



22500 Salamo Road
West Linn, Oregon 97068
<http://westlinnoregon.gov>

TRANSPORTATION ADVISORY BOARD MEETING

Wednesday, March 20, 2019

6:00 pm – West Linn City Hall – Bolton Conference Room

Providing advice regarding: the TSP, CIP transportation projects, TDM improvements, general transportation issues, and encouraging alternative transportation systems along with other duties as assigned by the City Council.

- 1. Call to Order and Introductions**
- 2. Review and approval of June 2018 Summary Notes**
- 3. Business:**
 - a. Election of 2019 Chair and Vice Chair**
 - b. Discussion of 2019 Meeting Schedule**
 - c. Transportation SDC Update Presentation**
 - d. Pedestrian Crossing Study Presentation**
 - e. Safe Routes to Schools Presentation**
- 4. Capital Projects Update**
- 5. Board Discussion/Announcements**
- 6. Public Comments**
- 7. Adjournment**

City of West Linn



Transportation SDC Methodology

Doug Gabbard

March 20, 2019



Agenda

- ◆ **Background**
- ◆ **Calculation Summary**
- ◆ **Key Inputs**
 - Growth
 - Reimbursement Fee Cost Basis
 - Improvement Fee Cost Basis
- ◆ **Comparison**



Key Characteristics of SDCs

- SDCs are one-time charges, not ongoing rates
- Properties which are already developed do not pay SDCs unless they “redevelop”
- SDCs are for capital only, in both their calculation and in their use
- SDCs include both future and existing cost components
- SDCs are for general facilities, not “local” facilities



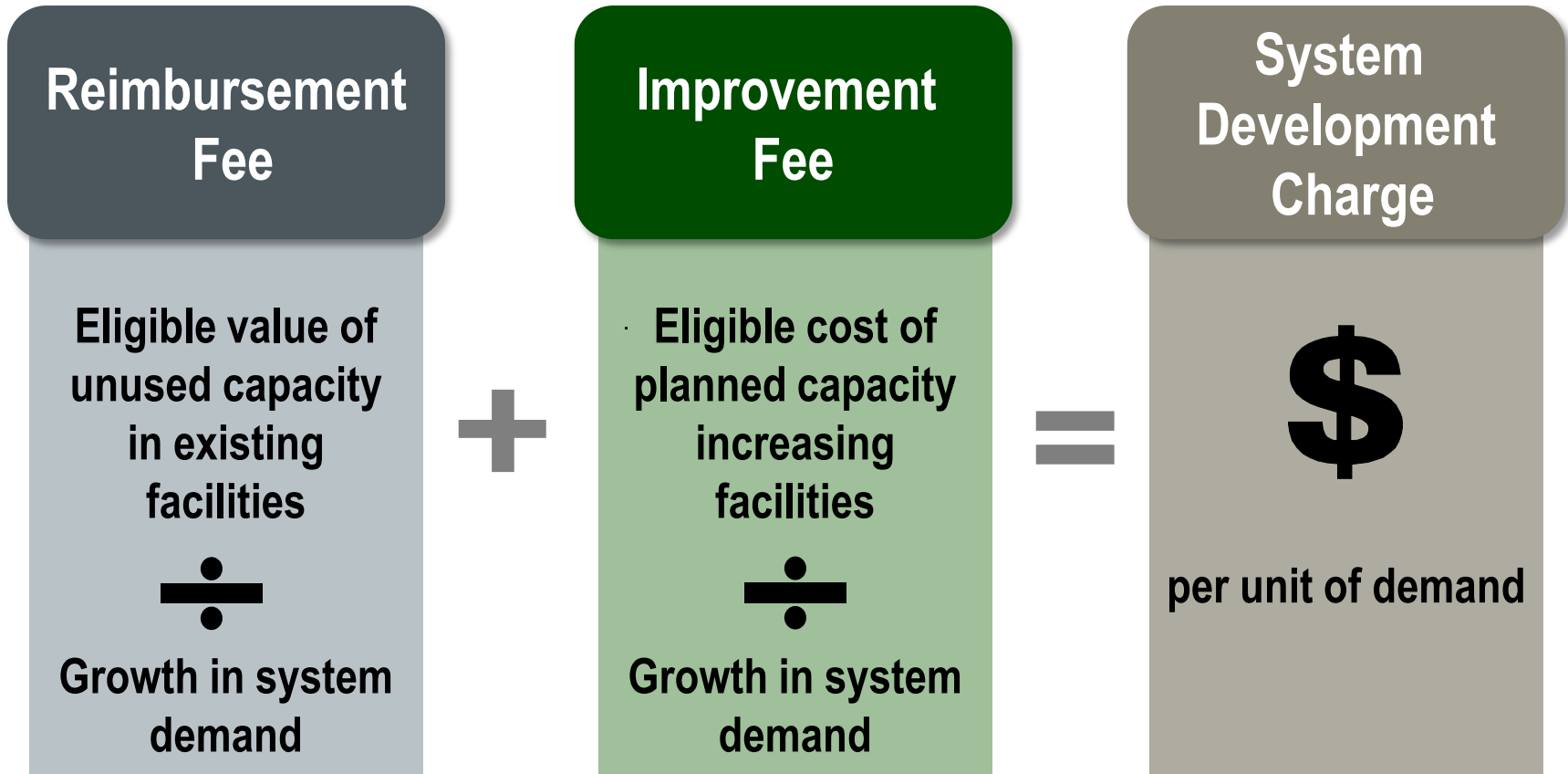
Legal Framework for SDCs

ORS 223.297 - 314, known as *the SDC Act*, provides “a uniform framework for the imposition of system development charges by governmental units” and establishes “that the charges may be used only for capital improvements.”





The SDC Calculation





Summary

Mode	Improvement Fee Components		Reimbursement Fee Components		Administrative Fee Component	Total
	Pedestrian / Bicycle Projects	Motor Vehicle Projects	Pedestrian / Bicycle SDC Expenditures	Motor Vehicle SDC Expenditures		
Eligible Costs	\$7,492,908	\$8,437,047	\$91,389	\$786,380	\$500,000	\$17,307,724
SDC Fund Balance	(\$556,084)	(\$1,024,862)	\$0	\$0	\$0	(\$1,580,946)
Subtotal	\$6,936,824	\$7,412,185	\$91,389	\$786,380	\$500,000	\$15,726,778
ADPT	77,866					
Proposed SDC Per ADPT	\$89.09	\$95.19	\$1.17	\$10.10	\$6.42	\$201.97

Source: Previous Tables



SDC Applied

ITE Code	Name	Unit	Average Daily Vehicle Trips	Person Trip Factor	Person Trips	Percent Non-Pass-By Trips	Net Person Trips	Total SDC
110	General Light Industrial	1,000 SFGFA	4.5	1.68	7.6	100%	7.6	\$1,541
210	Single-Family Detached Housing	Dwelling Units	9.3	1.68	15.7	100%	15.7	\$3,165
710	General Office Building	1,000 SFGFA	7.4	1.68	11.9	100%	11.9	\$2,412
820	Shopping Center	1,000 SFGLA	24.4	1.68	46.6	67%	31.1	\$6,286

Source: ITE Trip Generation Manual, 10th Edition

Person trip conversion rate of 1.68 derived from 2009 U.S. National Household Transportation Survey findings

Abbreviations

SFGFA - square feet of gross floor area

SFGLA - square feet of gross leasable area



Growth

- ◆ **Growth is measured in average daily person trips**
 - Person trips include vehicle, bike, ped, and transit trips
 - Reflects multimodal project list
- ◆ **Growth based on 2016 West Linn Transportation System Plan**

Land Use	2015	2040	Change	Percent Change
Household-based Person Trips	152,289	181,082	28,794	18.9%
Employment-based Person Trips	98,337	147,409	49,073	49.9%
Total Person Trips	250,625	328,492	77,866	31.1%
New person trips as a % of future person trip				23.7%

Source: 2016 West Linn Transportation System Plan



Reimbursement Fee Cost Basis

- ◆ Reimbursement fee based on the cost of unused system capacity less grants and contributions
- ◆ Prior SDC-funded projects used to determine capacity
 - Improvements funded with SDC expenditures assumed to achieve full capacity in 20 years

Year	Motor Vehicle Improvement Fee Expenditures	Bike/Ped Improvement Fee Expenditures	Available Capacity	Reimbursable Motor Vehicle Cost	Reimbursable Bike/Ped Cost
FY 2010	\$5,028	\$0	60.0%	\$3,017	\$0
FY 2011	\$378	\$245	65.0%	\$245	\$159
FY 2012	\$93,040	\$694	70.0%	\$65,128	\$486
FY 2013	\$680	\$279	75.0%	\$510	\$209
FY 2014	\$95,041	\$80	80.0%	\$76,033	\$64
FY 2015	\$682,929	\$13,150	85.0%	\$580,490	\$11,178
FY 2016	\$58,730	\$40,393	90.0%	\$52,857	\$36,354
FY 2017	\$8,526	\$45,199	95.0%	\$8,100	\$42,939
Totals	\$944,352	\$100,040		\$786,380	\$91,389

Source: City staff input

Note: Reimbursement and Improvement fee shares calculated based on percent which either makes up of total TSDC



Improvement Fee Cost Basis

◆ Projects allocated to improvement fee

- Most SDC-eligible projects serve current and future users proportionally, allocated by growth share
 - Growth share = 23.7%

Project Type	Local Cost in 2018	Growth Share	SDC-Eligible Cost
Pedestrian	\$20,205,000	23.7%	\$4,789,440
Bicycle	\$11,405,000	23.7%	\$2,703,468
Motor Vehicle	\$33,593,000	23.7%	\$7,962,963
Public Works Building	\$2,000,000	23.7%	\$474,085
Total	\$67,203,000	23.7%	\$15,929,955

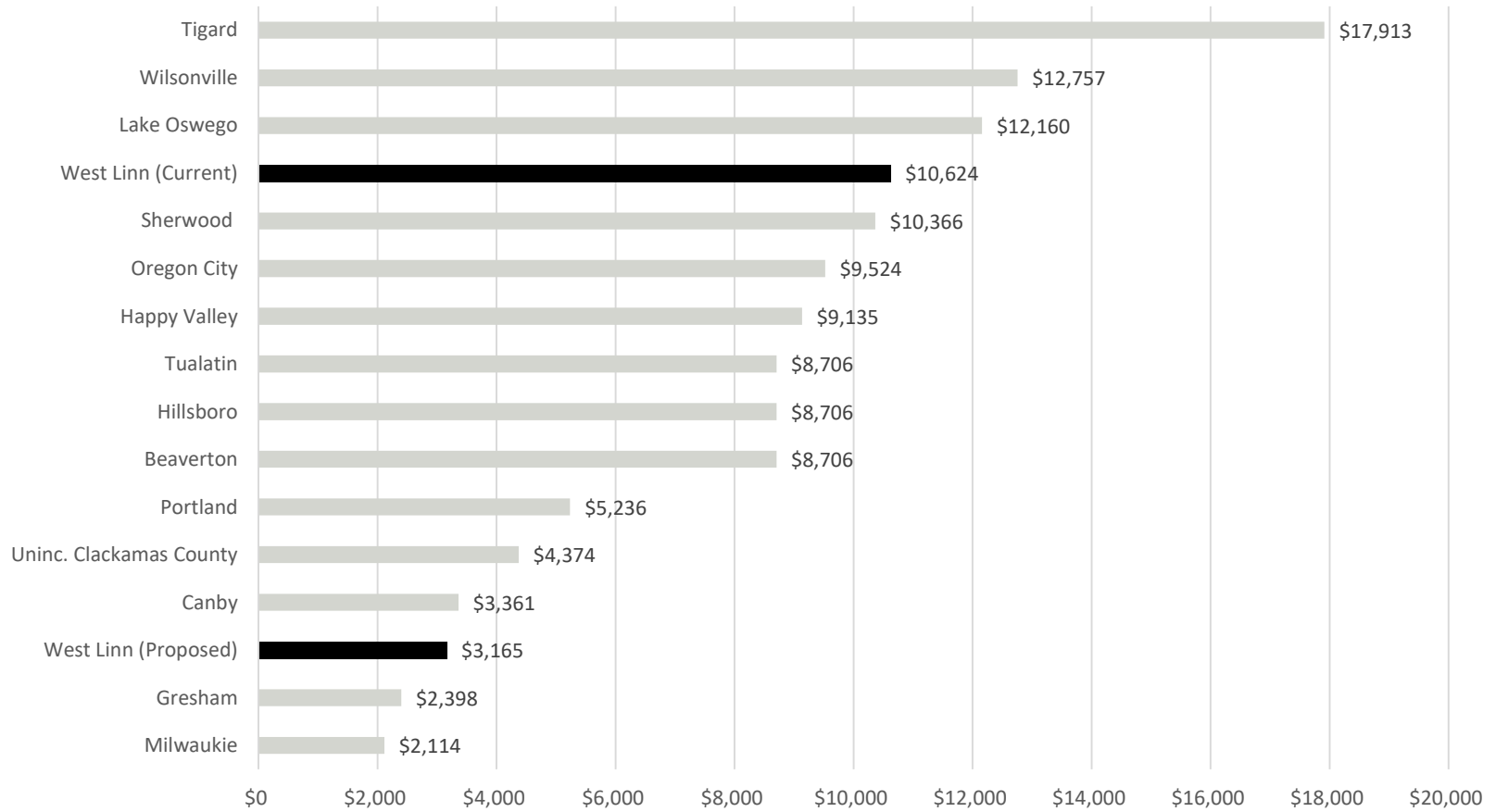
Source: 2016 West Linn Transportation System Plan, 2018-2023 CIP, staff input

Note: Numbers may not appear to add due to rounding



SDC Comparison

Total Transportation SDC by Jurisdiction



Doug Gabbard

Project Manager
(503) 252-3001

Contact FCS GROUP:

(425) 867-1802

www.fcsgroup.com

West Linn Pedestrian Crossing Guidelines

Transportation Advisory Board Meeting

March 20, 2019



SHAPING A SMARTER
TRANSPORTATION EXPERIENCE™

Background

- What was the motivation for this project?
 - A need for consistency
 - Crossing locations
 - Treatment types
 - Implementation (Prioritization and funding allocation)
 - A need for a process to address citizen requests



Background

- How were the guidelines developed?
 - Based on national research and best practices
 - ODOT Pedestrian Bicycle Safety Implementation Plan, 2014
 - NCHRP Report 562: Improving Pedestrian Safety at Unsignalized Crossings, 2006
 - Guide to Improving Pedestrian Safety at Unsignalized Crossings, FHWA, 2017
 - Highway Safety Manual, AASHTO, 2010
 - Designing Walkable Urban Thoroughfares: A Context Sensitive Approach, ITE, 2010
 - City of Salem and City of Austin (TX) safer crossings programs

Pedestrian Crossing Guidelines

- What do the Guidelines consist of?
 - Documentation and tools to effectively and consistently:
 - Identify appropriate locations for crossings
 - Select appropriate crossing treatments
 - Prioritize implementation of crossings
 - Three tools for staff:
 - Pedestrian Crossing Guidelines
 - Pedestrian Crossing Treatment Toolbox
 - Pedestrian Crossing Evaluation and Prioritization Spreadsheet

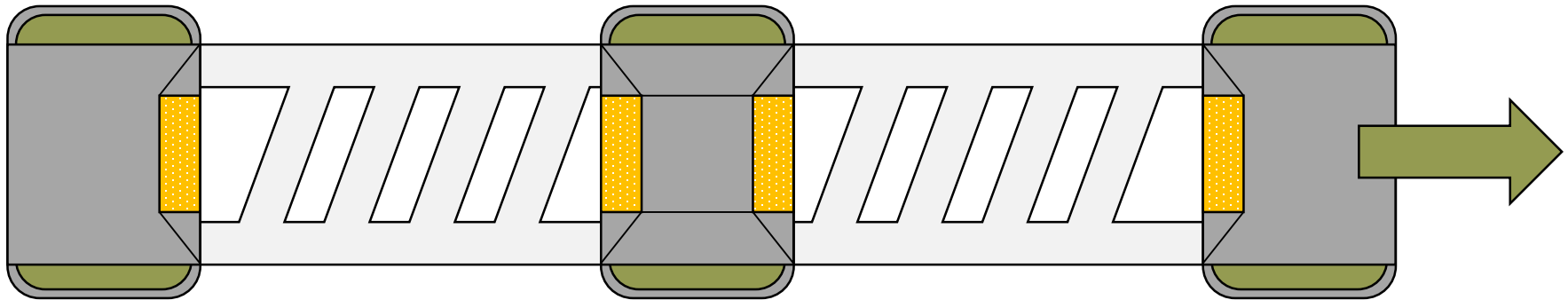
Process Roadmap

1. Begin Study

- Staff identified concern
- Community request

3. Ensure location meets 3 or more **Pedestrian Crossing Warrant** criteria (Table 1)

5. Enter location data into **Ranking Spreadsheet** to score and prioritize



2. Collect Data

- Crash records
- Traffic speed and volume
- Pedestrian demand and nearby destinations

4. Utilize **Crossing Treatment Matrix** (Table 2) and **Pedestrian Crossing Toolbox** to identify best treatment

Moving Forward

- *Identify funding sources*
- *Perform any required analysis*
- *Develop implementation plan*

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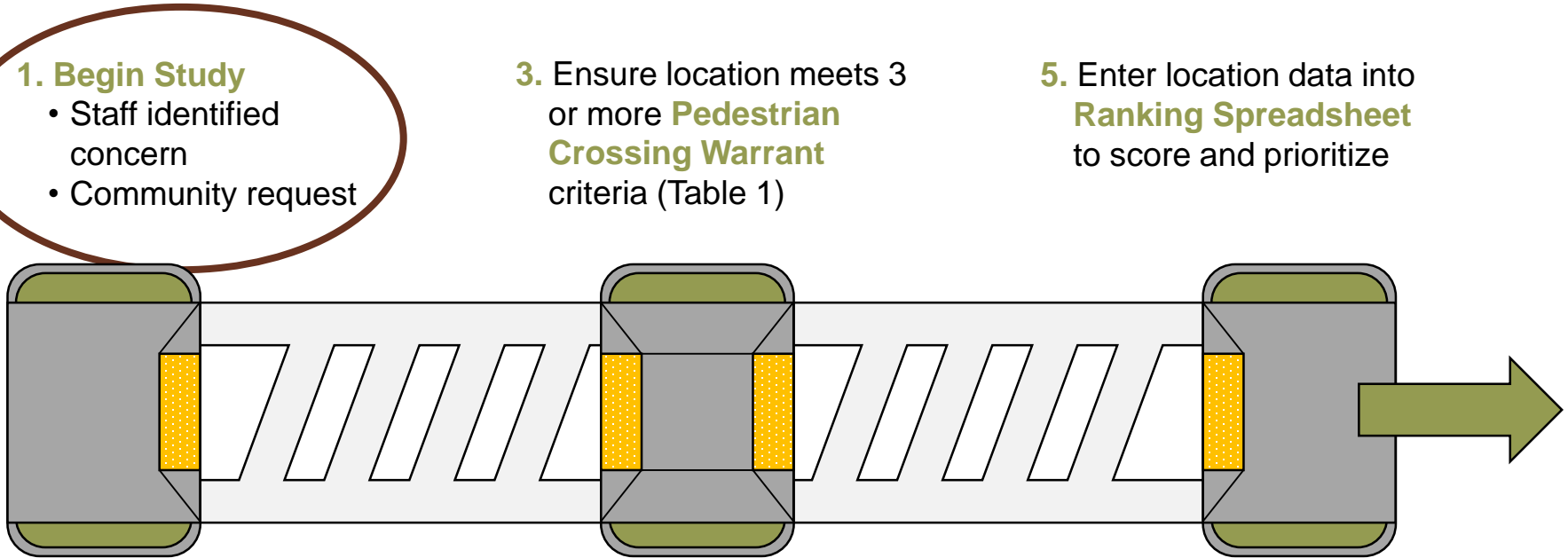
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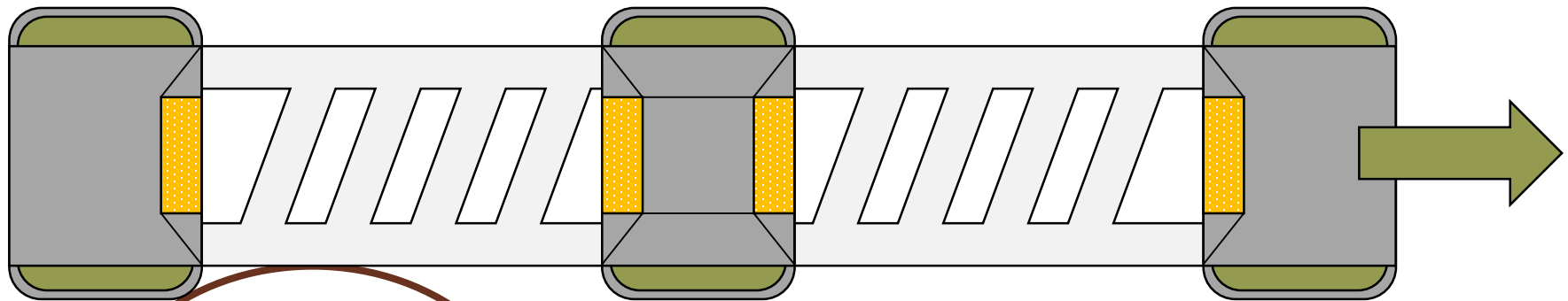
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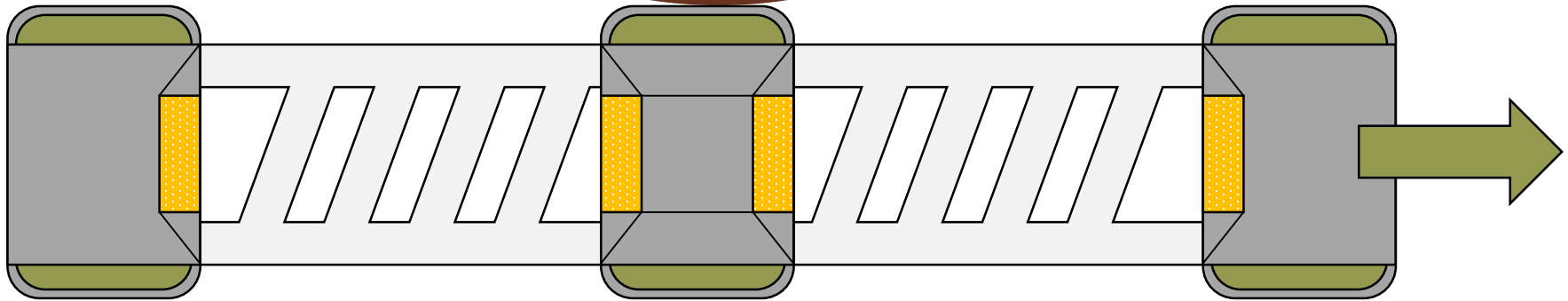
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Crossing Warrant Checklist

Criteria	No	Yes
One or more documented crash involving a pedestrian in the last three years		
Pedestrian crossing volume is greater than 14 pedestrians during a peak hour		
The posted speed on the roadway is 35 mph or higher		
The roadway has three or more through lanes AND the volume exceeds 10,000 (with a median) or 8,000 (without a median) vehicles per day		
The current spacing between desirable pedestrian crossings (without the crossing in question) is greater than 800 feet		
The crossing would serve a vulnerable population (school, senior center, community center, etc.)		
The crossing would connect two or more pedestrian generators/attractions		
The City has received three or more requests for crossing enhancements at this location		

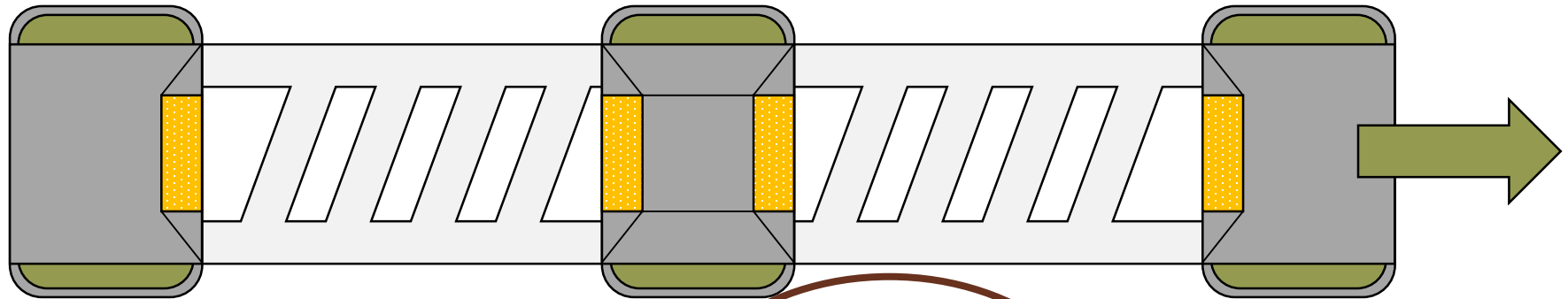
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Crossing Treatment Matrix

AADT	Posted Speed	Cross-section		
		2 lane	3 lane	≥ 4 lane
≤ 9,000	≤ 25 mph			
	≤ 35 mph			
	> 35 mph			
≤ 15,000	≤ 25 mph			
	≤ 35 mph			
	> 35 mph			
> 15,000	≤ 25 mph			
	≤ 35 mph			
	> 35 mph			



Increased Pedestrian Visibility = Crosswalk markings, signage, illumination



Reduced Pedestrian Conflict Time = Curb extensions, pedestrian refuge islands



Vehicle Control = RRFB, Pedestrian Signal, Traffic Signal

Crossing Treatment Toolbox

Crosswalk Markings and Advanced Warning Signs

Source: ODOT CRF Appendix – BP11, 2018

What it is: A marked crosswalks use pavement markings to indicate optimal or preferred locations for pedestrians to cross and help designate right-of way for motorists to yield to pedestrians.



Example of Crosswalk Markings with Advanced Warning Signs (ODOT CRF Appendix)

Where to use:

- **Facility Type** – Intersections or mid-block
- **Crash Record Indicators** – Higher frequency of pedestrian crashes or vehicles crashes caused by pedestrians.
- **Diagnosis/Causality** – High demand for pedestrian crossing due to land use (schools, recreational, commercial) or transportation connections such as bus stops; lack of nearby marked crosswalks

Why it works: Crosswalks concentrate pedestrian crossings at locations and provide higher visibility, increasing driver awareness of pedestrian crossing.

Relevant Crash Data: Pedestrian crashes for all severity

Expected Crash Reduction (ODOT CRF Value): 15%

Constraints:

- Pedestrians prefer not to walk too far for a crossing, so crossings need to be convenient and locations chosen carefully
- Too many and unnecessary marked crosswalks on a segment of road has a high potential to result in driver complacency and reduced yielding compliance.

Marked crosswalks should not be used in isolation at high speed, high-volume, or wide cross-section locations.



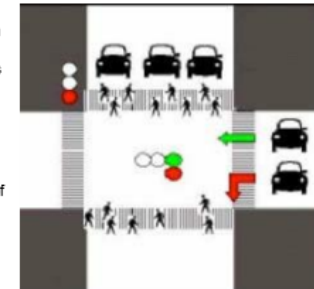
Flashing Yellow Arrow Restrictions during Pedestrian Phase

Source: ODOT CRF Appendix – BP4, 2018

What it is: Suppressing or delaying a flashing yellow arrow, which indicates a permissive left turn phase, when a pedestrian has pressed the pedestrian pushbutton and the pedestrian phase is activated.

Where to use:

- **Facility Type** – Signalized intersection
- **Crash Record Indicators** – Left turning vehicles failing to yield to pedestrian right of way
- **Diagnosis/Causality** – High volume of pedestrians crossing in conflict with left turning traffic or high frequency of left turning vehicles failing to yield to pedestrians during the flashing yellow arrow indication.



Example of Pedestrian Phase with Red Arrow indication. (ODOT CRF Appendix)

Why it works: Separation allows the pedestrian to cross the approach entirely before the flashing yellow arrow indication is displayed, thereby reducing potential vehicle to pedestrian conflicts.

Relevant Crash Data: Pedestrian crashes involving left-turning vehicles for all severity

Expected Crash Reduction (ODOT CRF Value): 37%

Constraints:

- Potential delay to left turning vehicles by implementing this countermeasure.
- Not all signal software will support thins programming
- Phasing requires pedestrian pushbuttons

This treatment is particularly effective at intersections with unique or skewed geometry that makes it more difficult for drivers to see approaching pedestrians.



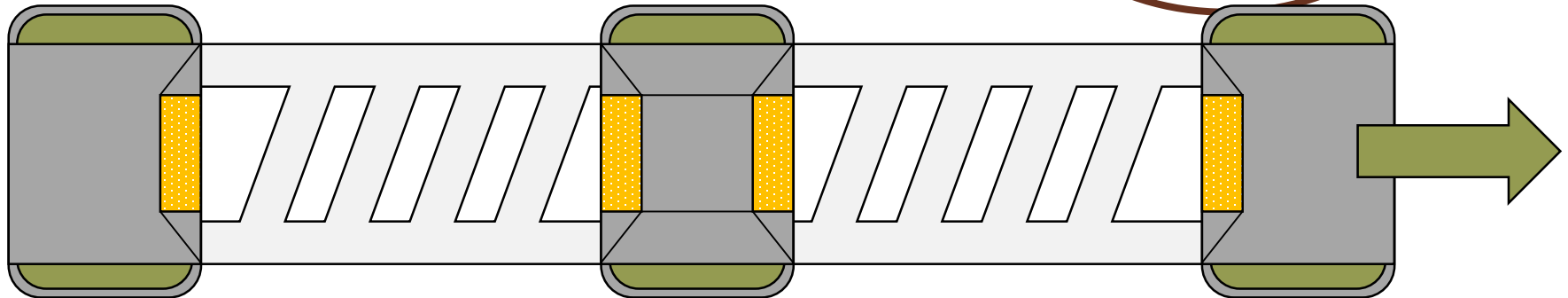
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Project Scoring



CITY OF WEST LINN
PUBLIC WORKS DEPARTMENT

Engineering Division
22500 Salamo Rd.
West Linn, OR 97068

Pedestrian Crossing Enhancement Audit and Rating

12/17/2018	Date
Street #1	Street Name
Street #1 Loc #1	Location
35	Posted Speed Limit (mph)
	85% Speed (mph) [blank if unknown]
10	Pedestrian Crossing Volume (Peak Hour)
80%	% crossing volume of children/elderly
15,000	Two-Way Vehicle ADT
12	Median Width (ft) [0 if none]
500	Distance to nearest marked crossing
2	Number of community requests for a crossing
5	# Collisions in 3 years
2	# Ped/Bike Collisions in 3 years
1	# of Accessible Schools, Parks, Community Centers, Senior Centers, and Transit Stops located within 1000'
1	# of Elementary or Middle Schools located within 1000'

91

SCORE

Table 1-1 Roadway Rating Criteria		
Criteria	Score	Basis
Crash History	35	5 pts for each collision in a three year period within 1000' of the project area along the subject street segment and 5 more points for each pedestrian/bicycle collision
Pedestrian Crossing Volume	20	20 pts if speeds are greater than 35 mph and at least 14 pedestrians during the peak hour or speeds are less than 35 mph and at least 20 pedestrians during the peak hour (1/3 less ped if children/elderly)
Bi-Directional Daily Traffic Volume	20	20 pts if ADT is greater than 10,000 with a median or if ADT is greater than 8,000 without a median
Distance to closest marked crossing	0	20 pts if nearest marked crossing is further than 660'
Pedestrian Generators	6	3 pts for every school, park, community center, or church located within 1000' of the project area
Community Need	10	5 points for every unique community request for a crossing (max 30)
Total Points	91	

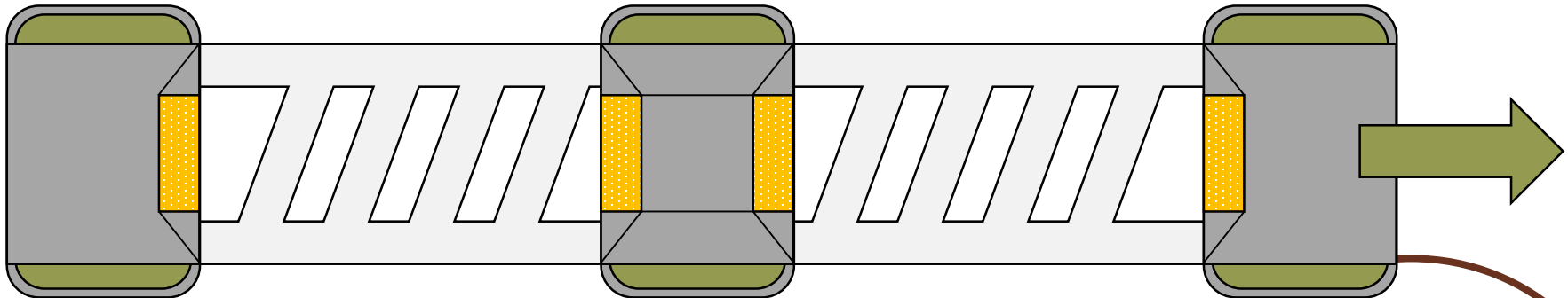
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Summary

- This project provides City staff with the tools needed to make consistent, effective decisions regarding pedestrian crossings.
- The tools can easily be updated to reflect the needs of the community and new research.
- The data-driven process allows for transparency; staff can provide updates on the status of a crossing request at any point in the process.

West Linn Safe Routes to School

Transportation Advisory Board Meeting
March 20, 2019



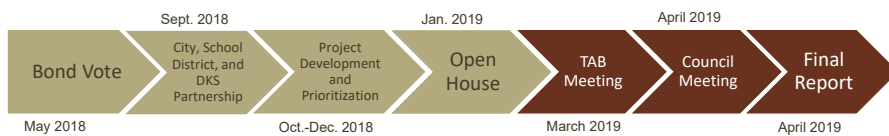
3/20/2019

Background

• Goals

- Evaluate and update existing Safe Routes to School plans
- Identify potential projects to improve the pedestrian network
- Prioritize the projects for funding based on expected benefits

• Timeline



3/20/2019

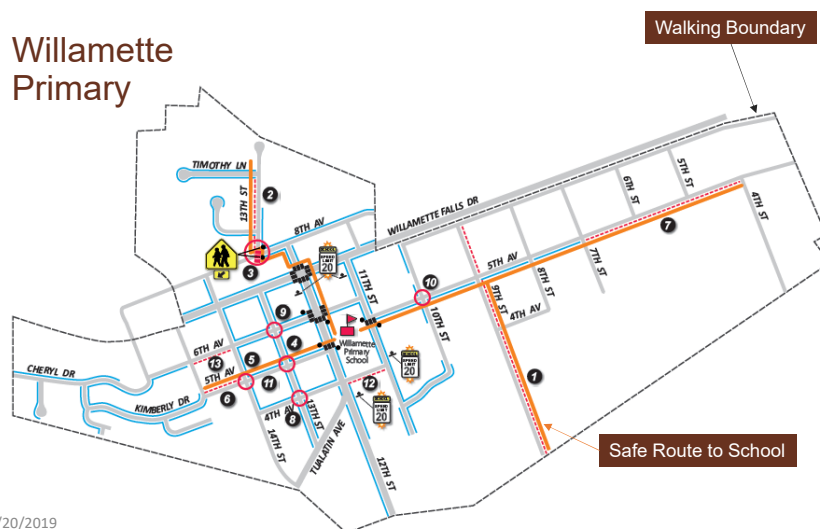
Background

- What is a Safe Route to School?
 - A safe walking and biking route to and from schools
 - Aims to make it safe, convenient, and fun for children to walk and bike to school
 - Defined only within the school walking boundary
- What is a Walking Boundary?
 - The subset of the enrollment zone in which students are **not** provided bus service
 - Typically ½ mile or 1-mile around an elementary school

3/20/2019

Background

- Willamette Primary



3/20/2019

Background

- What schools did we evaluate?

School	2018-2019 Enrollment
Bolton Primary	347
CedarOak Park Primary	283
Rosemont Ridge Middle	735
Sunset Primary	343
Trillium Creek Primary	578
Willamette Primary	524
Total Enrollment	2,810

These projects will directly impact over 10% of the 26,000 people that reside in West Linn.



3/20/2019

Project List Development

- How did we identify projects?
 - Field visits to each school to identify needs
 - West Linn TSP
 - Feedback from the community
- Focus on creating a continuous pedestrian network
 - Sidewalk infill and repair
 - Accessible curb ramps
 - Enhanced pedestrian crossings
 - Signing and lighting



Field visit on 5th Avenue near Willamette Primary

3/20/2019

Project List Prioritization

- Each project was scored using the following criteria

Safety (max 3)	Accessibility (max 2)	Connectivity (max 2)	Proximity (max 1)	TSP Project (max 1)
0 - negligible change in safety 2 - provides more ped awareness 3 - reduces ped-vehicle conflict points	0 - does not improve accessibility 2 - improves accessibility	0 - does not improve connectivity 1 - improves connectivity on one possible route 2 - improves connectivity on only possible route	0 - serves small portion of the walking boundary 1 - serves large portion of the walking boundary	0 - no 1 - yes

- Scoring was used to prioritize projects for each school

3/20/2019

Project List Refinement

- Preliminary project list was refined based on community feedback
 - Open House held at Trillium Creek Primary School on January 29, 2019.
 - 25-30 attendees
 - Great feedback from the community, including
 - Overall support for the process and projects
 - Safety was ranked most important factor for prioritization
 - Concerns about crossing Highway 43
 - Concerns about crossing Santa Anita Drive
 - Concerns about projects fitting in with the aesthetic of the neighborhood

3/20/2019

Current Project List

School	Number of Projects	Total Project Cost
Bolton Primary	9	\$580,000
Cedaroak Park Primary	13	\$6,730,000
Rosemont Ridge Middle	2	\$50,000
Sunset Primary	17	\$4,420,000
Trillium Creek Primary	4	\$380,000
Willamette Primary	14	\$2,200,000
Total	59	\$14,360,000

3/20/2019

Potential Funding Allocation

- How Far will \$1M go?
 - One full project, one partial project based on prioritization scoring

Project Number	Prioritization Score	Description	Cost Estimate
C1	9.0	Sidewalk infill on north side of Cedar Oak Drive (Trillium Dr. to Highway 43)	\$880,000
C2	9.0	Sidewalk infill on east side of Trillium Drive (Glen Terrace to Cedar Oak Dr.)	\$470,000
B4	8.0	Sidewalk infill on south side of Perrin Street (Lewis St. to end of Perrin St.)	\$100,000
S8	8.0	Sidewalk infill on west side of Sussex Street (Sunset Ave. to Oxford St.)	\$440,000
W2	8.0	Sidewalk infill on west side of 13 th Street (8 th Ave. to Timothy Ln.)	\$240,000

3/20/2019

Potential Funding Allocation

- How Far will \$1M go?
 - One high-priority project at each school

Project Number	Prioritization Score	Description	Cost Estimate
B4	8.0	Install sidewalk on south side of Perrin Street (Lewis St. to end of Perrin St.)	\$100,000
C2	8.0	Install sidewalk on east side of Trillium Drive (Glen Ter. To Cedar Oak Dr.)	\$470,000
R1	5.0	Pedestrian crossing improvement at Salamo Road/Hoodview Avenue	\$30,000
S1	7.0	Install sidewalk on Bittner Street (Long St. to Oxford St.)	\$110,000
T1	6.0	Pedestrian crossing improvement at Hidden Springs Road/Suncrest Drive	\$80,000
W2	8.0	Install sidewalk on west side of 13 th Street (8 th Ave to Timothy Ln.)	\$240,000
Total			\$1,030,000

3/20/2019

Potential Funding Allocation

- How Far will \$1M go?
 - All 23 signing, striping, accessible curb ramps, and pedestrian crossing improvements (including RRFBs)

Project Number	Prioritization Score	Description	Cost Estimate
see below	Ranges from 3.0 - 6.0	Includes projects at all six schools	Ranges from \$10K - \$110K
Total			\$940,000

Includes the following projects: B1, B5, B6, B7, B8, B9, C4, C13, R1, R2, S3, S9, S17, T1, T2, T3, W3, W4, W5, W8, W9, W10, and W14.

3/20/2019

Questions & Thoughts

- Are there any projects we missed?
- Are the prioritization criteria appropriate?
- How would you like to see the funding allocated?

3/20/2019

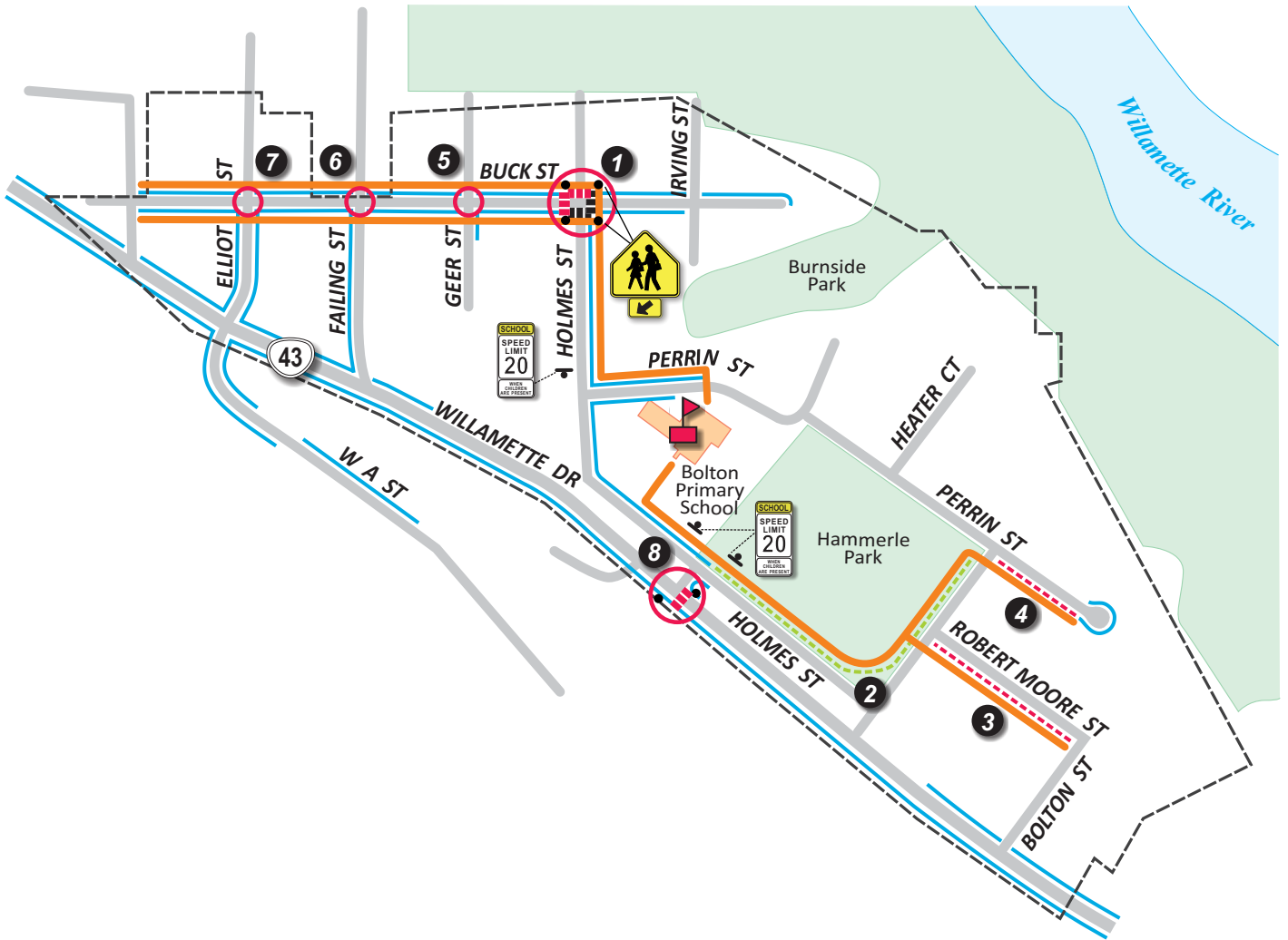
Legend

- Bolton Primary Safe Route to School
- - - Recommended Sidewalk Infill
- Recommended Pedestrian Crossing Improvements
- Recommended Crosswalk
- - - Recommended Off-Road Path
- # Project Number



Existing Conditions

- Existing Sidewalk
- Existing Crosswalk
- Crossing Sign
- ▲ School Speed Limit Sign
- - - Walking Boundary for Bolton Primary School



Bolton

Project #	Project Type	Roadway	From	To	Project Description	On Safe Route?	TSP?	Cost Estimate	Priority Scoring	Priority Ranking
B1	Signing and Striping	Holmes Street	Buck Street		add school crossing signs on west leg and crosswalk striping on west and north legs	Y	N	\$ 10,000	3.00	5
B2	Multi-use path installation	Perrin Street	Lewis Street	Bolton Primary	install asphalt path through Bolton Park off Holmes Street to serve houses east of school	Y	N	\$ 60,000	7.00	2
B3	Sidewalk Installation	Robert Moore Street	Bolton Street	Lewis Street	install sidewalk on north side	Y	N	\$ 120,000	7.00	2
B4	Sidewalk Installation	Perrin Street		end of Perrin Street	install sidewalk on south side	Y	Y	\$ 100,000	8.00	1
B5	Curb Ramp Installation	Buck Street	Gear Street		install curb ramps on all 4 corners	Y	N	\$ 80,000	3.00	5
B6	Curb Ramp Installation	Buck Street	Falling Street		install curb ramps on NE, NW, and SE corners (ADA curb ramps exist on SW corner)	Y	N	\$ 50,000	2.00	8
B7	Curb Ramp Installation	Buck Street	Elliott Street		ramp upgrade needed on NW and SW corner - currently useable	Y	N	\$ 30,000	2.00	8
B8	Ped Crossing Improvements	Willamette Drive	To Be Determined	To Be Determined	Install pedestrian refuge island, location to be coordinated with ODOT.	N	N	\$ 110,000	4.00	4
B9	Signing and Striping	Various			replace existing school speed limit signs with flashers	Y	N	\$ 20,000	3.00	5

TOTAL COST \$ 580,000

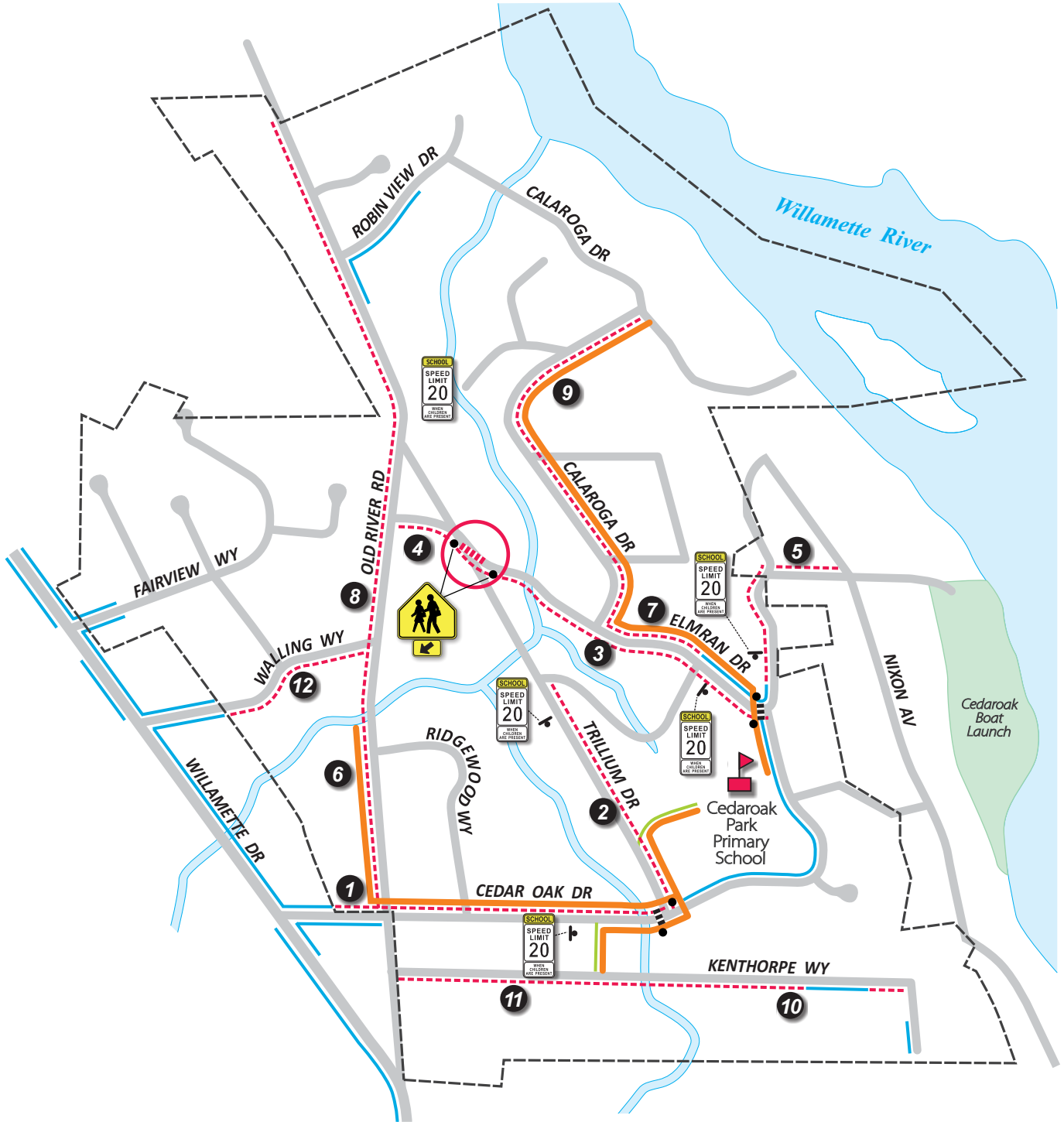
Legend

- Cedaroak Creek Primary Safe Route to School
- - - Recommended Sidewalk Infill
- Recommended Pedestrian Crossing Improvements
- ■ ■ Recommended Crosswalk
- # Project Number



Existing Conditions

- Existing Sidewalk
- Off-Road Path
- ■ ■ Existing Crosswalk
- Crossing Sign
- ▲ School Speed Limit Sign
- - - Walking Boundary for Cedaroak Creek Primary School



DKS

Figure 0

Recommended

Cedaroak Park Primary School Safe Routes to School

CedarOak

Project #	Project Type	Roadway	From	To	Project Description	On Safe Route?	TSP?	Cost Estimate	Priority Scoring	Priority Ranking
C1	Sidewalk Installation	Cedar Oak Drive	Trillium Drive	Highway 43	install sidewalk on north side	Y	P12	\$ 880,000	9.00	1
C2	Sidewalk Installation	Trillum Drive	Glen Terrace	Cedar Oak Drive	install sidewalk on east side	Y	P53	\$ 470,000	9.00	1
C3	Sidewalk Installation	Elmran Drive	Old River Road	Cedar Oak Drive	install sidewalk on south side	N	N	\$ 1,610,000	7.00	3
C4	Signing and Striping	Elmran Drive			add school crossing signs and crosswalk striping on south leg	N	N	\$ 10,000	3.00	12
C5	Sidewalk Installation	Elmran Drive	Cedar Oak Drive	Nixon Ave	install sidewalk on east/north side	N	N	\$ 510,000	6.00	10
C6	Sidewalk Installation	Old River Road	Cedar Oak Drive	creek	install sidewalk on west side	Y	N	\$ 350,000	6.00	10
C7	Sidewalk Installation	Elmran Drive	Glen Terrace	Calaroga Court	install sidewalk on north side	Y	N	\$ 160,000	7.00	3
C8	Sidewalk Installation	Old River Road	creek	Riverside Court	install sidewalk on west side	N	N	\$ 930,000	7.00	3
C9	Sidewalk Installation	Calaroga Drive	Elmran Drive	Calaroga Court	install sidewalk on east side	Y	N	\$ 640,000	7.00	3
C10	Sidewalk Installation	Kenthorpe Way	trail entrance	end	install sidewalk on south side where missing	N	N	\$ 450,000	7.00	3
C11	Sidewalk Installation	Kenthorpe Way	Old River Road	trail entrance	install sidewalk on south side	N	N	\$ 370,000	7.00	3
C12	Sidewalk Installation	Wailing Way	Old River Road	sidewalk	install sidewalk on south side	N	N	\$ 320,000	7.00	3
C13	Signing and Striping	Various			replace existing school speed limit signs with flashers	Y	N	\$ 30,000	3.00	12

TOTAL COST \$ 6,730,000

Legend

- Rosemont Ridge Primary Safe Route to School
- - - Recommended Sidewalk Infill
- Recommended Pedestrian Crossing Improvements
- Recommended Crosswalk
- # Project Number



No Scale

Existing Conditions

- Existing Sidewalk
- Off-Road Path
- Existing Crosswalk
- Crossing Sign
- ▲ Flashing School Speed Limit Sign
- Walking Boundary for Rosemont Ridge Primary School



DKS

Figure 0

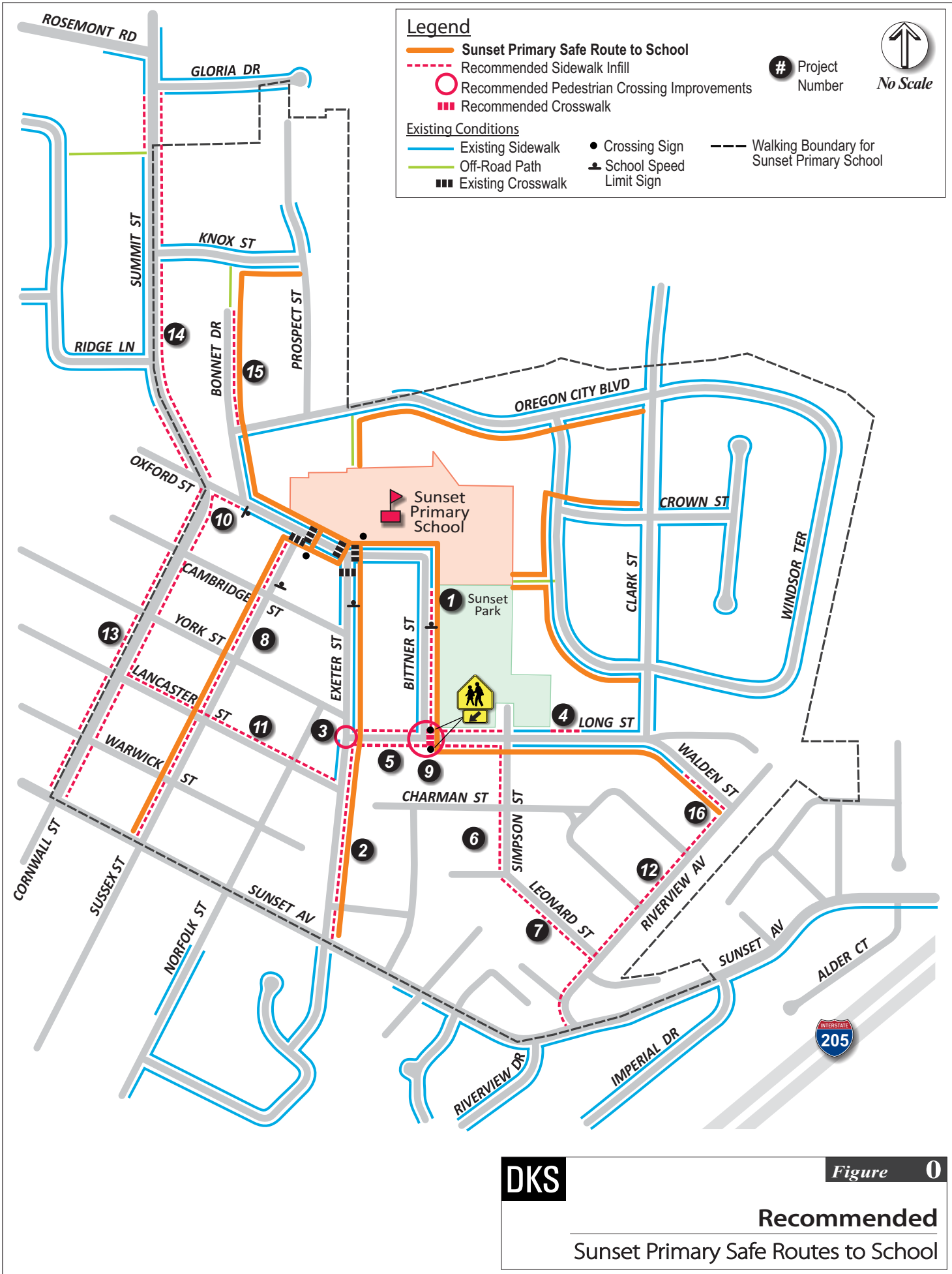
Recommended

Rosemont Ridge Middle School Safe Routes to School

Rosemont

Project #	Project Type	Roadway	From	To	Project Description	On Safe Route?	TSP?	Cost Estimate	Priority Scoring	Priority Ranking
R1	Ped Crossing Installation	Salamo Road	Hoodview Ave		extend NBLT to school driveway, add marked crosswalk & school crossing signage with pedestrian refuge on south side of intersection - recommend crossing guard	Y	N	\$ 30,000	5.00	1
R2	Signing and Striping	Rosemont Road	Salamo Road		install school crossing signs on all 4 legs	Y	N	\$ 20,000	5.00	1

TOTAL COST \$ 50,000



DKS

Figure 0


Recommended
Sunset Primary Safe Routes to School

Sunset

Project #	Project Type	Roadway	From	To	Project Description	On Safe Route?	TSP?	Cost Estimate	Priority Scoring	Priority Ranking
S1	Sidewalk Installation	Bittner Street	Long Street	Oxford Street	install sidewalk on east side	Y	N	\$ 110,000	7.00	2
S2	Sidewalk Installation	Exeter Street	Sunset Ave	Long Street	install sidewalk on east side	Y	P17	\$ 240,000	7.00	2
S3	Curb Ramp Installation	Exeter Street	Long Street		install curb ramps on each of Exeter Street	Y	N	\$ 40,000	2.00	17
S4	Sidewalk Installation	Long Street	Clark Street	Simpson Street	install sidewalk where missing on north side	N	P25	\$ 40,000	7.00	2
S5	Sidewalk Installation	Long Street	Simpson Street	Exeter Street	install sidewalk on both sides	Y	P24	\$ 300,000	7.00	2
S6	Sidewalk Installation	Simpson Street	Leonard Street	Long Street	install sidewalk on west side	N	N	\$ 200,000	7.00	2
S7	Sidewalk Installation	Leonard Street	Riverview Ave	Simpson Street	install sidewalk on west side	N	N	\$ 200,000	6.00	11
S8	Sidewalk Installation	Sussex Street	Sunset Ave	Oxford Street	install sidewalk on west side	Y	P51	\$ 440,000	8.00	1
S9	Signing and Striping	Long Street	Bittner Street		add school crossing signs and crosswalk striping on east leg	Y	N	\$ 10,000	3.00	15
S10	Sidewalk Installation	Oxford Street	Cornwall Street	Bonnet Drive	install sidewalk on south side	N	N	\$ 80,000	6.00	11
S11	Sidewalk Installation	Lancaster Street	Cornwall Street	Exeter Street	install sidewalk on north side	N	N	\$ 350,000	6.00	11
S12	Sidewalk Installation	Riverview Avenue	Walden Street	Sunset Ave	install sidewalk on west side	N	Y	\$ 370,000	7.00	2
S13	Sidewalk Installation	Cornwall Street		Oxford Street	install sidewalk on both sides	N	P14	\$ 940,000	7.00	2
S14	Sidewalk Installation	Summit Street		Oxford Street	install sidewalk on east side and where missing on west side	N	P46	\$ 820,000	7.00	2
S15	Sidewalk Installation	Bonnet Drive	beginning of rd	Oregon City Boulevard	install sidewalk on east side	Y	N	\$ 160,000	6.00	11
S16	Sidewalk Installation	Walden Street	Riverview Ave	Long Street	install sidewalk on west side	Y	Y	\$ 90,000	7.00	2
S17	Signing and Striping	Various			replace existing school speed limit signs with flashers	Y	N	\$ 30,000	3.00	15

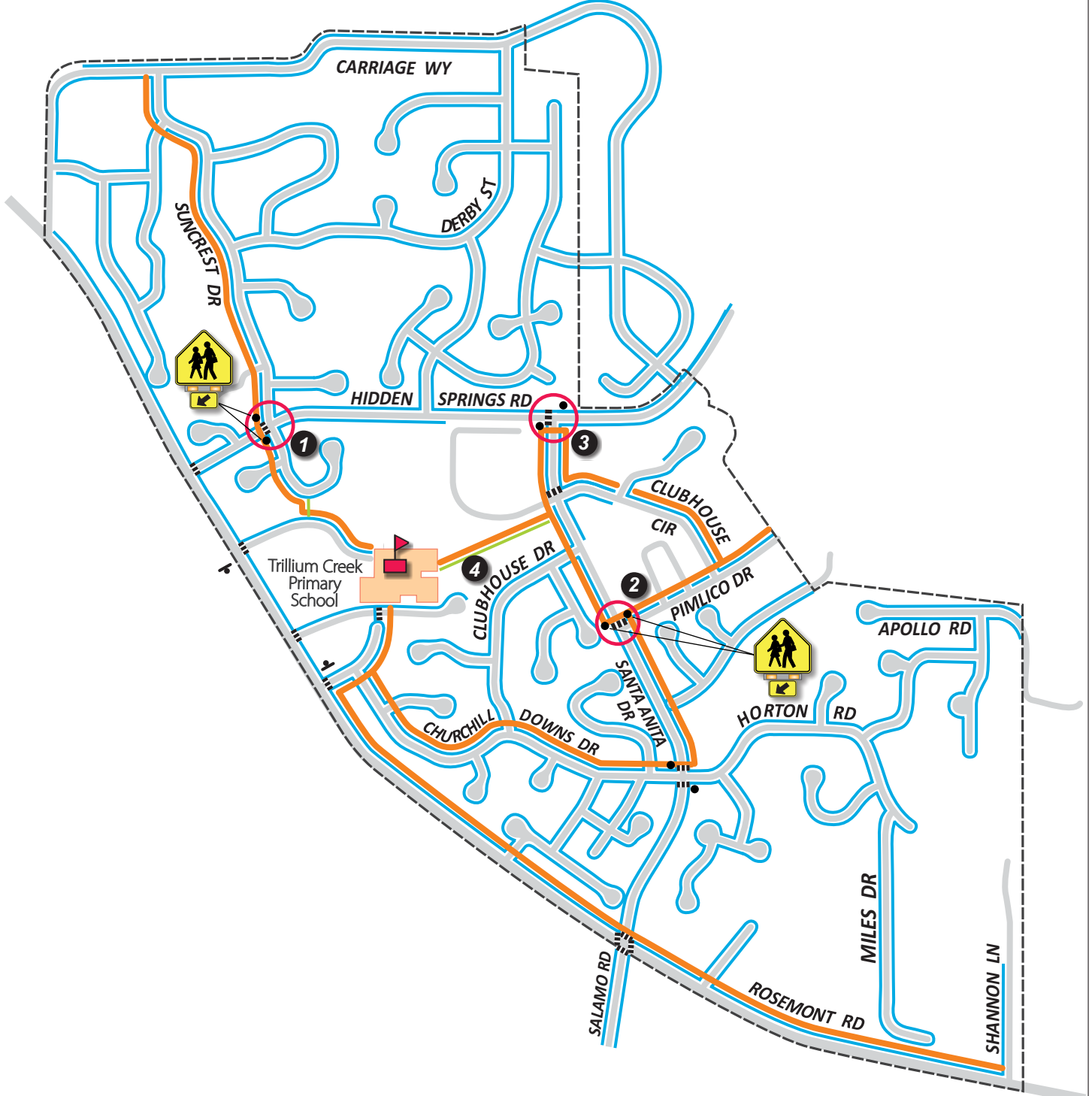
TOTAL COST \$ 4,420,000

Legend

- Trillium Creek Primary Safe Route to School
- - - Recommended Sidewalk Infill
- Recommended Pedestrian Crossing Improvements
- ■ ■ Recommended Crosswalk
- # Project Number
-  No Scale

Existing Conditions

- Existing Sidewalk
- Off-Road Path
- ■ ■ Existing Crosswalk
- Crossing Sign
- ▲ Flashing School Speed Limit Sign
- - - Walking Boundary for Trillium Creek Primary School



DKS

Figure 0

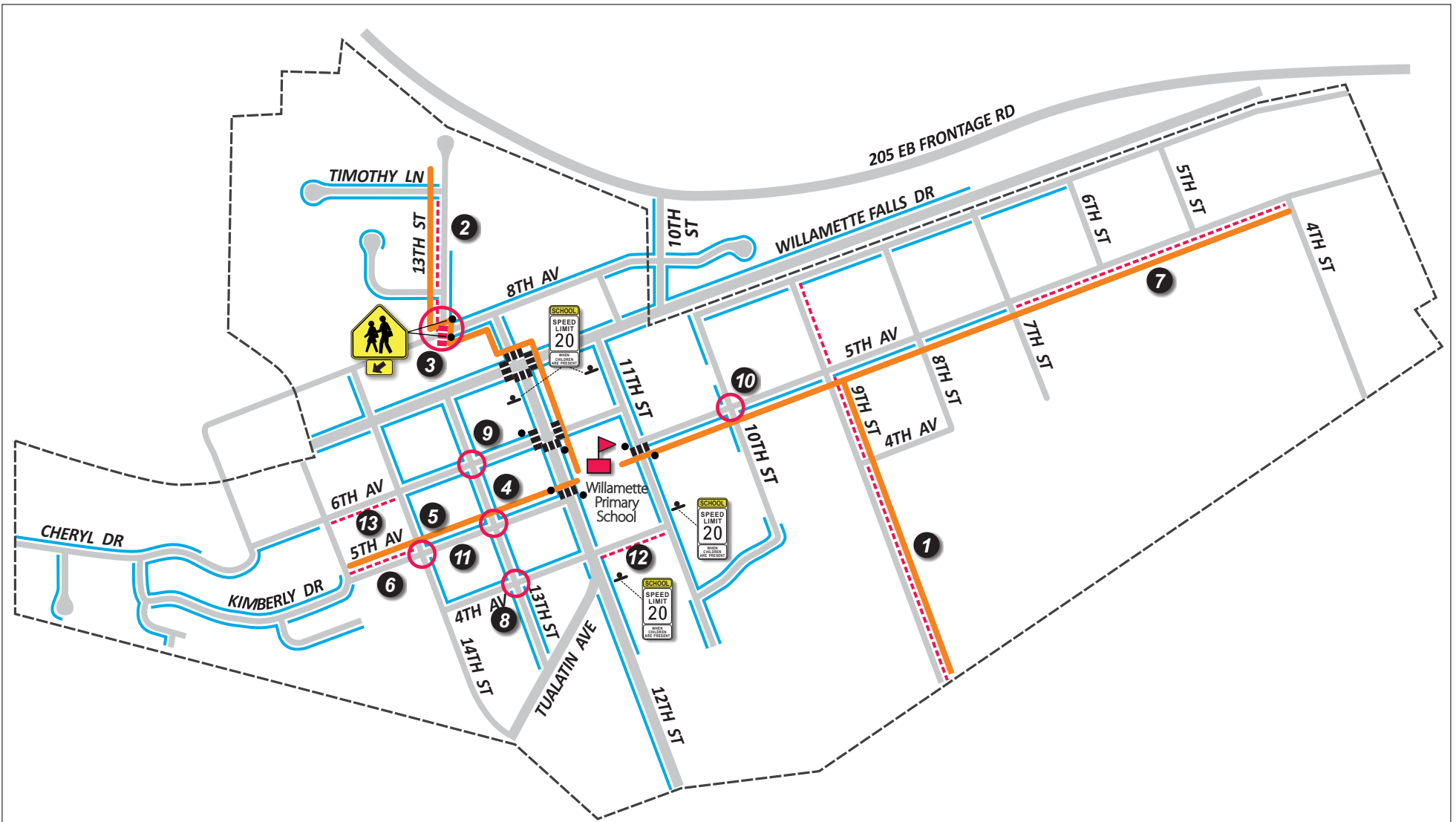
Recommended

Trillium Creek Primary School Safe Routes to School

Trillium

Project #	Project Type	Roadway	From	To	Project Description	On Safe Route?	TSP?	Cost Estimate	Priority Scoring	Priority Ranking
T1	Ped Crossing Improvements	Hidden Springs Road	Suncrest Drive		install curb ramp on NE corner, replace existing ped crossing signs with RRFB	Y	N	\$ 80,000	6.00	1
T2	Ped Crossing Improvements	Santa Anita Drive	Pimlico Drive		replace existing ped crossing signs with RRFB, improve lighting	Y	N	\$ 90,000	3.00	4
T3	Ped Crossing Improvements	Hidden Springs Road	Santa Anita Drive		install pedestrian refuge island, improve lighting	Y	N	\$ 40,000	4.00	3
T4	Off-path improvements	Off-road path on east side of Trillium			change path to asphalt and add lighting	Y	N	\$ 170,000	6.00	1

TOTAL COST \$ 380,000



Legend

- Willamette Primary Safe Route to School
- - - Recommended Sidewalk Infill
- Recommended Pedestrian Crossing Improvements
- ■ ■ Recommended Crosswalk
- # Project Number
- No Scale
- Existing Sidewalk
- Off-Road Path
- ■ ■ Existing Crosswalk
- Crossing Sign
- School Speed Limit Sign
- Walking Boundary for Willamette Primary School

DKS

Figure 0

Recommended
Willamette Primary Safe Routes to School

Willamette

Project #	Project Type	Roadway	From	To	Project Description	On Safe Route?	TSP?	Cost Estimate	Priority Scoring	Priority Ranking
W1	Sidewalk Installation	9th Street	Volpp Street	5th Ave	install sidewalk on east side	Y	N	\$ 870,000	7.00	2
W2	Sidewalk Installation	13th Street	8th Ave	Timothy Lane	install sidewalk on west side	Y	Y	\$ 240,000	8.00	1
W3	Signing and Striping	13th Street	8th Ave		add school crossing signs on east leg and crosswalk striping on east and north legs	Y	N	\$ 10,000	2.00	12
W4	Curb Ramp Installation	5th Ave	13th Street		install curb ramps at all 4 corners	Y	N	\$ 50,000	3.00	8
W5	Curb Ramp Installation	5th Ave	14th Street		install curb ramps at NE and SE corners	Y	N	\$ 50,000	3.00	8
W6	Sidewalk Installation	5th Ave	14th Street	15th Street	install sidewalk on north side	Y	N	\$ 90,000	7.00	2
W7	Sidewalk Installation	5th Ave	7th Street	4th Street	install sidewalk on south side	Y	N	\$ 390,000	6.00	6
W8	Curb Ramp Installation	13th Street	4th Ave		install curb ramps at NE, NW, SE corners	N	N	\$ 40,000	2.00	12
W9	Curb Ramp Installation	13th Street	6th Ave		install curb ramps at all 4 corners	N	N	\$ 50,000	2.00	12
W10	Curb Ramp Installation	5th Ave	10th Street		install curb ramps at SW and SE corners	Y	N	\$ 30,000	3.00	8
W11	Sidewalk repairs	5th Ave	12th Street	14th Street	sidewalk in poor condition - north side	Y	N	\$ 170,000	7.00	2
W12	Sidewalk Installation	4th Ave	11th Street	12th Street	install sidewalk on north side	N	N	\$ 90,000	7.00	2
W13	Sidewalk Installation	6th Ave	14th Street	15th Street	install sidewalk on north side	N	N	\$ 90,000	6.00	6
W14	Signing and Striping	Various			replace existing school speed limit signs with flashers	Y	N	\$ 30,000	3.00	8

TOTAL COST \$ 2,200,000