



City of Kenmore - 18120 68th Avenue NE - P.O. Box 82607 - Kenmore, WA 98028
Phone: 425-398-8900 - Fax: 425-481-3236 - E-mail: cityhall@kenmorewa.gov

City of Kenmore
City Council Special Meeting Agenda
7:00 p.m., Monday, February 1, 2016
Kenmore City Hall, Council Chambers
18120 68th Ave. NE, Kenmore, WA 98028

If you have any questions or to confirm agenda items prior to the meeting, or if you require special accommodations, please call the City Clerk at 425-398-8900. You may also stop by City Hall at 18120 68th Avenue NE, Kenmore. Council agendas are also available on our website at www.kenmorewa.gov.

I. CALL MEETING TO ORDER

II. ROLL CALL

III. AGENDA APPROVAL

IV. FLAG SALUTE

V. CONSENT AGENDA

- A. The Following Checks are Approved for Payment:
Total Check Numbers 33728 through 33755: \$322,572.90
Payroll Check Number 8305: \$480.52
[Checks and Electronic Payments](#)
- B. Adopt Ordinance No. 16-0415 Addressing Microhousing
[Agenda Bill & Attachments](#)
- C. Approve Contract No. 16-C1502 with Macleod Reckord for Moorlands Park Improvements
[Agenda Bill & Attachments](#)
- D. Accept Result Definitions for Priority-Based Budgeting - Joanne Gregory, Finance & Administration Director
[Agenda Bill & Attachments](#)

VI. BUSINESS AGENDA

- A. Aquatic Weeds Discussion - Rob Karlinsey, City Manager, and Brennan Jernigan, Management Intern
[Agenda Bill & Attachment](#)
[PowerPoint Presentation](#)

- B. 62nd Avenue NE Corridor Improvements Project Update - Kris Overleese, Public Works Director/City Engineer, and John Vicente, Capital Projects Manager
[Agenda Bill & Attachments](#)
[PowerPoint Presentation](#)
- C. NE 202nd Safe Routes to School Project Update - Kris Overleese, Public Works Director/City Engineer, and John Vicente, Capital Projects Manager
[Agenda Bill & Attachments](#)
[PowerPoint Presentation](#)
- D. School Zone Cameras Discussion - Kris Overleese, Public Works Director/City Engineer, and Brett Schock, Traffic Engineer
[Agenda Bill & Attachments](#)
[PowerPoint Presentation](#)

VII. STAFF REPORT

VIII. COUNCILMEMBER REPORTS & COMMENTS

IX. ADJOURNMENT

Upcoming Meetings:

Tues., February 2, 2016 7:00 p.m. Planning Commission Regular Meeting
Mon., February 8, 2016 7:00 p.m. City Council Regular Meeting
Tues., February 16, 2016 7:00 p.m. City Council Regular (holiday schedule) Meeting

Voucher Certification and Approval

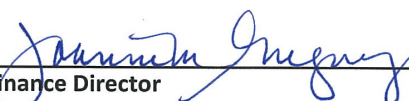
I, the undersigned, do hereby certify under penalty of perjury that the materials have been furnished, the services rendered or the labor performed as described herein, that any advance payment is due and payable pursuant to a contract or is available as an option for full or partial fulfillment of a contractual obligation, and that the claim is a just, due and unpaid obligation against the City of Kenmore and that I am authorized to authenticate and certify to said claim.

The following checks and electronic payments are approved for payment:

Total Check numbers: 33728 through 33755 \$ 322,572.90

Payroll check number: 8305 \$ 480.52

 1-19-16
 City Manager Date

 1/19/16
 Finance Director Date

Check #	Vendor Name	Description	Check Amount
33728	ASSOCIATION OF WA CITIES	2016 Membership Dues	14,909.00
33729	BAKER, DAVID	Jan. 7th-8th Mileage Reimbursement	85.86
33730	CITY OF LAKE FOREST PARK	Membership Northshore Emergency Mgmt.	25,000.00
33731	KING COUNTY	2016 Eastside Transportation Partnership	200.00
33732	MR. T'S TROPHIES	Laser Name Tags	59.95
33733	PEOPLES STORAGE	Feb. #C304 Storage Unit Rent	201.00
33734	PUGET SOUND CLEAN AIR AGENCY	2016 Clean Air Dues	17,411.00
33735	SEATTLE TIMES	1/1 Legal Ad for Public Hearing Ordinance	134.98
33736	SOUND CITIES ASSOC	2016 Annual Dues	13,018.25
33737	WA ASSOC OF BUILDING OFFICIALS	March Bldg. Dept. Training Registration	1,575.00
33738	WA CITIES INSURANCE AUTHORITY	2016 Liability Insurance	229,194.00
33739	WASHINGTON CITY/COUNTY MGMT ASSOC	2016 WCMA Dues	315.00
33740	VAN NESS, ALLAN	Reimburse Council Expense for Books	182.20
33741	AMERICAN PUBLIC WORKS ASSOCIATION	Membership Renewal 2/1/16-1/31	1,225.00
33742	CURTIS, DR. MILTON	Jan. Council Retreat Mileage Reimbursement	60.16
33743	TOPIA TECHNOLOGY/ BIS	Website Hosting	200.00
33744	A+ CONFERENCING	1/5 ST3 Conference Call	36.32
33745	FRONTIER	12/28-1/27 City Hall & Elevator Phones	1,034.17
33746	SESAC	2016 Music Licensing Fees	378.00
33747	VERIZON WIRELESS	12/27-1/26 Cell Phones/I-Pads	1,041.31
33748	CULLEY, AMBERLY	Advance for Mural Design	1,916.25
33749	NORTHWEST LANDSCAPE SERVICES	Jan. SR522 ROW Landscaping	1,199.81
33750	ECONOMIC DEV COUNCIL OF SEATTLE/KC	2016 Yearly Dues	5,000.00
33751	AV CAPTURE ALL	2016 AVCA Subscription	4,718.57
33752	ADMAN, STACI	Advance for Mural Design	1,916.25
33753	PAMPLIN MEDIA GROUP	2016 WA Events Calendar Listing	190.00
33754	AMERICAN SOCIETY OF CIVIL ENGINEERS	2016 Brett Schock ASCE/MB Dues	225.00
33755	KIMBERLY LANE 9, LLC	Cash Deposit Release ENG2014-0075	1,145.82
1/8/2016	FISCHER, MURIEL	Payroll Check	480.52
			323,053.42

2015	PRIOR VENDOR ACTIVITY	TOTAL	FOR 2015
	314 PIE		24.00
	A & A LIMOUSINE & BUS SERVICE		1,710.00
	A+ CONFERENCING		580.37
	A-1 LANDSCAPING & CONSTRUCTION, INC.		13,333.82
	AA ASPHALTING, INC		16,583.78
	AA PARTY RENTALS		3,276.90
	AAA FLAG & BANNER MFG. CO., INC.		7,712.61
	AAA PRINTING		723.80
	AABCO BARRICADE COMPANY INC.		1,046.88
	ACTION ENTERTAINMENT		790.00
	ACTIVE SHOOTER TRAINING LLC		1,334.52
	ADMAN, STACI		150.00
	ADVANCE TESTING & SERVICE INC		702.00
	AFLAC		5,262.12
	ALCALDE & FAY		60,998.11
	ALEXANDER, JEFF		250.00
	ALL CITY FENCE CO.		12,987.80
	ALL TRAFFIC DATA SERVICES, INC.		1,250.00
	ALLISON & PARTNERS		9,600.00
	ALPHA SUPPORTED LIVING SERVICES		250.00
	ALPHAGRAPHS US718		1,713.76
	AM TEST, INC		825.00
	AMERICAN GENERAL		5,301.54
	AMERICAN PLANNING ASSOCIATION		2,111.00
	AMERICAN PUBLIC WORKS ASSOCIATION		960.00
	AMERICAN SOCIETY OF COMPOSERS		341.40
	ANCHOR QEA, LLC		11,168.34
	ANDERSON, RICK		300.00
	APBP		85.00
	APPLIED TECHNOLOGIES NW INC.		8,946.63
	ARC - PACIFIC NORTHWEST		675.46
	ARTS OF KENMORE		4,190.25
	ASSOCIATION OF WA CITIES		16,925.94
	ATHENAS		101.00
	AURORA RENTS		1,207.17
	AV CAPTURE ALL		2,757.43
	AWC EMPLOYEE BENEFITS		503,401.03
	BAKER, DAVID		3,661.18
	BANK OF AMERICA 941		400,231.69
	BANNER BANK BAKER		18,755.71
	BANNER BANK BH		3,668.16
	BANNER BANK CS		4,872.64
	BANNER BANK DB		1,397.50
	BANNER BANK JG		6,650.24
	BANNER BANK JGORDON		25,045.26
	BANNER BANK KENMORE		37,386.48
	BANNER BANK LD		11,248.40
	BANNER BANK NO		4,789.81
	BANNER BANK PS		313.82
	BANNER BANK VAN NESS		8,067.29

V. A. The Following Checks are Approved for Payment: Total C...

BASTYR UNIVERSITY	50,200.00
BEARCOM	374.49
BECKER, THEODORE J	1,675.00
BEN & JERRY'S	11.00
BENDZAK, ROBERT	2,048.59
BERK & ASSOCIATES	73,638.44
BILLY-JOE PARK LLC	3,500.00
BLACKBAUD	6,283.89
BOHMAN, BRIAN	300.00
BORROMEO, ALEXANDER	75.00
BOTTLEROCKIT	500.00
BRIEN, GAYLYNN	600.00
BROADCAST MUSIC, INC.	335.00
BUILDERS EXCHANGE OF WASHINGTON INC	183.85
BULGER SAFE & LOCK, INC.	48.83
C. ANDERSON & CO.	808.40
CALPORTLAND COMPANY	2,580.55
CAPITAL ONE COMMERCIAL/ COSTCO	1,522.40
CASCADE PEST CONTROL	1,565.85
CATHOUSE PIZZA	48.00
CEMEX	3,853.01
CENTER FOR HUMAN SERVICES	15,000.00
CENTER FOR PRIORITY BASED BUDGETING	12,500.00
CHAVEZ, FRANCISCO	1,500.00
CHICK'N FIX	48.00
CHINOOK BOOK	1,642.50
CITY OF BELLEVUE	138,226.46
CITY OF KENMORE	536.64
CITY OF KENMORE FS	8,355.25
CITY OF KENT	500.00
CITY OF LAKE FOREST PARK	809,365.70
CITY OF SHORELINE	8,013.16
CITYWORKS/ AZTECA SYSTEMS INC.	20,074.64
CLK CONSTRUCTION LLC	9,811.11
CLOWNS UNLIMITED, INC.	876.00
CLYDE/WEST	3,181.10
COAST & HARBOR ENGINEERING	45,087.55
COASTAL WEAR PRODUCTS INC	2,713.42
COASTWIDE LABORATORIES	8,851.30
COBRA BEC, INC.	526.15
CODE PUBLISHING COMPANY	8,052.69
COFFMAN, JON	224.00
COLUMBIA FORD	72,062.80
COLUMBIA RIDGE LANDFILL	10,576.63
COMCAST	3,915.08
COMO LLC	7,500.00
CONSOLIDATED PRESS	9,279.12
CONTECH ENGINEERED SOLUTIONS, INC	17,936.10
CONTOUR FENCE CO. INC.	802.64
CONYERS, JODY	170.63
COUNTINGCARS.COM	1,295.82
CROWN PRODUCTS LLC	2,047.45
CULLEY, AMBERLY	204.33

CUNNINGHAM, ED	710.00
CURTIS, DR. MILTON	1,326.64
DAILY JOURNAL OF COMMERCE	5,487.50
DANSOUND INC	7,568.64
DAY WIRELESS SYSTEMS	1,402.11
DENUSKI, STACEY	756.72
DEPARTMENT OF ECOLOGY	20,592.50
DEPARTMENT OF LABOR AND INDUSTRIES	31,598.18
DEPARTMENT OF RETIREMENT SYSTEMS	395,926.70
DEVRIES, DENIS	416.97
DIGITAL REPROGRAPHICS SERVICES INC.	404.65
DLT SOLUTIONS	1,600.67
DRS 457	27,000.00
DURRANT, JEFF	803.27
EAGLE EYE CONSULTING ENGINEERS	125.00
ECONOMIC DEV COUNCIL OF SEATTLE/KC	5,000.00
EE-NA ENTERPRISES LLC	13,593.15
EMERGENCY SERVICE COORDINATING AGCY	50,559.00
EMPLOYMENT SECURITY DEPT	22,986.02
ENVIRONMENTAL SYSTEMS RESEARCH INST.	7,008.00
EVERGREEN FIRE AND SAFETY, INC.	337.51
EVERGREEN PRINT SOLUTIONS	781.24
EVERGREEN SAFETY COUNCIL	299.00
EVER-MARK, LLC	1,571.33
FASTSIGNS	1,754.57
FAZZARI MARKETING	3,738.33
FEDDERSEN, RYAN	150.00
FEDEX OFFICE	142.39
FERGUSON ENTERPRISES INC #1539	9,391.56
FINANCIAL CONSULTANTS INT'L INC	108.90
FIRE PROTECTION, INC	9,329.27
FIRST AMERICAN TITLE	466.00
FISHER, ALENE	712.34
FLEMINGS HOLIDAY LIGHTING LLC	5,876.45
FORMS+SURFACES	2,841.53
FRONTIER	12,361.32
FRUHLING SAND & TOPSOIL	5,391.26
FUNRENT	1,367.97
G & H PRINTING	501.19
GA JORGENSEN CO. INC.	253.81
GALLATIN PUBLIC AFFAIRS	40,093.85
GATES, JANICE	40.74
GENERAL DYNAMICS	890.00
GENERAL ELECTRIC CO	1,183.70
GEOENGINEERS INC	3,492.25
GIP'S DOWN-HOME BBQ	168.00
GOODSELL POWER EQUIPMENT #2 INC.	2,872.78
GORDON THOMAS HONEYWELL	40,899.31
GOREENG	66.00
GOVDELIVERY, INC.	10,500.00
GOVERNMENT FINANCE OFFICERS ASSOC	190.00
GOVERNMENT FINANCE RESEARCH GROUP	1,995.00
GRABER MANUFACTURING, INC.	2,525.00

GRAHAM, JIM	75.00
GRAINGER	2,291.10
GRAKLANOFF, ANNA	75.00
GREATER BOTHELL CHAMBER OF COMMERCE	4,297.09
GREGORY, JOANNE	1,835.87
GRINDLINE SKATEPARKS INC.	268,529.34
HAMPSON, BRYAN	53.55
HANSEN, COREY	37,675.00
HARRIS & SMITH PUBLIC AFFAIRS	1,581.25
HARRIS COMPUTER SYSTEMS	7,390.06
HAVESON, CRAIG	7,500.00
HAWTHORNE LANE LLC	7,500.00
HDR	885,811.96
HELMETS R US INC	296.75
HERBIG, NIGEL	383.27
HERMANSON COMPANY, LLP	7,449.96
HESTON VISUAL ARTS	957.03
HEWITT	331,343.81
HOLLY, BRANDAN	100.00
HOME DEPOT CREDIT SERVICES	1,771.76
HONEY BUCKET	5,064.41
HOPELINK	22,750.00
HOPKINS, CRAIG	869.38
HORIZON DISTRIBUTORS INC	1,059.94
HORTON, JEANINE	280.32
HSA BANK	1,950.00
HYERAN, JENNA LEE	250.00
ICMA RETIREMENT TRUST 457 - 304745	72,670.42
iCOMPASS TECHNOLOGIES, INC.	9,879.20
IDEA DECANter	500.00
INDEPENDENT STATIONERS	4,026.32
INDUSTRIAL PHYSICAL CAPABILITY SVCS	170.00
INGALLINAS BOX LUNCH	150.56
INGLEMOOR HIGH SCHOOL MUSIC BOOSTERS	1,700.00
INNOVAC	35,522.21
INSLEE, BEST, DOEZIE & RYDER, P.S.	209,404.22
INTEGRA TELECOM	10,309.58
INTERNATIONAL CODE COUNCIL, INC	56.39
INTERNATIONAL INST OF MUNI CLERKS	220.00
INTERNET DOMAIN NAME SERVICES INC.	180.00
iWORQ SYSTEMS	2,800.00
J&K ASSOCIATES	7,485.42
JACOBS ENGINEERING GROUP	276,833.01
JAYMARC - AV	897.90
JET CITY PRINTING	5,428.89
JOHN E. REID & ASSOCIATES	1,080.00
JOHNSON, BRUCE	150.00
JOHNSON, WES	530.00
JOYCE ZIKER PARKINSON	18,260.00
JSH PROPERTIES, INC.	5,041.67
KARLINSEY, ROB	502.75
KARN, DAVID	166.67
KEEP POSTED INC	276.00

KENMORE CAMERA	1,235.05
KENMORE COMMERCIAL LLC	40,382.00
KENMORE ELEMENTARY PTA	4,500.00
KENMORE JR HIGH SCHOOL	75.00
KIEWIT/GENERAL/MANSON	7,500.00
KING CO. UTILITY COORDINATION COUNCIL	75.00
KING COUNTY ANIMAL SVCS	3,893.00
KING COUNTY DISTRICT COURT	142,660.00
KING COUNTY FINANCE	1,015,635.11
KING COUNTY FINANCE W.L.R.D.	70,462.65
KING COUNTY FINANCE/ GIS	2,007.19
KING COUNTY FLEET ADMIN	383.18
KING COUNTY MUNICIPAL CLERKS ASSOC	25.00
KING COUNTY OFFICE OF FINANCE	6,358.44
KING COUNTY PARKS	72.41
KING COUNTY RADIO COMM SERVICES	1,134.44
KING COUNTY REAL ESTATE SVCS	500.00
KING COUNTY RECORDER'S OFFICE	259.00
KING COUNTY SHERIFF	3,083,928.27
KING COUNTY SUPERIOR COURT CLERK	141,200.00
KING COUNTY TREASURY	13,507.11
KING CTY EASTSIDE TRANSP PARTNERSH	200.00
KONICA MINOLTA BUSINESS SOLUTIONS	6,486.27
KPFF CONSULTING ENGINEERS	16,860.56
KUKER-RANKEN INC	29.51
KUSTOM SIGNALS, INC.	2,622.83
LACONNER CHANNEL LODGE	200.00
LAKE CITY PICTURE FRAMING	249.89
LANDSCAPE FORMS, INC.	2,602.82
LANGTON SPIETH, LLC	27,953.74
LANSING HOMES II LLC	55.05
LAW OFFICE OF JOHN RUNGERUDE, PS	3,900.00
LEE BRIANTE	1,000.00
LEGACY FORD	31,111.73
LIGHTHOUSE CONSULTING INC	63,875.21
LINCOLN NATIONAL LIFE INSURANCE	10,609.72
LOYUK, SAMANTHA	1,285.48
MACDONALD MILLER FACILITY SOLUTIONS	8,096.63
MAGEE, SCOTT	2,800.00
MAIL FINANCE	2,812.00
MANTLE INDUSTRIES INC	3,277.34
MARINE FLOATS CORPORATION	10,916.06
MARSHBANK CONSTRUCTION	5,503,919.79
MASTEC NETWORK SOLUTIONS	5,722.86
MCALLISTER, TERESA	65.78
MEEHAN, NANCY	355.26
MIGHTY BISON BOOKING	3,500.00
MILLER STEPHENS, MARY	12,500.00
MILLS, VIC	250.00
MINZGHOR, NICHOLAS	416.69
MOBILE ELECTRICAL DISTRIBUTORS INC	13.47
MOBILE MINI, INC.	2,961.81
MODERN ENTERPRISES, LLC	1,750.00

MOORLANDS ELEMENTARY	100.00
MORGAN SOUND INC	4,274.34
MR. T'S TROPHIES	3,562.86
MRSC ROSTERS	360.00
MUMMA, RYAN	1,105.97
MUNSON, JOSHUA	12.73
NARANCIC, SHEILA	3,250.00
NATIONAL BUSINESS INCUBATION ASSOC.	525.00
NATIONAL LEAGUE OF CITIES	1,489.00
NATIONAL LIFE OF VERMONT	1,589.76
NATIONAL NEIGHBORHOOD WATCH INSTITUTE	345.00
NATIONWIDE FINANCIAL 401a	283,275.71
NATIONWIDE RETIREMENT SOLUTIONS 457	7,125.00
NEEMA'S COMFORT	55.92
NEOPOST NORTHWEST	274.82
NORTHSHORE FIRE DEPT	7,302.25
NORTHSHORE PARK & REC SERVICE AREA	1,360.00
NORTHSHORE ROTARY CLUB	1,226.00
NORTHSHORE SCHOOL DISTRICT	7,500.00
NORTHSHORE SENIOR CENTER	21,450.00
NORTHSHORE UTILITY DIST	98,727.22
NORTHSHORE YMCA	4,875.00
NORTHSHORE YOUTH & FAMILY SERVICES	12,000.00
NORTHWEST ATHLETICS	350.00
NORTHWEST LANDSCAPE SERVICES	15,229.93
NORTHWEST MARINE TRADE ASSOCIATION	425.00
NORTHWEST TROPHY	189.44
NORTHWESTERN COLLECTION SERVICE INC	2,075.70
NW ENVIRONMENTAL TRAINING CENTER	1,325.00
OFFICE DEPOT	11,976.25
OFFICE MAX	6,119.24
OFFICE TEAM	10,336.19
OfficeMax Workplace Interiors	9,871.11
OLYMPIC ENVIRONMENTAL RESOURCES INC	37,599.97
OSBORN CONSULTING INC.	189,383.39
OUSLEY, NANCY	1,584.93
OVERLEESE, KRISTEN	278.31
PACIFIC TOPSOILS	7,342.44
PARADISE AMUSEMENTS	100.00
PARISI, NICK	44.00
PART WORKS INC	461.93
PARTNER CONSTRUCTION PRODUCTS	189.70
PASIFIKA ARTIST NETWORK LLC	2,250.00
PAT'S TREES AND LANDSCAPE INC.	19,485.94
PAWS	3,211.00
PENDLETON, MICHAEL	4,816.59
PEOPLES STORAGE	2,552.00
PERSONAL BEST/ TOPHEALTH	197.77
PERTEET INC.	226,765.08
PETERSON, JANET	1,175.00
PETTY CASH CUSTODIAN	1,250.38
PHAM, CHOUNG	98.54
PHSI PURE WATER FINANCE	1,831.28

PIEDMONT DIRECTIONAL	2,896.68
PIPERS CREEK NURSERY	188.34
PLANNING ASSOCIATION OF WASHINGTON	80.00
PREPARE NORTHWEST	500.00
PRINTWEST	492.75
PROTECTION TECHNOLOGIES, INC	577.45
PRO-VAC	21,563.84
PUBLIC AGENCY TRAINING COUNCIL	700.00
PUBLIC HEALTH DEPT. OF KING COUNTY	100.00
PUGET SOUND BUSINESS JOURNAL	97.00
PUGET SOUND CLEAN AIR AGENCY	14,740.00
PUGET SOUND ENERGY	204,382.31
PUGET SOUND REGIONAL COUNCIL	15,270.00
PURE WATER TECHNOLOGY OF PUGET SOUND	448.52
QUALITY BUSINESS SYSTEMS	10,060.93
RANDALL, BRIAN	234.31
REDMOND, MICHAEL	61.25
REFINO HOMES OF WASHINGTON LLC	7,500.00
REPUBLIC SERVICES	9,773.46
REVEL CREATIVE GROUP	950.00
RICHMOND AMERICAN HOMES OF WA	60.00
RM HOMES LLC	412.01
ROAD CONSTRUCTION NW, INC.	87,043.22
RODGERS, DEUTSCH & TURNER PLLC	70,600.00
ROGERS, GLENN	20.91
RONGERUDE, JOHN	900.00
SAFRIN, PATTY	101.35
SAMYN, DR. JEFFREY	250.00
SANDRA OWEN DESIGN	2,368.75
SARA CAHOONE	750.00
SARAH ROBERTS	115,588.44
SAUVE, GAYLEN	700.00
SAWYER, RICHARD	1,433.31
SCHAUFFLER, CYNTHIA	65.65
SCHINDLER ELEVATOR CORPORATION	2,676.05
SCHOCK, BRETT	227.04
SCORE	559,632.89
SEATTLE TIMES	17,253.44
SECRETARY OF STATE	107.60
SEES TREES AND EXCAVATION INC	1,029.30
SESAC	360.00
SETH, CLIFFORD	62.83
SETON IDENTIFICATION PRODUCTS	29.99
SEXTANT MARKETING GROUP	6,940.61
SHANE-KULMER, SEAN P.	465.00
SHELTON, CINDY	42.55
SHERWIN-WILLIAMS CO. #8099	154.79
SHRED-IT	690.23
SIGN UP, SIGN CO, INC	2,250.23
SILVER KITE COMMUNITY ARTS CONSULT.	300.00
SITTS & HILL ENGINEERS, INC.	4,633.00
SKYWARD CONSTRUCTION	130,792.69
SNOHOMISH COUNTY	10,150.00

SNOHOMISH COUNTY HEARING EXAMINER	500.00
SOCRATA, INC.	9,198.00
SOLODVNIK, EUGENE & TATYANA	57.50
SOUND CITIES ASSOC	12,798.49
SOUND LAW CENTER	23,401.00
SOUND PUBLISHING, INC.	14,500.93
SOUTHWEST PLUMBING	34.51
SPERRY, LAURIE	91.95
SPORTWORKS NORTHWEST, INC.	597.17
SPOT HOT DOG & BRATS	97.00
SREBNIK, DEBRA	57.90
ST OF WA DEPT OF FISH & WILDLIFE	500.00
STARDOM SERVICES, INC.	5,560.00
STATE AUDITOR'S OFFICE	33,660.96
STATE OF FLORIDA DISBURSEMENT UNIT	6,875.00
STATE OF WA DEPT. OF LICENSING	30.00
STATEWIDE RENT-A-FENCE INC.	2,108.48
STEWART MACNICHOLS HARMELL, INC.	65,533.08
STEWART TITLE COMPANY	4,818.00
STOPTECH, LTD.	4,544.25
STUDIO 3 SIGNS	2,299.50
SUNGARD PUBLIC SECTOR INC.	59,625.00
SUSSMAN/PREJZA & CO, INC	6,355.00
TALPALATSKI, IGOR	166.67
TELESYSTEMS WEST	2,219.85
TERREBONNE LIMITED	337.34
THE DOWNTOWN MOUNTAIN BOYS	1,000.00
THE KIPLINGER LETTER	99.00
THOMAS, MICHAEL	327.18
TIKOR CONSULTING	52.79
TOPIA TECHNOLOGY/ BIS	4,610.00
TOTAL LANDSCAPE CORP	115,832.55
TOWN CENTER HARDWARE	2,283.56
TREE SOLUTIONS, INC.	855.00
TRINITY CONTRACTORS, INC.	63,088.52
TWEDT, CHARLES	1,500.00
TWO BROTHERS' TREES	800.00
ULINE	1,544.27
UNITED RENTALS NW, INC	1,829.67
UNITED STATES POSTMASTER	5,127.84
UNITED WAY OF KING COUNTY	6,672.12
UPS STORE	2,316.28
URBAN LAND INSTITUTE	215.00
US POSTAL SERVICE (HASLER)	8,673.58
U-SAVE OIL CO	2,150.00
UTILITIES UNDERGROUND LOCATION CTR	1,995.63
V2WORKS	3,544.42
VAN NESS, ALLAN	2,354.51
VAUGHAN, KENT	116.00
VERIZON WIRELESS	13,273.48
VERTICAL VISUAL SOLUTIONS INC.	27,624.90
VICENTE, JOHN	303.85

W.S.S.O. Advanced Training	500.00
WA ASSOC OF BUILDING OFFICIALS	1,045.00
WA ASSOC OF PUBLIC RECORDS OFFICERS	190.00
WA CITIES INSURANCE AUTHORITY	212,966.00
WA FINANCE OFFICERS ASSOCIATION	150.00
WA GUARANTEED EDUCATION TUITION	800.00
WA STATE CONSOLIDATED TECH SVCS	875.00
WA STATE DEPT OF CORRECTIONS	230.50
WA STATE DEPT OF ENTERPRISE SVCS	175.00
WA STATE DEPT OF LABOR & INDUSTRIES	141.60
WA STATE DEPT OF TRANSPORTATION	34,219.18
WA TRUST FOR HISTORIC PRESERVATION	100.00
WAGE WORKS	600.00
WALL, JOHN	596.78
WALTERS, GEORGE	206.00
WASHINGTON CITY/COUNTY MGMT ASSOC	365.00
WASHINGTON STATE O.M.W.B.E.	100.00
WASHINGTON STATE PATROL	3,029.69
WASHINGTON TREE SERVICE INC	3,066.00
WAYNE'S ROOFING INC.	75,922.70
WELLS FARGO FINANCIAL	12,751.93
WELWEST CONSTRUCTION INC.	4,868.03
WESTERN DISPLAY FIREWORKS, LTD.	17,000.00
WETLANDS & WOODLANDS INC	4,523.39
WHITEMAN, TELA	50.60
WINTER, KENDL	750.00
WINTERBOURNE LANDSCAPE	574.88
WONDERLAND DEVELOPMENT	3,750.00
WRIGHT, MARCI	750.00
YOUM, PAUL	166.67
ZONAR SYSTEMS	749.68
ZORNES, GARY	600.00
ZUMAR	4,331.02
	<u><u>19,120,742.93</u></u>



City Council Business Agenda Item
City of Kenmore, WA

Subject/Topic: Adoption of Ordinance 16-0415 addressing microhousing. Proposed Council Action/Motion: Adopt Ordinance 16-0415 addressing microhousing.	For Council Meeting Agenda of: 02/01/16 Department: <u>Community Development</u> Prepared by: <u>Debbie Bent, Community Development Director and Lauri Anderson, Senior Planner</u> Initial & Date Approved by Department Head: <u>DA 11/5/16</u> Approved by City Attorney: <u>pk email 4/4/16</u> Approved by Finance Director: <u>[Signature] 1/19/16</u> Approved by City Manager: <u>[Signature]</u> Exhibits/Attachments: 1. Ordinance 16-0415
Expenditure Required \$0 Amount Budgeted: \$0 Appropriation Required \$0	
<u>INFORMATION/BACKGROUND:</u> As part of the 2015 Planning Commission docket, the City Council directed that the Commission consider rules for microhousing. This review was limited to microhousing apartments and did not include tiny houses, as directed at the joint City Council/Planning Commission meeting on October 26, 2015. At your meeting on January 11, Douglas Nugent, Chair of the Planning Commission, presented the Commission's recommendations on this topic. The City Council agreed with the recommendation and asked that an adopting ordinance be prepared. <u>Background:</u> Microhousing apartments are smaller than typical residential living units that may contain their own kitchen and bath facilities or may share these facilities with neighboring housing units. The current interest in microhousing is generated both by a desire for "downsizing" and a smaller environmental footprint, and to reduce housing costs. Although the per square foot cost of microhousing may be higher than traditional housing (given the complexities of building a small space with many space-saving features, including modular furniture), the overall price to be paid for the housing is significantly lower than for a traditional studio apartment. The proposed microhousing amendments define microhousing for the City and clarify that microhousing apartment projects are treated like other multifamily developments in terms of allowable density, location, and design. The microhousing apartment definition acknowledges that these small units may share kitchen facilities. Too, the definition adds size limitations to reflect Building Code minimum size requirements (220 sq.ft. habitable space) and to limit the unit to no more than two occupants (at 320 sq.ft. habitable space more than 2 people could occupy the unit). The one development standard proposed for adjustment with the microhousing apartment recommendations is required parking. The proposed regulations use the existing studio apartment parking ratios for microhousing units located more than 1/4 mile from SR-522. For those units located closer to SR-522, a reduced parking ratio is proposed--.75 parking spaces per unit rather than 1.0 or 1.2 parking spaces per unit.	
<u>FISCAL CONSIDERATION:</u> None at this time.	
<u>COUNCIL GOAL/BUDGET OBJECTIVE BEING ADDRESSED:</u> Addressing microhousing was a 2015 Council docket item request.	

I:/City Clerk/Agenda Items/Templates

CITY OF KENMORE
WASHINGTON
ORDINANCE NO. 16-0415

**AN ORDINANCE OF THE CITY OF KENMORE,
WASHINGTON, RELATING TO MICROHOUSING
DWELLING UNITS; ADOPTING NEW SECTION 18.20.830
OF THE KENMORE MUNICIPAL CODE; AMENDING
SECTIONS 18.20.810, 18.20.835 AND 18.40.030 OF THE
KENMORE MUNICIPAL CODE; AND PROVIDING AN
EFFECTIVE DATE.**

WHEREAS, in 2015, the City Council assigned review of microhousing issues to the Planning Commission as part of the 2015 docket; and

WHEREAS, the Planning Commission reviewed and recommended amendments to Title 18 of the Municipal Code to address microhousing; and

WHEREAS, on December 1, 2015, the Planning Commission held a public hearing to receive public feedback on the proposed amendments; and

WHEREAS, the City's Responsible Official under the State Environmental Policy Act issued a determination of non-significance for the amendments; and

WHEREAS, the City notified the Washington State Department of Commerce of the proposed amendments pursuant to RCW 36.70A.106; and

WHEREAS, on January 11, 2016, a representative of the Planning Commission presented the Planning Commission's microhousing recommendations to the City Council; and

WHEREAS, the City Council desires to adopt regulations to address microhousing;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF KENMORE, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Adoption of New Section 18.20.830 of the Kenmore Municipal Code. The City Council adopts new section 18.20.830 of the Kenmore Municipal Code addressing microhousing to read as set forth in Attachment A, attached hereto and incorporated herein by reference.

Section 2. Adoption of Amendments to Sections 18.20.810, 18.20.835 and 18.40.030 of the Kenmore Municipal Code. The City Council adopts amendments to Sections 18.20.810, 18.20.835, and 18.40.030 of the Kenmore Municipal Code to read as set forth in Attachment B, attached hereto and incorporated herein by reference.

Section 3. Effective Date. This Ordinance shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after the date of publication.

PASSED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF ON THE
__TH DAY OF ____, 2016.

CITY OF KENMORE

David Baker, Mayor

ATTEST/AUTHENTICATED:

Patty Safrin, City Clerk

Approved as to form:

Rod P. Kaseguma, City Attorney

Filed with the City Clerk:
Passed by the City Council:
Ordinance No.: 16-0415
Date of Publication:
Effective Date:

ATTACHMENT A

- **Add a new definition of microhousing dwelling unit as follows:**

18.20.830 Dwelling unit, microhousing.

"Microhousing dwelling unit" means an apartment with a total square footage of less than 320 square feet and a habitable space, as defined in the International Building Code as adopted in the Kenmore Municipal Code, of at least 220 square feet. The room(s) are intended for use solely by the dwelling's occupant(s), although common kitchen or bath facilities may be provided.

ATTACHMENT B

- **Amend the definition of dwelling unit as follows:**

18.20.810 Dwelling unit.

“Dwelling unit” means one or more rooms designed for occupancy by a person or *family* for living and sleeping purposes, containing *kitchen facilities* and rooms with internal accessibility, for use solely by the dwelling’s occupants. Microhousing dwelling units may share kitchen facilities with other dwelling units in place of providing kitchen facilities within each unit.

- **Amend the definition of multiple-family dwelling as follows:**

18.20.835 Dwelling, multiple-family.

“Multiple-family dwelling” means a one-family dwelling attached to one or more one-family dwellings by common roofs, walls, or floors. Also includes one or more dwellings attached to nonresidential *uses*. This definition does not include *accessory dwelling units*, *community residential facilities*, *supportive living facilities*, or nursing and personal care facilities.

A. Apartment. A residential *building* containing two or more *dwelling units* or a single *dwelling unit* and a nonresidential use, which are attached at one or more common roofs, walls, or floors. Typically, the unit’s habitable area is provided on a single level. Unit entrances may or may not be provided from a common corridor. Microhousing dwelling units are considered apartments.

B. Townhouse. A one-family, ground-related dwelling attached to one or more such units or to a nonresidential *use* in which each unit has its own exterior, ground-level access to the outside, no unit is located over another unit, and each unit is separated from any other unit by one or more vertical common walls. Typically the units are multi-story.

- **Amend parking standards as follows:**

18.40.030 Computation of required off-street parking spaces.

Add a new line under “Apartment” to read:

LAND USE	MINIMUM PARKING SPACES REQUIRED Citywide, Except in Downtown Commercial and Downtown Residential Zones West of 68 th Avenue NE	MINIMUM PARKING SPACES REQUIRED Downtown Commercial and Downtown Residential Zones West of 68 th Avenue NE
Apartment:		
<u>Microhousing dwelling units</u>	<u>Within ¼ mile of SR-522:</u> <u>.75 per dwelling unit.</u> <u>Otherwise, 1.2 per dwelling</u> <u>unit.</u>	<u>Within ¼ mile of SR-522:</u> <u>.75:du. Otherwise, 1.0:du.</u> <u>Tandem stalls permitted</u>
Studio units	1.2 per dwelling unit	1.0:du; tandem stalls permitted



City Council Business Agenda Item City of Kenmore, WA

Subject/Topic: Consultant contract for Moorlands Park Improvements.

Proposed Council Action/Motion: Motion to grant authorization to the City Manager to execute Contract No. 16-C1502 for an amount not to exceed \$194,990.20 with MacLeod Reckord, Landscape Architects.

For Council Meeting Agenda of: February 1, 2016

Department: Community Development

Prepared by: Debbie Bent, Director
Marc Connelly, Parks Project Manager

Approved by Department Head:

Approved by City Attorney:

Approved by Finance Director:

Approved by City Manager:

Initial & Date

DB 1/26/16

[Signature] 1/26/16
RK

Exhibits/Attachments:

1. 2006 Adopted Moorlands Park Master Plan

Expenditure Required \$194,990.20.

Amount Budgeted \$1,424,000

Appropriation Required: See Fiscal Consideration

INFORMATION/BACKGROUND: MacLeod Reckord was the Landscape Architecture firm that prepared the Master Plan adopted in 2006 by City Council for Moorlands Park. The Consultant fee of \$194,990.20 represents approximately 14% of the available construction budget (\$1,359,799.74 including WSST, 1% for art, and 10% contingency). As part of the agreement the Consultant will provide services including support for public meetings, provision of materials and documents necessary for permitting, bidding, and construction administration and project close-out in accordance with the adopted Master Plan.

In 2015 the City was awarded two grants from the state of Washington Recreation and Conservation Office in support of the development and renovation of Moorlands Park. The two grants (Washington Wildlife and Recreation Local Parks Program (WWRP) and the Youth Athletic Facilities Program (YAF) total \$637,537. The grants required a minimum 50% City match. The City's contribution for the two grants will be \$939,405.

The preliminary project schedule is as follows:

Outreach	February – March 2016
Permitting	July-November 2016
Bidding	Dec 2015- February 2017
Construction (180 day construction schedule)	May – November 2017

FISCAL CONSIDERATION: The adopted 2015-2020 CIP allocates funding in the amount of \$1,424,000 for the design and construction of improvements to Moorlands Park. The funding schedule contains a mix of sources including grants, REET, Strategic Ops Funds, and Park Impact Fees. The total project budget is now estimated at \$1,576,295. Staff will bring forward a future CIP funding request and amendment of \$152,925. The estimated budget including the projected amendment would be:

Total Project Budget	\$1,576,295.00
Project Expenses	
Permit Fees	\$7,735.00
Project Management	\$14,400.00
Consulting Fee	\$194,990.20
Construction	\$1,359,799.80

COUNCIL GOAL/BUDGET OBJECTIVE BEING ADDRESSED (2015-16)

Council Goal 8: To continue to implement a Parks Improvement and Financial Plan.

Comprehensive Park Recreation and Open Space Plan Policies:

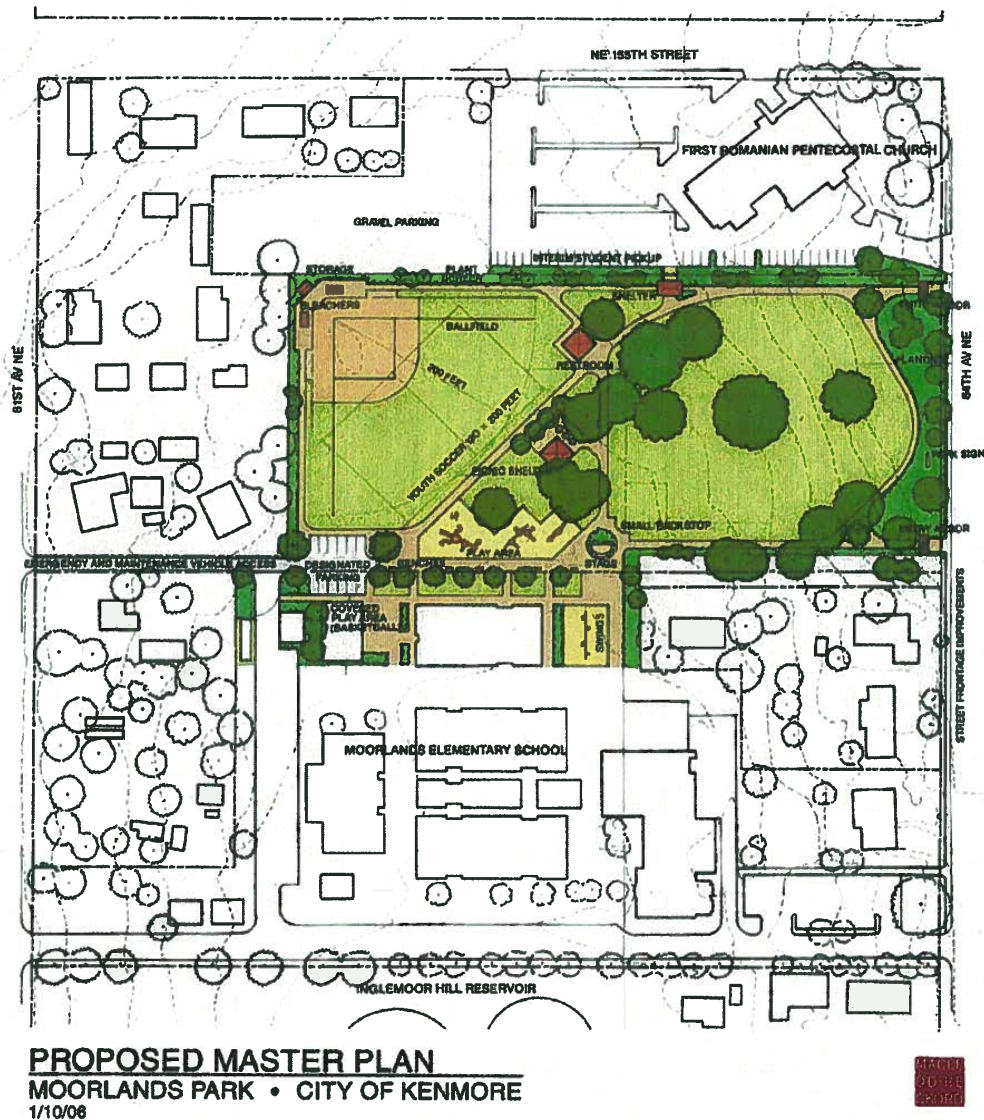
Policy 4.1.1 Complete development of city park sites with approved master plans as funding allows.

Policy 4.1.1.2 Update the adopted Master Plan and complete development of Moorlands Park.

Policy 5.1.3 Consider providing new facilities and facility upgrades to existing park lands to support new or existing recreation opportunities where appropriate.

Policy 7.1.4 Identify, and actively seek potential grant funding assistance from public and private sources for...renovation of Kenmore park lands.

Attachment 1



Subject/Topic:
Priority Based Budgeting

Prepared by: Joanne Gregory, Finance and
Administration Director

Proposed Council Action/Motion:
Motion to Accept Result Definitions for
Priority Based Budgeting

Initial & Date

Approved by Department Head: Jmg 1/21/16

Approved by City Attorney: _____

Approved by Finance Director: Jmg 1/21/16

Approved by City Manager: PSK

Exhibits/Attachments:
Attachment 1. Result Maps Outline Clean Version
Attachment 2. Result Maps Outline with red line edits

Expenditure Required \$0

Amount Budgeted \$0

Appropriation Required \$0

As the City begins to plan for the 2017-2018 biennial budget, which will utilize the priority based budgeting (PBB) process begun in 2014, the first step is to re-affirm or validate the Result Definitions that the Council desires for the community. The subsequent steps in the PBB process will include evaluating City programs in the context of how well they achieve the stated Results.

At the January City Council retreat, the Council reviewed the Results and Result Definitions (also known as Result Maps) and recommended minor changes. Council also expressed a desire to receive the graphic Result Maps in an outline format.

An outline format has been attached along with a red line edited version for Council review.

None

COUNCIL GOAL/BUDGET OBJECTIVE BEING ADDRESSED:

Effective and Efficient Services

City of Kenmore, Washington PBB

RESULTS

ACCESS to QUALITY CULTURAL, RECREATIONAL, EDUCATIONAL and LEISURE OPPORTUNITIES

Collaboratively encourages and supports opportunities to focus on the arts, advance cultural enrichment, cultivate historic preservation, offer community events and provide life-long learning opportunities

Enhances access to, and opportunities and activities to enjoy the City's waterfront region

Offers a safe, well-planned community with convenient access to public gathering spaces, emphasizing the City's unique downtown, its parks, trails and open spaces

Partners and promotes community events and activities that encourage healthy, fun, active lifestyles and provide entertainment

Actively seeks out and leverages its public, private, and non-profit community partners and volunteers to support the recreational and educational needs of its community

Attracts visitors and businesses by creating and advertising a safe, clean, conveniently traversable community with unique tourist amenities

ATTRACTIVE, WELL-PLANNED, ENDURING and DESIRABLE PLACE TO LIVE and WORK

Develops, maintains and consistently regulates neighborhoods that are safe, attractive and clean

Offers a variety of shopping and entertainment experiences that attract residents and visitors, and stimulates job growth

Plans strategically to encourage targeted development, supported by consistently applied design standards, and facilitated by efficient and appropriate review processes

Provides, maintains and invests in well-planned public infrastructure, focusing on transportation network and public facilities that accommodate the long-range growth needs of the community

Provides for convenient modes of mobility, through safe, well-marked and well-maintained roads with the capacity to minimize congestion, and paths, trails and sidewalks to promote a walkable community

Actively markets the City's assets, unique culture and image to attract visitors and community investment

Builds a strong sense of community togetherness through partnerships and events that stimulate public involvement

CONNECTED, INVOLVED and FAMILY-ORIENTED COMMUNITY that VALUES DIVERSITY

Encourages and facilitates a culture that values and supports a diverse population

Empowers citizens to be partners in a connected community, providing opportunities for volunteerism, partnerships, and community

Engages community partners in the joint-pursuit of collaboration and connectedness, through the offering of diverse, family-oriented events and activities

Connects the community through parks and public spaces, bike trails and sidewalks that encourage walkability

Provides access to adequate housing options and access to services to meet the basic needs of all income-levels

EFFECTIVE MOBILITY and CONNECTED, RELIABLE TRANSPORTATION SYSTEMS

Provides access to safe roads with efficient traffic flow

Collaboratively invests in building and improving a well-designed, well-maintained system of safe, reliable road and street infrastructure (including roads, traffic signals, sidewalks, bridges and street lighting)

Advocates to improve public transportation through all modes of travel

Provides a network of trails, paths, sidewalks, and bike lanes for multi-modal transportation

Ensures adequate, well-planned and accessible parking options for residents, businesses and visitors

PROSPEROUS, VIBRANT and SUSTAINABLE ECONOMY

Attracts new businesses, and retains and grows existing business through diversity, quality development and reasonable tax support

Promotes a business-friendly environment through sensible regulations and incentives

Promotes job growth, and offers adequate housing options and quality of life amenities

Encourages development of its signature waterfront asset, and emphasizes strategic development of its downtown areas

Continually reinvests and appropriately maintains its infrastructure assets, providing the type of mobility options, including parking, that businesses require to thrive

Encourages strategically planned, sufficiently regulated and appropriately balanced development and re-development that stimulates economic growth

SAFE and SECURE COMMUNITY

Provides for the physical, social and economic needs and well-being of the community

Provides effective, efficient traffic flow, safe mobility for vehicles, cyclists and pedestrians alike and a well-maintained, connected transportation network

Fosters a feeling of personal safety throughout the community by establishing a visible, accessible presence that proactively provides for prevention, intervention, safety education, and community involvement

Portrays and invests in a visibly thriving community that is safe, clean, attractive and provides for the well-being of its residents, businesses and visitors

Offers protection, enforces the law, proactively prevents crime and is well-prepared to promptly respond to emergencies and calls for service

Plans for and provides timely and effective response to emergencies and other disaster situations

SUSTAINABLE, HEALTHY ENVIRONMENT and the PRESERVATION of NATURAL RESOURCES

Proactively plans and manages storm and surface water for effective flood and sediment control, and manages and maintains its water and air resources to ensure environmental quality

Educates the community and partners with residents and business to protect and preserve its environmental resources

Promotes the design and enforces regulation of strategically planned, low-impact, environmentally sustainable development

Ensures proactive code enforcement to provide for a safe, healthy environment in which to live and work

GOVERNANCE

Fosters open, responsive and transparent government by ensuring accountability, efficiency, effectiveness, and integrity in all operations

Protects, manages, optimizes and invests in its financial, human, physical, and technology resources

Supports decision making with timely and accurate short term and long range analysis that enhances vision and planning

Provides assurance of regulatory and policy compliance

Attracts, motivates, develops, and retains a high quality, engaged, and productive workforce

Provides responsive and accessible leadership, focused community priorities, and facilitates timely, well utilized two way communication and input with all stakeholders

City of Kenmore, Washington PBB

RESULTS

ACCESS to QUALITY CULTURAL, RECREATIONAL, EDUCATIONAL and LEISURE OPPORTUNITIES

Collaboratively encourages and supports opportunities to focus on the arts, advance cultural enrichment, -cultivate historic preservation, offer community events and provide life-long learning opportunities

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Offers a safe, well-planned community with convenient access to public gathering spaces, emphasizing the City's unique downtown, it's parks, trails and open spaces

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Connects the community through parks and public spaces, bike trails and sidewalks that encourage walkability

Provides access to adequate housing options and access to services to meet the basic needs of all income-levels

EFFECTIVE MOBILITY and CONNECTED, RELIABLE TRANSPORTATION SYSTEMS

Provides ~~A~~access to ~~s~~Safe, ~~E~~fficient ~~R~~oads with ~~efficient~~Congestion-Free
~~t~~Traffic ~~F~~low

Collaboratively invests in building and improving a well-designed, well-maintained system of safe, reliable road and street infrastructure (including roads, traffic signals, sidewalks, bridges and street lighting)

Advocates to ~~i~~Improve ~~P~~ublic ~~T~~ransportation through ~~a~~All ~~m~~Modes of ~~t~~Travel

Provides a ~~n~~Network of ~~t~~Trails, ~~p~~Paths, sidewalks, and ~~b~~Bike ~~L~~anes for ~~m~~Multi-~~M~~odal ~~T~~ransportation

Ensures adequate, well-planned and accessible parking options for residents, businesses and visitors

PROSPEROUS, VIBRANT and SUSTAINABLE ECONOMY

Attracts ~~N~~ew ~~b~~Businesses, and ~~R~~etains and ~~G~~rows ~~E~~xisting ~~B~~usiness through ~~D~~iversity, ~~Q~~uality ~~d~~Development and ~~r~~Reasonable ~~T~~ax ~~s~~Support

Promotes a ~~b~~Business-~~F~~riendly ~~E~~nvironment through ~~S~~sensible ~~R~~egulations and ~~i~~ncentives

Promotes ~~j~~job ~~g~~Growth, and ~~O~~ffers ~~A~~dequate ~~H~~ousing ~~o~~Options and ~~q~~Quality of ~~L~~ife ~~a~~Amenities

Encourages ~~d~~Development of its ~~S~~signature ~~w~~Waterfront ~~A~~asset, and ~~E~~emphasizes ~~s~~Strategic ~~D~~evelopment of its ~~D~~owntown ~~a~~Areas

Continually reinvests and appropriately maintains its infrastructure assets, providing the type of mobility options, including parking, that businesses require to thrive

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Offers ~~P~~protection, ~~E~~enforces the ~~L~~law, ~~P~~proactively ~~P~~prevents ~~C~~crime and is ~~W~~well-~~P~~prepared to ~~P~~promptly ~~R~~respond to ~~E~~emergencies and ~~c~~alls for ~~S~~service

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Attracts, motivates, develops, and retains a high quality, engaged, and productive workforce

Provides responsive and accessible leadership, focused community priorities, and facilitates timely, well utilized two way communication and input with all stakeholders



City Council Business Agenda Item
City of Kenmore, WA

Subject/Topic: Presentation on Herbicide Treatment Options for Invasive Aquatic Weeds	For Council Meeting Agenda of: February 1st, 2016	
Proposed Council Action/Motion: Discuss use of aquatic herbicides on Lake Washington and in the Sammamish River and provide direction	Department: City Manager's Office	
	Prepared by: Brennan Jernigan	
	Approved by Department Head: Approved by City Attorney: Approved by Finance Director: Approved by City Manager: <u>Initial & Date</u> _____ _____ _____ <u>RJK</u>_____	
	Exhibits/Attachments: Attachment A: Aquatic Noxious Weeds in Kenmore Presentation	
	Expenditure Required Under investigation	Amount Budgeted \$0
<u>INFORMATION/BACKGROUND:</u> A variety of invasive aquatic weeds are present in Kenmore, both on the shores of Lake Washington and in the Sammamish River. Most notably, there are large quantities of Brazilian elodea and Eurasian watermilfoil. These plants have become a nuisance for our community in a number of ways, and City staff is exploring ways to manage the infestation. First of all, these plants non-native, invasive species that have a negative effect on water quality and ecology. The river and lake are sensitive spawning and migration routes for many types of salmon and trout. These water bodies are also home to waterfowl such as Canadian geese, the blue heron, and ducks. Large aquatic infestations can adversely impact the water quality for fish and wildlife, especially through lowered oxygen and increased water temperatures. In addition, it is possible for harmful algae blooms to become trapped among the plants and accumulate there. These invasive plants also negatively affect recreational activities, including boating, kayaking, canoeing, dragon boat racing, swimming, and fishing. They get caught on watercraft, damage motors, and impact fishing and swimming. Shoreline property owners also report large amounts of fragments piling on their beaches and floating in the waters along the shore. Furthermore, Kenmore Air reports that invasive plants frequently create problems for their aircraft during the summer by hanging onto or clogging water rudders essential to safe maneuvering. King County Noxious Weed Control Program (KCNWCP) plays an important role in managing invasive weed species; however, its work in the Sammamish River is currently focused on non-submerged invasive species rather than the submerged species of milfoil and elodea. That means that if these weeds are to be managed, the City will have to take action to take care of them. In the summer of 2014, graduate intern Melodi Yanik did extensive research on management methods, from		

manual harvesting (scuba divers pulling weeds out by hand) to chemical herbicide treatment. From that research, it appears that herbicide treatment would be the best option for the City, in terms of effectiveness and cost. City staff has also applied for a planning grant from the Department of Ecology to do a more thorough investigation of all long-term management options available to us. In the meantime, we are investigating options to begin managing the problem immediately.

City staff recently met with AquaTechnex, a company specializing in aquatic herbicide application, and with a representative from KCNWCP to discuss the pros and cons of managing the weeds using aquatic herbicides. Kenmore Air and John Adamski, a shoreline property owner at Arrowhead Point, were also present at that meeting. From the discussion, we determined that it would be feasible for the City to apply for a permit and begin applying herbicide by this spring/early summer.

At the January 25th City Council meeting, AquaTechnex will present on herbicide treatment options. Ben Peterson, Aquatic Noxious Weed Specialist for King County, will also be present to provide information on the infestation and to answer questions.

FISCAL CONSIDERATION:

The full costs of herbicide treatment are not known at this point, however we do know the following:

- Permitting costs are estimated at \$2300, plus the cost of publishing public notices twice
- The herbicide treatment for Eurasian watermilfoil and Brazilian elodea can range anywhere from \$700 to \$1400 per acre, depending on which species need to be treated
- We would likely contract with an applicator to do a survey of the areas of concern to determine which species need to be treated and where—and we have not yet looked into how much such a survey would cost

COUNCIL GOAL/BUDGET OBJECTIVE BEING ADDRESSED:

2. To continue to implement the Economic Development Plan with an emphasis on the following key points:

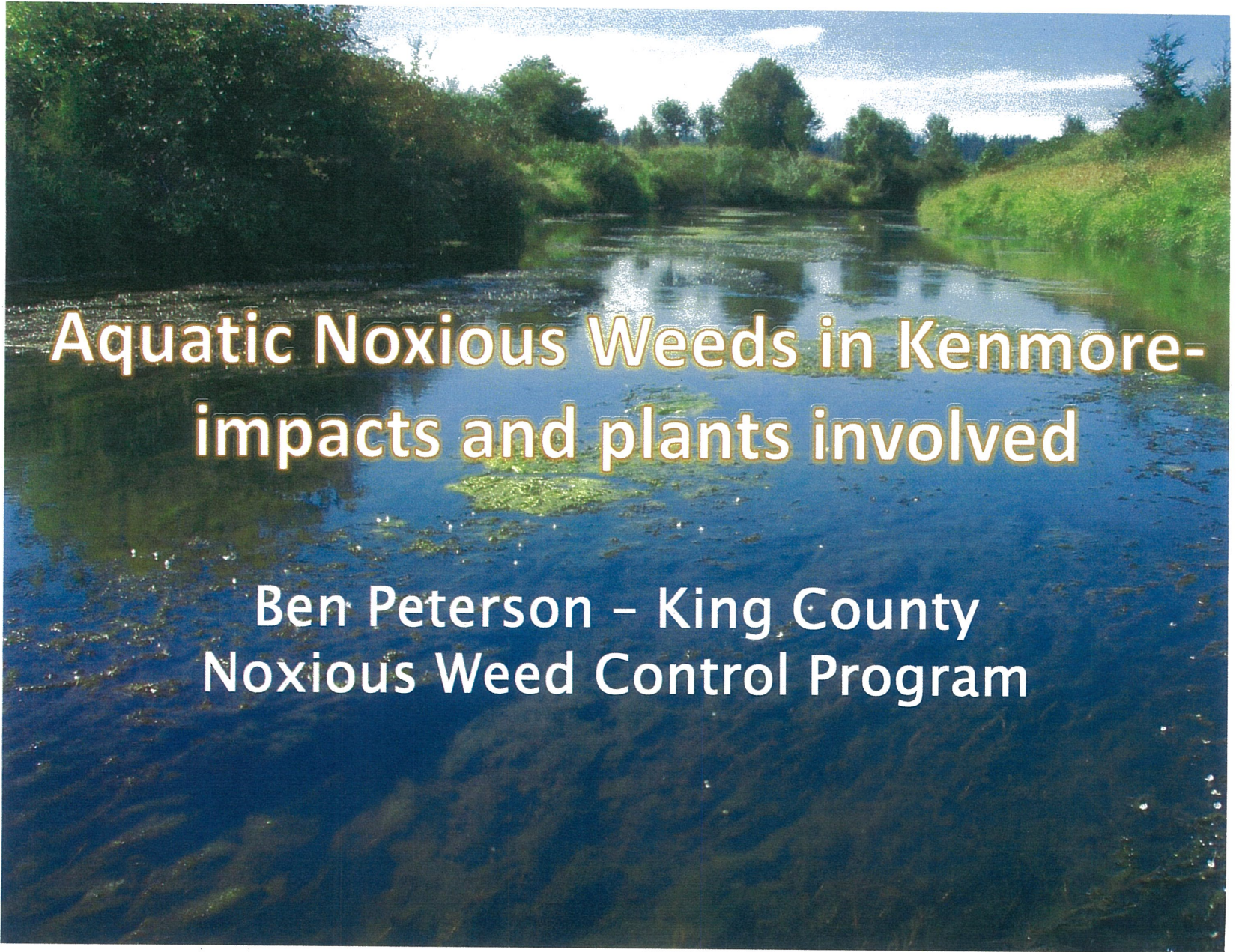
-Advance the city's connection to the waterfront

4. To advance the public's access and connection to the waterfront.

Priority-Based Budgeting Objectives:

Enhances access to, and opportunities and activities to enjoy the City's waterfront region

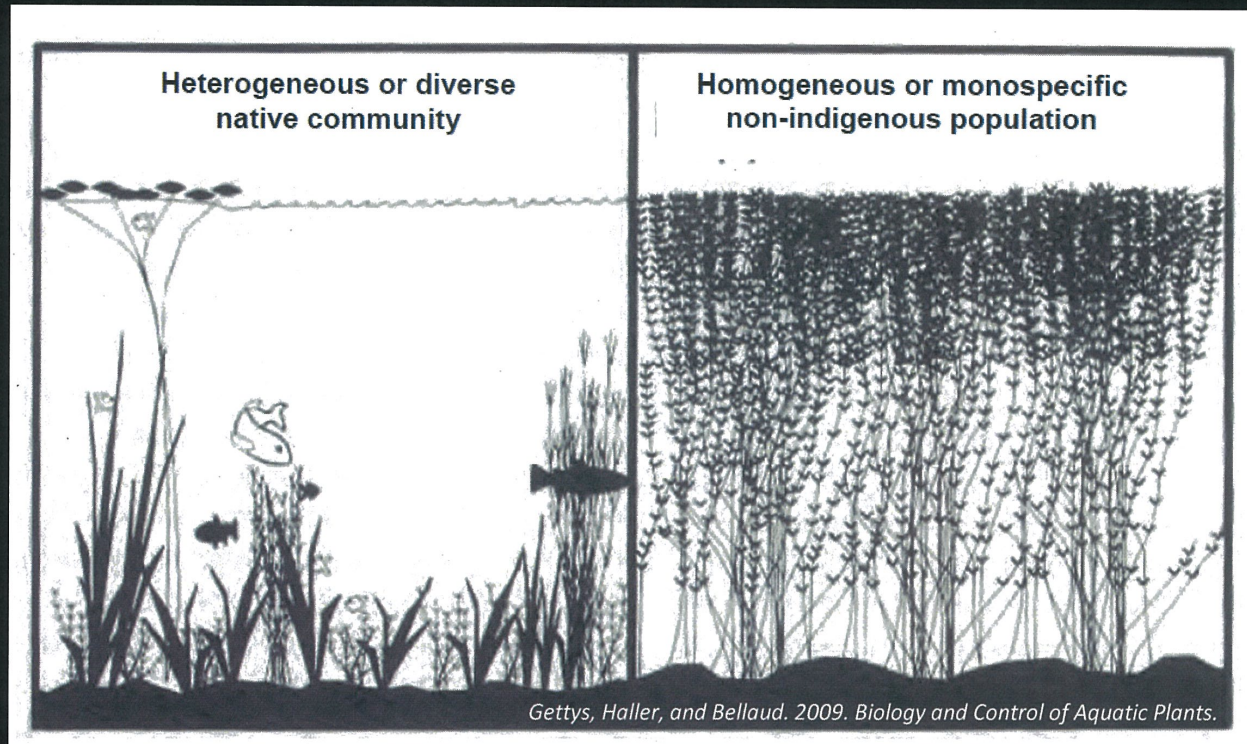
Proactively plans and manages storm and surface water for effective flood and sediment control, and manages and maintains its water and air resources to ensure environmental quality



Impacts of aquatic weeds:

- Waterbody ecology:
 - Displace native plants, form monotypic stands
- Water quality:
 - Can lead to increased water temperature and lower oxygen levels, both detrimental to salmon
 - Provide a nucleus for filamentous green algae
- Industry:
 - Impede float plane and boat movement
- Recreation:
 - Impede paddle and motor boat movement
 - Eliminate swimming opportunities

the native plant matrix in lakes: what is healthy



Good

Bad

Eurasian watermilfoil

(*Myriophyllum spicatum*)

Eurasian watermilfoil

- Native to Europe and Asia
- One of the most widespread aquatic pests in North America
- Reproduces by plant fragments
- Leads to:
 - Increased water temp
 - Mosquito breeding areas
 - Decay in fall can lead to increased algal growth
 - Reduces biodiversity



Brazilian elodea

(*Egeria densa*)

Class B
Noxious
Weed

Brazilian elodea



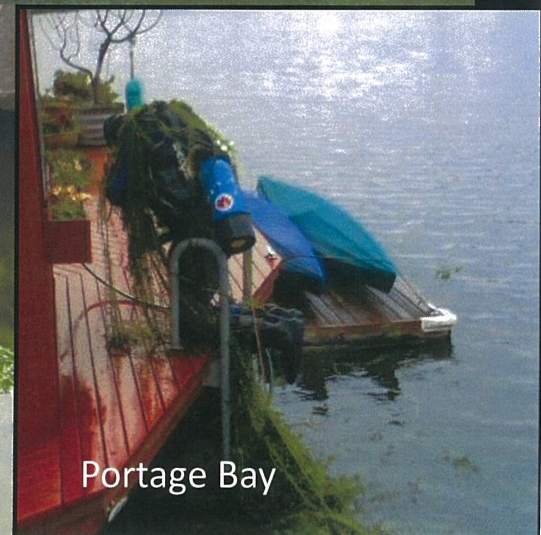
- Native to South America
- Perennial (comes back from roots)
- Fill water column
- In up to 20 feet of water
- Spreads by fragmentation
- Impedes boating, fishing, swimming



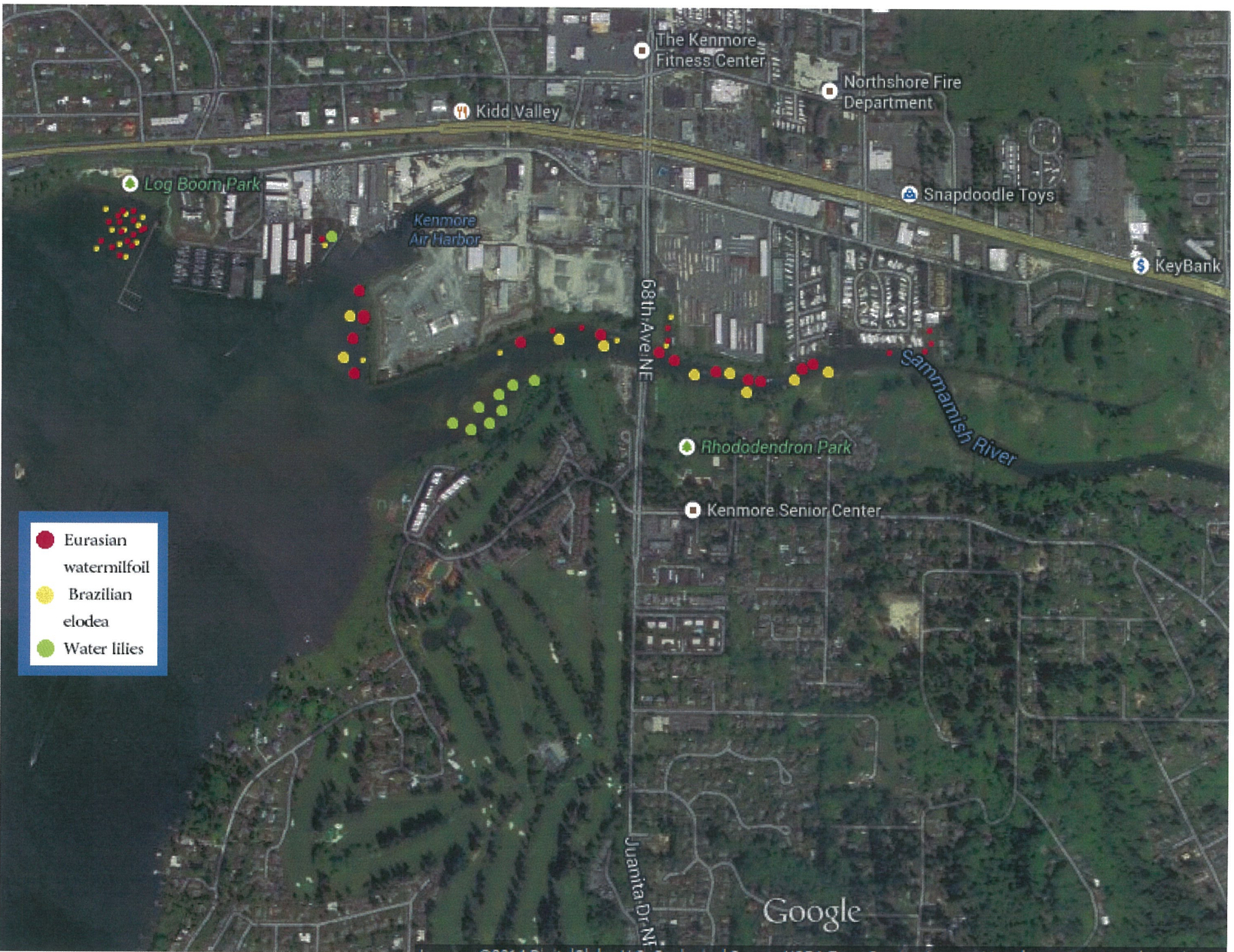
Chehalis River



Fisherman's
Terminal



Portage Bay





King County

Ben Peterson – Aquatic Weed Specialist

King County Noxious Weed Control Program

(206) 477-4724

Ben.Peterson@kingcounty.gov

www.kingcounty.gov/weeds

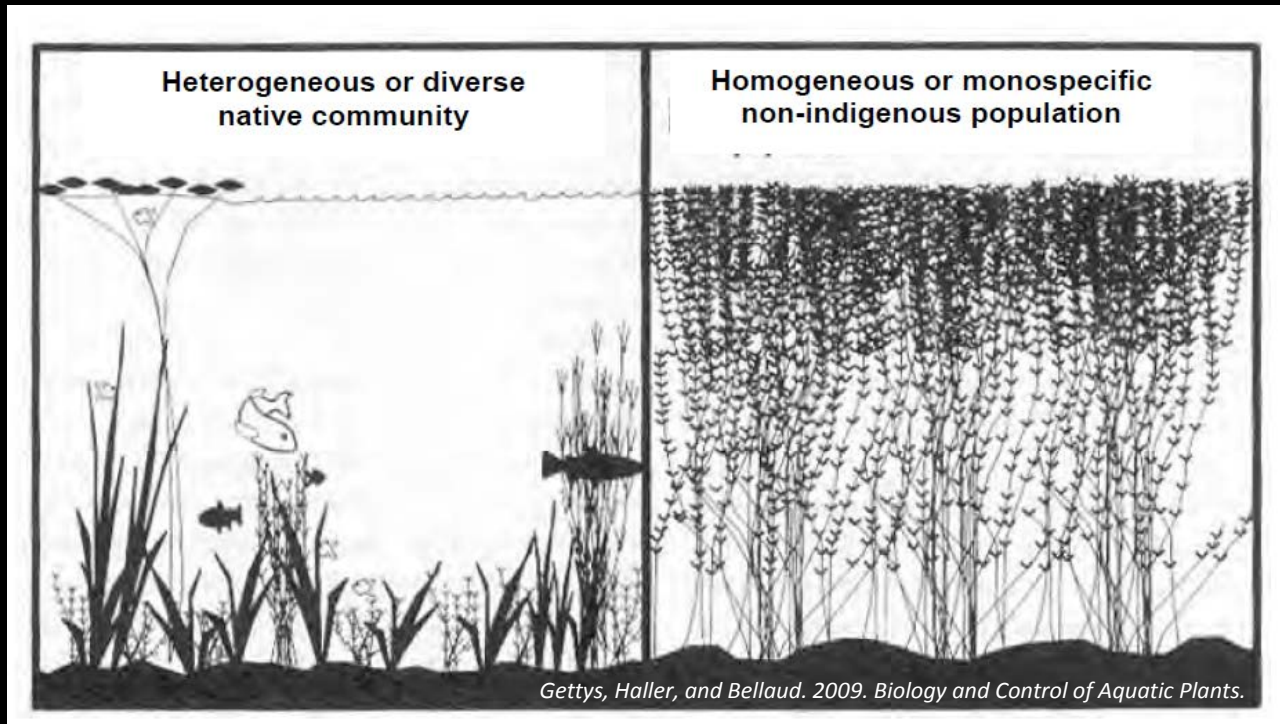
Aquatic Noxious Weeds in Kenmore- impacts and plants involved

Ben Peterson – King County
Noxious Weed Control Program

Impacts of aquatic weeds:

- Waterbody ecology:
 - Displace native plants, form monotypic stands
- Water quality:
 - Can lead to increased water temperature and lower oxygen levels, both detrimental to salmon
 - Provide a nucleus for filamentous green algae
- Industry:
 - Impede float plane and boat movement
- Recreation:
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the native plant matrix in lakes: what is healthy



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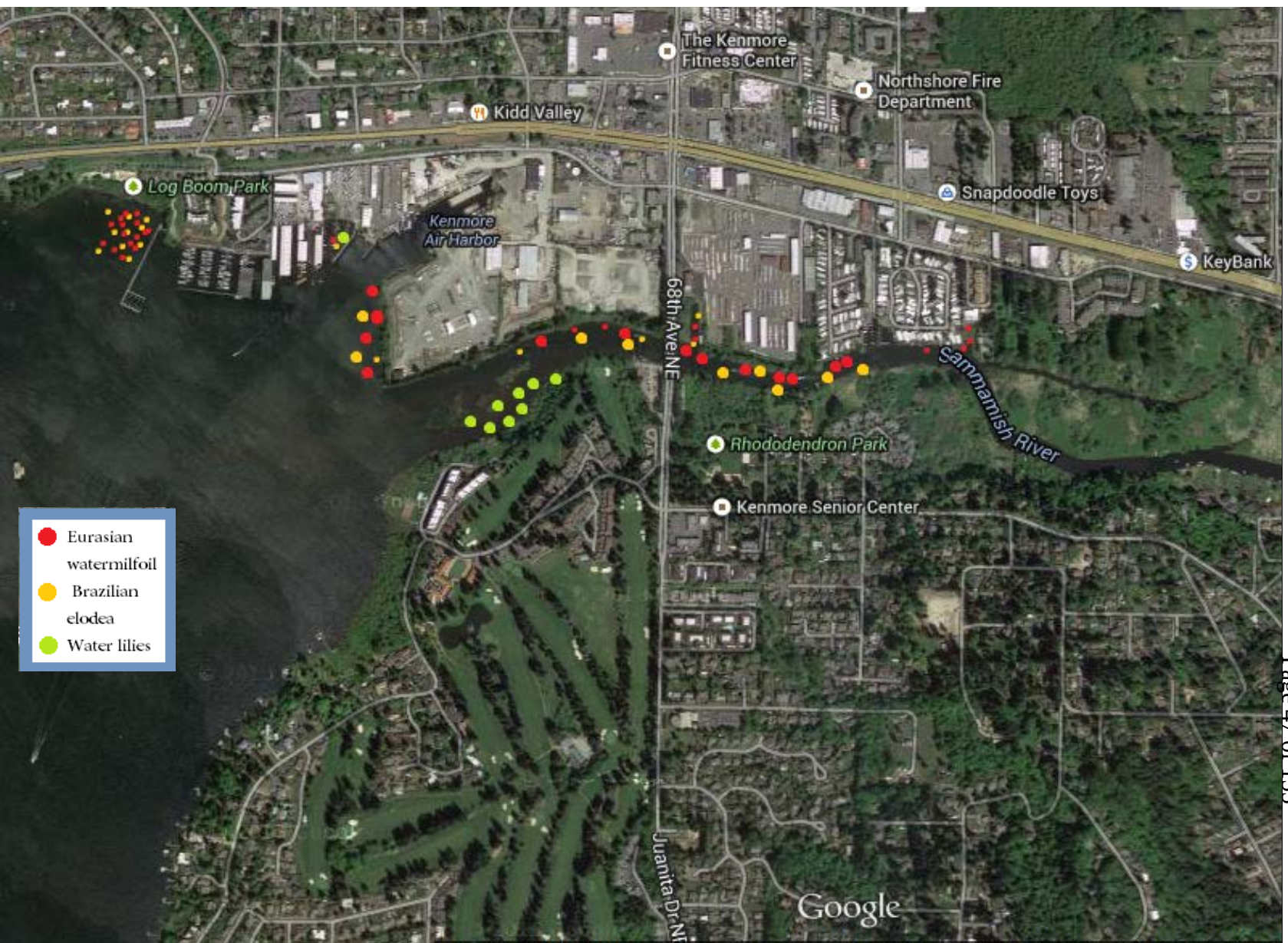
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www.kingcounty.gov/weeds



City of Kenmore Aquatic Plant Management

Terry McNabb, CLM
Adam Kleven, Aquatic Biologist
www.aquatechnex.com

Aquatechnex

- Providing invasive aquatic plant management in Pacific Northwest since 1984
- Expertise in management of invasive aquatic weeds and toxic algae
- Have been in discussions with City regarding problems in your waters for about two months



Potential Impact of Eurasian Milfoil



- Monoculture Conditions

Why Control?

- Impacts on Beneficial Uses
 - Navigation
 - Swimming-Life Saving
 - Commerce
 - Safety
 - Aesthetics
- Environmental degradation by invasive species



Benefits of Management

- Increase plant diversity
 - Varied cover important for fishery (predators/prey)
 - Food Source
 - Ducks, geese, fish, beaver, turtles, insects*
 - Water Quality
 - Dissolved Oxygen
 - pH



Consider All Management Options

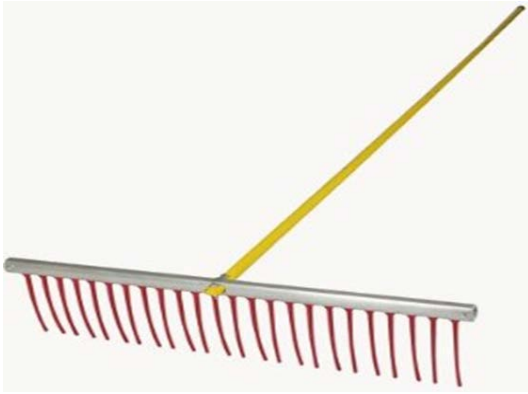


Bottom Barriers



- Divers generally used to place materials
 - Up to \$1.00 per square foot, 43,560 square feet in an acre
- Systems are required to keep material on the bottom - sandbags
- Maintenance is required
- Moved or Removed inside of 2 years
- Possible Salmon issues

Physical Removal



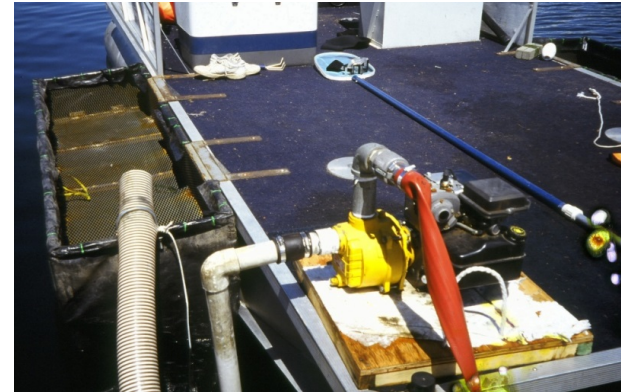
- Hand-pulling
 - Divers
- Diver dredging
- Cutting and raking



- Expensive
- Safety issue – divers
- Incomplete
- Scale

Diver Dredge Removal

- Modified Gold Dredges
- Diver collects plants and feeds larger line
- Pumped to surface, collected
- Production slow and limited



Mechanical Control

- Rotovation
- Harvesting
- Uncommon in WA
- Fragmentation issues with some species
- Limited use in WA



Biological Control

- Grass Carp
 - Eat vegetation (milfoil low on list)
 - No Containment, can't obtain permit Lake Washington
- Milfoil Weevil
 - Never proven in PNW
 - Still in "studies"
 - Several regulatory issues exist
 - Already here (native) with no impact



Overview of Herbicides

- Go through a process at US EPA similar to FDA Drug Registration
- WA Department of Ecology EIS for Each as part of permit program
- Contact/exposure time
- Can be selective for aquatic invasive species
- Can be temporary water use restrictions placed on treated water to protect water uses like irrigation
- Timing window on Lake Washington



Control Methods for Large Scale



- A complete set of management tools is available
- Use of US EPA and WA DOE approved herbicide often the only cost effective solution to large infestations
- WA DOE Permit Program regulates this work. They have a programmatic EIS that has reviewed the program and all tools approved for application

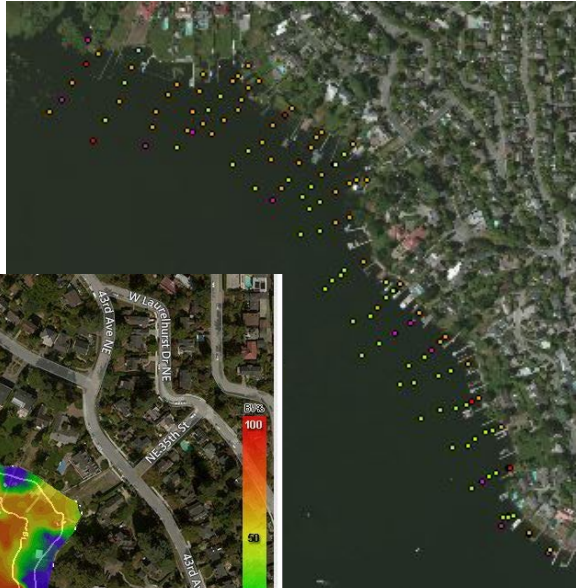
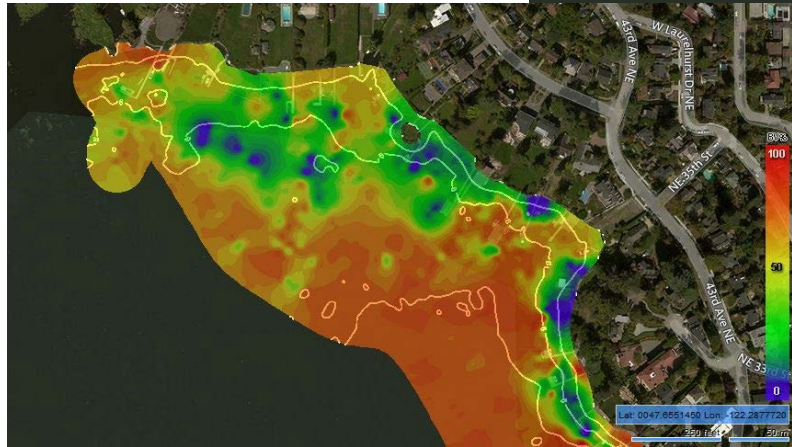
NPDES Coverage Process

- File Notice of Intent (NOI) to obtain NPDES permit coverage – 60 day process
 - Discharge Management Plan
 - Aquatic Plant Mapping
 - Selection of herbicide tool based on mapping and Agreement on Treatment areas
 - Legal Notice
 - Public Comment Period (30days)
- Additional Pretreatment Notices
 - Business and Residential Notice
 - 42-10 days prior
 - Day-of-treatment shoreline
- All products EPA Registered



Aquatic Plant Survey

- Survey the aquatic plant community – species
- What plants are there?
- How much?



Costs

- Permitting ~ \$2,000 (one-time)
- Annual Notices/Fees:\$1,000
- Treatment (per acre)
 - Systemic: \$750-\$1,200
 - Contact: \$350-\$800



Available in 2 formulations



Herbicide Application

- Treatment Polygons generated from survey
- Business and Residential Notice distribution (10-42 days)
- Shoreline notice (day of)
- Application
- Monitoring (D.O.)





Questions?

Adam Kleven

adam@aquatechnex.com

www.aquatechnex.com

Terry McNabb, CLM

tmcnabb@aquatechnex.com

Algae Issues

- Blue-green algae a growing issue in WA state (and others)
- Produce toxins



WARNING

TOXIC ALGAE PRESENT
Lake unsafe for people and pets

Until further notice:

- **Do not swim or water ski.**
No baño ni deportes al agua en el lago.
- **Do not drink lake water.**
No beber el agua del lago.
- **Keep pets and livestock away.**
Manténgalos alejados y guárdelos de la contaminación del agua.
- **Clean fish well and discard guts.**
Limpie los pescados bien y deséchelos los tripas.
- **Avoid areas of scum when boating.**
Evite las áreas de la espuma cuando canoéa.

Call your doctor or veterinarian if you or your animals have
swollen or unexplained sickness or signs of poisoning.

Call your local health department

Report your report number to your local health department
360-407-6000

For more information, visit the Washington Department of Ecology website
www.ecy.wa.gov or call 1-800-433-3333





**City Council Business Agenda Item
City of Kenmore, WA**

Subject/Topic: 62 nd Avenue NE Corridor Improvement Project Update	For Council Meeting Agenda of: 02/01/2016 Department: <u>Public Works</u> Prepared by: <u>John Vicente, P.E.</u> <table style="width: 100%;"> <tr> <td style="width: 70%;"></td> <td style="text-align: right; font-size: small;"><u>Initial & Date</u></td> </tr> <tr> <td>Approved by Department Head:</td> <td style="text-align: right;"><u>KNO 1/21/16</u></td> </tr> <tr> <td>Approved by City Attorney:</td> <td style="text-align: right;"><u>N/A</u></td> </tr> <tr> <td>Approved by Finance Director:</td> <td style="text-align: right;"><u>Pring 1/24/16</u></td> </tr> <tr> <td>Approved by City Manager:</td> <td style="text-align: right;"><u>ok per EK</u></td> </tr> </table> Exhibits/Attachments: Exhibit A: Original Project Layout Exhibit B: Revised Project Layout		<u>Initial & Date</u>	Approved by Department Head:	<u>KNO 1/21/16</u>	Approved by City Attorney:	<u>N/A</u>	Approved by Finance Director:	<u>Pring 1/24/16</u>	Approved by City Manager:	<u>ok per EK</u>
	<u>Initial & Date</u>										
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Approved by Finance Director:	<u>Pring 1/24/16</u>										
Approved by City Manager:	<u>ok per EK</u>										
Proposed Council Action/Motion: No Action required at this time											
Expenditure Required NA	Amount Budgeted NA										
Appropriation Required N/A											
<u>INFORMATION/BACKGROUND:</u> On July 13, 2015, Council awarded a contract with KPFF to design the improvements for the 62 nd Ave NE Corridor Improvement Project. The Project is located along 62 nd Ave NE between SR 522 and NE 187 th Place. The initial project scope (Exhibit A) was to install new sidewalk along the west side of 62 nd Ave NE from NE 187 th Place to the construction limits of the 522 West project and install traffic circles along 62 nd Ave NE at NE 182 nd St, NE 184 th St and NE 185 th St. After further site investigation during the initial design process, it was determined that constructing the sidewalk on the east side of 62 nd Ave NE would have a reduced project cost and impact to property owners. Exhibit B represents the new proposed sidewalk location. These changes were presented at the Neighborhood Transportation Plan Program (NTPP) meeting for this neighborhood and is also listed on the City's Major Projects webpage where the new sidewalk location is shown. The change in location of the sidewalk was also reviewed and approved by our funding partners. Current status: The project design is 30% complete and has been reviewed. KPFF will continue to advance the design and a public open house will be held in the spring. Design is anticipated to be completed in fall 2016 with construction occurring in early 2017.											
<u>FISCAL CONSIDERATION:</u> This project was awarded \$813,056 in federal funds from the Highway Safety Improvement Program. The City is also contributing \$14,800 as local match. At this early stage of design, total project cost is still be determined and will be updated at the 60% design level.											
<u>COUNCIL GOAL/BUDGET OBJECTIVE BEING ADDRESSED:</u> Goal #1: To focus on and emphasize multimodal transportation safety in the City of Kenmore with a specific focus on pedestrian, bicycle, and other means of travel.											

Exhibit A
Original Design Layout

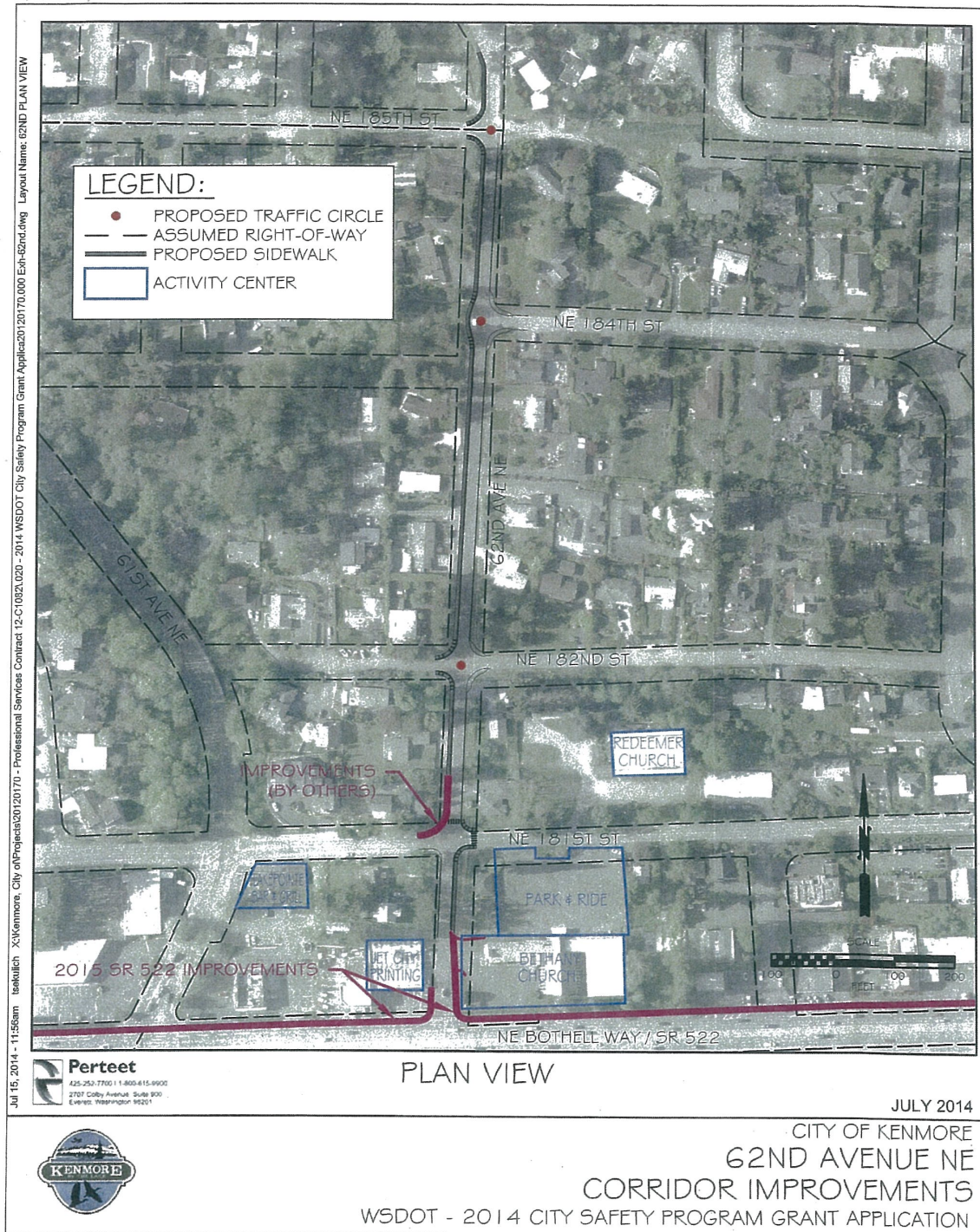
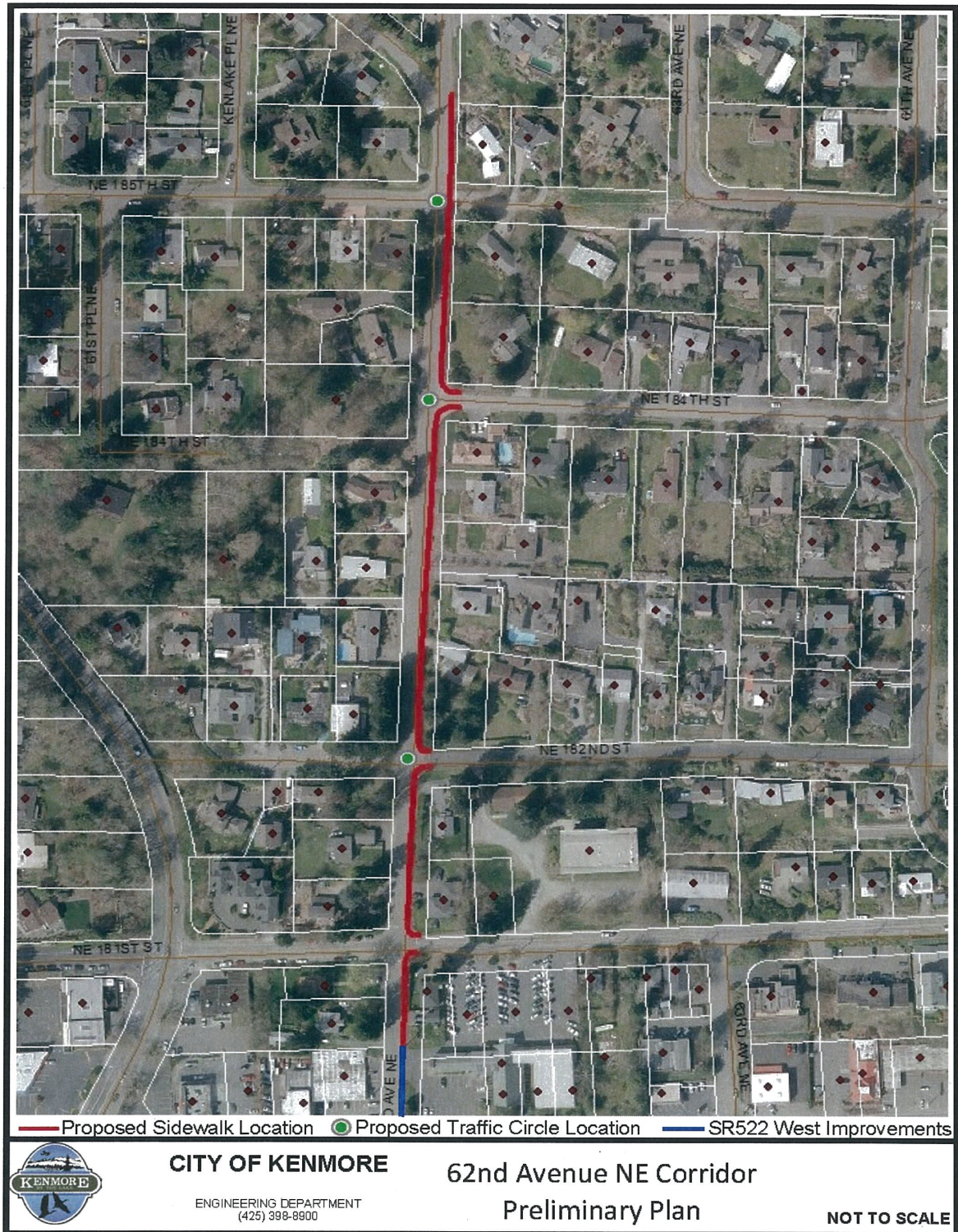


Exhibit B
Revised Design Layout



62nd Avenue NE Corridor Project Discussion

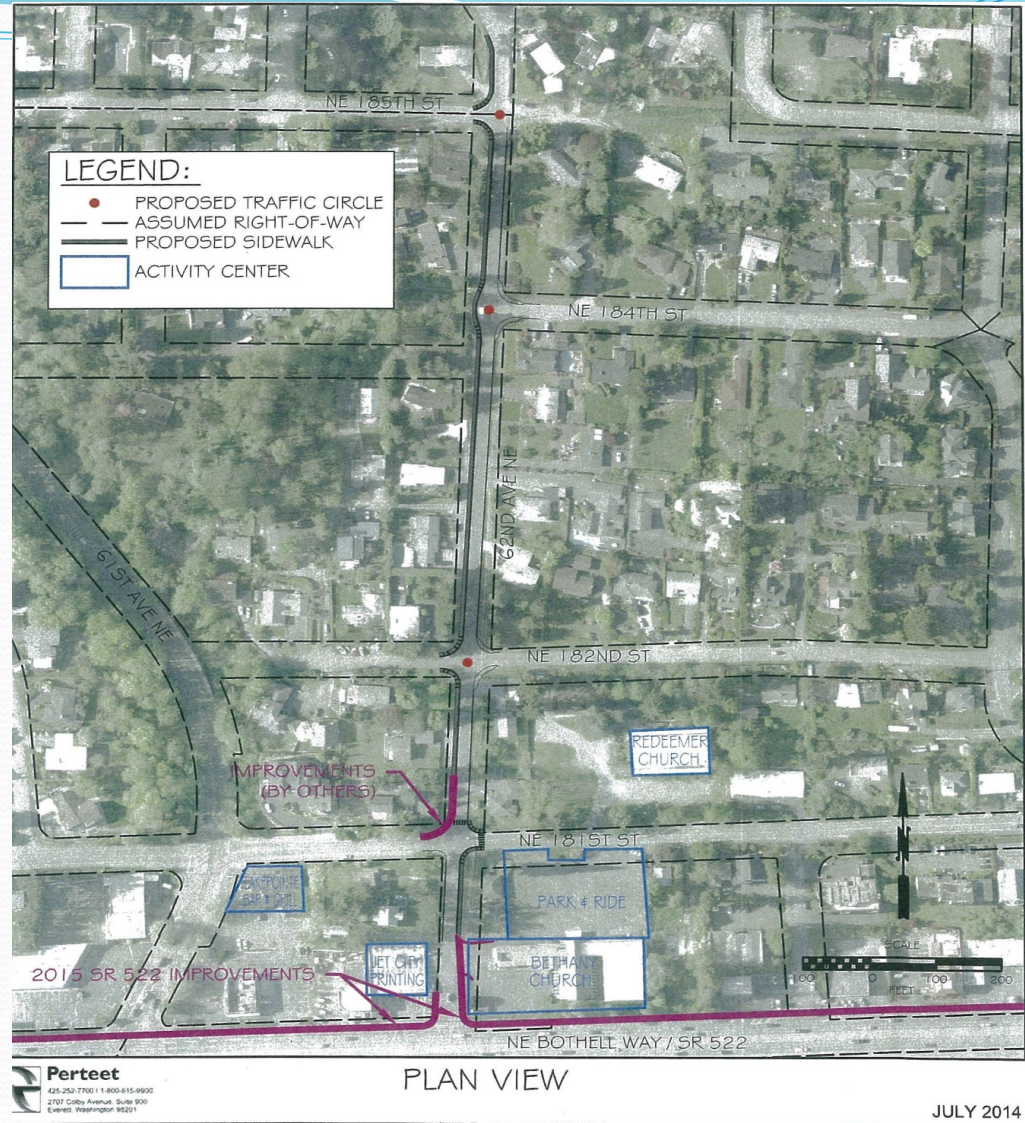
February 1, 2016

John Vicente, Capital Projects Manager
Nathan Anderson, KPFF

PROJECT UPDATE

- July 2016: KPFF Design Contract Approved
- August 2016: Design began on the Project
- Project Scope:
 - New sidewalks – 62nd Ave NE between 181st and 187th
 - 3 Traffic circles at 182nd, 184th and 185th Streets
- Federal Funds through the Highway Safety Improvement Program (\$813K)
- Public Outreach
 - NTPP
 - Neighborhood notices and outreach
 - Webpage

Original Plan



Revised Plan



NEXT STEPS

- Public Open House – February 29, 2016
- Advance Design
- Projected Construction Start –2017

COMMENTS?

Subject/Topic:
NE 202nd Safe Routes to Schools Project
Update

Exhibits/Attachments:
Exhibit A: Vicinity Map
Exhibit B-D: Project Layout

Appropriation Required N/A

Design is anticipated to be completed in fall 2016 with construction occurring in summer 2017 to correspond with school summer vacation.

Goal #1: To focus on and emphasize multimodal transportation safety in the City of Kenmore with a specific focus on pedestrian, bicycle, and other means of travel.

Exhibit A
Vicinity Map

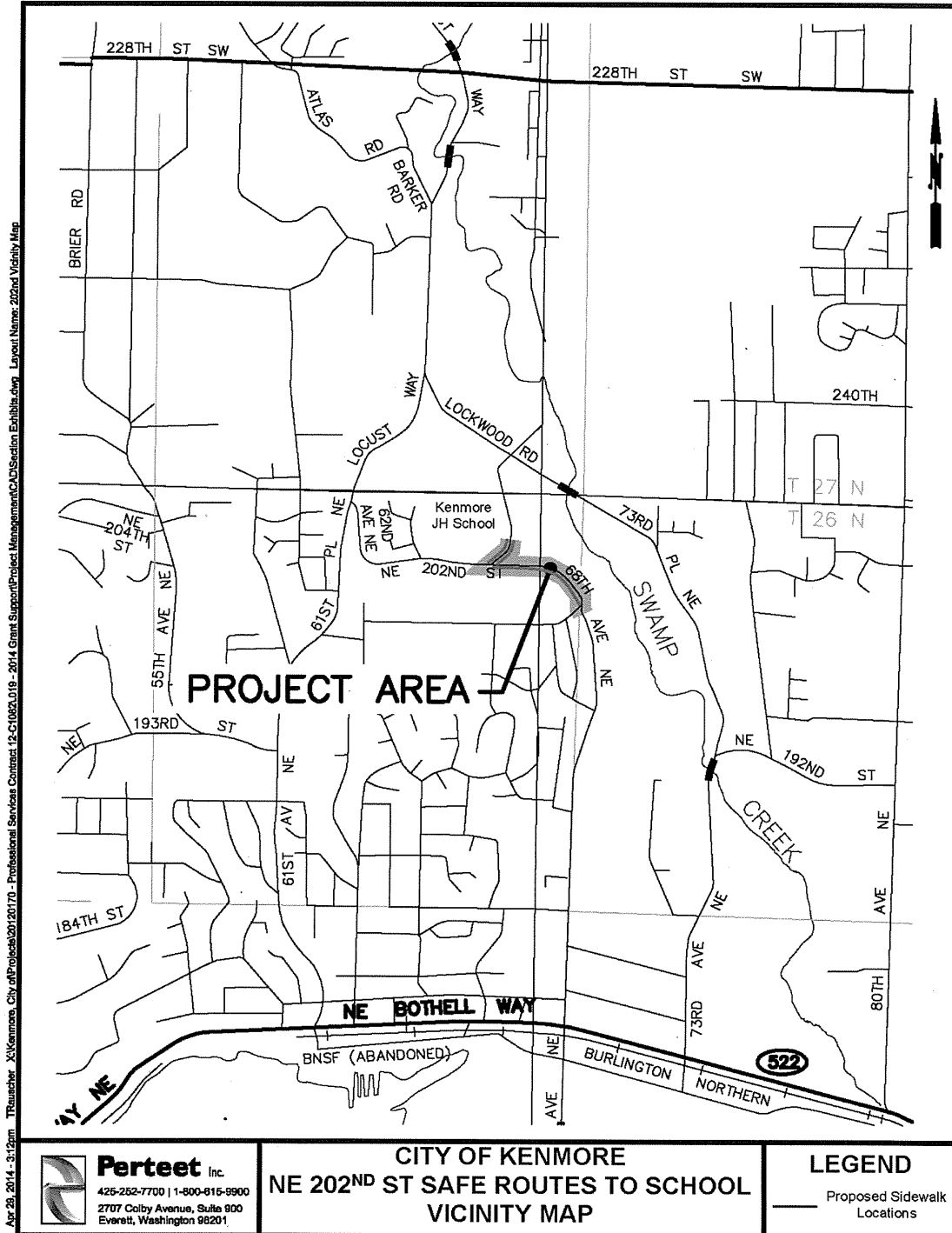


Exhibit B
Design Layout 66th Ave NE



Exhibit C
NE 202nd Street – West End

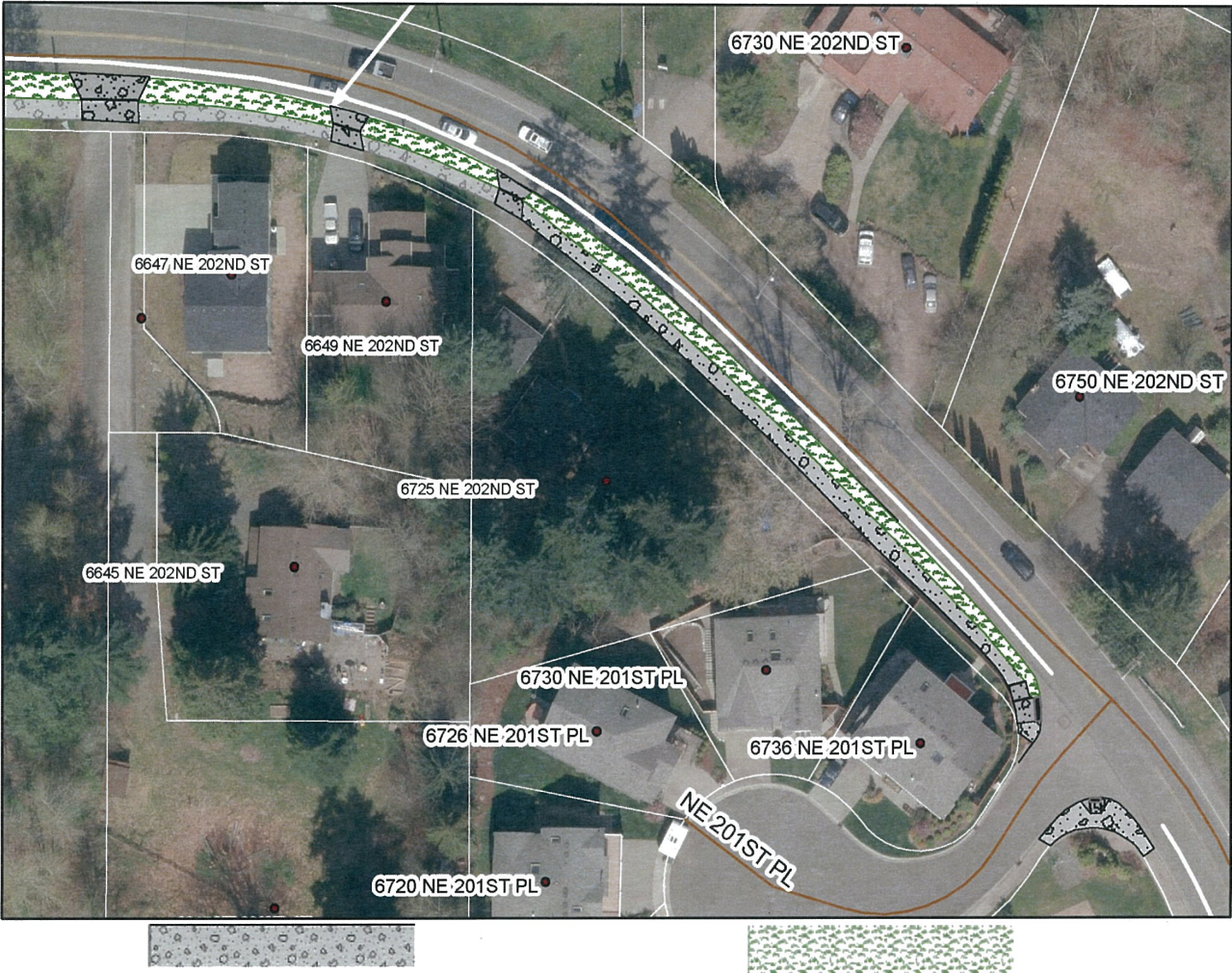
NE 202nd St West End



Proposed Sidewalk Proposed Landscape Strip Proposed Bioswale

Exhibit D
NE 202nd Street –East End

NE 202nd St, East End



Proposed Sidewalk

Proposed Landscape Strip

NE 202nd Safe Routes to School Project Discussion

February 1, 2016

John Vicente, Capital Projects Manager
Darrell Smith, Perteet

PROJECT UPDATE

- Perteet Providing Design Through City's On-Call
- October 2016: Design began on the Project
- Project Scope:
 - New sidewalks –
 - NE 202nd St between 66th Ave NE and Ne 198th St
 - 66th Ave NE between NE 202nd St and Kenmore Junior High
 - Bike Lane on NE 202nd
 - Improved Crossing at Kenmore Junior High
 - State funded from Safe Routes to Schools Program (\$814K)

[illegible]

Proposed Plan 66th Ave NE



Proposed Plan- NE 202nd St




Proposed Sidewalk


Proposed Landscape Strip


Proposed Bioswale

Proposed Plan- NE 202nd St



Proposed Sidewalk

Proposed Landscape Strip

NEXT STEPS

- Public Open House – March 8, 2016
- Advance Design
- Projected Construction Start – Summer 2017



COMMENTS?

VI. D. School Zone Cameras Discussion - Kris Overleese, Publ...

The City has been actively engaged in safety improvements in school zones. In 2014, RRFBs were added to the 73rd Avenue crosswalk in the Kenmore Elementary school zone. In 2015, modifications were made to the signal timing, and a no turn on red restriction was posted during active school zone times at Juanita Drive and Arrowhead Drive. This modification separated pedestrians from vehicles in the Arrowhead Elementary school zone. Kenmore police rotate patrols of school zones throughout the week.

Analysis of School Zone Existing Operating Conditions

The lack of any collisions between vehicles and pedestrians, cyclists or other vehicles over the last fifteen years is a significant positive for Kenmore school zones. Because of this lack of collisions, analysis of concerns with school zone operating conditions focused on vehicle speed.

To determine speeds of concern, the 85th percentile speed measured in each school zone was analyzed as a starting point. The 85th percentile speed captures the majority of drivers who are driving in a safe, reasonable manner given the roadway conditions and physical environment. Because of the sensitivity of a school zone analysis compared to other roadways, the 95th percentile speed was checked for reference. Speeds up to 5 mph over the posted limit fall within the margin of error for vehicle and data collection instrumentation. Speeds measured between 5 and 10 mph over the posted limit indicate that the physical environment, conditions, timing, etc. need to be checked to determine risk factors for vehicle-pedestrian collisions. If collision risk factors are low, 85th percentile speeds up to 7 mph over the posted limit are acceptable.

Data was obtained in the City's three elementary school zones in the inbound and outbound sections. On Juanita Drive, some 85th percentile speed measurements exceeded 28 mph, but the average inbound section 85th percentile speed was 26 mph. Inbound 85th percentile speeds in other school zones were no more than 26 mph, with many less than 24 mph. Across all three City of Kenmore school zones, outbound speeds were typically higher than inbound speeds. Outbound speeds may be higher because drivers are accelerating to resume normal speed by the end of the school zone after crossing the crosswalk. Speeds are typically higher in the afternoon than in the morning. Drivers may be less observant of the school zone speed limit during the full range of afternoon times analyzed, as children are present at a much more concentrated period of time in the afternoon.

Tools to Address School Zone Safety

The toolbox of available alternatives to address school zone speeds includes the traditional "Three Es" of education, enforcement and engineering. Additional enforcement is planned in 2016 with the addition of a half-time traffic enforcement officer to the Kenmore Police. Engineering tools to address school zone safety include relocation of and added signage, pavement markings, and signal operations modifications.

One of the newest tools available that merges enforcement and engineering is automated enforcement through the use of school zone cameras. Installation and operation of automated enforcement camera systems is via a contract and monthly fee between a city and a third party vendor. Kenmore police review violations noted by the radar-based tracking system, and issue civil penalty violations to the registered owner of the photographed vehicle. These violations are processed similar to parking infractions. King County District Court clerk and prosecutor costs are incurred by the City to collect fines and handle contested violations.

National studies have found that vehicle speeds and the rate of collisions, especially those involving injuries, do drop significantly after the implementation of automated enforcement. Automated enforcement cameras are or have been in use in Auburn, Bellevue, Lake Forest Park, Redmond and Seattle. These neighboring cities have had a varied experience with the rollout and continued operation of a camera system. Auburn and Redmond have discontinued the use of automated enforcement.

Recommendation

No additional immediate action is recommended in Kenmore elementary school zones. In all three school zones, there is an acceptable balance between enforcement, pedestrian isolation from crossing traffic and measured vehicle speeds.

Monitoring of elementary school zone speeds will continue. Kenmore police patrols of school zones will continue, with the increased availability in 2016 of the half-time traffic control officer. The average inbound section 85th percentile speeds on Juanita Drive, 73rd and 84th Avenues are all in acceptable ranges. Juanita Drive has physical separations of pedestrian and vehicle traffic and a lack of pedestrian activity parallel to Juanita Drive which contributes to the overall picture of safety at the crossing.

FISCAL CONSIDERATION:

No proposed actions are recommended at this time.

COUNCIL GOAL/BUDGET OBJECTIVE BEING ADDRESSED:

1. To focus on and emphasize multimodal transportation safety in the City of Kenmore with a specific focus on pedestrian, bicycle and other means of travel.

ANALYSIS OF KENMORE SCHOOL ZONE OPERATING CONDITIONS

January, 2016

Brett Schock, PE

City Traffic Engineer



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Appendix B

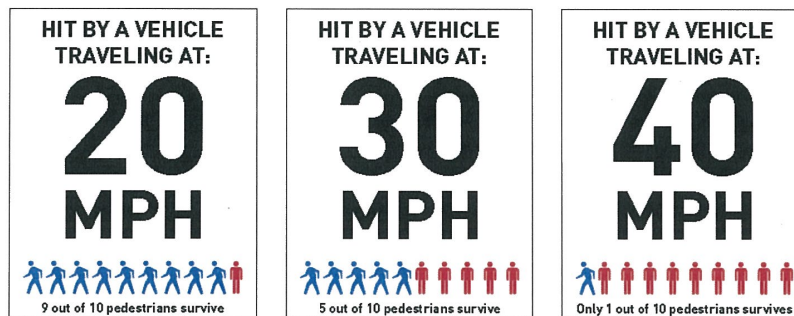
Automated School Zone Speed Cameras	1
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Introduction

As part of the City of Kenmore's Target Zero commitment to zero bicyclist and pedestrian injuries and fatalities, the City conducted a review of the operating conditions in City School Zones. The purpose of this review is to identify conditions of high vehicle speeds or a high collision frequency within an active school zone. An active school zone is defined as the times around the morning arrival and afternoon dismissal when pedestrian activity around elementary schools is high.

Research has shown that for vehicle-pedestrian collisions, speed is a critical factor. Pedestrian survival rates in collisions with a vehicle traveling at 20 miles per hour are 90%. Survival rates for collisions with vehicles traveling at 30 miles per hour drop to 50%. All school zones in Kenmore are signed for 20 miles per hour, regardless of the typical daily speed limit of the road.

Figure 1: Pedestrian Survival at Speeds



Source: Seattle Vision Zero Plan

Defining A School Zone

To establish the framework of this analysis, the specific location and times of active school zones is defined as follows;

- Within 300 feet of a crosswalk that accesses an Elementary School
 - The City of Kenmore follows historical King County standard practices which consider student age, responsibility and driving habits. Only elementary schools are designated as school zones.
- Signed for a school zone speed limit
- A minimum of 5 minutes before and 5 minutes after the morning bell
- A minimum of 5 minutes before and 5 minutes after the afternoon bell

These conditions are based on the statutes of Washington Administrative Code (WAC) 468-95-330, which sets the 300 foot distance and WAC 468-95-335 which requires the presence of children on curbs, shoulders, sidewalks or about to enter a crosswalk to enforce a 20 mile per hour speed limit. School zone signage may be placed outside of the 300 foot range due to physical constraints such as driveways, etc. The enforceable school zone limits are guided by the WAC, and not the signage. The times noted

for active school zones (ASZs) are minimums, and each school's active school zone time changes based on walking volumes and patterns from residential areas.

School Zone Priorities

Each elementary school in Kenmore is located near an arterial or collector roadway with a 35 mile per hour daily speed limit. Each school has a crosswalk on this major roadway which defines the primary school zone for that school. The school zone can be divided into three sections, as in Figure 2;

- The inbound section, where traffic passes a school zone sign and is approaching the crosswalk
- The crosswalk section, where traffic is in the immediate vicinity of and crossing the crosswalk
- The outbound section, where traffic has passed the crosswalk and is heading out of the school zone

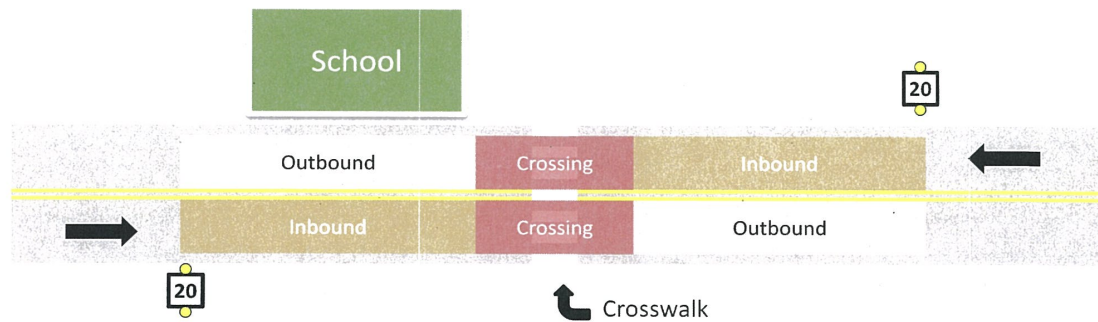


Figure 2: School Zone Sections

For this report, the crosswalk zone is the highest priority to ensure that vehicle operating speed is low. This is the most likely location for a collision with a pedestrian. Of almost equal priority is the inbound zone, where vehicles should be slowed to 20 miles per hour and preparing to enter the crosswalk zone. The outbound zone is of lower priority. A case-by-case contextual evaluation is necessary of the outbound zone to determine the likelihood of pedestrians along the road in that zone.

Existing Conditions in the School Zone Environment

The city of Kenmore has five schools within its borders, three elementary schools, one junior high school and a high school. The three elementary schools in Kenmore each have a designated school zone on the adjacent arterial or collector roadway. These school zones are indicated by regulatory signage and flashing beacons during active school zone times. Two elementary schools have additional beacon-enhanced school speed limits on adjacent residential roadways. There are other locations near each school that have signs, without beacons, for 20 mph when children are present and notify drivers of the presence of the nearby school. The schools and flasher locations are;

Table 1: City of Kenmore Elementary School Zone Roadways

	Adjacent Arterial Or Collector	Daily Speed Limit	Signed 20 mph school zone (with beacon)	Signed 20 mph school zone (no beacon)
Arrowhead Elementary	Juanita Dr	35	Juanita Dr Arrowhead Dr NE 153 rd Pl	Arrowhead Dr
Moorlands Elementary	84 th Ave	35	84 th Ave 81 st Ave	NE 155 th St
Kenmore Elementary	73 rd Ave	35	73 rd Ave	71 st Ave

The City of Kenmore follows historical King County standard practices which consider student age, responsibility and driving habits when signing for a school zone. By these practices, Inglemoor High School, within Kenmore, is not signed for a school zone. Kenmore Junior High School has one sign pair, without beacons, for 20 mph when children are present at a crossing of NE 202nd Street near the intersection with 66th Avenue NE. This crossing is enhanced with a Rectangular Rapid-Flash Beacon (RRFB).

School Physical Environments

Arrowhead Elementary is located in a depression, below the grade of Juanita Drive and behind significant tree cover. Juanita Drive consists of a single lane in each direction with left turn pockets at the school zone for Arrowhead. The school zone crosswalk is located at a 4-way signal for Juanita Drive, Arrowhead Drive and NE 153rd Place. The signal has marked crosswalks and pedestrian signals with call buttons in all four directions. School zone signage on Juanita Drive is located outside of the 300 foot limit defined in the WAC. School zone signs are located approximately 530 feet south and 600 feet north of the crosswalks at the intersection with Arrowhead Drive.

Kenmore Elementary is located 500 feet west of 73rd Avenue, with a driveway accessing the school grounds. The school zone crosswalk is located at the intersection of the school driveway and 73rd Avenue, which is stop controlled only for the driveway. 73rd Avenue consists of a single lane in each

direction at the school zone. The crosswalk is enhanced with rectangular rapid flash beacons (RRFB). The school zone signs on 73rd Avenue are located approximately 275 feet south and 400 feet north of the crosswalk.

Moorlands Elementary is located between 84th and 81st Avenues and south of NE 155th Street. The school zone crosswalk is located on 84th Avenue at the intersection with the school driveway. 84th Avenue consists of a single lane in each direction at the school zone. The crosswalk is painted, but does not have rectangular rapid flash beacons. The school zone signs on 84th Avenue are located approximately 450 feet north and south of the crosswalk.

Maps showing the location of each school, the surrounding road network, the location of flashers, static signs and crosswalks are included in Appendix A.

City Target Zero Improvements in School Zones

As part of the Target Zero initiative, the City has been reviewing and implementing specific measures to improve the safety in school zones. These improvements occurred before and during the assembly of this report and analysis.

- Modifications to the signal timing at Juanita Drive and Arrowhead/NE 153rd PI have given pedestrians their own phase. All traffic is at a stop (red signal) whenever the east-west pedestrian signal shows “walk”. The pedestrian phase is in between the eastbound and westbound traffic phases. This safety enhancement separates crossing pedestrians from moving vehicles on Juanita Drive. This modification occurred in summer of 2015.
- A right turn on red restriction for Arrowhead Drive accompanied the pedestrian phase, further restricting any traffic movement across the school zone crosswalk while pedestrians have the “walk” signal. This modification occurred in summer of 2015.
- RRFBs were installed at the crosswalk on 73rd Avenue inside the school zone in 2014.

The Kenmore police provide enforcement of school zone speed limits and traffic safety in active school zones. Police routinely patrol the elementary school zones during the week and issue moving violations to drivers. The police only issue tickets during active school zone times and focus on traffic in the inbound section of the school zone.

Existing School Zone Traffic Operating Conditions

Traffic Volume

The City maintains a traffic volume and speed data collection program and a collision database for its own records and analysis. Traffic counts for volume on roadways with school zones were used to calculate the typical weekday volumes during school months shown in Table 2. The peak morning and afternoon/evening hours of traffic volume on these roadways is also shown in Table 2.

Table 2: City of Kenmore Elementary School Zone Vehicle Volumes

	Adjacent Arterial Or Collector	Weekday Volume (vehicles per day)	AM Peak Hour	PM Peak Hours
Arrowhead Elementary	Juanita Dr	15,500	7:00 – 8:00am	4:00 – 6:00pm
Moorlands Elementary	84th Ave	2,300	7:00 – 8:00am	5:00 – 6:00pm
Kenmore Elementary	73 rd Ave	7,700	7:00 – 8:00 am	5:00 – 6:00pm

Juanita Drive and 73rd Avenue are arterial routes that are frequented by commuters from outside of Kenmore. Juanita Drive, in particular, sees significant commuter traffic from toll avoidance from the SR 520 bridge. Commuters do travel through all hours of the day, but tend to be concentrated during the peak rush hours. It should be noted that these peak hours fall outside of the active school zone times at all three locations.

Pedestrian Volume and Routes

Pedestrian volume counts were not obtained for this report. Field observations by City staff and police note that Arrowhead Elementary frequently has the highest volume of pedestrians in the school zone of the three elementary schools. Kenmore Elementary has the lowest volume of pedestrians in the school zone.

Suggested walk route maps for each school are published by the Northshore school district. Walk routes for students are designated along both 73rd and 84th Avenues, through these school zones. Walk routes for students are not suggested along Juanita Drive. Students living east of Juanita Drive are advised to use NE 153rd Place to access the Juanita Drive crosswalk to Arrowhead Elementary. These walk maps for the 2014-15 school year can be found in Appendix A.

Traffic Speed

The available speed information on Juanita Drive, 73rd Avenue and 84th Avenue prior to this report was not located directly in school zones. Additional field data was collected at targeted locations for this report in order to analyze vehicle speeds within the limits of school zones.

Collisions

The collision database was searched for records over the last fifteen years. This data includes vehicle-vehicle, vehicle-pedestrian and vehicle-cyclist collisions. The search was run within the following limits, each of which includes one of the three school zones;

- Juanita Dr NE between NE 149th St and NE 154th Ct
- 73rd Avenue NE between NE 190th St and NE 202nd St
- 84th Avenue NE between NE 150th St and NE 155th St

Zero collisions during active school zone times were found in this data. It was assumed that active school zone times have not fluctuated more than ten minutes from the current times over that fifteen year period.

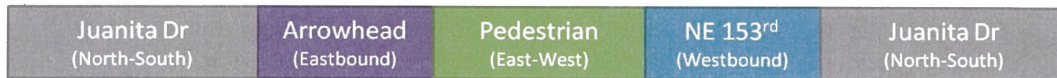
Citizen Requests

The city's historical database of citizen requests was checked for concerns with school zone speeds. A number of older school zone related requests were for flashing beacons at school zones which are now in place at all three school zones. Including requests for beacons and other signing, 18 total requests were filed in the last 15 years. Only two requests have been received in the last three years, both by the same individual, to address school zone vehicle speeds.

Traffic Signals – Juanita Drive

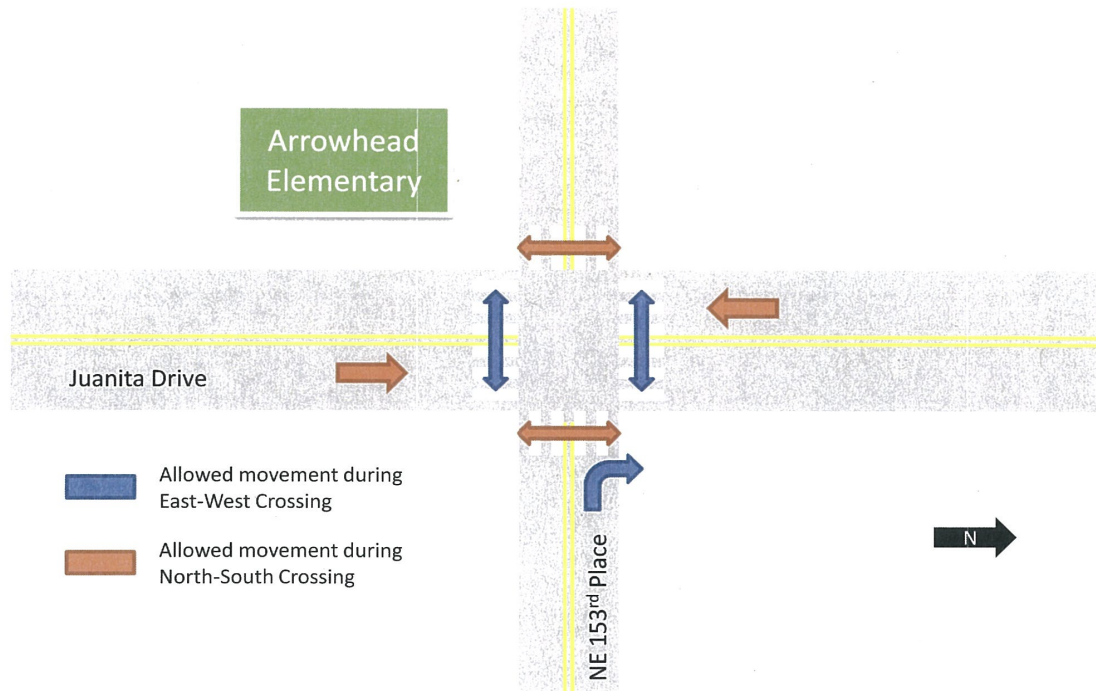
All four crosswalks at the signal at Juanita Drive with Arrowhead Drive and NE 153rd Place are within the school zone. The east-west crosswalks across Juanita Drive are only given a walk phase when all other traffic movement is stopped, including a no-right-on-red restriction for Arrowhead Drive. The east-west crosswalks are further separated from moving north-south traffic by the eastbound and westbound phases. A timeline of the signal phases is shown in Figure 3.

Figure 3: Timeline of Green Signals at Juanita-Arrowhead-NE 153rd Signal



The north-south crosswalks, parallel to Juanita Drive, are given a walk phase when Juanita Drive north-south traffic is green. Left turns from Juanita Drive are made in a separate phase with no walk signals given. A schematic of the signal operation is shown in Figure 4.

Figure 4: Juanita-Arrowhead-NE 153rd Signal Crosswalks



Analysis of School Zone Existing Operating Conditions

The lack of any collisions between vehicles and pedestrians, cyclists or other vehicles over the last fifteen years is a significant positive for Kenmore school zones. Because of this lack of collisions, analysis of concerns with school zone operating conditions focused on vehicle speed. As noted in the existing traffic operations, the speed data from tube counters in the City's records was not located in the immediate area of any of the three school zones. It was necessary to obtain new field data in order to evaluate the operating speeds in the City's school zones.

Determining Speeds of Concern

Data on vehicle speeds obtained over several days is analyzed for certain characteristics to determine if speeds are as expected, or are of concern. The typical threshold to begin evaluation is the 85th percentile speed. This speed represents the speed at which 85% of vehicles are measured at or below. This measurement is a standard in traffic engineering and is a good starting point for a more context-sensitive analysis. The 85th percentile speed captures the majority of drivers who are driving in a safe, reasonable manner given the roadway conditions and physical environment. Drivers above this threshold are viewed as operating in an unsafe or unreasonable manner. These speeds are best addressed by a combination of enforcement and engineering. Because of the sensitivity of a school zone analysis compared to other roadways, the 95th percentile speed was checked for reference.

In analyzing the 85th percentile speed, speeds that are up to 5 miles per hour over the posted limit are of less concern. There can be a wide range of differences in instrumentation, both within the vehicle and in the data measurement device and setup that can lead to this level of error in measurement. Speeds within 5 miles per hour of the posted limit are a reasonable expectation.

85th percentile speeds between 5 and 10 miles per hour over the posted limit are outside of the margin of error of instrumentation. If speeds are measured in this range the physical environment, conditions, timing, etc. need to be checked to determine other risk factors for pedestrian-vehicle collisions. If collision risk factors are low, 85th percentile speeds as high as 27 mph in a school zone are acceptable.

Methodology to Obtain Data

The location speed data is gathered in school zones is an important consideration. The sections of the school zone as shown in Figure 2 have varying priorities and may have differing operating conditions. The crosswalk and inbound section are the most critical to have good operating data on. The outbound data is important to obtain for a complete analysis, but may be of less concern depending on the data and location. Automated tube counters were used to gather the field data needed for this analysis. These counters operate pneumatically, gathering puffs of air from tubes stretched across the roadway. Data from these counters is obtained 24 hours a day while the system is in the field. To evaluate the school zone data, it was necessary to clip out data only in one direction and at specific times of weekdays.

Data was collected at two times. One set of data was obtained the first week of June, 2015. The second set of data was obtained throughout September of 2015. Both collection periods were during the school year, and any days where students were not on campus were excluded from the data. The month data was obtained is noted in the following tables.

All-Day Operating Conditions

For all times on weekdays, the following speeds were obtained for the school zone roadways adjacent to each school. This data is presented for reference only. The analysis in this report is focused only on the active school zone times.

Table 3: All-Day Weekday Speed Data in School Zones

School	Posted Speed Limit (MPH)	85 th Percentile Speed (MPH) – June	85 th Percentile Speed (MPH) – September
Juanita Drive (Arrowhead Elem.)	35	38	41
73 rd Avenue NE (Kenmore Elem.)	35	38	34
84 th Avenue NE (Moorlands Elem.)	35	36	36

School Zone Operating Conditions

At Arrowhead Elementary, four locations were checked for vehicle speeds. At Kenmore and Moorlands Elementary, two locations were checked for speed. The active school zone times at Arrowhead and Kenmore Elementary changed between the June measurements (2014-15 school year) and the September measurements (2015-16 school year) based on revised bell schedules. Because of the sensitivity of school zones, the 85th and 95th percentile speed data is shown in the following tables.

Table 4: Juanita Drive south of Arrowhead Drive (Arrowhead Elementary)

Active School Zone speed limit: 20 mph (Juanita Drive NE)				
	Inbound (NB Juanita Dr)		Outbound (SB Juanita Dr)	
	85 th % (mph)	95 th % (mph)	85 th % (mph)	95 th % (mph)
Morning 8:50 – 9:05am	28	33	30	33
Afternoon 3:45 – 3:55pm	24	28	33	37

Data Obtained: June 2015

Table 5: Juanita Drive north of Arrowhead Drive (Arrowhead Elementary)

Active School Zone speed limit: 20 mph (Juanita Drive NE)				
	Inbound (SB Juanita Dr)		Outbound (NB Juanita Dr)	
	85 th % (mph)	95 th % (mph)	85 th % (mph)	95 th % (mph)
Morning 8:55 – 9:15am	23	29	31	37
Afternoon 3:35 – 3:50pm	30	35	38	40+

Data Obtained: September 2015

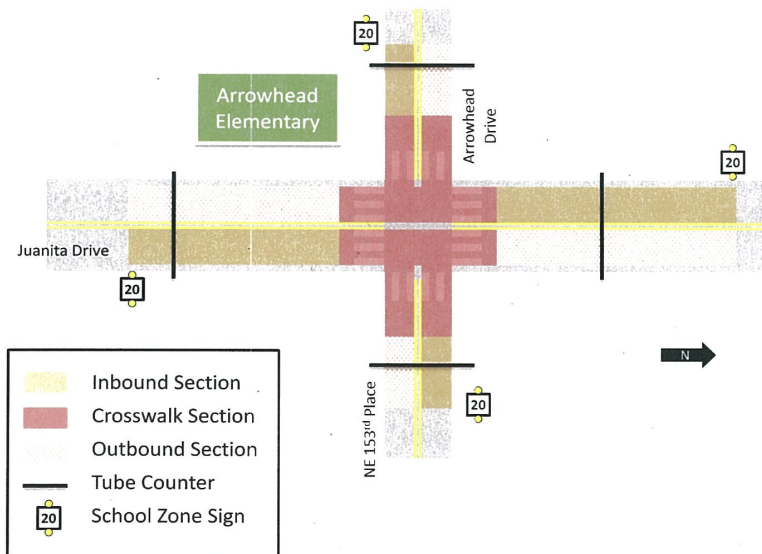
Figure 5: Locations of Tube Counts, Juanita Drive

Table 6: Arrowhead Drive north of NE 151st Street (Arrowhead Elementary)

Active School Zone speed limit: 20 mph (Arrowhead Dr)				
	Inbound (SB Arrowhead Dr)		Outbound (NB Arrowhead Dr)	
	85 th % (mph)	95 th % (mph)	85 th % (mph)	95 th % (mph)
Morning 8:55 – 9:15am	23	24	24	26
Afternoon 3:35 – 3:50pm	25	29	24	28

Data Obtained: September 2015

Table 7: NE 153rd Place east of Juanita Drive (Arrowhead Elementary)

Active School Zone speed limit: 20 mph (NE 153 rd Pl)				
	Inbound (WB 153 rd Place)		Outbound (EB 153 rd Place)	
	85 th % (mph)	95 th % (mph)	85 th % (mph)	95 th % (mph)
Morning 8:55 – 9:15am	21	24	24	26
Afternoon 3:35 – 3:50pm	25	30	25	28

Data Obtained: September 2015

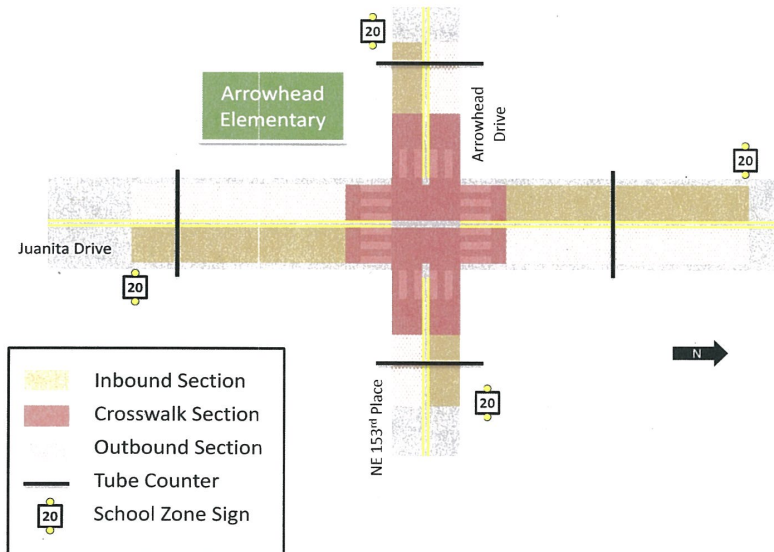
Figure 6: Locations of Tube Counts, Arrowhead Drive, NE 153rd Place

Table 8: 73rd Avenue NE south of Kenmore Elementary Driveway

Active School Zone speed limit: 20 mph (73 rd Avenue NE)				
	Inbound (NB 73 rd Ave)		Outbound (SB 73 rd Ave)	
	85 th % (mph)	95 th % (mph)	85 th % (mph)	95 th % (mph)
Morning 8:20 – 8:30am	21	25	26	31
Afternoon 3:15 – 3:20pm	26	31	30	35

Data Obtained: June 2015

Table 9: 73rd Avenue NE north of Kenmore Elementary Driveway

Active School Zone speed limit: 20 mph (73 rd Avenue NE)				
	Inbound (SB 73 rd Ave)		Outbound (NB 73 rd Ave)	
	85 th % (mph)	95 th % (mph)	85 th % (mph)	95 th % (mph)
Morning 8:30 – 8:45am	21	24	23	25
Afternoon 3:10 – 3:20pm	26	30	29	32

Data Obtained: September 2015

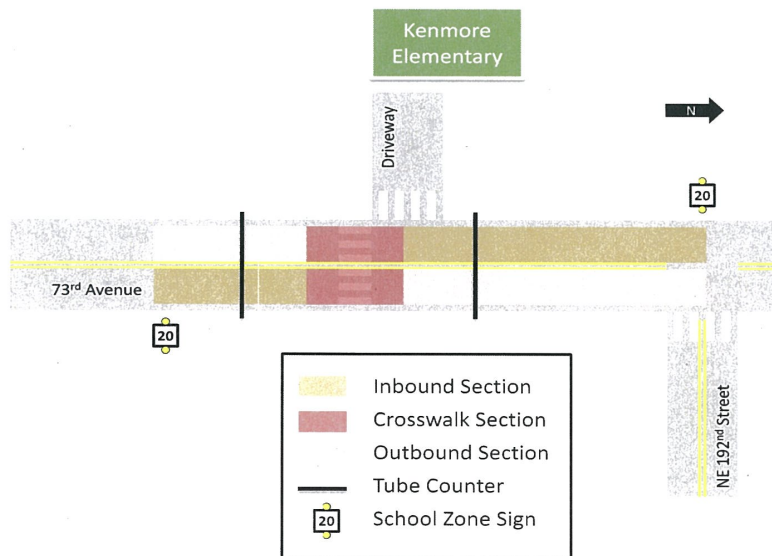
Figure 7: Location of Tube Counts, 73rd Avenue

Table 10: 84th Avenue NE south of Moorlands Elementary Driveway

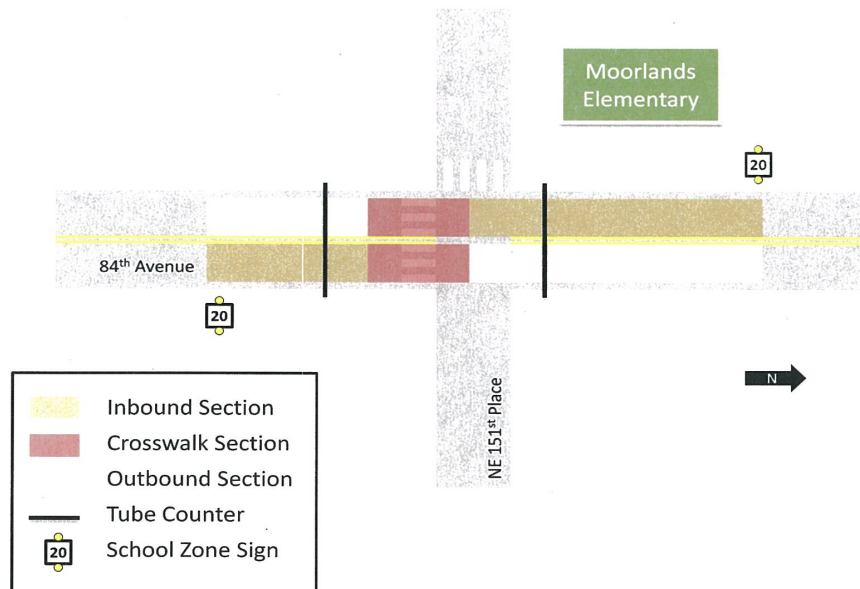
Active School Zone speed limit: 20 mph (84 th Avenue NE)				
	Inbound (NB 84 th Ave)		Outbound (SB 84 th Ave)	
	85 th % (mph)	95 th % (mph)	85 th % (mph)	95 th % (mph)
Morning 8:30 – 8:45am	21	24	23	25
Afternoon 3:15 – 3:25pm	21	24	25	28

Data Obtained: June 2015

Table 11: 84th Avenue NE north of Moorlands Elementary Driveway

Active School Zone speed limit: 20 mph (84 th Avenue NE)				
	Inbound (SB 84 th Ave)		Outbound (NB 84 th Ave)	
	85 th % (mph)	95 th % (mph)	85 th % (mph)	95 th % (mph)
Morning 8:30 – 8:45am	19	22	23	25
Afternoon 3:15 – 3:25pm	26	31	26	30

Data Obtained: September 2015

Figure 8: Location of Tube Counts, 84th Avenue

Juanita Drive

The inbound section speeds on Juanita Drive were mixed, with one acceptable and one elevated speed recorded in each data set. In both cases of elevated recorded speed data, the 95th percentile speed was under the daily posted limit of 35 mph. The average inbound 85th speed across all 4 inbound data sets is 26 mph.

The outbound speeds on Juanita Drive were much higher. No outbound 85th percentile speeds were less than 10 miles per hour over the posted limit. Most of the 85th and 95th percentile outbound speeds were within acceptable ranges for the daily posted limit on Juanita Drive.

Arrowhead Drive and NE 153rd Place

On both of these side streets approaching Juanita Drive, the 85th percentile speeds are in acceptable ranges. Some speeds measured 5 miles per hour over the posted limit, but both data collection points were near the beginning of the inbound section/end of the outbound section and not in the immediate area of the crossing section. Some traffic could be expected to be still slowing or speeding up at these locations. In both locations, the morning 95th percentile speed was also in acceptable ranges.

73rd Avenue NE

Vehicle speeds in the inbound section were generally good on 73rd Avenue. Morning speeds were very low, with even the 95th percentile in acceptable ranges. The afternoon speeds were somewhat higher, with an 85th percentile speed of 26 mph recorded inbound in both directions. 95th percentile speeds inbound were below the regular posted limit of 35 mph.

In the outbound zone, speeds tended to be higher on 73rd Avenue. Afternoon speeds in the outbound were higher than morning speeds, and approached 10 mph over the posted limit.

84th Avenue NE

Inbound and outbound speeds were generally good on 84th Avenue. The afternoon speeds in both directions for the September data were somewhat higher, with 95th percentile speeds around 30 mph.

Summary of Operating Conditions Analysis

Across all three City of Kenmore school zones, inbound speeds are typically lower than outbound speeds. Speeds are typically higher in the afternoon than in the morning. The presence of school children walking from school in the afternoon is much more concentrated than in the morning. Pedestrians in the morning are much more spread out, with multiple crossings of crosswalks and a number of students and parents in small groups on nearby sidewalks and walkways. In the afternoon, schools release students in one large group. This group is typically across the crosswalk in two or three crossings. A very low number of students is crossing and walking outside of this large group in the afternoon. These patterns in the presence of children may be a contributor to the higher afternoon speeds. Without children present, drivers may be less observant of the school zone speed limit.

The Juanita Drive school zone has the added benefit of a traffic signal with phase-separation of pedestrians from cross traffic. A crossing guard is present on Juanita Drive in the morning and evening to help facilitate the crossing of Juanita Drive. The crossing guard ensures that students only cross during the “walk” signal, when traffic in all directions is stopped at a red light. Any crossing pedestrians lagging behind the main group, or trying to “beat the signal” are not exposed to moving north-south traffic in the subsequent signal phase because the pedestrian crossing is between the two east-west signal phases (see Figure 3). The traffic on Juanita Drive during the active school zone is a larger mix of local traffic, especially accessing the school, compared to the peak hours. Commuting traffic is more prevalent in the hours before and after the school crossings have occurred.

The outbound speeds at each school are a lower priority. The September data at 73rd Avenue and both data sets on Juanita Drive indicated speeds that are near or over 10 miles per hour over the posted 20 mph school zone speed limit. These outbound speeds, while above the school zone speed limit, are almost all below the daily posted limit of 35 mph. Based on the positioning of the counter tubes in the school zones, these speed readings could be due to drivers accelerating to resume daily speed limits as they exit the school zone. Traffic in the outbound section of the Juanita Drive school zone may be traffic that has just gotten a green light, and observed all students completing the crossing during the previous “walk” pedestrian phase, making drivers less observant of the school zone limit.

Tools to Address School Zone Safety

The toolbox of available alternatives to address school zone safety includes the traditional “Three Es” of education, enforcement and engineering. One of the newest tools available that merges enforcement and engineering is automated enforcement through the use of school zone cameras. Information on this new type of enforcement is included in Appendix B. These tools can be used in any combination to address concerns with rate of collisions or speeds which are high enough to be of concern.

Education

The City of Kenmore has a history of working with its Elementary schools to provide materials and articles for newsletters to promote traffic, pedestrian and cyclist safety. Tools address school zone speeds on Juanita Drive could include;

- Literature, distributed through flyers, newsletters and the school website, noting the City’s efforts to ensure safety in the school zone, concern with vehicle speeds, and the need to observe the 20 mph speed limit through the entire school zone.
- Similar messages could be posted to the city website, distributed in print and electronic news letters and added to materials presented at Target Zero events.

Enforcement

The Kenmore Police currently rotate enforcement between the City’s school zones during the week. To address school zone speeds, daily scheduled rotations can be adjusted to target specific school zones on additional days. As of the beginning of 2016, the Kenmore Police will be adding a new half-time officer. This officer will be focused on traffic enforcement. This new officer can have an additional focus on the Juanita Drive school zone inbound section. Because of the staggered nature of school zone times in Kenmore, dedicating this officer to Juanita Drive will not have a detrimental effect to police presence in other Kenmore school zones.

An additional enforcement tool is automated enforcement, details of which can be found in Appendix B.

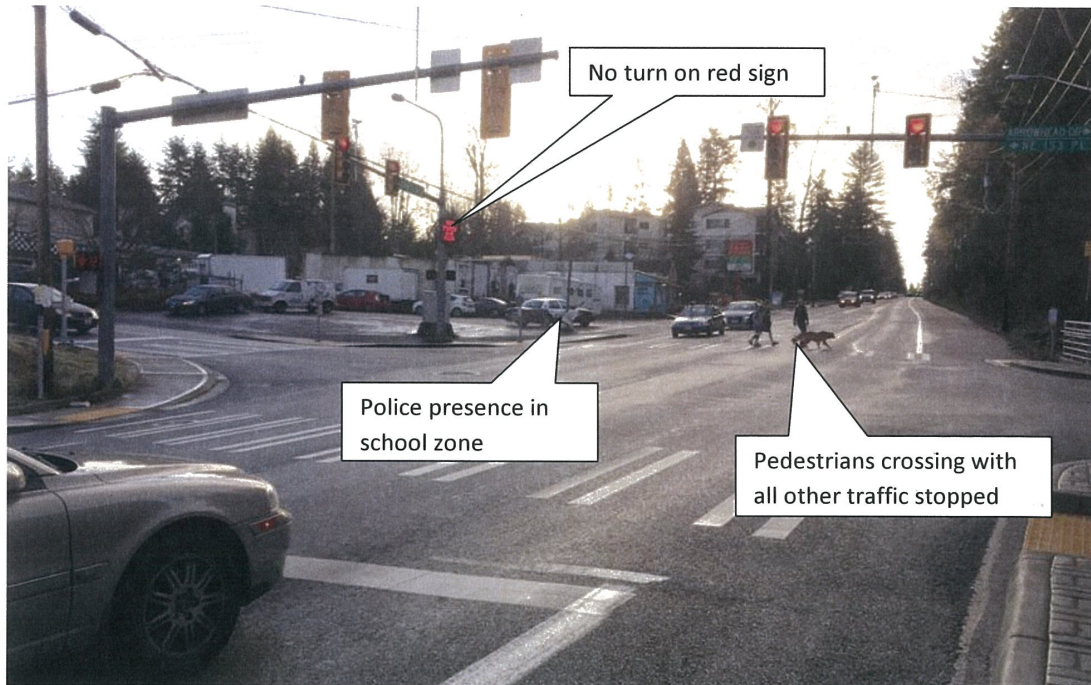
Engineering

The City of Kenmore has made recent use of the engineering toolbox to improve safety in the Juanita Drive school zone. These changes include;

- Changes to the signal phasing to provide a “pedestrian only” phase for east-west crossing. All traffic has a red light when the pedestrian crossing button is pushed (See Figure 3).
- No turn on red restriction for Arrowhead Drive during school zone times. This restriction restricts Arrowhead Drive traffic from making a right turn across the primary crosswalk of the school zone during the pedestrian only phase (See Figure 4).

- Upgraded signal controller which can handle more programming for school zone hours and the turn restriction for Arrowhead Drive

Figure 9: Photo of Juanita/Arrowhead Intersection with No Turn On Red and Pedestrian-Only Phase



These changes have provided the physical separation, through signal phasing, of pedestrian and Juanita Drive traffic as described in the Summary of Operating Conditions Analysis. Other engineering tools to make changes to address safety and traffic speeds could include;

- Additional school zone signage, especially in the outbound zone to draw driver attention to the school zone speed limit after being stopped at the signal
- Moving of the location of the school zone signage to comply with Washington state law on the maximum enforceable length of a school zone and align with research on best practices for total school zone length
 - National research by the Texas Transportation Institute has shown that speeds in school zones are most in compliance within 200 feet of the school zone crosswalk. This research shows longer school zones tend to have less compliance with posted speeds.
- Additional school zone pavement markings
- Adjustment of the signal to restrict other turning movements and further separate pedestrian phases from moving vehicles during active school zone times
- Automated enforcement (school zone speed cameras) – see Appendix B

Recommended Actions

No immediate action is recommended in Kenmore elementary school zones. In all three elementary school zones, there is an acceptable balance between enforcement, pedestrian isolation from crossing traffic and measured vehicle speeds.

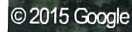
A 15-year history of zero collisions is not a guarantee of zero future collisions, therefore monitoring of elementary school zone speed and evaluation of opportunities for safety improvements will continue. Kenmore police patrols of school zones will continue with the increased availability in 2016 of the half-time traffic control officer. The City will continue to work with the elementary schools to provide educational outreach on school zones.

The average inbound section 85th percentile speeds on Juanita Drive, 73rd and 84th Avenues are all in acceptable ranges. Juanita Drive has physical separations of pedestrian and vehicle traffic and a lack of pedestrian activity parallel to Juanita Drive which contributes to the overall picture of safety at the crossing. Periodic monitoring will be conducted to be aware of and take measures to address any future increases in the average 85th percentile speed above acceptable limits in school zones.

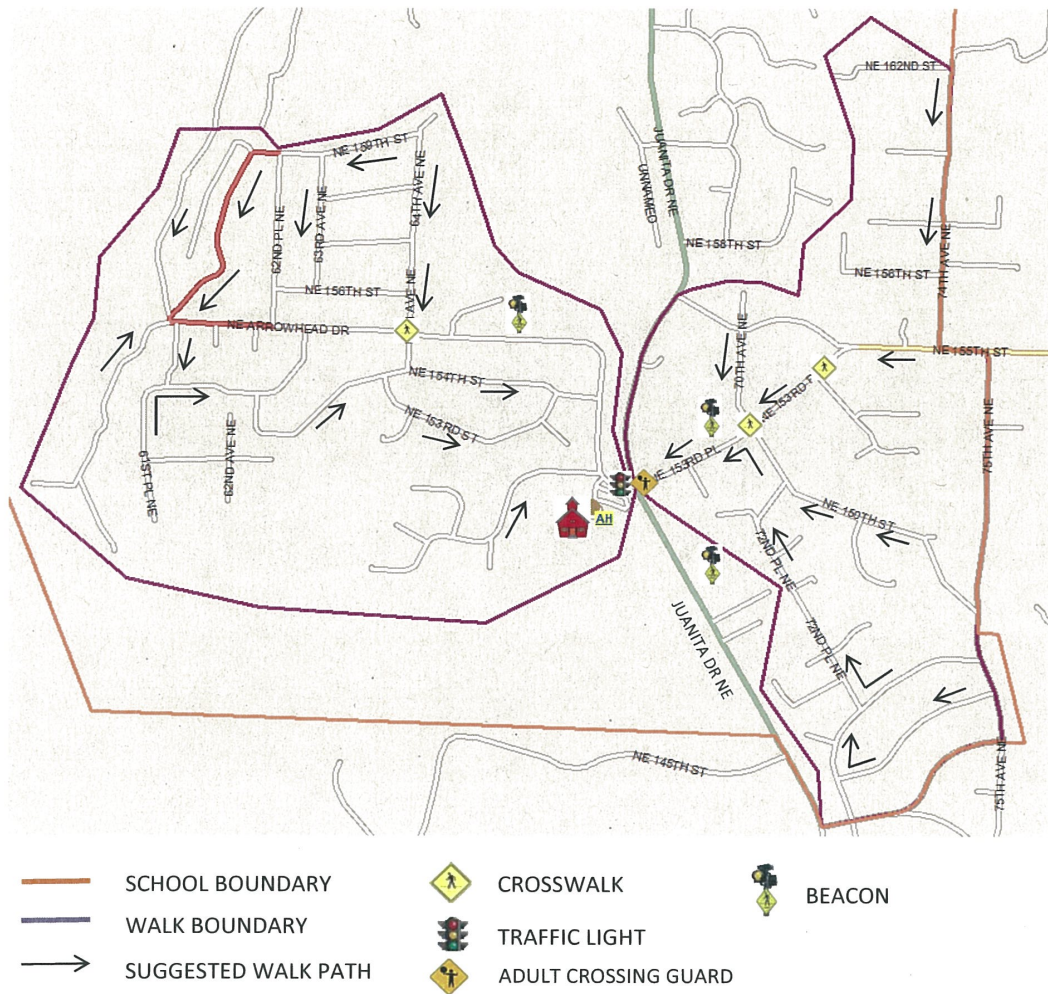
Appendix A

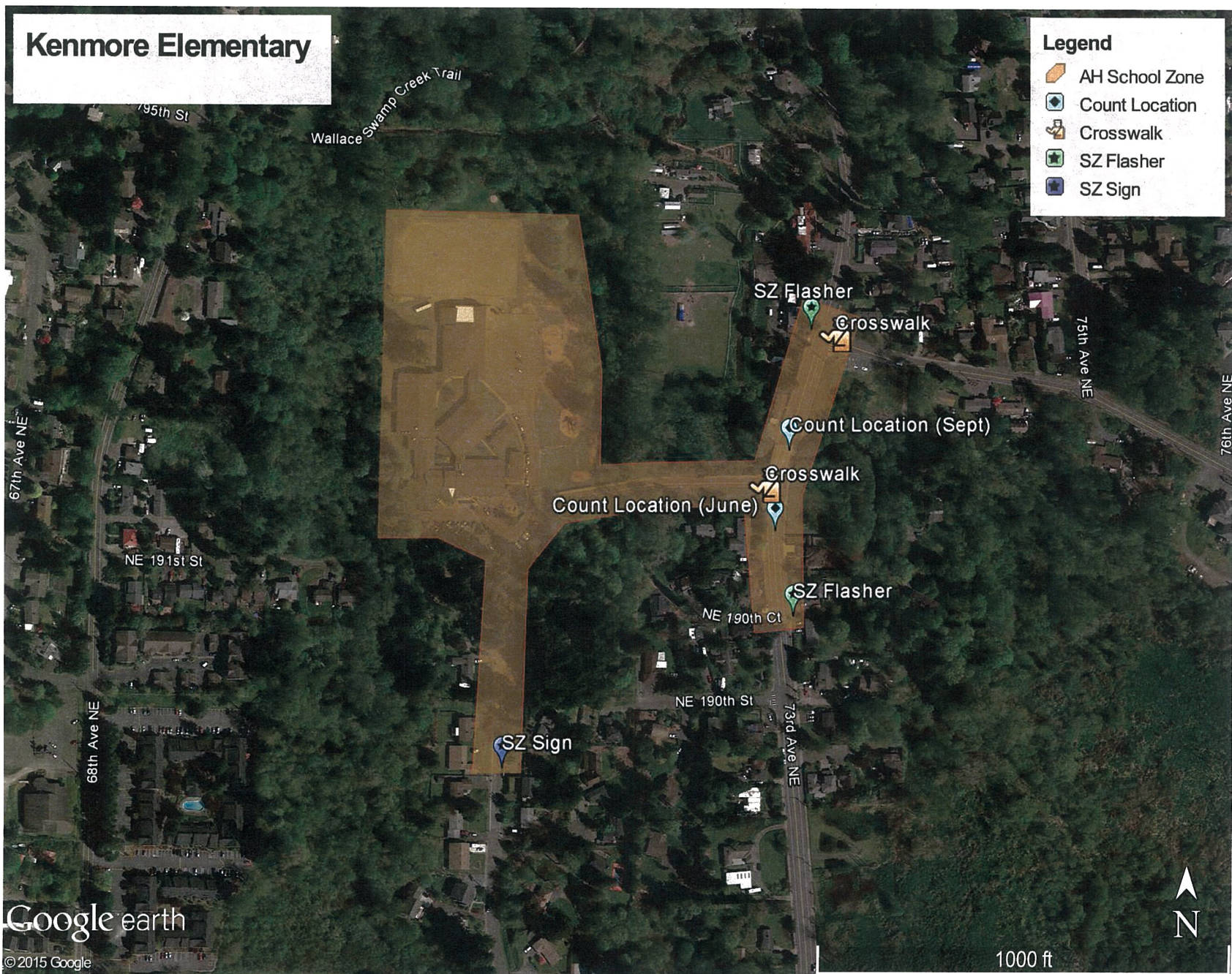
School Zone Maps

Suggested Walk Path Maps

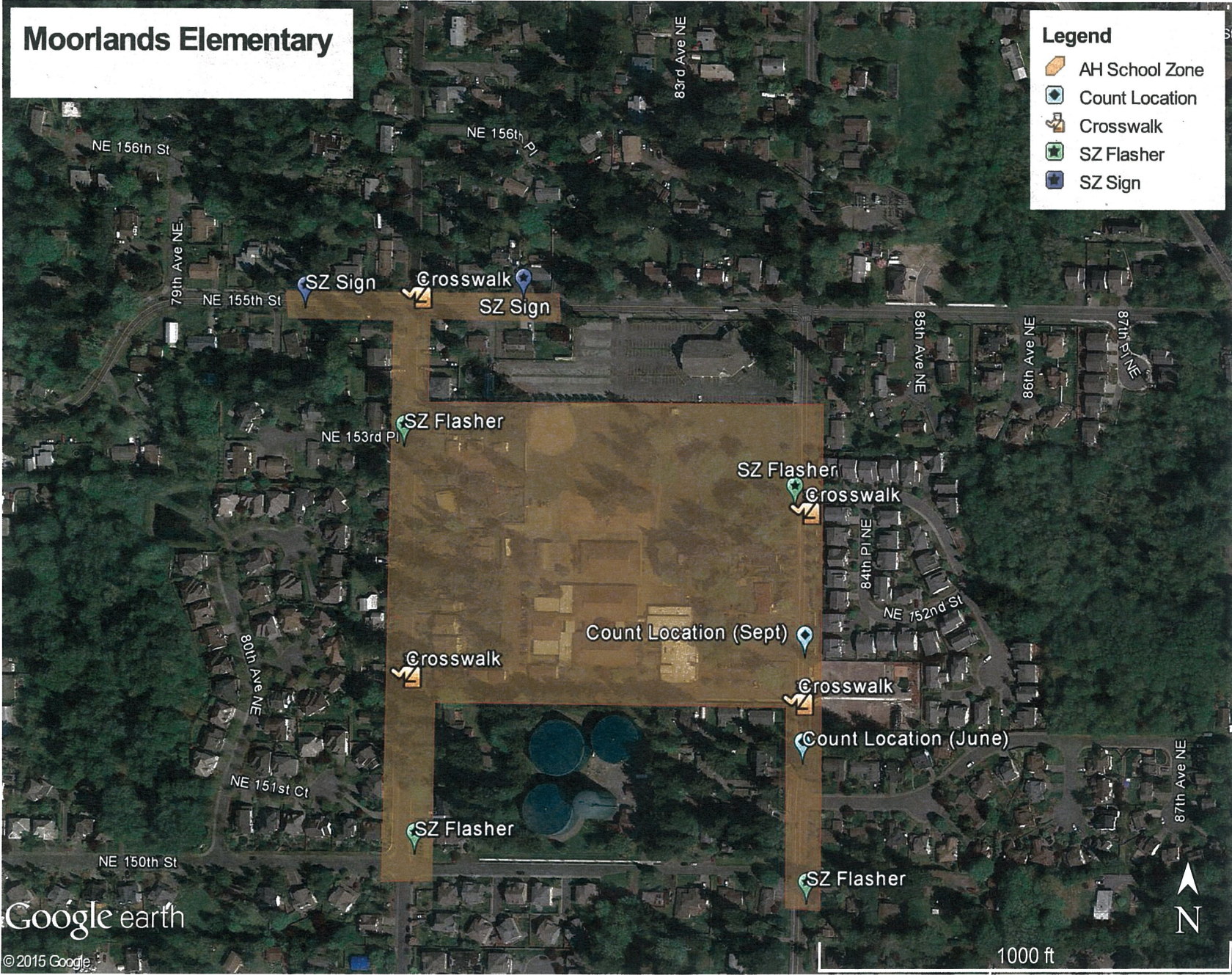


ARROWHEAD ELEMENTARY SUGGESTED WALK PATH

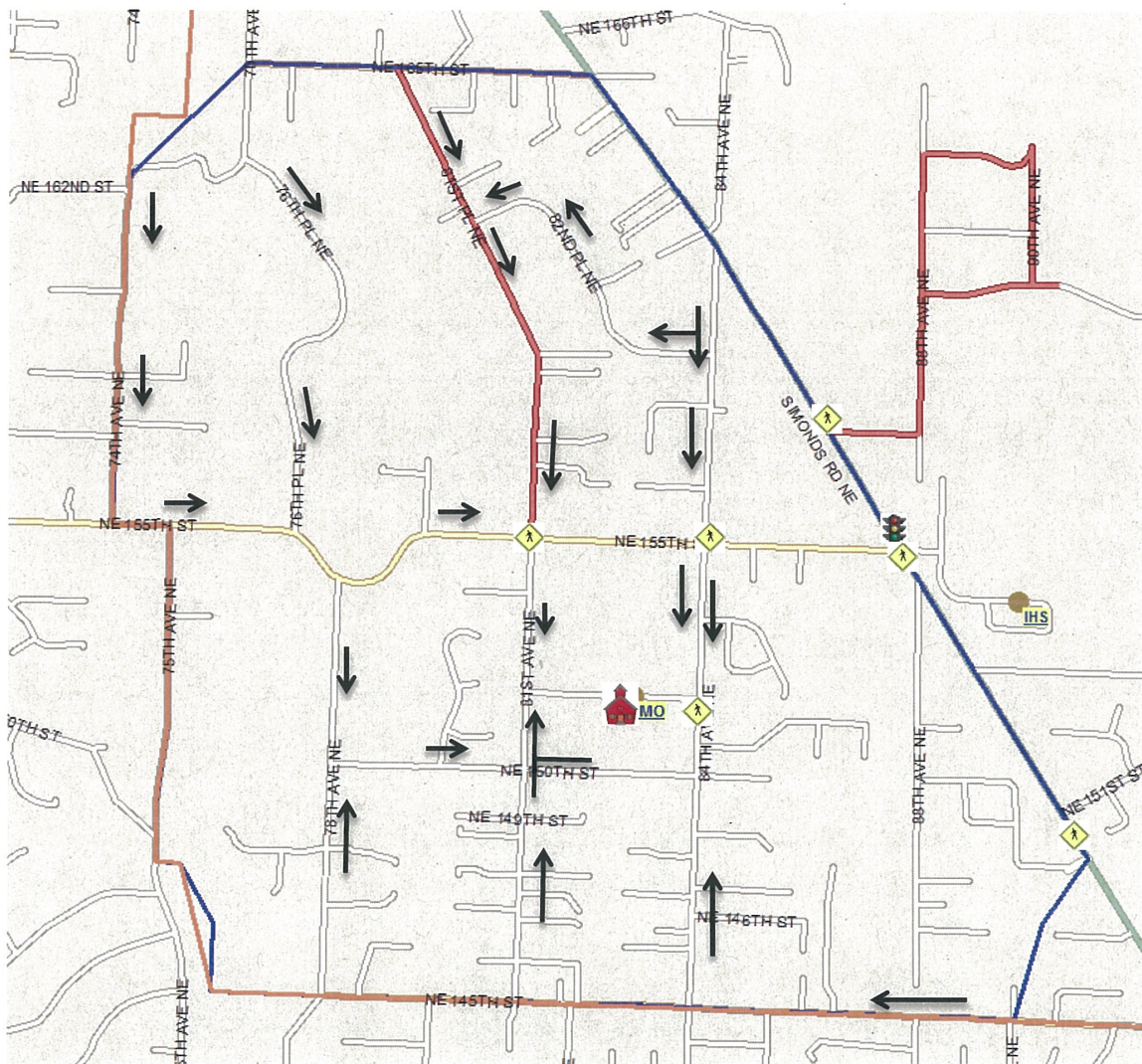








MOORLANDS ELEMENTARY SUGGESTED WALK PATH



- SCHOOL BOUNDARY
- WALK BOUNDARY
- SUGGESTED WALK PATH

-  CROSSWALK
-  TRAFFIC LIGHT

-  BEACON

Appendix B

Automated Speed Enforcement in School Zones

Automated School Zone Speed Cameras

Automated speed enforcement cameras are a passive method of enforcing speed limits. Similar systems have been in use in Europe and Australia for many years. Outside of the United States, these systems are used in roadway and highway applications for daily speed enforcement. Within the United States, automated cameras are being used more often and tend to be focused on school zone speed and red light violations.

The installation of automated speed enforcement cameras in active school zones was one of the fourteen short-term strategies recommended by the 2014 Ad Hoc Committee on Pedestrian and Bicycle Safety.

Legal Authority

The use of automated enforcement cameras was authorized in Washington State by Engrossed Substitute Senate Bill (ESSB) 5060. This bill was later amended to Revised Code of Washington (RCW) 46.63.170 and took effect on July 24, 2005. This law provides authority for automated enforcement cameras to be used by cities to ticket drivers in three uses;

1. Running of a red light at the intersection of two arterials
2. Speeding in school zones
3. Failing to follow rules of a railroad crossing

Third Party Camera Operators

Installation and operation of automated enforcement camera systems is via a contract between a city and a third party vendor. American Traffic Safety, Inc. (ATS) and RedFlex are two of the vendors of automated enforcement cameras used in neighboring cities to Kenmore and across the country. These vendors charge a monthly fee to cities using their services to cover the costs of installation, maintenance and primary monitoring of the systems. Installation of the camera system is performed by the vendor. Signing changes supporting the cameras are the responsibility of the City. The vendor maintains the equipment during the life of the contract.

The vendors operate three types of camera systems. The most popular camera is a fixed-location camera mounted on a roadside pole. There are two types of transportable roadside camera systems. One is a movable unit, similar to a radar trailer, and an even more mobile unit is vehicle-mounted. The two mobile systems carry higher monthly costs, but offer flexibility in deployment location.

Operation of Automated Enforcement

The system is programmed to only enforce during active school zone times. During these times, the system uses a radar-based tracking to identify potential violations. The violation threshold is determined through collaboration between the City, Police and vendor. Potential violations signal a

camera to take photo or video evidence of a vehicle's license plate which is identified as violating the posted limit. The vendor collects this photo and video data remotely. The vendor performs a "primary analysis", through both automated and manual methods to verify violations collected by the automated camera. Violations which pass this "primary analysis" are passed on to City law enforcement for review, as required by Washington State regulations. City law enforcement personnel review the videos and issue approval for the fines. Notification of violation and fines are mailed to the registered owner address of the violating vehicle by the third party vendor. King County District Court collects the fines and distributes funds back to the cities, minus court costs, and the City issues payments to the vendor.

Violation Threshold

The speed threshold for a violation is determined through collaboration between the Police and vendor. The minimum threshold recommended by the vendor interviewed for this report, ATS, is 6 mph over the posted speed limit. ATS noted that some cities set a violation threshold as high as 11 mph over the posted limit.

Penalties for Violations

Penalties issued for violations from the cameras are civil penalties to registered owner of the photographed vehicle, processed in the same manner as parking infractions. These penalties are not part of the registered owner's driving record. The amount of fine issued for a speed camera violation cannot exceed the amount of fine issued for parking infractions within the City, per RCW 46.63.170.

For speeding in school zones, this penalty differs from violations issued by police in traditional enforcement which are moving violations, and impact the registered owner's driving record. The fines for violations issued by police are a much higher dollar amount. A police stop for a violation of school zone speed also provides education to observing drivers of the need to observe school zone speed limits and the commitment to enforcement.

Operating Costs

The operating costs of automated enforcement include;

- Monthly payments to the third party vendor
- City police for review of violations identified by the vendor
- King County District Court for collecting fines and administering disputed violations

The monthly costs for payments to the third party vendor are based on a negotiated contract between the City and the vendor. These payments cover the operation and maintenance of field equipment, collection of photos and videos of violations and the initial primary review of those violations. The vendor also mails fines which have been reviewed by City police under the terms of the contract. Monthly charges from the vendor are suspended during the summer months when school zones are not active.

The vendor representative interviewed for this report from ATS noted the company assures their client cities the system will be cost-neutral or better. ATS allows cities to delay payment of fixed service fees until their revenue exceeds fee obligations. This may vary for other vendors. Documentation of this policy with ATS representatives is included in Appendix B-I.

The operating costs for City police which are attributable to automated enforcement would be the costs of additional police time required for review of violations. In order to maintain existing police coverage, this review may require overtime costs for police.

King County District Court (KCDC) personnel do not estimate a significant impact from current court time commitments if Kenmore were to implement an automated enforcement camera program. There would some cost for court clerk time and city prosecutor, but no additional time would be required for judges with Kenmore's current allocation of KCDC time. This assessment of KCDC costs is based on historical performance of other nearby cities' programs, and may be subject to change in the future.

Further analysis of the financial impact of automated enforcement specific to the City of Kenmore can be found in subsequent sections of this report.

Effectiveness of Automated Enforcement

Research and Case Studies

A number of research projects and case studies have been conducted to determine the effectiveness of automated enforcement. These national studies have found that vehicle speeds and the rate of collisions, especially those involving injuries, do drop significantly after the implementation of automated enforcement. International data from long-standing automated enforcement programs in England and Australia confirm this finding. Research has focused on the specific locations of cameras and does not study the effects of diversion and any potential increases in speeds or collisions on alternative routes without automated enforcement.

Vehicle Speeds

A 2005 review of automated speed enforcement cameras in Europe and Australia found the percentage of vehicles exceeding the speed limit by 15 km/h (10 mph) was reduced by between 50 and 65 percent. The British Government's analysis of its national safety camera program show that cameras dramatically reduced both the number of vehicles speeding and the average vehicle speeds at camera sites (Gains).

In the United States, case studies of automated enforcement cameras demonstrate success in reducing average vehicle speeds. The number of published evaluations of U.S. camera programs is limited due to their recent adoption in the U.S., compared to Europe. Table 12 summarizes key findings from US-based automated enforcement camera program evaluations in the last ten years (Freedman, Romer, Shin).

Table 12: Key Findings from United States Case Studies on Automated Enforcement

Study Location	Year	Location	Key Findings
Portland, OR	2006	School zones	• 17 to 50% decrease in proportion of vehicles exceeding speed limit • Decrease in average speed from 26.5 mph to 21.7 mph
Rockville, MD	2009	Various sites	• 12% decrease in average speeds at fixed camera locations
Gaithersburg, MD	2009	Various sites	• 9 to 24% reduction in 85th percentile vehicle speed
Chevy Chase Village, MD	2009	Various sites	• 13% reduction in average vehicle speeds at enforcement sites • 46 to 92% reduction in number of vehicles traveling more than 20-29 mph above the speed limit
Scottsdale, AZ	2008	Various sites	• 9 mph average reduction in vehicle speeds

Injuries and collisions

A 2007 National Highway Safety Administration (NHTSA) comparison of 13 studies from around the world found that automated fixed speed enforcement cameras generally reduced injury related crashes by 20 to 25 percent (Decina). A 2004 review of Britain's National Safety Camera program found a 33 percent reduction in personal injury collisions at sites where cameras were introduced (Gains). The British Medical Journal published a 2005 review of 21 studies on the effectiveness of speed cameras, finding the use of automated speed cameras reduced collisions by 5 to 69 percent and injuries by 12 to 65 percent (Pilkington).

Local Experience

Automated enforcement cameras are or have been in use in Auburn, Bellevue, Lake Forest Park and Redmond. These neighboring cities have had a varied experience with the rollout and continued operation of a camera system. ATS representatives noted that the number of violations in neighboring cities, including Lake Forest Park and Bellevue, dropped between 33% and 79% after implementation of automated enforcement. All cities surveyed operate both school zone speed and red light cameras with the goal of reduction in violations and collisions.

Auburn

The City of Auburn launched their automated enforcement camera program, PhotoSafe, on June 30th, 2006. In addition to school zone speed cameras, the city became the first municipality in Washington to adopt photo enforcement at traffic lights. In January of 2014, the city had a total of 17 cameras throughout the city, six of which were in school zones.

On November 17, 2014, Auburn's City Council voted to end the eight-year-old program and chose not to renew their contract with the vendor Redflex. Council members cited a negative perception of program by citizens and visitors, fewer officers on the street for community policing, and warning signs at intersections that did not have cameras as reasons for terminating the program. A 2014 local news report (KOMO-4) stated that while the number of collisions at intersections using the program didn't decrease, the number of camera violations dropped dramatically, sometimes in half. The City did not realize net revenues from the program except for the first year.

Bellevue

The City of Bellevue's Photo Enforcement program began in September 2009 with two school zone speed cameras. In January 2010, the city added three red-light cameras. Bellevue contracts with Automated Traffic Solutions, Inc. (ATS) and the program is currently in use.

From 2010 to 2013, three of Bellevue's five photo enforced red light intersections had a significant decrease in infractions. Collisions at photo enforced red light intersections and have been reduced from 38 in 2009 to 13 through August 2013. The city does not use speed as a measure of effectiveness, nor was any data provided on reductions in speed, specifically related to school zones.

Lake Forest Park

Lake Forest Park contracted with ATS to implement an automated enforcement camera program in the summer of 2009. The city's program includes two red light cameras at arterial intersections and three school zone speed cameras. The city's program is still in use. Lake Forest Park chose the locations of the cameras to address concerns with collisions, especially with pedestrians.

Automated enforcement cameras contributed to reducing average speeds in Lake Forest Park school zones by 10% from 2009 to 2011. In a 2013 survey conducted by Lake Forest Park, 43 percent of residents agreed that the cameras aided with roadway safety. The survey did not distinguish between red light and school zone speed cameras. The response rate for the survey was 2% of residents.

Redmond

In September 2010, the Redmond City Council approved a 12-month pilot program for the Traffic Safety and Speed Zone Camera Enforcement program. Redmond contracted with ATS for their installation and monitoring program. Red light cameras were used at three arterial intersections and speed cameras were used in one school zone. On November 1, 2011, the Council unanimously voted to exercise the City's option to terminate the contract at the end of the 12-month pilot program, as a result of a contentious discussion with citizen activists.

A July 2011 report on the first five months of the program shows that the number of violations fluctuated, with violations trending down from the initial implementation of the program. No information was provided on a reduction in collisions or a reduction in speed.

Renton

The City of Renton's Red Light Safety Camera Program began in June 2008 and their Speed Safety Camera Program began in October 2008. Renton contracts with ATS for the operation of their automated enforcement cameras. Renton is currently under contract with ATS and continues to use automated enforcement for school zone speeds and red lights. From the inception of their program to June 2012, 87.6 percent of violators received only one violation. No data was provided on a documented reduction in collisions or speed.

*Details of Automated Enforcement in Kenmore**Location*

Automated enforcement cameras can provide coverage of one traffic direction. In order to use an automated system in a school zone, a minimum of two cameras would be required. To address higher priority speeds, these cameras would be mounted to cover the inbound section of the school zone. Automated enforcement of the lower priority outbound section of a school zone would require an additional two cameras. Additional poles for installation, if none are available within enforceable limits as described by the WAC, may be necessary.

*Financial Considerations***Revenue**

Revenues from an automated enforcement system are based on the number of violations and the fine, which is set by the City. Neighboring cities have set the violation fee for these infractions at \$124. This matches the maximum parking fine in Kenmore and is used for estimating revenues. King County District Court data for neighboring cities shows an average historical collection rate of 63% on issued violations, including 7% of violations contested.

Expenses

Expenses for operation of an automated enforcement system include the monthly vendor fees, police review costs and District Court costs for contested and non-contested violations.

American Traffic Solutions, Inc. (ATS) charges an estimated \$4,500 per month, per fixed, pole-mounted camera. This is a base amount for planning purposes and can change based on the installation type selected and contract negotiations for number of cameras, length of contract, etc. ATS representatives and neighboring cities state that no City sees a net loss from operating a camera, and that the third party vendor will absorb the loss as part of their agreement. Because of this potential loss for the vendor, Redflex representatives noted in phone calls that they perform their own site survey, including automated tube counts to verify school zones before agreeing to installation. The vendor may reject a contract for a school zone where they are projecting a net loss.

Police staffing time is required to review each speed photo or video following a primary review by the camera vendor. Based on historical data from neighboring cities, each photo review takes approximately two minutes of officer time. Kenmore police staff would not be assigned this review in lieu of other existing field responsibilities, and therefore, review of violations would be at an overtime rate and subject to officer availability. Kenmore Police Chief Sether estimated the cost of officer overtime at \$65.55/hour.

Based on the operation of programs in neighboring cities, an average six minutes of King County District Court (KCDC) clerk time is required for processing each violation at an average KCDC clerk salary of \$23.50/hour. In the case of contested tickets, KCDC budget director Heather Dean estimates that these cases can be worked into the current judge calendar time allocated to the City of Kenmore. The approximate cost of attorney time to prosecute contested cases is estimated by KCDC at \$750 per month per 20 in court cases, an average of \$37.50 per contested violation.

Summary of Analysis of Automated Enforcement

Automated enforcement is a tool to be considered in addressing speed concerns in school zones. The general benefits and drawbacks of automated enforcement in any school zone location are shown in Table 14. Table 15 shows the benefits and drawbacks specific to the Juanita Drive school zone in Kenmore.

Table 14: General Automated Enforcement Benefits and Drawbacks

Benefits	Drawbacks
✓ Reduction in vehicle speeds ✓ Reduction in collision rate ✓ Potential for revenue that can be used for further safety improvements	✓ Negative public perception of "money making" by the City ✓ Violation is a less serious offense for driver ✓ No education to wider public from police presence in school zone

Table 15: City of Kenmore Automated Enforcement Benefits and Drawbacks

Benefits	Drawbacks
✓ Reduce vehicle speeds in Juanita Drive school zone ✓ Potential for revenue under certain assumed conditions which could be used for public safety purposes	✓ Need to target lower priority outbound section in order to not have expenses exceed revenue ✓ If very effective (more than 75% reduction in violations), expenses could exceed revenue ✓ Kenmore Police concerns with violation being a less serious offense for driver ✓ Less opportunity for public education from police presence in school zones (due to redundancy)

Based on research and case studies, automated enforcement can realize a reduction in violations of up to 75%. The highest inbound section speeds measured in Kenmore school zones were obtained on Juanita Drive. Using this high-end reduction in assumed speed violations, the 85th percentile speed in the inbound sections could be reduced to an estimated 26 mph. This speed is equivalent to the average 85th percentile inbound speed on Juanita Drive for all data periods.

References

Decina, Laurence E., Libby Thomas, Raghavan Srinivasan, and Loren Staplin. *Automated Enforcement: A Compendium of Worldwide Evaluation of Results*. US Department of Transportation, National Highway Traffic Safety Administration (NHTSA), 2007.

Freedman, M. *Demonstration of Automated Speed Enforcement in School Zones in Portland, Oregon*. National Highway Traffic Safety Administration, 2006.

Gains, A. *The National Safety Camera Programme: Three-year Evaluation Report*. Department for Transportation, London, 2004.

Pilkington, Paul, and Sanjay Kinra. "Effectiveness of Speed Cameras in Preventing Road Traffic Collisions and Related Casualties: Systematic Review." *British Medical Journal*, 2005, 332.

Romer, Richard, Aron Trombka, and Sarah Downie. *Evaluation of Montgomery County's Safe Speed Program*. Office of Legislative Oversight, 2009.

Shin, Kangwon, Simon P. Washington, and Ida Van Schalkwyk Van Schalkwyk. *Evaluation of the Scottsdale Loop 101 Automated Speed Enforcement Demonstration Program*. Vol. 41. 2009. 393-401.

Appendix B-I

Communications with ATS

From: Kathi Beckett [<mailto:kbeckett@kenmorewa.gov>]
Sent: Monday, June 8, 2015 2:20 PM
To: media
Subject: New submission from ATS Solutions Page Contact Us

Hello,

The City of Kenmore, Washington is considering the usage of speed safety cameras in the City's elementary school zones. I am interested in knowing what the start-up costs are? Can you explain the cost-neutral guarantee that you have extended to other cities using the safety cameras?

Kind regards,

Kathi Beckett
Graduate Management Intern
City of Kenmore, WA | City Manager's Office
18120 68th Ave NE | Kenmore, WA 98028
Tel: 425.398.8900 | Fax: 425-481-3236
kbeckett@kenmorewa.gov | www.kenmorewa.gov

From: Charles Territo [Charles.Territo@atsol.com]
To: Kathi Beckett
Cc:
Subject: RE: New submission from ATS Solutions Page Contact Us

Sent: Mon 6/8/2015 2:39 PM

Kathi, thanks for your interest. As you probably know, we provide school zone safety camera solutions to Seattle, Kent and several other Washington cities. As with all of our programs there are no upfront costs for implementation. Our cost neutral guarantee ensures that our customers never pay more than the cameras generate. We would contract with the district at a fixed monthly rate. The city would never pay more than the contracted rate but could pay less depending on the revenue generated. I'm going to be in the Seattle area on June 23rd. If you're interested I'd be more than happy to come to Kenmore and share additional information.

Charles Territo | Senior Vice President Communications, Marketing and Public Affairs
American Traffic Solutions, Inc.
1330 W. Southern Ave | Tempe, AZ 85282
T 480 596 4787 | F 480 607 0901 | C 602 615-3648
charles.territo@atsol.com | www.atsol.com | www.atsfleetservices.com

From: Charles Territo <Charles.Territo@atsol.com>

Date: June 25, 2015 at 10:03:08 AM PDT

To: kbeckett@kenmorewa.gov

Subject: 5.2.docx

Kathi, attached is the language from our Kent contract that addresses the issue.

- 5.2 Flexible Payment Plan. During the term of the Agreement, payments by the Customer may be made to ATS under a Flexible Payment Plan if the total funds collected by the Program are insufficient to cover the Fees due ATS. Under the Flexible Payment Plan, the Customer may defer certain payments due and owing to ATS during the term of the Agreement. If at the end of the term sufficient funds have not been collected by the Customer to pay the accrued balance then due to ATS, ATS agrees to waive its right to recovery with respect to any balance owing to ATS at the end of that term.

This Flexible Payment Plan will be applied as follows: ATS will maintain an accounting of any net balances owed ATS each month during the term. If the total amount of funds collected from all Camera Systems combined during a month exceeds the amount of the ATS invoice for the same month, the Customer shall pay ATS the total amount due on the invoice. If the total amount of funds collected from all Camera Systems combined during a month is less than the amount of the ATS invoice for the same month, the Customer shall pay ATS only the amount collected during the same month and Customer may defer payment of the remaining balance. If opting to use a Flexible Payment Plan, Customer will provide ATS with sufficient information about payments received directly by the Customer or by the Courts to accurately determine the amount of funds collected. Payments due ATS shall be reconciled by applying funds collected in subsequent months, first to the accrued balance and then to the subsequent monthly invoice. If at any time the ATS invoices, including any accrued balance, are fully repaid, the Customer will retain all additional funds collected. Such additional funds (whether reserved in cash or not by the Customer) will be available to offset future ATS invoices during the term of the Agreement. Customer agrees and understands the Flexible Payment Plan shall be applied in the aggregate across all installed Camera Systems and will not be applied on a per camera basis or on a per month basis.

Example: Fee of \$4,750 per Camera System per month and four (4) cameras installed. If during Month 1 camera #1 revenue is \$5,000, camera #2 revenue is \$3,500, camera #3 revenue is \$6,000 and camera #4 revenue is \$3,500, the total revenue from the cameras for the month is \$18,000. ATS would invoice Customer for \$19,000 (\$4,750 x 4 Camera Systems). However, Customer would only be required to pay \$18,000 in Month 1 and the \$1,000 deficit would carry over to subsequent months. If in Month 2 the combined revenue from the 4 cameras was \$28,000, ATS would invoice the Customer \$20,000 (i.e., the \$1,000 deficit from the prior month plus the \$19,000 monthly fee for the 4 Camera Systems). The Customer is not responsible for any deficit balance fee at the end of the term of the Agreement.

Kenmore School Zone Analysis

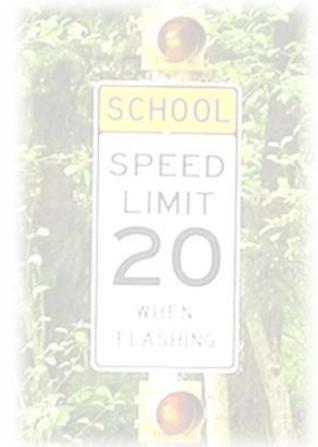
Kris Overleese, PE
Public Works Director

Brett Schock, PE
Traffic Engineer

February 1, 2016

Overview

1. Descriptions of existing school zones
2. Existing operating conditions
3. Toolbox for school zones
4. Recommendation
5. Automated enforcement research



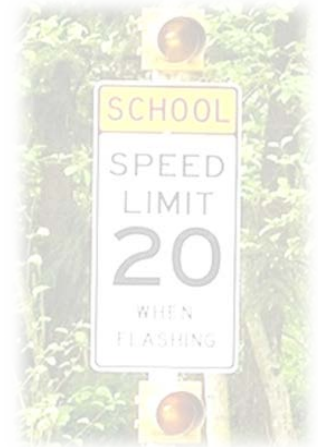
Review School Zone Conditions

- Establish existing conditions and baselines for analysis
 - Vehicle speed
 - Collisions
 - Unique physical environment of each school zone

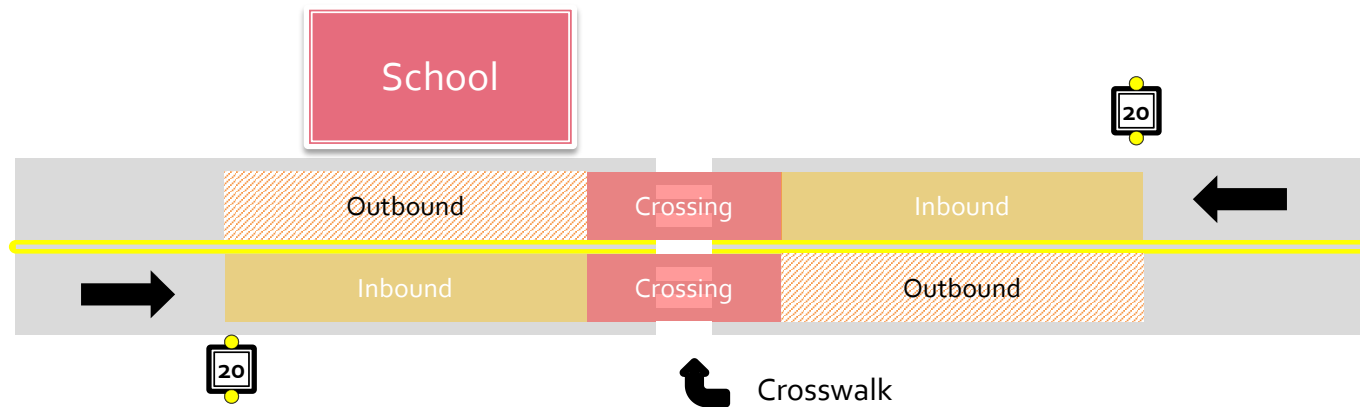


What Is A School Zone

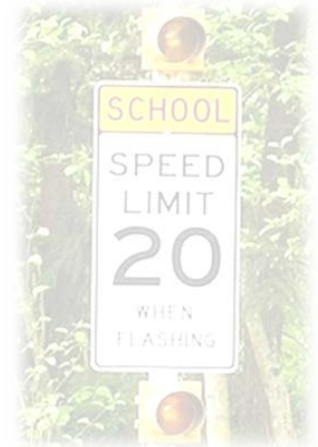
- 300 feet from a crosswalk accessing a school
- 20 mph speed limit
 - When children are present
- Times vary based on school start times



School Zone Components

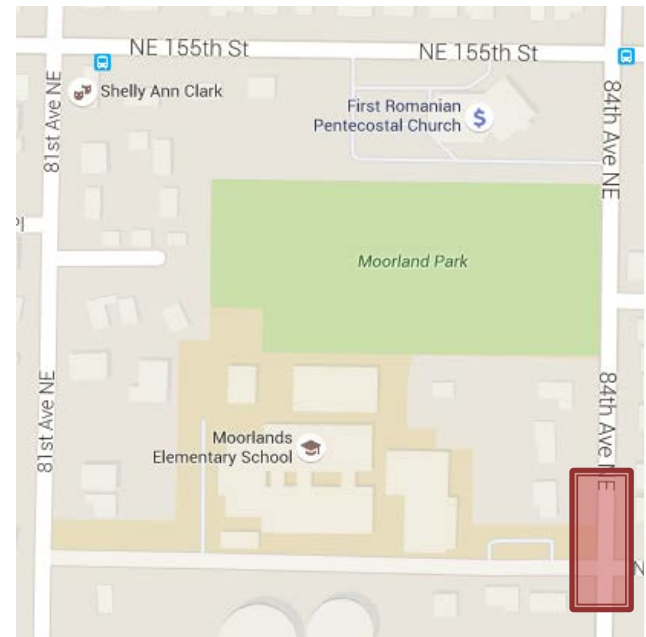


- Inbound zone and crossing are the highest priority for safety
- Outbound zone priority based on school zone environment



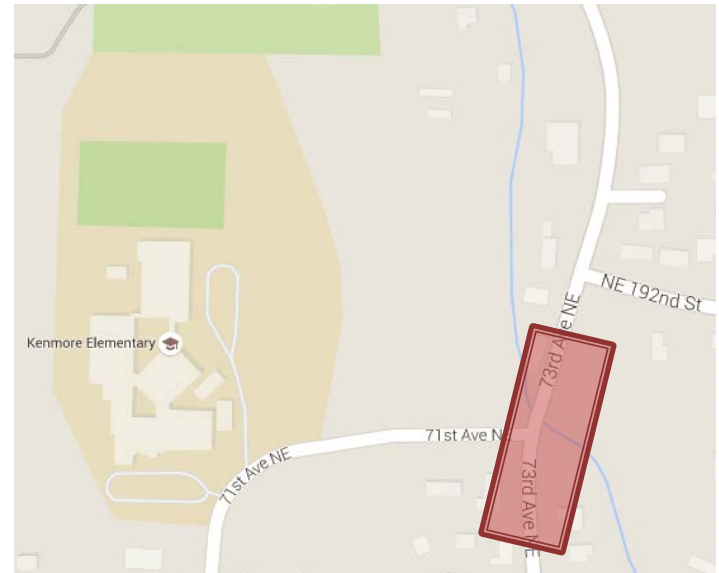
Moorlands Elementary School Zone

- Adjacent to 84th Avenue (Collector) with 35 mph daily speed limit
- Beacons on 84th and 81st Ave at crosswalks
- Some pedestrians use walkways on 84th Ave to access the school



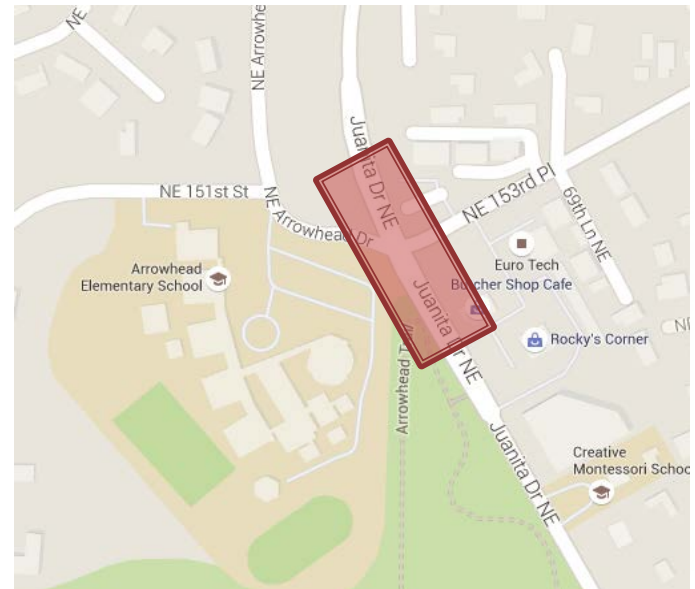
Kenmore Elementary School Zone

- Adjacent to 73rd Avenue (Arterial) with 35 mph daily speed limit
- Beacons on 73rd Ave at crosswalk
- Some pedestrians use sidewalks along 73rd Ave to access the school



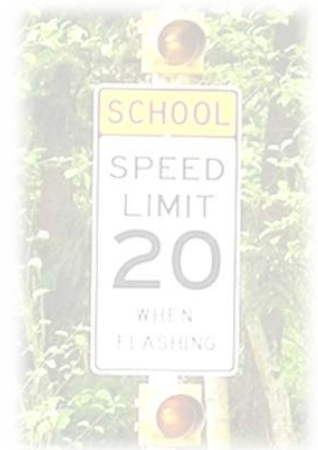
Arrowhead Elementary School Zone

- Adjacent to Juanita Drive (Arterial) with 35 mph daily speed limit
- Beacons on Juanita, 153rd Place and Arrowhead Dr
- Few pedestrians walk along Juanita Dr
- More pedestrians on 153rd, Arrowhead Dr



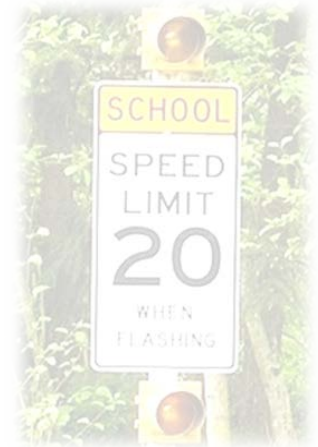
School Zone Operating Conditions

- **Zero** collisions in over fifteen years
 - During active school zone times
 - Includes vehicle-vehicle, vehicle-pedestrian, etc.
- Low rate of citizen comments
 - Approximately 1 per year over 15 years
 - Majority of comments relate to signage
- Vehicle speeds
 - Field data collected



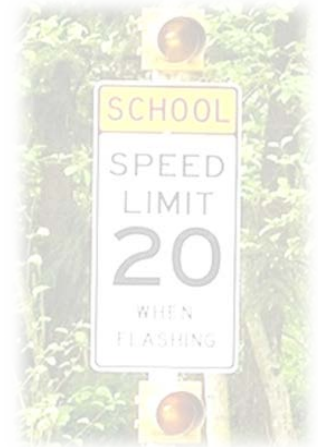
Analysis Methodology

1. Obtain data on existing operating conditions during active school zones
2. Check high priority sections of school zones
3. Look at tools that could be used to address concerns observed in the data



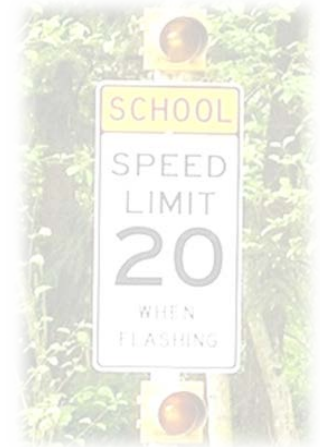
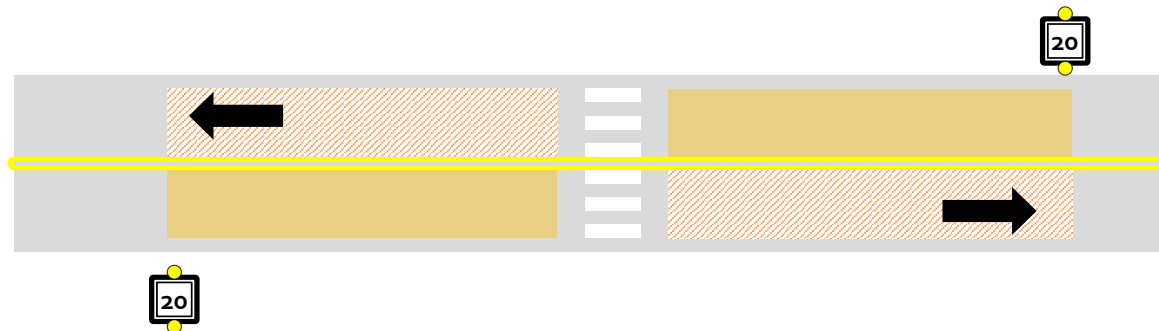
Obtaining Speed Data

- Automated tube counters in the inbound and outbound zones
 - Two full weeks of data at each school
- Only analyzed speed data during active school zone times
 - Different for each school
 - 15-20 minutes around morning bell
 - 5-10 minutes around afternoon bell



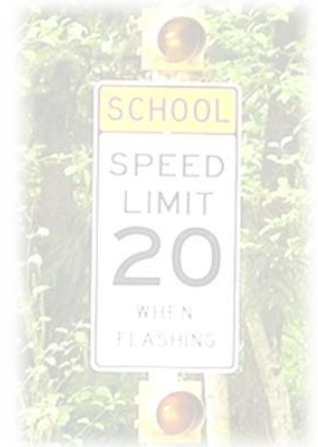
Inbound School Zone Speed

- Inbound zone speeds lower than outbound zone speeds
- Drivers tend to accelerate to resume normal speed before the end of the school zone



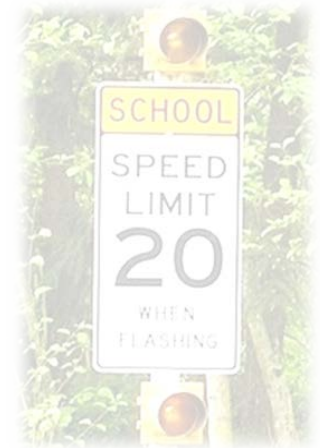
School Zone Speed by Time of Day

- Morning speeds lower than afternoon speeds
- Children are present for less time in the afternoon, sometimes in a single crossing



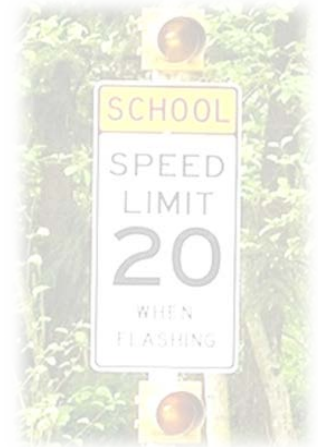
School Zone Speed – Juanita Dr

- Juanita Drive highest average inbound speed
 - 26 mph average 85th percentile speed
- Juanita Drive has other physical safety factors
 - Signal phasing
 - Turn restriction
 - Crossing guard



Toolbox for School Zones

- Traditional “Three Es”
 - Educating crossing guard and student helpers
 - Enforcement with existing police rotation
 - Signing and signals modifications



Kenmore's Use of the Toolbox

- RRFBs at crosswalks in school zones (2014)
- Signal modifications at intersection of Juanita/153rd/Arrowhead (2015)

- Pedestrian-only phase
 - "Sandwiched" between side street phases

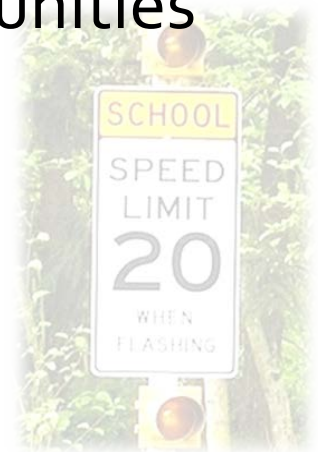


- No right on red restriction for Arrowhead Drive
- Half-time traffic enforcement officer (2016)



School Zone Recommendation

- There is a good balance in school zones
 - Operating conditions
 - Use of the “Three Es”
- Continue to monitor school zones
- Continue to take advantage of opportunities for incremental safety improvements



Automated Enforcement

- Recommended by Ad Hoc Bike and Pedestrian Committee (2014)
- Installation and operation is by contract with a third-party vendor
- Kenmore Police review and approve fines
- King County District Court collects fines
 - Contested and non-payment fines handled by District Court



Automated Enforcement

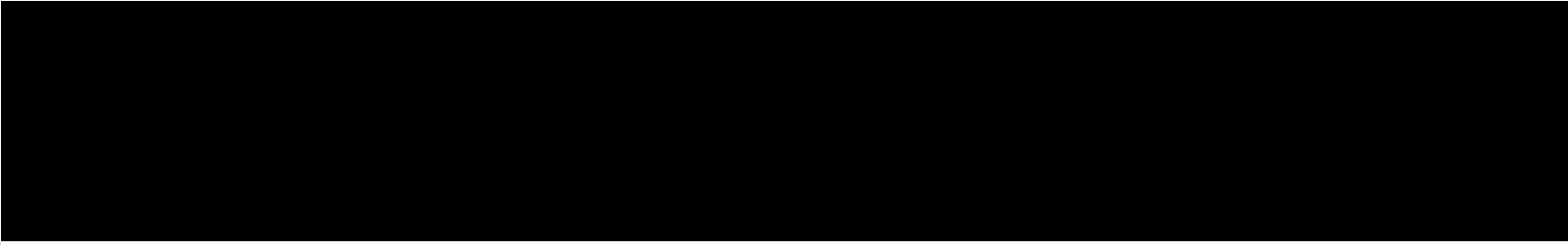
- Fines are not moving violations and are issued to registered vehicle owner
 - Amount is set by maximum parking fine
- Regionally, many cities operate cameras
 - Some have ended camera programs



Use of Automated Enforcement

- Research confirms that cameras do lower collision rates and vehicle speeds
- There are drawbacks to consider if this tool is used in Kenmore school zones
- What would our objective be?
 - Collision rates
 - Vehicle speeds





Picture of kids crossing at
Arrowhead – I'll get this this
afternoon or tomorrow morning

Questions?