Motion No. M2022-38

Contract Modification with International Electronic Machines Corporation for the Northgate Link Extension Project

<table>
<thead>
<tr>
<th>Meeting:</th>
<th>Date:</th>
<th>Type of action:</th>
<th>Staff contact:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rider Experience and</td>
<td>06/02/2022</td>
<td>Final action</td>
<td>Suraj Shetty, Executive Director – Operations</td>
</tr>
<tr>
<td>Operations Committee</td>
<td></td>
<td></td>
<td>Matthew Scott, Deputy Director Operations Technology</td>
</tr>
</tbody>
</table>

Proposed action

Authorizes the chief executive officer to execute a contract modification with International Electronic Machines Corporation to fund the contract through 2026 for maintenance and support of the Electromagnetic Interference and vibration wheel detection system in the amount of $3,013,658, for a new total authorized contract amount not to exceed $12,220,038 to provide for the optional Northgate Link Extension technical field support period of five years.

Key features summary

- In 2013, the Board authorized Motion No. M2013-98, to provide wheel flat, vibration and magnetic field monitoring and detection systems for the University Link Extension and included an option for similar activities on the Northgate Link Extension (NGLE).

- In 2018, the Board authorized Motion No. M2018-153, to provide vibration and wheel flat detection and monitoring for the Northgate Link Extension.

- This action requests authorization to add funds to support the Northgate Link Extension contract option for technical field support for a period of five years.

- The scope of work includes providing vibration and wheel flat detection and monitoring for the Northgate Link Extension facilities, including the Northgate Tunnel from UW through and at the University District, Roosevelt, and Northgate Link Light Rail Stations.

- International Electronic Machines Corporation (IEM) was under contract from November 2016, when University Link Extension opened, through November 2021 to provide technical support for a five-year period.

- Under the recently opened Northgate Link Extension additional UW locations require monitoring. The monitoring and detection system now includes an additional 31 vibration sensors and 2-wheel flat detectors. The expanded system has been operating since October 2021 and its technical field support period will end October 2026. Additional funds are required to provide technical support for the 5-year technical field support period that started in October 2021.

Background

Northgate Link extends light rail 4.3-miles from the University of Washington Station north under the campus via twin bored tunnels to an underground University District Station along Brooklyn Avenue NE between NE 43rd and NE 45th Streets, an underground Roosevelt Station along 12th Avenue NE
between NE 65th Street and NE 67th Street and continuing to an elevated station in Northgate along 1st Avenue NE spanning NE 103rd Street. The Northgate Link Extension was completed in October 2021.

In 2007, the Master Implementation Agreement (MIA) for Sound Transit Entry to the University of Washington Seattle Campus established the magnetic field and vibration monitoring program. This program is required for Link to operate under UW locations. Key goals outlined therein for the monitoring and detection system are:

- Measurement, recording and analysis and transmission of vibration data collected at the UW campus in the vicinity of the University Link rail alignment.
- Detecting trains exceeding vibration thresholds as agreed by ST and UW prior to entry under the UW campus.
- Continuous and long-term monitoring to ensure that vibration levels remain within specified thresholds as agreed by ST and UW.
- Real time data analysis.
- Alarm reporting at Link Control Center (LCC) and UW Campus

In 2014, the MIA was amended, and removed the requirement for Sound Transit to install an electromagnetic interference (EMI) monitoring system and the scope was deleted from the IEM contract.

In 2015, IEM successfully designed, furnished, installed, tested, and commissioned the vibration system to include 12 vibration sensors and 3-wheel flat detectors. The system has been operating since November 2016. IEM was under contract from November 2016 through November 2021 to provide technical support for a five-year period.

In 2021, IEM completed the installation of an additional 31 vibration sensors and 2-wheel flat detectors in the recently opened Northgate Link Extension. The expanded system has been operating since October 2021 and its technical field support period will end October 2026.

**Procurement information**

This contract was initially solicited via Request for Proposals on April 29, 2013. One proposal was received from International Electronic Machines Corporation (IEM) on July 30, 2013. During the proposal evaluation process, Sound Transit invited IEM to revise the proposal addressing a range of technical and commercial questions, and to submit a best and final offer (BAFO). A BAFO was received on September 13, 2013, in the amount of $4,999,400. This proposal was found fair and reasonable and was accepted. The resulting contract’s duration is “from the effective date of NTP through the expiration of the technical field support period for the U-Link or optional Northgate Link, whichever occurs last.” The NTP was dated January 9, 2014 and the final technical field support period is expected to conclude in October 2026. 17 Contract Modifications in the amount of $3,756,490 have been executed. Contract Modifications 01-16 were funded by contingency authorized by Motion No. M2013-98. Contract Modification 17 added additional funding authorized by Motion No. M2018-153.

On October 20, 2021, a review and analysis was conducted by Sound Transit’s Procurement and Contracts Division which determined that because the technical field support of the referenced U-Link and N-Link are continuing a “contract modification” to increase the contract’s not-to-exceed funding limit, is permissible and would be accomplished through a contract modification.

Therefore, this proposal for additional funding is within the scope and terms of the contract, and is permissible under the current contract, as amended.
Fiscal information

This action for $3,013,658 will be funded from the Services category within the Operations department's annual operating budget.

The Services category budget is $47,941,820, of which a total of $255,177 is estimated to be spent from this action in 2022 and is currently within the agency's budget authority. After approval of this action, the remaining annual budget will be used to fund other department expenditures anticipated in the 2022 annual budget. This action is affordable within the agency’s long-range financial plan. Funding for the additional years of the contract will be included in future annual budget requests.

### Operations

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>2022 Annual Operating Budget¹</th>
<th>YTD Actuals</th>
<th>This Action (2022 Only)</th>
<th>YTD Actuals Plus Action (2022 Only)</th>
<th>Remaining Annual Operating Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and Benefits</td>
<td>$39,718</td>
<td>$6,502</td>
<td>$</td>
<td>$6,502</td>
<td>$33,216</td>
</tr>
<tr>
<td>Services</td>
<td>47,942</td>
<td>7,403</td>
<td>255</td>
<td>7,658</td>
<td>40,284</td>
</tr>
<tr>
<td>Materials and Supplies</td>
<td>12,968</td>
<td>3,518</td>
<td></td>
<td>3,518</td>
<td>9,450</td>
</tr>
<tr>
<td>Utilities</td>
<td>8,771</td>
<td>2,153</td>
<td></td>
<td>2,153</td>
<td>6,619</td>
</tr>
<tr>
<td>Taxes</td>
<td>3,220</td>
<td>347</td>
<td></td>
<td>347</td>
<td>2,873</td>
</tr>
<tr>
<td>Purchased Transportation Services</td>
<td>218,973</td>
<td>53,936</td>
<td></td>
<td>53,936</td>
<td>165,037</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>413</td>
<td>40</td>
<td></td>
<td>40</td>
<td>373</td>
</tr>
<tr>
<td>Leases and Rentals</td>
<td>1,099</td>
<td>264</td>
<td></td>
<td>264</td>
<td>835</td>
</tr>
<tr>
<td>Total Annual Operating Budget</td>
<td>$333,104</td>
<td>$74,161</td>
<td>$255</td>
<td>$74,417</td>
<td>$258,688</td>
</tr>
</tbody>
</table>

### Contract Spending Plan

<table>
<thead>
<tr>
<th>International Electronic Machines Corporation (IEM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Spending to Date</td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td>$</td>
</tr>
</tbody>
</table>

### Contract Detail

<table>
<thead>
<tr>
<th>IEM Corporation</th>
<th>Board Approvals to Date</th>
<th>Proposed Action</th>
<th>Proposed Total for Board Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northgate Link Extension share</td>
<td>$8,756</td>
<td>$8,756</td>
<td></td>
</tr>
<tr>
<td>Contingency</td>
<td>450</td>
<td>450</td>
<td></td>
</tr>
<tr>
<td>Operations Department Share</td>
<td>3,014</td>
<td>3,014</td>
<td></td>
</tr>
<tr>
<td>Contract Amount - Total</td>
<td>$9,206</td>
<td>$3,014</td>
<td>$12,220</td>
</tr>
<tr>
<td>Percent Contingency</td>
<td>5%</td>
<td>0%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Notes:

1. 2022 Annual Operating Budget is located on page 71 of the 2022 Financial Plan & Adopted Budget book.

Disadvantaged and small business participation

**Participation by small businesses and disadvantaged business enterprises (DBEs)**

Sound Transit promotes and encourages small business participation, which also includes Disadvantaged Business Enterprises (DBEs). Consistent with Sound Transit Policies and Federal Regulations, Sound Transit has established Small Business/DBE goals for this contract. These goals are based upon an examination of subcontracting opportunities contained in the work of this contract and the number of Small Businesses/DBEs available to perform such subcontracting work.

For this specific contract, the following goals were set, and the successful Bidder/Proposer has committed to Small Business goal of 3.5%.

Public involvement

Not applicable to this action.

Time constraints

A one-month delay would create a significant impact to the project schedule. Delay of contract approval beyond June 2022 would place ongoing operation of system in jeopardy due to system requirements of...
maintenance and support. Delay may result in failure to comply with the 2007, Master Implementation Agreement (MIA) for Sound Transit Entry to the University of Washington Seattle Campus.

**Prior Board/Committee actions**

Motion No. M2018-153: Authorized the chief executive officer to execute a contract amendment with International Electronic Machines Corporation to provide vibration and wheel flat detection and monitoring for the Northgate Link Extension in the amount of $3,370,036, with a 10% contingency of $337,004 totaling $3,707,040, for a new total authorized contract amount not to exceed $9,206,380.

Motion No. M2013-98: Authorized the chief executive officer to execute a contract with International Electronic Machines Corporation to provide wheel flat, vibration and magnetic field monitoring and detection systems for the University Link Extension in the amount of $4,999,400, with a 10% contingency of $499,940, for a total authorized contract amount not to exceed $5,499,340.

__________________________

**Environmental review** – KH 5/25/22

**Legal review** – AJP 5/27/22
Motion No. M2022-38

A motion of the Rider Experience and Operations Committee of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to execute a contract modification with International Electronic Machines Corporation to fund the contract through 2026 for maintenance and support of the Electromagnetic Interference and vibration wheel detection system in the amount of $3,013,658, for a new total authorized contract amount not to exceed $12,220,038 to provide for the optional Northgate Link Extension technical field support period of five years.

Background

Northgate Link extends light rail 4.3-miles from the University of Washington Station north under the campus via twin bored tunnels to an underground University District Station along Brooklyn Avenue NE between NE 43rd and NE 45th Streets, an underground Roosevelt Station along 12th Avenue NE between NE 65th Street and NE 67th Street and continuing to an elevated station in Northgate along 1st Avenue NE spanning NE 103rd Street. The Northgate Link Extension was completed in October 2021.

In 2007, the Master Implementation Agreement (MIA) for Sound Transit Entry to the University of Washington Seattle Campus established the magnetic field and vibration monitoring program. This program is required for Link to operate under UW locations. Key goals outlined therein for the monitoring and detection system are:

- Measurement, recording and analysis and transmission of vibration data collected at the UW campus in the vicinity of the University Link rail alignment.
- Detecting trains exceeding vibration thresholds as agreed by ST and UW prior to entry under the UW campus.
- Continuous and long-term monitoring to ensure that vibration levels remain within specified thresholds as agreed by ST and UW.
- Real time data analysis.
- Alarm reporting at Link Control Center (LCC) and UW Campus

In 2014, the MIA was amended, and removed the requirement for Sound Transit to install an electromagnetic interference (EMI) monitoring system and the scope was deleted from the IEM contract.

In 2015, IEM successfully designed, furnished, installed, tested, and commissioned the vibration system to include 12 vibration sensors and 3-wheel flat detectors. The system has been operating since November 2016. IEM was under contract from November 2016 through November 2021 to provide technical support for a five-year period.

In 2021, IEM completed the installation of an additional 31 vibration sensors and 2-wheel flat detectors in the recently opened Northgate Link Extension. The expanded system has been operating since October 2021 and its technical field support period will end October 2026.

In 2013, the Board authorized Motion No. M2013-98, to provide wheel flat, vibration and magnetic field monitoring and detection systems for the University Link Extension and included an option for similar activities on the Northgate Link Extension (NGLE).

In 2018, the Board authorized Motion No. M2018-153, to provide vibration and wheel flat detection and monitoring for the Northgate Link Extension.
This action requests authorization to add funds to support the Northgate Link Extension contract option for technical field support for a period of five years.

The scope of work includes providing vibration and wheel flat detection and monitoring for the Northgate Link Extension facilities, including the Northgate Tunnel from UW through and at the University District, Roosevelt, and Northgate Link Light Rail Stations. International Electronic Machines Corporation (IEM) was under contract from November 2016, when University Link Extension opened, through November 2021 to provide technical support for a five-year period.

Under the recently opened Northgate Link Extension additional UW locations require monitoring. The monitoring and detection system now includes an additional 31 vibration sensors and 2-wheel flat detectors. The expanded system has been operating since October 2021 and its technical field support period will end October 2026. Additional funds are required to provide technical support for the 5-year technical field support period that started in October 2021.

**Motion**

It is hereby moved by the Rider Experience and Operations Committee of the Central Puget Sound Regional Transit Authority that the chief executive officer is authorized to execute a contract modification with International Electronic Machines Corporation to fund the contract through 2026 for maintenance and support of the Electromagnetic Interference and vibration wheel detection system in the amount of $3,013,658, for a new total authorized contract amount not to exceed $12,220,038 to provide for the optional Northgate Link Extension technical field support period of five years.

APPROVED by the Rider Experience and Operations Committee of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on _________________.

______________________________
Kristina Walker
Rider Experience and Operations Chair

Attest:

______________________________
Kathryn Flores
Board Administrator