



INFORMATIONAL MEMORANDUM

TO: Transportation and Infrastructure Services Committee
FROM: Joel Bush, Chief Technology Officer
CC: Mayor Allan Ekberg
DATE: August 20, 2021
SUBJECT: Municipal Broadband Project
Department of Commerce Grant Request

ISSUE

Approve the submission of a grant application to the Department of Commerce Public Works Broadband Program for up to \$2,000,000 to fund the construction of a municipal LTE network using cellular technology.

BACKGROUND

The City of Tukwila Municipal Broadband Project will provide true broadband internet to City of Tukwila students and their families while they are within Tukwila city limits. Currently, the Tukwila School District equips 20% of its students with mobile hotspots and 23% of families are enrolled in the Comcast's Internet Essential Program.

DISCUSSION

Increasing broadband infrastructure will increase equity by reducing Tukwila's digital divide. Specifically, the project will construct monopole sites or small cells that will connect with the City's existing fiber network to provide broadband service to all City of Tukwila students and their families. The investment in municipal broadband will serve a foundation for future smart city investments.

FISCAL IMPACT

Preliminary cost estimates for this project are between 2,200,000 - \$2,650,000. The deployment of a municipal LTE network will also include recurring annual costs of \$220,000. \$130,000 for maintenance and software and \$90,000 for a dedicated internet connection. The total five-year project cost is anticipated to be \$3,738,434 for capital and reoccurring expenses.

The city has the opportunity to apply for up to \$2,000,000 in funding from the Department of Commerce for Broadband Construction for capital costs related to the Municipal Broadband Project. No match is required for this funding opportunity. The Department of Commerce Broadband Construction call for projects is currently open. Applications are due by October 1, 2021, with projects awarded in November 2021.

This project is not currently funded, but Tukwila staff are in discussions with the Tukwila School District on cost sharing models to minimize financial impact to the City of Tukwila. Staff will also continue to research local, state and federal grants to support this project.

RECOMMENDATION

Committee is being asked to approve the submission of the grant application. Staff will brief the full Council on this grant opportunity and program concept at the September 13, 2021, Committee of The Whole.

ATTACHMENTS: Preliminary Costs
Tukwila School District Internet Need Analysis

City of Tukwila Municipal LTE Project Cost Estimates

Capital Cost

Services:	Extended Cost
Description:	
Network Design, RF engineering, network engineering, installation of rooftops and monopoles, construction services, installation of radios/antenna systems, Installation of core network, commissioning, enablement, optimizing of Radio Network , CPI configuration and compliance, project management for the sites	\$946,538
Structural Analysis/Construction Designs, and professional engineering services for permitting/zoning	\$169,500
Services: Subtotal	\$1,116,038
Equipment:	
Description:	
Radio Access Network, gateways, switches, EPC Core, tower equipment, enclosures, custom fab, cabling, CBSDs, sims, end user devices	\$1,532,864
Equipment: Subtotal	\$1,532,864
Grand Total Subtotal	\$2,648,902

Recurring Cost

Description:	
Year 1 -	
CBSD Licensing / Hardware and Software Maintenance	111,993
Internet Connection	90,000
Year 1 Subtotal	201,993
Year 2 -	
CBSD Licensing / Hardware and Software Maintenance	126,113
Internet Connection	90,000
Year 2 Subtotal	216,113
Year 3 -	
CBSD Licensing / Hardware and Software Maintenance	129,826
Internet Connection	90,000
Year 3 Subtotal	219,826
Year 4 -	
CBSD Licensing / Hardware and Software Maintenance	133,793
Internet Connection	90,000
Year 4 Subtotal	223,793
Year 5 -	
CBSD Licensing / Hardware and Software Maintenance	137,807
Internet Connection	90,000
Year5 Subtotal	227,807
Grand Total Subtotal	\$1,089,532
Grand Total - Equipment/Services/Maintenance/Licensing for five years	\$3,738,434

Internet Access Need Analysis

