City of Talent

Traffic Safety & Transportation Commission

Public Meeting

April 16, 2015

Thursday, April 16, 2015 – 3:30 PM

Talent City Hall, 110 E. Main Street – Large Conference Room

AGENDA

The Traffic Safety & Transportation Commission (TSTC) of the City of Talent will meet on Thursday, April 16, 2015 at 3:30 P.M. in the Talent City Hall, 110 E. Main Street, Large Conference Room.
The meeting location is accessible to persons with disabilities. A request for an interpreter for the hearing impaired, or for other accommodations for persons with disabilities, should be made at least 48 hours in advance of the meeting to the City Recorder at 541-535-1566, ext. 1012.
The Traffic Safety & Transportation Commission (TSTC) reserves the right to add or delete items as needed, change the order of the agenda, and discuss any other business deemed necessary at the time of the study session and/or meeting.

I. Call to Order/Roll Call;

II. Brief Announcements;

III. Consideration of minutes from the February 19, 2015 TSTC meeting;

IV. Public Comments on Non-Agenda Items;

New Business (60 minutes):

V.	S. Second Traffic Safety Concerns	(report)	(Zac Moody)
VI.	SPR 2014-006 Bed & Breakfast – Parking on Logan Way	(informational)	(Zac Moody)

Old Business (30 minutes):

VII.	Traffic Calming Signs – Criteria for Lending Library	(Dan Dorrell)
VIII.	Dedicated Left Turn Signal W. Valley View/OR 99	(Zac Moody)
IX.	TSP Update/Conceptual Planning TA-4 & TA5	(Zac Moody)

X. Next meeting – Thursday – June 18, 2015 at 3:30 PM

XI. Adjournment

Note: This agenda and the entire agenda packet, including staff reports, referenced documents, resolutions and ordinances are posted on the City of Talent website (www.cityoftalent.org) in advance of each meeting. In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact TTY phone number 1-800-735-2900 for English and for Spanish please contact TTY phone number 1-800-735-3896.

The City of Talent is an Equal Opportunity Provider

TRAFFIC SAFETY & TRANSPORTATION COMMISSION
REGULAR COMMISSION MEETING MINUTES
TALENT CITY HALL
February 19, 2015 – 3:30 P.M.

Study Session and Regular Commission meetings are being digitally recorded and are available by request
www.cityoftalent.org

The Traffic Safety & Transportation Commission of the City of Talent will meet on Thursday, February 19, 2015 in a regular session at 3:30 P.M. in the Talent City Hall, 110 E. Main Street.
The meeting location is accessible to persons with disabilities. A request for an interpreter for the hearing impaired, or for other accommodations for persons with disabilities, should be made at least 48 hours in advance of the meeting to the City Recorder at 541-535-1566, ext. 1012.
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REGULAR COMMISSION MEETING- 3:30 P.M.
Anyone wishing to speak on an agenda item should complete a Public Comment Form and give it to the Minute Taker. Public Comment Forms are located at the entrance to the meeting place. Anyone commenting on a subject not on the agenda will be called upon during the "Citizens Heard on Non-agenda Items" section of the agenda. Comments pertaining to specific agenda items will be taken at the time the matter is discussed by the Planning Commission.

I. Call to Order/Roll Call 3:30 P.M.

Members Present:
Chair – Teresa Cooke
Community Member – James Bradley
Community Member – Tommy Ehrhart
Planning – Zac Moody
Police Chief – Mike Moran
PW Supervisor – Bret Marshall

Members Absent:
None

Also Present:
Camelot Theatre Company Executive Director – Dann Hauser
City Manager – Tom Corrigan
Oregon Department of Transportation (ODOT) Traffic Engineer – Dan Dorrell
Rogue Valley Transportation District (RVTD) Senior Planner – Paige Townsend

II. Brief Announcements

Moody mentioned there was some confusion as to what day and week TSTC regular meetings were originally scheduled for. The commission concluded that the third Thursday of the month worked best, and that meetings would continue to take place at 3:30 P.M.

Moody distributed an iPad disclaimer and informed members of the Commission that it needed to be reviewed, signed and dated.

Moody introduced awareness/outreach options suggested by the National Highway Traffic Safety Administration (NHTSA) and suggested having the TSTC incorporate some of the ideas locally. He

discussed wanting TSTC to work with business partners to raise awareness on issues of traffic safety and drunk driving. Moody expressed interest in obtaining outreach materials such as: coasters, napkins and other advertisements, geared towards alcohol consumption and made available in time for upcoming high-risk holidays.

Ehrhart brought up the bridge on Talent Ave. in hopes of discussing options to better illuminate it. He claimed it was dirty and lacked reflectors or paint to assist in navigation. Corrigan mentioned that the bridge is Historic which limits potential solutions however Moody said he'd work with the City Public Works department and put together some options for the next meeting.

III. Consideration of Minutes for November 20, 2014

Cooke moved to postpone approval of minutes until the next meeting in order to clarify wording of motion for item VII., Main St. RVTD Bus Shelter Locations.
Moody seconded and the motion carried.

IV. Citizens Heard on Non-Agenda Items

Main St. RVTD Bus Shelter Locations – Townsend spoke with the Operations Manager at RVTD and mentioned their preference to not move to the south location and instead remain at the north location for the next few years. Moody mentioned that the commission had already decided upon the southern location and that Talent Urban Renewal can work with RVTD on issues related to construction and shelter placement. Paige mentioned four obstacles currently prevent the southern location:

1. Construction at the proposed southern location was not yet complete
2. Special type of bus shelter not in RVTD inventory
3. Passenger ridership is higher at current (north) nocation
4. "Curb lift" at proposed site is a trip hazard and not ADA compliant

Hauser stated that noise from nearby bus traffic disrupted Camelot Theater performances and that discarded garbage from commuters was an ongoing issue. Townsend said that RVTD will provide additional waste receptacles at the site to discourage continued littering.

V. New Business

ADA Parking Adjacent to Camelot Theater – Moody developed a report based on a request from Hauser to provide ADA parking stalls along Main St. Moody explained that if ADA stalls were marked on Main St., it could limit parking availability for future businesses located along the road. Hauser stated that the request for additional, easy access parking came from customers. Furthermore Hauser stated that he'd like to see the current street parking stalls lining the Theater to the south turned into a loading and unloading zone near the Box Office.

Moody stated that providing ADA parking along the street would encourage people to park there for extended periods of time, thus limiting the potential quantity of people would could utilize the parking stalls. Marshall expressed concern at the notion of parking along the south side of Main St. being turned into ADA parking stalls due to issues of foot traffic congestion.

Moran moved to designate the first spot (1) to be utilized as a loading-unloading zone, with a 10-minute parking time limit for enforcement purposes.
Bradley seconded and the motion carried.

VI. Dedicated Left Turn Signals for intersection of W. Valley View Rd. and Hwy. 99 – Moody stated that currently a dedicated left turn lane exists on W. Valley View Rd. on both sides of the intersection, however no left-turn signals have been installed, instead traffic in these lanes yields to oncoming traffic. He continued to explain that this can cause issues during rush-hour (around 5 p.m.) as traffic backs up along W. Valley View Rd. all the way to the round-about.

Moody explained that he was working with ODOT on the issue and that the current task was selecting the specific type of signal, as costs vary greatly depending on functionality. Ehrhart asked

if the traffic signal would benefit traffic safety and flow, Moody explained that according to ODOT, signals would enhance traffic safety at this intersection and that if TSTC recommended it, the funding request could be brought before City Council.

Ehrhart moved in favor of recommending to City Council that funding be obtained in order to add traffic signals for the dedicated left turn lanes on W. Valley View Rd. at the intersection of Hwy. 99. Bradley seconded and the motion carried.

VII. **Traffic Signal Warrant Creel Rd. and Hwy. 99 & RVTD Bus Route Change** – Moody explained that he was seeking "crash data" for this intersection to see if a traffic signal was warranted for this intersection. Dorrell (ODOT) had crash data for the intersection and explained that two "Type A" (serious, life changing crashes) had occurred in the past 7 year time-frame. He pointed out that the upcoming Hwy. 99 "road diet" (which reduces the total lanes) would help resolve the issue but due to the past accidents, he supported the installation of a traffic signal.

Moran moved in favor of adding a traffic light at the intersection of Creel Rd. and Hwy. 99. Ehrhart seconded and the motion carried.

Townsend recommended against extending bus service to Creel Rd., as it would increase overall commute time for existing passengers and studies suggested that the vast majority of "ridership" came from the downtown area, not the southern fringes. Moody suggested the Commission bring forth a motion regarding a potential RVTD bus route change.

Moran moved to not change the existing bus route to provide service along Creel Rd. Marshall seconded and the motion carried.

Townsend said they could re-evaluate utilizing the intersection for bus service when the road diet and associated traffic signage had been completed.

VIII. **Traffic Calming Signs – Criteria for lending library**
Moody requested a volunteer from the commission to develop written criteria for lending the signs out. Durrell volunteered, Moody said other cities that utilized traffic calming signs could be referenced for a baseline.

X. **Next meeting:**
The next regularly scheduled TSTC meeting, will be March 19, 2015.

XI. **Adjournment**
There being no further business to come before the Commission, the meeting was adjourned at 5:00 PM**.**

Attest:

_____ _____

James Bradley, Commissioner Secretary Moody

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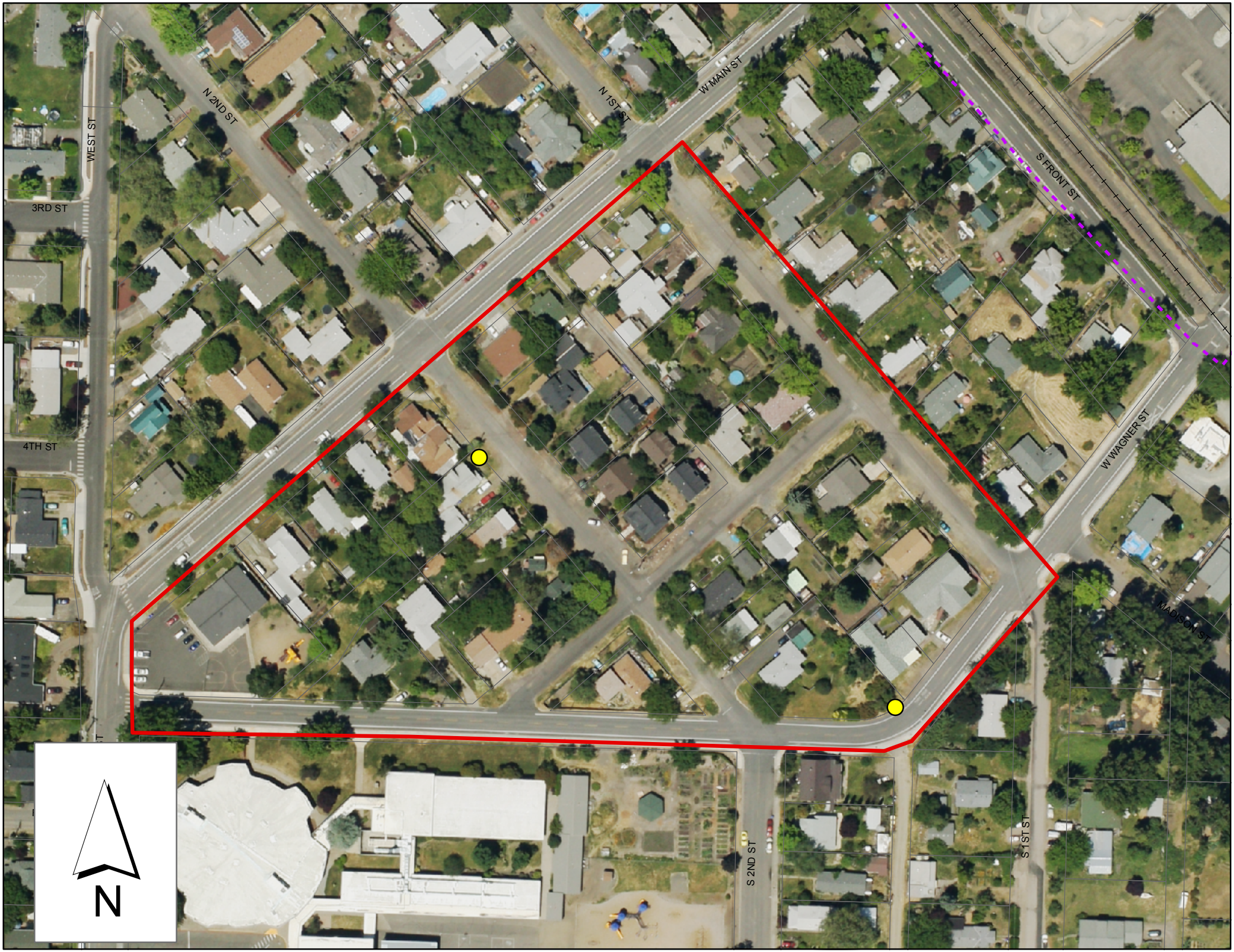
Zac Moody

From: Shawn M Flot <shawn@movingintoharmony.com>
Sent: Sunday, March 29, 2015 4:49 PM
To: Zac Moody
Subject: SAFETY on S Second Street between Main and Wagner

Dear Zac,

The residents who live on or near S. Second Street between Wagner and Main are very concerned with the significant increase in traffic on S. Second Street between those two streets. Since the circle opened much more drivers are using S. Second as a pass through and the speeds are in excess of 20mph during school time and greater than 25mph during other times. The average traffic has climbed from avg 10 cars every hour to now over 50 cars per hour, and a large number of them exceeding speed limits.
Currently there are 6 children who live on S Second Street between Wagner and Main.
Multiple families use Bain as a walk way through the neighborhood during after school, evenings, and weekends. Bain crosses S. Second. This is a significant safety concern. Several times witness to a car not stopping to allow pedestrian to cross S. Second on Bain.
There are no sidewalks for pedestrians with this amount of traffic for safety.
There is not appropriate signage for the speed limits to inform drivers coming from neighborhoods South of the school.
There is no posted school zone sign for N bound traffic on S Second Stteet.
There are no pedestrian warning signs on S Second.

As a resident at 109 S Second Street for the last 7.5 years it concerns me greatly the potential for significant injury or possible death to one of our community members who walk, play, live on S. Second Street, I am representing the neighbors on S. Second Street and am asking that a traffic study be done very very soon and policing of the area to address the speed limit and dangers, and that something be implemented quickly to prevent something from happening.
Thank you very much for hearing us and showing your support in maintaining the health and safety of our community and neighbors who live, play, and participate in activities on/around S. Second Street.
Sincerely,
Shawn M. Flot


WEST ST
N 2ND ST
N 1ST ST
W MAIN ST
S FRONT ST
3RD ST
4TH ST
W WAGNER ST
MADISON ST
S 2ND ST
S 1ST ST
N

CITY OF TALENT
POLICE DEPARTMENT
Memorandum

TO: TSTC
FROM: Mike Moran, Chief of Police
SUBJECT: Shawn Flot Complaint
DATE: April 3, 2015

Officer Gail Schweizer monitored traffic on S. Second St in response to a citizen input on traffic by a Shawn Flot, a resident of 2nd. Mr. Flot wrote emails to several members of Talent City government and I received it March 30. He came to the council meeting on the 1st of April. He has been advised to attend TSTC

This is a report on Ofc. Schweizer's observations. I appreciate the quick response he made to my request to monitor this traffic complaint. He put in over 6 hours of work on this. The officer positioned his car facing S/B on N. 2nd St with the following results:

3/30/15 Monday
1450-1530 hrs
N/B- 6 cars with highest speed of 19
S/B- 8 cars with highest speed of 23

3/31/15
0800-0900 hrs
N/B-15 cars with highest speed of 27
S/B-4 cars with highest speed of 23

1130-1230 hrs
N/B-5 cars with highest speed of 28
S/B-7 cars with highest speed of 25

1630-1730 hrs
N/B-13 cars with highest speed of 22
S/B-11 cars with highest speed of 22

4/1/15
1130-1215 hrs
N/B-2 cars with highest speed of 18
S/B- 3 cars with highest speed of 22

1630-1700 hrs
N/B-3 cars with highest speed of 22
S/B-3 cars with highest speed of 26

S. Second Street Speed Study
3/30/15-4/1/15

	2:50PM - 3:30PM 3/30/2015	8:00AM - 9:00AM 3/31/2015	11:30AM - 12:30PM 3/31/2015	4:30PM - 5:30PM 3/31/2015	11:30AM - 12:30PM 4/1/2015	4:30PM - 5:30PM 4/1/2015
N/B Cars	6	15	5	13	2	3
S/B Cars	8	4	7	11	3	3
N/B Speed	19	27	28	22	18	22
S/B Speed	23	23	25	22	22	26

A Guide to School Area Safety

February 2009

Oregon Department of Transportation

A Guide to School Area Safety
February 2009

a publication of the

OREGON DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & OPERATIONS SECTION
AND
TRAFFIC SAFETY DIVISION

INTRODUCTION TO SCHOOL AREA SAFETY

A broad spectrum of authorities, experts and advocates has been involved in bringing this guidebook to you. It is published by the Oregon Department of Transportation as a joint effort of the Transportation Safety Division and the Traffic Engineering and Operations Section, cooperatively with the Oregon Department of Education's Pupil Transportation Section. A listing of all those involved in the creation of the guidebook can be found at the end on the Acknowledgements page.

The guidebook is intended to provide citizens throughout the state with a comprehensive reference on school zones and safe travel to and from school. The basic information is contained in these pages along with a set of references for a wide range of further resources.

The guidebook is based on the Federal Highway Administration's 2003 Manual on Uniform Traffic Control Devices. It is updated as needed to maintain current information for the community of people, government and schools involved in the effort to keep children safe going to and at school. Changes in this revision are in response to recent legislation and to changes in the information and organizations available for school area safety.

The guidebook is organized for quick reference. The first section covers the discussion of the statutes and rules for school area safety. The next section gives information on the Safe Routes to School comprehensive approach to planning and implementing improvements for student safety traveling to and around each school and school district. Following this discussion are the school area designations and the traffic control possibilities for all of them. An overview of tools and their use for all aspects of school area safety programs follows. A Resources section contains the official sources for traffic safety and engineering aspects of safe routes to school plus a number of other programs, resources and publications for further information. The appendix includes relevant pedestrian and traffic patrol rules and laws.

Your participation in ensuring the usefulness and relevance of this guidebook is invited. The contact information for the guidebook is listed below. The guidebook is available on the internet at: http://www.odot.state.or.us/traffic/publicat.htm.

Traffic Laws and Operations, Guidebook Publishing
Traffic Engineering & Operations Section, Oregon Department of Transportation
Doug Bish, Traffic Control Devices Engineer
Phone: 503-986-3594
E-mail: Douglas.W.BISH@odot.state.or.us

Safe Routes to School, Traffic Safety Education and Enforcement
Transportation Safety Section, Oregon Department of Transportation
Julie Yip, Bicycle/Pedestrian Coordinator
Phone: 503-986-4196
E-mail: Julie.A.YIP@odot.state.or.us

School Transportation and Traffic Safety Patrol Programs & Training
Pupil Transportation Section, Oregon Department of Education
Deborah Lincoln, Manager
Phone: 503-947-5885
E-mail: Deborah.Lincoln@state.or.us

TABLE OF CONTENTS

SECTION I - LAWS AND RULES ABOUT SCHOOL ZONES

MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

The Oregon Department of Transportation (ODOT) adopts uniform standards for traffic control devices and a uniform system of marking and signing highways in Oregon as required by statute (ORS 810.200). These standards must be largely in agreement with national standards. ODOT has adopted the federal Manual on Uniform Traffic Control Devices (MUTCD) to meet this requirement. Part 7, Traffic Controls for School Areas, contains the standards for traffic control in school areas.

Traffic control in school areas is a highly sensitive subject. The concern for the safety of children on their daily journey to and from school has generated a lot of community interest. There is a strong public demand for services that protect children from the negative impacts of traffic and provides them a safe environment to travel to and from school. Communities look to more police and adult guards for school duties, more traffic signals and more signs and pavement markings as the way to provide the desired environment. Such demands, however, are not always in line with sound traffic policies. Analyses often show that at many locations, requested controls are unnecessary, costly and tend to lessen the respect for controls that are needed. The MUTCD provides a clear rationale for the need for standards as follows (Section 7A.01):

> *It is important to stress that regardless of the school location, the best way to achieve safe and effective traffic control is through the uniform applications of realistic policies, practices and standards developed through engineering judgment.*
>
> *Pedestrian safety depends upon public understanding of accepted methods for efficient traffic control. This principle is especially important in the control of pedestrians, bicycles and other vehicles in the vicinity of schools. Neither school pedestrians nor road users can be expected to move safely in school areas unless they understand both the need for traffic controls and how these controls function for their benefit.*
>
> *Procedures and devices that are not uniform might cause confusion among pedestrians and road users, prompt wrong decisions and contribute to crashes. To achieve uniformity of traffic control in school areas, comparable traffic situations must be treated in a consistent manner. Each traffic control device and control method described in Part 7 fulfills a specific function related to specific traffic conditions.*
>
> *A uniform approach to school area traffic controls assures the use of similar controls for similar situations (which promotes uniform behavior on the part of motorists, pedestrians, and bicyclists).*
>
> *A school traffic control plan permits the orderly review of school area traffic control needs, and the coordination of school/pedestrian safety education and engineering activities.*

Copies of the MUTCD are available on the internet at: http://mutcd.fhwa.dot.gov/

"ORS" means Oregon Revised Statute.

"OAR" means Oregon Administrative Rule

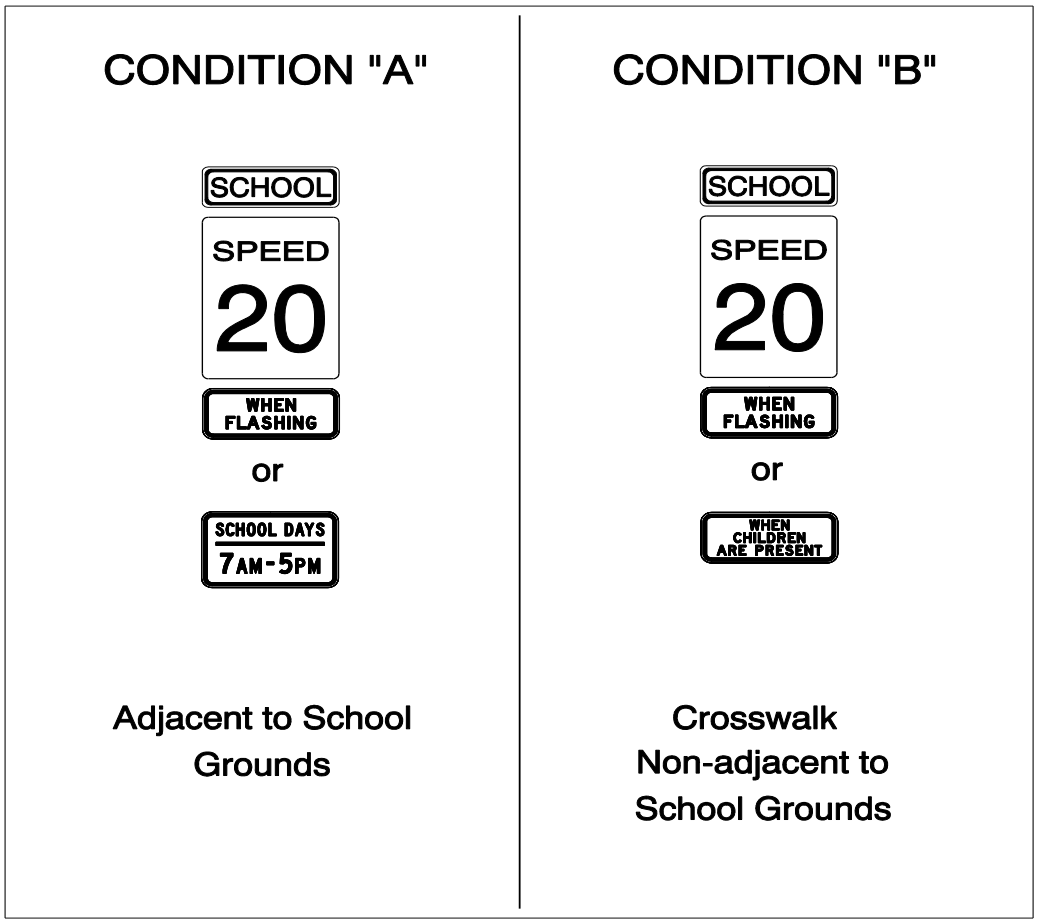
OREGON REVISED STATUTES

The definitions and authorities for school zones in Oregon is established by Oregon law and administrative rules. Both school zones and school speed zones are statutory. A **school zone** is defined by **ORS 810.462** as one of two types: adjacent to the school zones or at a crosswalk away from the school grounds. School zones are created by posting signs identifying the school site or crossing. These can be signs such as the school name at each end of the school grounds, or a School Children Crossing sign at a crosswalk. A school zone does not automatically have a 20 mph school zone speed limit.

Examples of when a school zone would not necessarily have a school speed zone include crossings at signalized intersections, since all traffic is fully controlled, and schools where no children walk or bike to school and the grounds are set well back from the road.
Oregon Revised statutes are available on the internet at: http://landru.leg.state.or.us/ors.

OTHER SCHOOL ZONE LAWS:

- **ORS 811.111 describes school zone speed limits.** School speed zones are defined for the two types of school zone areas: those adjacent to school grounds (Condition A) and crosswalks not adjacent to school grounds (Condition B). If the school speed zone is in Condition A, adjacent to school grounds, the school speed is in effect when a flashing light indicates when children are coming to or leaving the school or, if there is no flashing light, between the hours of 7 AM and 5 PM on a day when school is in session. For Condition B, at a crosswalk away from school grounds, the school speed



limit is in effect with either the flashing light or when children are present as described in ORS 811.124.

- **ORS 811.124 defines "when children are present"** as when children are occupying or waiting to cross in the crosswalk or there is a traffic patrol member at the crosswalk. Note that "when children are present" applies only at a crosswalk away from the school grounds.

- **ORS 811.106 allows for the operation of flashing lights** as traffic control devices to indicate children are traveling to or from school. When used for this purpose, the lights may be operated only at times when children are scheduled to arrive or leave school.

- **ORS 811.235 establishes the condition of increasing fines in school zones** when school zone signs as defined by the MUTCD (not just school speed zones) are posted. This means that School Crossing signs define an area of increased fines even if there are no other school signs such as school speed limit.

  The law allows increasing of fines at school zones when lights are flashing or, for a crosswalk away from the school grounds, when the definition of "when children are present" is met. The fines are higher for specified offenses which include:
  - all Class A or Class B traffic violations (such as failure to obey a traffic patrol member, not yielding to a pedestrian in a crosswalk or not stopping at a stop sign or traffic signal);
  - Class C or Class D violations relating to exceeding a legal speed;
  - Reckless driving as defined by law;
  - Driving while under the influence of intoxicants (DUII);
  - Failure to perform the duties of a driver involved in an accident or collision as required by law;
  - Driving with a suspended or revoked license; or
  - Fleeing or attempting to elude a police officer.

- **ORS 811.550 identifies places where stopping, standing and parking are prohibited** on a crosswalk or within 20 feet of a crosswalk at an intersection. Some exemptions permitted in ORS 811.560 are applicable for pickup and discharge of passengers.

- **ORS 810.180** gives the Oregon Department of Transportation the authority to designate speeds upon all public roadways in Oregon other than the statutory speeds. These designated speeds are established by a written order after an investigation. Decisions on designated speeds are made jointly by ODOT and the city, county or other agency with road authority.

TRAFFIC PATROL LAWS

ORS 339.650 "Traffic patrol" defined. As used in ORS 339.650 to 339.665 "traffic patrol" means one or more individuals appointed by a public, private or parochial school to protect pupils in their crossing of streets or highways on their way to or from the school by directing the pupils or by cautioning vehicle operators.

ORS 339.655 Traffic patrols authorized; medical benefits; rules. (1) A district school board

may do all things necessary, including the expenditure of district funds, to organize, supervise, control or operate traffic patrols. A district school board may make rules relating to traffic patrols which are consistent with rules under ORS 339.660 (1).

(2) The establishment, maintenance and operation of a traffic patrol does not constitute negligence on the part of any school district or school authority.

(3) A district school board may provide medical or hospital care for an individual who is injured or disabled while acting as a member of a traffic patrol. [Formerly 336.460]

ORS 339.660 Rules on traffic patrols; eligibility; authority. (1) To promote safety the State Board of Education after consultation with the Department of Transportation and the Department of State Police, shall make rules relating to traffic patrols.

(2) A member of a traffic patrol:

(a) Shall be at least 18 years of age unless the parent or guardian of the member of the traffic patrol has consented in writing to such membership and ceases to be a member if such consent is revoked.

(b) May display a badge marked “traffic patrol” while serving as a member.

(c) May display a directional sign or signal in cautioning drivers where students use a school crosswalk of the driver’s responsibility to obey ORS 811.015. [Formerly 336.470]

ORS 339.665 Intergovernmental cooperation and assistance in connection with traffic patrols. (1) The Department of Education and the Department of Transportation shall cooperate with any public, private or parochial school in the organization, supervision, control and operation of its traffic patrol.

(2) The Department of State Police, the sheriff of each county or the police of each city may assist any public, private or parochial school in the organization, supervision, control or operation of its traffic patrol. [Formerly 336.480]

ORS 811.015 Failure to obey traffic patrol member; penalty. (1) The driver of a vehicle commits the offense of failure to obey a traffic patrol member if:

(a) A traffic patrol member makes a cautionary sign or signal to indicate that students have entered or are about to enter the crosswalk under the traffic patrol member’s direction; and

(b) The driver does not stop and remain stopped for students who are in or entering the crosswalk from either direction on the street on which the driver is operating.

(2) Traffic patrol members described in this section are those provided under ORS 339.650 to 339.665.

(3) The offense described in this section, failure to obey a traffic patrol member, is a Class A traffic violation. [1983 c.338 §545; 1995 c.383 §12; 2003 c.278 §2]

ORS 811.017 Failure to yield to traffic patrol member; penalty. (1) The driver of a vehicle commits the offense of failure to yield to a traffic patrol member if the driver fails to stop and yield the right of way to a traffic patrol member who:

(a) Has entered a crosswalk for the purpose of directing students who have entered or are about to enter the crosswalk; and

(b) Is carrying a flag or wearing something that identifies the person as a traffic patrol member.

(2) For purposes of this section, “traffic patrol” has the meaning given that term in ORS 339.650.

(3) The offense described in this section, failure to yield to a traffic patrol member, is a Class A traffic violation. [2003 c.557 §2]

ORS 811.020 Passing stopped vehicle at crosswalk; penalty. (1) The driver of a vehicle commits the offense of passing a stopped vehicle at a crosswalk if the driver:

(a) Approaches from the rear another vehicle that is stopped at a marked or an unmarked crosswalk at an intersection to permit a pedestrian to cross the roadway; and

(b) Overtakes and passes the stopped vehicle.

(2) The offense described in this section, passing a stopped vehicle at a crosswalk, is a Class B traffic violation. [1983 c.338 §546]

SCHOOL ZONE ADMINISTRATIVE RULES

- **OAR 734-020-0005** adopts the Manual on Uniform Traffic Control Devices as the uniform system of marking and signing highways in Oregon, as required under ORS 810.200, including school area signing and marking.

- **OAR 734-020-0015** is related to designating speeds by establishing speed zones other than statutory speeds (but does not apply to school zones). The OAR describes the process for establishment of speed zones on public roads.

- **OAR 581-021-0100** establishes the operation and authorities for School Traffic Patrols. The **Oregon Traffic Patrol Manual** published by the Oregon Department of Education is adopted as the operation guide. The Department is also responsible for distribution of equipment, establishing, assisting and training patrols. The school districts are responsible for requesting patrol training and assistance. School districts may also opt to operate school traffic patrols by district guidelines that are approved by the State Superintendent of Public Instruction as meeting or exceeding the standards in the Oregon Traffic Patrol Manual.

Oregon Administrative Rules are available on the internet at
http://arcweb.sos.state.or.us/banners/rules.htm

OTHER GUIDELINES

The Oregon Department of Transportation also has adopted other guidelines which relate to school zones. These include the “Speed Zone Manual”, “ODOT Traffic Manual” and the “Sign Policy and Guidelines”. The Speed Zone Manual discusses the speed zone investigation process. The ODOT Traffic Manual discusses the use and application of related traffic control devices. The Sign Policy and Guidelines identifies the signs authorized for school areas along with guidelines on their location.

The above are available on the internet at http://www.odot.state.or.us/traffic/ublicat.htm.

SECTION II - SAFE ROUTES TO SCHOOL PROGRAM

Safe Routes to School started as a grass roots effort that spread world wide. It has grown from these beginnings into a national movement recognized by Congress. Through the 2005 passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Congress designated a total of $612 million toward developing the National Safe Routes to School Program. Prior to the federal funding in the United States, several states and communities already had dedicated funding for Safe Routes to School programs.

The federally funded Safe Routes to School Program is administered in Oregon by ODOT's Transportation Safety Division. There is much going on at the federal, state and local levels, and with many dedicated organizations involved as well as government agencies. In some ways, the grass roots coalitions are still the foundation for this program. You can find the latest information, contacts and guidance for Oregon on Transportation Safety's web site at http://www.oregon.gov/ODOT/TS/saferoutes.shtml.

WHAT IT IS

The goal of the Safe Routes to School Program is to assist communities in identifying and reducing barriers and hazards to school children, K-12, in walking or bicycling within 2 miles of the school. Safe Routes to School (SRTS) is a multi-national effort to encourage and enable more youth to walk and bike to school.

The program works with the 5 Es as the key to a solution: Engineering, Enforcement, Education, Encouragement and Evaluation. SRTS brings together school administrators, teachers, support staff, parents, students, neighbors, police, and community service providers in School Teams and Community Task Forces. The School Teams and Community Task Forces study why more kids aren't walking and biking to school. Then they develop strategies to increase safety and the number of kids walking and biking to school. These strategies are based on a balanced and integrated approach of enforcement, engineering, encouragement, education and evaluation.

HISTORY

Oregon House Bill 3712, enacted in 2001, is known as Oregon's Safe Routes to School legislation. This bill created statute ORS 195.115, which directs cities and counties to work with school districts to identify hazards that keep children from walking and biking to school and to develop a safe routes plan for each school. In 2005, two pieces of legislation passed, one at the federal level and the other at the state level, that created a funded Safe Routes to School Program. The Transportation Safety Division of ODOT has the oversight and administration of this program.

DEVELOPING A SRTS PLAN

Development of a SRTS plan is the responsibility of the local school district, in cooperation with the local road and policing jurisdictions. Schools work in cooperation with local public works staff, engineering staff, traffic safety committees, parents, and law enforcement officers to complete their plan.

1. An important aspect of a SRTS program is broad-based community involvement in the process.
    a. The process includes a review of school policies and facilities relevant to school travel, a survey of student and parent attitudes and behaviors regarding school travel walking and biking routes. Partners include parents, teachers, school administration, community members, and community health services.
    b. The process also requires the identification of traffic safety problems along those routes, the identification of opportunities to improve those routes, whether and where adult and student crossing guards are needed and the school district's intent to provide them. Partners include the above plus traffic engineering and operations staff from the road jurisdiction.
    c. The implementation of education and enforcement solutions in addition to engineered improvements completes the process. Partners include all of those noted above, plus enforcement and emergency response services and public, non-profit and private resources for traffic safety.

2. By developing school routes, communities can take advantage of the protection afforded by existing traffic controls.
    a. It may be that the school route requires children to walk or bike a non-direct, longer distance to an established school crossing where there is an existing traffic control in order to avoid the use of a direct, hazardous crossing where there is no existing traffic control. Factors identified in the MUTCD to be considered when determining the feasibility of requiring children to walk or bike a longer distance to a crossing with existing traffic control are:

    b. the availability of adequate safe sidewalks or off roadway sidewalk areas to and from the location with the existing control;

    c. the number of children using the crossing;

    d. the age levels of the children using the crossing; and

    e. the total extra walking distance.

Preference is to improve the more direct intuitive route when possible. Physical improvements should be supplemented by enforcement and programs that educate children, parents, and drivers (see Education Programs). When establishing new school speed zones or making changes to existing school speed zones, the Safe Routes to School Plan should be reviewed and updated.

SECTION III - SCHOOL ZONES

WHAT IS A SCHOOL ZONE?
A school zone is a section of roadway adjacent to a school or a school crosswalk where signs designating a school are present. The signs marking a school zone may include any words or symbols that give notice of the presence of a school zone. Some traffic fines double in a school zone regardless of whether a school speed zone is posted or not.

WHAT IS A SCHOOL SPEED ZONE?
A school speed zone is a special 20 MPH speed zone for schools allowed by statute and defined by school speed signs. The school speed zone begins at the SCHOOL SPEED LIMIT 20 sign and ends at the END SCHOOL SPEED ZONE sign or other posted speed sign.

School speed zones should begin 100 to 200 feet from the school property line or school crosswalk, whichever is determined to be most appropriate. Ideally, school speed zones should be kept short to enhance driver compliance. When school property frontage along the roadway is lengthy and/or fenced, consider focusing the school speed zone on the school crosswalk, potential crossing areas or exposed/unfenced potions.

WHAT IS NOT A SCHOOL SPEED ZONE?
Not all school crossings or school areas are posted with a SCHOOL SPEED LIMIT 20 sign. There may be areas adjacent to school grounds where the need for reduced school speeds may be deemed unnecessary. For instance, residential streets on the side or back of a school may not need a reduced speed if travel speeds are already slow. A high school with good traffic control or a school with no students who walk to school may have no need of a reduced speed. A school crosswalk away from the school controlled by a traffic signal may have no need of a reduced speed. Unless a school area or crossing has SCHOOL SPEED LIMIT 20 signs, the area is not considered a school speed zone.

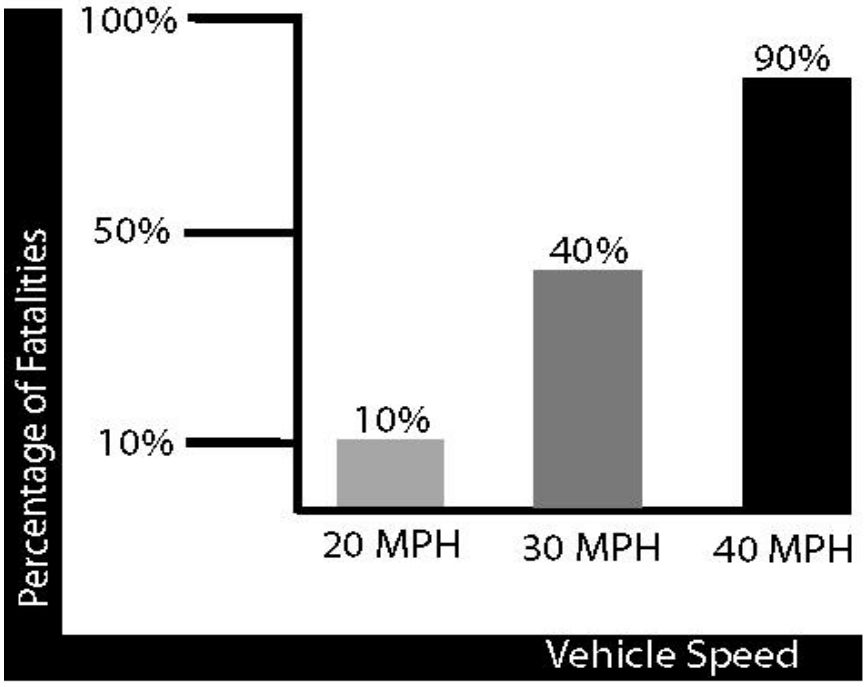
WHO DETERMINES THAT A SCHOOL SPEED ZONE IS APPROPRIATE?
Each road authority (state, county, or city) determines where school speed zones are located along roadways under their jurisdiction. Locations and limits for school speed zones should be determined on the basis of an engineering study. The school speed zone should be established as per the applicable sections of the Manual on Uniform Traffic Control Devices.

The road authority is encouraged to use these guidelines to help determine the need for a school speed zone. A local jurisdiction that does not have the expertise to do an engineering study is encouraged to contact their local Region ODOT Traffic office for assistance or hire a

consulting Engineer. School districts and local traffic safety committees can request a school speed zone study through the local road authority.

WHY IS GOING 20 MPH SO IMPORTANT?

Slower speeds provide more reaction time to unexpected child actions. Any collision at a lower speed will generally cause less injury, as well. The fatality rate for pedestrians or bicyclists struck by a vehicle at higher speeds is much greater than at lower speeds (see chart below). A pedestrian struck by a vehicle at 40 mph is almost always a fatality. If the vehicle is going 30 mph a pedestrian has 60% chance of surviving, but will likely not be walking away from the collision and may have sustained life altering injuries. Even five mph can make a big difference to the pedestrian.



LOCATIONS WHERE SCHOOL SPEED ZONES ARE ENCOURAGED

Where all the following conditions exist, a school zone is recommended when supported by an engineering study,:

- The roadway is adjacent to the school grounds (not limited to front of school buildings)
- There is at least one marked school crosswalk within the proposed school zone which is not protected by a signal or STOP sign.
- The property houses a full time public or private school
- The school is elementary or middle level (schools that include grades K-8) instruction
- The posted speed is 40 MPH or below

LOCATIONS WHERE SCHOOL SPEED ZONES REQUIRE FURTHER JUSTIFICATION
Where any of the following conditions exist, an engineering study should be the basis to determine whether there is a need for a school speed zone:

- The school is a public or private high school
- The marked school crosswalk is at a signalized intersection
- The marked school crosswalk is at a STOP sign
- The marked school crosswalk is on a roadway segment not adjacent to the school grounds
- Children walking on the school's Safe Routes to School Plan do not cross the roadway adjacent to school grounds

LOCATIONS WHERE SCHOOL SPEED ZONES ARE DISCOURAGED

- Roadways where the speed is posted 45 mph or above should implement school speed zones only after all other options for transporting children to school safely have been tried.
- In some cases all children are bused to school, even short distances. The road authority should verify whether or not children are walking or biking to school. Some children, especially middle school students, will prefer walking or biking to school even when buses are available.
- If there are children walking to school on a high speed or high traffic volume road, the road authority should consider providing improved pedestrian facilities for greater safety for the students. A reduced school speed may also be considered as part of those improvements. A school speed zone provides the greatest margin of safety on high speed or high volume roads when implemented along with other pedestrian improvements such as sidewalks, crosswalk bulb-outs and crossing guards.

At schools adjacent to the roadway where there is no pedestrian or bicycle traffic, a school zone should be established with signs should indicating the presence of the school area. A school speed zone is typically not used to protect motor vehicle traffic. In lieu of establishing a school speed zone, a school advance sign with or without a flashing light may serve to warn motorists approaching the school area.

On roadways where the speed is posted 45 mph or more and school speed zones are justified by an engineering study, strong consideration should be given to using flashing beacons, the sign "SCHOOL SPEED LIMIT 20 WHEN FLASHING" and the REDUCED SCHOOL SPEED AHEAD sign. A speed zone study may be considered, after the school speed zone is established, to see if a reduced posted speed for the roadway is appropriate.

WHAT IS AN ENGINEERING STUDY?

An engineering study is a documented analysis and evaluation of site specific information, and includes the application of appropriate engineering principles and standards. Considerations in the engineering study may include, but are not limited to:

- *Crash history*
- *Traffic volumes*
- *Gap Study*
- *Number of bicyclists riding to school*
- *Number of pedestrians utilizing the school crossing (just because the school is busing the students does not mean that children are not walking or biking)*
- *Speed study for all directions of travel at the proposed location*
- *Examination of conditions adversely affecting pedestrian and bicycle safety (e.g., availability of sidewalks and bike lanes, presence of curb ramps, location of bicycle parking, horizontal and vertical sight distance)*
- *Examination of the school's drop-off and pick-up operations, including on-street parking controls and off-street parking facilities and their use*
- *Examination of the school's Safe Routes to School Plan including a review of planned adult crossing guards*
- *Input and participation in the engineering study by the school district, traffic safety committees and other community representatives (including participation in data collection and analysis)*

There are places where traffic control devices were not adequately investigated and are not really needed. These controls are not only unnecessary, but also costly to maintain. More importantly, the lack of respect for unnecessary control lessens the respect for traffic control devices in general and can in fact degrade safety. Traffic controls in school areas should be applied based on sound guidelines and engineering studies.

SECTION IV – TRAFFIC CONTROL ELEMENTS

SIGNS

The MUTCD promotes uniformity in design of signs to include shape, color, dimension, symbols, as well as uniform application of signs. Consistency in application increases compliance as signs are quickly recognized and the messages are easily understood. The following are guidelines for the use of school signs in Oregon. Some road jurisdictions may have more stringent standards about the application or size of the signs. Please refer to the applicable road jurisdiction's standards for further information. All following figures are from the 2003 MUTCD or the ODOT Sign Policy and Guidelines.

SIGN SHEETING

ODOT reserves the use of the fluorescent yellow-green (strong yellow-green or FYG) sheeting exclusively for school related warning signs. Fluorescent yellow-green sheeting is the preferred color for these signs. On state highways all new school zone warning signs will have FYG background. Existing warning signs will be replaced with FYG-background signs as the current signs reach the end of their life or ODOT will change out the signs if the school district agrees to pay for the replacement. Other jurisdictions may use the yellow background signs as this is still allowed in the MUTCD. The mixing of standard yellow and FYG background signs within a school area should be avoided. All school area signs should use high intensity sheeting or better.

SCHOOL ZONE SIGNS

School zones can be defined with signs other than school speed zone signs. The school advance warning assembly consists of the school advance sign supplemented with the AHEAD plaque. The school advance warning assembly is used in advance of school grounds, school crossings, and school zones. An alternative XXX FT plaque may be substituted in lieu of the AHEAD plaque.

The school crosswalk warning assembly consists of a school advance sign supplemented with a diagonal downward pointing arrow. The school crosswalk warning assembly may be used at school crossings, whether adjacent to schools and those on established school pedestrian routes. It can be used at signalized crossings but may not be used at crossings controlled by stop signs.

If used overhead at a marked crosswalk the School Advance Warning sign may be installed alone. The overhead sign should be located at the crosswalk facing both directions of traffic and must be accompanied by ground mounted school crosswalk warning assemblies with the arrow plaque. When used overhead, the minimum size should be 48" x 48".

In situations when a reduced school speed may not be justified, signing the area with school advance sign assemblies may serve to warn motorists of the proximity of the school and school grounds. This is especially true where students are primarily transported to school.

SCHOOL SPEED SIGNS

When a school speed zone is established, the school speed sign or assembly shall be used. The beginning of the school zone is indicated by the school speed sign, which consists of a top plaque with the legend SCHOOL (S4-3), a SPEED LIMIT 20 sign (R2-1), and a bottom plaque indicating when the school zone is in effect

As per the Oregon Revised Statute 811.111, possible bottom plaques include one of the following: SCHOOL DAYS/ 7 AM to 5 PM; WHEN CHILDREN ARE PRESENT; or WHEN FLASHING . Which bottom plaque to use is determined by the school, road authority and school district policies from the selections shown below for the different types of school zones:

- ***Areas adjacent to the school. In these areas the 20 mph school speed may be posted for:***
  -between 7 AM and 5 PM; or
  -when lights are flashing (school beacons).

- ***Crosswalks not adjacent to school grounds. In these areas the 20 mph school speeds may be posted for:***
  -when children are present; or
  -when lights are flashing (school beacons).

Those school speed zones with lower approach speeds (30 mph or less) tend to have better compliance with school speeds. When there is the option of using different school speed zone plaques, the choice between When Flashing, When Children are Present, or time posted tends to have little effect on school speed compliance, particularly on residential and non-arterial roadways.

Excessive speeds tend to occur more frequently at school speed zones with faster approach speeds (35 or greater). In these areas school zone speed signs with flashing lights are more effective at slowing vehicles and should be considered given the costs of installation and maintenance.

In order to prevent confusion and preserve the effectiveness of traffic control devices, choose a school zone time condition and use the same plaque throughout a given school speed zone. Other than on state highways, multiple conditions may be posted when justified by an engineering study. When multiple conditions are posted, the preferred method is by a single rider, such as “WHEN FLASHING OR CHILDREN PRESENT”. For posting times, the posted time period is the 7 AM to 5 PM established by law.

A 36-inch wide school speed sign assembly is encouraged on rural, higher speed highways (45 mph or above), all other roads with four or more travel lanes, or when installed overhead.

End School Speed Zone Sign

The end of a school speed zone must be marked with an “END SCHOOL SPEED ZONE” sign or a standard speed limit sign showing the speed limit for the section of roadway that follows.

School Reduced Speed Zone Ahead Sign

If the posted speed is 40 mph or higher, a School Reduced Speed Ahead sign (S4-5) may be used to inform drivers of a school speed zone ahead. Section 7B.12 of the 2003 MUTCD

details the new sign. The old sign assembly for a school speed zone advance warning, a SCHOOL (S4-3) plaque in combination with a REDUCED SPEED AHEAD (R2-5a) sign, may stay up until replaced. If used, the advanced warning sign should be placed at least the required minimum distance for the posted speed per the MUTCD prior to the school speed limit assembly.

S4-5

SCHOOL BUS STOP AHEAD SIGN

SCHOOL BUS STOP AHEAD signs are used in advance of locations where school buses stopping to pick up or discharge passengers are not visible for a minimum distance of 500 feet and there is no opportunity to relocate the bus stop to a location with better visibility. The sign shall have a minimum 30" x 30" size. These signs are not intended to be used everywhere a school bus stops to pick up or discharge passengers but for use only where terrain and roadway features limit the approach site distance and where there is no opportunity to relocate the stop to another location with adequate visibility. Stops posted with these signs should be reviewed periodically to determine if they are still used.

TRAFFIC FINES HIGHER SIGNS

The higher fine provision applies in school zones ***only*** if posted (as fines higher) ***and*** lights are flashing ***or*** the definition of "When Children Are Present" is met (the definition of "when Children are Present" can only be met at crosswalks not adjacent to school property). Road jurisdictions are allowed under ORS 810.245 to post signs warning of increased traffic fines within school speed zones. A school district may request the road authority to install a FINES HIGHER sign. Typically the school district will be required to pay for the cost of these signs.

The standard sign for Oregon is the FINES HIGHER (R2-6) sign found in the 2003 MUTCD Section 2B.17. This sign will be supplemented with a SCHOOL plaque mounted above the FINES HIGHER sign (for an example see figure 7-9 in the ODOT Sign Policy and Guidelines). Preferably the fines higher sign would be mounted on its own post, but may be mounted below the school advance warning assembly, in which case the School plaque is not necessary.

The "TRAFFIC FINES DOUBLE IN THIS SCHOOL ZONE" (OR4-21) sign and the smaller version "TRAFFIC FINES DOUBLE IN SCHOOL ZONES" sign (used off state highways) may be used until replacement is necessary.

VARIABLE MESSAGE SIGNS

Variable message signs may be used in lieu of school speed limit assemblies, to inform drivers of the special school speed limit. The changeable messages signs may use blank out signs in order to display school speeds only during periods it applies. Their basic shape, message and layout should conform to the same standards as the fixed school speed assemblies.

A changeable message sign may also be used to display the speed of approaching drivers. The sign may be portable or permanently installed in conjunction with the School Speed Limit Assembly or Speed Limit Sign. Considerations for installing permanent speed displays with the School Speed Limit Assembly include the following:

1. Crash experience within the past three years
2. Prevailing travel speeds when children are arriving or leaving the school

3. Other pertinent factors such as installation and maintenance costs, public support, number of children who walk or bike to school at the entrances covered by the signs.

PARKING RESTRICTIONS

Parking restrictions and other signs governing the stopping and standing of vehicles can be used to cover a wide variety of applications and can be a very effective tool for increasing school area safety. Visibility and control of traffic are some reasons for considering parking restrictions. Contact the road authority or local jurisdiction for regulations and any special requirements governing parking restrictions. Restrictions can include a variety of options including but not limited to the following: prohibiting parking at any time, limited-time parking, restricting the day or time of day or bus-only parking.

SUPPLEMENTAL DEVICES (I.E., YELLOW DIAMONDS, FLASHING LIGHTS)

It has long been recognized that overuse of supplemental devices erodes their effectiveness as safety devices. In order to preserve their usefulness as warning devices, yellow diamonds, flashing lights and other attention grabbers should only be used in school areas where the posted speed exceeds 30 MPH, the crossing is not signalized, and when an engineering study warrants their use.

FLASHING BEACONS FOR INDICATING CHILDREN ARRIVING OR LEAVING SCHOOL

The school speed assembly, “SCHOOL SPEED 20 WHEN FLASHING”, must be accompanied by flashing beacon lights to indicate when children are scheduled to arrive at or leave school. The statute ORS 811.106 requires that the beacons flash only when children are scheduled to arrive or leave school. School beacons may be used with other plaques (e.g., “WHEN CHILDREN ARE PRESENT” at crosswalks away from school grounds) but must only flash when children are coming to or going from school.

If a school district requests flashing beacons on state highways, typically the school district will be required to pay the installation and utility costs. The cost of a sign with flashing lights is variable, but typically is estimated at $5,000 plus ongoing utility charges.

FLASHING BEACONS FOR INDICATING WHEN FINES HIGHER

Flashing beacons may be used in a school zone to indicate when fines are higher. This requires the use of a FINES HIGHER plaque accompanied by a WHEN FLASHING plaque and a SCHOOL plaque. See figure 7-7 in the ODOT sign Policy and guidelines for example.

PAVEMENT MARKINGS

Pavement markings have an important role to play in school area safety. They can be used to supplement the regulations or warnings of other devices such as traffic signs or they may obtain results that cannot be obtained by the use of any other device. However, pavement markings have definite limitations. They are obliterated by snow, may not be clearly visible when wet and may not be very durable when subject to heavy traffic. Pavement markings also require a higher degree of maintenance than other traffic control devices, resulting in recurring costs to the road jurisdiction.

MARKED CROSSWALKS

A marked crosswalk will not, in and of itself, increase the level of safety for pedestrians. In an effort to ensure that marked crosswalks are placed where they are needed, an engineering study is required before establishing marked crosswalks at locations other than signalized or stop controlled approaches to intersections. Marked crosswalks should be limited to locations that provide a safe crossing opportunity such as signalized intersections and all-way stop intersections. They may be considered at locations with a high number of pedestrians or where adult crossing guards will be present daily. See ODOT's Criteria for Establishing Marked Crosswalk sin the ODOT Traffic Manual

Some jurisdictions have established a standard using the continental style or zebra stripe (diagonal lines at a 45 degree angle) marking for all school crosswalks. This is desirable because it further distinguishes the crosswalk as a school crossing.

Where marked crosswalks are installed at uncontrolled locations on multi-lane roadways, consider using advance stop lines (see below) to reduce multiple threat crashes.

STOP LINES

Stop lines are solid white lines normally 12 to 24 inches wide extending across all approach lanes and indicate the point at which vehicles are required to stop in compliance with the STOP sign, traffic signal or other legal requirement. Stop lines are not ordinarily used with marked crosswalks unless it is desirable to stop vehicles in advance of the nearest crosswalk line. When used, stop lines shall be placed as near as practical to the intersecting roadway but should not be closer than 4 feet to the traveled way or crosswalk line.

ADVANCE STOP LINES

Advance stop lines are stop lines set in advance of uncontrolled marked crosswalks on multi-lane roadways in order to provide additional time and visibility for pedestrians to avoid vehicles not stopping in adjacent lanes (i.e. multiple threat crashes). Advance stop lines (24-inch width) are ideally set back 30 feet in advance of uncontrolled marked crosswalks (but may be 20-50 feet) and typically combined with the STOP HERE FOR (pedestrian symbol) sign (OR 22-25). See "Advance Stop Lines" in the ODOT Traffic Manual for further Guidance. See 'Advance Stop Lines" in the ODOT Traffic Manual for further Guidance.

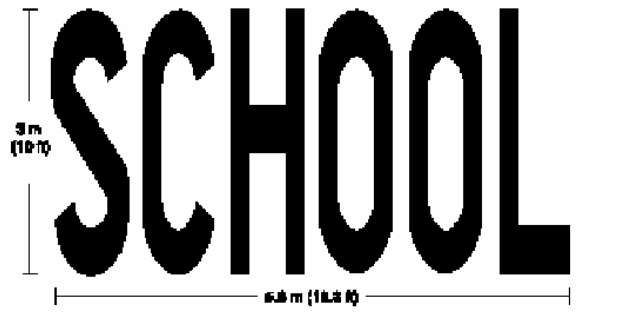
PARKING RESTRICTIONS

Road authorities may authorize curb markings to supplement standard signs or to replace signs if permitted by local ordinance.

WORD AND SYMBOL MARKINGS

Word and symbol markings on the pavement may be used as a supplement, but are not required marking. Marking in the travel lane requires a high degree of maintenance and they should be used only as necessary. Letters and numerals should be white and 8 feet or more in height and if the message consists of more than one word, it should read up, i.e., the first word should be nearest to the driver. Where approach speeds are low, somewhat smaller characters may be used. Pavement

Figure 7C-1. Two-Lane Pavement Marking of "SCHOOL"



messages should preferably be no more than one lane in width except school messages may extend to the width of two lanes. When a two-lane width is used, the characters should be 10 feet or more in height. SCHOOL is one of the more commonly used markings. See Section 7C.06 of the MUTCD for further guidance.

MAINTENANCE OF SIGNS AND MARKINGS

Regulatory and warning signs and pavement markings for school speed zones should be inspected routinely by the road authority. Preferably, inspections should occur before the beginning of each school year or towards the end of the school year to schedule maintenance during the summer. Damaged signs should be replaced.

If use of the school building or traffic patterns change, the school district should notify the road authority. Signs which no longer meet the criteria for school areas should be removed (such as where the school closes or the building use changes).

SCHOOL AREA TRAFFIC SIGNALS

School signals are standard traffic control signals erected at established school crossings on the basis of the need to create adequate gaps in the vehicular traffic stream for pedestrian crossings. When properly designed, located and operated under conditions that fully warrant their use, school signals usually have either or both of the following **ADVANTAGES**:

- Considering initial and operating costs, school signals over a period of several years may represent an economy as compared with police supervision or crossing guards.

- Under conditions of favorable spacing signals can be coordinated with adjacent signals to provide for continuous or nearly continuous movement of vehicular traffic.

The following **DISADVANTAGES** for signals should be considered when choosing a specific means of crossing control:

- School signal control has a much higher initial cost than police supervision or crossing guards. It should only be considered for locations where several years use is expected.

- In some circumstances the school signal control requires supplemental control by an adult, guard or school safety patrol (i.e., right turns on red).

- Signals can increase the frequency of motor vehicle crashes (i.e., rear-end crashes)

A school signal may be warranted at an established school crossing when a traffic engineering study indicates that the number of adequate gaps in the traffic stream during the periods the children are using the crossing, is less than the number of minutes in the same time period. Signals have the potential to disrupt traffic flows, they should be used only after other less restrictive means to exploit existing gaps have been tried (i.e., pedestrian refuges). See Section 4C.06 of the MUTCD for more information on school signals.

SCHOOL CROSSING GUARDS AND SAFETY PATROLS

There are two types of school crossing supervision: control of pedestrians and vehicles with adult crossing guards or police officers; and control of pedestrians only with student safety patrols. The statutes concerning school crossing supervision can be found in the Appendix.

Recommended practices for the organization, operation and administration of an adult crossing guard program are given in ***Adult School Crossing Guards*** (available from AAA Foundation for Traffic Safety). Recommended practices for the organization, administration and operation of the student safety patrol program can be found in ***Policies and Practices for School Safety Patrols*** (AAA foundation for Traffic Safety) and ***Oregon Traffic Patrol Manual*** (Pupil Transportation, Oregon Department of Education).

School Districts have the authority to use adults as safety patrol members or crossing guards. They can be an asset and an important segment of the traffic patrol program. Certain criteria should be used to determine at which location adult crossing guards are placed. The Department of Education suggests that generally, an adult crossing guard is needed:

- When the traffic situation at the school crossing is too hazardous to be navigated by children.
- When the crosswalk is so far from the school that it cannot be monitored by school officials.
- When it is difficult for children to observe traffic at all corners.
- For crossings close to school where children in great numbers are difficult to control.
- When there is a high volume of turning traffic to and from an arterial.
- When there is an excessive volume of pedestrian traffic across an arterial.

When any **ONE** of these conditions exist, adult supervision may be necessary to create gaps in traffic, caution the traffic turning over crosswalks and safely assist groups of children across the street. Customarily, crossing guards are used in elementary schools. But in particularly hazardous situations, middle schools may wish to utilize crossing guards as well.

Crossing guards should not be directing traffic. Instead, they should be selecting opportune times to create a safe gap. Crossing guards may be used to provide gaps in traffic at school crossings where an engineering study has shown that adequate gaps must be created. Crossing guards must wear a bright colored yellow, orange or strong yellow-green retroreflective ANSI class 2 high-visibility safety vest and a hat, and carry a school crossing flag or flagger paddle as recommended by the Oregon Department of Education. The Oregon Department of Education, Pupil Transportation has a 15 minute video, “Tips and Techniques for the Adult Crossing Guard” available upon request at 503-378-3600.

Student safety patrols should be authorized by the local school board. They do not direct traffic but they do supervise children using a crossing. School authorities should be responsible for organizing, instructing and supervising safety patrols with the assistance of the local police. They should be children from the fifth grade or higher and parental approval should be obtained in writing before a child is used as a member of the safety patrol. Student safety patrol members must wear a bright colored yellow, orange or strong yellow-green retroreflective ANSI Class 1 high-visibility safety vest. Student safety patrols carry a

retroreflective minimum 24” square flag. The flag color may be red, yellow or strong yellow-green. The Oregon Department of Education, Pupil Transportation Program provides technical assistance for establishing student safety patrol programs. A 30-minute program to help train Safety Patrols is available by contacting 503-378-3600.

SECTION V – STREET DESIGN ELEMENTS

What are the potential improvements to safety beyond the school zone signing and speed zone? When assessing the safety of the immediate area surrounding the school building, it is important to consider visibility and site design issues.

- Are there sight obstructions that should be corrected by restricting or removing parking or by trimming trees and shrubs?
- What accommodations have been made for children riding to school on bikes?
- Are the designated loading and unloading zones free from conflicts with other traffic?
- Are sidewalks needed to improve safety?

A thorough review of the current school route environment is the first step. Once problem areas are identified then design changes, route choices and supporting education and law enforcement activities to improve those areas can be identified and enacted.

PEDESTRIAN ENHANCEMENTS

Pedestrian enhancements are encouraged to increase the safety of crossings near and along the route to school. Often requests are received for marked crosswalks, which may not improve safety, without enhancements such as curb extensions, median islands, and roadway illumination. The use of pedestrian refuges and curb extensions shorten the exposure time of the pedestrian. Other considerations include improving sight distance and better access management to reduce conflicts, as well as traffic calming to reduce speeds.

PEDESTRIAN REFUGES AND CURB EXTENSIONS

Pedestrian refuges and islands allow students to use existing gaps in traffic to split the crossing of the roadway into manageable parts. This is especially important where there are multiple travel lanes in each direction. Without enhancements such as islands these roadways may not offer good opportunities for crossing and possibly encourage students to dash across the roadway during less than adequate gaps. Median islands are one of the most effective ways to increase safety and make crossing easier.

The use of curb extensions (bulb-outs) can reduce crossing distances. These extensions also have the effect of increasing the visibility of the pedestrian. Where on-street parking is present, curb extensions should be considered.

TEXTURED/COLORED CROSSWALKS

ODOT's practice is to not install textured or colored crosswalks. It is sometimes, however, the desire of a local road authority to install them. The perception is often times that the texturing or coloring crosswalks alone will be more visible than standard crosswalk marking. But often that is not the case. Textured or colored crosswalks can actually be LESS visible that

conventional marked crosswalks (red brick tends to fade to black, especially at times of low visibility).

Textured crosswalks can be rough, impeding the movement of pedestrians with wheelchairs and walkers. They can become uneven, presenting a tripping hazard to pedestrians, especially the sight impaired. Textured and colored crosswalks are typically higher maintenance and some materials can become slick creating a slipping hazard. If textured crosswalks are used, they should be made of durable materials, such as stamped concrete, with minimal beveling. Colored crosswalks should avoid the use of standard traffic control colors.

All textured and/or colored crosswalks are required to have the standard transverse white lines or continental (longitudinal) white lines to ensure their visibility and recognition to motorists.

IN-ROADWAY LIGHTS

In-roadway warning lights at crosswalks provide additional warning to motorists of their approach to a marked crosswalk. The usefulness of these lights is limited during daylight hours because they are sometimes difficult to see under normal daylight conditions. School crossings may not be the best location since most activity in school crossings is typically during daylight hours.

These devices tend to have a more significant effect during hours of darkness, rain or fog. There is some supporting evidence that they increase driver's awareness of pedestrians. Because of their relatively high installation costs, potentially high maintenance costs and their unproven safety record during key periods of pedestrian use, their installation should be limited to locations where they are justified.

The in-roadway lights should only be considered after proven pedestrian safety measures such as median refuge islands, curb bulb-outs, and roadway illumination are in place. Crossing guards are also a good option. In-roadway lights might be most appropriate in locations where there is nighttime pedestrian activity or a nighttime crash history.

The in-roadway lights must not be used at crosswalks controlled by traffic signals, stop signs or yield signs. See Chapter 4L of the MUTCD for further guidance on the use of these devices.

IN-STREET PEDESTRIAN SIGNS

In-Street Pedestrian Crossing signs are intended to be used to remind drivers of the laws regarding right of way of pedestrians at unsignalized pedestrian crossings. Guidance on using In-Street Pedestrian crossing signs is given in section 2B.12 and 7B.09 of the MUTCD. The "STOP FOR" legend must be used in Oregon.

Before installing signs, each location should be reviewed separately in terms of site conditions and pedestrian safety. Signs should be installed on the centerline and as close as practical to the marked crossing without placing it in the crosswalk, typically with one to five feet in advance of the crosswalk.

Ideally in-street pedestrian crossing signs are placed on a 2-lane, 2-way roadway where the signs are placed and removed daily to indicate when children are arriving or departing school. When used in conjunction with traffic

patrols, these signs can be very effective.

The in-street pedestrian signs shall not be placed at stop or signal controlled intersections or where there is a two-way left turn lane or left turn refuge. Where there is a high volume of turning movements (especially large vehicles), a sign will not be successful and may become a maintenance problem if it is an obstacle to drivers.

Narrow streets or streets with parking may pose a problem. There is a certain amount of "shy distance" needed for signs placed in the street. If the roadway is 4 travel lanes or more, a better option may be to place advance stop bars accompanied by the "STOP HERE FOR Ped" signs.

GRADE SEPARATED CROSSINGS

Grade separated crossings may be used to physically separate the crossing of a very heavy volume of school pedestrian traffic and heavy vehicular flow. Grade separated crossings may be either overpasses or underpasses. They need to follow the guidelines given in the published policies of the American Association of State Highway and Transportation Officials.

Overpasses are often more satisfactory than underpasses because overpasses are easier to maintain and supervise. They should be considered only when the physical characteristics make such a structure feasible. Experience has shown that grade separated crossings are not always used by students unless it is obvious to the student that it is easier to use the crossing than to cross at the roadway level. Not only are the grade separated crossings expensive but if pedestrians do not use them, the pedestrian may be more at risk because there are fewer at grade enhancements such as striping and signing.

TRAFFIC CALMING MEASURES

Traffic calming measures are intended to encourage drivers to drive at appropriate speeds. The selection of traffic calming strategies must consider the nature of the roadway, adjacent land use, and emergency vehicle concerns.

Obviously traffic calming on neighborhood streets involves different considerations than a state highway. Neighborhood streets may include:

- speed humps,
- traffic circles or diverters,
- raised crosswalks, and
- other street or traffic control that may be aimed at reducing the volume of traffic.

On arterials or state highways, the devices are often more subtle changes to the roadway environment to clue drivers to a mixed use environment of pedestrians, bicycles and transit, such as:

- wider sidewalks,
- streetscaping,
- median islands, and
- pedestrian-scaled amenities.

Some devices, common to both, also help reduce crossing distance, such as:

- pedestrian refuges,

- curb extensions, and
- roundabouts.

See ODOT's Main Street Handbook or AASHTO's Guide for the Planning, Design and Operation of Pedestrian Facilities for more information.

SITE LAYOUT AND PARKING

Site layout and parking should be focused on reducing pedestrian, bicycle and motor vehicles conflicts. A problem at many schools is the growing activity of parent pick-up and drop-off. When possible, consideration should be given to separating bus and parent drop-off/pick-up points. Redesign of parking areas to improve flow and reduce pedestrian-vehicles conflicts should be considered. School officials should work closely with Public Works (Traffic Engineering) representatives to evaluate traffic safety issues with site layout and parking.

According to California's Safe Routes to School program, more children are hit by cars near school than at any other location. To help change this pattern, their program recommends some low-cost and easy-to-implement measures that schools, parents, and local governments can undertake. View their one-page document "Improving School Drop-Off and Pick-Up

Zones" at: *http://www.cawalktoschool.com/files/new_DOZ_facts.pdf*

According to the State of North Carolina Department of Transportation, data indicates that morning traffic operations on a school campus usually operate safely and efficiently due to parent traffic arriving at a broader range of times. Afternoon traffic operations, however, are quite different because most often parents arrive well before the school dismissal and park or queue (back up) along the campus driveway. The afternoon queue often results with vehicles stopped in the roadway or along the shoulder of a major through route, which increase the chances of collisions and similar traffic-related safety concerns.

SECTION VI – ACTIVITY ELEMENTS

WALKING SCHOOL BUS

The walking school bus has become increasingly popular in the last few years. A walking school bus provides children with a safe and healthy mode of transportation to school. The children walk to school in a group along a set route with adult supervision. Each 'bus' (group of students) walks along a set route with at least one adult 'driver' in front and an adult 'conductor' bringing up the rear.

BICYCLES

Bicycles have unique characteristics. They are operating vehicles, yet are vulnerable in crashes like pedestrians. Student bicyclists have varied levels of ability, depending on age and skill level. Some will ride in the street, others on the sidewalks. Special consideration should be given to the needs of the bicyclists.

Surrounding streets should be equipped with bike lanes and bicycle access should be available from all directions. Sidewalks, bike lanes and any trails should connect to the school property. Consider improving linkages between surrounding neighborhoods to provide access such as between cul-de-sacs and school property. Bicyclists should have secure and separate parking facilities close to school entrances

The NHTSA Safe Routes to school Toolkit recommends that schools encourage more bicycling by teaching bicycle safety, offering bicycle repair classes, and providing adequate bicycle parking facilities that shield bikes from inclement weather and that guard against theft.

Bicycle Routes are divided into three classifications:

- A shared use bike path is entirely separate from the road. No motor vehicles are allowed on or near these paths, which also serve as multi-use pathways.

- A bike lane marked in the road is four feet wide if adjacent to parked cars.

- A bike route is simply a route without any designated striping for bikes but has signs that designate it as a bicycle route. These facilities are usually on neighborhood streets without heavy traffic.

Bicycle facilities need to be developed in a comprehensive manner to provide uninterrupted access to all routes to school.

Adults should lead by example. In communities where the bicycle is more accepted and used extensively by adults for short trips, there will be higher levels of children bicycling to schools.

EDUCATION AND ENCOURAGEMENT PROGRAMS

Educational programs are needed to supplement the engineering and enforcement efforts to effectively promote school area safety. In Safe Routes to School (SRTS) programs, education links classroom activities and academic achievement to the creation of a safe routes plan to effectively provide a youth-generated perspective, and provides a venue to teach motorists, pedestrians and bicyclists about their responsibilities and about traffic rules. A number of

materials and programs are in existence. These programs include school curriculum, banners, reader boards, internet resources, work with local media and neighborhoods, and special events and promotions, such as International Walk to School Day. These efforts should be continuous throughout the year, but especially strong at the beginning of the year.

An important consideration in developing effective educational programs is recognition that child pedestrians perceive and react to traffic situations in predictable but different ways from adults. The rules regarding pedestrian safety were made by adults primarily for adults and may not be obvious to children. A pedestrian safety video that sheds light on these differences is ***Children in Traffic***. This video is available from ODOT's Transportation Safety Section (1-800-922-2022) or from the AAA Foundation for Traffic Safety. The video presents traffic situations from the child's point of view and as related to developmental limitations. Educators and traffic safety advocates can use this information to formulate more effective safety measures at school. Some of the key points are:

- Children mix fantasy and reality. They may see cars as living creatures with eyes, nose and mouth. They can easily misinterpret drivers intentions.

- Because of their size, children have difficulty seeing and being seen by others. They assume if they see a car, the driver sees them.

- They have a one-third narrower field of vision than adults. They will see an approaching car later than an adult would under the same circumstances.

- They cannot easily pick out the direction of various sounds. They may focus only on the sound that interests them the most.

- Younger children have little or no sense of danger. They generally develop awareness that vehicles can cause serious injury between the ages of six and eight.

- They have not fully developed their motion sensitivity, i.e., they cannot judge speed and distance. They cannot tell whether a car is standing or moving, or which of two moving cars is moving faster.

- Children don't understand complicated traffic situations. For example, they may assume that, because one car slows down to stop at an intersection, cars in other lanes will do the same.

- They tend to focus on things of immediate interest and react spontaneously. For example, they may chase a ball that rolls into the street, ignoring traffic around them.

- Children have abundant energy. Their eagerness to be in motion overrides their awareness of traffic. They may be in a hurry to get home or to get to school and forget safety rules.

- They learn by example and may imitate bad examples of adults or older children in traffic.

- Children may take risks because they overestimate their ability, knowledge, and strength.

It's important to identify and utilize public and private service providers best suited to implement an effective school traffic safety education program. Pedestrian and bicycle advocacy groups, transit providers, school bus service providers, local transportation authorities or public works departments, state agencies, neighborhood and business associations, public health advocates, county health departments, and injury prevention professionals – these groups often have education and outreach materials and or personnel available.

ENFORCEMENT PROGRAMS

Enforcement enlists the help of local law enforcement to focus efforts in problem areas and increase community awareness of school safety issues. Police departments recognize traffic safety as a major concern of the public they serve. They also acknowledge the interrelationship of school safety, crime prevention, crime resolution, traffic safety and traffic enforcement.

Law enforcement can take a leading role in improving public awareness of existing traffic laws (e.g. stopping for pedestrians in marked crosswalks, not speeding in school areas, obeying parking controls, and stopping for school buses). Some law enforcement agencies have instituted school safety awareness programs and have a strong presence in the school they serve. Others have provided targeted "stings" at strategic locations to catch violators during peak school travel times of morning arrival and afternoon departure. Also recent advances in automated enforcement, such as photo radar (See ORS 810.438) are becoming effective traffic enforcement tools. In combination with engineering improvements and education programs, the enforcement program can be particularly effective.

Possible traffic safety problems where enforcement is part of the solution include the following:

- Speeding in school zone
- Illegal passing of school bus
- Not yielding to pedestrians in a crosswalk
- Parking violations – bus zone, crosswalks, residential driveways, time zones
- Risks to pedestrians and bicyclists during drop-off and pick-up times
- Lack of safety patrol / crossing guard operations
- Unsafe pedestrian and bicycle practices
- Other traffic law violations in school zone
- Crisis management / incident response

Oregon Safe Routes to School practitioners advise schools to design a communication process that encourages students and parents to notify the school and police of the occurrence of a crash or near-miss during school commute trips involving auto, bus, pedestrian, or bicycle transportation. Include your local transportation authority or Public Works department in this reporting system to help produce more valuable data.

Enlist the help of law enforcement with the following traffic safety activities:

- Enforcement of traffic laws and parking controls through citations and warnings
- Enforcement of Oregon's school zone laws
- Targeted enforcement of problem areas – an intensive, focused effort during the first two weeks of school and a strategy for the rest of the year
- Participation in School Safety Committees and Safe Routes to School task forces to help identify safety problems and solutions.

SECTION VII - SCHOOL ZONE SAFETY RESOURCES

NATIONAL RESOURCES

- The University of North Carolina Highway Safety Research Center (HSRC) has been awarded funding to establish a clearinghouse on the National Safe Routes to School (SRTS) Program. This effort is found at http://www.hsrc.unc.edu/websites/index.cfm. The clearinghouse is **The National Center for Safe Routes to School**. It is a centralized resource of information on successful Safe Routes to School (SRTS) programs and strategies. It is on the internet at http://www.saferoutesinfo.org/. Users of this site will find information on how to start and sustain a Safe Routes to School program, case studies of successful programs as well as many other resources for training and technical assistance.

  The clearinghouse will provide technical assistance to SRTS program coordinators and serve as the central hub of information on successful SRTS strategies and programs.

  The HSRC also will be responsible for developing educational programs on SRTS, as well as developing and maintaining a clearinghouse Web site, listserv and toll-free phone number.

  The HSRC will continue to develop the clearinghouse in collaboration with the American Association of State Highway and Transportation Officials, America Walks, the Governor's Highway Safety Association, the Institute of Transportation Engineers and Toole Design Group, as well as a network of experts nationwide.

- **Safe Routes to School Plans** are described in the FHWA Safety Division's "*SRTS Program Guidance*" at http://safety.fhwa.dot.gov/saferoutes/srtsguidance.htm.

- A national **Safe Routes to School Toolkit** is available from the National Highway Traffic Safety Administration (NHTSA) titled *Safe Routes to School.* This document is available on their website at: http://www.nhtsa.dot.gov/people/injury/pedbimot/bike/Safe-Routes-2002/index.html. It is a complete guide and handbook for initiating and implementing a Safe Routes to School program and is based on the successful national model created in Marin County, California.

- The USA web site for **Walk to School** has a lot of resources and support for attracting wide support and momentum for your Safe Routes to School Program along with some fun. The internet address is at http://www.walktoschool-usa.org/.

- **America Walks** is a national coalition of local advocacy groups dedicated to promoting walkable communities. Our members are autonomous grassroots organizations from across the country, each working to improve conditions for walking in their area. The mission of America Walks is to foster the development of community-based pedestrian advocacy groups, to educate the public about the benefits of walking, and, when appropriate, to act as a collective voice for walking advocates. To carry out our mission, we provide a support network for local pedestrian advocacy groups. We offer advice about how to get started and how to be effective with public officials and engineering and design professionals. See http://www.americawalks.org/.

- The Pedestrian and Bicycle Information Center (PBIC) is a clearinghouse for information about health and safety, engineering, advocacy, education, enforcement and access and mobility. The PBIC serves anyone interested in pedestrian and bicycle issues, including planners, engineers, private citizens, advocates, educators, police enforcement and the health community. http://www.pedbikeinfo.org/. PBIC supports the following specific mode web sites: http://www.walkinginfo.org/, http://www.bicyclinginfo.org/, and http://www.pedbikeimages.org/ as well as the following sites specific to safe routes to school activities. Along with the http://www.saferoutesinfo.org/ there are the two supporting sites http://www.walktoschool.org/ and http://www.iwalktoschool.org/.
-
- The **Institute for Transportation Research and Education (ITRE) at North Carolina State University** provides information on best practices for managing school campus carpool traffic. Their website includes a **Carpool Decision Tree**, a web-based support tool to be used by school staff to analyze and find recommendations on ways to improve school carpool traffic. Please visit their website at: *http://www.itre.ncsu.edu/stg* for more information.

- The **Texas Transportation Institute** (http://tti.tamu.edu) has school site planning guidelines available: **Traffic Operations and Safety at Schools Recommended Guideline** (FHWA/TX-04/4286-2).

OREGON RESOURCES

- The **Oregon Department of Environmental Quality** has a walking school bus guide and other supporting information on their Air Quality **"Walk There"** site: http://www.deq.state.or.us/aq/education/walkthere/index.htm.

- The **Oregon Safe Kids Coalition** is part of the national Safe Kids Campaign. The Safe Kids Coalition is another sponsor that offers assistance and resources for walk-to-school plans and improvements with the Safe Kids Walk This Way campaign. It can be found at http://www.usa.safekids.org/toolkit. The Oregon Safe Kids Coalition is sponsored by the Department of Health Services (http://oregon.gov/DHS/ph/safekids/about_us.shtml).

- **Safe Kids Walk This Way** is a multifaceted program involving high-visibility school-based events, data collection documenting risks to pedestrians in areas surrounding schools and school safety committees and community-wide pedestrian safety task forces making changes to improve walking environments. Oregon's program is sponsored by the **Department of Health:** http://www.oregon.gov/DHS/ph/safekids/.

  Safe Kids Campaign sponsors Safe Kids Walk This Way around the country. Safe Kids Walk This Way also leads year-round school safety committees to improve pedestrian environments for students.

  Safe Kids has also provided grants to communities' city leaders, traffic engineers and metropolitan planning organizations to improve safety for child pedestrians at high-risk intersections. http://www.usa.safekids.org/state_display.cfm is a national site with all the Oregon connections.

- The Oregon Walk + Bike to School Association maintains a web site with materials and resources for the SRTS Plan. They sponsor training for school coordinators and other activities to bring public awareness and involvement into the program. Their Calendar of events and resources are available at the Oregon Walk + Bike to School website, http://walknbike.org/.

- The Oregon Health Sciences University **Think First** Program provides training and materials for safe student travel. The Think First programs are available statewide to students and educators at no cost. Each program includes comprehensive training and consultation by Think First staff and all necessary teaching materials. There are also activities and materials for parents and kids. Contact Rae Rosenberg, Project Coordinator at (503)494-5353. See http://www.ohsu.edu/thinkfirst/.

LOCAL PROGRAMS AROUND OREGON

Clackamas County
Clackamas County launched a safe routes program in 2003 to improve routes to local area schools. A report titled "Our Children Are Our Future - A Guide For Developing Safe Routes To School" was developed through a grant from the Alliance For Community Traffic Safety of Oregon. It is available at http://www.co.clackamas.or.us/dtd/trans/tsc/safe_routes_low.pdf.

Additionally, the County works with schools in the County to improve the safety of key routes to schools ranging from simple tasks such as roadside vegetation maintenance to school flashers and crosswalks. The Clackamas County Sheriff's Office also is a strong player in helping with enforcement around the school zones. There are a lot of activities at the local schools, so the routes need to be as safe as we can make them. If you have questions you can contact the County Traffic Engineer, Joseph Marek, at (503) 353-4705 or email at joem@co.clackamas.or.us

Tillamook County
The Tillamook County Traffic Safety Commission used a Community Small Projects mini-grant to install time-activated flashing lights on "SCHOOL ZONE AHEAD' signs at a school located directly on Highway Route 101. The lights flash only during times when students are coming to or leaving school. This project required extensive coordination with ODOT, PUD, the School District and the County Road Department. You can find the current school district contacts at http://www.tillamook.k12.or.us/homepage.htm.

Washington County
Washington County uses a comprehensive approach to school area safety including reader boards, targeted enforcement, crossing guard training, engineering approaches including enhanced signing, flashing lights and traffic calming, mapping safe routes to school, and consulting to schools in solving specific safety problems. Contact Sheila Giambrone, Washington County Department of Land Use and Transportation, (503) 846-7962.

City of Ashland
Ashland has used a variety of strategies to increase bicycle and pedestrian safety. Public awareness and education are ongoing through a ***Look Out for Each Other*** campaign, banners, brochures and a crosswalk awareness week. They have used ***Safety Chicken,*** an adult in a giant chicken costume, to promote walking and biking safety to the students.

Engineering improvements include pole-mounted active speed zone signs which are circulated through the school districts, providing materials for the KEEP KIDS ALIVE, DRIVE 25 campaign, and applying different crosswalk treatments where greater visibility is needed. They are experimenting with new crosswalk reflectivity enhancements and patterns. Contact Dawn Lamb, Public Works, (541) 488-5587.

Cities of Eugene & Springfield
The Eugene/Springfield LTD transit sponsors a Smart Ways to School program which includes resources to help kids bike and walk to school safely. The program has a web site at http://www.ltd.org/sws/index.htm.

City of Bend
The Bend Traffic Safety Advisory Committee (TSAC) researched the effectiveness of various school zone strategies for improving safety for children. The Bend TSAC has produced several award-winning Public Service Announcements on pedestrian and bicycle safety. In 1999 the committee worked with Lancaster Engineering on a study "Marked and Unmarked Crosswalks; Policy Review" Contact Debra Hogan, Coordinator Deschutes County Safe Communities, (541) 317-3050.

City of Milwaukie
Milwaukie has developed a number of approaches to pedestrian safety. As part of their school trip safety program, they have used speed humps and a neighborhood speed watch program that includes banners, radar feedback trailer, advisory letters to speeders and the media to slow drivers down in neighborhoods. Contact City Engineering at (503) 786-7600.

City of Portland
The City of Portland implemented a safe routes program in 2003 as part of its Community and School Traffic Safety Partnership. It developed a SRTS website that illustrates how use map-based technologies to deliver SRTS services. Information about Portland's program is available at http://www.portlandtransportation.org/SafeRoutes/program/ . More Portland area information on Safe Routes to School support organizations is available at the following: SW Trails, http://swtrails.org/; the Willamette Pedestrian Coalition, http://swtrails.org/.

OTHER RESOURCES

Alliance for Community Traffic Safety in Oregon (ACTS)
ACTS Oregon has a ***Pedestrian Safety Program Resource Kit,*** provided by the Federal Highway Administration and the National Highway Traffic Safety Commission. Materials available include:

- ***Using Your WITS.*** This article provides information on a pedestrian traffic education program for preschoolers.
- ***Safe Street Crossing for Kids.*** This report describes another program for youth pedestrian safety.
- ***Walk Alert.*** This is a very comprehensive program for pedestrian safety for all ages. It is an excellent resource for local planning.

Also available is information on a program, Sidewalk Rangers, that teaches pedestrian safety to third grade students who then set an example (as rangers) by practicing good pedestrian habits and watching out for younger children. Call ACTS Oregon at (503) 656-7207 regarding these materials.

American Automobile Association (AAA)
The ***Traffic Safety Services Catalog*** has some excellent materials listed for safety patrols, adult crossing guards, school bus safety, safe routes to school, traffic safety education for preschool children, and student pedestrian safety. To order or to get more information on these materials, call AAA's Safety Department at (503) 222-6702 or 1-800-452-1643.

Washington State Department of Transportation and the **Washington State Traffic Safety Commission** have put together how-to guides for school zone safety, the ***School Zone Safety Kit*** and ***School Walk Routes and Pedestrian Safety***. These are available as downloads from http://www.wa.gov/wtsc/videos.html.

The **Bicycle Transportation Alliance** (BTA) runs a statewide bicycle safety education program that teaches youth grades 4th to 7th bicycle safety in a 10-hour comprehensive curriculum. The program stresses on the bicycle training where students learn traffic rules and ride bicycles on the street. The BTA brings resources such as bicycles, helmets, and curriculum, and will train teachers. The program is funded by the Oregon Department of Transportation. Contact Scott Bricker at (503) 226-0676. Their web site is http://www.bta4bikes.org/.

The **Central Oregon Commute Options** group (http://www.commuteoptions.org/week.htm) and the **Lane County LTD Commuter Solutions** (http://www.ltd.org/cs/csindex.html) both offer commuting travel options and information for carpooling and alternative modes of transportation.

The **British Columbia Confederation of Parent Advisory Councils** maintains a web site aimed at advancing the public school education and well-being of children in the province of BC and to carrying on activities to promote and enhance meaningful parent participation in an advisory role at the school, school district and provincial levels. They have produced a guide for parents titled ***Caution: School Zone!*** This publication as well as other resources and case studies are available at www.bccpac.bc.ca.

Harborview Injury Prevention and Research Center has done research in pedestrian safety and has developed a comprehensive program for child pedestrian safety (including a pedestrian rodeo), Contact: Luann D'Ambrosio (206) 521-1534. The address for HIPRC is 325 Ninth Avenue, ZX-10, Seattle, Washington 98104. http://depts.washington.edu/hiprc/.

National Highway Traffic Safety Administration (NHTSA)
NHTSA sponsored the development and evaluation of a new pedestrian safety program to protect school bus riders in elementary grades (kindergarten through 6th grade). ***Walk-Ride-Walk: Getting to School Safely*** was developed by Dunlap and Associates. The safety behaviors included in the seven lessons are:

- The Danger zone - identifies areas around the school bus where the driver and

child can't see each other.

- Walking Near and Evacuating the Bus - this lesson is a bus drill that reviews danger zones and emergency evacuation procedures.

- Crossing the Street - for young children, crossing the street mid-block with and without parked cars, and, for older children, procedures to follow at intersections and in parking lots.

- Walking to the Bus Stop - getting ready for school and walking to the bus stop.

- Arrival of the Bus - waiting at the bus stop, the meaning of the bus signal lights, and boarding the bus.

- Riding the Bus - safe bus riding procedures.

- Crossing to and from the Bus - crossing the street to the bus, leaving the bus, and crossing the street from the bus. To order program materials, contact the National Safety Council, 1-800-621-7619.

National Safety Town Center provides a comprehensive preschool-early childhood safety education program - **SAFETY TOWN** - that teaches children through real life situations as presented in a layout of a miniature town. Their address is PO Box 39312, Cleveland, Ohio, (216) 831-7433. The kids' site is http://www.nhtsa.dot.gov/kids/.

Oregon Department of Transportation (ODOT)
ODOT's Transportation Safety Section has a ***Media Catalog*** that lists all of the films and videos they have available for loan on a wide range of topics including pedestrian safety. One of the highly recommended videos is ***Children in Traffic.*** Call 1-800-922-2022 for a copy of the catalog or to speak to the Pedestrian Safety Program Manager. Another excellent resource is the Community Traffic Safety Resource Guide.

Also available from ODOT is the Oregon Bicycle and Pedestrian Plan, which provides some excellent guidance for improving pedestrian and bicycle safety. Contact Michael Ronkin, Bicycle and Pedestrian Program Manager at (503) 986-3555.

ACKNOWLEDGEMENTS

This Guide was originally produced in cooperation with the Alliance for Community Traffic Safety in Oregon (ACTS Oregon) and a School Zone Subcommittee (from the Oregon Traffic Control Devices Committee). The School Zone subcommittee was initiated to review and recommend changes in school zone rules, policies and statutes. Thanks to those individuals and organizations that made significant contributions to this document.

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City of Portland	Greg Raisman
City of Portland	Karla Zenz
ACTS Oregon	Ruth Harshfield
Clackamas County	Mike Hatten

Logan Way Parking

Addition of No Parking Area

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W E
S

0 12.5 25 50 Feet

Mapping is schematic only and bears no warranty of accuracy. This product was created for informational purposes and may not have been prepared for or be suitable for legal, engineering, surveying, or property investment purposes. All zoning information should be confirmed by the City prior to use for such purposes.

Plotted: 4/9/15
By: Zac Moody

Summary of Complete Street & Trail Projects

Project ID	Location	Description	Mode				Preliminary Estimated Cost	Priority	Timeline	Likely Funding Source	Funding Tier
			Vehicle	Bike	Ped	Freight					
Short Term											
1	West Valley View Rd - OR 99 to I-5	Restripe roadway to three lanes with buffered bike lanes and address bike lane transition at OR 99	✓	✓	✓	✓	$250,000	High	Short	City	Tier 1
2	First St - Main St to 850 feet north	Upgrade to local street standards	✓	✓	✓		$380,000	High	Short	City	Tier 1
3	Second St - Main St to West St.	Upgrade to local street standards	✓	✓	✓		$210,000	High	Short	City	Tier 1
4	Front St - Colver Rd to Urban Renewal Boundary	Add curbs and sidewalks to both sides of street	✓	✓	✓		$450,000	High	Short	City	Tier 1
5	Citywide Network	Create a bike priority network with hierarchy of bicycle routes throughout the city		✓			$20,000	High	Short	City	Tier 1
6	OR 99 - Rapp Rd to Creel Rd (Talent City Limits)	Add curbs and sidewalks and restripe existing roadway to provide a center turn lane, two through travel lanes (one in each direction), and bike lanes (STIP Key Number 17478)	✓	✓	✓	✓	$3,300,000	High	Short	State	Tier 1
7	Second St – Wagner St to Schoolhouse Rd	Add curb and sidewalk to west side of street			✓		$150,000	High	Short	City	Tier 1
8	Schoolhouse Road – Wagner Creek Road to 2nd Street	Add curb and sidewalk to north side of street			✓		$160,000	High	Short	City	Tier 1
9	Bear Creek Greenway at Suncrest Rd	Install traffic calming improvements on Suncrest Rd		✓	✓		$100,000	High	Short	County	Tier 2
10	Wagner St RR Crossing	Upgrade crossing and provide for pedestrians and bicyclists and upgrade warning devices	✓	✓	✓		$500,000	Medium	Short	City	Tier 2
11	Talent Ave - Creel Rd to Alpine Way	Upgrade to collector standard	✓	✓	✓		$960,000	Medium	Short	City	Tier 2
12	Wagner St - Wagner Creek Road to 1st Street	Add curb and sidewalk to north side of street			✓		$200,000	Medium	Short	City	Tier 2
13	Wagner St - Railroad Crossing to John Street	Add curb and sidewalk to south side of street			✓		$70,000	Medium	Short	City	Tier 2
14	Main St - West St to Front St	Add curb and sidewalk to south side of street			✓		$240,000	Medium	Short	City	Tier 2
Medium Term											
15	West Valley View Rd - OR 99 to I-5	Add hardscaping (landscaped islands and/or raised barrier) in bike lane buffers	✓	✓	✓	✓	$250,000	High	Medium	City	Tier 1
16	Rapp Rd - 150' south of Graham Way to Wagner Creek Bridge	Rebuild and upgrade to (major) collector standard	✓	✓	✓		$1,080,000	High	Medium	City	Tier 1
17	Foss Rd - Wagner St to City Limits	Upgrade to collector standard	✓	✓	✓	✓	$400,000	High	Medium	City	Tier 1
18	Creel Rd – 75 feet east of Lithia Way to OR 99	Add curb and sidewalk to north side of street			✓		$120,000	High	Medium	City	Tier 1
19	West Valley View Rd @ Wagner Creek Greenway Trail	Create a mid-block crossing with pedestrian-activated device		✓	✓		$100,000	High	Medium	City	Tier 1

Summary of Complete Street & Trail Projects

Project ID	Location	Description	Mode				Preliminary Estimated Cost	Priority	Timeline	Likely Funding Source	Funding Tier
			Vehicle	Bike	Ped	Freight					
20	OR 99 - Creel Rd to Bear Creek Greenway connection	Construct a 10-foot-wide multi-use path along the east side of the highway		✓	✓		$250,000	High	Medium	State	Tier 2
21	First St - Main St to Wagner St	Upgrade to local street standards	✓	✓	✓		$270,000	Medium	Medium	City	Tier 2
22	Second St. - Main St to Wagner St.	Upgrade to local street standards	✓	✓	✓		$240,000	Medium	Medium	City	Tier 2
23	OR 99 – Creel Rd (Talent City) Limits to S Valley View	Restripe roadway to include a center turn lane, two through travel lanes (one in each direction), and shoulder	✓	✓	✓	✓	$700,000	Medium	Medium	State	Tier 2
24	Talent Ave - 200' south of Wagner St to Main St	Remove parking on one side of street (west) and stripe bike lanes through downtown Talent		✓			$10,000	Medium	Medium	City	Tier 2
25	Front St - Urban Renewal Boundary to Wagner St	Add curb and sidewalk to west side of street			✓		$320,000	Medium	Medium	City	Tier 2
26	OR 99 @ Wagner Creek Greenway Trail	Create a mid-block crossing with pedestrian-activated device		✓	✓		$100,000	Medium	Medium	City/State	Tier 2
27	Wagner Creek Greenway Path—Old Bridge Village to Bear Creek Greenway	Construct new 10-foot-wide multimodal path near Wagner Creek connecting to Bear Creek Greenway		✓	✓		$500,000	Medium	Medium	City	Tier 2
28	Bear Creek Greenway	Enhance connections to OR 99 throughout OR 99 corridor with wayfinding signage and other amenities		✓	✓		$450,000	Medium	Medium	Other	Tier 2
Long Term											
29	Rapp Rd - Wagner Creek Bridge	Rebuild and upgrade to (major) collector standard	✓	✓	✓		$600,000	Medium	Long	City	Tier 1
30	Rapp Rd - Wagner Creek Bridge to Wagner Creek Rd	Rebuild and upgrade to (major) collector standard	✓	✓	✓		$950,000	Medium	Long	City	Tier 1
31	Wagner Creek Rd - West St to Rapp Rd	Upgrade to major collector standard	✓	✓	✓	✓	$960,000	Medium	Long	City	Tier 1
32	Talent Avenue – Rapp Road to Creel Road	Add curb and sidewalk to east side of street			✓		$920,000	Medium	Long	City	Tier 1
33	Rapp Rd – Graham Way to OR 99	Add curb and sidewalk to south side of street to eliminate gaps			✓		$70,000	Medium	Long	City	Tier 1
34	Wagner Creek Greenway Path—Rapp Rd to Talent Ave	Construct new 10-foot-wide multimodal path near Wagner Creek		✓	✓		$200,000	Medium	Long	City	Tier 2
35	Bear Creek Greenway Access	Create ramp connection to north side of West Valley View Rd		✓	✓		$250,000	Medium	Long	Other	Tier 2
36	Bain St - First St to Wagner St	Upgrad to local street standards	✓	✓	✓		$230,000	Low	Long	City	Tier 2
37	Westside Bypass - Wagner Creek Rd/Rapp Rd to Colver Rd	Construct new collector street west of city	✓	✓	✓	✓	$2,730,000	Low	Long	City	Tier 2
38	West Valley View Rd west of I-5	Widen shoulders		✓	✓		$1,500,000	Low	Long	City/County	Tier 2

Summary of Complete Street & Trail Projects

Project ID	Location	Description	Mode				Preliminary Estimated Cost	Priority	Timeline	Likely Funding Source	Funding Tier
			Vehicle	Bike	Ped	Freight					
39	Wagner St Extension - Talent Ave to West Valley View Rd	Construct new collector street (50 ft) to complete downtown improvements	✓	✓	✓	✓	$730,000	Medium	Long	City	Tier 2
40	West Valley View Road I-5 Overcrossing			✓	✓		$8,000,000	Low	Long	State	Tier 2
41	Bear Creek Greenway	Upgrade 800 feet of path north of West Valley View Road to statewide multi-use path standards (minimum 10 feet, desired 12 feet)		✓	✓		$305,000	Low	Long	Other	Tier 2
42	Arnos Trail	Connect Arnos St to the Bear Creek Greenway		✓	✓		n/a	Low	Long	Other	Tier 2
Development Driven Projects											
43	Railroad District Collector—Belmont Rd to Rapp Rd	Construct new collector street to serve UGB area south and west of Railroad tracks	✓	✓	✓		$4,100,000	Low	Undetermined	Other	Tier 2
44	Rapp Rd Railroad Crossing	Realign street and upgrade crossing	✓	✓	✓	✓	$800,000	Low	Undetermined	City	Tier 2
45	Belmont Rd - Talent Ave to Railroad District Collector	Upgrade to collector standard and upgrade railroad crossing & restrict other crossings (Pleasant View, Hilltop, public to south)	✓	✓	✓		$800,000	Low	Undetermined	City	Tier 2
46	Suncrest Road Connector	Construct new collector street through Urban Reserve Area TA-5 from east of signal at OR 99 to Willow Springs Dr	✓	✓	✓		$1,500,000	Low	Undetermined	Other	Tier 2
47	Colver Road – West UGB to OR 99	Add sidewalk to north side of street			✓		$260,000	Low	Undetermined	City	Tier 2
48	Suncrest Road – Autumn Ridge Road [east] to East UGB	Add curb and sidewalk to north side of street			✓		$160,000	Low	Undetermined	City	Tier 2

Summary of 2015 TSP Project Costs

	Timeline					
Priority	**Ongoing**	**Short**	**Medium**	**Long**		**Total**
High	$0	$5,020,000	$2,200,000	$0	$0	$7,220,000
Medium	$0	$1,970,000	$2,590,000	$4,680,000	$0	$9,240,000
Low	$0	$0	$0	$12,765,000	$0	$12,765,000
	$0	$0	$0	$0	$0	$0
Total	$0	$6,990,000	$4,790,000	$17,445,000	$0	$29,225,000
	0%	24%	16%	60%	0%	

	Timeline					
Priority	**Ongoing**	**Short**	**Medium**	**Long**		**Total**
High	0	9	6	0	0	15
Medium	0	5	8	8	0	21
Low	0	0	0	6	0	6
	0	0	0	0	4	4
Total	0	14	14	14	4	46

	Timeline					
Priority	**Ongoing**	**Short**	**Medium**	**Long**		**Total**
City	$0	$3,590,000	$3,290,000	$7,390,000	$0	$14,270,000
City/State	$0	$0	$100,000	$0	$0	$100,000
City/County	$0	$0	$0	$1,500,000	$0	$1,500,000
State	$0	$3,300,000	$950,000	$8,000,000	$0	$12,250,000
County	$0	$100,000	$0	$0	$0	$100,000
Developer	$0	$0	$0	$0	$0	$0
Other	$0	$0	$450,000	$555,000	$0	$1,005,000
	$0	$0	$0	$0	$0	$0
Total	$0	$6,990,000	$4,790,000	$17,445,000	$0	$29,225,000

	Timeline					
Priority	**Tier 1**	**Tier 2**				**Total**
City	$7,070,000	$9,220,000				$16,290,000
City/State	$0	$100,000				$100,000
City/County	$0	$1,500,000				$1,500,000
State	$3,300,000	$8,950,000				$12,250,000
County	$0	$100,000				$100,000
Developer	$0	$0				$0
Other	$0	$6,605,000				$6,605,000
	$0	$0				$0
Total	$10,370,000	$26,475,000				$36,845,000

	Tier 1					
Priority	**Ongoing**	**Short**	**Medium**	**Long**		**Total**
City	$0	$1,620,000	$1,950,000	$3,500,000	$0	$7,070,000
City/State	$0	$0	$0	$0	$0	$0
City/County	$0	$0	$0	$0	$0	$0
State	$0	$3,300,000	$0	$0	$0	$3,300,000
County	$0	$0	$0	$0	$0	$0
Developer	$0	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0	$0
	$0	$0	$0	$0	$0	$0
Total	$0	$4,920,000	$1,950,000	$3,500,000	$0	$10,370,000

Available Funding		$1,300,000	$1,300,000	$2,600,000	$5,200,000
Shortfall		-$320,000	-$650,000	-$900,000	-$1,870,000

TA5 Conceptual Planning

Transportation Alternatives

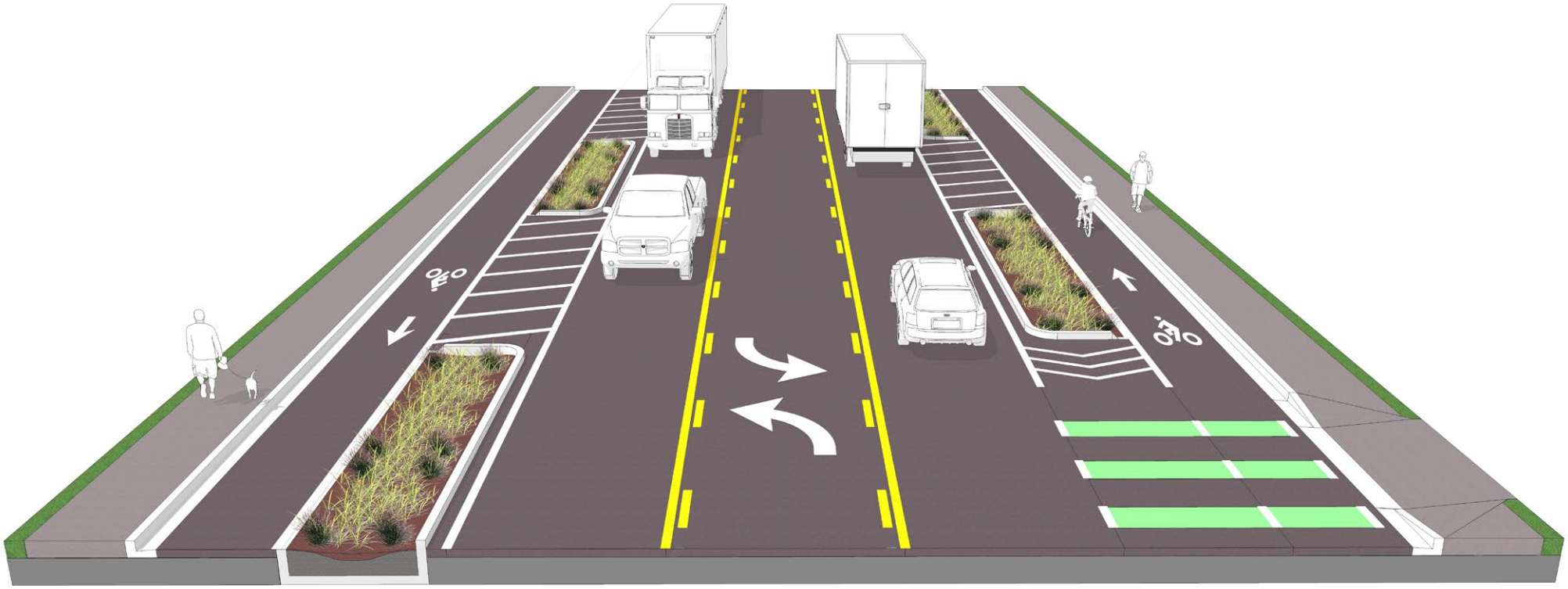
- TA5 Properties
- Tax Lots
- City Limits
- UGB
- Proposed ROW
- Residential (R) 49%
- Open Space (O) 8%
- Commercial (C) 42%
- Proposed Collector Centerline
- Wetland

Mapping is schematic only and bears no warranty of accuracy. This product was created for informational purposes and may not have been prepared for or be suitable for legal, engineering, surveying, or property investment purposes. All zoning information should be confirmed by the City prior to use for such purposes.

Plotted: 3/12/2015
By: Zac Moody

0 250 500 750 Feet

N



5’	6’	6’-8’	11’	12’	11’	6’-8’	6’	5’
Sidewalk	Bike Lane	Landscaped Buffer	Travel Lane	Center Turn Lane	Travel Lane	Landscaped Buffer	Bike Lane	Sidewalk

Proposed Concept

West Valley View Road

Talent, Oregon

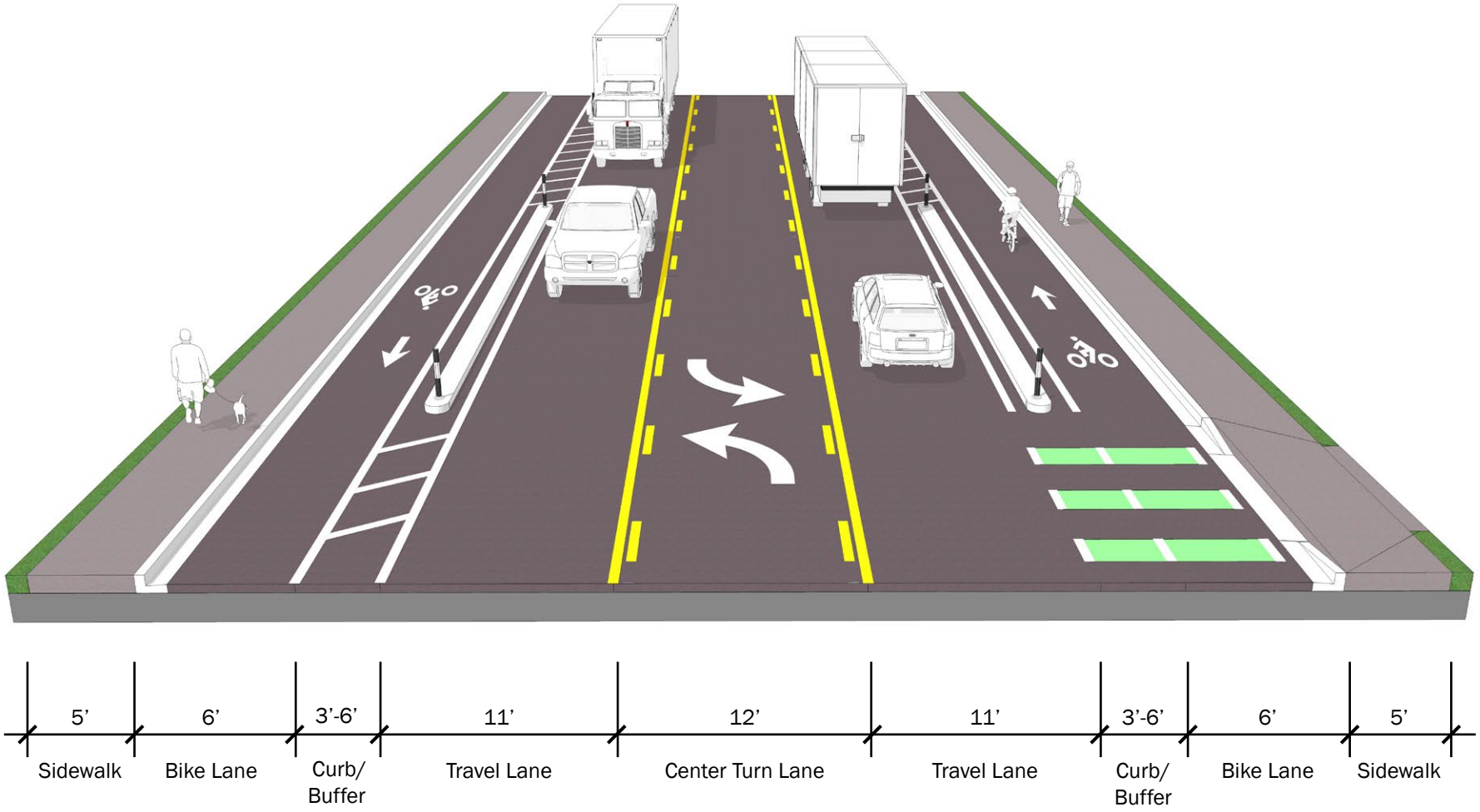
East Section

Mountain View Drive to City Limits

CH2MHILL

Draft

2.27.15



Proposed Concept

West Valley View Road

Talent, Oregon

West Section

OR 99 to Mountain View Drive

CH2MHILL

Draft
2.27.15