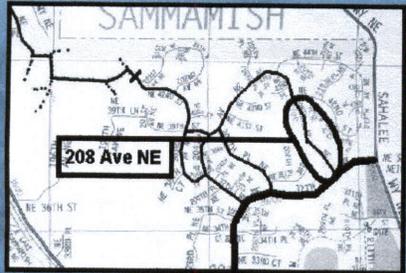




| | ((Ped Type + Ped Vol) X AWDT X SW X Speed X RW) / 100 = INDEX | | | | | | |
|---|---|------------|----------------|----------------|-------------|------------|-----------|
| NE 37 Wy (205 PI NE - NE 39 St) | Ped Type | Ped Volume | Vehicle Volume | Shoulder Width | Speed Limit | Road Width | INDEX |
| East Shoulder | 1.75 | 1.10 | 1,170 | 5 | 25 | 24 | 29 |
| West Shoulder | 1.75 | 1.10 | 1,170 | sw | 25 | 24 | 0 |
| Average Using 1998 Wm Popp With Barricade 2003 Volume Projection | 1.75 | 1.10 | 1,170 | 7.5 | 25 | 24 | 15 |
| Wm Popp W/O barricade | 1.75 | 1.10 | 1,140 | 7.5 | 25 | 24 | 15 |
| Wm Popp W/O barricade & SR202 improved | 1.75 | 1.10 | 550 | 7.5 | 25 | 24 | 11 |
| <i>Oct 30, 2001 count - this count does not agree with other counts (appears low)</i> | 1.75 | 1.10 | 556 | 7.5 | 25 | 24 | 11 |
| April 7, 2003 Count | 1.75 | 1.10 | 1,360 | 7.5 | 25 | 24 | 15 |
| East Shoulder | 1.75 | 1.10 | 1,360 | 5 | 25 | 24 | 31 |
| Adjusting April 2003 count using Wm Popp W & W/O barricade ratio | 1.75 | 1.10 | 1,325 | 7.5 | 25 | 24 | 15 |
| East Shoulder using W/O Barricade adjusted 2003 count | 1.75 | 1.10 | 1,325 | 5 | 25 | 24.0 | 31 |



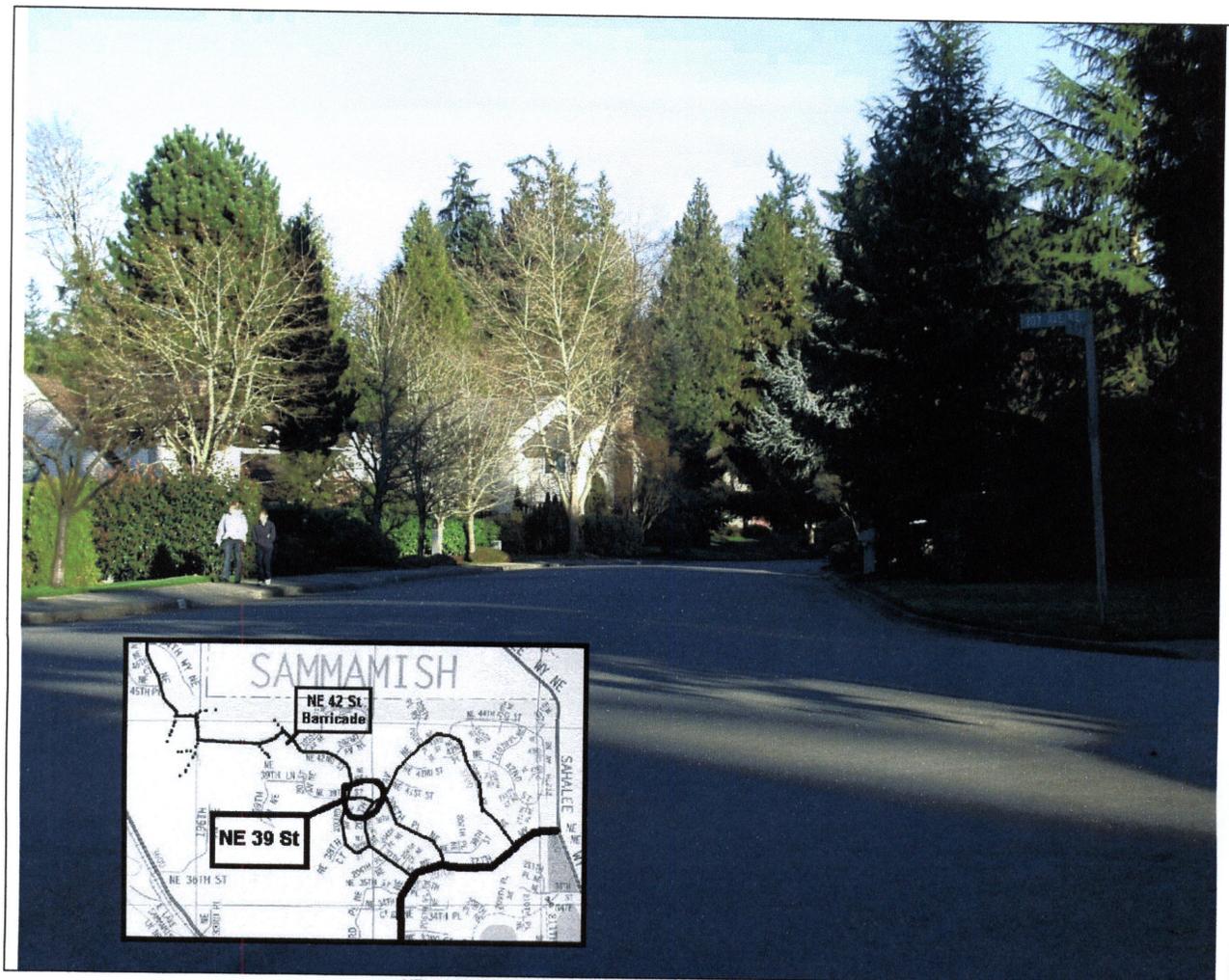
| | ((Ped Type + Ped Vol) X AWDT X SW X Speed X RW) / 100 = INDEX | | | | | | |
|--|---|------------|----------------|----------------|-------------|------------|--------------|
| 208 Ave NE (NE 37 Wy - 204 Ave NE) East Shoulder | Ped Type | Ped Volume | Vehicle Volume | Shoulder Width | Speed Limit | Road Width | INDEX |
| East Shoulder | 1.75 | 1.10 | 1,580 | sw | 25 | 24 | 0 |
| West Shoulder (5'-24'-5') | 1.75 | 1.10 | 1,580 | 5 | 25 | 24 | 32 |
| Average Using 1998 Wm Popp With Barricade 2003 Volume Projection | 1.75 | 1.10 | 1580 | 7.5 | 25 | 24 | 16 |
| Wm Popp W/O barricade | 1.75 | 1.10 | 1,230 | 7.5 | 25 | 24 | 15 |
| Wm Popp W/O barricade & SR202 improved | 1.75 | 1.10 | 1,280 | 7.5 | 25 | 24 | 15 |
| Oct 30, 2001 count | 1.75 | 1.10 | 1,385 | 7.5 | 25 | 24 | 16 |
| April 7, 2003 Count | 1.75 | 1.10 | 1,493 | 7.5 | 25 | 24 | 16 |
| West Shoulder | 1.75 | 1.10 | 1,493 | 5 | 25 | 24 | 32 |
| Adjusting April 2003 count using Wm Popp W & W/O barricade ratio | 1.75 | 1.10 | 1,162 | 7.5 | 25 | 24 | 15 |
| West Shoulder using W/O Barricade adjusted 2003 count | 1.75 | 1.10 | 1,162 | 5 | 25 | 24.0 | 29 |



| | ((Ped Type + Ped Vol) X AWDT X SW X Speed X RW) /100 = INDEX | | | | | | |
|--|--|------------|----------------|----------------|-------------|------------|-----------|
| | Ped Type | Ped Volume | Vehicle Volume | Shoulder Width | Speed Limit | Road Width | INDEX |
| 206 PI NE (NE 37 Wy - 204 Ave NE) East Shoulder | 1.75 | 1.10 | 800 | sw | 25 | 22 | 0 |
| West Shoulder (3'-22'-3) | 1.75 | 1.10 | 800 | 3 | 25 | 22 | 40 |
| Average Using 1998 Wm Popp With Barricade 2003 Volume Projection | 1.75 | 1.10 | 800 | 6.5 | 25 | 22 | 20 |
| Wm Popp W/O barricade | 1.75 | 1.10 | 690 | 7.5 | 25 | 22 | 14 |
| Wm Popp W/O barricade & SR202 improved | 1.75 | 1.10 | 560 | 7.5 | 25 | 22 | 13 |
| Oct 30, 2001 count | 1.75 | 1.10 | 830 | 7.5 | 25 | 22 | 14 |
| April 7, 2003 Count | 1.75 | 1.10 | 768 | 7.5 | 25 | 22 | 14 |
| West Shoulder (3'-22'-3) | 1.75 | 1.10 | 768 | 3 | 25 | 22 | 39 |
| Adjusting April 2003 count using Wm Popp W & W/O barricade ratio | 1.75 | 1.10 | 662 | 7.5 | 25 | 22 | 13 |
| West Shoulder using W/O Barricade adjusted 2003 count | 1.75 | 1.10 | 662 | 3 | 25 | 22 | 37 |



| | ((Ped Type + Ped Vol) | | X | AWDT | X | SW | X | Speed | X | RW | /100 = INDEX |
|--|-----------------------|--------|---|----------|---|----------|---|-------|---|-------|--------------|
| | Ped | Ped | | Vehicle | | Shoulder | | Speed | | Road | INDEX |
| | Type | Volume | | Volume | | Width | | Limit | | Width | |
| 203 Ave NE | | | | | | | | | | | |
| (NE 37 Wy - NE 39 St) | | | | | | | | | | | |
| East Shoulder | 1.75 | 1.10 | | Not Made | | SW | | 25 | | 22 | |
| West Shoulder | 1.75 | 1.10 | | Not Made | | 3 | | 25 | | 22 | |
| Average Using 1998 Wm Popp With Barricade 2003 Volume Projection | 1.75 | 1.10 | | Not Made | | 6.5 | | 25 | | 22 | |
| Wm Popp W/O barricade | 1.75 | 1.10 | | Not Made | | 7.5 | | 25 | | 22 | |
| Wm Popp W/O barricade & SR202 improved | 1.75 | 1.10 | | Not Made | | 7.5 | | 25 | | 22 | |
| Oct 30, 2001 count | 1.75 | 1.10 | | 205 | | 7.5 | | 25 | | 22 | 9 |
| April 7, 2003 Count | 1.75 | 1.10 | | 233 | | 7.5 | | 25 | | 22 | 9 |
| West Shoulder | 1.75 | 1.10 | | 233 | | 3 | | 25 | | 22 | 26 |
| Adjusting April 2003 count using Wm Popp W & W/O barricade ratio from NE 39 St | 1.75 | 1.10 | | 492 | | 7.5 | | 25 | | 22 | 12 |
| West Shoulder using W/O Barricade adjusted 2003 count | 1.75 | 1.10 | | 492 | | 3 | | 25 | | 22 | 34 |

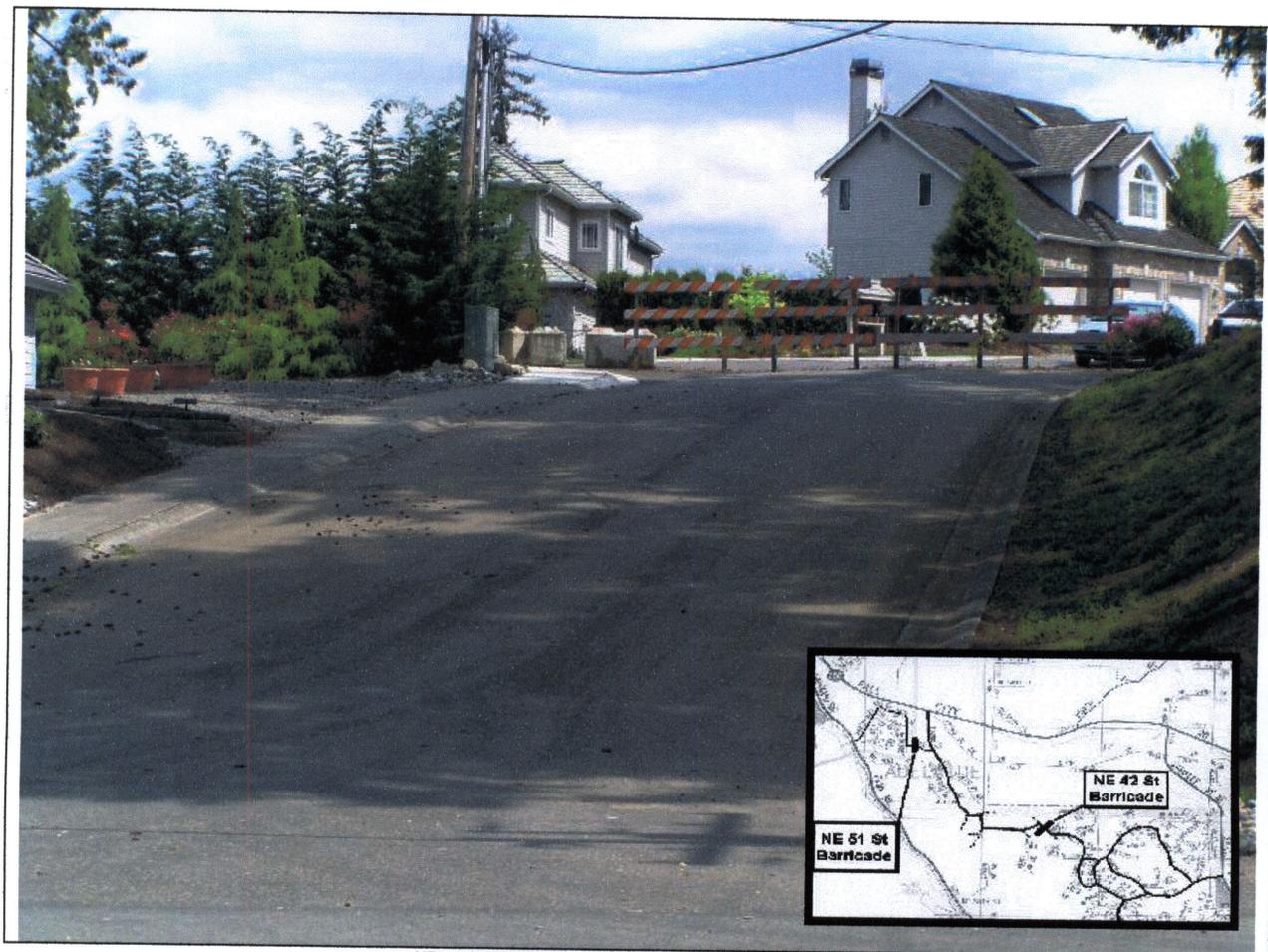


((Ped Type + Ped Vol) X AWDT X SW X Speed X RW) / 100 = INDEX
 (204 Ave NE - 203 Ave NE)

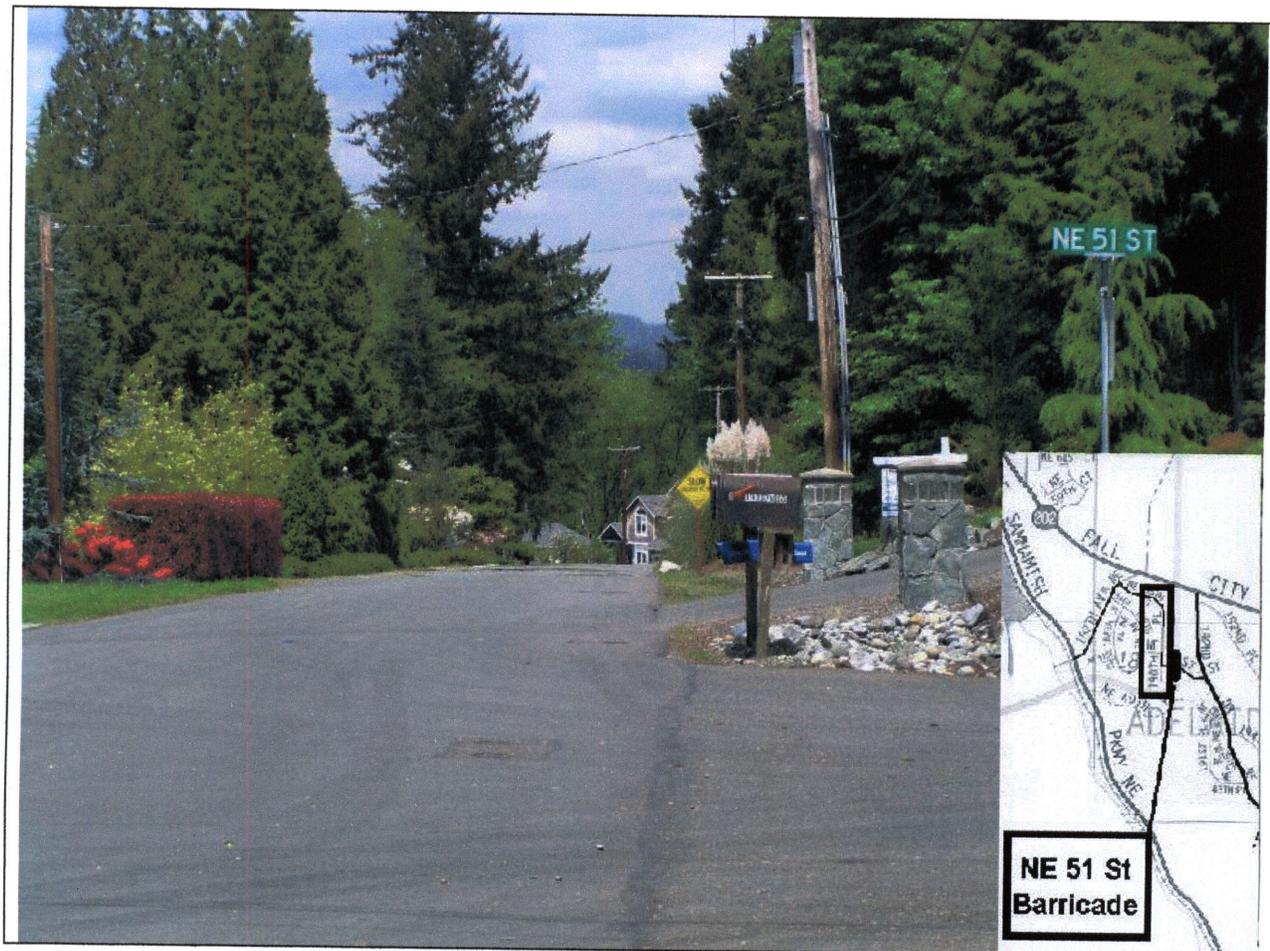
| NE 39 St | | | | | | | |
|--|------|------|-------|-----|----|------|-----------|
| North Shoulder | 1.75 | 1.10 | 890 | SW | 25 | 24 | 0 |
| South Shoulder | 1.75 | 1.10 | 890 | 5 | 25 | 24 | 27 |
| Average Using 1998 Wm Popp With Barricade 2003 Volume Projection | 1.75 | 1.10 | 890 | 7.5 | 25 | 24 | 13 |
| Wm Popp W/O barricade | 1.75 | 1.10 | 1,880 | 7.5 | 25 | 24 | 17 |
| Wm Popp W/O barricade & SR202 improved | 1.75 | 1.10 | 1,090 | 7.5 | 25 | 24 | 14 |
| Oct 30, 2001 count | 1.75 | 1.10 | 784 | 7.5 | 25 | 24 | 13 |
| April 7, 2003 Count | 1.75 | 1.10 | 838 | 7.5 | 25 | 24 | 13 |
| South Shoulder | 1.75 | 1.10 | 838 | 5 | 25 | 24 | 26 |
| Adjusting April 2003 count using Wm Popp W & W/O barricade ratio | 1.75 | 1.10 | 1,770 | 7.5 | 25 | 24 | 17 |
| North Shoulder using W/O Barricade adjusted 2003 count | 1.75 | 1.10 | 1,770 | 5 | 25 | 24.0 | 34 |



| | ((Ped Type + Ped Vol) X AWDT | | X SW | X Speed | X RW) /100 = INDEX | | |
|--|------------------------------|--------|---------|----------|--------------------|-------|----------|
| 203 Ave NE – NE 42 St | Ped | Ped | Vehicle | Shoulder | Speed | Road | INDEX |
| (NE 39 St - Barricade) | Type | Volume | Volume | Width | Limit | Width | |
| East Shoulder | 1.75 | 1.10 | 700 | SW | 25 | 24 | 0 |
| West Shoulder | 1.75 | 1.10 | 700 | SW | 25 | 24 | 0 |
| Average Using 1998 Wm Popp With Barricade 2003 Volume Projection | 1.75 | 1.10 | 700 | 10 | 25 | 24 | 0 |
| Wm Popp W/O barricade | 1.75 | 1.10 | 2,020 | 10 | 25 | 24 | 0 |
| Wm Popp W/O barricade & SR202 improved | 1.75 | 1.10 | 1,230 | 10 | 25 | 24 | 0 |
| Oct 30, 2001 count | 1.75 | 1.10 | 771 | 10 | 25 | 24 | 0 |
| April 7, 2003 Count | 1.75 | 1.10 | 795 | 10 | 25 | 24 | 0 |
| Adjusting April 2003 count using Wm Popp W & W/O barricade ratio | 1.75 | 1.10 | 2,294 | 10 | 25 | 24 | 0 |
| North Shoulder using W/O Barricade adjusted 2003 count | 1.75 | 1.10 | 2,294 | 10 | 25 | 24 | 0 |



| | ((Ped Type + Ped Vol) X AWDT | | X SW | X Speed | X RW) /100 = INDEX | | |
|--|------------------------------|------------|--------------------------|----------------|--------------------|------------|-----------|
| NE 51 St (190 PI NE about 150 ft east) | Ped Type | Ped Volume | Estimated Vehicle Volume | Shoulder Width | Speed Limit | Road Width | INDEX |
| East Shoulder | 1.75 | 1.10 | 10 | 3 | 25 | 22 | 9 |
| West Shoulder | 1.75 | 1.10 | 10 | SW | 25 | 22 | 0 |
| Average | 1.75 | 1.10 | 10 | 6.5 | 25 | 22 | 5 |
| IF 500/day | 1.75 | 1.10 | 500 | 7.5 | 25 | 22 | 12 |
| IF 1,000/day | 1.75 | 1.10 | 1,000 | 7.5 | 25 | 22 | 15 |
| IF 2,000/day | 1.75 | 1.10 | 2,000 | 3 | 25 | 22 | 54 |



| | ((Ped Type + Ped Vol) X | | AWDT | X SW | X Speed | X RW | /100 = INDEX |
|---|-------------------------|------------|--------------------------|----------------|-------------|------------|--------------|
| | Ped Type | Ped Volume | Estimated Vehicle Volume | Shoulder Width | Speed Limit | Road Width | INDEX |
| 190 PI NE (NE 51 St - NE 55 St) | | | | | | | |
| North Shoulder | 1.75 | 1.10 | 100 | 1 | 25 | 18 | 29 |
| South Shoulder | 1.75 | 1.10 | 100 | 1 | 25 | 18 | 29 |
| Average | 1.75 | 1.10 | 100 | 1 | 25 | 18 | 29 |
| IF 500/day | 1.75 | 1.10 | 500 | 1 | 25 | 18 | 50 |
| IF 1,000/day | 1.75 | 1.10 | 1,000 | 1 | 25 | 18 | 63 |
| IF 2,000/day | 1.75 | 1.10 | 2,000 | 1 | 25 | 18 | 80 |

Other Vicinity Streets

Streets with sidewalks on both sides or with width for two 12 foot lanes and delineated 10 foot shoulders receive a 0 rating with the Pedestrian Evaluation Formula. The purpose of the Pedestrian Evaluation Formula is to prioritize locations without walking facilities, sidewalks or wide shoulders, in the process of selecting where to make capital improvements. It is also used to evaluate development pedestrian impacts and determine mitigations. Following are Northeast Area Street Segments which illustrate traffic considerations of the area or would have a 0 rating.



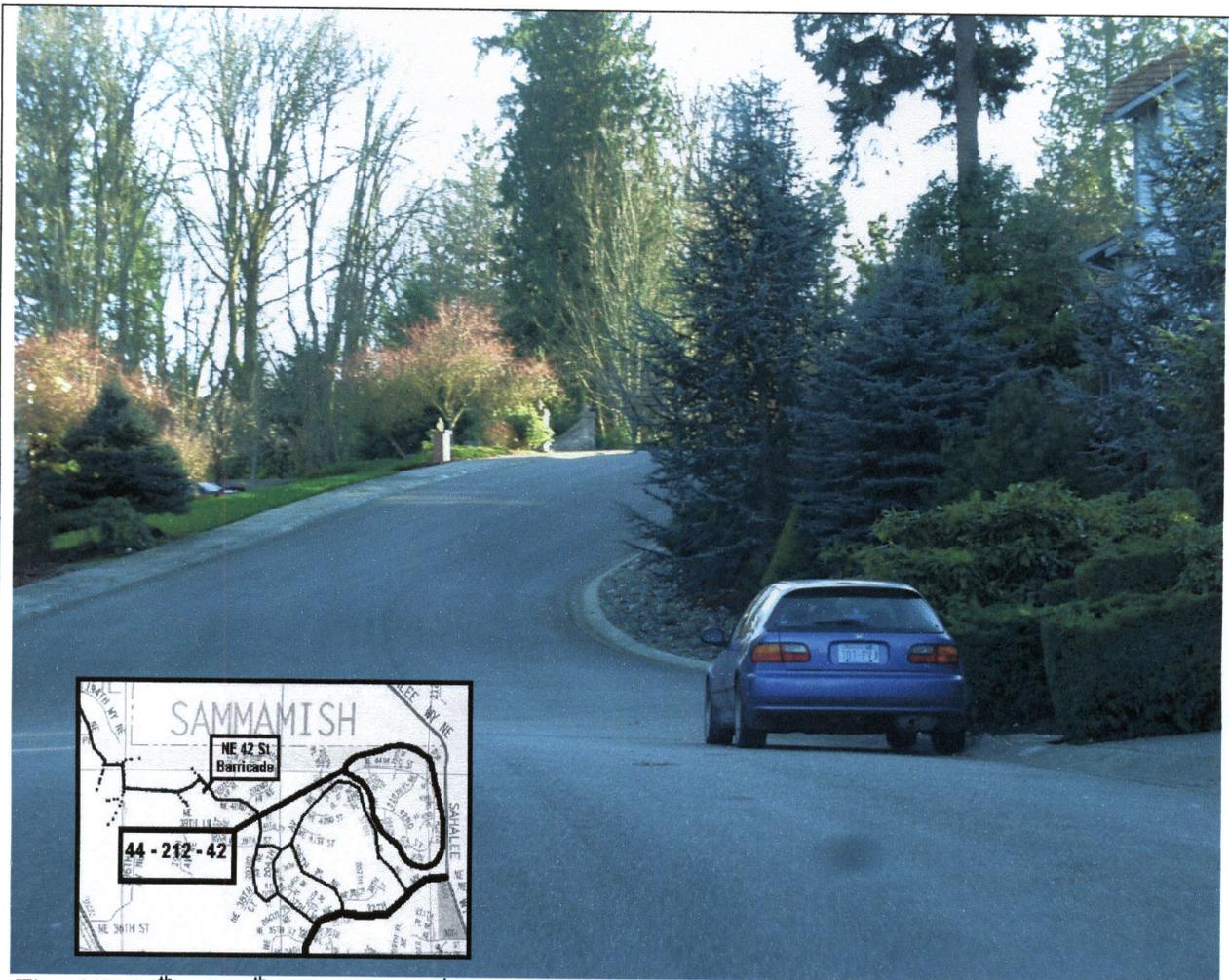
Northeast 37th Way between Sahalee Way and NE 205 Place could be striped with a 10 foot shoulder on the south side resulting in a 0 rating. It is characteristic of the residential area streets with horizontal curves to the left and right as well as vertical curves up and down. The other area streets are narrower than Northeast 37th Way.



Pedestrian traffic occurs throughout the area. Volumes are in the 50 to 100 per day range with greater variation than vehicle volumes.



The 25 MPH area speed limit is posted throughout. Roadway vertical and horizontal curveure combined with the driveway spacing and traffic being "local" (to and from adjacent properties contribute to speed limit compliance.



The NE 44th – 212th NE – NE 42nd “loop” that connects to 208th Avenue Northeast has not been rated. It does not provide “direct” access between NE 37th Wy and the Barricade and would not experience a measureable traffic change affecting the Pedestrian Rating.



The northern area with 192 Drive Northeast has sidewalks on both sides resulting in a 0 Pedestrian Rating.

Appendix D. Pedestrian Rating (Index) Formula

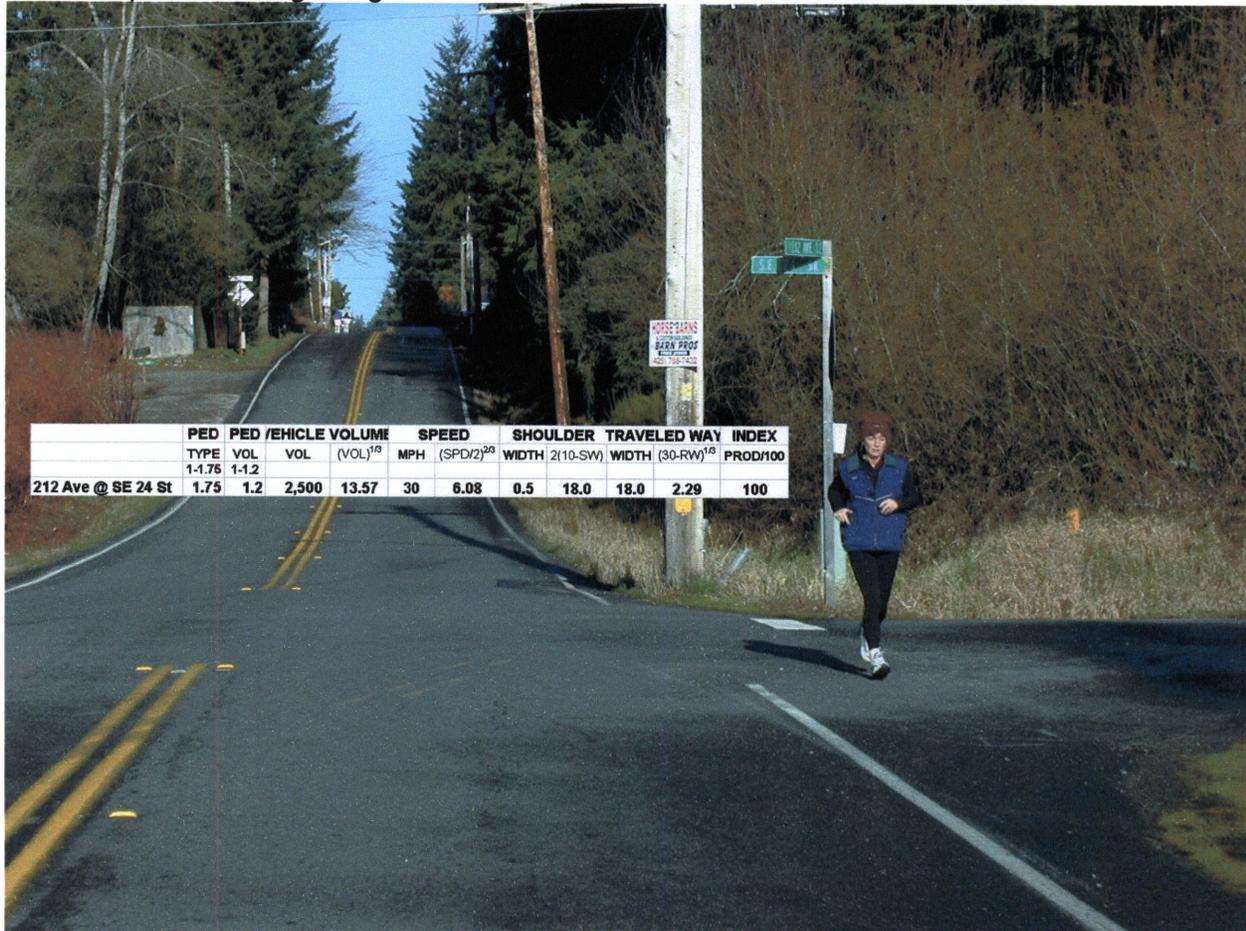
The formula objectively rates narrow-low-volume-fast & wide-high volume-slow segments.

| PED TYPE | PED VOL | VEHICLE VOLUME AWDT | VOLUME (VOL) ^{1/3} | SHOULDER WIDTH | 2(10-SW) | SPEED MPH | (SPD/2) ^{2/3} | TRAVELED WAY WIDTH | (30-RW) ^{1/3} | INDEX PROD/100 |
|-------------|-------------|---------------------|-----------------------------|----------------|--------------|-----------|------------------------|--------------------|------------------------|----------------|
| 1.75 | 1.10 | 1,000 | 10.00 | 2 | 16.00 | 25 | 5.39 | 21 | 2.08 | 51 |

Multiply factors & divide by 100 to obtain Pedestrian Index (Ped Factor = Type + Volume)
 (Ped Factor X Vehicle Volume X Shoulder Width X Speed X Travel Width) / 100 = INDEX

| | |
|-----------------------------------|--------------------|
| Ped Type Factor : | Ped Volume Factor: |
| is 1.00 plus | 1.0 < 50 peds/day |
| 0.75 if there are handicapped, or | 1.1 < 50 peds/day |
| school children, or elderly users | 1.2 < 100 peds/day |

For example, the rating using estimated data for 212th Avenue Southeast is 100:



| | PED TYPE | PED VOL | VEHICLE VOLUME | VOLUME (VOL) ^{1/3} | SPEED MPH | (SPD/2) ^{2/3} | SHOULDER WIDTH | 2(10-SW) | TRAVELED WAY WIDTH | (30-RW) ^{1/3} | INDEX PROD/100 |
|--------------------|----------|---------|----------------|-----------------------------|-----------|------------------------|----------------|----------|--------------------|------------------------|----------------|
| 212 Ave @ SE 24 St | 1.75 | 1.2 | 2,500 | 13.57 | 30 | 6.08 | 0.5 | 18.0 | 18.0 | 2.29 | 100 |

Shoulder widths vary and an "average" of narrow segments are used for evaluation. The 212th shoulder width, pedestrian travel area, varies from "0" to a foot. The shoulder width used for rating is 0.5 feet.

The rating is an index. It is not correlated to pedestrian accidents. It calculates an index by factoring the measures of speed, vehicle volume, pedestrian volume, pedestrian type, roadway width, and shoulder width. The dimensions of the pedestrian measures vary from tenths (of a foot) to over 10,000 total traffic. The factors adjust the dimensions in a proportion to affecting the index rating. The rating has been in use for over twenty years in establishing pedestrian improvement programs, prioritizing improvements, identifying development impacts and mitigations, neighborhood traffic calming, and grant applications. It has been used in Everett, Tukwila, Woodinville, Shoreline, Union Gap in Washington as well as outside of Washington.

