

Tukwila Elementary Walking Audit



King County Public Health



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Overview of Program

Communities Putting Prevention to Work:

Cascade View Elementary, Tukwila Elementary, Thorndyke Elementary

Safe Routes to School (SRTS) is a growing movement to encourage and support “active commuting” on the part of school children and families. At the intersection of public health, public safety, education and transportation, SRTS helps communities create a balanced alternative to an automobile-centered culture.

In an effort to improve King County children’s physical health, academic performance, and personal safety, the Bicycle Alliance of Washington and Feet First are leading SRTS programs at eighteen schools in 2011. Through partnerships with King County school districts and other community organizations, the programs identify safe and unsafe areas for biking and walking, design safety improvements, educate students on safe walking and biking practices, and launch events to encourage children to walk and bike. The project spans the “5 E’s” of SRTS: Education, Encouragement, Enforcement, Engineering and Evaluation.

The goal of the Bicycle Alliance project is to create new or improved systems so that more children will walk and bike to school, thereby helping to combat childhood obesity. Childhood obesity rates have more than tripled in the past 30 years, while the number of children walking and biking to school has declined. In 2009, less than 13 percent of U.S. students between the ages of five and 14 walked or biked to school, compared to 48 percent in 1969¹.

These three Tukwila walking audits will be used to identify and prioritize the next steps to acquiring funds for future projects. Additionally, the recommendations can be incorporated into the District and City of Tukwila’s approach to Safe Routes to School programs at other schools in the district.

Methodology

First step of methodology was to gain an understanding of where students live, where they are coming from in the morning and where they are going in the afternoons. This information was gathered from the district as well as based in local knowledge of the teachers and staff at the school. The second step of this program was to meet with community stakeholders, such as teachers and staff, as well as the PTA and if available, other community partners.

Each school’s neighborhood was visited and “ground-truthed” (map data was compared with in-person observations). Notes and photographs were taken on pedestrian infrastructure-related assets and issues. Based on these observations, points of interest were chosen and maps were prepared for the community walking audits.

Dates were set for the community walking audits based on availability of the Tukwila School District participants, Community Schools Collaboration (CSC), community partners and primary school contacts. The audits were conducted on January 25th at Cascade View Elementary, January 27th at Tukwila Elementary, and March 17th at Thorndyke Elementary. Each began at the end of the school day to observe the dismissal process, and lasted 1.5 hours. Audit participants were given maps, clipboards, and digital cameras. They recorded their observations directly onto the maps, and took photographs to go along with their written observations. Their comments and the cameras were collected after the audit, and these records were integrated into the final reports.

1. 2009 National Household Travel Survey, U.S. Department of Transportation.

Community Participation

In order to gather participants for the community walking audits, the Community Schools Collaboration Project Manager, Melissa Morin, worked diligently with principals, faculty and staff at Cascade View, Tukwila, and Thorndyke, to gather parents, neighbors, city staff, and concerned citizens. The Bicycle Alliance of Washington and Feet First created and emailed fliers to the school's main contacts, city planners, engineers, transportation specialist and the police department, and met in person with city staff.

Tukwila Elementary

Tukwila Elementary Community Walking Audit participants included:

Tukwila Police Department - Chris Partman

Community Schools Collaboration - Melissa Morin

City of Tukwila, Human Services Manager – Evie Boykan

City of Tukwila, Department of Planning – Jaimie Reavis

City of Tukwila, Operations Manager - Pat Brodin

Tukwila Elementary Principal - Steve Salisbury

Tukwila Elementary, Educator – Erica Raffo

Tukwila Elementary, Educator – Suzanne Hamilton

Tukwila Elementary, Educator – Irma Guerrero-Kusmirek

Tukwila Elementary – Robert House

Community Schools Collaboration, Site Manager - Ron Asher

Approximately 12 students from the CSC after school program also joined the walk.

Bicycle Alliance of Washington, Safe Routes to School Program Manager – John Vander Sluis

Feet First Safe Routes to School Program Director – Jen Cole

Feet First Active Communities Mapping Specialist – Gia Clark

All walking audit participants were emailed a draft copy of this report and given the opportunity to review it and provide further input, which was then integrated into the report.

Overview of School

Tukwila Elementary serves K-5 students from the eastern part of the City of Tukwila. The student body numbers around 500 students, and has a rich cultural diversity; the student body is an even mix of students from Asian, Hispanic, African American and White ethnicities. Many of these students come from refugee and immigrant families. Students and school staff face particular socioeconomic challenges; nearly 65% qualify for free or subsidized school lunches and nearly a third are English language learners. Programming is conducted in partnership with the Community Schools Collaboration, which combines direct services with strong partnerships with families, cities, school districts, and other community-based organizations. The school is located at 5939 South 149th Street.

School Grounds:

School drop-off and pick-up areas often pose particular difficulty for SRTS. The combination of high numbers of family vehicles, yellow bus service, pedestrians and bicycle traffic can make the final approach to the school difficult for students and adults alike.

A general rule of thumb is to make a clear separation between different travel modes by having discreet areas dedicated to bus loading, family vehicles, and bicycle/pedestrian access. Signage and curb striping should be unambiguous, schools should distribute information that clearly states the school procedures, and adequate staffing should be provided to supervise each area.

It is outside of the scope of this walking audit to do an in-depth analysis of student drop-off and pick-up procedures for each school. However, some general observations about the school ground and drop-off/pick-up routines are noted in this report.

Tukwila Elementary school has made many choices on school grounds to assist in the dismissal process at the end of school by dividing the students based on their transportation mode. However, there is still a considerably large volume of cars entering into the pick-up & drop-off area. This school could benefit from remote pick up and drop off encouragement events. Another option would be to consider further options for reducing the number of cars using this space at the beginning and end of the day.

Bicycling:

Tukwila Elementary currently has a few students that bike on a regular basis.

The school provides ample parking for bicycles in both the front and rear of the school, although both areas are out of direct view and exposed to rain (see field notes and bicycle parking guidelines in this report).

Tukwila Elementary Walking Audit

Walking Audit route #1:

The aim of this walking route was to examine a number of cut through paths that students are using or could potentially use in their walk to and from school. In particular this route looked at the path behind the school which cuts south towards a number of apartments with a high percentage of students. After examining this path the group traveled north on 58th to 147th then south on 57th to another possible walking route for students. The trail (see map point #7) is a great community asset but does not link to the school. The group then looked at the adapted pedestrian-only walkway at the end of the 150th Place cul-de-sac that connects to 150th St. The group then backtracked along 57th with a few individuals taking spur routes to check out the alleyways between 57th and 58th as well as the alley between 58th and 59th.

Walking Audit route #2:

The goal of route two was to focus on the existing infrastructure in the area and to see what is or is not working with its current construction. Beginning on 149th the group traveled to the east and noted the connections between the school and the neighborhood apartment complexes to the south.

Continuing on 60th to the north the group then turned onto 59th and looked at trail connections as well as Hazelnut Park. The group looped up to 144th and back to the school via 58th.

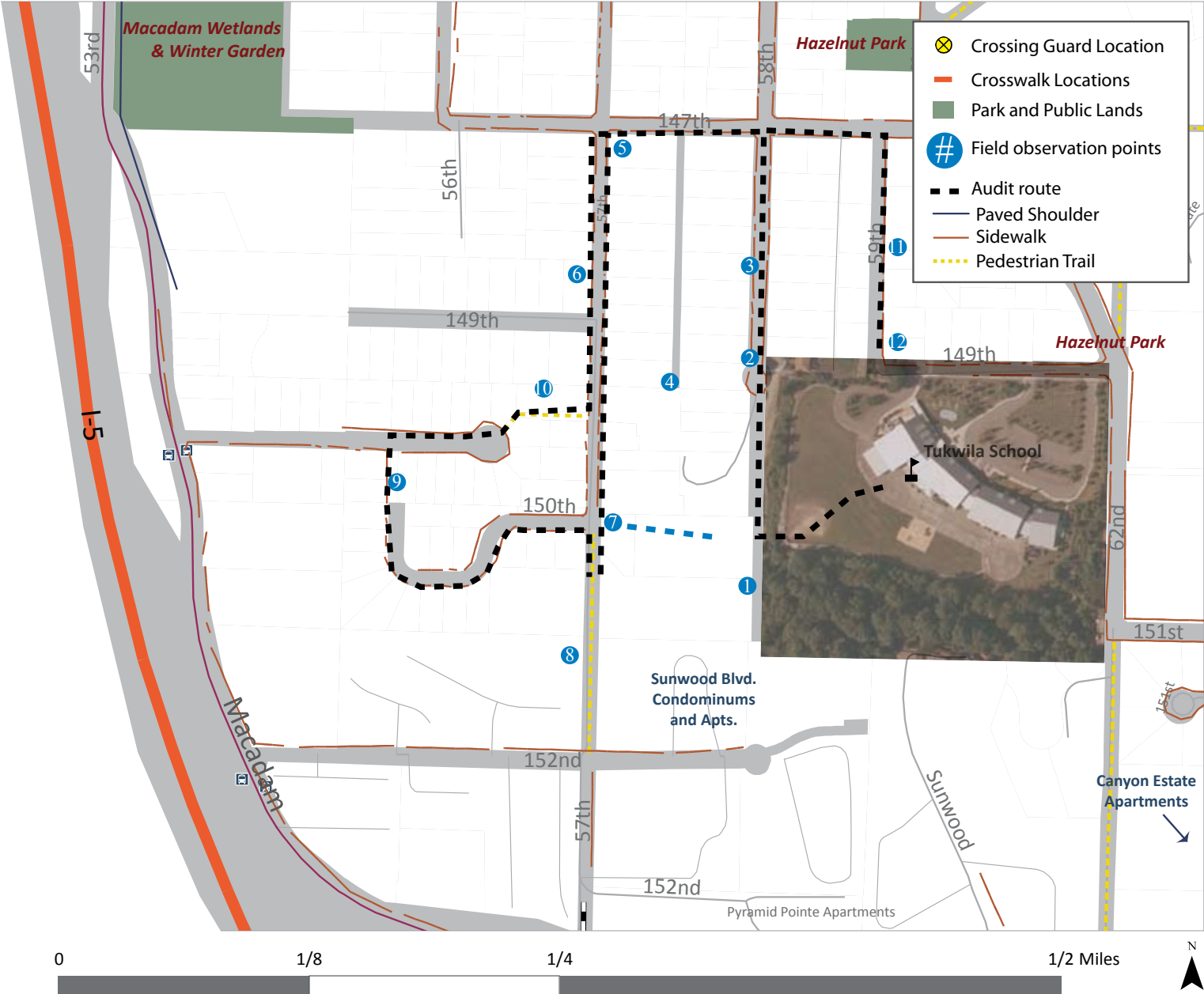
Walking Audit Top Observations




1. This area is hilly and provides great views. In several cases, walking paths, stairways and trails allow access by foot where cars cannot pass. Because of the hills, it could be fun to focus an encouragement campaign on parent/ guardian health and fitness.
2. The bulk of this neighborhood has relatively complete sidewalk infrastructure. There are some instances where ADA/stroller curb cuts are lacking and new engineering can be suggested, however, all-in-all the neighborhood is set up to encourage walking both to and from school. With proper safety education about particular intersections, students have a generally pedestrian-friendly walking environment.
3. Many students use an unofficial trail located directly behind the school to connect the school grounds to a number of apartment buildings.





Walking Audit Top Recommendations



1. Improving the current pathway to the housing complex to the southwest of the school would open a direct route for students who currently must walk the muddy path or be driven around. The community can form a committee to look into considerations of safety and public opinion, with an eye to seeking a WSDOT Safe Routes to School grant. The distance from the school to the apartment buildings using the trail immediately behind the school is only 0.2 miles, while a walking route using current roadway and partial sidewalk infrastructure is 1.2 miles. Even a shorter alternate route using an official trail connection is still 0.6 miles.
2. Participants noted that their biggest complaint in the area of route 2 was speeding, rather than problems with the sidewalks or other infrastructure. Partner with the police department for targeted speed enforcement, especially during Safe Routes to School encouragement days. Particular locations: 62nd /65th Ave S. between 153rd and 148th, and 144th between 62nd and the freeway.

TUKWILA ELEMENTARY ROUTE 1

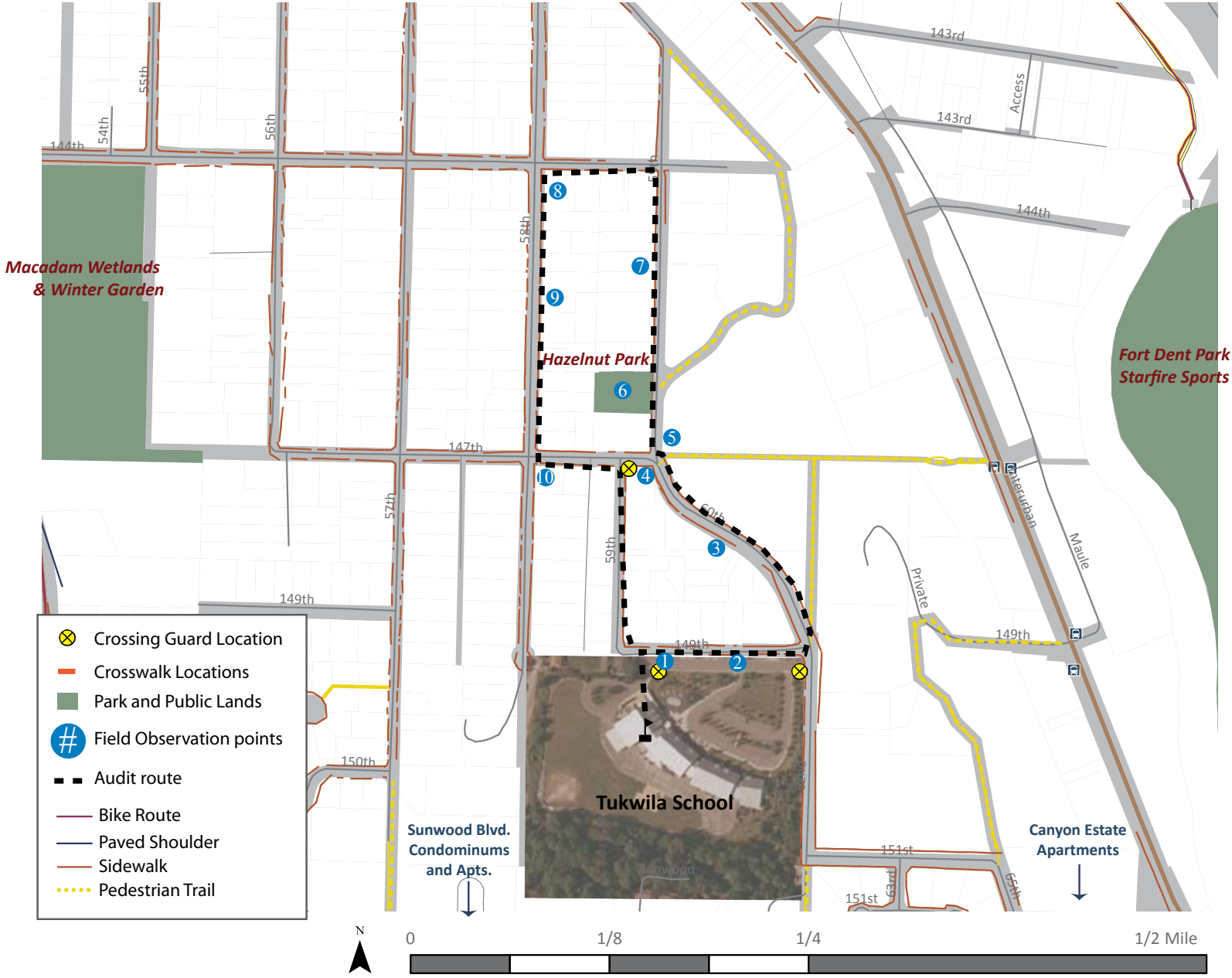





Field Observation Pt.	Intersection	COMM . Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
1	58th trail into school	x	x	x				Currently, the trail that cuts between the apartment complex and the school is muddy and a bit over grown. However, many students use this route as a walking cut through when it is not muddy. It was also noted that on occasion people without homes will camp out in the woods	Work with city officials and apply for a grant to build an educational nature trail through this section of property. Consider a WSDOT Safe Routes to School Grant. Evaluate Crime Prevention Through Environmental Design concerns.	
1	58th and 148th (stairway to the back of the school)							The suggestion was made to trim the tree limbs farther up to allow for visibility between this secluded stairway and the school grounds.	Include this as part of a community clean up day - cutting back the blackberries to improve visibility	
2	58th just north of 149th			x				The sidewalk is covered with slick green algae. In order to avoid walking through this the students walk out into the street. It was also noted that there is a resident that is not particularly friendly to young people.	Maintain the sidewalk and request home owner to keep sidewalk clear of algae.	
3	58th between 148th and 149th	x				x		Nice plants along this way	An encouragement campaign could include students taking photos or keeping walking journals. More info available at Feet First. (www.feetfirst.org)	
4	Street/alley between 57th and 58th	x	x					This street goes straight through to school but connection to school is blocked by overgrowth and fence	Work with neighbors to clear debris from walkway to allow students to use this alley instead of walking on the main road.	






Field Observation Pt.	Intersection	COMM . Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
5	147th and 57th		x					The sidewalk on the SE corner is quite steep and then ends on left of 57th. There are wide street grates which could be hazardous to bicyclists. There are only three stop signs at this intersection and several cars were seen going too fast.	Work with city officials to install a 4th stop sign at this intersection.	
6	west side of 57th, north of 149th		x					Uneven sidewalk	Smooth out sidewalk or paint with white marking to make more visible.	
7	150th at 57th							There is no trail leading from 150th and 37th and into the school property (it is private property). 150th is also a dead end street. Kids live in the apartments here, there is a great view when walking up this trail	Creating connection with the land owners to possibly allow students to use a path through the private property to encourage walking.	
8	Trail 7 upstairs to 57th		x					Skateboarding at top of stairs on 57th, blackberries and opportunities for nature education, also a great place to walk, no cars, a little garbage	Great opportunity to incorporate walking and exercise into the neighborhood.	
9	Pedestrian only access and cut through trail		x					This is a great example of how to encourage adapted design into communities that were not designed for walking.		


Field Observation Pt.	Intersection	COMM . Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
10	Pedestrian only access and cut through trail	x						This is a great example of how to encourage adapted design into communities that were not designed for walking.		
11	59th near 147th							Sight lines are impeded by large bushes	Request maintenance from home or property owner to help improve pedestrian visibility. Private property issues that affect public rights-of-way can be referred to Tukwila City Code Enforcement at (206) 431-3671.	
12	59th ave	x		x				west side does not have sidewalks east side has sidewalk and a narrow planter strip	Provide pedestrian safety education about finding the safest route, using sidewalks where they exist, and choosing the best crossings. Provide Feet First walking maps with pedestrian safety messages to all school families in the fall.	






TUKWILA ELEMENTARY ROUTE 2




Field Observation Pt.	Intersection	COMM . Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
1	59th and 149th					x		<p>This is an important placement for the student patrol (currently placed here). Some drivers use this as an alternative pick-up area, which should be discouraged as the crosswalk is heavily traveled by walkers to the north and east. This area would be a suitable "walk-a-block" location for parents who park a block or more away, then walk in to pick up or drop off their student. The crossing is appropriately marked, as it is by far the preferable route for pedestrians to enter the school campus.</p>	"Walk-a-block" campaign could help parents avoid the crowded student load zone.	
2	149th near main driveway to school		X					<p>A crosswalk sign is completely obscured by the tall bushes around it.</p>	The sign should be moved or the bushes trimmed	
2	149th in front of school					X		<p>This stretch shows the most walkable aspects of the residential area to the north of the school. The sidewalks are wide on the south side, and the north side has a buffer zone that accommodates trash bins, keeping the sidewalk clear for pedestrians.</p>	Likely the biggest difficulty here is traffic volumes at pick-up and drop-off time. A safe routes to school encouragement campaign might provide fun and relieve some frustration points here	
3	62nd between 148th and 147th		X		X			<p>The sidewalk on the west side of this street is narrow with no buffer from traffic. Traffic moves quickly here as 62nd winds south and ultimately connects to Southcenter Boulevard, passing Canyon Estates, a condominium complex that houses many Tukwila Elementary Families. While the sidewalks make this route passable on foot, the proximity to fast-moving traffic is likely a deterrent for families and young pedestrians.</p>	62nd south of 148th is a likely route for a walking school bus for Canyon Estate families. Keep the groups small with a higher parent ratio because of the narrow sidewalks.	

Field Observation Pt.	Intersection	COMM . Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
4	147th between 62nd and 59th			X				The crosswalk in front of the fire station was the site of a recent near collision with the student patrol. Vehicles traveling North on 67th have limited visibility of the crossing because of the sharp turn in the road, and will often accelerate here because of the incline, according to audit participants.	As this intersection is not immediately adjacent to the school, it would be better staffed by an adult guard. Consider inviting the firemen to play a role in safe routes encouragement activities.	
5	59th and 147th	X						The trail system allows adventurous pedestrians and joggers to enter the green space here. Participants suggested that the trails are lightly used.		
6	59th north of 147th	X			X			The Tukwila library is now closed, but the historic building was once the City Hall and is being considered for use as a heritage and cultural center for the community. A pocket park behind the building is an ideal location for young children to play.	This is an good location for a "Walk a block" campaign or for a walking school bus meeting point.	
7	58th between 144th and 147th				X			The sidewalks on this block are narrow and have no planting strips. Trash and recycle bins block the walking area and force pedestrians into the street. This street's connectivity to Interurban Boulevard brings more traffic than 59th to the east. There was a general comment about speeding traffic in this area.	Work with property owners and city waste services to request that once bins are emptied that they are placed outside of the sidewalk. The Private hauler for this area is Rabanco.	
8	58th and 144th				X			There was a large, apparently friendly dog here behind a low fence. Some students walked or jumped into the street to avoid its boisterous greeting.	Parents walking with students in this location would help students practice dealing with unexpected situations and possibly practice an opportunity to meet and discuss the issue with neighbors.	

Field Observation Pt.	Intersection	COMM . Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
9	59th between 144th and 147th				X			This stretch of road is on the periphery of the walking boundary for the school and likely sees less vehicle traffic and pedestrian traffic. Sidewalks are solely on the West side of this block, with a steep green space to the east.	Provide pedestrian safety education about finding the safest route, using sidewalks where they exist, and choosing the best crossings. Provide Feet First walking maps with pedestrian safety messages to all school families in the fall.	
10	58th south of 147th							Drainage problem is potential ice problem.	Check with Public Works department to see if the drainage problem has been reported. If not report the problem and see if there is a way to address the problem.	

Field Observation Pt.	Intersection	COMM . Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
SG	62nd Ave approaching 149th							advancing crosswalk sign		
SG	bus pick up	X						The school does use a separated bus pick up location as well as divide student dismissal based on transportation mode.		
SG	Parking lot	X						There is ample bike parking in the front of the school.		
SG	parking lot entrance	X						The sidewalk at the entrance of the school slants prioritizing vehicles over pedestrians.	Marking the sidewalk to make visible the pedestrian use could enhance driver awareness.	
SG	parking lot from entrance (looking from entrance to front of school)							small rubber speed bumps, curb is largely marked as fire lane		

Field Observation Pt.	Intersection	COMM . Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
SG	S side of 60th			X		X		Parents pick up without leaving cars, N side has planting strip but bushes are overgrown		
SG	Traffic loop behind school.							Drivers use this area as an alternate pick-up sometimes, lining up to pick up/drop off with little concern for jaywalking		

Guidelines for Bicycle Parking at Schools

Providing good quality bicycle parking for students and staff can encourage biking by decreasing the risk of conflict, theft, and damage.

Bicycle parking must be:

- visible
- accessible
- secure
- easy to use
- convenient
- plentiful

Bicycle parking should be: covered, well lit, and in plain view without being in the way of pedestrians.

Theft is a serious concern for bicyclists. Nearly 1.5 million bikes are stolen in the U.S. each year. Safe and convenient parking is as critical to bicyclists as it is for motorists. Racks should:

- Be placed in areas with high pedestrian activity and “eyes-on-the-street”
- Be more visible to staff and students than passersby
- Allow the frame and one wheel to be locked to the rack when both wheels are left on the bike
- Allow the frame and both wheels to be locked to the rack if the front wheel is removed
- Allow the use of either a cable or U-shaped lock
- Be securely anchored.



In areas with high crime concerns, schools should consider placing racks in rooms or cages that can be locked during the school day.

Location: Racks need to be sited and installed appropriately for them to be well used:

- Racks that are placed less than 2'-3' from a wall or less than 30" from another rack will end up sitting empty.
- Racks need to be clearly visible and accessible, within 50' of the building's main entrance or at several commonly used entrances.

Design Standards: Racks should:

- Support the bicycle frame, not just one wheel
- Resist cutting, rusting, bending and deformation
- Be usable by bikes with no kickstand and bikes with water bottle cages

- Be usable by a wide variety of sizes and types of bicycle
- Be promoted with bike parking directional signs
- Have roofs or be located under awnings - to provide riders with rain protection while locking their bikes *and* to prolong the life of the bikes' metal and rubber components- an important issue for low-income riders.

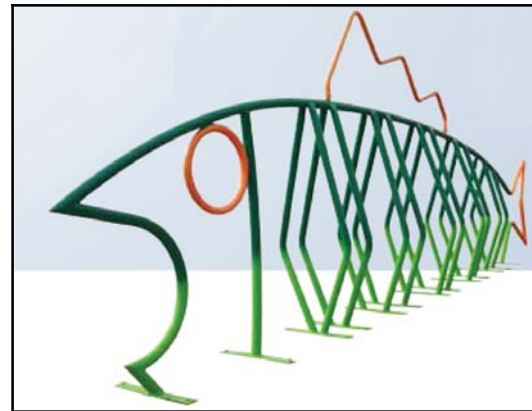


“Wheel-bender” racks (above) can damage wheels and don’t allow frames to be locked to the rack.

Costs: The cost to purchase and install bike rack varies, but is almost always cheaper and more efficient than providing car parking:

- A bike rack that parks two bikes costs \$150 to \$300.
- A locker that holds two bikes costs between \$1,000 and \$4,000 to purchase and install.
- The cost to provide two car parking spaces is \$4,400 on a surface lot and \$25,000 in a garage.
- Parking for 10-12 bikes can fit in the same space required for a single car.

Customized Designs: As long as they meet the guidelines discussed above, bicycle racks can serve a dual purpose by promoting a school’s name, mascot, or values (see below).



More Information: To learn more about how to choose a rack that is good for your school, please consult these resources:

- The Association of Pedestrian and Bicycle Professionals (APBP) <http://www.apbp.org/?page=Publications>.
- The Pedestrian and Bicycle Information Center: <http://www.bicyclinginfo.org/engineering/parking.cfm>.
- Madison, WI bike parking guidelines: <http://www.cityofmadison.com/trafficEngineering/documents/MadisonBikeParking20100715.pdf>
- John Vander Sluis, The Bicycle Alliance of Washington, JohnV@bicyclealliance.org