

STAFF REPORT

Date: January 11, 2023

To: Mayor and City Council

Thru: Doug Thornley, City Manager

Subject: Staff Report (For Possible Action): Award of Contract to Par Western Line Contractors for the Traffic Signal Refurbishing Project in an amount not to exceed \$1,119,969. (Street Fund)

From: Alexander Wolfson

Department: Public Works

Summary:

Due to many factors such as age, weather, and evolving best practices, over 2,200 traffic signal heads within the City of Reno are in need of refurbishment. The goal of the Traffic Signal Refurbishing Project is to refurbish and upgrade traffic signal heads to meet current best practices which includes; the installation of the yellow borders, repainting signal backplates black and replacing the red, yellow, and green LED signal indications. Staff conducted a public bid and received and opened three bids on December 14, 2022. Par Western Line Contractors submitted the best bid pursuant to the requirements established in Nevada Revised Statute (NRS) Chapter 338. This project is listed in the FY 2023 Capital Improvement Program, and staff recommends contract award to Par Western Line Contractors, in an amount not to exceed \$1,119,969 for the base bid and project contingency.

Alignment with Strategic Plan:

Infrastructure, Climate Change, and Environmental Sustainability
Public Safety

Previous Council Action:

May 18, 2022 – Council adopted the FY23 Capital Improvement Plan (CIP)

Background:

The installation of yellow retroreflective borders around traffic signal heads is listed as a proven safety countermeasure by the Federal Highway Administration (FHWA). Previous research on this safety treatment has shown that it reduces total crashes at intersections by up to 15 percent. The photo below shows the yellow retroreflective borders around a traffic signal head.



Per the FHWA, this treatment is recognized as a human factors enhancement of traffic signal visibility, conspicuity, and orientation for both older and color vision deficient drivers. This countermeasure is also advantageous during periods of power outages when the signals would otherwise be dark, providing a visual cue for motorists to stop at the intersection ahead.

Current best practices for traffic signals have adopted the yellow border and recent traffic signal installations and upgrades have incorporated this countermeasure. However, older traffic signals that have not had any capital improvement projects do not have this safety treatment and are in need of upgrade.

In addition to the installation of the yellow borders, the refurbishments also include repainting signal backplates black and replacing the red, yellow, and green LED signal indications.

Due to age and weather, the black paint on signal backplates fade and signal indications gradually dim or fail. By repainting the backplates, the controlled contrast background of the signal is restored which improves road users visibility of the signal indications and yellow borders. By replacing all of the signal indicator, proactive measures are taken to reduce the

number of signal indications failing in service and ensure uniform brightness levels amongst all indications on a signal head.

The most expensive part of a project like this are a Contractor's mobilization and material transportation costs. By completing all of the needed work under one contract, more improvements can be made without significantly adding additional mobilization costs.

Discussion:

This project includes the refurbishments of approximately 2,200 signal heads at over 150 intersections throughout the City of Reno.

Staff conducted a public bid for this project. Three Contractors submitted bids, which were received and opened on December 14, 2022. Staff evaluated the Par Western Line Contractors bid, and it met the criteria under NRS Chapter 338. Par Western Line Contractors submitted the lowest responsive bid of \$969,969. Par Western Line Contractors is a General Contractor licensed in Nevada, and they have previously completed several projects for the City, Regional Transportation Commission, and Nevada Department of Transportation that included similar work.

Table 1 - Bid Summary

Traffic Signal Refurbishing Project	PAR Western Line Contractors	Lumin8 Transportation Technologies	Titan Electrical Contracting, Inc.	Engineer's Estimate
Base Bid	\$969,969	\$1,344,864	\$1,351,745	\$1,173,150

Staff recommends award to Par Western Line Contractors for a total not to exceed of \$1,119,969, which includes a \$150,000 contingency for unforeseen items encountered during construction.

Table 2 - Recommended Bid Award

Base Bid	\$969,969
Contingency	\$150,000
Bid Award	\$1,119,969

The consequences of not awarding this bid today will result in the delay of updating numerous traffic signal heads within the City to current best practices which could have adverse effects on the safety of those intersections.

Financial Implications:

Public Works has allocated funds in the FY 23 Capital Improvement Plan Street Fund budget.

Legal Implications:

This Contract was competitively bid in accordance with Chapter 338 of the Nevada Revised Statutes (NRS). NRS338.147 provides that a local government shall award a contract for a public work for which the estimated cost exceeds \$250,000 to the contractor who submits the best bid pursuant to the requirements of the chapter.

Recommendation:

Staff recommends Council award of Contract to Par Western Line Contractors for the Traffic Signal Refurbishment in an amount not to exceed \$1,119,969 (Street Fund) and authorize the Mayor to sign the contract.

Proposed Motion:

I move to approve staff recommendation.

Attachments:

Par Western Line Contractors Construction Contract