely Street

Adequacy of Pedestrian Facilities

The quality of the pedestrian experience is more than presence of a sidewalk. For pedestrian comfort, a facility should be designed with features that enhance the walking experience and separate the pedestrian from the flow of traffic.

For this analysis, the space between pedestrians and moving vehicles is included as a performance measure. This measures the ease for pedestrians to walk along the street by identifying the separation between the pedestrians and vehicle traffic. The spatial separation defined in this report is the entire width of sidewalks, planting strips, adjacent on-street parking and bicycle lanes. A score is generated for each street type segment, comparing the spatial separation to the design characteristics of the Street Type hierarchy as described by the *City's Right–of-Way Improvement Manual* (Chapter 4.2 Design Criteria). **Table 3** shows the minimum widths needed to satisfy the Manual's guidelines for pedestrian facilities.

Table 3. Minimum Width for Pedestrian Facilities Recommended in the Right-of-Way Manual

Street Type	Sidewalk	Planting	Parking/Bike	Total (Minimum)
Regional Connector	6 feet	4 feet	0 feet	10 feet
Commercial Connector	6 feet	4 feet	8 feet	18 feet
Local Connector	6 feet	6 feet	6 feet	18 feet
Green Street	8 feet	10 feet	0 feet	18 feet
Main Street/ Mixed Use Street	8 feet	6 feet	8 feet	22 feet

The study measured the length of the street type segment and determined the length that meets the minimum width. For example, a Regional Connector needs a minimum of 10 feet between the traffic lane and the face of a building. On-street parking was measured based on midday conditions, not taking into account peak period parking restrictions, since the majority of peak pedestrian activity generally occurs during the traditional "off-peak" period for vehicles. The study assumes that the pedestrian activities in the University District are similar to the other typical activities areas. The following formula was used to calculate the percentage having adequate pedestrian facilities:

> Percent Adequate Pedestrian Facilities = SUM (the length of the block face having adequate pedestrian facilities based on the street type) / (the total length) X 100.

Table 4 lists the performance measure definitions for adequate pedestrian facilities.

Table 4. Level of Service for Adequacy of Pedestrian Facilities (PF-LOS)

Level of Service	Definition
PF -LOS A	90 to 100 percent
PF -LOS B	80 to 90 percent
PF -LOS C	70 to 80 percent
PF -LOS D	50 to 70 percent
PF -LOS E	40 to 50 percent
PF -LOS F	less than 40 percent
Threshold =PF-LOS D	

Figure 5 shows the width of pedestrian space for each of the block faces. **Figure 6** shows the adequacy of the pedestrian facilities by street type classification.

Findings – Adequacy of Overall Pedestrian Space

- Most of the streets in the study area do not provide adequate space between pedestrians and moving traffic.
- On-street parking is an important buffer for pedestrians between the sidewalk and moving traffic.

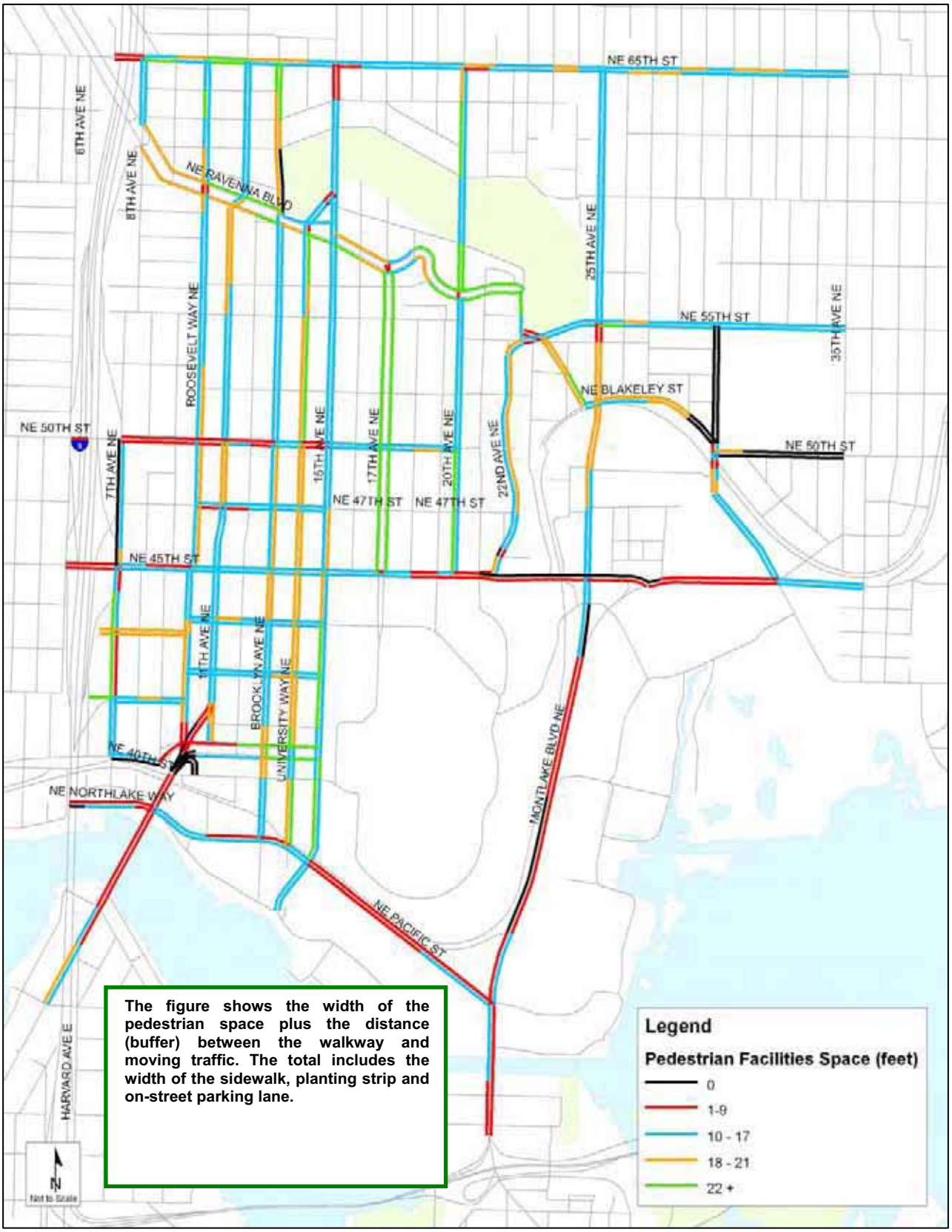
Vehicle-Pedestrian Conflicts

Pedestrian crossings at intersections are hampered by conflicts with turning vehicles. One approach to measure the degree of risk is to identify the total (left and right) turning volumes that conflict with the pedestrian movements at each intersection.

The level of service for vehicle-pedestrian conflicts is defined in **Table 5**. The total right-turning vehicles and left-turning vehicles that conflict with pedestrians crossing the streets during the PM peak hour define the level of service. This measure represents the vehicles that conflict with pedestrians crossing the streets (the four legs) at each signalized intersection. For intersections with fewer than 200 vehicle turns (total of left and right), the intersection is defined at LOS A. For intersections with more than 1000 turning vehicles during the PM peak hour, the level of service is F.

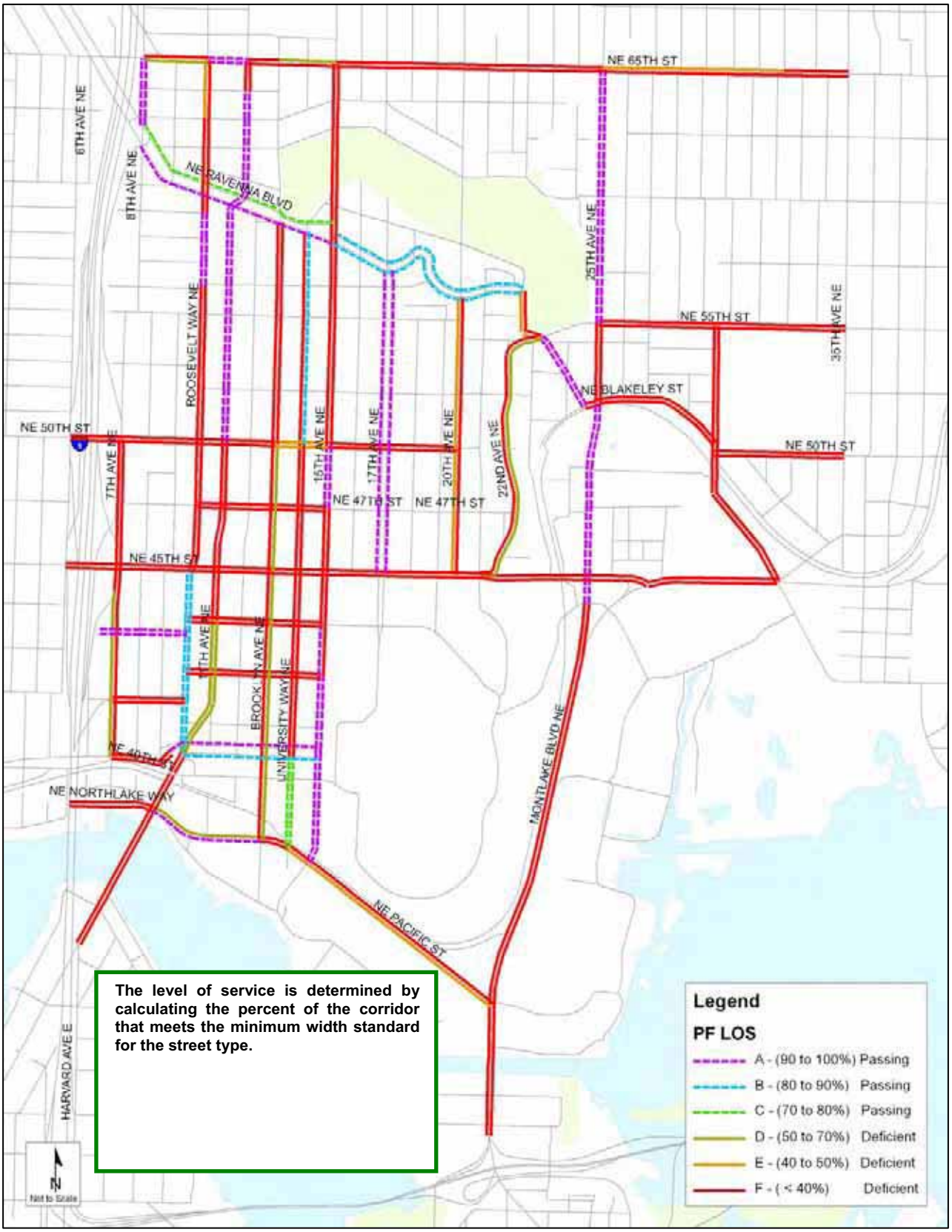
The threshold for vehicle-pedestrian conflicts is defined by the Street Type classification. A LOS B or betters is required for green streets, main streets and local connectors, while regional connections may operate at LOS D.

Figure 5. Pedestrian Facility Width by Block Face



The figure shows the width of the pedestrian space plus the distance (buffer) between the walkway and moving traffic. The total includes the width of the sidewalk, planting strip and on-street parking lane.

Figure 6. Level of Service for Pedestrian Facilities



The level of service is determined by calculating the percent of the corridor that meets the minimum width standard for the street type.

Table 5. Level of Service for PM Peak Hour Vehicle-Pedestrian Conflicts (VP-LOS)

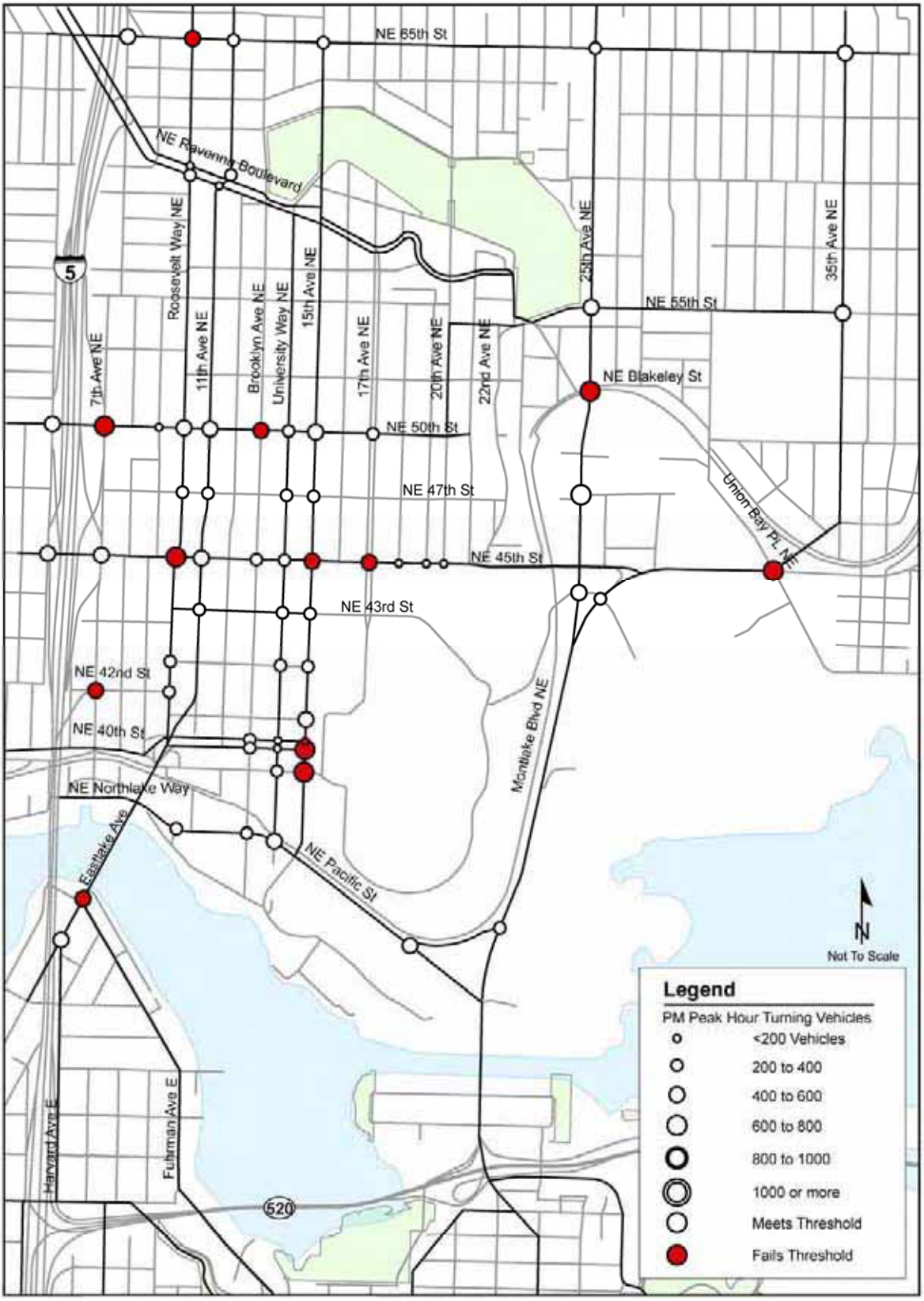
Level of Service	Definition
VP-LOS A	fewer than 200 vehicles
VP-LOS B	200 to 400 vehicles
VP-LOS C	400 to 600 vehicles
VP-LOS D	600 to 800 vehicles
VP-LOS E	800 to 1000 vehicles
VP-LOS F	greater than 1000 vehicles
Thresholds VP-LOS B for intersections on Green Streets, Main Streets and Local Connectors VP-LOS C for intersections on Mixed Use Streets and Commercial Connectors VP-LOS D for intersections on Regional Connectors	

The intersections that fall below the level of service threshold for vehicle pedestrian conflicts are shown in **Figure 7** .

Findings – Conflicts between Pedestrians and Left- and Right-Turning Vehicles

- The six highest locations for turning conflicts are:
  - NE 50th Street/7th Avenue NE
  - NE 45th Street/35 Avenue NE
  - NE Blakeley Street/25th Avenue NE
  - NE 45th Street/Roosevelt Way NE
  - NE 40th Street /15 Avenue NE
  - NE Campus S Pkwy/15 Avenue NE
- In all, fourteen intersections, about one in five, experience very heavy conflicts between turning vehicles and pedestrians in the crosswalk.

Figure 7. Level of Service for Vehicle-Pedestrian Conflicting Volumes



Signal Cycle Length

Another measure of pedestrian mobility is the total cycle length of a signal. "Cycle length" is defined as the total time for all phases of signal to change, or in other words, for all users of the intersection to get a "turn". The amount of delay experienced by pedestrians depends on the length of the "WALK" phase for pedestrians, the number of signal phases and the total signal cycle length. Pedestrians crossing at intersections experience frustration when faced with long signal cycles and may be more likely to not obey the signal. The performance measure uses the length of a traffic signal cycle during the PM peak hour at signalized intersection. By definition, stop-controlled intersections are LOS A. **Table 6** defines the level of service and thresholds for the signal cycle length related to pedestrian street-crossing experience.

Table 6. Level of Service for Signal Cycle Length (PM Peak Hour)

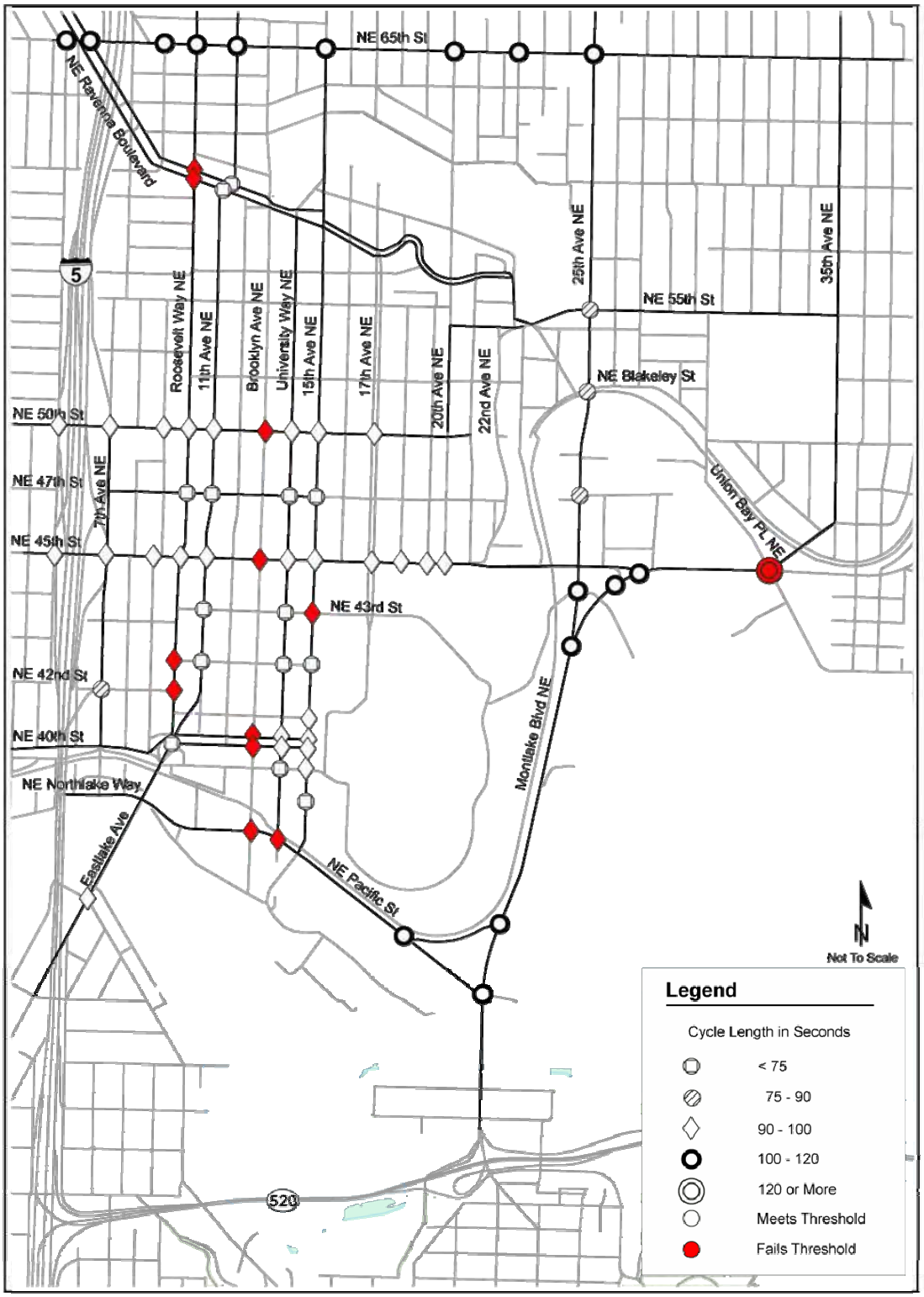
Level of Service	Definition
SCL-LOS A	less than 60 seconds
SCL-LOS B	60 to 75 seconds
SCL-LOS C	75 to 100 seconds
SCL-LOS D	100 to 120 seconds
SCL-LOS E	120to 130 seconds
SCL-LOS F	greater than 130 seconds
SCL- Thresholds LOS C for intersections on Green Streets LOS D for intersections on Main Streets, Mixed Use Streets, Local Connectors LOS E for intersections on Commercial and Regional Connectors	

Figure 8 displays the signal cycle length in seconds and the whether the intersection meets the threshold for the street type classification.

Findings – Signal Cycle Length

- Within the University commercial district most intersections have cycle lengths of 100 seconds or less. For a typical intersection with a 100 second cycle length, the pedestrian delay is approximately 43 seconds.
- Seven intersections fail to meet the signal cycle length thresholds for their street type; five of the seven are on Brooklyn where the threshold is 100-120 seconds.

Figure 8. Signal Cycle Lengths



BICYCLE SYSTEM

Bicycle use is high throughout the UATAS study area with the highest use near the University of Washington campus and the Burke-Gilman Trail. The City of Seattle is in the process of developing a *Bicycle Master Plan* for the entire city. The UATAS incorporated the draft recommendations (April 2007) for the University area and evaluates the corridors using performance measures.

BICYCLE CORRIDORS

The UATAS study evaluates all bicycle corridors identified on the City's *Bicycle Master Plan* (Draft – April 2007). **Figure 9** shows the bicycle corridors, with recommended improvements, that are identified in the Draft *Bicycle Master Plan* for the UATAS study area.

Bicycle Collisions

For the most part, vehicles and cyclists must share the same roadway. Conflicts between the two modes can occur where cyclists need to cross the stream of traffic to turn onto side streets, where the roadway is not wide enough to comfortably accommodate both modes, or where vehicles are moving at a much higher speed than bicyclists. City records of bicycle-vehicle collisions were reviewed for the period between 2004 and 2006. **Figure 10** shows the location and number of collisions that occurred during the three years.

Findings: Bicycle Collisions

- Thirty-nine collisions occurred between bicycles and vehicles in the last three years.
- Three locations had four collisions each:
- Eastlake Avenue E and Fuhrman Avenue E, and half a block south on Eastlake, midblock between Fuhrman Avenue E and Harvard Avenue E; both of these locations are just south of the University Bridge.
- University Way NE/NE Pacific Street at the Burke-Gilman Trail; all four involved bicyclists using the trail.
- There were three collisions on University Way NE, midblock

Review of the City's collision diagrams and police department reports found that bicycle vehicle collisions on Eastlake Avenue E/Fuhrman Avenue E were related to left turning vehicles not observing an on-coming cyclist and vehicles not aware of the presence of cyclists on the street when opening the doors of their parked vehicles or pulling into traffic from a parking space. Another problem

location is University Way/Pacific Street/Burke-Gilman Trail crossing. The four collisions at this location occurred between a cyclist traveling eastbound on the Burke-Gilman Trail and a southbound vehicle making a right turn on red.

Figure 9. Bicycle Study Corridors and Draft Recommendations From the Bicycle Master Plan

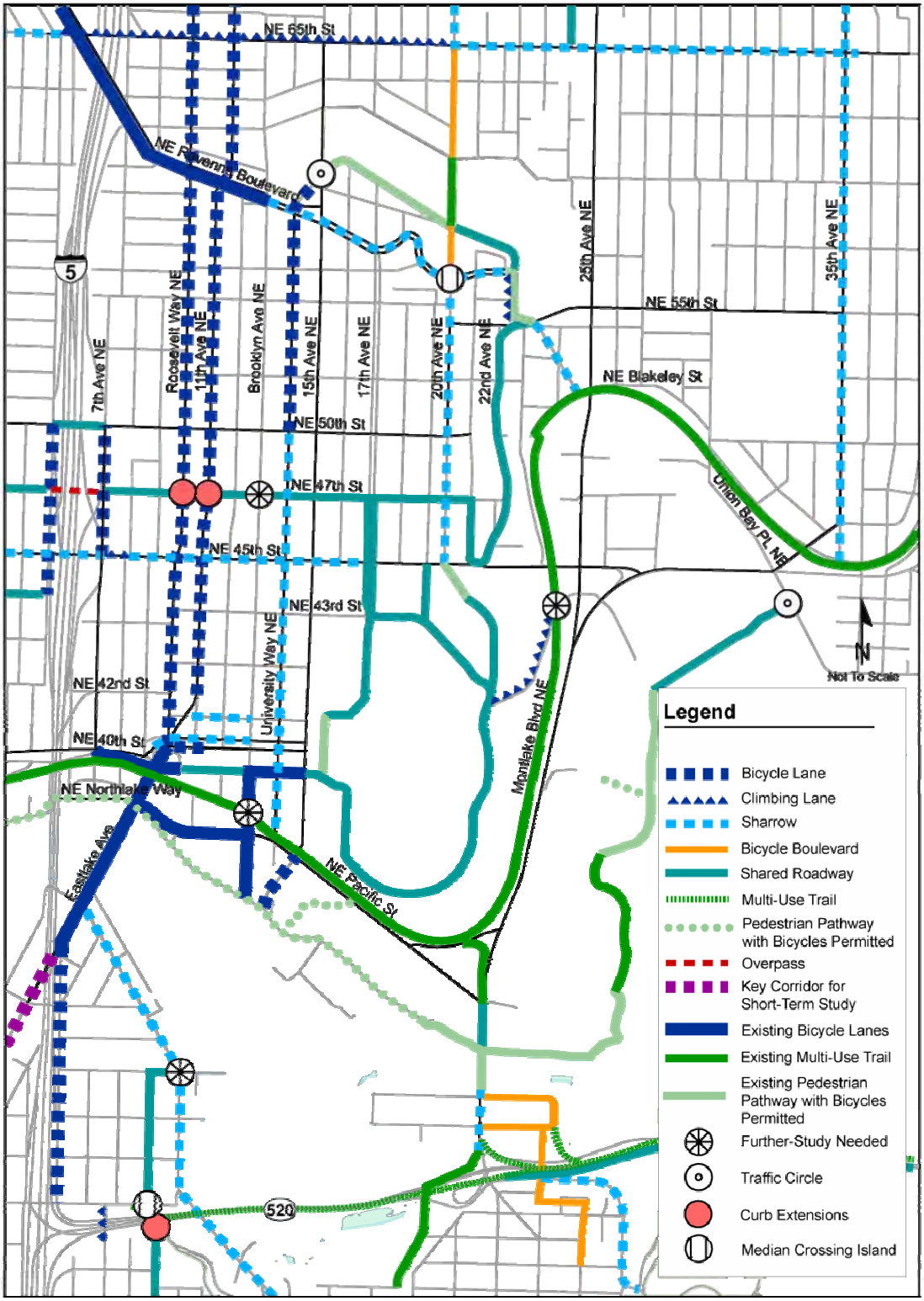
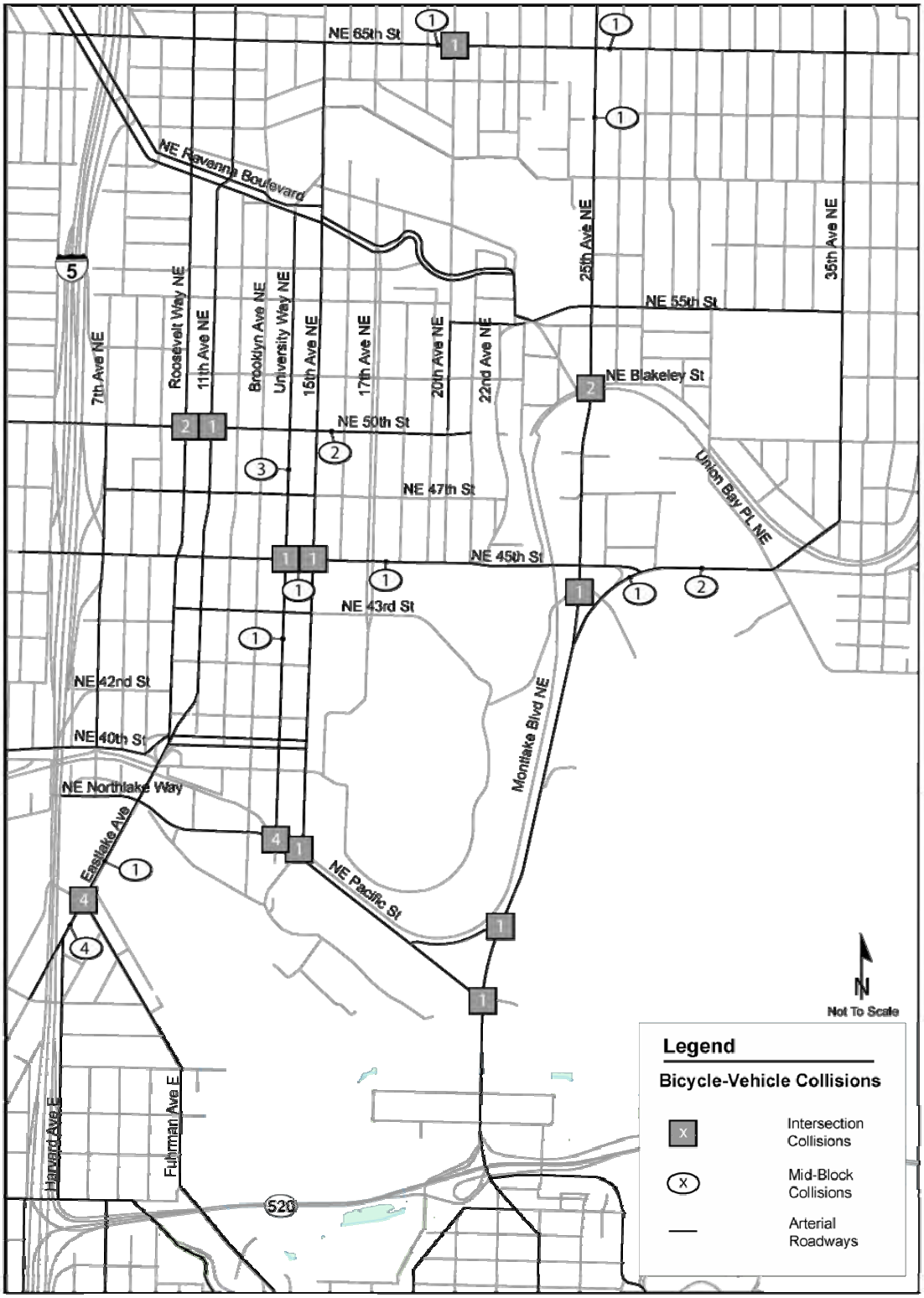


Figure 10. Three-Year Bicycle-Vehicle Collision Totals (2004-2006)



Bicycle System Performance

The adequacy of bicycle facilities on designated bicycle corridors in the UATAS study area was evaluated using the concept of bicycle compatibility index and bike level of service (BLOS) as defined by the *Federal Highway Administration's Bicycle Compatibility Index and Updates.* The index indicates the bicyclist's comfort level for specific roadway geometries and traffic conditions. Traffic and roadway design factors are used to compute a score for each analyzed facility.

The factors used to define the bicycle level of service are:

- Traffic conditions (average daily volumes, posted speed limits, percent of heavy vehicles, on-street parking)
- Roadway design (number of lanes, speed limits, width of outside lane, availability of shoulder)

This evaluation provides an indication of existing cyclist comfort on the bicycle corridors. Appropriate improvements, such as suggested by the City's Bicycle Master Plan, would be expected to improve the BLOS.

Level of service for bicycles will be defined using a range of scores. **Table 7** describes the relationship between the score and the general conditions. For example, a BLOS B is defined with a score between 1.51 and 2.50, and BLOS C is a score between 2.51 and 3.5. The LOS threshold is set as LOS B for the bicycle corridors.

Table 7. Definition of Bicycle Level of Service

LOS	Score	Descriptions of Level of Service Operations
A	< 1.5	Highest bicyclist comfort. Little or no vehicular conflicts. Supportive infrastructure in place and/or very low vehicular volumes.
B	< 1.5 – 2.5	High degree of bicyclist comfort. Little vehicular conflict. Some form of supportive infrastructure and/or low vehicular volumes.
C	< 2.5 – 3.5	Acceptable level of bicyclist comfort. Some vehicular conflict. Some form of supportive infrastructure and/or lower vehicular volumes.
D	< 3.5 – 4.5	Some bicyclist discomfort. More vehicular conflicts. Some form of supportive infrastructure with higher vehicular volumes.
E	< 4.5 – 5.5	High level of bicyclist discomfort. Notable vehicular conflicts. Little or no supportive infrastructure with high vehicular volumes.
F	> 5.5	Highest level of bicyclist discomfort. No supportive infrastructure with high vehicular volumes and possible high percentage of heavy vehicles.
BLOS Threshold = B		

Figure 11 shows the results for the BLOS. Corridors that fail to meet the BLOS threshold are not suitable for bicycle travel in their current configuration. Improvements, such as restriping, could improve bicyclist comfort on the corridor.

Findings: Bicycle Level of Service

- More than half of the bicycle corridors fail to meet Bike-Level-of-Service standards.
- The worst location in the study area for bicyclists is NE 45th Street from the southbound I-5 ramp to 17th Avenue NE.
- The second worst location is NE 50th Street crossing I-5.
- Six additional major corridors that fail to meet the Bike Level of Service threshold are:
- The University Bridge
- Both legs of the Roosevelt NE / 11th Avenue NE couplet from the University Bridge to NE 65th
- Campus Parkway (south side) from the University Bridge to Brooklyn
- 20th Avenue NE from NE 45th to Ravenna Blvd.
- NE 65th between Roosevelt and 25th.