

Presented at City Council Workshop
April 20, 2017

Legend

✓ Work Completed

Longview School Zones Recommended Improvements

									Update Information by Longview Staff	
ID#	School	Treatment	Location	Reason	Cost	Unit of Cost	Quantity	Total Cost	Notes	Status
1	Columbia Valley Gardens Elementary	Change the school speed zone start time to 7:00 AM	School Speed Limit Assemblies on 30th Avenue	Citywide consistency	\$25	/sign	2	\$100	Change to "When Flashing" Jan 2017	✓ Paid by Traffic Budget
2	Columbia Valley Gardens Elementary	Replace SCHOOL plaque with arrow plaques (W16-5P or W16-6P) on School Zone Signs	School Zone Signs on Pine Street, Pennsylvania Street, and Pershing Way	MUTCD consistency Driver clarity	\$58	/sign	3	\$200		✓ Paid by Traffic Budget
3	Columbia Valley Gardens Elementary	Add pedestrian crossing sign (W11-2) and diagonal downward pointing arrow plaque (W16-7P)	Marked crosswalk at 30th Avenue/Premier Place	Driver awareness	\$316	/sign	2	\$700		✓ Paid by Traffic Budget
4	Columbia Valley Gardens Elementary	Install a marked mid-block crossing with longitudinal (high-visibility) markings, School Crossing Assemblies, and a RRFB	30th Avenue between Pine Street and Pennsylvania Street	School district recommendation	\$12,000	/crossing	1	\$12,000		School District Initiated Project
5	Columbia Valley Gardens Elementary	Remove the existing marked crossings and associated School Crossing Assemblies to encourage use of the mid-block crossing	Crossings at Pine Street and Pennsylvania Street	School district recommendation	\$250	/crossing	2	\$500		School District Initiated Project
6	Columbia Valley Gardens Elementary	Conduct an assessment of the illumination at the proposed midblock crossing to determine whether additional illumination is needed	Proposed crossing at 30th Avenue between Pine Street and Pennsylvania Street	Safety at proposed crossing	\$1,000	/evaluation	1	\$1,000		School District Initiated Project
7	Columbia Valley Gardens Elementary	<i>Curb extensions</i>	<i>Proposed crossing at 30th Avenue between Pine Street and Pennsylvania Street</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	\$5,000	<i>/curb extension</i>	2	\$10,000		School District Initiated Project
8	Columbia Valley Gardens Elementary	<i>Parking restrictions</i>	<i>Proposed crossing at 30th Avenue between Pine Street and Pennsylvania Street</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	\$144	<i>/sign</i>	4	\$600		School District Initiated Project
9	Columbia Valley Gardens Elementary	<i>Changeable Message/Speed Feedback Sign</i>	<i>School zone entrances on 30th Avenue</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	\$4,000	<i>/sign</i>	2	\$8,000		✓ Paid by Public Safety Fund
10	Columbia Valley Gardens Elementary	<i>Post coverings</i>	<i>School warning signs</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	\$300	<i>/sign</i>	5	\$1,500		Not recommended by Staff*
11	Columbia Valley Gardens Elementary	<i>Embedded LED sign borders</i>	<i>School zone entrances</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	\$2,750	<i>/sign</i>	2	\$5,500		Not recommended by Staff**
12	Columbia Valley Gardens Elementary	<i>School zone pavement markings</i>	<i>School zone entrances</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	\$500	<i>/marking</i>	2	\$1,000	<i>Assume used only at entrance to school zone</i>	Not recommended by Staff****
13	Kessler Elementary	Change the school speed zone start time to 7:00 AM	School Speed Limit Assemblies on 20th Avenue, 18th Avenue, and Kessler Boulevard	Citywide consistency	\$25	/sign	5	\$200	Change to "When Flashing" Jan 2017	✓ Paid by Traffic Budget
14	Kessler Elementary	Add additional signage or crossing treatments, such as embedded LED signs or RRFB (requires additional study).	Intersection of Beech Street/20th Avenue	Driver awareness of crossing	\$12,000	/treatment	1	\$12,000		✓ Paid by Public Safety Fund and Grant
15	Kessler Elementary	Add speed limit sign at end of school speed zone	18th Avenue north of Delaware Street	Indicate end of school zone	\$173	/sign	1	\$200		✓ Paid by Traffic Budget
16	Kessler Elementary	Replace SCHOOL plaque with arrow plaques (W16-5P or W16-6P) on School Zone Signs	Delaware Street (approaching both 18th Avenue and 20th Avenue) and on 21st Avenue	Indicate direction of school zone Driver awareness	\$58	/sign	3	\$200		✓ Paid by Traffic Budget
17	Kessler Elementary	Consider adding School Zone Sign Assembly (S1-1 w/ SCHOOL plaque) to indicate to drivers that they are still in a school speed zone after turning	18th Avenue and 20th Avenue north of Kessler Boulevard	Indicate school zone Driver awareness	\$259	/sign	2	\$600		✓ Paid by Traffic Budget
18	Kessler Elementary	<i>Curb extensions</i>	<i>Crossings at 20th Avenue/Kessler Boulevard and 18th Avenue/Kessler Boulevard</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	\$5,000	<i>/curb extension</i>	4	\$20,000		Further Evaluation Needed
19	Kessler Elementary	<i>Changeable Message/Speed Feedback Sign</i>	<i>School zone entrances on Kessler Boulevard</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	\$4,000	<i>/sign</i>	2	\$8,000	<i>Assumed used at higher speed entrances to school zone</i>	✓ Paid by Public Safety Fund
20	Kessler Elementary	<i>Post coverings</i>	<i>School warning signs</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	\$300	<i>/sign</i>	8	\$2,400		Not recommended by Staff*
21	Kessler Elementary	<i>Embedded LED sign borders</i>	<i>School zone entrances</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	\$2,750	<i>/sign</i>	6	\$16,500		Not recommended by Staff**
22	Kessler Elementary	<i>School zone pavement markings</i>	<i>School zone entrances</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	\$500	<i>/marking</i>	6	\$3,000	<i>Assume used only at entrance to school zone</i>	Not recommended by Staff****
23	Mint Valley Elementary	Change the school speed zone start time to 7:00 AM	School Speed Limit Assemblies on 38th Avenue	Citywide consistency	\$25	/sign	2	\$100	Change to "When Flashing" Jan 2017	✓ Paid by Traffic Budget

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Longview School Zones Recommended Improvements

Longview School Zones Recommended Improvements									Update Information by Longview Staff	
ID#	School	Treatment	Location	Reason	Cost	Unit of Cost	Quantity	Total Cost	Notes	Status
24	Mint Valley Elementary	Replace SCHOOL plaque with arrow plaques (W16-5P or W16-6P) on School Zone Signs	Pennsylvania Street (approaching 38th Avenue)	Indicate direction of school zone Driver awareness of school zone	\$58	/sign	2	\$200		✓ Paid by Traffic Budget
25	Mint Valley Elementary	Replace sign on in-street cone and sign with MUTCD compliant In-Street Sign (R1-6a, R1-6c, or S1-1 and W16-7P) at pedestrian crossing		MUTCD compliance	\$86	/sign	1	\$100		School District Responsibility
26	Mint Valley Elementary	<i>Curb extensions</i>	<i>Crossing at Pennsylvania Street/38th Avenue</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$5,000</i>	<i>/curb extension</i>	<i>2</i>	<i>\$10,000</i>		Further Evaluation Needed
27	Mint Valley Elementary	<i>Changeable Message/Speed Feedback Sign</i>	<i>School zone entrances on 38th Avenue</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$4,000</i>	<i>/sign</i>	<i>2</i>	<i>\$8,000</i>	<i>Assumed used at entrances to school zone</i>	✓ Paid by Public Safety Fund
28	Mint Valley Elementary	<i>Post coverings</i>	<i>School warning signs</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$300</i>	<i>/sign</i>	<i>6</i>	<i>\$1,800</i>		Not recommended by Staff*
29	Mint Valley Elementary	<i>Embedded LED sign borders</i>		<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$2,750</i>	<i>/sign</i>	<i>4</i>	<i>\$11,000</i>		Not recommended by Staff**
30	Mint Valley Elementary	<i>School zone pavement markings</i>	<i>School zone entrances</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$500</i>	<i>/marking</i>	<i>2</i>	<i>\$1,000</i>	<i>Assume used only at entrance to school zone</i>	Not recommended by Staff****
31	Olympic Elementary	Replace SCHOOL plaque with arrow plaques (W16-5P or W16-6P) on School Zone Signs	Hemlock Street, Hawthorne Street, and Hudson Street	Indicate direction of school zone Driver awareness of school zone	\$58	/sign	4	\$300		✓ Paid by Traffic Budget
32	Olympic Elementary	Add pedestrian crossing sign (W11-2) and diagonal downward pointing arrow plaque (W16-7P)	Crossings on 30th Avenue	Driver awareness of crossing locations	\$316	/sign	4	\$1,300		✓ Paid by Traffic Budget
33	Olympic Elementary	Replace sign on in-street cone and sign with MUTCD compliant In-Street Sign (R1-6a, R1-6c, or S1-1 and W16-7P) at pedestrian crossing		MUTCD compliance	\$86	/sign	1	\$100		School District Responsibility
34	Olympic Elementary	Move the advance warning signs with flashing beacons farther from crosswalk (i.e. 200 feet) to provide more warning for drivers.	Crosswalk at 30th Avenue/Hudson Street	Provide more advance warning for drivers	\$400	/sign	2	\$800		Not recommended by Staff
35	Olympic Elementary	<i>Curb extensions</i>	<i>Crossing at 30th Avenue/Hudson Street</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$5,000</i>	<i>/curb extension</i>	<i>4</i>	<i>\$20,000</i>		Further Evaluation Needed
36	Olympic Elementary	<i>Changeable Message/Speed Feedback Sign</i>	<i>School zone entrances on 30th Avenue</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$4,000</i>	<i>/sign</i>	<i>2</i>	<i>\$8,000</i>	<i>Assumed used at entrances to school zone</i>	✓ Paid by Public Safety Fund
37	Olympic Elementary	<i>Post coverings</i>	<i>School warning signs</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$300</i>	<i>/sign</i>	<i>8</i>	<i>\$2,400</i>		Not recommended by Staff*
38	Olympic Elementary	<i>Embedded LED sign borders</i>		<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$2,750</i>	<i>/sign</i>	<i>4</i>	<i>\$11,000</i>		Not recommended by Staff**
39	Olympic Elementary	<i>School zone pavement markings</i>	<i>School zone entrances</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$500</i>	<i>/marking</i>	<i>2</i>	<i>\$1,000</i>	<i>Assume used only at entrance to school zone</i>	Not recommended by Staff****
40	St Helens Elementary	Change the school speed zone start time to 7:00 AM	School Speed Limit Assemblies on Westbound Baltimore Street, Beech Street/30th Avenue, Southbound 27th Avenue, 28th Avenue	Citywide consistency	\$25	/sign	5	\$200	Change to "When Flashing" Jan 2017	✓ Paid by Traffic Budget
41	St Helens Elementary	Replace SCHOOL plaque with arrow plaques (W16-5P or W16-6P) on School Zone Signs	27th Avenue, 28th Avenue, and 29th Avenue	Indicate direction of school zone Driver awareness of school zone	\$58	/sign	3	\$200		✓ Paid by Traffic Budget
42	St Helens Elementary	Consider adding School Zone Sign Assembly (S1-1 w/ SCHOOL plaque) to indicate to drivers that they are still in a school speed zone after turning	27th Avenue north of Beech Street, on 28th Avenue north of Beech Street, and on Baltimore Street east of 26th Avenue	Indicate location of school zone	\$259	/sign	3	\$800		✓ Paid by Traffic Budget
43	St Helens Elementary	Convert crosswalk markings to longitudinal (high-visibility) markings	Baltimore Street legs of crosswalk at 27th Avenue/Baltimore Street	Driver awareness of crossing location	\$2,500	/intersection	0.5	\$1,300		✓ Paid by Public Safety Fund
44	St Helens Elementary	Add SCHOOL plaque (S4-3P) to school zone sign	Westbound Baltimore in advance of crossing at Baltimore Street/27th Avenue	MUTCD compliance	\$38	/sign	1	\$100		✓ Paid by Traffic Budget
45	St Helens Elementary	<i>Curb extensions</i>	<i>Crossings at Beech Street/28th Avenue and Beech Street/27th Avenue</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$5,000</i>	<i>/curb extension</i>	<i>12</i>	<i>\$60,000</i>		Further Evaluation Needed
46	St Helens Elementary	<i>Speed humps (requires additional evaluation)</i>		<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$5,000</i>	<i>/treatment</i>	<i>4</i>	<i>\$20,000</i>		Not recommended by Staff
47	St Helens Elementary	<i>Changeable Message/Speed Feedback Sign</i>	<i>School zone entrances on Beech Street/30th Avenue</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$4,000</i>	<i>/sign</i>	<i>2</i>	<i>\$8,000</i>	<i>Assumed used at higher speed entrances to school zone</i>	✓ Paid by Public Safety Fund

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Longview School Zones Recommended Improvements

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ID#	School	Treatment	Location	Reason	Cost	Unit of Cost	Quantity	Total Cost	Notes	Status
48	St Helens Elementary	Post coverings	School warning signs	Other Applicable Treatment for Enhanced School Area	\$300	/sign	18	\$5,400		Not recommended by Staff*
49	St Helens Elementary	Embedded LED sign borders		Other Applicable Treatment for Enhanced School Area	\$2,750	/sign	10	\$27,500		Not recommended by Staff**
50	St Helens Elementary	School zone pavement markings	School zone entrances	Other Applicable Treatment for Enhanced School Area	\$500	/marking	4	\$2,000	Assume used only at entrance to school zone	Not recommended by Staff****
51	Mark Morris High School	Add School Zone Sign with directional arrow plaque (W16-5P or W16-6P)	Exit from Triangle Shopping Center	Indicate direction of school zone Driver awareness of school zone	\$316	/sign	1	\$400		✓ Paid by Traffic Budget
52	Mark Morris High School	Remove Reduced School Speed Limit Ahead signs	15th Avenue	MUTCD compliance (Speed reduction is not greater than 10 mph)	\$50	/sign	2	\$100		✓ Paid by Traffic Budget
53	Mark Morris High School	Consider installation of a Pedestrian Hybrid Beacon	15th Avenue/Mark Morris Court	Other Applicable Treatment for Enhanced School Area	\$200,000	/intersection	1	\$200,000		✓ Traffic Signal installed.
54	Mark Morris High School	Consider installation of a Traffic Signal	15th Avenue/Mark Morris Court	Driver awareness of crossing	\$400,000	/intersection		\$0		✓ Paid by Pedestrian Safety Grant, Public Safety Fund and School District
55	Mark Morris High School	Changeable Message/Speed Feedback Sign	School zone entrances on 15th Avenue	Other Applicable Treatment for Enhanced School Area	\$4,000	/sign	2	\$8,000	Assumed used at entrances to school zone	✓ Paid by Public Safety Fund
56	Mark Morris High School	Post coverings	School warning signs	Other Applicable Treatment for Enhanced School Area	\$300	/sign	5	\$1,500		Not recommended by Staff*
57	Mark Morris High School	Embedded LED sign borders		Other Applicable Treatment for Enhanced School Area	\$2,750	/sign	2	\$5,500		Not recommended by Staff**
58	Mark Morris High School	School zone pavement markings	School zone entrances	Other Applicable Treatment for Enhanced School Area	\$500	/marking	4	\$2,000	Assume used only at entrance to school zone	Not recommended by Staff****
59	Broadway Learning Center	Change Reduced School Speed Zone assembly to “When Flashing” and install flashers. Limit flasher operation to near school start times.	School Speed Limit Assemblies on 7th Avenue, Maple Street, and Broadway Street	Increased driver awareness on higher speed roadway	\$5,000	/sign	4	\$20,000		✓ Paid by Public Safety Fund and Grant
60	Broadway Learning Center	Change the school speed zone start time to 7:00 AM	School Speed Limit Assemblies on 7th Avenue, Maple Street, and Broadway Street	Citywide consistency	\$25	/sign		\$0	Change to "When Flashing" Jan 2017	✓ Paid by Traffic Budget
61	Broadway Learning Center	Replace sign on in-street cone and sign with MUTCD compliant In-Street Sign (R1-6a, R1-6c, or S1-1 and W16-7P) at pedestrian crossing		MUTCD compliance	\$86	/sign	1	\$100		School District Responsibility
62	Broadway Learning Center	Replace Reduced Speed Ahead sign with MUTCD compliant sign (S4-5a)	7th Ave	MUTCD compliance	\$259	/sign	2	\$600		✓ Paid by Traffic Budget
63	Broadway Learning Center	Replace AHEAD plaques with SCHOOL (S4-3P) plaques	Maple Street and Broadway Street	MUTCD compliance	\$38	/sign	4	\$200		✓ Paid by Traffic Budget
64	Broadway Learning Center	Add speed limit sign at end of school speed zone	Broadway Street west of 7th Avenue	Indicate end of school zone	\$173	/sign	1	\$200		✓ Paid by Traffic Budget
65	Broadway Learning Center	Curb extensions	Crossing at 7th Avenue/Broadway Street	Other Applicable Treatment for Enhanced School Area	\$5,000	/curb extension	8	\$40,000		Further Evaluation Needed
66	Broadway Learning Center	Narrow lanes (requires additional evaluation)	Restripe 2,000 linear feet of roadway to narrow the lanes	Other Applicable Treatment for Enhanced School Area	\$2	/lf	4000	\$8,000		Further Evaluation Needed
67	Broadway Learning Center	Changeable Message/Speed Feedback Sign	School zone entrances on 7th Avenue	Other Applicable Treatment for Enhanced School Area	\$4,000	/sign	2	\$8,000	Assumed used at higher speed entrances to school zone	✓ Paid by Public Safety Fund and Grant
68	Broadway Learning Center	Post coverings	School warning signs	Other Applicable Treatment for Enhanced School Area	\$300	/sign	4	\$1,200		Not recommended by Staff*
69	Broadway Learning Center	Embedded LED sign borders		Other Applicable Treatment for Enhanced School Area	\$2,750	/sign	2	\$5,500		Not recommended by Staff**
70	Broadway Learning Center	School zone pavement markings	School zone entrances	Other Applicable Treatment for Enhanced School Area	\$500	/marking	4	\$2,000	Assume used only at entrance to school zone	Not Recommended by Staff****
71	Columbia Heights Elementary/ Cascade Middle School	Remove School Crossing signs	Parkview Drive/Laurel Park Drive	MUTCD compliance	\$50	/sign	2	\$100		✓ Paid by Traffic Budget
72	Columbia Heights Elementary/ Cascade Middle School	Remove School Speed Limit Assemblies	Parkview Drive/Laurel Park Drive.	MUTCD compliance	\$50	/sign	4	\$200		✓ Paid by Traffic Budget

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ID#	School	Treatment	Location	Reason	Cost	Unit of Cost	Quantity	Total Cost	Notes	Status
73	Columbia Heights Elementary/ Cascade Middle School	Remove AHEAD sign from S1-1 signs to convert to School Area	Parkview Drive/Laurel Park Drive.		\$50	/sign	2	\$100		✓ Paid by Traffic Budget
74	Columbia Heights Elementary/ Cascade Middle School	Add pedestrian crossing sign (W11-2) and diagonal downward pointing arrow plaque (W16-7P)	Parkview Drive/Columbia Heights Road and Hillcrest Drive/Columbia Heights Road	Driver awareness of pedestrian crossing	\$316	/sign	4	\$1,300		✓ Paid by Traffic Budget
75	Columbia Heights Elementary/ Cascade Middle School	Remove SCHOOL plaque on speed limit sign and replace with School Area signs (S1-1)	Parkview Drive	Clarity about speed limit and school area	\$259	/sign	2	\$600		✓ Paid by Traffic Budget
76	Columbia Heights Elementary/ Cascade Middle School	Post coverings	School warning signs	Other Applicable Treatment for Enhanced School Area	\$300	/sign	3	\$900		Not recommended by Staff*
77	Columbia Heights Elementary/ Cascade Middle School	Embedded LED sign borders		Other Applicable Treatment for Enhanced School Area	\$2,750	/sign	3	\$8,300		Not recommended by Staff**
78	Northlake Elementary	Change the school speed zone start time to 7:00 AM	School Speed Limit Assemblies on Olympia Way and 22nd Avenue	Citywide consistency	\$25	/sign	3	\$100	Change to "When Flashing" Jan 2017	✓ Paid by Traffic Budget
79	Northlake Elementary	Replace AHEAD plaques with SCHOOL (S4-3P) plaques	22nd Avenue and Olympia Way	MUTCD compliance	\$38	/sign	3	\$200		✓ Paid by Traffic Budget
80	Northlake Elementary	Remove Reduced School Speed Limit Ahead Signs	Olympia Way	MUTCD compliance (Speed reduction is not greater than 10 mph)	\$50	/sign	2	\$100		✓ Paid by Traffic Budget
81	Northlake Elementary	Remove School Crossing Assembly	Signalized intersection of Olympia Way/22nd Avenue.		\$50	/sign	3	\$200		✓ Paid by Traffic Budget
82	Northlake Elementary	Curb extensions	Crossing at Olympia Way/22nd Avenue	Other Applicable Treatment for Enhanced School Area	\$5,000	/curb extension	2	\$10,000		Further Evaluation Needed
83	Northlake Elementary	Changeable Message/Speed Feedback Sign	School zone entrances on Olympia Way	Other Applicable Treatment for Enhanced School Area	\$4,000	/sign	2	\$8,000	Assumed used at higher speed entrances to school zone	✓ Paid by Public Safety Fund
84	Northlake Elementary	Post coverings	School warning signs	Other Applicable Treatment for Enhanced School Area	\$300	/sign	3	\$900		Not recommended by Staff*
85	Northlake Elementary	Embedded LED sign borders		Other Applicable Treatment for Enhanced School Area	\$2,750	/sign	3	\$8,300		Not recommended by Staff**
86	Northlake Elementary	School zone pavement markings	School zone entrances	Other Applicable Treatment for Enhanced School Area	\$500	/marking	2	\$1,000	Assume used only at entrance to school zone	Not recommended by Staff****
87	Mt Solo Middle	Remove “End School Zone” sign on speed limit sign	Mt. Solo Road in northbound direction	Citywide consistency	\$50	/sign	1	\$100		✓ Paid by Traffic Budget
88	Mt Solo Middle	Install Reduced Speed Ahead signs	Mt Solo Road	Driver awareness and warning on higher speed road	\$259	/sign	2	\$600		Not recommended by Staff***
89	Mt Solo Middle	Replace AHEAD plaques with SCHOOL (S4-3P) plaques	Mt Solo Road	MUTCD compliance	\$38	/sign	2	\$100		✓ Paid by Traffic Budget
90	Mt Solo Middle	Change Reduced School Speed Zone assembly to “When Flashing” and install flashers. Limit flasher operation to near school start times.	Mt Solo Road	Increased driver awareness on higher speed roadway School district recommendation	\$5,000	/sign	2	\$10,000	Change to "When Flashing" Jan 2017	✓ Paid by Public Safety Fund and Grant
91	Mt Solo Middle	Add pedestrian crossing sign (W11-2) and diagonal downward pointing arrow plaque (W16-7P)	Crossings on Mt Solo Road at Horizon Court	Driver awareness of pedestrian crossing	\$316	/sign	2	\$700		✓ Paid by Traffic Budget
92	Mt Solo Middle	Add AHEAD placard (W16-9P) to pedestrian sign	Mt Solo Road in advance of crossing at Horizon Court	Driver advance warning of pedestrian crossing	\$58	/sign	1	\$100		✓ Paid by Traffic Budget
93	Mt Solo Middle	Changeable Message/Speed Feedback Sign	School zone entrances on Mt Solo Road	Other Applicable Treatment for Enhanced School Area	\$4,000	/sign	2	\$8,000	Assumed used at entrances to school zone	✓ Paid by Public Safety Fund and Grant
94	Mt Solo Middle	Post coverings	School warning signs	Other Applicable Treatment for Enhanced School Area	\$300	/sign	2	\$600		Not recommended by Staff*
95	Mt Solo Middle	Embedded LED sign borders		Other Applicable Treatment for Enhanced School Area	\$2,750	/sign	2	\$5,500		Not recommended by Staff**
96	Mt Solo Middle	School zone pavement markings	School zone entrances	Other Applicable Treatment for Enhanced School Area	\$500	/marking	2	\$1,000	Assume used only at entrance to school zone	Not recommended by Staff****
97	R.A. Long High/ Monticello Middle	Relocate School Zone Assembly	Assembly on Lilac Street - relocate east of 28th Avenue	School district recommendation	\$400	/sign	1	\$400		✓ Paid by Traffic Budget

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98	R.A. Long High/ Monticello Middle	Replace non-compliant School Crossing sign School Zone sign and SCHOOL plaque	Crossing at Lilac Street/28th Avenue	MUTCD compliance	\$297	/sign		\$0	Only consider if school zone on Lilac Street is not moved	✓ Paid by Traffic Budget
99	R.A. Long High/ Monticello Middle	Convert crosswalk markings to longitudinal (high-visibility) markings	East leg of Lilac Street/28th Avenue intersection	Driver awareness of pedestrian crossing	\$2,500	/intersection	0.25	\$700		✓ Paid by Traffic Budget
100	R.A. Long High/ Monticello Middle	<i>Curb extensions</i>		<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$5,000</i>	<i>/curb extension</i>	<i>8</i>	<i>\$40,000</i>		Further Evaluation Needed
101	R.A. Long High/ Monticello Middle	<i>Raised pedestrian crossings</i>		<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$10,000</i>	<i>/crossing</i>	<i>2</i>	<i>\$20,000</i>		<i>Not recommended by Staff¹</i>
102	R.A. Long High/ Monticello Middle	<i>Speed humps (requires additional evaluation)</i>		<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$5,000</i>	<i>/treatment</i>	<i>2</i>	<i>\$10,000</i>		<i>Not recommended by Staff¹</i>
103	R.A. Long High/ Monticello Middle	<i>Changeable Message/Speed Feedback Sign</i>	<i>Lilac Street</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$4,000</i>	<i>/sign</i>	<i>2</i>	<i>\$8,000</i>	<i>Assumed used at higher speed entrances to school zone</i>	<i>Not recommended by Staff²</i>
104	R.A. Long High/ Monticello Middle	<i>Post coverings</i>	<i>School warning signs</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$300</i>	<i>/sign</i>	<i>8</i>	<i>\$2,400</i>		<i>Not recommended by Staff*</i>
105	R.A. Long High/ Monticello Middle	<i>Embedded LED sign borders</i>		<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$2,750</i>	<i>/sign</i>	<i>6</i>	<i>\$16,500</i>		<i>Not recommended by Staff**</i>
106	R.A. Long High/ Monticello Middle	<i>School zone pavement markings</i>	<i>School zone entrances</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$500</i>	<i>/marking</i>	<i>6</i>	<i>\$3,000</i>	<i>Assume used only at entrance to school zone</i>	<i>Not recommended by Staff****</i>
107	Montessori Children’s House	Add School Area Signs (S1-1)	Laurel Road	Driver awareness of school activity	\$259	/sign	2	\$600		✓ Paid by Traffic Budget
108	Montessori Children’s House	Add AHEAD placard (W16-9P) to pedestrian sign	Crosswalk at Columbia Heights Road and Burdick Place	Driver advance warning of pedestrian crossing	\$58	/sign	1	\$100		✓ Paid by Traffic Budget
109	Montessori Children’s House	<i>Changeable Message/Speed Feedback Sign</i>	<i>Columbia Heights Road</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$4,000</i>	<i>/sign</i>	<i>2</i>	<i>\$8,000</i>		<i>Not recommended by Staff³</i>
110	Montessori Children’s House	<i>Post coverings</i>	<i>School warning signs</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$300</i>	<i>/sign</i>	<i>2</i>	<i>\$600</i>		<i>Not recommended by Staff*</i>
111	Montessori Children’s House	<i>Embedded LED sign borders</i>		<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$2,750</i>	<i>/sign</i>	<i>2</i>	<i>\$5,500</i>		<i>Not recommended by Staff**</i>
112	Three Rivers Christian School	<i>Changeable Message/Speed Feedback Sign</i>	<i>Pacific Way</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$4,000</i>	<i>/sign</i>	<i>2</i>	<i>\$8,000</i>		<i>Not recommended by Staff³</i>
113	Three Rivers Christian School	<i>Post coverings</i>	<i>School warning signs</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$300</i>	<i>/sign</i>	<i>1</i>	<i>\$300</i>		<i>Not recommended by Staff*</i>
114	St. Rose Catholic School	Consider removing School Zone on Nichols Boulevard	Nichols Boulevard	Pattern of school activity	\$50	/sign	6	\$300		✓ Paid by Traffic Budget
115	St. Rose Catholic School	Change Reduced School Speed Zone assembly to “When Flashing” and install flashers. Limit flasher operation to near school start times.	Nichols Boulevard	Increased driver awareness on higher speed roadway	\$5,000	/sign	2	\$10,000	Only if school zone on Nichols is retained	✓ Nichols School Zone Deleted
116	St. Rose Catholic School	Install Reduced Speed Ahead signs	Nichols Boulevard	Driver awareness and warning on higher speed road	\$259	/sign	2	\$600	Only if school zone on Nichols is retained	✓ Nichols School Zone Deleted
117	St. Rose Catholic School	Replace AHEAD plaques with SCHOOL (S4-3P) plaques	Nichols Boulevard	MUTCD compliance	\$38	/sign	2	\$100	Only if school zone on Nichols is retained	✓ Nichols School Zone Deleted
118	St. Rose Catholic School	Install advance warning signs (S1-1) with arrow plaques (W16-6P)	Washington Way approaches to Nichols Boulevard	Driver awareness of school zone location	\$316	/sign	2	\$700	Only if school zone on Nichols is retained	✓ Nichols School Zone Deleted
119	St. Rose Catholic School	Remove School Advance Crossing sign and replace with School Zone sign with arrow plaque (W16-6P)	Colorado Street	MUTCD compliance	\$374	/sign	1	\$400		✓ Paid by Traffic Budget
120	St. Rose Catholic School	Replace sign on in-street cone and sign with MUTCD compliant In-Street Sign (R1-6a, R1-6c, or S1-1 and W16-7P) at pedestrian crossing		MUTCD compliance	\$86	/sign	1	\$100		St Rose School Responsibility
121	St. Rose Catholic School	Convert crosswalk markings to longitudinal (high-visibility) markings	North leg of Colorado Street/26th Avenue intersection		\$2,500	/intersection	0.25	\$700		✓ Paid by Traffic Budget
122	St. Rose Catholic School	Remove School Crossing Assembly	Signalized intersection of Washington Way/26th Avenue/Nichols Boulevard		\$50	/sign	3	\$200		✓ Paid by Traffic Budget
123	St. Rose Catholic School	<i>Curb extensions</i>	<i>Crossing at 26th Avenue/Colorado Street</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$5,000</i>	<i>/curb extension</i>	<i>2</i>	<i>\$10,000</i>		Further Evaluation Needed
124	St. Rose Catholic School	<i>Speed humps (requires additional evaluation)</i>		<i>Other Applicable Treatment for Enhanced School Area</i>	<i>\$5,000</i>	<i>/treatment</i>	<i>4</i>	<i>\$20,000</i>		<i>Not Recommended by Staff¹</i>

Presented at City Council Workshop
April 20, 2017

Longview School Zones Recommended Improvements

									Update Information by Longview Staff	
ID#	School	Treatment	Location	Reason	Cost	Unit of Cost	Quantity	Total Cost	Notes	Status
125	St. Rose Catholic School	<i>Changeable Message/Speed Feedback Sign</i>	<i>School zone entrances on 26th Avenue</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	\$4,000	/sign	2	\$8,000		✓ Paid by Public Safety Fund and Grant
126	St. Rose Catholic School	<i>Post coverings</i>	<i>School warning signs</i>	<i>Other Applicable Treatment for Enhanced School Area</i>	\$300	/sign	5	\$1,500		<i>Not recommended by Staff*</i>
127	St. Rose Catholic School	<i>Embedded LED sign borders</i>		<i>Other Applicable Treatment for Enhanced School Area</i>	\$2,750	/sign	2	\$5,500		<i>Not recommended by Staff**</i>
128	Robert Gray Elementary	Remove School Crossing signs	46th Avenue/Ohio Street	MUTCD compliance	\$50	/sign	2	\$100		Forwarded recommendations to Cowlitz County
129	Robert Gray Elementary	Add speed limit sign at end of school speed zone	Westbound Ohio Street	Indicate end of school zone	\$173	/sign	1	\$200		Forwarded recommendations to Cowlitz County
130	Robert Gray Elementary	Add SCHOOL plaque (S4-3P) to school zone sign	46th Avenue in advance of School Speed Limit Assembly	MUTCD compliance	\$38	/sign	1	\$100		Forwarded recommendations to Cowlitz County

Note: Improvements in *italics* indicate other applicable treatments that could be considered for further enhancement.

*Post coverings not recommended because the treatments effectiveness doesn't significantly add to the safety of the schools zones vs. Flashers and Feedback Signs

**Maintenance history with LED sign borders has been suspect. Staff is concerned about the effectiveness and longevity. Treatment doesn't signifiantly add to the safety of the school zone vs. Flashers and Feeback Signs.

***Insuficient distant to place warning sign on Mt Solo Road between SR432 and beginning of school zone.

****SCHOOL ZONE pavement marking in the travel lanes was changed from recommended to not recommended because of the overwhelming effectiveness of the speed feedback signs.

¹ Street will likely not meet speed hump policy.

² Speed Feedback Signs are used on Arterials and Collector.

³ Street does not have a School Speed Zone Assembly. No reduction to 20 mph is in place.