

Program # 90018 - Bridge Engineering

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Priority: Thriving Economy Lead Agency: Community Services

Program Offer Type: Existing Operating Program Contact: Stan Ghezzi

Related Programs: 90017, 90019, 90032

Frameworks:

Executive Summary

This program is entrusted with providing the most cost effective means of improving and prolonging County's long term investment in its 6 Willamette River Bridges and 24 other bridge structures. The Willamette River crossings consist of 4 movable bridges (Hawthorne, Morrison, Burnside and Broadway) and 2 fixed structures (Sellwood and Sauvie Island). Bridge Engineering works closely with Bridge Maintenance and Operations on a variety of projects and issues.

Program Description

Bridge Engineering is composed of engineers, engineering technicians and support personnel. They provide planning, engineering and construction project management for preservation of structural, mechanical, electrical and corrosion-protection (paint) systems of the County's bridges. Most design and construction work is performed by outside contractors with direction and oversight provided by Bridge Engineering personnel. Projects are identified and prioritized in the Transportation Capital Improvement Program to match available funds. Bridge Engineering works with other County, state and federal agencies to secure funding from state and federal sources.

The primary focus of Bridge Engineering is the 6 Willamette River Bridges, of which most are classified as historic structures and some are approaching 100 years in age. The 4 drawbridges are complex structures with complicated mechanical and electrical systems to allow them to be raised and lowered.

Program Justification

Approximately 200,000 buses, trucks, passenger vehicles and thousands of bicycles and pedestrians cross the Willamette River on County owned bridges every day, making it a very important component of the regional transportation system. Without the Willamette River Bridges, travel between east and west Portland would be nearly impossible. Equally important are the number of commercial and tourist ships that travel the Willamette River which require reliable operations of the County's draw spans. Bridge Engineering supports the 'Thriving Economy' primary factor of an 'Established Regional Infrastructure' by providing maintenance improvements and enhancement of the existing transportation systems. The free movement of commodities and goods that these transportation systems provide makes a significant positive impact to the regional economy. Due to the age and complex nature of these bridges, The Transportation Capital Improvement Program identifies \$330 million in Willamette River Bridge maintenance improvements and enhancements that are needed during the next 20 years. Bridge Engineering is responsible for the planning, engineering and management of these projects.

This program supports 'Resilient Businesses' through efforts to target MWESB certified businesses for work on Capital Projects.

In addition to being a vital link in the transportation system, the historic and symbolic nature of the Willamette River Bridges contributes to 'Vibrant Community'. This program also contributes to a 'Safe Community' through maintenance activities, lighting projects and a network of surveillance cameras.

Performance Measures

To minimize traffic disruptions and receive good value for every tax dollar, it is imperative that bridge capital projects be managed to remain on schedule and within budget. Two performance measures to assess Bridge Engineering's ability to keep projects on schedule and within budget are: 1) Percentage of planned capital improvement project milestones met (goal is 90% or greater). 2) Percentage of cost growth from contract award to contract completion (goal is 5% or less).

Summary of last year's program results and this year's expected results

Last year the preliminary design was completed on schedule for the new Sauvie Island Bridge. In addition, \$33 million in federal and state funds were secured for the project. This project remains on schedule.

The \$26 million, 2 year, Broadway Bridge project to rehabilitate the structure and install a new deck with much improved traction is nearing completion. Scheduled project work has been completed on time and within budget. During construction, disruption to vehicular, bicycle, pedestrian, and river traffic were minimized through careful planning and implementation. Funds from outside sources paid for 99% of the cost for this project.

Program Mandate: 1 Mandated Program & Funding Level

Multnomah County is required to maintain and operate its drawbridges in accordance with the River and Harbor Act of 1894, federal regulations (USC 117.750), U.S. Coast Guard regulations CFR Title 33, State Law (ORS 382.305 – 382.425), 1984 IGA with City of Portland as amended in 1989, and HB, 2041 Section 3a.

Revenue/Expense Detail

	Proposed General Fund	Proposed Other Funds	Proposed General Fund	Proposed Other Funds
Program Expenses	2005	2005	2006	2006
Personnel	\$0	\$1,994,485	\$0	\$2,025,900
Contracts	\$0	\$473,166	\$0	\$1,098,016
Materials & Supplies	\$0	\$77,850	\$0	\$81,750
Internal Services	\$0	\$188,774	\$0	\$465,482
Capital Outlay	\$0	\$446,348	\$0	\$0
Subtotal: Direct Exps:	\$0	\$3,180,623	\$0	\$3,671,148
Administration	\$0	\$0	\$34,774	\$0
Program Support	\$0	\$0	\$0	\$22,500
Subtotal: Other Exps:	\$0	\$0	\$34,774	\$22,500
Total GF/non-GF:	\$0	\$3,180,623	\$34,774	\$3,693,648
Program Total:	\$3,180,623		\$3,728,422	
Program FTE	0.00	0.00	0.00	20.80
Program Revenues				
Indirect for dep't Admin	\$15,873	\$0	\$23,371	\$0
Intergovernmental	\$0	\$1,200,000	\$0	\$1,400,000
Other / Miscellaneous	\$0	\$2,997,311	\$0	\$2,271,148
Program Revenue for Admin	\$0	\$0	\$23,502	\$22,500
Total Revenue:	\$15,873	\$4,197,311	\$46,873	\$3,693,648

Explanation of Revenues

Revenue for this program comes entirely from gas taxes and vehicle registrations that are collected by the state and distributed based on an intergovernmental agreement that specifies the amount to be allocated to Bridge Capital. These are dedicated funds and can only be used for bridges. These funds are used to leverage federal and state dollars to provide a greater benefit to the County. On most capital projects this leveraging provides at least 10 federal and/or state dollars for each County dollar spent on Multnomah County bridges.

Significant Program Changes

Although Bridge Engineering has worked very hard to strategically leverage federal and state funds with County Bridge Capital funds and carefully managed to maximize the benefit to the County, current funding sources are not sufficient to complete critical projects. One example is the Sellwood Bridge which has significant structural deficiencies. At least \$18M of County match will be required on the \$91M replacement cost. Current financial models predict that Transportation Capital will have \$2.5M by the end of FY09, resulting in a shortage of at least \$15.5M.

Transportation mobility is severely compromised by the lack of funds for bridge capital maintenance and replacement projects. With \$330 million in capital needs, and only \$110 million available for these needs, the County is actively exploring new and increased sources of funds to supplement and leverage the revenue stream for the County to keep the Region competitive on a global market.