



BUSINESS OF THE CITY COUNCIL CITY OF SNOQUALMIE

AB22-129
September 26, 2022
Committee Report

AGENDA BILL INFORMATION

TITLE:	AB22-129: Meadowbrook Bridge Load Rating Update	<input type="checkbox"/> Discussion Only
PROPOSED ACTION:	Approve Task Order No. 3 with Tetra Tech, Inc (Tetra Tech) to complete a Load Rating update for the Meadowbrook Bridge	<input checked="" type="checkbox"/> Action Needed: <input checked="" type="checkbox"/> Motion <input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution

REVIEW:	Department Director/Peer	Mike Chambless	8/31/2022
	Finance	Drew Bouta	9/13/2022
	Legal	Anna Astrakhan	8/30/2022
	City Administrator	Mike Sauerwein	8/29/2022

DEPARTMENT:	Parks & Public Works		
STAFF:	Jeff Hamlin, PE – City Engineer		
COMMITTEE:	Parks & Public Works	COMMITTEE DATE: September 20, 2022	
MEMBERS:	Ethan Benson	Bryan Holloway	Jo Johnson
EXHIBITS:	<ul style="list-style-type: none">• Task Order No. 3 – Tetra Tech – Meadowbrook Load Rating• Task Order No. 3 Meadowbrook Bridge Load Rating Scope• Task Order No. 3 Meadowbrook Bridge Load Rating Fee• Tetra Tech Prime Agreement• Tetra Tech Bridge Qualifications• Meadowbrook Bridge Inspection Report (2021)		

AMOUNT OF EXPENDITURE	\$ 153,863
AMOUNT BUDGETED	\$0 (2021-22 Biennium), \$1,744,000 (2023-24 Biennium)
APPROPRIATION REQUESTED	\$ 153,863

SUMMARY

INTRODUCTION

The 2021 bridge inspection report prepared by King County Bridge Department for the Meadowbrook Bridge (1726A) identifies deterioration of several elements of the bridge structure. A load rating update is required by WSDOT by the end of 2022 and is the first step to determine future maintenance needs for the long term care of the bridge structure.

LEGISLATIVE HISTORY

NA

BACKGROUND

The most recent load rating for Meadowbrook Bridge was performed in 2006 after a major rehabilitation of the bridge and assumed all the bridge superstructure elements were in new condition. The 2006 load rating did not load rate the gusset plates and connections because at that time gusset plates were not considered part of the load rating and connections were not rated unless there was evidence of deterioration.

ANALYSIS

The 2021 bridge inspection report for Meadowbrook Bridge (1726A) identifies deterioration at the lower chords and gusset plates that require reevaluation of the load rating to ensure the current condition of the bridge has sufficient structural load carrying capacity. Also, since the previous load rating, the FHWA has added requirements for load rating the gusset plates and additional load rating vehicles that include Specialized Hauling Vehicles (SHV) and Emergency Vehicles (EV) must be evaluated by December 31, 2022.

A new load rating analysis will be performed that considers the current condition of the bridge and includes the gusset plates and the FHWA and WSDOT loading requirements for the National Rating Load (NRL), Specialized Hauling Vehicles (SHV) and Emergency Vehicles (EV). The load rating will also include rating factors for the City of Seattle's under bridge inspection truck (UBIT) (used in the 2021 inspection) (for approximately 16 vehicle configurations in total.) The bridge load rating will use the Load and Resistance Factor Rating (LRFR) as allowed per WSDOT and FHWA for bridges that were designed prior to October 1, 2010. The load rating analysis will follow the guidance of the most current WSDOT Bridge Design Manual (BDM), AASHTO Manual for Bridge Evaluation (MBE) 3rd Edition (2018) and all interims up to 2022, and the AASHTO LRFD Bridge Design Specification 9th Edition.

BUDGET IMPACTS

The Administration recommends approving a contract with Tetra Tech in the amount of \$153,863 to prepare the Meadowbrook Bridge load rating update. The amended CIP did not include the Meadowbrook Bridge Restoration Project and therefore the project was not included in the 2021-2022 Biennial Budget. However, the project was included within the recently adopted 2023-2028 CIP and the Administration proposes incorporating the project into the 2023-2024 Biennial Budget for \$1,744,000. The load rating update will likely be used to identify the capital maintenance required to restore the Meadowbrook Bridge and elongate its useful life. To meet the accelerated timeline of this project, the Administration recommends increasing the appropriation available in the current 2021-2022 Biennial Budget (Transportation Capital Fund #310) through a budget amendment equal to the cost of the contract. To offset this increase, the Administration also recommends reducing the appropriation proposed in the 2023-2024 Biennial Budget by an equal amount. A budget amendment will be forthcoming before the end of the year.

NEXT STEPS

Proceed with the Load Rating update for the Meadowbrook Bridge

PROPOSED ACTION

Move to Approve Task Order 3 with Tetra Tech to complete a Load Rating update for the Meadowbrook Bridge