



CITY OF KIRKLAND
Department of Public Works
123 Fifth Avenue, Kirkland, WA 98033 425.587.3800
www.ci.kirkland.wa.us

MEMORANDUM

To: David Ramsay, City Manager
From: Ray Steiger, P.E., Capital Projects Manager
Daryl Grigsby, Public Works Director
Date: February 22, 2007
Subject: 2006 SIDEWALK MAINTENANCE PROGRAM – AWARD CONTRACT

RECOMMENDATION:

It is recommended that the City Council award the construction contract for the 2006 Sidewalk Maintenance Program to Taggart Construction, Inc. of Bothell, Washington in the amount of \$103,925.00.

BACKGROUND DISCUSSION:

The Annual Sidewalk Maintenance Program is funded in the CIP at \$200,000, and 2006 was the first year that the program has been in the CIP. Prior to having dedicated funding for the sidewalk program, repairs and maintenance of sidewalks were funded from the street improvement fund and out of the City's street preservation program thereby impacting funds needed for those programs. The annual program allows staff to inventory, design, construct, and inspect construction of the sidewalk system in a more comprehensive manner. The program consists primarily of removing and replacing broken or damaged segments of cement concrete sidewalk at various locations throughout the City.

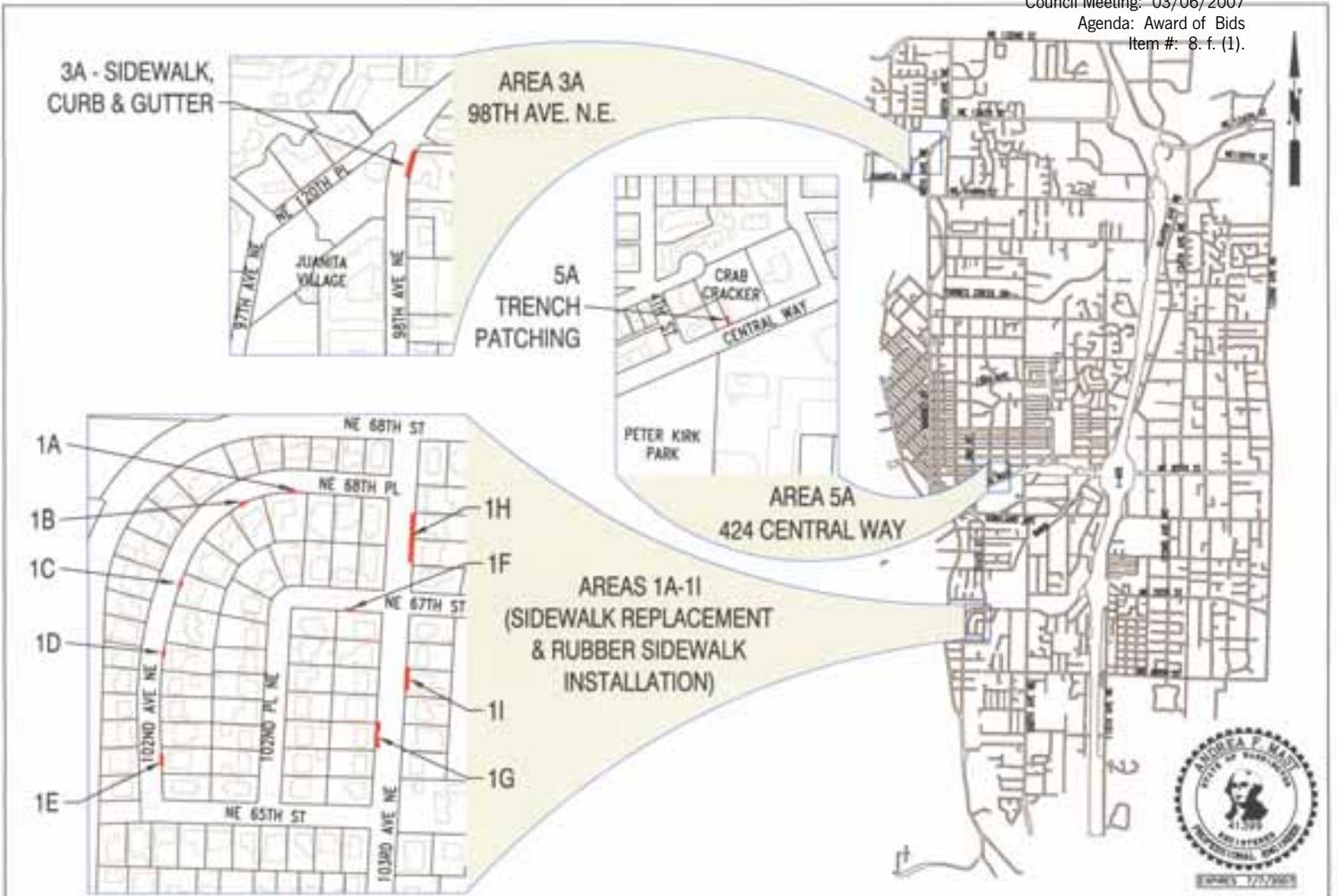
The 2006 program will repair sidewalk segments in the South Juanita, Lakeview and Moss Bay neighborhoods (vicinity map attached). A unique element of this program will be the pilot installation of rubber sidewalks in the Lakeview Neighborhood. A summary of the rubber sidewalk background and pilot installation was provided to Council in a reading file memo dated February 1, 2007 and is attached for reference. The City has pre-purchased the rubber panels, and they will be installed by the Contractor as a part of their work.

Scoping and design of various repairs were assembled during 2006; current timing of the project will allow construction to take place during the warmer spring season, and bidding early in the season will provide the most competitive bidding climate. Public Works staff advertised for contractor bids on the project using the Small Works Roster. The first advertisement was published on February 4, 2007 and two bids were opened February 16, 2007 as follows:

Bidder	Total Bid
Engineer's Estimate	\$88,000.00
<i>Taggart Construction, Inc.</i>	<i>\$103,925.00</i>
Dennis R. Craig Construction.	\$108,742.30

Although above the engineer's estimate, award to Taggart Construction is within the project budget, and no additional funds are needed (Attachment B). With award of the contract by Council at their March 6 meeting, construction is expected to start in April followed by total project completion by June 1, 2007. In advance of the work, Public Works will notify adjacent properties with an informational mailing describing the City's Sidewalk Maintenance Program. Portable construction notice signs will be placed on residential streets prior to the start of construction and staff will ensure the contractor maintains safe travel for pedestrians throughout the work areas.

Attachments (3)



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DATE	BY	APPR.	REVISION

DATE	03/24/2007
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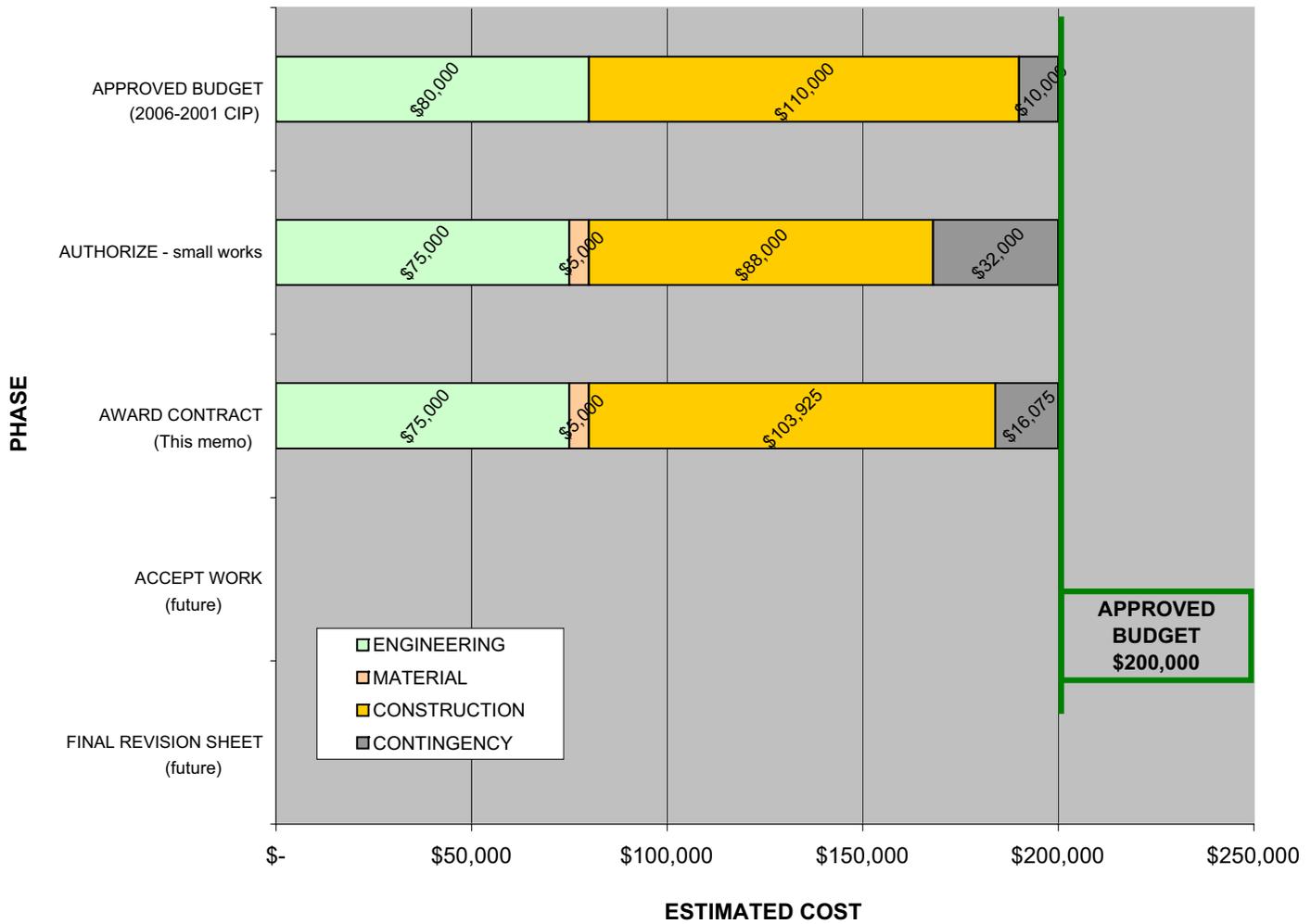
2006 SIDEWALK MAINTENANCE PROGRAM
OVERALL PROJECT AREAS

1 OF 8
 N.T.S.
 DWG# 0-000 DMC



2006 SIDEWALK MAINTENANCE PROJECT (CNM 0657)

PROJECT BUDGET REPORT





CITY OF KIRKLAND

Department of Public Works

123 Fifth Avenue, Kirkland, WA 98033 425.587.3000

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MEMORANDUM

To: David Ramsay, City Manager

From: Daryl Grigsby, Public Works Director
Ray Steiger, P.E., Capital Projects Manager

Date: February 1, 2007

Subject: READING FILE – Rubber Sidewalks

Broken and uplifted sidewalk panels due to tree root growth are typically an ongoing maintenance issue as well as a potential public safety issue. While removal of the trees will alleviate the cause of the sidewalk impact, it is not always a viable option due to the aesthetic and historical value of the trees. Other methods that have been employed by the City include mechanically grinding the adjacent panels, removing the panels and using flexible material such as asphalt for the replacement sidewalk, or meandering the sidewalk onto adjacent property. In 2006, partially in recognition of the severity of this issue throughout the City, and to provide for steady funding to address sidewalk maintenance, the Council created the annual sidewalk maintenance program with an annual budget of \$200,000, to systematically address sidewalk maintenance and to explore additional means to repair the many pedestrian sidewalks and paths in Kirkland.

Growing tree roots is the situation that the City is currently seeing at several locations along 103rd Avenue NE and 102nd Avenue NE in the Lakeview Neighborhood (Attachment 1). Mature, historic, oak trees line the planter strips along 103rd Avenue NE. Planted more than 40 years ago, the trees are an icon to the neighborhood and provide shade that keeps the surrounding environment cool in the summertime. However, these trees have significantly outgrown the planter strips they were originally planted in. The sidewalks adjacent to the Oaks are cracked and uplifted, and as a result, can be potential tripping hazards to pedestrians. These areas were identified as ideal candidates for the City's Annual Sidewalk Maintenance Project, however the removal of the trees (and their roots) was out of the question.

During the preliminary design of this year's program, Staff brainstormed ways to replace the sidewalk that would 1) require little or no future maintenance, and 2) have minimal impact on the existing trees. A typical panel replacement using concrete would likely break within a year or two due to continued root growth and would require ongoing patch work or replacement again in a few years. In coordination with the City's arborist and street maintenance crews, engineering staff evaluated other available alternatives including rubber sidewalks. A California based company called Rubbersidewalks, Inc. produces and sells interlocking rubber sidewalk pavers that are created from recycled tires. This product proved interesting for several reasons including:

- The product is created from recycled materials; according to Rubbersidewalks, Inc., each square foot of rubber sidewalk diverts one tire from the landfills.
- The product is sold as requiring little and inexpensive maintenance. Each paver is connected together using removable dowels. If an area requires maintenance, the panels can be pulled up, the site re-leveled and then the panels reconnected. No breaking and pouring of new concrete is required.
- When installed appropriately, the product meets ADA requirements.
- The pavers allow for water to percolate through the surface, which increases the amount of water that reaches the tree roots and promotes healthy tree growth. Typical concrete sidewalks are impervious and tend to starve the tree roots from water which causes roots to grow upwards towards the surface, looking for water.
- The pavers are flexible and will bend versus breaking.
- Several other agencies have installed the product leading to working examples and performance that has been shown to be effective.

Since Rubbersidewalks, Inc. is a California based company, most of the installations are located there with the oldest installation being constructed in 1998. Several other states have also installed rubber sidewalk including Maryland, Illinois, Colorado, Tennessee, New York, Texas, New Jersey, Idaho, Florida and locations in Washington D.C. and British Columbia. Upon further research of rubber sidewalks, Staff also learned that the City of Seattle and City of Olympia have installations of rubber sidewalks. The City of Seattle has a location that was installed in 2005, and they have been very pleased with the results. That installation recently won an award for *Best Creative Use of Recycled Materials in a Public Space* by the editors of Seattle magazine. We visited the Seattle installation and were impressed with the feel of the product underfoot and flex of the material. A small bump was noticed where an underlying root was growing, but there was no trip hazard or vertical offset that you would likely see had it been replaced with concrete.



*Photo of City of Seattle Rubbersidewalk Installation
(photo taken approximately 1 year after installation)*

In Kirkland's pilot of this approach to sidewalk maintenance, five areas have been selected (approximately 420 square feet) within the Annual Sidewalk Maintenance Project where rubber sidewalk will be installed and evaluated for its performance; the five locations are shown on the attached map. During communications with Rubbersidewalks, Inc., it was learned that the City of Bellevue was also exploring the idea of installing rubber sidewalks. After contacting the City of Bellevue, it was decided to partner with them to order rubber sidewalk materials together in order to split the cost of shipping. The material will then be provided to the City's contractor and installed per the manufacturer's recommendations.

Currently, the scheduled delivery for the rubber sidewalk is early February, 2007. The project, including all other concrete sidewalk maintenance will be bid via the small works roster and the bid opening will be in mid February, 2007. Staff anticipates seeking award in March with a Notice to Proceed to the contractor in April.

We are excited to monitor the performance of the rubber sidewalk and hope it will become a viable alternative for sidewalk maintenance in the future.

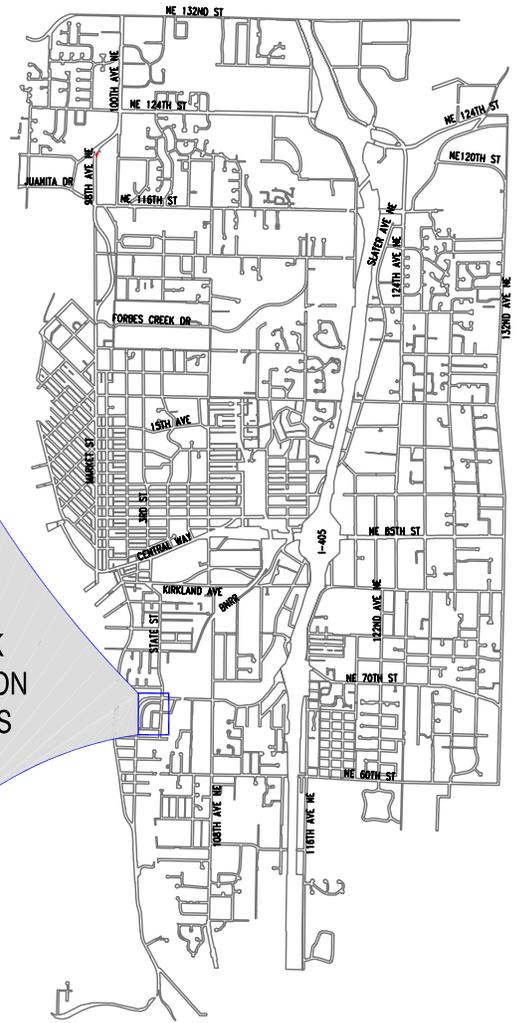


*Future City of Kirkland Rubber Sidewalk Installation
Location (6708 103rd Ave. NE)*

Attachment (Vicinity Map)



RUBBER
SIDEWALK
INSTALLATION
LOCATIONS



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DATE	BY	APPR.	REVISION

AFM 01/25/2007
DWS/ST: DATE
CHK BY: DATE
CHECKED BY: DATE

2006 SIDEWALK MAINTENANCE PROGRAM
RUBBER SIDEWALK LOCATIONS

1 OF 1
SCALE: N.T.S.
FILENAME: SW06-P-RSW.DWG