Dependable Infrastructure

GOAL

Maintain levels of service commensurate with growing community requirements at optimum life-cycle costs.

City funds and staffs infrastructure maintenance

So that...

Infrastructure monitoring indicates good conditions

So that...

Kirkland has well maintained and sustainable infrastructure that meets the functional needs of the community

MEASURE	2009	2010	2011	2012	2013	TARGET
Transportation Capital Projects Funding	*$6,666,200*	*$5,456,000*	*$11,515,600*	*$10,708,580*	*$12,848,300*	*N/A*
Water/Sewer Capital Project Funding	*$4,547,900*	*$2,001,300*	*$1,450,000*	*$2,850,000*	*$5,080,070*	*N/A*
Street Maintenance FTE	*12.3*	*12.3*	*19.3*	*16.25*	*19.65*	*N/A*
Water/Sewer Maintenance FTE	*16.2*	*16.2*	*20.3*	*19.81*	*19.66*	*N/A*
*Pavement Condition Index[1] for Major and Minor Arterial Streets**	*52*	*50.3*	*60.8*	*60.8*	*62.3*	*70*
*Pavement Condition Index for Collectors and Neighborhood Streets**	*68*	*68*	*76.1*	*76.1*	*74.7*	*65*
Citizens surveyed rate street maintenance as satisfactory or better	**	*94%*	**	*89%*	**	*90%*
Sewer inflow and infiltration rate+	***	***	***	***	***	***
Water Main Breaks	*0*	*1*	*1*	*2*	*2*	*0*
Sewer Obstructions	*3*	*3*	*0*	*0*	*2*	*0*

*Pavement Condition Index (PCI) is a rating of the general condition of pavements based on a scale of 0 to 100. A PCI of 100 represents a newly constructed road with no distresses; a PCI below 10 corresponds to a failed road requiring complete reconstruction; a PCI of 41 or better equates to "fair or better". Data: 2009 PCI based on 2008 survey; 2010 Collector PCI based on 2010 Collector survey and 2008 Neighborhood Street survey

**Community survey occurs in even years

***Measure being developed for future reports

+ City is reviewing measure to make recommendation to City Council on the relevancy and accuracy of data

How is our performance?

The level of maintenance the City can perform is directly influenced by the availability of Capital Projects funding and manpower measured in full time equivalent (FTE) positions. Actual manpower time varies depending on turnover and position vacancies.

The pavement condition index (PCI) and the number of water main breaks and sewer obstructions demonstrate if the City is successfully maintaining infrastructure at desired levels of service.

Citizen satisfaction with streets helps determine whether or not the City is meeting the community's infrastructure expectations. A citizen survey is conducted every other year to obtain feedback on citizen satisfaction.

How are we doing?

After the Pavement Condition Index (PCI) fell below acceptable levels in 2010, voters passed the Proposition 1 Streets Levy in 2012. The overall city PCI improved with the addition of the annexation area, yet remained mostly unchanged in 2011 and 2012. In 2013, the PCI for major and minor arterial streets rose 1.5 points; however, the PCI for collector and neighborhood streets dropped slightly.

After a gap between performance and importance ratings in our 2012 citizen survey, resources were allocated from the Street Maintenance Levy to help improve street conditions by applying asphalt and slurry seal to extend the life of Kirkland's streets.

What are we doing?

The Public Works Department maintains a comprehensive system of roads and sidewalks. The Streets Levy is providing additional resources to reduce the backlog of deferred street maintenance and to install safety improvements that meet aggressive 20 year targets. In 2013, Streets Levy funding helped to apply over 10 miles of slurry seal to protect and extend the life of Kirkland's streets. In addition, curb ramps that meet ADA standards have been installed in the same areas to improve access for everyone. Arterials with low PCI (Pavement Condition Index) ratings were overlaid. This robust street maintenance project was completed in 2013, and Street Levy resources enabled the City to almost double the improvements.

Professional personnel and reliable facilities ensure that citizens do not experience lapses in water or sewer service. Engineering staff are developing an updated Surface Water Master Plan that meets the requirements of the federal National Pollutant Discharge Elimination System (NPDES) permit as well as protecting the environment, homes, and businesses with surface water best management practices. By maintaining a safe and effective sewer system, wastewater and surface water employees improve the infrastructure for improved business vitality and growth as well as a healthy and clean quality of life for Kirkland's residents.

All Capital Improvement projects are managed by a team of engineering professionals in the Capital Improvement Division who are currently working on high profile projects such as the Cross Kirkland Corridor Interim Trail and the construction of the NE 85th Corridor improvements in the Rose Hill neighborhood, as well as annual maintenance projects to improve water, sewer, and streets infrastructure.

The City Council continues to explore and implement ways to help the City keep pace with infrastructure needs. Kirkland citizens can expect to maintain a high quality of life because of professional, reliable, and cost effective management of the City's infrastructure resources.

Slurry seal extends life of roadways

Left to its natural environment, the average neighborhood street would live about as long as the average dairy cow: 20 years. And the last of those years wouldn't be too kind. Time, weather and traffic would wear potholes and alligator cracks into its surface.

The streets in Kirkland, however, tend to age more gracefully. And they last a little longer too—more than seven years longer. That's because the City of Kirkland preserves each of its 400-plus lane miles of neighborhood roads with an asphalt armor that engineers call slurry seal. This mix of tiny gravel pieces and emulsified liquid asphalt—an oil-like substance—acts like sunscreen for these lightly trafficked roads—sealing out weather and moisture—thereby extending the lives of the roads by five to 10 years. And it does this at a rough cost of $1,600 per city block.

Kirkland has been using slurry seal to extend the lives of its roads for the last decade. And for much of that decade, Kirkland was able to treat roughly 15 lanes miles of neighborhood roads every year—not nearly enough to keep up with the Kirkland road network's growing demand for street maintenance and preservation.

Voters responded in 2012, however, by approving the Streets Levy. This $3 million annual levy has already enabled Kirkland to accomplish a lot of ambitious projects: installing Rapid Flashing Beacons, improving sidewalk access to residents who travel by wheelchair, and providing a street overlay for an additional 5.5 lane miles per year. The levy also enabled Kirkland in 2013 to preserve another 11 lane miles of neighborhood streets with slurry seal.