



CITY OF KIRKLAND
Department of Public Works
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MEMORANDUM

To: Kurt Triplett, City Manager

From: Pam Bissonnette, Interim Public Works Director
David Snider, P.E., Capital Projects Manager

Date: May 23, 2013

Subject: 98th Avenue (Forbes Creek) Bridge Seismic Upgrade Project
Accept Grant Funding

RECOMMENDATION:

It is recommended that City Council:

- Authorizes the City Manager to sign the Federal Bridge Selection grant documents for the Forbes Creek Bridge Seismic Upgrade Project, and,
- Approves the use of REET II funds for City costs that are not eligible for Federal grant reimbursement.

BACKGROUND DISCUSSION:

The City has been notified by the Washington State Department of Transportation that the 98th Avenue NE Bridge Project was selected to receive \$1,400,000 in grant funding through the Federal Highway Bridge Program (HBP). The grant funds are for use on a seismic upgrade to the City's 98th Avenue NE Bridge over Forbes Creek within Juanita Bay Park (Attachment A). The existing bridge was originally built in 1974 and a 1995 Seismic Vulnerability Analysis Report concludes the bridge is susceptible to collapse during seismic activity (i.e., earthquake).

Specifically, the Seismic Report concluded that the center piers supporting the bridge could fail under severe seismic loading, causing collapse of all or part of the bridge. As a critical north-south link along a major Kirkland corridor, a seismic retrofit for the bridge will significantly decrease the possibility of structural collapse. The proposed Project will provide retrofit measures including the installation of added soil anchors and drilled piers at key locations under the bridge, together with a new continuous horizontal strut to better tie the below-the-deck bridge components together; this method of seismic upgrade serves as a viable and cost effective alternative to a complete bridge replacement. By comparison, a total replacement of the bridge is estimated to cost closer to \$10.2M in direct costs, with immense ancillary costs associated with a long-term detour. The upgrade will not significantly impact bridge traffic.

Kirkland Bridge Information

Due to the recent collapse of the Skagit River Bridge on I-5, staff has included in this memo some additional information regarding key bridges in Kirkland. A more detailed bridge report can be provided if the Council so desires at a future Council meeting. The City of Kirkland has a

total of three bridges that are eligible for assistance under the HBP, which is a national program to ensure public safety through regular bridge inspection, rehabilitation and replacement. The three Kirkland bridges include: 98th Avenue NE Forbes Creek Bridge (this memo), the Central Way Bridge (over the CKC), and NE 116th Street Bridge (also over the CKC).

In order to qualify for federal funds, a bridge must be inspected every 24-months and, in compliance with that requirement, Kirkland's three bridges are inspected on a biennial basis by a licensed engineer qualified by the State to perform such inspections. The City's most recent bridge inspections were completed in April of this year, including the 98th Avenue NE Forbes Creek Bridge and the Central Way Bridge. The NE 116th Street Bridge was completely rebuilt in 2012 by WSDOT as a brand new structure as part of its half-diamond interchange at I-405. Therefore the City's NE 116th Street Bridge was not required to be inspected in 2013, but will be included in the next bridge inspection year of 2015.

Each inspected bridge is given a "Sufficiency Rating" (SR) within a range of "0" for a low to "100" for a high. The results of the April 2013 inspection are as follows:

BRIDGE/LOCATION	BRIDGE TYPE	DATE INSPECTED	SR
98 th Ave NE/Forbes Creek	Concrete	4/15/2013	93.15
Central Way/CKC	Concrete	4/15/2013	79.75
NE 116 th Street	Concrete	N/A	New (100.00)

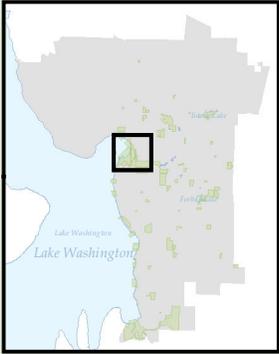
As a result of its relatively high score, the 98th Avenue NE Forbes Creek Bridge ranked well for the seismic retrofit grant because of its good condition. In other words, it is viewed as a bridge worth preserving.

There are also general purpose overpass bridges in Kirkland along I-405 at NE 70th, NE 116th and NE 124th Streets. As bridges within the right-of-way of I-405, WSDOT has the responsibility for all inspections and reporting. In addition to these bridges, there are three pedestrian bridges that also span I-405, serving to connect Kirkland Neighborhoods. Two of those bridges are located at NE 60th and 80th Streets. A third bridge, located at NE 100th Street, is a combination pedestrian and emergency vehicle access bridge. Once again, as bridges within the I-405 right-of-way, WSDOT conducts regular inspections of these three bridges. As bridges that do not carry regular vehicular traffic (NE 60th and NE 80th), and only occasional emergency vehicle traffic (NE 100th), these three bridges are inspected on a 4 to 5-year frequency with the most recent inspection for the NE 100th St Emergency/Pedestrian Bridge occurring in January of this year.

The total estimated cost for the 98th Ave NE Project is \$1,400,000 and the grant does not require a City match. However, as a Federal grant, there are direct City costs for staff time that are not eligible for grant reimbursement. The currently estimated amount of non-eligible City costs is \$15,000 and staff recommends using REET II funds for these non-eligible costs.

Currently, the 98th Avenue Bridge Project is on the unfunded list of transportation projects in the 2013-2018 CIP. With City Council's authorization to accept the funds, and approval to provide City funds for non-eligible grant costs, staff will complete the grant paperwork and proceed with consultant selection and design in 2013 with construction in summer of 2014.

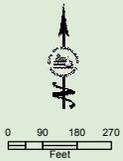
Attachment A – Vicinity Map
Attachment B – PBR
Attachment C – Fiscal note



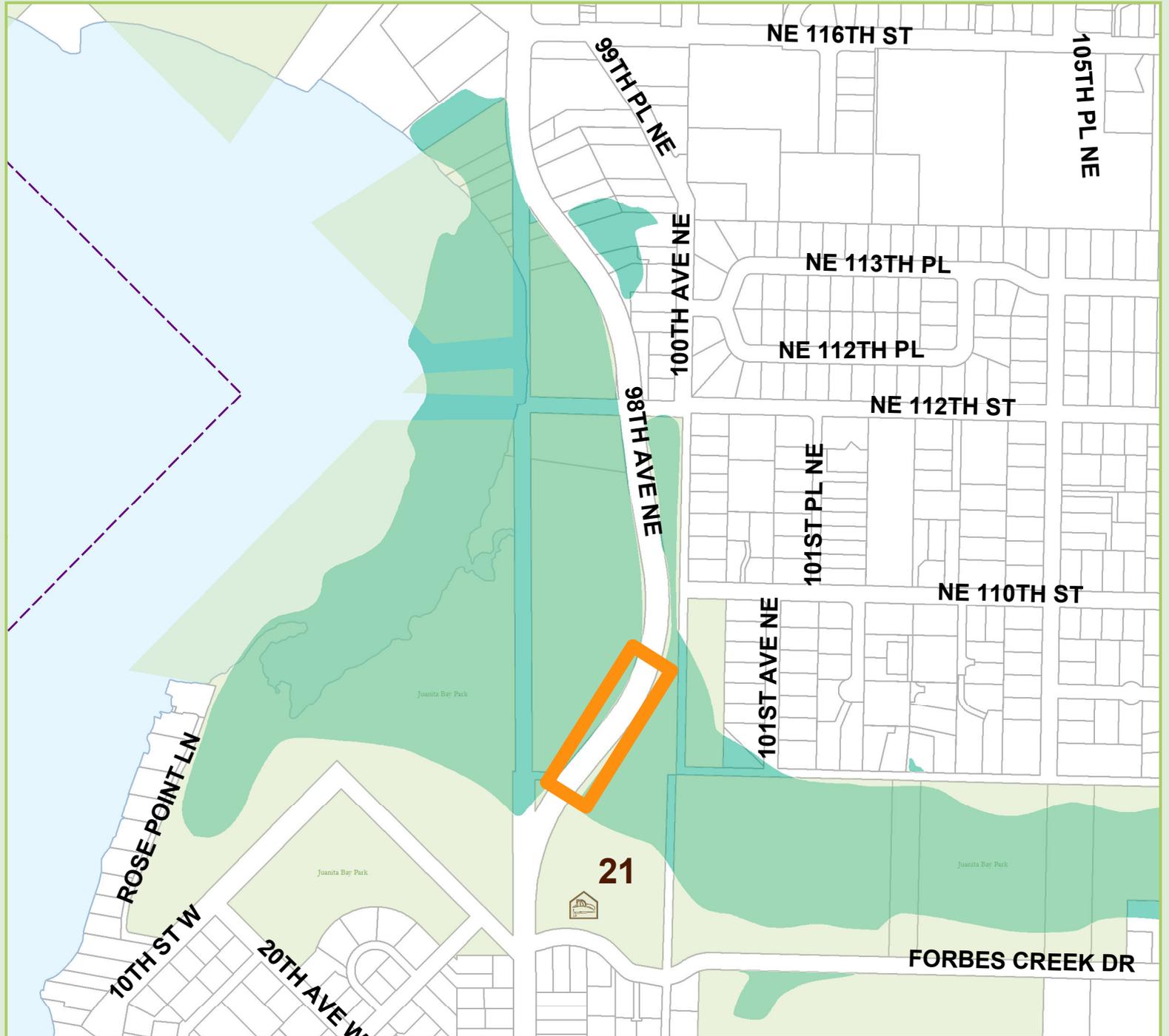
Vicinity Map

Map Legend

-  Bridge Location
-  Park
-  Wetlands
-  Streets



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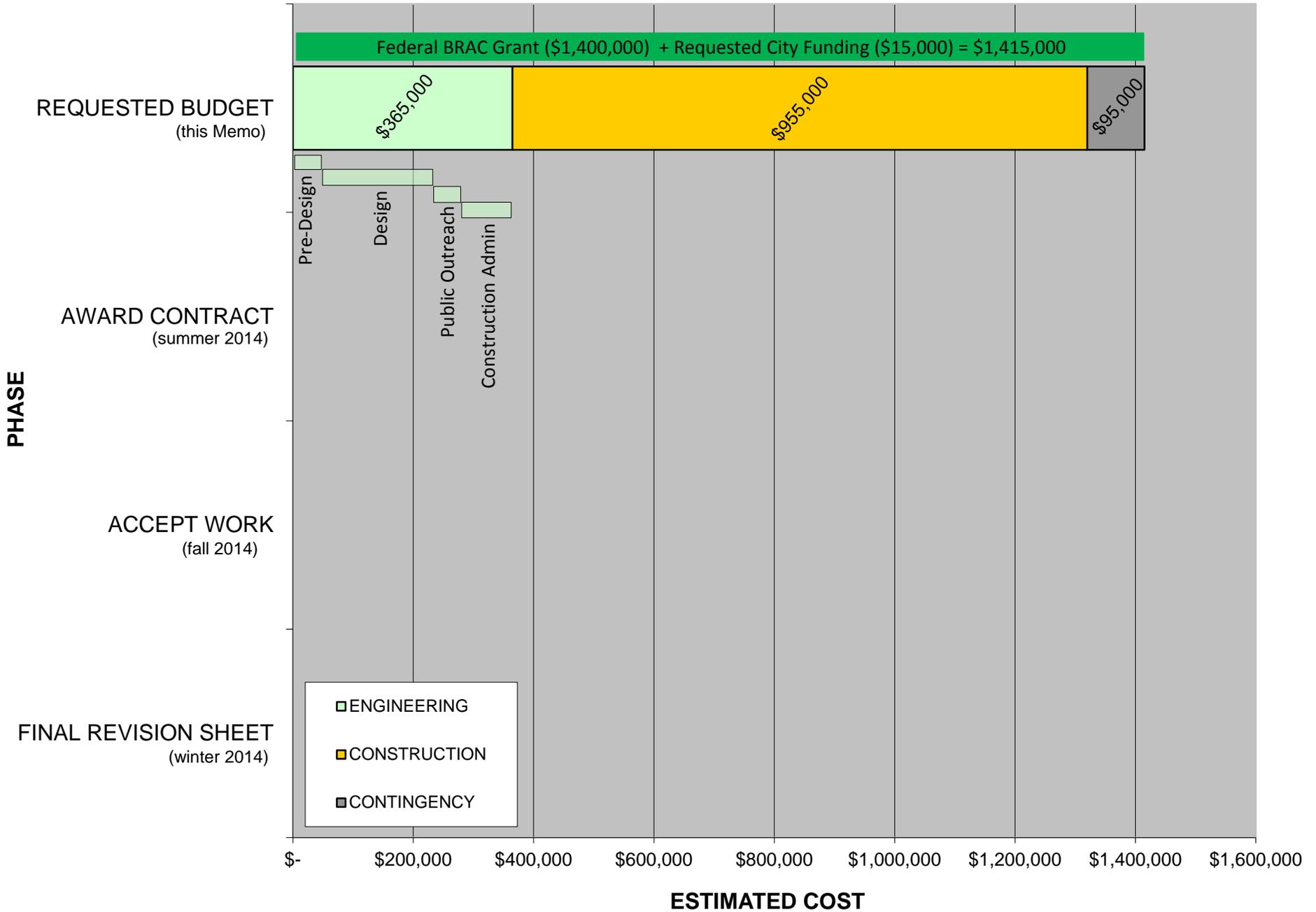


98th Avenue NE Bridge Project

**98th Avenue NE (Forbes Creek) Bridge Seismic Upgrade Project
CST 0055 000**

Attachment B

Project Budget Report



FISCAL NOTE*CITY OF KIRKLAND*

Source of Request							
Pam Bissonnette, Interim Public Works Director							
Description of Request							
Request for funding of \$15,000 from the REET 2 Reserve for the 98th Avenue (Forbes Creek) Bridge Upgrade Project CST 0055 for City engineering costs not eligible for grant reimbursement.							
Legality/City Policy Basis							
Fiscal Impact							
One-time use of \$15,000 from REET 2 Reserve. This reserve is able to fully fund this request.							
Recommended Funding Source(s)							
<i>Reserve</i>	Description	2014 Est End Balance	Prior Auth. 2013-14 Uses	Prior Auth. 2013-14 Additions	Amount Request	Revised 2014 End Balance	2014 Target
	REET 2 Reserve	2,294,806	267,045	0	15,000	2,012,761	1,071,000
	Prior Authorize Use of REET 2 Reserve: NE 112th Street Sidewalk (\$214,000), Central Way Sidewalk (\$50,000) and 6th Street Sidewalk (\$3,045).						
<i>Revenue/Exp Savings</i>							
<i>Other Source</i>							
Other Information							

Prepared By	Neil Kruse, Senior Financial Analyst	Date	May 15, 2013
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