



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: April 16, 2021

AGENDA ITEM 4.8

From: Brian Stewart, P.E., Director of Engineering

RECOMMENDED ACTION

Approve Amendment No. 1 to the existing Interlocal Cooperative Agreement (ICA) with the Center for Advanced Transportation Education and Research (CATER), UNR Civil Engineering Department; for research and engineering support services for 2021 – 2022.

BACKGROUND AND DISCUSSION

This amendment represents a revision of research tasks and constitutes no fiscal change in the original agreement. An amended scope of services associated with this amendment are included as Attachment A. At this time, the corridor performance measures will provide a greater benefit to the regional road network than the nighttime signal coordination. There is no additional cost to the contract with approval of this amendment. The Traffic Operations Management Subcommittee (TOMS) Committee supports this scope change.

FISCAL IMPACT

There is no fiscal impact associated with this amendment.

PREVIOUS BOARD ACTION

January 15, 2021 Approved the sixth two-year cooperative agreement for the UNR Transportation Research Program.

ATTACHMENT

A. Cooperative Agreement Amendment No. 1

AMENDMENT NO. 1
TO
INTERLOCAL COOPERATIVE AGREEMENT

The Regional Transportation Commission of Washoe County, Nevada, hereinafter called the RTC, and the Board of Regents, Nevada System of Higher Education, on behalf of the University of Nevada, Reno, hereinafter called the UNIVERSITY, entered into an Interlocal Cooperative Agreement dated and effective as of January 22, 2021 (the "Agreement"). This Amendment No. 1 is dated and effective as of April 19, 2021.

RECITALS

WHEREAS, the parties have determined that there is a need to amend the Agreement in order to modify the scope of work; and

WHEREAS, UNR will develop a platform to measure corridor performance instead of researching night-time traffic signal coordination.

NOW, THEREFORE, in consideration of the mutual promises of the parties and other good and valuable consideration, the parties do agree as follows:

1. Task 2 in Exhibit A of the Agreement is replaced in its entirety with the Task A in Exhibit A attached hereto.
2. All other provisions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have made and executed this amendment.

REGIONAL TRANSPORTATION COMMISSION
OF WASHOE COUNTY

Bill Thomas, AICP
Executive Director

Board of Regents,
NEVADA SYSTEM OF HIGHER EDUCATION
on behalf of the University of Nevada, Reno

Charlene Hart
Associate Vice President for Research Administration

Exhibit A

New Task 2: Development of a Regional Corridor Performance Measure Platform using Connected-Car Data

Performance measures are becoming an essential element for transportation system management and operations (TSMO). In particular, measures such as vehicle travel time, speed, and stops have been used as key indicators for evaluating regional signal timing projects. Such data have been mainly collected through floating car travel runs, which is time consuming and with very limited sample size. With the continuing technology advancement in the transportation field, more and more high-resolution vehicle trajectory data are becoming available from various data service companies, such as INRIX, Wejo, and Streetlight. The objective of this research task is to develop a corridor performance measure platform that can leverage the rich data sources from such companies. The platform would allow quick extraction of high-resolution trajectory data based on which corridor performance measures can be calculated. Such a platform would allow more accurate evaluation of the quality of corridor performance as a means of ranking and prioritizing corridors for operational improvement through either signal re-timing or capacity enhancement strategies.

Original Task 2: Night-time Signal Coordination

Similar to many other jurisdictions, the signal coordination in the Reno-Sparks region is generally turned off at night times when traffic demand level is not high enough. The justification of such an operation is that running coordination, when traffic volume level is low, can result in minor street vehicles unnecessarily waiting for the main street to terminate while seeing no vehicles on the main street. This is one of the common driver complaints about signal timing. On the other hand, vehicles generally experience more stops on the main street if signal coordination is turned off, which is another source of driver complaints. One possible strategy that can address both issues is to run coordination but with a shorter cycle length. This research will investigate if such a strategy is applicable at selected arterials in the region. Any transition issues due to shorter cycle not accommodating pedestrian timings must also be investigated.