



INFORMATIONAL MEMORANDUM

TO: Transportation and Infrastructure Committee
 FROM: Henry Hash, Public Works Director *H. H.*
 BY: Adam Cox, Transportation Project Manager
 CC: Mayor Ekberg
 DATE: July 12, 2019
 SUBJECT: Annual Bridge Inspections and Repairs 2019
 Project No. 91910402, Contract 18-244
 Design Consultant Amendment No. 1 - Bridge Support Services

ISSUE

Approve Amendment No. 1 for the 2019 Bridge Program Engineering Support Services contract with TranTech Engineering, LLC (TranTech) for the S 196th/200th St Bridge improvements, 42nd Ave S Bridge Replacement funding assistance, and miscellaneous bridge program support.

BACKGROUND

The City has been monitoring the S 196th/200th St Bridge for the settlement on the west end of the structure. This settlement now requires action to be taken by the City to remedy the issue as part of a construction project. The City is also required to update and provide load rating analysis of the 42nd Ave S Bridge to meet FHWA requirements. The City also requires technical support for the 42nd Ave S Bridge BRAC replacement grant that was submitted in April 2019.

ANALYSIS

Originally it was believed that the design/repair of the S 196th/200th St Bridge would be a fairly simple process of jacking up one end of the bridge. Upon further analysis, a full pier retrofit is needed, which will require full design. TranTech has requested Amendment No. 1 to finish design and supply construction management support during construction. Additional funds will also support the 42nd Ave S Bridge load ratings and BRAC grant application along with miscellaneous bridge support.

FINANCIAL IMPACT

TranTech has provided a consultant fee determination of an additional fee of \$68,163.00 to perform Task 1 through Task 4 (refer to the attachment) services as part of the 2019 Annual Bridge Inspections and Repair Project. The S 196th/200th St Bridge will be a two-year process and we will be using funding from 2019 and 2020 for design and construction.

	<u>Contract</u>	<u>2019 Bridge Budget</u>
Original Bridge Support Services	\$39,517.00	
Amendment No. 1	68,163.00	
Total	<u>\$107,680.00</u>	<u>\$335,000.00</u>

RECOMMENDATION

Council approve Amendment No. 1 to Contract No. 18-244 with TranTech Engineering for bridge engineering in the amount of \$68,163, for a new total contract of \$107,680, and consider this item on the Consent Agenda at the August 5, 2019 Regular Council meeting.

ATTACHMENTS

- 2019 CIP, page 17
- Contract for Services Amendment No. 1

CITY OF TUKWILA CAPITAL PROJECT SUMMARY

2019 to 2024

PROJECT: Annual Bridge Inspections and Repairs

Project No. 9XX10402

DESCRIPTION: Ongoing program of bi-annual inspections, repairs, painting and rehabilitation of the 22 City bridges.

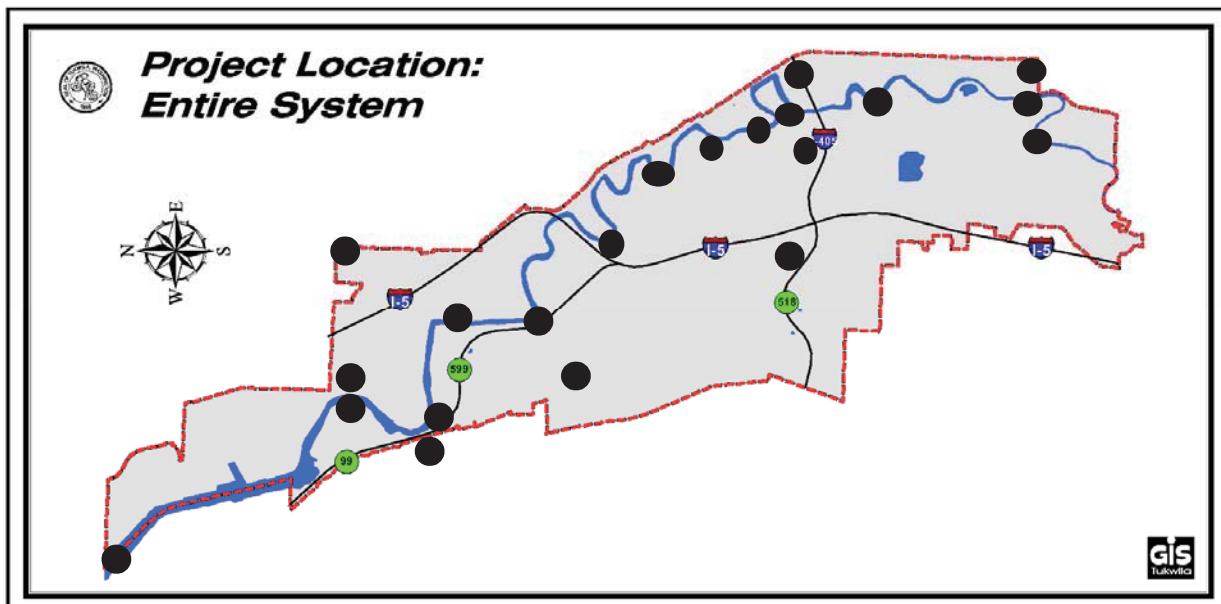
JUSTIFICATION: Federally required program identifies safety or repair needs in the early stages to minimize hazards and costs. The number of bridge inspections necessary each year can vary year to year. Inspection frequencies vary from bridge to bridge and King County has provided some inspection services.

STATUS: Construction projects will be determined from inspection reports and noted deficiencies/problems.

MAINT. IMPACT: Reduces maintenance costs.

COMMENT: Ongoing project, only one year actuals are shown in the first column.

FINANCIAL (in \$000's)	Through 2017	Estimated 2018	2019	2020	2021	2022	2023	2024	BEYOND	TOTAL
EXPENSES										
Design	141	45	45	45	55	55	65	65	65	581
Land (R/W)										0
Const. Mgmt.	1	40	40	40	50	50	60	60	60	401
Construction	32	250	250	250	300	300	325	325	325	2,357
TOTAL EXPENSES	174	335	335	335	405	405	450	450	450	3,339
FUND SOURCES										
Awarded Grant										0
Proposed Grant										0
Mitigation Actual										0
Mitigation Expected										0
City Oper. Revenue	174	335	335	335	405	405	450	450	450	3,339
TOTAL SOURCES	174	335	335	335	405	405	450	450	450	3,339





City of Tukwila

6200 Southcenter Boulevard, Tukwila WA 98188

Agreement Number: 18-244

CONTRACT FOR SERVICES

Amendment # 1

Between the City of Tukwila and TranTech Engineering, LLC

That portion of Contract No. 18-244 between the City of Tukwila and TranTech Engineering, LLC is amended as follows:

Section 1 & 2:

The scope has been updated to reflect that some of the original work has been completed and to include the requested work currently under way. See the attached Exhibit A1.

Section 4A:

The "not to exceed" amount is increased by \$68,163.00 to \$107,680.00 per the attached Exhibit B1.

All other provisions of the contract shall remain in full force and effect.

Dated this _____ day of _____, 20_____.

CITY OF TUKWILA

CONTRACTOR TranTech Engineering, LLC

Allan Ekberg, Mayor

Printed Name: Grant D Griffin

ATTEST/AUTHENTICATED

APPROVED AS TO FORM

Christy O'Flaherty, MMC, City Clerk

City Attorney

**SCOPE OF WORK
TRANTECH Engineering
2019 Bridge Program Engineering Support
Amendment 1
Exhibit A1
CITY of Tukwila, WA**

PROJECT DESCRIPTION

The CITY of Tukwila (CITY) has entered into an on-call engineering services contract with TranTech Engineering, LLC (TranTech) to provide ongoing bridge program support for 2019. These tasks originally include providing construction support for the west approach slab repairs of the 196th/ 200th Street Bridge, continued permit load rating services to manage the load posting of the 42nd Avenue Truss, funding support for the 42nd Avenue Truss, and providing miscellaneous engineering support for other bridge program tasks as identified by the CITY. The scope of this agreement has changed at the request of the CITY as detailed below.

The CITY has requested revisions to the existing PS&E package previously prepared for the 196th/200th Street Bridge. These changes have been proceeding as directed by the CITY. In addition, TranTech has provided unplanned miscellaneous engineering support as a stopgap for an unanticipated personnel shortfall at the CITY. Progress on the original tasks along with these unexpected additions have exhausted the remaining available budget for Agreement 18-244. Amendment 1 provides additional funds to complete the requested revisions to the 196th/200th Street Bridge Repair PS&E, to continue the miscellaneous engineering support as these tasks are transitioned to a new CITY employee, and to continue engineering support for the original tasks.

SCHEDULE

The Agreement shall remain in effect through December 31, 2019. However, all tasks will be completed per the time requirements and submittal schedules of the individual tasks as agreed to with the CITY.

SCOPE OF WORK – TECHNICAL APPROACH

All work shall be in accordance with WSDOT/ FHWA procedures and requirements and with the requirements of the National Bridge Inspection Standards (NBIS) where applicable.

Task 1 – 196th/ 200th Street Bridge Repair Project

Task 1.1 – PS&E Revisions

The CITY has requested changes to the current PS&E package to provide a more permanent repair than previously scoped. Task 1.1 provides additional funds for this effort as TranTech provides requested changes as directed by the CITY.

Task 1.2 - Construction Management Support

The 196th/200th Street Bridge Repair Project will move to the construction phase in Summer 2019. Task 1.2 provides for on-call construction management support as requested by the CITY.

Task 2 – 42nd Street Load Rating Services

TranTech will provide load rating analysis for all trucks requiring permit access to cross the load posted bridge as requested by the CITY.

The CITY has contacted two primary truck dispatchers in BNSF and Baker Commodities that utilize this bridge for their truck route to provide their specific truck information to be used for load rating purposes.

Deliverables

- Structural Memo to supplement the current load rating report that identifies the rating factors associated with the specific permit truck information.
- Electronic PDF copies of all reports generated provided on compact disk.

Task 3 – 42nd Ave Bridge Replacement Funding Assistance

A Federal Bridge Program Call for Projects was advertised in early 2019. Task 3 originally consisted of assisting the CITY in the development of a bridge replacement application package to be submitted to the Local Agency Bridge Program for the 42nd Avenue South Truss in Allentown. TranTech assisted the CITY in assembling and updating the existing construction estimates and analysis.

TranTech has provided and submitted the initial funding request per the Call for Projects requirements and deadlines. Amendment1 provides for continued support through the spring and summer candidate review period and through the funding meeting expected in the Fall of 2019.

Task 4 – Miscellaneous Bridge Program Support

TranTech shall provide miscellaneous engineering support as directed by the CITY of Tukwila's Project Manager. Anticipated work will include tasks identified related to current on-going projects not specified in the preceding tasks above, such as tasks associated with the continued support of Tukwila Bridge Program, general engineering support, and other projects as needed.



Exhibit B1 - Consultant Fee Determination

City of Tukwila 2019 Bridge Program Engineering Support

Task 1.1 - 196th/ 200th Street Bridge PS&E Revisions	\$	42,007
Task 1.2 - 196th/ 200th Street Bridge Repair CM Support	\$	10,461
Task 2 - 42nd Avenue Load Rating Services	\$	4,160
Task 3 - 42nd Ave Bridge Replacement Funding Assistance	\$	1,283
Task 4 - Miscellaneous Bridge Program Support	\$	9,753
Direct Costs	\$	500
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Grand Total	\$	68,163



EXHIBIT B1 - Budget

City of Tukwila 2019 Bridge Program Engineering Support

Task Items	Project Manager	QA/QC Engr.	Senior Struc. Engr.	Project Struc. Engr.	Senior Civil Engr.	Const. Engr.	Senior CAD	Clerical	Total
Task 1.1 - 196th/ 200th Street Bridge PS&E Revisions	3	13	75	71	50	2	80	7	301
Total Manhours	3	13	75	71	50	2	80	7	301
Direct Labor Rates (DLR)	\$ 57.50	\$ 59.00	\$ 58.00	\$ 55.00	\$ 52.00	\$ 79.00	\$ 37.00	\$ 22.00	
Total Direct Salary Cost	\$173	\$767	\$4,350	\$3,905	\$2,600	\$158	\$2,960	\$154	\$15,067
							Profit at 30% of DLR		\$4,520
							Overhead at 1.4881 times DLR		\$22,420
							Total Labor Cost		\$42,007

Note – The sum of the above Profit and Overhead is equal to a combined multiplier of 2.7881



EXHIBIT B1 - Budget

City of Tukwila 2019 Bridge Program Engineering Support

Task Items	Project Manager	QA/QC Engr.	Senior Struc. Engr.	Project Struc. Engr.	Staff Struc. Engr.	Senior Traffic Engr.	Senior CAD	Const. Engr.	Assistant Inspector	Clerical	Total
Task 1.2 - 196th/ 200th Street Bridge Repair CM Support	4	2	2	2	2	2	6	16	56	4	96
Total Manhours	4	2	2	2	2	2	6	16	56	4	96
Direct Labor Rates (DLR)	\$ 57.50	\$ 59.00	\$ 58.00	\$ 55.00	\$ 39.00	\$ 50.00	\$ 37.00	\$ 56.00	\$ 36.00	\$ 22.00	
Total Direct Salary Cost	\$230	\$118	\$116	\$110	\$78	\$100		\$896	\$2,016	\$88	\$3,752
									Profit at 30% of DLR		\$1,126
									Overhead at 1.4881 times DLR		\$5,583
									Total Labor Cost		\$10,461

Note -- The sum of the above Profit and Overhead is equal to a combined multiplier of 2.7881



EXHIBIT B1 - Budget

City of Tukwila 2019 Bridge Program Engineering Support

Task Items	Project Manager	QA/QC Engr.	Senior Struc. Engr.	Project Struc. Engr.	Staff Struc. Engr.	Senior CAD	Senior Civil Engr.	Const. Engr.	Assistant Inspector	Clerical	Total
Task 2 - 42nd Avenue Load Rating Services	4	2	2	10	10					4	32
Total Manhours	4	2	2	10	10	0	0	0	0	4	32
Direct Labor Rates (DLR)	\$ 57.50	\$ 59.00	\$ 58.00	\$ 55.00	\$ 39.00	\$ 37.00	\$ 52.00	\$ 56.00	\$ 36.00	\$ 22.00	
Total Direct Salary Cost	\$230	\$118	\$116	\$550	\$390	\$0	\$0	\$0	\$0	\$88	\$1,492
								Profit at 30% of DLR			\$448
								Overhead at 1.4881 times DLR			\$2,220
								Total Labor Cost			\$4,160

Note – The sum of the above Profit and Overhead is equal to a combined multiplier of 2.7881



EXHIBIT B1 - Budget

City of Tukwila 2019 Bridge Program Engineering Support

Task Items	Project Manager	QA/QC Engr.	Senior Struc. Engr.	Project Struc. Engr.	Staff Struc. Engr.	Senior CAD	Senior Civil Engr.	Const. Engr.	Assistant Inspector	Clerical	Total
Task 3 - 42nd Ave Bridge Replacement Funding Assistance	8										
Total Manhours	8	0	0	0	0	0	0	0	0	0	8
Direct Labor Rates (DLR)	\$ 57.50	\$ 59.00	\$ 58.00	\$ 55.00	\$ 39.00	\$ 37.00	\$ 52.00	\$ 56.00	\$ 36.00	\$ 22.00	
Total Direct Salary Cost	\$460	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$460
									Profit at 30% of DLR		\$138
									Overhead at 1.4881 times DLR		\$685
									Total Labor Cost		\$1,283

Note – The sum of the above Profit and Overhead is equal to a combined multiplier of 2.7881



EXHIBIT B1 - Budget

City of Tukwila 2019 Bridge Program Engineering Support

Task Items	Project Manager	QA/QC Engr.	Senior Struc. Engr.	Project Struc. Engr.	Staff Struc. Engr.	Senior Coating Engr.	Senior Traffic Engr.	Office Engineer	Const. Engr.	Clerical	Total
Task 4 - Miscellaneous Bridge Program Support	8	2	2	4	4	4	4	40	4	2	74
Total Manhours	8	2	2	4	4	4	4	40	4	2	74
Direct Labor Rates (DLR)	\$ 57.50	\$ 59.00	\$ 58.00	\$ 55.00	\$ 39.00	\$ 40.00	\$ 50.00	\$ 45.00	\$ 56.00	\$ 22.00	
Total Direct Salary Cost	\$460	\$118	\$116	\$220	\$156	\$160	\$200	\$1,800	\$224	\$44	\$3,498
								Profit at 30% of DLR			\$1,049
								Overhead at 1.4881 times DLR			\$5,205
								Total Labor Cost			\$9,753

Note – The sum of the above Profit and Overhead is equal to a combined multiplier of 2.7881