

#### LOCATION:

ZOOM Webinar Meeting Members of the public may attend at: RTC Administrative Building 1105 Terminal Way, 1st Fl. Conf. Room, Reno DATE Feb. 18, 2022 TIME 9:00 a.m.

# REGIONAL TRANSPORTATION COMMISSION OF WASHOE COUNTY BOARD MEETING AGENDA

- I. The RTC Administrative Building is accessible to individuals with disabilities. Requests for auxiliary aids to assist individuals with disabilities should be made with as much advance notice as possible. For those requiring hearing or speech assistance, contact Relay Nevada at 1-800-326-6868 (TTY, VCO or HCO). Requests for supporting documents and all other requests should be directed to Denise Thompson at 775-348-0400 and you will receive a response within five business days. Supporting documents may also be found on the RTC website: <a href="https://www.rtcwashoe.com">www.rtcwashoe.com</a>.
  - II. This meeting will be streamed live on RTC's YouTube channel at: <a href="mailto:bit/ly/RTCWashoeYouTube">bit/ly/RTCWashoeYouTube</a>.
- III. Members the public may attend the meeting via Zoom Webinar by οf registering here: https://us02web.zoom.us/webinar/register/WN\_qxp8Vv-LT1uGt7lA31fJow. Registered attendees will receive an email from Zoom with a link to the meeting and instructions on how to join the meeting. Registered attendees must follow the instructions from Zoom to join the meeting and may participate by telephone or video. To provide public comment during the meeting via Zoom, please make sure your computer or device has a working microphone. Use the "Chat" feature to submit a request to make a comment. When the time comes to make public comments, you will be invited to speak (limited to three minutes).

Members of the public in attendance at the meeting location may provide public comment (limited to <a href="minutes">three</a> minutes) after filling out a request to speak form at the meeting. Members of the public may also provide public comment by one of the following methods: (1) submitting comments via online Public Comment Form (<a href="www.rtcwashoe.com/about/contact-form/">www.rtcwashoe.com/about/contact-form/</a>); (2) emailing comments to: <a href="minutes">rtcpubliccomments@rtcwashoe.com</a>; or (3) leaving a voicemail (limited to <a href="minutes">three</a> minutes) at (775) 335-0018. Comments received prior to 4:00 p.m. on the day preceding the meeting will be entered into the record.

- IV. The Commission may combine two or more agenda items for consideration and/or may remove an item from the agenda or delay discussion relating to an item on the agenda at any time.
- V. The supporting materials for the meeting will be available at <a href="www.rtcwashoe.com/meetings/">www.rtcwashoe.com/meetings/</a>. In addition, a member of the public may request supporting materials electronically from Denise Thompson at the following email address: <a href="mailto:dthompson@rtcwashoe.com">dthompson@rtcwashoe.com</a>.

#### 1. CALL TO ORDER

- 1.1 Roll Call
- 1.2 Pledge of Allegiance

#### 2. PUBLIC COMMENT

Public comment taken under this item may pertain to matters both on and off the agenda. The Chair may take public comment on a particular item on the agenda at the time it is discussed. Comments are to be made to the Board as a whole and not to individual commissioners.

- APPROVAL OF AGENDA (For Possible Action)
- 4. CONSENT ITEMS (For Possible Action)

Minutes

- 4.1 Approve Minutes of the December 17, 2021, meeting (For Possible Action)
- 4.2 Approve Minutes of the January 21, 2022, Board workshop (For Possible Action)

#### Reports

- 4.3 Acknowledge receipt of the monthly Planning Activity Report (For Possible Action)
- 4.4 Acknowledge receipt of the monthly Engineering Activity Report (For Possible Action)
- 4.5 Acknowledge receipt of the monthly Public Transportation/Operations Activity Report (For Possible Action)
- 4.6 Acknowledge receipt of the monthly Procurement Activity Report (For Possible Action)
- 4.7 Acknowledge receipt of the monthly Summary Report for the Technical, Citizens Multimodal, and Regional Road Impact Fee Advisory Committees (For Possible Action)

## Planning Department

4.8 Approve Amendment 1 to the FY 2022 – FY 2023 Unified Planning Work Program (UPWP) (For Possible Action)

#### Engineering Department

- 4.9 Approve a contract with Wood Rodgers, Inc., to provide preliminary design and optional services, including environmental analysis, final design and engineering during construction for the 4<sup>th</sup> Street Station Expansion Project in an amount not-to-exceed \$693,880 (For Possible Action)
- 4.10 Approve a contract with Kimley-Horn and Associates, to provide design services for the Intelligent Transportation Systems (ITS) Strategic Master Plan (SMP) in an amount not-to-exceed \$350,000 (For Possible Action)
- 4.11 Approve a contract with Jacobs Engineering Group, Inc. (Jacobs), to provide design services and engineering during construction for the Mill Street Widening project in an amount not-to-exceed \$1,539,340 (For Possible Action)
- 4.12 Approve a contract with CA Group, Inc., to provide engineering during construction services for the Sparks Boulevard Project Phase 1 from Greg Street to I-80 westbound ramps in an amount not-to-exceed \$612,978 (For Possible Action)
- 4.13 Authorize a request for proposals (RFP) for the selection of a consultant to provide preliminary design, environmental analysis, final design and construction management services for the South Virginia Street Bus Only Lane Project (For Possible Action)

#### Executive, Administrative and Finance Departments

4.14 Approve modifications to RTC Personnel Rule 11.8 (Time When Vacation Shall Be Taken) and 11.14 (Use of Sick Leave) (For Possible Action)

#### 5. METROPOLITAN PLANNING ORGANIZATION (MPO) ITEMS

5.1 Acknowledge receipt of a presentation on the Mt. Rose Highway Corridor Study (For Possible Action)

#### 6. DISCUSSION ITEMS AND PRESENTATIONS

Approve Amendment #9 to the contract for operation and maintenance of paratransit and ondemand transit services with MTM Transit, LLC, to increase the Revenue Vehicle Hour Rate for Base Year 6 from \$62.11 to \$68.87 for normal service and from \$30.30 to \$35.42 for special/extra service (For Possible Action)

#### **7. REPORTS** (Informational Only)

- 7.1 Executive Director Report
- 7.2 Federal Report
- 7.3 NDOT Report

# 8. COMMISSIONER ANNOUNCEMENTS AND UPDATES

Announcements and updates to include requests for information or topics for future agendas. No discussion will take place on this item.

#### 9. PUBLIC COMMENT

Public comment taken under this item may pertain to matters both on and off the agenda. The Chair may take public comment on a particular item on the agenda at the time it is discussed. Comments are to be made to the Board as a whole and not to individual commissioners.

	the Board as a whole and not to individual commissioners.
0.	ADJOURNMENT (For Possible Action)
sting	locations: RTC principal office: 1105 Terminal Way, Reno, NV, RTC website: www.rtcwashoe.com, State website: https://notice.nv.gov/

#### **AGENDA ITEM 4.1**

# REGIONAL TRANSPORTATION COMMISSION WASHOE COUNTY, NEVADA

FRIDAY 9:00 A.M. December 17, 2021

PRESENT:

Neoma Jardon, Reno City Council Member, Chair Ed Lawson, Mayor of Sparks, Vice Chair Vaughn Hartung, Washoe County Commissioner Kristina Swallow, Director of NDOT

> Bill Thomas, RTC Executive Director Adam Spear, Legal Counsel

**NOT PRESENT:** 

Oscar Delgado, Reno City Council Member Bob Lucey, Washoe County Commissioner

The regular monthly meeting, held in the Chambers of the Washoe County Commission, 1001 E. 9<sup>th</sup> Street, Reno, Nevada, was called to order by Chair Jardon. Following the roll call and the Pledge of Allegiance to the Flag of our country, the Board conducted the following business:

#### PRESENTATION OF THE POTY AWARD TO THE RTC BY APWA, NV CHAPTER

Deanna Gray presented the Project Of The Year POTY award to RTC for the Virginia Street Bus RAPID transfer extension project.

#### Item 2 PUBLIC INPUT

Chair Jardon opened the meeting to public input and called on anyone wishing to speak on topics relevant to the Regional Transportation Commission (RTC) that are not included in the current agenda.

Ms. Dora Martinez, representing the Disability Peer Action Coalition, addressed the Board to request that audible bus stop calls be put at the back of the bus and put Braille signage on the bus stops. She would also like MTM to stop assigning paratransit drivers to FlexRIDE.

Mr. Chris Fuqua, VP of the Teamsters local 533, addressed the Board to complain that the November meeting had been cancelled due to the lack of a quorum and felt there should be some way to avoid that, and to make multiple comments pertaining to the Keolis employee strike. He then reminded the commissioners that, though the Keolis contract has been ratified, their fight is not over. On July 1, 2022, the Teamsters contract with the RTC ACCESS contractor expires. The Union will be standing by our member's side in this fight for higher wages and pension.

Mr. Ryan McKinney, local resident, addressed the Board to agree with Ms. Martinez about the audible announcements being needed. In addition, he agreed with Mr. Fuqua's comments about the strike and leadership.

Ms. Ramona Coker, local resident, addressed the Board to say she is afraid to ride the bus anymore. There are so many issues with the buses not keeping to a schedule or sometimes, not showing up at all. It is terrifying for her to sit outside waiting for a bus that may not ever show up. Many people's lives depend on public transportation and it must be much more dependable.

Mr. Gary Watson, president of the Teamsters Union, local 533, addressed the Board to make comments about the Keolis employee strike, stating that the RTC Board, RTC Executive Director and RTC Director of Public Transportation should have been listening better and done more to prevent the strike.

There being no one else wishing to speak, the Chair closed public input.

#### Item 3 APPROVAL OF AGENDA

On motion of Vice Chair Lawson, seconded by Commissioner Hartung, which motion unanimously carried, Chair Jardon ordered that the agenda for this meeting be approved.

#### Items 4.1 thru 4.21 CONSENT ITEMS

#### **Minutes**

4.1 Approve Minutes of the October 15, 2021, meeting (For Possible Action)

#### Reports

- 4.2 Acknowledge receipt of the monthly Planning Activity Report (For Possible Action)
- **4.3** Acknowledge receipt of the monthly Engineering Activity Report (For Possible Action)
- **4.4** Acknowledge receipt of the monthly Public Transportation/Operations Activity Report (For Possible Action)
- **4.5** Acknowledge receipt of the monthly Procurement Activity Report (For Possible Action)
- 4.6 Acknowledge receipt of the monthly Summary Report for the Technical, Citizens Multimodal, and Regional Road Impact Fee Advisory Committees (For Possible Action)

#### **Engineering Department**

4.7 Approve Amendment No. 1 to the professional services agreement (PSA) with Kimley-Horn & Associates, Inc., for final design and an extension to the expiration date of the agreement related to the TE Spot 10 - South project in the amount of \$209,302, for a new not-to-exceed amount of \$753,873 (For Possible Action)

- 4.8 Approve a contract with Jacobs Engineering Group, Inc. (Jacobs), for environmental and engineering services for the Arlington Avenue Bridges Replacement Project, in an amount not-to-exceed \$3,217,581 (For Possible Action)
- 4.9 Authorize the procurement of a qualified list of consultants to provide civil engineering, design and construction management services for the Traffic Engineering Program and the Intelligent Transportation Systems (ITS) Program (For Possible Action)
- 4.10 Authorize the procurement of a qualified list of consultants to provide civil engineering, design, and construction management services for the Streets & Highways Program (For Possible Action)
- 4.11 Approve the proposed sale of one (1) remnant parcel acquired in connection with the Moana Lane Extension Project (Airway Drive) (APN 020-291-33) to an adjoining property owner and adopt a resolution required by NRS 277A.255(1) (For Possible Action)
- 4.12 Approve the proposed sale of one (1) remnant parcel acquired in connection with the Moana Lane Extension Project (Airway Drive) (APN 020-292-31) to an adjoining property owner and adopt a resolution required by NRS 277A.255(1) (For Possible Action)
- 4.13 Approve the proposed sale of one (1) remnant parcel acquired in connection with the Pyramid Highway/La Posada-Eagle Canyon Intersection Improvement Project (APN 089-460-25) to an adjoining property owner and adopt a resolution required by NRS 277A.255(1) (For Possible Action)
- 4.14 Approve a Regional Road Impact Fee (RRIF) Offset Agreement between the RTC, Reno Logistics Center and the City of Reno for the dedication of offset-eligible improvements to widen 2,720' segment of North Virginia Street to a four-lane roadway, install curb and gutter, and relocate/improve utilities in the area (For Possible Action)

# Public Transportation/Operations Department

- 4.15 Approve the purchase of fifteen (15) compressed natural gas (CNG) fueled paratransit vehicles utilizing the State of Nevada Fleet Vehicles procurement contract number 99SWC-S490 in the amount of \$2,002,260.75 (For Possible Action)
- 4.16 Approve the purchase of two (2) 2022 Ford Transit vehicles utilizing the State of Nevada Fleet Vehicles procurement contract number 99SWC-S1495 in the amount of \$126,754 (For Possible Action)

# Planning Department

- 4.17 Approve funding of all ranked and prioritized Transportation Alternatives (TA) Set-Aside applications as presented for Federal Fiscal Years (FFY) 2021 and 2022 in the amount of \$807,833 (For Possible Action)
- 4.18 Approve a Contract with CA Group, Inc., for consulting services on the Verdi Area Multimodal Transportation Study in an amount not-to-exceed \$97,150.00 (For Possible Action)

Executive, Administrative and Finance Departments

- 4.19 Award a five-year contract to Crowe LLP as Certified Auditor of Record for the Regional Transportation Commission (For Possible Action)
- 4.20 Receive Investment Committee report for the quarter ended September 30, 2021 (For Possible Action)
- 4.21 Acknowledge receipt of the Asset Donation Log for the third quarter of calendar year 2021 (For Possible Action)

On motion of Commissioner Hartung, seconded by Vice Chair Lawson, which motion carried unanimously, Chair Jardon ordered that Consent Items 4.1 through 4.21 be approved.

#### Item 5.1 thru 5.6 DISCUSSION ITEMS AND PRESENTATIONS

5.1 Receive a report on the FY 2021 Annual Comprehensive Financial Report (ACFR) for the Regional Transportation Commission of Washoe County (RTC) and authorize staff to submit the document to the Nevada Department of Taxation (For Possible Action)

Ms. Stephanie Haddock, RTC Director of Finance and CFO, introduced Ms. Jelena Williams, Financial Manager, who then gave the presentation on the FY 2021 Annual Comprehensive Financial Report (ACFR) for the Regional Transportation Commission of Washoe County (RTC), as set forth in the briefing materials for this agenda item.

Chair Jardon asked Ms. Williams to confirm that the \$92 million in fuel tax money can not be spent on transit. Also, do governmental agencies pay fuel tax?

Ms. Williams confirmed that it may only be used for street and highway projects.

Ms. Haddock stated that governmental agencies do not pay the local fuel taxes.

Chair Jardon asked if we have or can we get a slide in the future that gives a historical sales tax analysis and the volatility within it? A snapshot here today would give a rather robust visual of some of those things, and I'm just wondering historically how that has performed. There's no determination of what next months or next year's sales tax may be and there's great volatility, but when it comes to one-time monies, what might we be able to do with that? So, I guess, maybe for our retreat or for our strategic planning, if we could get a historical analysis of the sales taxes.

Ms. Williams then continued with her presentation. Upon completion, she introduced Mr. Scott Nickerson who had called in to the chambers.

Mr. Nickerson said he appreciated working with RTC this year. As indicated by Jelena's report, a clean opinion was issued on the financial statements and on the federal grant reporting. We appreciate the efforts that managers made throughout the year to come to the conclusion of a clean audit report.

He added that they are thrilled to continue working with RTC as we work with transit agencies across the country, and we're proud to have RTC as our client.

Commissioner Hartung asked if we account in our debt somewhere, the outstanding credits in the market that are being held out there by private entities?

Ms. Williams responded no.

On motion of Commissioner Hartung, seconded by Vice Chair Lawson, which motion carried unanimously, Chair Jardon ordered that receipt of the report on the FY 2021 Annual Comprehensive Financial Report (ACFR) for the Regional Transportation Commission of Washoe County (RTC) be acknowledged and staff is authorized to submit the document to the Nevada Department of Taxation.

# 5.2 Approve the RTC federal priorities and provide direction accordingly (For Possible Action)

RTC Executive Director Bill Thomas addressed the Board to review a comprehensive list of federal priorities for the RTC of Washoe County, as is requested by the Northern Nevada federal delegation in Washington DC. This list ensures the community is properly represented and gets its fair share of the revenues that are distributed by the federal government, as set forth in the briefing materials for this agenda item.

Chair Jardon asked if the projects presented are "shovel ready" and if so, is that why they were chosen. She also asked if RTC partners with NDOT, City of Reno, City of Sparks, and Washoe county to determine the top priorities for the region, or are the priorities submitted individually.

E.D. Thomas responded first I think there are some misconceptions about how this money is being rolled out. It's not a big blanket amount of money. Part of it is set as increases in existing programs. In other words, programs that exist that have processes and procedures much of which goes directly to the State, some of it come directly to us, some of it will go to grant programs. That's the first thing.

The second thing is these funds have been set aside in the bill that was passed with specific requirements. We put these out because we've seen through time that our success rate goes up if we're consistent and have priorities. That's a specific ask of our federal delegation because they feel like they can be more effective if we stay together as a community.

Some consistency is what the federal delegation is looking for and that's why we do this.

The project in particular, Highland Ranch, is one that's well suited to being, for lack of a better term, "shovel ready" because it's already been through the environmental process. That often is a process that'll take multiple years. Even though the money's available, it takes years before we can get to a place where the money can be spent. That's why it's on the list in addition to the Sparks

Boulevard Project, which is well underway with its environmental process. That puts the project in a unique place in order to acquire federal funds.

Commissioner Hartung asked if Pyramid to Los Altos, which has already been funded, so is that why it's not on this wish list.

E.D. Thomas confirmed.

Commissioner Hartung then asked who decides what projects on the list qualify.

E.D. Thomas said that ultimately, it is the FHWA who makes that decision.

On motion of Commissioner Hartung, seconded by Vice Chair Lawson, which motion carried unanimously, Chair Jardon ordered that the RTC federal priorities be approved with any direction given.

# 5.3 Approve the proposed new projects for the RTC's FY 2023 Program of Projects (For Possible Action)

Mr. Brian Stewart, RTC Director of Engineering, addressed the Board to say this is our annual process for obtaining approvals to use Fuel Tax on the street and highway program and projects within the region. He then provided information on the planned projects and their specific purposes, as set forth in the briefing materials for this agenda item.

Commissioner Hartung asked how widening the Pembroke Road between McCarran and Veterans Parkway from two to four lanes could cost \$22 million and why was it not done during the construction of Veterans Parkway. He also asked if we are going to a grade separated interchange at Veterans.

Mr. Stewart said he didn't know about a grade separated interchange at this time.

Commissioner Hartung asked what is driving the cost.

Mr. Stewart responded that for this project it is the right-of-way that is driving the cost up. At this point, it is averaging approximately \$10 million per mile.

Commissioner Hartung asked if the Keystone Bridge is Reno right-of-way or NDOT right-of-way.

Mr. Stewart responded that it is the City of Reno's right-of-way.

On motion of Vice Chair Lawson, seconded by Commissioner Hartung, which motion carried unanimously, Chair Jardon ordered that the proposed new projects for the RTC's FY 2023 Program of Projects be approved.

# 5.4 Approve an Interlocal Cooperative Agreement with the City of Reno and Washoe County specifying responsibilities for delivering certain new projects in the RTC's FY 2023 Program of Projects (For Possible Action)

Mr. Brian Stewart, RTC Director of Engineering, addressed the Board to say that this is the next step taken after the approval of the POP or the projects. Today, we are now looking at that approval of what we call the ICA, the interlocal cooperative agreement between the city of Reno and Washoe County specifying the responsibilities in delivering the certain new projects in RTCs FY2023 program of projects.

On motion of Commissioner Hartung, seconded by Vice Chair Lawson, which motion carried unanimously, Chair Jardon ordered that the Interlocal Cooperative Agreement with the City of Reno and Washoe County specifying responsibilities for delivering certain new projects in the RTC's FY 2023 Program of Projects be approved.

# 5.5 Approve an Interlocal Cooperative Agreement with the City of Sparks and Washoe County specifying responsibilities for delivering certain new projects in the RTC's FY 2023 Program of Projects (For Possible Action)

Mr. Stewart, RTC Director of Engineering, said this is the ICA interlocal cooperative agreement with the City of sparks, Washoe county and RTC specifying the responsibilities of delivering certain new projects in the RTCs FY2023 program of projects.

On motion of Commissioner Hartung, seconded by Vice Chair Lawson, which motion carried unanimously, Chair Jardon ordered that the Interlocal Cooperative Agreement with the City of Sparks and Washoe County specifying responsibilities for delivering certain new projects in the RTC's FY 2023 Program of Projects be approved

# 5.6 Receive a report on the FY 2022-2026 Transit Optimization Plan Strategies (TOPS) for discussion and possible direction (For Possible Action)

Michael Delude, RTC Senior Transit Operations Planner, said he was there to introduce Gary Hewitt, the project manager for the consultant team of transportation management and design. Gary was there to give a report on the transit optimization plan strategies project that RTC is doing. This replaces what was known our short range transit plan or SRTP.

Mr. Hewitt then addressed the Board to provide the report, as set forth in the briefing materials for this agenda item.

Upon conclusion, Chair Jardon asked for input from the Board on what they would like to hear about at a future, more in-depth meeting on this topic.

Vice Chair Lawson said he would like to know number one, the amount of people that use this service and then what the busiest lines are, and how many rides per week. For long term planning,

knowing what the busiest areas are and looking at possibly altering some of our service to be more effective. He'd just like a little more depth, the amount of people and where they're going

Commissioner Hartung said RTC has got at the top seven routes, 50.5% of our ridership. He'd like to know the times that they're riding. Is this commuter traffic? And are we actually able to serve an older population in a different way? Is there a way that we can potentially increase ridership by using different methodologies?

Chair Jardon thanked the commissioners and added that at the end of the day, the single biggest goal is the riders, right? How are we getting the riders to where they need to be in the most effective and efficient way. In her opinion, at the top of the list is how are we serving those individuals who are visually impaired or have another ADA necessity as a passenger.

At the RTC is you have somebody that needs to sign up for an access ride, but you have to sign up two days in advance. And oftentimes, if you're having a medical issue and you need to get the pharmacy, two days is tough. You need something that's a little more immediate, and that really hinders the ability to serve that most vulnerable population in the way in which we want to serve them.

The chair said it's interesting to see that the numbers for the vanpool are going crazy, and which is a great of the style of transport people are using more. The FlexRIDE is creative and how do we better deploy that in a more efficient way.

Commissioner Hartung said it might, it might be helpful to look at communities that have instituted FlexRIDE more than fixed routes, and to see if that's a more effective way in terms of getting not just a higher ridership, but a different type of ridership.

Chair Jardon would also like to better attract the college students to introduce them to all forms of transit so they are comfortable using it for the rest of their lives if needed.

Chair Jardon then opened the topic to public comment.

Mr. Ryan McKinney commented that public transit is getting more difficult to use and also that if the TOPS survey is not available to the visually impaired it is an ADA violation. The Chair confirmed that the survey is available to the visually impaired.

There being no one else requesting to speak, the Chair closed public comment.

Mr. Dulude added that there's going to be the road ahead segment on KOLO-8 that will talk about this subject. And the survey information will be on that segment for people to see and they will be able to access both the QR code and the website address for additional information.

Commissioner Hartung mentioned that he is a bit frustrated that KOLO is the only channel being used for The Road Ahead when other stations are being viewed by so many residents.

E.D. Thomas said staff will look into how this information is presented to the public with the purpose of getting the maximum amount of participants, including our Spanish speaking residents.

On motion of Commissioner Hartung, seconded by Vice Chair Lawson, which motion carried unanimously, Chair Jardon ordered that receipt of the report on the FY 2022-2026 Transit Optimization Plan Strategies (TOPS) and staff has been given direction.

#### Items 6.1 thru 6.3 REPORTS

# **6.1** RTC Executive Director Report

Executive Director Bill Thomas discussed the following topics:

1. The RTC is helping people celebrate responsibly and keeping our roads safe by providing free transit on New Year's Eve. Scheduled RTC transit services will be free on New Year's Eve starting at 6 p.m. until 2 a.m. on New Year's Day.

Riding the bus is a safe alternative to getting behind the wheel - or trying to walk home while impaired. Let's look out for each other on New Year's Eve.

Plan your transit trip at rtcwashoe.com.

2. The RTC is seeking community input on our Transit Optimization Plan Strategies – or TOPS – through an online survey that is available in both English and Spanish.

As part of the survey, we are asking the community to tell us what they think about transportation in Washoe County. The RTC will use that input as we develop a plan to improve our region's transit system over the next 5 years. Public input is critical to this effort.

The survey is available at rtcwashoe.com and on the RTC's social media channels. People who take the survey and provide their phone number will receive a free 7-day RIDE pass through the Token Transit app.

3. Thanks to our generous community members, the RTC's 2021 Stuff A Bus Holiday Food Drive on December 9 at Sam's Club was an overwhelming success!

We were able to Stuff A Bus full of more than 2,000 pounds of non-perishable food donations that we delivered to KTVN's Share your Christmas event on December 10. The food was then given to the Food Bank of Northern Nevada for distribution to our community.

We are incredibly grateful to our community for continuing to give back to people in need. Thank you, also, to Sam's Club on Kietzke Lane for hosting our annual event.

- 4. At the end of November, the RTC received the official notice that we received a \$7 million dollar RAISE grant for the Arlington Bridges Project. I am excited to see the Arlington Avenue corridor receive DOT funding to help the RTC move ahead with our community's downtown revitalization.
  - I would like to personally thank RTC staff members Judy Tortelli, Sharon Britt, Xuan Wang, and Nancy Mues for their excellent work preparing a successful grant application.
- 5. As you may have heard, our incredible Director of Finance, Stephanie Haddock, will be retiring from the RTC on May 20, 2022. The RTC is beginning recruitment now so that Stephanie can assist with the transition of her replacement. CPS HR Consulting is handling the recruitment for this position. We thank Stephanie for her public service, and for helping us transition this important position before her retirement.
- 6. The RTC Board's strategic planning session has been rescheduled to January 21, 2022, at 9 a.m. at the SureStay Plus Hotel located at 1981 Terminal Way. The RTC Board will hold a short board meeting, immediately followed by the strategic planning session. The session will give the Board a chance to explore a limited number of topics in depth.

# **6.2** RTC Federal Report

E.D. Thomas said that a written report was included in the agenda packet for this meeting, adding that on the 15th of November, president Biden signed the Infrastructure Investment and Jobs Act, otherwise known as the Bipartisan Infrastructure Law. That bill provides an opportunity for a 3% increase for transit compared to the Fast Act Level.

# 6.3 NDOT Director Report

NDOT Director Kristina Swallow addressed the Board to provide updates on the current safety statistics; sustainable funding, the Spaghetti Bowl Express project, the advance warning signals in various areas, and winter weather staffing matters.

#### Item 7 COMMISSIONER ANNOUNCEMENTS AND UPDATES

Chair Jardon mentioned staffing shortages, saying they're nationwide, they are across every industry. They are impacting transit the most. Transit is hugely impacted, so a lot of people are looking for is to work from home.

Commissioner Hartung said that at some point, maybe the next quarter, he would like to see an agenda item regarding the RRIF Program; the RRIF credits, the outstanding RRIF credits, the liability to RTC, the timing of those, whether there's expirations on them.

#### Item 8 PUBLIC INPUT

Chair Jardon opened the meeting to public input and called on anyone wishing to speak on topics relevant to the Regional Transportation Commission (RTC) that are not included in the current agenda.

There being no one wishing to speak, the Chair closed public input.

# Item 9 ADJOURNMENT

There being no further business to come before the Board, the meeting adjourned at 11:12 a.m.

NEOMA JARDON, Chair Regional Transportation Commission

From: Denise Thompson, Board Clerk

SUBJECT: January 21, 2022 Board Workshop Minutes - Draft

Supporting materials for this item will be provided prior to or at the meeting.

From: Daniel Doenges, PTP, RSP, Director of Planning

# **RECOMMENDED ACTION**

Acknowledge receipt of the monthly Planning Activity Report

## **PLANNING STUDIES**

## McCarran Boulevard Corridor Study

Data/traffic counts have been compiled and the first project Technical Advisory Committee (TAC) meeting was held on December 10. A project website is currently being designed and progress is being made for an initial public outreach in early March. Staff also presented to the City of Reno Ward 5 Neighborhood Advisory Board (NAB).

# RTC Public Participation Plan Update

Staff has begun reviewing the existing Public Participation Plan (PPP) to identify sections for updating.

#### Verdi Area Multimodal Transportation Study

A Professional Services Agreement was approved. The consultant met with the RTC project team to discuss the project outline. Staff presented the scope of the project and listened to community input at the West Truckee Meadows/Verdi Township Citizen Advisory Board meeting in January.

# <u>Automatic Road Feature Extraction from State-Owned Mobile LiDAR Data for Traffic Safety</u> Analysis and Evaluation

Staff met with US DOT and will be presenting results of the Automatic Road Feature Extraction from LiDAR (ARFEL) tool to DOT in early 2022.

# Bicycle and Pedestrian Planning

The RTC is collaborating with other partner agencies on several initiatives to improve bicycle and pedestrian safety & facilities:

- The data collection counts for active transportation modes occur biannually. This project is currently on schedule. The draft written report has been submitted to RTC and staff is reviewing it.
- Transportation Alternatives (TA) Set-Aside project on Peckham Lane in Reno was completed. This project implemented a shared use path along Peckham lane adjacent to the airport.

## Vision Zero Truckee Meadows (VZTM)

The next Vision Zero Truckee Meadows Task Force meeting is scheduled for February 28, 2021, at 9:00am.

## Development Review

RTC staff routinely review development proposals from the local jurisdictions of Washoe County and the cities of Reno and Sparks. Staff from Planning, Engineering and Public Transportation have reviewed and commented on the following number of development proposals from each of the jurisdictions since the last Board meeting:

- Washoe County 0
- City of Reno 11
- City of Sparks 9

This does not include proposals that were reviewed on which staff did not have any comments.

#### **COMMUNITY AND MEDIA OUTREACH ACTIVITIES**

RTC staff conducted the following outreach activities from January 1 – February 18:

January 5	Washoe County Senior Center - Table regarding Sunday service change announcement				
January 5	Washoe County Senior Advisory Board - Sunday service change announcement				
January 6	Washoe County Senior Center (Sparks) - Sunday service change announcement				
January 7	Washoe County Senior Center - Sunday service change announcement				
January 10	Paradise Park & Neil Road - Sunday service change announcement				
January 11	Evelyn Mount Community Center - Sunday service change announcement				
January 18	FHWA National Virtual Peer Exchange on Target-Setting Coordination				
January 18	8 West Truckee Meadows/Verdi Township Citizens Advisory Board - Ver				
	Multimodal Transportation Study				
January 20	RED Development, LLC Meeting - Sparks Blvd. Widening Project Outreach				
January 21	Washoe County School District Vision Department - Transportation options, th				
	service change, and how to apply for each service				
January 25	nuary 25 North Valleys Development Summit				
January 25	Age Friendly Livable Reno Action - staffing levels and restoration of transit service				
February 2	RTC Technical Advisory Committee (TAC) Meeting				
February 3 RTC Citizens Multimodal Advisory Committee (CMAC) Meeting					

#### Media Relations & Social Media

The RTC issued six news releases and received 11 media inquiries regarding the Arlington Avenue Bridges Project and its funding, the \$300,000 Transit-Oriented Development Grant for Virginia Street, mask enforcement on RTC buses, upcoming service changes, the new traffic signal at Veterans Parkway/Long Meadow Drive, Sunday-level transit service, Martin Luther King Jr. Day office closures and transit information, and more.

Social media was used to promote and provide information about the Arlington Avenue Bridges Project and its funding, the \$300,000 Transit-Oriented Development Grant for Virginia Street, mask enforcement on RTC buses, upcoming service changes, the new traffic signal at Veterans Parkway/Long Meadow Drive, Sunday-level transit service, Martin Luther King Jr. Day office closures and transit information, and more.

Social media metrics for the month of January: 41,708 impressions on Facebook, Twitter, YouTube, and Instagram.

#### Informational Materials and Video Production

Four topics were broadcast on KOLO-TV for The Road Ahead with RTC. Segments included information about RTC's service change and plans to rebuild transit service, Kings Row improvements, Pedestrian Safety Zones, and the Lemmon Drive Project.

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

# **RECOMMENDED ACTION**

Acknowledge receipt of the monthly Engineering Activity Report.

# **BACKGROUND AND DISCUSSION**

#### BICYCLE AND PEDESTRIAN IMPROVEMENTS

Bus Stop Improvement and Connectivity Program		
Sara Going, Project Manager	https://www.rtcwashoe.com/engineering-project/bus-stop-improvement-connectivity-program/	
Status: Construction bids for Phase 3 of the program were opened on January 19, 2022. The		

Status: Construction bids for Phase 3 of the program were opened on January 19, 2022. The contract has been awarded to Sierra Nevada Construction. Construction is anticipated to begin in March. This package includes improvements to 32 RTC bus stops.

Center Street Multimodal Improvements				
Maria	Paz	Fernandez,	Project	https://www.rtcwashoe.com/engineering-project/center-
Manage	er			street-multimodal-improvements-project/

Status: Thirty percent (30%) design plans are produced. Additional traffic analysis of the downtown road network is occurring as needed to support the efforts of City of Reno to complete The Downtown PlaceMaking Study. Once the final report is published, final scope and design will be completed.

Mill Street Complete Street - Terminal Way to McCarran Boulevard		
Scott Gibson, Project Manager	https://www.rtcwashoe.com/engineering-project/mill- street-complete-street/	
Status: Bids were opened November	16, 2021, and Spanish Springs Construction provided the	

Status: Bids were opened November 16, 2021, and Spanish Springs Construction provided the lowest bid. Construction started on February 7, 2022, and is expected to be complete before July 2022.

#### CAPACITY/CONGESTION RELIEF PROJECTS

the summer of 2022.

Golden Valley Road / Beckwourth Drive Traffic Signal		
Blaine Petersen, Project Manager	https://www.rtcwashoe.com/engineering-project/golden-	
	valley-beckwourth-traffic-signal/	
Status: Titan Electrical was awarded	the construction contract. Construction is scheduled to	
begin on March 7, 2022.		

Sparks Boulevard		
Jeff Wilbrecht, Project Manager	SparksBLVDproject.com.	

Status: During the last reporting period, the final plans for the south phase early action project have been submitted to NDOT for review. Work activities also included acquisition of easements that will be necessary for this phase. This phase is on track for construction in spring 2022. Work during the last reporting period also included finalizing technical reports and documents associated with Environmental Assessment for the north segment (phase 2) of the project.

Steamboat Parkway Improvement			
Andrew Manager	Jayankura,	Project	https://www.rtcwashoe.com/engineering-project/steamboat-pkwy-improvement/
Status: The project team is developing 50% design plans. Construction is anticipated to start by			

Traffic Signal Timing 6				
Andrew	Jayankura,	Project	https://www.rtcwashoe.com/engineering-project/traffic-	
Manager			signal-timing-6-project/	
Status: Tin	ning of Pyrami	d Highway	is complete. Optimization and new timing on SE McCarran	
Boulevard	Boulevard are ongoing.			

Veterans Parkway and Long Meadow Drive (Traffic Engineering (TE) Spot 10 – Fuel Tax)		
Sara Going, Project Manager	https://www.rtcwashoe.com/engineering-project/traffic-engineering-spot-10-fuel-tax/	

Status: The project reached a major milestone with the activation of the new traffic signal at Veterans Parkway and Long Meadow Drive on January 13, 2022. Construction continues on Rectangular Rapid Flashing Beacon (RRFB) locations, which are anticipated to be complete in March.

Battle Born Way and Victorian (Traffic Engineering (TE) Spot 10 – North)			
Andrew	Jayankura,	Project	https://www.rtcwashoe.com/engineering-project/traffic-
Manager			engineering-spot-10-north-2/
Status: The	e new signal co	onfiguration	n at Battle Born Way and Victorian Ways is operational. The
project is o	on hold until An	ril 2022 fo	r pavement slurry seal.

Woodland/4 <sup>th</sup> Street/Mesa Intersection Improvements –(Traffic Engineering (TE) Spot 10 – South)		
Blaine Petersen, Project Manager	https://www.rtcwashoe.com/engineering-project/traffic- engineering-spot-10-south-2/	
Status: Final bid documents are being prepared with advertisement scheduled for March 2022.		

Traffic Management – ITS Phase 4		
Blaine Petersen, Project Manager	https://www.rtcwashoe.com/engineering-project/its-traffic-	
	management-phase-4/	
Status: Advertisement for construction is scheduled for February 2022 with a bid opening in March 2022.		

Traffic Signal Installations 22-01 (Mill Street and Telegraph Street / Wilbur May Parkway and South Meadows Parkway		
Blaine Petersen, Project Manager	https://www.rtcwashoe.com/engineering-project/traffic-signal-installations-22-01/	
Status: Fifty percent (50%) plan comments have been received and 90% plans are scheduled for submittal in February 2022.		

Traffic Signal Modifications (Various Locations) 22-01	
Sara Going, Project Manager	https://www.rtcwashoe.com/engineering-project/traffic-signal-modifications-22-01/
Status: Preliminary design is underway for modification of four (4) intersections:	

Los Altos Parkway & Galleria Parkway – Extend westbound to southbound left turn pocket.

*El Rancho Drive & G Street – Remove split traffic signal phasing.* 

Clear Acre Lane & McCarran Boulevard – Remove split traffic signal phasing.

Galletti Way & Battle Born Way – Install new signal controller cabinet and inductive loop vehicle detection.

#### CORRIDOR IMPROVEMENT PROJECTS

Arlington Avenue Bridges	
Judy Tortelli, Project Manager	https://www.rtcwashoe.com/engineering-project/arlington-avenue-bridges-project/

Status: The Project team is developing and contacting members of a design review committee, aesthetic stakeholder-working group, utility coordination group, and an agency involvement group. Preparations for the first Aesthetic Stakeholder Working Group and Public meeting are underway. Jacobs begins field investigations, survey, and hydraulic modeling for the Truckee River. Coordination with NDOT and FHWA to finalize funding for the project continues and a Local Public Agency Agreement amendment is anticipated to be executed in the coming months.

Lemmon Drive		
Judy Tortelli, Segment 1 Project	Segment 1 - <a href="https://www.rtcwashoe.com/engineering-">https://www.rtcwashoe.com/engineering-</a>	
Manager	project/lemmon-dr-segment-1/	
Dale Keller, Segment 2 Project	Segment 2 - <a href="https://www.rtcwashoe.com/engineering-">https://www.rtcwashoe.com/engineering-</a>	
Manager	project/lemmon-drive-segment-2/	

Status: Segment 1 - Q&D Construction (Q&D) opens the shared-use path and access to Walgreens from Lemmon Drive. The median will be filled with color concrete to minimize water infiltration under new improvements. Education outreach on "How to Drive a DDI" continues.

Q&D finished wall construction under the US 395 freeway, begins underground work, and relocates a 24" water main to make room for the new ramps as part of the Diverging Diamond Interchange improvements. Crews excavate over 1,000 yards per day of material. Traffic exiting northbound US 395 are traveling on a temporary shoo fly as construction progresses. The construction team beings outreach efforts to notify the public of upcoming closures at the Lemmon/US395 interchange.

Segment 2 - The project team continues the Level 2 screening process of the top three (3) alternatives for the Segment 2 phase of the project and is engaging with stakeholders.

Mill Street Widening (Kietzke Lane to Terminal Way)	
Roy Flores, Project Manager	https://www.rtcwashoe.com/engineering-project/mill-st-
	widening-kietzke-to-terminal/

Status: Contract negotiations with Jacobs Engineering Group, Inc., are complete with an award pending Board approval. The final scope of services for the project includes design services to complete the Final Design.

Oddie Boulevard / Wells Avenue Improvement				
Maria	Paz	Fernandez,	Project	http://oddiewellsproject.com/
Manage	r			

Status: Construction started at the end of November. During the first quarter of 2022, construction includes underground utility work, excavating/forming/building retaining walls, and placement of privacy walls within the limits of Phase 1 (Pyramid Way to Sullivan Lane in Sparks). Overall construction, including the remaining phases, is anticipated to occur over three (3) construction seasons and be complete by the third quarter of 2024.

Sky Vista Parkway Widening Rehabilitation		
Blaine Petersen, Project Manager	https://www.rtcwashoe.com/engineering-project/sky-vista-widening-rehabilitation-project/	
Status: Right of way activities continue for necessary construction easements. Advertisement is		

Status: Right of way activities continue for necessary construction easements. Advertisement is anticipated in spring 2022.

<b>Truckee River Shared Use Path</b>	
Jeff Wilbrecht, Project Manager	https://www.rtcwashoe.com/engineering-project/truckee-river-shared-use-path-project/

Status: Coordination efforts this month included ongoing coordination with the Reno Sparks Indian Colony to acquire necessary right of way. Ongoing coordination also took place with NDOT with regard to final design and construction.

#### PAVEMENT PRESERVATION PROJECTS

2021 Preventive Maintenance		
Scott Gibson, Project Manager		
Status: The project is complete except	for utility raising activities.	This work has been delayed due
to short load concrete availability and	COVID.	

4 <sup>th</sup> Street Reconstruction	
Judy Tortelli, Project Manager	https://www.rtcwashoe.com/engineering-project/lemmon-dr-segment-1/

Status: Eastern Sierra Engineering, P.C., begins grading the project to determine improvement limits as 50% design plans are developed. Coordination with City of Sparks begins with a focus on minimizing Right-of-Impacts within the project limits.

Arrowcreek Parkway Rehabilitatio	n
Roy Flores, Project Manager	https://www.rtcwashoe.com/engineering- project/arrowcreek-pkwy-rubblestone-to-virginia/
Status: The consultant is scheduled to submit the 50% preliminary plans and estimate this month.	

Kings Row Rehabilitation – Phase 2			
Jeff Wilbrecht, Project Manager	https://www.rtcwashoe.com/engineering-project/kings-row-rehabilitation-project-phase-2/		
Status Did for the resident was around Sierra Novada Construction is the law hidden Work in			

Status: Bids for the project were opened. Sierra Nevada Construction is the low bidder. Work is ongoing related to executing that contract. Pre-construction preparatory work is also underway.

Peckham Lane Rehabilitation			
Andrew Jayankura, Project Manager	https://www.rtcwashoe.com/engineering-project/peckham-lane/		
Status: Project is expected to advertise	e in February 2022.		

Reno Consolidated 20-01 – Mayberry Drive, California Avenue, and First Street			
Judy Tortelli, Project Manager <a href="https://www.rtcwashoe.com/engineering-project/reno-">https://www.rtcwashoe.com/engineering-project/reno-</a>			
	consolidated-20-01-mayberry-drive-california-avenue-		
	<u>first-street/</u>		

Status: The project opened bids on January 27, 2022. Granite Construction Company is the apparent low bidder. Execution of a contract and coordination of pre-construction meeting activities are underway.

Reno Consolidated 22-01 – Sky Valley Drive and Sky Mountain Drive					
Roy Flores, Project Manager	https://www.rtcwashoe.com/engineering-project/reno-				
	consolidated-22-01-sky-valley-sky-mountain/				

Status: Granite Construction Company is under contract to perform the construction work. Working with the contractor to schedule a pre-construction meeting and construction start date.

Reno Consolidated 23-01 – Sutro Street and Enterprise Road				
Maria Paz Fernandez, Project https://www.rtcwashoe.com/engineering-project/reno-				
Manager consolidated-23-01-sutro-enterprise/				
Status Proliminary design is apposed by the third quarter of 2022. Construction is tentatively				

Status: Preliminary design is expected by the third quarter of 2022. Construction is tentatively scheduled for spring 2023.

#### **OTHER PROJECTS**

4 <sup>th</sup> Street Station Expansion				
Jeff Wilbrecht, Project Manager	https://www.rtcwashoe.com/engineering-project/4th-street- station-expansion/			

Status: The request for proposals process resulted in negotiation of a professional services agreement for design, environmental, and engineering during construction services with the highest ranked firm. The agreement is recommended for approval at the February RTC Board meeting.

# Peppermill BRT Station Jeff Wilbrecht, Project Manager

Status: The design consultant, Kimley-Horn Associates, Inc., is advancing towards final design. Temporary construction easements are necessary for the project; the acquisition of the right of way are underway.

# REPORT ON NEGOTIATED SETTLEMENT AGREEMENTS FOR THE ACQUISITION OF PROPERTY

Project	<b>Property Owner</b>	Purchase Amount	Amount Over Appraisal
Truckee River Shared Use Path Project	Bogart Living Trust dated September 20, 2000	\$39,290.00	\$0
TE Spot 10 – South Project	Christopher Michael Peterson	\$14,370.00	\$0
TE Spot 10 – South Project	Woodland Enterprise Holdings, LLC	\$74,566.00	\$0

# **CONTRACTS UP TO \$100,000**

Paragon Partners Ltd., in the not-to-exceed amount of \$35,750 for the right of way activities for parcels associated with the Peckham Lane Rehabilitation project.

From: Mark Maloney, Director of Public Transportation and Operations

## **RECOMMENDED ACTION**

Acknowledge receipt of the monthly Public Transportation and Operations Activity Report.

# **BACKGROUND AND DISCUSSION**

# **Highlights**

New Flyer Bus Delivery – RTC has taken delivery of twelve (12) new replacement buses for the fixed-route fleet. These New Flyer 40' hybrid electric buses are being added to service beginning in March 2022 and will make the



RTC fleet 100% alternative fueled ahead of our 2035 goal. These buses include the latest in



hybrid technology with idle reduction (engine off) and green zone functions (100% electric operations around transit centers) to reduce carbon emissions and save fuel. The new seats are flexible plastic for cleaner and safer surfaces and sport a nifty RTC logo design. Six (6) additional hybrid buses are due in the fall of 2022 and two (2) hydrogen fuel cell buses are scheduled for delivery in spring of 2024.

Work Continues on the Future of RTC's Post-Strike Transit Services – The initial round of community input for the 2022-2026 Transit Optimization Plan Strategies (TOPS) has concluded with over 1,000 surveys submitted to RTC. Passenger feedback was especially strong with over 90% of the surveys completed by existing passengers. RTC staff and the consultants are reviewing these responses along with the RTC Board's input, and will use them to guide the report recommendations for how to reinvent, optimize and improve RTC's different transit services. Draft findings will be presented to the public in March 2022 with the final report expected in April or May.

#### RTC RIDE Key Highlights – January

- The new service change took effect on January 8, 2022
  - Additional service added (RVL, Rt 13, and Rt 18), effective January 10, 2022
  - Additional service added (Lincoln Line, Rt 18, and Rt 54, Rt 56, and Rt 3CL), effective January 18, 2022

- Keolis Staffing update:
  - o A Coach Operator was promoted to a Dispatcher
  - o Lori Anspach, Assistant Maintenance Manager, has retired after 40 Years of service and will be greatly missed.
  - o Shad Breckel, Maintenance Supervisor, has been promoted to the Assistant Maintenance Manager position.
  - o Theresa Corbi will be joining Keolis mid-February as the new Human Resources Manager.
  - o Bobby Stanworth, Manager on Duty, has been promoted to Safety and Training Manager, replacing Ed Layton who resigned in early January.
  - o Actively recruiting an IT Manager to replace Bryan Mellot who also resigned in January.
- Keolis participated in a successful job fair at the Chamber of Commerce January 13-15<sup>th</sup>.
  - o Recruiting staff interviewed 24 people and made 22 job offers.
  - The job fair resulted in 20 new bus operators that started in the month of January.
- For the month of January, Keolis made offers to 84 new bus operators.
- New Coach Operator classes were held every week on January 4, 10, 17, 24, and 31:
  - o 39 total Operators started training
    - 9 are in classroom training
    - 24 have completed classroom training and are in behind the wheel training
    - 6 have completed training and entered revenue service.



# Headcount as of January 31, 2022:

Position	Total Employed	#Needed
Coach Operators	140	35
Dispatchers	4	1
Mechanic A	4	2
Mechanic B	3	1
Mechanic C	2	2
EV Technician	2	1
Body Technician	1	0

# RTC ACCESS Key Highlights - January

**January Safety Blitz & Safety Meeting -** January's topic for the safety meetings and blitzes was injury prevention focusing on "Trips, Slips and Falls" – and avoiding these injuries whenever possible.

# **Safety**

Accidents: 1 Injuries: 0

YTD Preventable Accident Count: 1

YTD Injury Count: 0

28 Days preventable collision free



**Maintenance/Operations -** MTM remains diligent in sanitizing the buses daily to fight against COVID to keep their employees and clients safe. Drivers are reminded to complete their daily Driver Vehicle Inspection (DVI) reports.

**Operations**— to keep up with demand with the ongoing labor issues, Reno-Sparks Cab, Whittlesea Checker taxi and Uber have been providing trips to clients able to travel independently.

# **Recruitment/Staffing Update**

December - 1 class held

• 12-27-2022-Hired 1 Driver who is now in Revenue Service

January - 2 classes held:

- 1-10-2022 Hired 2 Drivers, 1 is in revenue service, 1 left during the training period
- 1-31-2022 Hired 2 Drivers who are currently in training

**Headcount as of January 31, 2022:** 

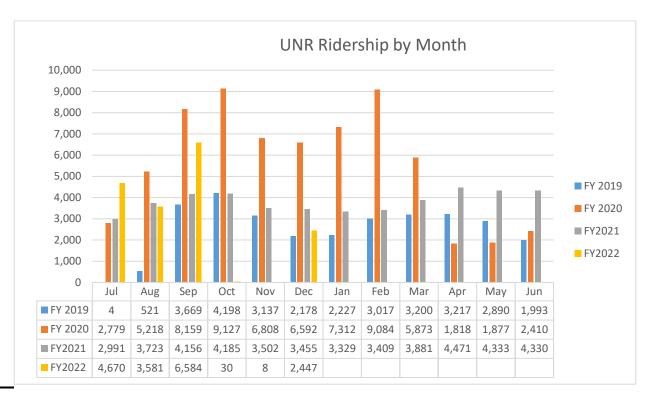
Position	<b>Total Employed</b>	#Needed
Drivers	40FT – 6PT	15FT – 0 PT
Dispatchers	4FT	1PT
Reservationists	4.5 FTE's	0
Mechanic A	4 FT	0

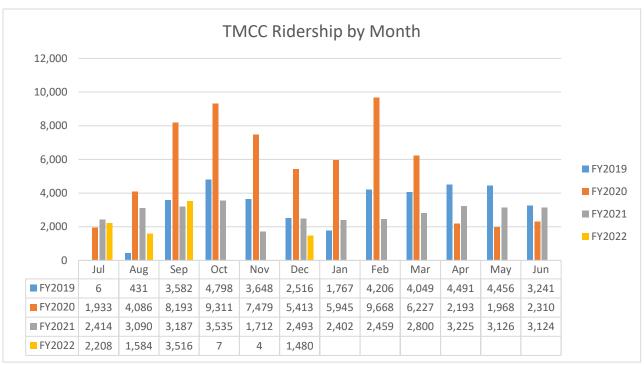
**Employee Appreciation** – the MTM management team served a hearty breakfast to staff beginning at 4:30 am on January 19.



#### TRANSIT DEMAND MANAGEMENT (TDM) Update -

- Vanpools increased to 294 from 285.
- No events were held in January.
- Held first meeting for Earth Day which will be at Idlewild Park on April 24<sup>th</sup>. Secured the parking lot by County Court House to be used as a park & ride for the event. The event will run from 11am to 5pm.
- The Northern Nevada Transportation Management Association (TMA) has been finalized and staff will set up a meeting with the participating agencies and private companies to create the by-laws.
- Ridership numbers from the ED Pass Program through the month of December are below. The months of October & November show little ridership due to the drivers strike and the free fares after the strike. Staff is working with UNR to continue to market the program on campus.

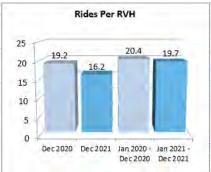




# **DECEMBER 2021 TRANSIT PERFORMANCE**

#### **RTC RIDE**

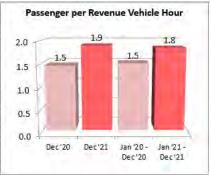






#### **RTC ACCESS**





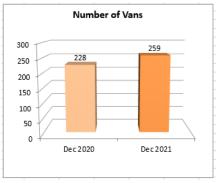


#### **TART**

December TART data unavailable.

#### RTC VANPOOL





From: Stephanie Haddock, Finance Director/CFO

# **RECOMMENDATION**

Acknowledge receipt of the monthly Procurement Activity Report.

# PROJECTS CURRENTLY ADVERTISED

There are no projects currently advertised.

#### REPORT ON INVITATION FOR BID (IFB) AWARDS

Per NRS 332, NRS 338 and RTC's Management Policy P-13 "Purchasing," the Executive Director has authority to negotiate and execute a contract with the lowest responsive and responsible bidder on an Invitation for Bid (IFB) without Commission approval.

Project	Contractor	Award Date	Contract Amount
Golden Valley/Beckwourth Traffic Signal	Titan Electrical Contracting	12/22/2021	\$678,349
Kings Row Phase II Rehabilitation	Sierra Nevada Construction	2/7/2022	\$3,210,007
Bus Stop Improvement and Connectivity – Phase III	Sierra Nevada Construction	2/10/2022	\$2,013,007
Reno Consolidated 20-01 (Mayberry/California)	Granite Construction	2/14/2022	\$4,059,059

#### PROFESSIONAL SERVICES/CONSULTING AGREEMENTS

Per RTC's Management Policy P-13 Executive Director has authority to approve contracts greater than \$25,000 and less than (or equal to) \$100,000.

Project	Contractor	Contract Amount
Sutro Gate Controller Replacement	Artistic Fence Company	\$54,725
TE Spot 10 – South	Union Pacific Railroad	\$25,000
Employment Matters Legal Services	Holland and Hart, LLC	\$49,500
Specialized Lobbying NV Legislature	Kaempfer Crowell, LLC	\$65,000

# CHANGE ORDERS AND CONTRACT AMENDMENTS WITHIN EXECUTIVE DIRECTOR'S RTC's P-13 PURCHASING POLICY AUTHORITY

Project	Contractor	Approval Date	CO / Amend. Number	CO / Amend. Amount	Revised Total Contract Amount
RTP Pavement	Nichols	12/27/202	Amend.	<b>\$20.000</b>	<b>***</b>
Condition Data Collection	Consulting Engineers	1	1	\$30,000	\$329,272

From: Dan Doenges, PTP, RSP

Director of Planning

Mark Maloney

**Director of Public Transportation** 

Brian Stewart, P.E. Engineering Director

Through: Bill Thomas, AICP

**Executive Director** 

# **RECOMMENDED ACTION**

Acknowledge receipt of the Summary Report for the Technical, Citizens Multimodal, and Regional Road Impact Fee Advisory Committees.

# BACKGROUND AND DISCUSSION

The RTC has three advisory committees that provide input on a wide range of policy and planning issues as well as key planning documents and the RTC Budget. The committees include:

- The Citizens Multimodal Advisory Committee (CMAC), which includes three individuals who use RTC RIDE, two individuals who use RTC ACCESS, five individuals who represent bicyclists/pedestrians, and five individuals who represent general multimodal transportation. The RTC Board approves appointments to this advisory committee.
- The Technical Advisory Committee (TAC), which includes local public works directors, community development directors, and staff from other key agencies.
- The Regional Road Impact Fee Technical Advisory Committee (RRIF TAC), which was created to oversee and advise the local governments regarding land use classification assumptions and the Capital Improvements Plan (CIP) used in the impact fee program. The RRIF TAC consists of three representatives from each local entity, two RTC representatives and four private sector members who are appointed by the RTC Board.

The agenda and minutes of each advisory committee are provided to the RTC Board.

This staff report summarizes comments along with any action taken by the RTC advisory committees.

# Citizens Multimodal Advisory Committee (CMAC)

The CMAC met on February 2, 2022, and received presentations on the Nevada Sustainable Transportation Funding Study and Advisory Working Group, Nevada Department of Transportation (NDOT) process used from the One Nevada Plan to arrive at the current Statewide Transportation Improvement Program (STIP), NDOT Mt. Rose Highway Corridor Study, and recommended approval of Amendment 1 to the FY 2022 – FY 2023 Unified Planning Work Program (UPWP).

# **Technical Advisory Committee (TAC)**

The TAC met on February 3, 2022, and received presentations on the Nevada Sustainable Transportation Funding Study and Advisory Working Group, NDOT process used from the One Nevada Plan to arrive at the current STIP, NDOT Mt. Rose Highway Corridor Study, and recommended approval of Amendment 1 to the FY 2022 – FY 2023 UPWP.

# Regional Road Impact Fee Technical Advisory Committee (RRIF TAC)

The RRIF TAC did not meet in February.

# **FISCAL IMPACT**

There is no fiscal impact associated with this agenda item.

From: Xuan Wang, Senior Technical Planner

Through: Dan Doenges, PTP, RSP, Director of Planning

## RECOMMENDED ACTION

Approve of Amendment 1 to the FY 2022 – FY 2023 Unified Planning Work Program (UPWP).

# **BACKGROUND AND DISCUSSION**

The UPWP documents the major transportation planning activities to be undertaken each fiscal year and the funding sources necessary to support these activities. Federal regulations require the RTC to develop and approve the UPWP as the Metropolitan Planning Organization (MPO) for the region. The UPWP is developed in coordination with the RTC Annual Budget, incorporating the major objectives, revenues and expenses identified in the budget.

The RTC was successful in receiving a Federal Transit Administration (FTA) Transit-Oriented Development (TOD) Planning grant award. This grant will fund a planning study to identify potential station locations along South Virginia Street that would support the extension of the Virginia Line Bus RAPID Transit (BRT) route, and the City of Reno will be a partner in this study. One of the conditions of the grant award requires that the study be identified in the UPWP. Therefore, staff is proposing an amendment to the UPWP to identify all applicable funds that will be utilized to complete the study. In addition, funding was shifted between existing tasks in the UPWP as noted below:

- Removes 50 staff hours from Task 3.13 Corridor and Area Planning
- Removes 50 staff hours from Task 5.2 Transit Planning
- Adds 100 staff hours from Task 3.10 Public Participation Plan Development

This change was made to support the update to the RTC Public Participation Plan, which is currently under development.

Lastly, some language was added under Task 3.13 Corridor and Area Planning in the UPWP document to include a modeling analysis of the Regional Road network in the downtown Sparks area to better understand potential impacts of the proposed interchange reconfigurations on I-80 as identified in Phase 2 of the Spaghetti Bowl improvements.

# FISCAL IMPACT

Funding for administration of the UPWP is included in the FY 2022 – FY 2023 UPWP.

# **PREVIOUS BOARD ACTION**

April 16, 2021

Approved the FY 2022 – FY 2023 UPWP

# **ADVISORY COMMITTEE(S) RECOMMENDATION**

The Citizens Multimodal Advisory Committee met on February 2, 2021, and the Technical Advisory Committee met on February 3, 2021, and both committees recommended approval of Amendment 1 to the FY 2022 – FY 2023 UPWP.

# **ATTACHMENT(S)**

A. Proposed Amendment to the FY 2022 - FY 2023 UPWP

# Regional Transportation Commission of Washoe County

# UNIFIED PLANNING WORK PROGRAM

FY 2022 - FY 2023: July 1, 2021 to June 30, 2023



# May 2021 Pending Amendment February 2022

This report was funded in part through grants from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, under the State Planning and Research Program, Section 505 for Metropolitan Planning Program Section 104(f) of Title 23, U.S. Code. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

Contact Information: RTC Planning Department 775-348-0480 www.rtcwashoe.com

Your RTC. Our Community.

# REGIONAL TRANSPORTATION COMMISSION OF WASHOE COUNTY

# UNIFIED PLANNING WORK PROGRAM FY 2022 – FY 2023

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# UNIFIED PLANNING WORK PROGRAM FY 2022 – FY 2023

#### 1.0 INTRODUCTION

The Fiscal Years 2022 – 2023 Unified Planning Work Program (UPWP) is developed by the Regional Transportation Commission of Washoe County (RTC). The UPWP describes transportation planning activities scheduled in Washoe County during the period July 1, 2021 to June 30, 2023. These activities will be undertaken by the RTC utilizing the annual federal funding allocations from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) as well as local funds.

The RTC is designated by the Governor as the Metropolitan Planning Organization (MPO) for Washoe County. As the MPO, the RTC administers the federally required transportation planning process within the metropolitan planning area. The RTC planning process considers all modes of transportation and yields plans and programs consistent with the planned development of the urbanized area. The RTC coordinates transportation planning activities with its three member entities of City of Reno, City of Sparks, and Washoe County. The RTC also coordinates with partner agencies including, but not limited to, the Nevada Department of Transportation (NDOT), Truckee Meadows Regional Planning Agency (TMRPA), Washoe County Health District – Air Quality Management Division (WCHD-AQMD), Washoe County School District, Reno-Sparks Indian Colony (RSIC) and Reno-Tahoe Airport Authority (RTAA).

The UPWP has been organized into six major elements with each element subdivided into specific tasks. The six major elements are as follows:

- Administration
- Development review for consistency with the Regional Transportation Plan (RTP)
- Multimodal planning
- Street and highway planning
- Public transportation
- Air quality planning

#### 2.0 PLANNING EMPHASIS AREAS

On December 30, 2021, the FHWA and FTA Administrators updated the Planning Emphasis Areas (PEAs) which MPOs, State Departments of Transportation, and Public Transportation Agencies should consider when developing tasks for the UPWP or other work programs. The planning emphasis areas have been integrated into the RTC planning work program for Fiscal Years 2022 – 2023, as shown in Table 1.

# 2.1 Implementing MAP-21 and the FAST Act

The metropolitan transportation planning process specified by the FAST Act and the implementing regulations contained in Title 23 Part 450 of the Code of Federal Regulations (CFR) requires the RTC to maintain a cooperative, continuous and comprehensive framework for making transportation investment decisions in the metropolitan area.

The FAST Act carries forward and expands the performance-based transportation planning framework established under MAP-21. This UPWP includes data collection and analysis tasks that will facilitate annual reporting regarding transportation safety, travel time reliability, pavement condition, alternative mode share, and other performance metrics. This UPWP includes tasks to continue evaluation of the transportation performance measures and performance targets established in the Regional Transportation Plan (RTP). The project prioritization process for the RTP reflects consideration of the adopted performance measures.

Transportation legislation also requires the planning process to consider eight factors in the MPO's development of their regional transportation plans and programs. The eight factors are listed below and the following table outlines the associated UPWP tasks that address and support them.

- 1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency
- 2. Increase the safety of the transportation system for motorized and non-motorized users
- 3. Increase the security of the transportation system for motorized and non-motorized users
- 4. Increase accessibility and mobility of people and freight
- 5. Protect and enhance the environment, promote energy conservation, improve quality of life and promote consistency between transportation improvements and State and local planned growth and economic development patterns
- 6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- 7. Promote efficient transportation system management and operation
- 8. Emphasize the preservation of the existing transportation system

**Table 1: Planning Factors and UPWP Tasks** 

Table 1: Planning Factors and UPWP Tasks										
	1	2	3	4	5	6	7	8		
Task	Climate	Equity/ Justice 40	Complete Streets	Public Involvement	Strtegic Hw y Netw ork	FLMA Coordination	PEL	Data		
1.1 Administrative/ Continuing Planning		•		•		•	•	•		
1.2 Unified Planning Work Program	•	•	•	•	•	•	•	•		
1.3 MPO Certification	•	•	•	•	•	•	•	•		
1.4 Statewide Planning	•	•	•	•	•	•	•	•		
1.5 Training	•	•	•	•	•	•	•	•		
2.1 RTC Development Review & Meeting	•	•	•	•	•	•		•		
Attendance 3.1 Regional										
Transportation Improvement Program	•	•	•	•	•	•	•	•		
3.4 Regional Transportation Plan (RTP) Activities	•	•	•	•	•	•	•	•		
3.5 Congestion  Management Process	•	•	•	•	•	•	•	•		
3.10 Public Participation Plan		•		•		•	•	•		
3.11 Community Involvement Planning	•	•	•	•	•	•	•	•		
3.13 Corridor and Area Planning	•	•	•	•	•	•	•	•		
4.1 Regional Road Impact Fee Activities		•		•			•	•		
4.2 Geographic Information System (GIS) Mgt.	•	•	•	•	•	•	•	•		
4.3 Traffic Forecasting	•	•			•			•		
4.18 RTC Traffic Model Upgrade/Conversion to TransCAD	•			•	•			•		
4.27 TMRPA Shared Services	•	•	•			•		•		
4.31 Data Collection and Analysis Program	•	•	•	•				•		
		•	•	•		•		•		
6.1 Air Quality Modeling/Analysis	•	•	•		•		•	•		
6.2 CMAQ Planning	•	•	•	•		•		•		
6.3 RTIP/RTP	•		•		•	•		•		
Conformity Analysis	ack cupporto r	lanning factor								
Indicates that task supports planning factor										

Unified Planning Work Program FY 2022 – FY 2023 May 2021, Pending Amendment February 2022

# 2.2 Regional Models of Cooperation

Through UPWP tasks such as Regional Transportation Plan Activities and Statewide Planning, RTC ensures a regional approach to transportation planning by promoting cooperation and coordination across transit agency, MPO and state boundaries. The Nevada MPOs and NDOT, in partnership with the FHWA Nevada Division Office and FTA Region 9 Office, have adopted a coordinated approach to transportation planning through the formal Planning Executive Group and various sub-committees. This coordinated approach allows for information sharing about data, needs assessments, funding projections, financial reporting, planning initiatives, project delivery and other issues. RTC participates in multi-jurisdictional and multi-state investment studies coordinated through NDOT, including the McCarran Boulevard Corridor Study, State Freight Plan, State Rail Plan, and the One Nevada (Long Range) Transportation Plan. Through the US 395 Coalition, RTC collaborates with NDOT, CalTrans, and other jurisdictions along this corridor regarding common transportation needs.

As an organization that integrates the functions of the MPO, transit service provider, and regional street and highway program, RTC seamlessly integrates planning for multimodal transportation needs.

#### 2.3 Ladders of Opportunity

The U.S. DOT created Ladders of Opportunities to develop and enhance initiatives, program guidance, tools, and standards that empower transportation leaders and communities to revitalize, connect, and create workforce opportunities that lift more Americans into the middle class. The following paragraphs demonstrate a small sample of the transportation planning efforts that the RTC undertakes to support this initiative.

RTC strives to provide safe access to essential services for all residents of Washoe County. Through the Geographic Information Systems (GIS) task, RTC is able to analyze transportation service and access to employment, health care, schools/education, and other services at a regional scale. Through the Community Involvement Planning task, RTC develops and evaluates new approaches and techniques to expanding public participation, particularly in disadvantaged communities.

The Electric and Alternative Fuel Vehicle Infrastructure and Advanced Mobility Plan will be completed through the Regional Transportation Plan (RTP) Activities task, which will examine the role of technology and shared mobility as transportation options continue to evolve in Washoe County. Anticipated plan recommendations include guidance on how to address equity in mobility to ensure transportation options are available to all users. Through this plan, staff will also consult with officials in the travel and tourism profession, among others, to explore the relationship between shared mobility and the hospitality industry.

The RTP Activities task will also include an update to the Bicycle and Pedestrian Master Plan (BPMP). A refined project prioritization framework was developed through the 2050 RTP process, which will be used in conjunction the Data Collection and Analysis Program to better

prioritize future bicycle, pedestrian, and ADA improvements. In addition, several new multimodal project suggestions were received through the outreach efforts of the RTP, and these projects will be evaluated for inclusion in the BPMP.

Under the Transit Planning task, staff will complete the Transit Optimization Plans Strategies (TOPS), which will update the RTC Short Range Transit Plan and explore opportunities to better serve residents with enhanced mobility options. In addition, the RTC will develop an Equity Analysis/Strategy to identify other approaches to engaging and supporting underserved communities with transportation investments. This effort will be conducted under the RTP Activities Task.

# 3.0 ENVIRONMENTAL JUSTICE/TITLE VI

Achieving equity and environmental justice in provision of transportation projects and services is an important goal of the RTP. The RTC strives to serve the transportation needs of all residents in the planning area without discrimination based on age, income, race, language, ethnicity, or ability. RTC complies with the federal policies and requirements listed below:

- Title VI of the Civil Rights Act of 1964: No person in the U.S. shall, on the basis of race, color, or national origin, be excluded from participation in, denied benefits of, or subjected to discrimination under any program receiving federal funding. RTC is required to take steps to ensure that no discrimination on the basis of race occurs. Title VI requires reporting about how transit services are implemented and what measures the RTC is taking to provide equal access to public transportation.
- Americans with Disabilities Act (ADA) of 1990: Requires that disabled persons have equal access to transportation facilities. This includes wheelchair accessible accommodations in the transit system.
- Executive Order on Environmental Justice: Executive Order 12898 requires the identification and assessment of disproportionately high and

# RTC Title VI Policy

The RTC is committed to ensuring that no person is excluded from participation in, or denied the benefits of, its services on the basis of race, color or national origin as protected by Title VI of the Civil Rights Act of 1964, as amended.

No person or group of persons will be discriminated against with regard to fares, routing, scheduling, or quality of transportation service that the RTC furnishes on the basis of race, color, or national origin. Frequency of service, age and quality of RTC vehicles assigned to routes, quality of RTC stations serving Washoe County, and location of routes will not be determined on the basis of race, color or national origin.

adverse impacts on minority and low-income populations.

Transportation projects and services are implemented in conformance with the RTC Title VI Policy. RTC submits a Title VI Report to the Federal Transit Administration every three years, with the most recent developed in 2020. As identified in the report, the following measures are in place to comply with Title VI requirements:

- Minority, low-income, and Limited English Proficiency (LEP) persons are able to provide meaningful input into the planning process through participating in public meetings held in locations near transit routes and where translators and materials are provided in Spanish and English.
- RTC has a complaint procedure in place to investigate and track Title VI concerns.
- RTC submits an annual Title VI Certification and Assurance report to the US Department of Transportation.

The 2050 RTP includes a chapter to specifically address promoting equity and environmental justice in regional transportation. The chapter includes an analysis of impacts of RTC projects and services on low income and minority population.

As part of the planning process for all applicable tasks, socioeconomic and environmental data are analyzed. Environmental justice applies to all transportation services and is part of the overall planning process. As the Metropolitan Planning Organization (MPO), the RTC complies with Title VI and addresses environmental justice by:

- Enhancing the analytical capabilities to ensure that the RTP and the RTIP comply with Title
- Identifying residential, employment and transportation patterns of low-income and minority populations so that their needs can be identified and addressed and the benefits and burdens of transportation investment can be fairly distributed.
- Evaluating and, where necessary, improving the public involvement processes to eliminate participation barriers and engage minority and low-income populations in transportation decision making.

# 4.0 TRANSPORTATION PLANNING PRIORITIES FOR FY 2022 - FY 2023

This section describes the priorities of the RTC planning program for the next two years.

#### 4.1 2050 Regional Transportation Plan Guiding Principles & Goals

The RTC Board approved the resolution adopting the 2050 Regional Transportation Plan (RTP) on March 19, 2021 and subsequently received conformity determination from the Federal Highway Administration (FHWA), Federal Transit Administration (FTA) and the Environmental Protection Agency (EPA). The RTP reflects over eighteen months of community outreach and agency coordination and provides a balanced approach to improving safety, livability and regional connectivity. The plan represents the region's transportation vision and quality of life

# 2050 RTP Guiding Principles & Goals

# The four guiding principles include promoting:

- Safe and Healthy Communities
- Economic Prosperity, Equity and Innovation
- Sustainability and Climate Action
- Increase Travel Choices

# The ten goals include:

- Improve and Promote Safety
- Integrate All Types of Transportation
- Promote Healthy Communities and Sustainability
- Promote and Foster Equity and Environmental Justice
- Integrate Land Use and Economic Development
- Manage Existing Systems Efficiently
- Enhance Regional Connectivity
- Improve Freight and Goods Movement
- Invest Strategically
- Engage the Public and Encourage Community Involvement

investments for Safe and Healthy Communities; Economic Prosperity, Equity and Innovation; Sustainability and Climate Action; and Increase Travel Choices.

The RTP was developed with significant input from community residents and stakeholder agencies. The public participated through in-person planning workshops, online surveys, virtual open houses, and several presentations to local jurisdictions. In addition, area specific outreach was accomplished through both in-person and virtual meetings.

The 2050 RTP establishes the guiding principles and goals for regional transportation planning in Washoe County, as described below. These priorities are implemented through the planning projects in this UPWP.

The UPWP links the long range guiding principles of the 2050 RTP to performance based planning and project delivery. As an example, the annual reporting of performance targets in the RTP will be conducted, in part, through the data collection and analysis program in the UPWP. The community involvement planning task will allow RTC to continue the collaborative partnerships with other agencies, organizations, and members of the general public that were established or strengthened through the RTP development process. The corridor studies included in the UPWP will facilitate analysis of safety and multimodal transportation issues that are at the core of the guiding principles to provide safe and healthy communities and increase

travel choices. The corridor studies allow for an approach that links planning and environmental analysis early in project development.

Through the FY 2022 – FY 2023 UPWP will initiate the 2055 RTP process toward the end of the two-year program. The RTC will also conduct several planning initiatives that support the RTP. In addition to the BPMP, Advanced Mobility Plan, and Equity Analysis mentioned previously, staff will expand the RTC travel demand model to capture the growth in vehicle miles traveled (VMT) east of Washoe County. Acquiring updated external zone traffic counts will enhance model accuracy and provide a better understanding of the travel characteristics between the urban area and the growing employment opportunites to the east. An emphasis on regional safety is also a significant component of the RTP, while RTC staff continues to partner with groups such as Vision Zero Truckee Meadows.

# 4.2 Public Participation

Public and agency coordination is the cornerstone of the transportation planning process. The Public Participation Plan was updated in FY 2017 and the RTC will continue to monitor its implementation. The plan should be reviewed with respect toward an emphasis in virtual and social media outreach platforms as a result of the recent COVID-19 pandemic.

The public participation plan ensures that residents are given the opportunity to be part of the planning efforts that will shape their communities in the future. The plan describes a proactive process for engagement with the RTC, and addresses complete information, timely public notice, full public access to key decisions, and support of early and continuous involvement of the public in developing regional plans and programs. The purpose of the public participation plan is to increase community awareness and participation while widening the range of voices and views in the planning process. The plan outlines strategies for increasing public information and involvement in the planning process. RTC uses a wide range of public participation approaches, including community planning workshops, roundtable discussions, open house meetings, websites, social media, surveys, and print and broadcast media.

#### **4.3** Performance Based Planning

The 2050 RTP identified performance measures that are consistent with the national priorities included in MAP-21. The performance measures are being tracked and analyzed in an annual report produced by RTC, as well as being reported to NDOT for their use in carrying out the requirements of the National Performance Management program. The information from this analysis will be used in future updates to the RTP as projects are evaluated. Performance measures are linked to the congestion management process (CMP), which considers safety, alternative mode priorities, operations, and travel delay in project selection and prioritization. The performance management program and CMP will be used to analyze any potential changes that could be made to the capacity program through the RTP process.

As national and state performance targets are developed or refined, RTC will update the regional performance targets as necessary. RTC is actively participating with NDOT and other Nevada

MPOs as targets for the performance measures are being established or updated. The National Performance Measures identified in the 2050 RTP are provided in the tables below.

Table 2
National Safety (PM1) Performance Measures

DTD Cool		Darformones Torret		2017 Doufousses
RTP Goal	Performance Measures	Performance Target	2017 Performance	2017 Performance
			Measure Status	Target Status
Improve	Number of fatal crashes	8% annual reduction	42	Working towards
Safety	(5-year average)	from previous year		aspirational goal of
		trend line (41 for year		Zero Fatalities
		2018)		
	Number of fatal crashes	1.11 for year 2018	1.12	Working towards
	per 100 million VMT	based on fatal crashes		aspirational goal of
	(5-year average)	target		Zero Fatalities
	Number of serious injury	Maintain existing	157	Met 2018 goal and
	crashes (5-year average)	decreasing trend (157		working towards
		for year 2018)		aspirational goal of
				Zero Fatalities
	Number of serious injury	4.24 base on serious	4.13	Met 2018 goal and
	crashes per 100 million	injury crashes target		working towards
	VMT (5-year average)	based on serious		aspirational goal of
		injury crashes target		Zero Fatalities
	Number of non-motorized	8% annual reduction	14	Met 2018 goal and
	fatalities (5-year average)	from previous year		working towards
		trend line (14 for year		aspirational goal of
		2018)		Zero Fatalities
	Number of non-motorized	Maintain existing	31	Working towards
	serious injuries (5-year	decreasing trend		aspirational goal of
	average)	(30 in 2018)		Zero Fatalities

Table 3
National PM2 Performance Measures (Targets Set by NDOT)

Performance Measures	Baseline	2-Year Condition/ Performance	2-Year Target	4-Year Target
Percentage of Pavements of the Interstate System in Good Condition		81.8%		74.7%
Percentage of Pavements of the Interstate System in Poor Condition		0.3%		1.4%
Percentage of Pavements of the Non- Interstate NHS in Good Condition	79.4%	77.6%	67.6%	55.8%
Percentage of Pavements of the Non- Interstate NHS in Good Condition				
Percentage of Pavements of the Non- Interstate NHS in Poor Condition	4.7%	4.1%	5.7%	6.5%
Percentage of Pavements of the Non- Interstate NHS in Poor Condition				
Percentage of NHS Bridges Classified as in Good Condition	42.2%	42.9%	35.0%	35.0%
Percentage of NHS Bridges Classified as in Poor Condition	0.5%	0.9%	7.0%	7.0%

Note: the statewide budget for fiscal years 2018 and 2019 was much higher than anticipated after the 2-year targets were established. Therefore, the increase in spending led to better than expected 2-year pavement

and bridge condition. The 4-year targets, which were established at the same time as the 2-year targets, have not been revised; but it is estimated that the 4-year pavement and bridge condition will exceed the targets.

Table 4
National PM3 Performance Measures (System Performance/Freight)

114110114111111111111111111111111111111									
RTP Goal	Performance Measures	Performance Target	2017 Performance Measure Status	2017 Performance Target Status					
Congestion Reduction	Percentage of person- miles traveled that are reliable on the Interstate System	90%	99.60%	Met goal					
	Percentage of person- miles traveled that are reliable on the Non- Interstate National Highway System (NHS)	75%	84.60%	Met goal					
	Truck Travel Time Reliability (TTTR) Index"	1.5	1.24	Met goal					

Table 5
National PM3 Performance Measures (CMAQ)

Performance Measure	Target				
Total emission reduction of NOx for CMAQ	Working toward RTC 4-year target of 152.1				
funded projects	kg/day				
Total emission reduction of VOC for CMAQ	Working toward RTC 4-year target of 266.9				
funded projects	kg/day				
Total emission reduction of PM <sub>10</sub> for CMAQ	Working toward RTC 4-year target of 1.2				
funded projects	kg/day				
Total emission reduction of CO for CMAQ	Working toward RTC 4-year target of 2,019.2				
funded projects	kg/day				

#### 4.4 Regional Transportation Improvement Program

The short-range planning document, the Regional Transportation Improvement Program (RTIP), represents the first five years of the 2050 RTP. The document is developed in draft form by RTC staff based upon joint work by RTC staff and staff representatives of the local government agencies. RTC's advisory committees then review the document and the RTC Board adopts it through a public hearing process following a 21-day public comment period. The RTC and NDOT work together to develop, analyze, and coordinate projects included in the RTIP and Statewide Transportation Improvement Program (STIP). The most recent project listing is available for the public to review through the electronic STIP (eSTIP) at https://estip.nevadadot.com/default.asp.

# 4.5 Air Quality

One of the requirements for both the RTP and RTIP is that they conform to all applicable State Implementation Plans (SIPs) and the Clean Air Act (CAA). Should the need arise to amend either document, staff will work with the Air Quality Interagency Consultation Workgroup to ensure conformity on any proposed amendments if applicable.

The RTC also partners with the Washoe County Health District in community outreach and education programs to promote public health through active transportation, including Nevada Moves Day, the annual Washoe County Healthy Community Forum, and Bike to Work, School and Fun Month.

#### 5.0 WORK ELEMENTS AND TASK DESCRIPTIONS

This section describes the six major elements and the tasks within those elements. Except as otherwise noted the RTC is the administrator of each of the tasks.

### **WORK ELEMENT: 1.0 ADMINISTRATION**

#### PREVIOUS AND ONGOING WORK

The tasks in this work element cover activities related to the overall administration of RTC's transportation planning program. All tasks are annual or ongoing activities undertaken to maintain compliance with federal/state regulations, organize and manage Planning Department activities and improve staff skills.

This element also funds the reproduction and distribution of the many required planning documents including the RTIP, RTP, UPWP, Public Participation Plan, and other documents mandated by the FAST Act. In addition, this work element funds the continuing, comprehensive, and cooperative planning and public involvement process required by the FAST Act, including publication of public notices and providing support to the RTC advisory committees.

RTC continues to work in coordination with local governments and state and federal transportation agencies to implement and accomplish planning programs. This occurs through the monthly meeting and review of the Technical Advisory Committee (TAC); monthly Planning Executive Group (PEG) and sub-group meetings with NDOT, FHWA, and the other Nevada MPOs; RTC staff participation with the TPAC; the Truckee Meadows Regional Planning Agency (TMRPA); technical advisory groups for specific projects and studies; and many other committees and groups.

#### **TASKS**

#### 1.1 Administration/Continuing Planning

#### **Task Elements**

Perform general administrative functions concerning the transportation planning program including preparation of administrative reports, analyses, budgets, goals and objectives, correspondence, documents, memos, etc. Also includes the time and materials used for the advertising, preparation and conducting of the public involvement activities including all RTC advisory committees and their subcommittees, the RTP Agency Working Group and any special committees convened to address regional transportation issues and other public meeting/involvement activities. Provide dues, subscriptions and professional memberships to organizations as appropriate.

# **Expected Products**

- Monthly agendas for advisory committees and general administrative functions
- Miscellaneous reports, analyses, correspondence and memoranda

Completion Date: Ongoing task

**Funding:** Federal PL Funds \$597,132

Local <u>\$31,428</u> TOTAL \$628,560

# 1.2 Unified Planning Work Program

#### **Task Elements**

Prepare and process the quarterly reports for the FY 2022 – FY 2023 Unified Planning Work Program (UPWP) as well as year-end reports. Prepare and submit any necessary amendments to the UPWP. Prepare and adopt the FY 2024 – FY 2025 UPWP in cooperation with local, state and federal agencies.

#### **Expected Products**

- FY 2022 FY 2023 UPWP quarterly and annual reports
- Amendments to the FY 2022 FY 2023 UPWP as necessary
- An adopted FY 2024 FY 2025 UPWP

**Completion Date:** June 2023 as well as ongoing task

**Funding:** Federal PL Funds \$11,197

Local <u>\$589</u> TOTAL \$11,786

#### 1.3 MPO Certification

#### **Task Elements**

This task includes preparing and maintaining documentation of all planning activities carried out by RTC for MPO certification by the Secretary of the U.S. Department of Transportation (USDOT) pursuant to MAP-21 and FAST Act requirements.

#### **Expected Products**

Support for MPO certification

**Completion Date:** Ongoing task

**Funding:** Federal PL Funds \$1,866

Local <u>\$98</u> TOTAL \$1,964

# 1.4 Statewide Planning

#### **Task Elements**

Participate in the statewide transportation planning process including attendance and participation in the TPAC and other project advisory committees, coordination on planning studies and data sharing efforts, involvement in the project selection process, input on safety improvements and other applicable activities.

### **Expected Products**

Coordinated state planning process and documents

**Completion Date:** Ongoing task

 Funding:
 Federal PL Funds
 \$37,321

 Local
 \$1,964

 TOTAL
 \$39,285

#### 1.5 **Training**

#### **Task Elements**

Facilitate and attend training courses and webinars related to multimodal transportation planning and safety as appropriate, including training on specific planning tools and programs such as TransCAD, VISSIM, GIS, etc. Maintain in-house library of transportation planning publications and other materials for use by RTC and local agency staff.

#### **Expected Products**

- Increased staff skill and knowledge levels
- Organized, up-to-date and functional library

**Completion Date:** Ongoing task

**Funding:** Federal PL Funds \$111,962 Local \$5,893

TOTAL \$117,855

WORK ELEMENT: 2.0 DEVELOPMENT REVIEW

#### PREVIOUS AND ONGOING WORK

The Cities of Reno and Sparks and Washoe County solicit comments from RTC on all major residential, commercial, industrial and other proposed developments, particularly those of regional significance. RTC provides comments on the anticipated traffic impacts associated with the development and the need to provide right-of-way and improvements to serve all modes

of travel per the RTIP and RTP. The information generated by this review process serves as an important input to the transportation planning process.

One of the most important products of the development review task is the identification of development impacts to long-range transportation improvements contained in the RTP. In particular, the development review process has identified right-of-way needs and allowed for corridor protection through building setbacks, project redesign and advance right-of-way acquisition, when appropriate. This process also allows RTC to identify and request accommodations for transit services and provide information on trip reduction opportunities where applicable.

## **TASKS**

# 2.1 RTC Development Review and Meeting Attendance

#### **Task Elements**

Perform reviews of proposed developments to determine transportation impacts, recommend mitigation measures and comment to public agencies in a timely fashion. Represent RTC as the MPO at development-related meetings and provide supporting information to local commissions, boards, planning staffs and consultants regarding RTC comments.

Maintain a development review database containing information on project location, land-use, trip generation and RTC comments. Document the consistency of the population and employment impacts of approved projects in future year forecasts.

### **Expected Products**

- Letters to the local jurisdictions containing RTC comments on proposed developments as necessary
- Current and continuously updated and accurate database for approved development

**Completion Date:** Ongoing task

Funding: Federal PL Funds \$29,857

Local \$1,571 TOTAL \$31,428

# WORK ELEMENT: 3.0 MULTIMODAL PLANNING AND PROGRAMMING

#### PREVIOUS AND ONGOING WORK

This work element encompasses RTC's multimodal planning and programming activities. During the FY 2020 – FY 2021 timeframe, the major activities under this task included development of 2050 RTP and the FFY 2021-2025 RTIP In addition, the Electric and Alternative Fuel Vehicle Infrastructure and Advanced Mobility Plan, which was initiated under the last UPWP will be completed.

#### **TASKS**

# 3.1 Regional Transportation Improvement Program (RTIP)

#### **Task Elements**

Maintain the FFY 2021-2025 RTIP through the duration of the UPWP. Include new transportation projects within the urbanized area funded with RTC, state or federal funds and prepare and complete all necessary amendments and administrative modifications.

# **Expected Products**

- Maintenance of the 2021-2025 RTIP through the duration of the UPWP
- Amendments and modifications to the RTIP as needed
- Initial development of the FFY 2023-2027 RTIP toward the end of the two-year UPWP

Completion Date: Ongoing task

 Funding:
 Federal PL Funds
 \$26,125

 Local
 \$1,375

 TOTAL
 \$27,500

#### 3.4 Regional Transportation Plan (RTP) Activities

#### **Task Elements**

The 2050 RTP was adopted by the RTC Board on March 19, 2020. This task will include maintenance and any necessary amendments to the 2050 RTP until work on the 2055 RTP is initiated. It is anticipated that this will begin toward the end of the two-year program.

Another item under this task includes completion of the Electric and Alternative Fuel Vehicle Infrastructure and Advanced Mobility Plan. This plan will examine the role of technology and shared mobility as transportation options continue to evolve in Washoe County. It will also look at what the region can do to prepare for anticipated changes in mobility.

An update to the RTC Bicycle and Pedestrian Master Plan (BPMP) will also be completed under this task to better prioritize future bicycle, pedestrian, and ADA improvements. In addition, several new multimodal project suggestions, which were received through the 2050 RTP process, will be evaluated for inclusion in the BPMP.

Following up on the anticipated completion of the Statewide Freight Plan developed by NDOT, the RTC will conduct a more detailed study of the freight network, goods movement, and needs assessment for the Reno-Sparks area. This study will examine potential policy and infrastructure improvements to better facilitate the movement of goods throughout the region.

The RTC also anticipates development of an Equity Analysis/Strategy to identify other approaches to engaging and supporting underserved communities with transportation investments.

Other requests received include an evaluation of travel time reliability on the region's surface streets, and continued support and analysis of transportation safety efforts.

#### **Expected Products**

- RTP amendments as needed throughout the year, initiation of 2055 RTP
- Completed Electric and Alternative Fuel Vehicle Infrastructure and Advanced Mobility Plan
- Updated Bicycle and Pedestrian Master Plan
- Initiate Regional Freight Study
- Equity Analysis/Strategy
- Analysis and deliverables on applicable requests

**Completion Date:** Ongoing task

**Funding:** Federal PL Funds \$512,316

Local \$26,964 TOTAL \$539,280

#### 3.5 Congestion Management Process

# **Task Elements**

An updated congestion management process was developed to reflect the guiding principles, goals, and project prioritization framework in the 2050 RTP. This process includes safety, alternative mode capacity, operational improvements, land use compatibility, and community input as factors in the CMP.

The CMP will be used to evaluate new projects that are suggested for incorporation into the RTP. The CMP will be instrumental in any future updates to the RTP as well.

# **Expected Products**

CMP evaluation of proposed projects for the 2045 RTP

**Completion Date:** Ongoing task

**Funding:** Federal PL Funds \$1,866

Local <u>\$98</u> TOTAL \$1,964

#### 3.10 Public Participation Plan Development/Update

#### **Task Elements**

The Public Participation Plan should be periodically reviewed, to reflect changes in federal legislation, current outreach procedures, and changes to the structure of RTC advisory committees. This is on ongoing task to ensure that the public participation plan is in compliance with federal regulations and that the agency is making the best use of all the available methods to engage the public in the planning process.

#### **Expected Products**

Maintenance of the Public Participation Plan

**Completion Date:** Ongoing task

Funding: Federal PL Funds \$14,928

Local <u>\$786</u> TOTAL \$15,714

#### 3.11 Community Involvement Planning

#### **Task Elements**

RTC will continue to build on the community outreach activities including those related to planning studies, visioning, and other regional transportation planning issues. This task includes development of outreach and presentation materials. The RTC is also a participant in the Vision Zero Truckee Meadows Coalition and will continue to help facilitate data sharing and outreach to support the goals of this community partnership.

#### **Expected Products**

Outreach activities

**Completion Date:** Ongoing task

**Funding:** Federal PL Funds \$67,177

Local \$3,536 TOTAL \$70,713

# 3.13 Corridor and Area Planning

#### **Task Elements**

It is anticipated that several corridor studies will be undertaken through this UPWP. These include a Verdi Area Transportation Study, Midtown Circulation Study, Regional Parking Study, and Pyramid Way Corridor Study. The RTC will also provide support to the City of Reno and the Nevada Department of Transportation on a Downtown Virginia Street Study and a McCarran Boulevard Corridor Study, respectively. However, it is expected that funding for the last two studies (including staff time) will be provided through other sources outside of the UPWP.

Corridor/area studies specific to this UPWP are listed below. However, activities for the FY 2022 – FY 2023 UPWP also include any special planning analyses/corridor studies to further overall regional goals and objectives as needed.

- Verdi Area Transportation Study: The study will focus on traffic operations analysis and improvements, safety improvements, pedestrian and bicycle connectivity and microtransit service needs. The Verdi area is expected to see significant residential growth over the next several years, and this study will look at how to best support the transportation needs for planned development.
- Midtown Circulation Study: The RTC recently completed roadway improvements along the Virginia Street corridor in Midtown as part of the Virginia Street Bus RAPID Transit (BRT) Extension project. In addition to much need multimodal and traffic calming improvements, center medians and access management features were constructed, which modified traffic circulation in Midtown. This study will evaluate current circulation patterns and identify any opportunities to optimize traffic flow while maintaining the effectiveness of the new constructed pedestrian safety measures.
- Regional Parking Study: Both the Cities of Reno and Sparks have requested a parking study for their respective downtown areas. As the City of Reno moves toward establishing a more pedestrian-friendly downtown, it is looking to create separation between vehicles and other transportation modes and centralize parking availability. The City of Sparks has successfully achieved high-density development in its downtown area and is exploring parking options to support demand. Additionally, there has been an increase in demand for Park and Ride lots in central Sparks to support an increasing demand for carpools and vanpools for commuters traveling to nearby industrial centers.
- Pyramid Way Corridor Study: A request was made to evaluate traffic operations and potential safety issues on Pyramid Way from I-80 to McCarran Boulevard. This approximately 1.5 mile section of Pyramid Way contains an eclectic mix of residential and retail land uses, both small mom and pop storefronts/restaurants and strip malls, as well as several churches. The corridor is a state-owned roadway and primarily a four-lane facility with major intersections at Victorian Avenue, Prater Way, Oddie Boulevard, and McCarran Boulevard. In addition, this task will include a modeling analysis of the Regional Road network in the downtown Sparks area to better understand potential impacts of the proposed interchange reconfigurations on I-80 as identified in Phase 2 of the Spaghetti Bowl improvements.

#### **Expected Products**

- Verdi Area Transportation Study
- Midtown Circulation Study
- Regional Parking Study
- Pyramid Way Corridor Study
- Various special planning analyses/corridor studies as needed

Completion Date: Ongoing task

**Funding:** Federal PL Funds \$511,131

Local <u>\$26,902</u> TOTAL \$538,033

#### WORK ELEMENT: 4.0 STREET AND HIGHWAY PLANNING

#### PREVIOUS AND ONGOING WORK

The Regional Transportation Plan provides the basis for future development of Washoe County's transportation system. Major activities during the previous UPWP included:

- An updated and upgraded TransCAD regional travel demand model, including streamlined conversion of data for use in air quality modeling.
- Identification of long-term trends for bicycle, pedestrian, and wheelchair mobility through the Data Collection and Analyis program.
- Continued development of RTC's Geographic Information System (GIS) capability, including the production of several online interactive maps and enhanced safety data.
- Continued coordination of traffic counts and forecasts as needed to support RTC, NDOT and local government activities.

#### **TASKS**

### 4.1 Regional Road Impact Fee (RRIF) Activities

#### **Task Elements**

Conduct planning work, as the MPO, associated with the update and maintenance of the RRIF program in cooperation with local government agencies and the RRIF Technical Advisory Committee. Tasks will include planning work necessary to update socioeconomic data, provide travel forecasts, and evaluate capacity improvement solutions.

#### **Expected Products**

- Continued review of the RRIF
- Continuous update of socioeconomic data and provision of travel forecasts

**Completion Date:** Ongoing task

Funding: Federal PL Funds \$7,464

Local <u>\$393</u> TOTAL \$7,857

# 4.2 Geographic Information System (GIS) Management

#### **Task Elements**

Maintain and continue to refine network files, traffic analysis zone structures and other GIS files necessary to support a variety of RTC planning needs. Frequent analysis of socioeconomic, transportation, safety, land use, and environmental data as part of the planning process, including analysis of 2020 Census data. Analyses will be conducted for planning-level alternatives developed for long-range and/or corridor studies. Products such as interactive mapping will be developed to provide transparent and up-to-date project information to the public.

## **Expected Products**

GIS products adequate to support ongoing RTC planning activities

Completion Date: Ongoing task

Funding: Federal PL Funds \$111,962

Local <u>\$5,893</u> TOTAL \$117,855

### 4.3 <u>Traffic Forecasting</u>

#### **Task Elements**

Provide traffic forecasts as requested at system and corridor level for the RTIP, RTP and other planning projects to further overall regional goals and objectives. Respond to travel forecast requests from NDOT, regional and local governments, and the public that are at a planning level analysis and not otherwise identified as part of regional or corridor analyses.

#### **Expected Products:**

Traffic forecasts and projections as requested

**Completion Date:** Ongoing task

**Funding:** Federal PL Funds \$11,197

Local <u>\$589</u> TOTAL \$11,786

# 4.18 RTC Traffic Model Upgrade/Conversion to TransCAD

#### **Task Elements**

The travel demand model will continue to be refined based on data collection and calibration efforts as well as necessary software requirements. The RTC integrates land use data for the region into the travel demand forecasting model that assists in the identification of current and future transportation needs through the shared work program with the Truckee Meadows Regional Planning Agency (TMRPA). RTC will collaborate with TMRPA in the development of the 2022 Consensus Forecasts, which will inform the travel demand model.

The travel demand model will be expanded with support from NDOT and the City of Fernley in an effort to build a more robust and comprehensive Northern Nevada model. This project is in response to recent growth in employment opportunities and commuter travel between the Reno-Sparks area, Tahoe Reno Industrial (TRI) Center, and the City of Fernley. It is anticipated that travel data will be purchased to support this effort.

#### **Expected Products**

- Continued refinement of the travel demand model
- Integration of the disaggregated 2022 Consensus Forecasts into the travel demand model
- Geographic expansion of the model

**Completion Date:** Ongoing task

Funding: Federal PL Funds \$150,642

Local <u>\$7,929</u> TOTAL \$158,570

#### 4.27 <u>Truckee Meadows Regional Planning Agency (TMRPA) Shared Services</u>

#### **Task Elements**

This task will provide shared staff resources and expertise between the RTC and TMRPA for MPO activities. The core areas of this shared program delivery under the UPWP include GIS analysis, data collection, online data access, and development of the 2022 Consensus Forecasts. TMRPA will also work with RTC to forecast the traffic impacts of various development scenarios.

#### **Expected Products**

Expected products will include shared GIS data resources, collaborative public outreach materials and events, and analytical staff reports on various planning topics.

**Completion Date:** Ongoing task

**Funding:** Federal PL Funds \$125,197

Local <u>\$6,589</u> TOTAL \$131,786

# 4.31 <u>Data Collection and Analysis Program</u>

#### **Task Elements**

This task includes data collection related to safety, regional bicycle and pedestrian counts, traffic calming treatments, and other transportation infrastructure data as needed. Analysis of mode share by auto, transit, bicycle, and pedestrian will be conducted. This program will support monitoring of transportation performance measures included in the 2050 RTP. In addition, this data will be used to assist with prioritization of future multimodal infrastructure investment.

# **Expected Products**

Creation and maintenance of GIS data, updated multimodal count database, and analysis for the performance measures identified in the annual report. Prioritization of multimodal transportation improvements.

**Completion Date:** Ongoing task

Funding: Federal PL Funds \$204,928

Local <u>\$10,786</u> TOTAL \$215,714

### WORK ELEMENT: 5.0 PUBLIC TRANSPORTATION PLANNING

#### PREVIOUS AND ONGOING WORK

The Affordable Housing Study was completed to determine potential locations for the development of affordable housing near higher-ridership transit routes to better facilitate a jobshousing balance in the region. The Coordinated Human Services Transportation Plan (CTP) was also completed. This plan is required by the FTA for activities to be funded by the Section 5310 program, and addresses means to maximize the use of existing resources and increase the efficiency of transportation service delivery among various agencies and organizations through the private, non-profit, and public sectors. Continued analysis of transit route performance will also occur throughout this UPWP cycle to maximize system efficiency.

# **TASKS**

# 5.2 Transit Planning

#### **Task Elements**

This task will include transit planning related to bus route analysis and modifications, bus stop facilities and amenities, bus maintenance facilities, transit fleet monitoring and implementation of new technology, and monitoring of transit performance measures.

The RTC will continue to monitor and update the Transit Asset Management (TAM) Plan as needs and priorities change. TAM plans are required of all agencies that own, operate, or manage capital assets used to provide public transportation and receive federal financial assistance.

Additionally, the RTC will develop the Transit Optimization Plan Strategies (TOPS), formerly known as the RTC Short Range Transit Plan (SRTP). The TOPS will include a thorough review and evaluation of the effectiveness and efficiency of current transit routes, schedules and service standards; and a five-year capital and operating plan, including any new service. Proposed changes to the fixed-route system will address potential impacts on the ADA paratransit system and compliance with Title VI, Limited English Proficiency (LEP) and Environmental Justice (EJ) requirements and regulations.

The RTC received a Federal Transit Administration (FTA) Transit-Oriented Development (TOD) Planning grant award to fund a planning study which will identify potential station locations along South Virginia Street and support the proposed extension of the Virginia Line Bus RAPID Transit (BRT) route. The City of Reno will be an active partner in this study and consultant services are anticipated.

#### **Expected Products**

- Monthly transit system operations reports and sections of the annual report related to performance measures
- Development of the TOPS

**Completion Date:** Ongoing task

**Funding:** Federal PL Funds \$379,660

FTA TOD Planning \$300,000 Local \$94,982 TOTAL \$774,642

#### WORK ELEMENT: 6.0 AIR QUALITY PLANNING

#### PREVIOUS AND ONGOING WORK

During the previous UPWP, the RTC continued participation in the air quality interagency consultation group comprised of various agencies including Washoe County Health District — Air Quality Management Division (WCHD-AQMD) and the Nevada Department of Environmental

Protection (NDEP) in order to meet the Transportation Conformity requirements for the 2050 RTP. Staff will continue to participate in planning activities that seek to improve Washoe County's attainment/maintenance status for PM<sub>10</sub> and CO criteria air pollutants.

# **TASKS**

#### 6.1 Air Quality Modeling/Analysis

#### **Task Elements**

Perform transportation monitoring and analysis required as part of the Washoe County Transportation Conformity Plan. This task will include, as needed, analysis of alternate base years and mobile source measures proposed for inclusion in local air quality plans.

Continue to attend meetings and monitor activities of the WCHD-AQMD and other organizations dealing with air quality issues. The interagency consultation group meets on a quarterly basis.

#### **Expected Products**

- Continued participation in the conformity process established in the Washoe County Transportation Conformity Plan
- Air quality analysis as needed under the current RTP.

Completion Date: Ongoing task

 Funding:
 Federal PL Funds
 \$11,197

 Local
 \$589

 TOTAL
 \$11,786

#### 6.2 CMAQ Evaluation Planning

#### **Task Elements**

Continue to conduct planning-level emission reduction calculations and cost benefit analyses for CMAQ projects. Prepare the annual CMAQ report which is used as the basis for reporting performance targets under the MAP-21 Performance Management program.

#### **Expected Products**

- CMAQ planning-level emission reduction calculations and cost benefit analysis
- Annual CMAQ report and updated performance targets

**Completion Date:** Ongoing task

 Funding:
 Federal PL Funds
 \$7,464

 Local
 \$393

 TOTAL
 \$7,857

# 6.3 RTIP/RTP Conformity Analyses

#### **Task Elements**

Prepare updated conformity analyses of RTC plans and programs as required to comply with Clean Air Act mandates and guidelines. Conformity analyses will encompass the non-attainment or maintenance area appropriate for each criteria air pollutant.

# **Expected Products**

Continue to perform conformity analyses, as needed, for the RTP and the RTIP

Completion Date: Ongoing task

Funding: Federal PL Funds \$1,866

Local <u>\$98</u> TOTAL \$1,964

# TABLE 6 FY 2022-2023 UNIFIED PLANNING WORK PROGRAM

Totals may vary slightly due to rounding

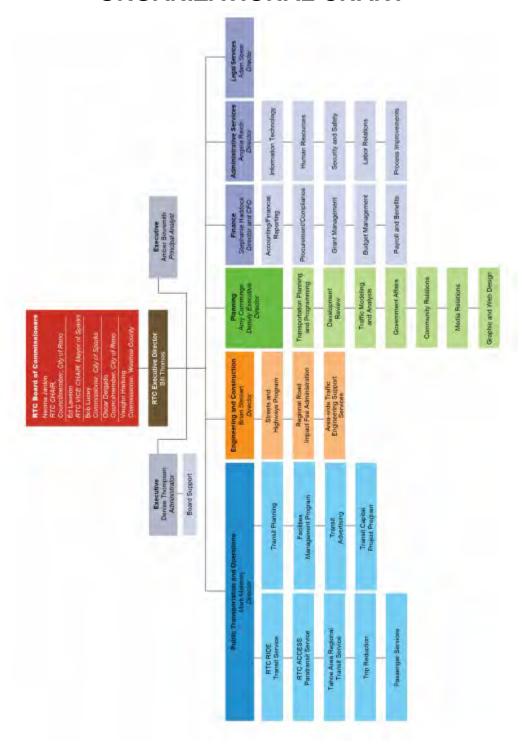
		,			COSTS		FUNDING SOURCES					
WORK		STAFF	%				Federal	Local		RTC Sales	TOTAL	
ELEMENT	TASK	HOURS	HOURS	STAFF	CONSULT	TOTAL	PL FUNDS	MATCH*	TAX	TAX	LOCAL	TOTAL
1.0	ADMINISTRATION	i										
	1.1 Adminstration/Continuing Planning	8.000	35.6%	\$628.560	\$0	\$628.560	\$597.132	\$31,428	\$31.428	\$0	\$31,428	\$628.560
	1.2 Unified Planning Work Program	150	0.7%	\$11,786	\$0	\$11,786	\$11,197	\$589	\$589	\$0	\$589	\$11,786
	1.3 MPO Certification	25	0.1%	\$1,964	\$0	\$1,964	\$1,866	\$98	\$98	\$0	\$98	\$1,964
	1.4 Statewide Planning	500	2.2%	\$39,285	\$0	\$39,285	\$37,321	\$1,964	\$1,964	\$0	\$1,964	\$39,28
	1.5 Training	1,500	6.7%	\$117,855	\$0	\$117,855	\$111,962	\$5,893	\$5,893	\$0	\$5,893	\$117,855
	Subtotal:	10,175	45.3%	\$799,450	\$0	\$799,450	\$759,478	\$39,972	\$39,972	\$0	\$39,972	\$799,450
2.0	DEVELOPMENT REVIEW											
	2.1 RTC Development Review & Meeting Attendance	400	1.8%	\$31,428	\$0	\$31,428	\$29,857	\$1,571	\$1,571	\$0	\$1,571	\$31,428
	Subtotal:	400	1.8%	\$31,428	\$0	\$31,428	\$29,857	\$1,571	\$1,571	\$0	\$1,571	\$31,428
3.0	MULTI-MODAL PLANNING & PROGRAMMING											
5.0	3.1 Regional Transportation Improvement Program	350	1.6%	\$27,500	\$0	\$27,500	\$26,125	\$1,375	\$1,375	\$0	\$1,375	\$27,500
	3.4 Regional Transportation Plan (RTP) Activities	4,000	17.8%	\$314,280	\$225,000	\$539,280	\$512,316	\$26,964	\$26,964	\$0	\$26,964	\$539,280
	3.5 Congestion Management Process	25	0.1%	\$1,964	\$0	\$1,964	\$1,866	\$98	\$98	\$0	\$98	\$1,964
	3.10 Public Participation Plan Development	200	0.9%	\$15,714	\$0	\$15,714	\$14,928	\$786	\$786	\$0	\$786	\$15,714
	3.11 Community Involvement Planning	900	4.0%	\$70,713	\$0	\$70,713	\$67,177	\$3,536	\$3,536	\$0	\$3,536	\$70,713
	3.13 Corridor and Area Planning	2,075	9.2%	\$163,033	\$375,000	\$538,033	\$511,131	\$26,902	\$26,902	\$0	\$26,902	\$538,033
	Subtotal:	7,550	33.6%	\$593,204	\$600,000	\$1,193,204	\$1,133,544	\$59,661	\$59,661	\$0	\$59,661	\$1,193,205
4.0	STREET AND HIGHWAY PLANNING											
	4.1 Regional Road Impact Fee Activities	100	0.4%	\$7,857	\$0	\$7.857	\$7.464	\$393	\$393	\$0	\$393	\$7.857
	4.2 Geographic Information System (GIS) Mgt.	1,500	6.7%	\$117,855	\$0	\$117.855	\$111.962	\$5,893	\$5,893	\$0	\$5,893	\$117,855
	4.3 Traffic Forecasting	150	0.7%	\$11,786	\$0	\$11,786	\$11,197	\$589	\$589	\$0	\$589	\$11,786
	4.18 RTC Traffic Model Upgrade/Conversion to TransCAD	1,000	4.5%	\$78,570	\$80,000	\$158,570	\$150,642	\$7,929	\$7,929	\$0	\$7,929	\$158,571
	4.27 TMRPA Shared Services	150	0.7%	\$11,786	\$120,000	\$131,786	\$125,197	\$6,589	\$6,589	\$0	\$6,589	\$131,786
	4.31 Data Collection and Analysis Program	200	0.9%	\$15,714	\$200,000	\$215,714	\$204,928	\$10,786	\$10,786	\$0	\$10,786	\$215,714
	Subtotal:	3,100	13.8%	\$243,568	\$400,000	\$643,568	\$611,390	\$32,179	\$32,179	\$0	\$32,179	\$643,569
5.0	PUBLIC TRANSPORTATION											
	5.2 Transit Planning^	950	4.2%	\$74,642	\$700,000	\$774,642	\$679,660	\$94,982	\$0	\$94,982	\$94,982	\$774,643
	Subtotal:	950	4.2%	\$74,642	\$700,000	\$774,642	\$679,660	\$94,982	\$0	\$94,982	\$94,982	\$774,643
6.0	AIR QUALITY PLANNING											
	6.1 Air Quality Modeling/Analysis	150	0.7%	\$11,786	\$0	\$11,786	\$11,197	\$589	\$589	\$0	\$589	\$11,786
	6.2 CMAQ Planning	100	0.4%	\$7,857	\$0	\$7,857	\$7,464	\$393	\$393	\$0	\$393	\$7,857
	6.3 RTIP/RTP Conformity Analysis	25	0.1%	\$1,964	\$0	\$1,964	\$1,866	\$98	\$98	\$0	\$98	\$1,964
	Subtotal:	275	1.2%	\$21,607	\$0	\$21,607	\$20,527	\$1,080		\$0	\$1,080	\$21,607
FY 2022-2	2023 Anticipated Funding \$3,100,000			·	•		·					
	Totals	22,450	100%	\$1,763,899	\$1,700,000	¢2 462 000	\$3,234,454	\$220 AAE	\$124 AS2	\$94,982	\$229,445	\$3,463,900
	Iotals	22,430	100%	\$1,703,899	φ1,100,000	<b>#3,403,699</b>	და,∠ა4,454	<b>ΨΖΖ</b> Ψ,440	φ134,403	<b>\$94,982</b>	<b>\$</b> 229,440	<b>φა,40ა,90</b> 0

<sup>\*</sup>Local match is either RTC fuel tax or sales tax funds

<sup>^</sup>Transit Planning task utilizes both PL funds and FTA TOD Planning funds

# **APPENDIX A**

# REGIONAL TRANSPORTATION COMMISSION ORGANIZATIONAL CHART



# APPENDIX B NDOT/RTC Roles and Responsibilities

The purpose of this statement is to outline the roles and responsibilities of the Nevada Department of Transportation (NDOT) and the Regional Transportation Commission of Washoe County (RTCWC), as required by 23 CFR Sec.450.314 and is incorporated in the Unified Planning Work Program per 23 CFR 450.314.

# I. General Roles & Responsibilities

RTCWC will perform the transportation planning process for Washoe County and develop procedures to coordinate transportation planning activities in accordance with applicable federal regulations and guidance.

The transportation process will, at a minimum, consist of:

- A. Development of an annual Unified Planning Work Program (UPWP) that lists and describes all transportation planning studies and tasks to be completed during the year.
- B. Development and update of a long range, multi-modal metropolitan transportation plan, known as the Regional Transportation Plan (RTP).
- C. Development and maintenance of a short-range transportation improvement program (TIP).
- D. Financial planning to ensure plans and programs are fiscally constrained within anticipated funding levels.
- E. Development of planning studies and system performance monitoring, including highway corridor and intersection studies, transit system studies, application of advanced computer techniques, and transportation data collection and archiving.
- F. Public outreach to the community throughout the transportation planning process, including the electronic dissemination of reports and supporting information on the RTCWC's website, and consideration of public comments. Public outreach activities should take into account the needs of persons with limited proficiency in English.
- G. Ensuring low income or minority populations, including the elderly and persons with disabilities are not significantly or disproportionately impacted.
- H. Development and implementation of a Congestion Management Process as appropriate.
- Ensuring plans, projects and programs are consistent with and conform to air quality goals of reducing transportation-related emissions and attaining National Ambient Air Quality Standards.

#### II. The Regional Transportation Plan (RTP)

The RTP will be prepared and compiled through a cooperative process between federal agencies, the Nevada Department of Transportation, RTCWC (including RTCWC in its capacity as the provider of public transportation), the Washoe County

Health District-Air Quality Management Division (WCHD-AQMD), and the local city and county governments in the region.

#### Responsibilities of the Regional Transportation Commission

- A. The RTCWC will be responsible for preparing and developing the Regional Transportation Plan (20-30 year). The RTP will be converted into a format that will allow it to be downloaded from the internet.
- B. The RTCWC may develop an executive summary report for the region that includes the key issues facing the area and identifies priority programs and projects.
- C. The RTCWC will provide opportunities for the public and other interested parties to provide input during the development of the Regional Transportation Plan, in accordance with the Public Participation Plan. The draft of each update to the RTP will be made available for public and agency review and comment. Prior to taking formal action on the Plan or Plan update, the RTCWC Board will be informed of the extent and nature of comments received and the response to such comments.
- D. The RTCWC will, in cooperation with NDOT, develop estimates of future inflation to be used to convert project costs and revenues to a "year of expenditure" basis.
- E. The RTCWC will coordinate with the WCHD-AQMD to assess air quality impacts and conduct the regional emissions assessment of the RTP.
- F. The RTCWC, acting as the transit agency for Washoe County, will ensure the RTP includes information on local bus capital projects that are consistent with the transit capital program. The RTP will also identify future bus needs and services, including new routes, service expansion, vehicle needs, and operating financial needs.
- G. The RTCWC will prepare an estimate of local and regional revenues available for debt service, street and highway routine maintenance and operations, system preservation and highway modernization, facilities, transit and other infrastructure and overhead cost and reserves to be expended on transportation projects in Washoe County over the 20-30 year time frame of the plan.

# Responsibilities of the Nevada Department of Transportation

- A. The Nevada Department of Transportation (NDOT) will provide the following information and data in support of developing the RTP:
  - An estimate of federal funds expected to be available over the 20-30 year time frame of the plan for highway and transit programs. This estimate of funds will be provided at a time mutually agreed upon by the RTCWC and NDOT so that the fiscal limits of the RTP can be determined before project prioritization begins.
  - 2. A list of projects in Washoe County, developed in cooperation with the RTCWC, to be undertaken by NDOT over the 20-30 year time frame of the plan using Federal program funds reserved in the State for use anywhere in the State. The state's regionally significant project list will be provided at a time mutually agreed upon by the RTCWC and NDOT so that air quality conformity analysis can be performed at the appropriate time in the course of the RTP's development.

- 3. A list of projects in Washoe County for which funds have been earmarked or otherwise designated in federal transportation legislation.
- 4. An estimate of state funds expected to be expended on transportation projects in Washoe County over the 20-30 year time frame of the plan. In the interests of public information, and to assist the RTCWC in demonstrating the fiscal feasibility of the Plan, NDOT will also provide information as to how these expenditures relate to the state transportation revenues available after allowing for the cost of maintenance, operations, debt service, administration and other calls on these fund sources.
- 5. Traffic count data and other performance indicators for state roads in the Region.
- B. For those federal program funds intended to be distributed between various entities or regions within the State, NDOT will either provide the basis for the allocation between areas as defined by Law, or will work cooperatively with the RTCWC and other jurisdictions to establish mutually agreed formulae for the allocation between areas of such funds for forecasting and financial planning purposes.

NDOT will provide information on projects to be undertaken in Washoe County using transit or other federal program funds allocated to non-urbanized areas of the State, and will consult with the RTCWC on the basis for selecting such projects.

# **III. Transportation Improvement Program (TIP)**

The TIP will be prepared and compiled through a cooperative process between federal agencies, NDOT, the RTCWC (including the RTCWC in its capacity as the provider of public transportation), and the local city and county governments in the region.

#### Responsibilities of the Regional Transportation Commission

- A. The RTCWC will be responsible for preparing and developing the Transportation Improvement Program (5 year) for the region. The TIP will be converted into a format that will allow it to be downloaded from the internet. The RTCWC will maintain the TIP by tracking changes to projects (schedule, scope and cost) made through the amendments and administrative action process. The TIP will include an estimate of anticipated local funds to be expended on all projects identified in the TIP.
- B. The RTCWC, in consultation with NDOT and local city and county governments, shall develop the list of locally-sponsored transportation projects to be included in the TIP.
  - In the case of the Congestion Mitigation and Air Quality Program (or successor program of similar intent), the RTCWC shall follow the Transportation Conformity Plan process and consult with the WCHD-AQMD and other agencies as appropriate in the development of the list of projects to be included in the TIP.
  - 2. In the case of the Transportation Alternatives Program (or successor program of similar intent), the RTCWC shall also consult with all eligible project sponsors in the development of the list of projects to be included in the TIP.

- C. The RTCWC, as the provider of public transportation services, shall develop the list of transit projects to be included in the TIP.
  - In the urbanized area, the RTCWC shall consult with not-for-profit agencies and other providers of specialized transportation and human services, in accordance with the Coordinated Public Transit-Human Services Plan.
  - For non-urbanized area transit programs, the RTCWC shall consult with NDOT and other providers of transportation services to the non-urbanized parts of the region.
- D. The RTCWC will develop an estimate of anticipated local funds to be expended on transit projects identified in the TIP. In the interests of public information and to assist in demonstrating the fiscal feasibility of the TIP, the RTCWC will also document how these expenditures relate to the local revenues available for transit after allowing for the cost of maintenance, operations, debt service, administration and other calls on these fund sources.
- E. The RTCWC will provide information on proposed TIP amendments and administrative modifications relating to projects sponsored by the RTCWC or local entities. Amendments and administrative modifications will include a project description that provides sufficient detail to explain the proposed changes to the RTCWC board, as well as a justification for the change.

#### Responsibilities of the Nevada Department of Transportation

- A. NDOT will prepare an initial list of NDOT-sponsored projects to be included in each new TIP. This list will be based on the current TIP and an assessment of which projects will be obligated for funding before the end of the current federal fiscal year.
- B. NDOT will provide information on proposed TIP amendments and modifications relating to projects sponsored by NDOT. Amendments will include a project description that provides sufficient detail to allow the proposed changes to be explained to the RTCWC Board, as well as a justification for the change.
- C. NDOT will provide a list of projects obligated during the federal fiscal year at the end of each program year. The annual list of obligated projects should include both highway and transit projects and should identify the fund source and the amount obligated in accordance with 23 CFR 450.332.
- D. NDOT will provide, for each federal fund source, the revenues available (including both unobligated funds carried forward from prior years and the amount appropriated during the fiscal year), the total amount obligated, any other deductions and the balance of funds remaining at the end of the fiscal year.

# IV. Statewide Transportation Improvement Program (STIP)

- A. NDOT will develop a four-year STIP including projects in the areas of each MPO and in the rural regions of the State and will be responsible for securing the approval of the STIP by the United States Department of Transportation.
- B. The TIP, as developed by the RTCWC, will be incorporated into the STIP without change, directly or by reference.

C. NDOT, in consultation with the RTCWC and the other MPOs in the State, shall develop procedures for the modification and amendment of the STIP. NDOT shall be responsible for notifying the RTCWC of the effective date of modifications and the approval date of amendments.

## V. Public Transportation Planning

- A. The RTCWC, acting as the transit agency for the Region, will ensure the RTP and TIP include all transit projects (both capital and operating) that are funded by Federal program funds.
- B. The RTCWC will consult with NDOT to ensure the RTP and TIP include information on transit projects in the non-urbanized parts of the region that are funded by Federal program funds.
- C. The RTCWC will include in the RTP information on the transit system and will outline the objectives of the RTCWC in respect of the various types and modes of public transportation in the region.

# VI. Air Quality Planning

- A. The preparation of a new or revised RTP will be coordinated with the State Air Quality Implementation Plan (SIP) and the transportation demand and system management (TDM/TSM) measures.
- B. In accordance with the Clean Air Act and the U.S. EPA's conformity regulations (40 C.F.R. Part 51), the RTCWC, acting as the MPO, makes an air quality conformity determination on any new or revised RTP prior to Plan approval. Any such new or revised RTP is also provided to the FHWA and the FTA with a request that these federal agencies approve the conformity finding.

#### VII. Public Participation Program

- A. The RTCWC will develop and maintain a Public Participation Plan that sets out the procedures to include the public and interested parties in the development of the Regional Transportation Plan and Transportation Improvement Program and other parts of the planning process, to seek public input and comment, and to inform decision makers of the extent and nature of comments received and the response to such comments
- B. The RTCWC will review, evaluate, and update its public participation plan at least every four years.
- C. The RTCWC will maintain a list of interested organizations and individuals who will receive notices of MPO plans, programs and projects.
- D. The RTCWC will work to ensure that low-income, minority and transit dependent areas are afforded an adequate opportunity to participate in the transportation planning process, receive a fair share of the transportation improvement benefits and do not endure a disproportionate transportation burden.
- E. The RTCWC will maintain its website to provide clear and concise information on the transportation planning process and provide an opportunity to download reports and documents. This will include developing project and study summaries,

converting reports into a pdf or text format, and maintaining a list of available documents. The website will provide links to other associated organizations and agencies.

# VIII. Fiscal/Financial Planning

- A. NDOT will provide the RTCWC with up-to-date fiscal and financial information and projections on the statewide and regional transportation improvement programs to the extent practicable.
- B. This will include anticipated federal funding resources by federal aid category by year for the four years covered by the TIP and by five-yearly intervals for the 20-30 year time frame of the RTP for the inclusion in the TIP and RTP financial charts.
- C. For each federal program for which funds are sub-allocated to Washoe County, NDOT will provide an annual statement identifying:
  - 1. Unobligated funds brought forward from the previous year;
  - 2. Funds appropriated during the year;
  - 3. Fund obligated during the year and any adjustments thereto;
  - 4. Unobligated funds balance.
- D. For each federal transit program for which funds are allocated to Washoe County, the RTCWC will provide an annual statement identifying:
  - 1. Unobligated funds brought forward from the previous year;
  - 2. Funds appropriated during the year;
  - 3. Funds obligated during the year and any adjustments thereto;
  - 4. Unobligated funds balance.
- E. NDOT will notify the RTCWC when the anticipated cost of a project, regardless of funding category, has changed in accordance with the agreed upon TIP/STIP amendment and administrative action process.

# IX. Performance Measurement and the Management of Congestion

- A. In developing the RTP and TIP, RTCWC will incorporate the national goals, measures and standards of system performance established under the provisions of MAP-21.
- B. RTCWC will coordinate with NDOT in the establishment of multimodal transportation system performance targets for the region. These will reflect national goals and standards as applied to the circumstances and priorities of the region.
- C. RTCWC will cooperate with NDOT to collect data and conduct system performance monitoring. RTCWC will report on progress towards meeting system performance targets as part of the biennial development of major TIP updates and will assist NDOT as needed in meeting state reporting requirements under MAP-21.
- D. To address the national goal of reducing congestion, RTCWC will gather and analyze data to define the extent and duration of congestion in the region, to identify the causes of congestion and to identify congestion management strategies.
- E. As part of the Congestion Management Process (CMP), the RTCWC will develop implementation activities in coordination with NDOT to address congestion and other performance issues, and will include priority projects in the RTP and TIP.

#### Amendments to this Document

This Statement on Transportation Planning may be amended from time to time to coincide with annual UPWP approval as jointly deemed necessary or in the best interests of all parties, including Federal transportation agencies.

### **Effective Date**

This Statement will be effective after it has been endorsed by the RTCWC as part of the UPWP, and as soon as that UPWP has been approved by NDOT and the relevant Federal transportation agencies.

### **No Limitation on Statutory Authority**

Nothing contained in this Statement is intended to or shall limit the authority or responsibilities assigned to signatory organizations under Nevada law, federal law, local ordinance, or interlocal agreement.

MEETING DATE: February 18, 2022 AGENDA ITEM 4.9

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

### **RECOMMENDED ACTION**

Approve a contract with Wood Rodgers, Inc., to provide preliminary design and optional services, including environmental analysis, final design and engineering during construction for the 4<sup>th</sup> Street Station Expansion Project in an amount not-to-exceed \$693,880.

### **BACKGROUND AND DISCUSSION**

This Professional Services Agreement (PSA) with Wood Rodgers, Inc., is for preliminary design of the 4<sup>th</sup> Street Station Expansion Project in the amount of \$84,090 and related optional services including environmental analysis, final design, and engineering during construction in the amount of \$609,790. The project includes the expansion of RTC's 4<sup>th</sup> Street Station transfer terminal in downtown Reno. The expansion will progress to the south and provide additional bus aisle with electric bus charging infrastructure, additional employee parking, and associated appurtenances. The aesthetics of the expansion will match the existing facility.

Wood Rodgers, Inc., was the highest ranked firm following a request for proposals review process to perform engineering, environmental analysis, construction management and quality assurance. Negotiation of Wood Rodgers, Inc.'s scope, schedule and budget indicated the amount for design services is within the appropriated budget.

### FISCAL IMPACT

Appropriations are included in the FY 2022 Capital Budget.

### PREVIOUS BOARD ACTION

June 18, 2021 Authorized a request for proposals (RFP) procurement process for the

selection of Preliminary Design, Environmental Analysis, Final Design and Construction Management Services for the 4th Street Station

Expansion project

### ATTACHMENT(S)

A. Professional Services Agreement

### AGREEMENT FOR PROFESSIONAL SERVICES

This agreement (this "Agreement") is dated and effective as of February 21, 2022, by and between the Regional Transportation Commission of Washoe County ("RTC") and Wood Rodgers, Inc. ("CONSULTANT").

#### WITNESSETH:

WHEREAS, RTC issued a Request for Proposals for interested persons and firms to perform Engineering and Construction services in connection with the 4th Street Station Expansion Project; and

WHEREAS, CONSULTANT submitted a proposal (the "Proposal") and was selected to perform the work.

NOW, THEREFORE, RTC and CONSULTANT, in consideration of the mutual covenants and other consideration set forth herein, do hereby agree as follows:

### ARTICLE 1 – TERM AND ENGAGEMENT

- 1.1. The term of this Agreement shall be from the date first written above through December 2025, unless terminated at an earlier date, or extended to a later date, pursuant to the provisions herein.
- 1.2. CONSULTANT will perform the work using the project team identified in the Proposal. Any changes to the project team must be approved by RTC's Project Manager.
- 1.3. CONSULTANT will promptly, diligently and faithfully execute the work to completion in accordance with applicable professional standards subject to any delays due to strikes, acts of God, act of any government, civil disturbances, or any other cause beyond the reasonable control of CONSULTANT.
- 1.4. CONSULTANT shall not proceed with work until both parties have executed this Agreement and a purchase order has been issued to CONSULTANT. If CONSULTANT violates that prohibition, CONSULTANT forfeits any and all right to reimbursement and payment for that work and waives any and all claims against RTC, its employees, agents, and affiliates, including but not limited to monetary damages, and any other remedy available at law or in equity arising under the terms of this Agreement. Furthermore, prior to execution and issuance of a purchase order, CONSULTANT shall not rely on the terms of this Agreement in any way, including but not limited to any written or oral representations, assurances or warranties made by RTC or any of its agents, employees or affiliates, or on any dates of performance, deadlines, indemnities, or any term contained in this Agreement or otherwise.

### ARTICLE 2 - SERVICES OF CONSULTANT

### 2.1. SCOPE OF SERVICES

The scope of services consist of the tasks set forth in Exhibit A.

### 2.2. SCHEDULE OF SERVICES

Tasks and subtasks shall be completed in accordance with the schedule in Exhibit A. Any change(s) to the schedule must be approved by RTC's Project Manager.

### 2.3. <u>CONTINGENCY</u>

Contingency line items identified in the scope of services are for miscellaneous increases within the scope of work. Prior to the use of any contingency amounts, CONSULTANT shall provide a letter to RTC's Project Manager detailing the need, scope, and not-to-exceed budget for the proposed work. Work to be paid for out of contingency shall proceed only with the RTC Project Manager's written approval.

### 2.4. OPTIONS

RTC shall have the right to exercise its option(s) for all or any part of the optional tasks or subtasks identified in Exhibit A. CONSULTANT will prepare and submit a detailed scope of services reflecting the specific optional services requested, a schedule for such services, and a cost proposal. RTC will review and approve the scope of services and RTC and CONSULTANT will discuss and agree upon compensation and a schedule. CONSULTANT shall undertake no work on any optional task without written notice to proceed with the performance of said task. RTC, at its sole option and discretion, may select another individual or firm to perform the optional tasks or subtasks identified in Exhibit A.

### 2.5. ADDITIONAL SERVICES

CONSULTANT will provide additional services when agreed to in writing by RTC and CONSULTANT.

### 2.6. PERFORMANCE REQUIREMENTS

Any and all design and engineering work furnished by CONSULTANT shall be performed by or under the supervision of persons licensed to practice architecture, engineering, or surveying (as applicable) in the State of Nevada, by personnel who are careful, skilled, experienced and competent in their respective trades or professions, who are professionally qualified to perform the work, and who shall assume professional responsibility for the accuracy and completeness of documents prepared or checked by them, in accordance with appropriate prevailing professional standards. Notwithstanding the provision of any drawings, technical specifications, or other data by RTC, CONSULTANT shall have the

responsibility of supplying all items and details required for the deliverables required hereunder.

Any sampling and materials testing shall be performed by an approved testing laboratory accredited by AASHTO or other ASTM recognized accrediting organization in the applicable test methods. If any geotechnical or materials testing is performed by a subconsultant, that laboratory shall maintain the required certification. Proof of certification shall be provided to RTC with this Agreement. If certification expires or is removed during the term of this Agreement, CONSULTANT shall notify RTC immediately, and propose a remedy. If an acceptable remedy cannot be agreed upon by both parties, RTC may terminate this Agreement for default.

CONSULTANT shall provide only Nevada Alliance for Quality Transportation Construction (NAQTC) qualified personnel to perform field and laboratory sampling and testing during the term of this Agreement. All test reports shall be signed by a licensed NAQTC tester and notated with his/her license number.

### 2.7. ERRORS AND OMISSIONS

CONSULTANT shall, without additional compensation, correct or revise any deficiencies, errors, or omissions caused by CONSULTANT in its analysis, reports, and services. CONSULTANT also agrees that if any error or omission is found, CONSULTANT will expeditiously make the necessary correction, at no expense to RTC. If an error or omission was directly caused by RTC, and not by CONSULTANT and RTC requires that such error or omission be corrected, CONSULTANT may be compensated for such additional work.

### **ARTICLE 3 - COMPENSATION**

- 3.1. CONSULTANT shall be paid for hours worked at the hourly rates and rates for testing in Exhibit B. RTC shall not be responsible for any other costs or expenses except as provided in Exhibit B.
- 3.2. The maximum amount payable to CONSULTANT to complete each task is equal to the not-to-exceed amounts identified in Exhibit B. CONSULTANT can request in writing that RTC's Project Manager reallocate not-to-exceed amounts between tasks. A request to reallocate not-to-exceed amounts must be accompanied with a revised fee schedule, and must be approved in writing by RTC's Project Manager prior to performance of the work. In no case shall CONSULTANT be compensated in excess of the following not-to exceed amounts:

Task 1 - Preliminary Investigation and Preliminary Design	\$84,090
Optional Task 2 - NEPA Environmental Processing	\$24,974
Optional Task 3 - Final Design	\$266,918
Optional Task 4 - Design Contingency	\$30,000
Optional Task 5 - Construction Services	\$277,898
Optional Task 6 - EDC Contingency	\$10,000
Total Not-to-Exceed Amount	\$693.880

- 3.3. For any work authorized under Section 2.4, "Additional Services," RTC and CONSULTANT will negotiate not-to-exceed amounts based on the standard hourly rates and rates for testing in Exhibit B. Any work authorized under Section 2.4, "Additional Services," when performed by persons who are not employees or individuals employed by affiliates of CONSULTANT, will be billed at a mutually agreed upon rate for such services, but not more than 105% of the amounts billed to CONSULTANT for such services.
- 3.4. CONSULTANT shall receive compensation for preparing for and/or appearing in any litigation at the request of RTC, except: (1) if such litigation costs are incurred by CONSULTANT in defending its work or services or those of any of its sub-consultants; or (2) as may be required by CONSULTANT's indemnification obligations. Compensation for litigation services requested by RTC shall be paid at a mutually agreed upon rate and/or at a reasonable rate for such services.

### ARTICLE 4 - INVOICING

- 4.1. CONSULTANT shall submit monthly invoices in the format specified by RTC. Invoices must be submitted to <a href="mailto:accountspayable@rtcwashoe.com">accountspayable@rtcwashoe.com</a>. RTC's payment terms are 30 days after the receipt of the invoice. Simple interest will be paid at the rate of half a percent (0.5%) per month on all invoices approved by RTC that are not paid within thirty (30) days of receipt of the invoice.
- 4.2. RTC shall notify CONSULTANT of any disagreement with any submitted invoice for consulting services within thirty (30) days of receipt of an invoice. Any amounts not in dispute shall be promptly paid by RTC.
- 4.3. CONSULTANT shall maintain complete records supporting every request for payment that may become due. Upon request, CONSULTANT shall produce all or a portion of its records and RTC shall have the right to inspect and copy such records.

### ARTICLE 5 - ACCESS TO INFORMATION AND PROPERTY

- 5.1. Upon request and without cost to CONSULTANT, RTC will provide all pertinent information that is reasonably available to RTC including surveys, reports and any other data relative to design and construction.
- 5.2. RTC will provide access to and make all provisions for CONSULTANT to enter upon RTC facilities and public lands, as required for CONSULTANT to perform its work under this Agreement.

### ARTICLE 6 - OWNERSHIP OF WORK

6.1. Plans, reports, studies, tracings, maps, software, electronic files, licenses, programs, equipment manuals, and databases and other documents or instruments of service prepared or obtained by CONSULTANT in the course of performing work under this Agreement, shall be delivered to and become the property of RTC. Software already developed and

purchased by CONSULTANT prior to the Agreement is excluded from this requirement. CONSULTANT and its sub-consultants shall convey and transfer all copyrightable interests, trademarks, licenses, and other intellectual property rights in such materials to RTC upon completion of all services under this Agreement and upon payment in full of all compensation due to CONSULTANT in accordance with the terms of this Agreement. Basic survey notes, sketches, charts, computations and similar data prepared or obtained by CONSULTANT under this Agreement shall, upon request, also be provided to RTC.

- 6.2. CONSULTANT represents that it has secured all necessary licenses, consents, or approvals to use the components of any intellectual property, including computer software, used in providing services under this Agreement, that it has full legal title to and the right to reproduce such materials, and that it has the right to convey such title and other necessary rights and interests to RTC.
- 6.3. CONSULTANT shall bear all costs arising from the use of patented, copyrighted, trade secret, or trademarked materials, equipment, devices, or processes used on or incorporated in the services and materials produced under this Agreement.
- 6.4. CONSULTANT agrees that all reports, communications, electronic files, databases, documents, and information that it obtains or prepares in connection with performing this Agreement shall be treated as confidential material and shall not be released or published without the prior written consent of RTC; provided, however, that CONSULTANT may refer to this scope of work in connection with its promotional literature in a professional and commercially reasonable manner. The provisions of this subsection shall not apply to information in whatever form that comes into the public domain. The provisions of this paragraph also shall not restrict CONSULTANT from giving notices required by law or complying with an order to provide information or data when such order is issued by a court, administrative agency, or other entity with proper jurisdiction, or if it is reasonably necessary for CONSULTANT to defend itself from any suit or claim.

### **ARTICLE 7 - TERMINATION**

### 7.1. <u>CONTRACT TERMINATION FOR DEFAULT</u>

If CONSULTANT fails to perform services in the manner called for in this Agreement or if CONSULTANT fails to comply with any other provisions of this Agreement, RTC may terminate this Agreement for default. Termination shall be effected by serving a notice of termination on CONSULTANT setting forth the manner in which CONSULTANT is in default. CONSULTANT will only be paid the contract price for services delivered and accepted, or services performed in accordance with the manner of performance set forth in this Agreement.

If it is later determined by RTC that CONSULTANT had an excusable reason for not performing, such as a fire, flood, or events which are not the fault of or are beyond the control of CONSULTANT, RTC, after setting up a new performance schedule, may allow CONSULTANT to continue work, or treat the termination as a termination for convenience.

### 7.2. <u>CONTRACT TERMINATION FOR CONVENIENCE</u>

RTC may terminate this Agreement, in whole or in part, at any time by written notice to CONSULTANT when it is in RTC's best interest. CONSULTANT shall be paid its costs, including contract closeout costs, and profit on work performed up to the time of termination. CONSULTANT shall promptly submit its termination claim to RTC to be paid CONSULTANT. If CONSULTANT has any property in its possession belonging to RTC, CONSULTANT will account for the same, and dispose of it in the manner RTC directs.

### **ARTICLE 8 - INSURANCE**

- 8.1. CONSULTANT shall not commence any work or permit any employee/agent to commence any work until satisfactory proof has been submitted to RTC that all insurance requirements have been met.
- 8.2. In conjunction with the performance of the services/work required by the terms of this Agreement, CONSULTANT shall obtain all types and amounts of insurance set forth in Exhibit C, and shall comply with all provisions set forth therein.

### ARTICLE 9 - HOLD HARMLESS

9.1. CONSULTANT's obligation under this provision is as set forth in Exhibit C. Said obligation would also extend to any liability of RTC resulting from any action to clear any lien and/or to recover for damage to RTC property.

### ARTICLE 10 - EQUAL EMPLOYMENT OPPORTUNITY

- 10.1. During the performance of this Agreement, CONSULTANT agrees not to discriminate against any employee or applicant for employment because of race, color, religion, sex, age, disability, or national origin. CONSULTANT will take affirmative action to ensure that applicants are employed, and that employees are treated fairly during employment, without regard to their race, color, religion, sex, age, disability, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. CONSULTANT agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by RTC setting forth the provisions of this nondiscrimination clause.
- 10.2. CONSULTANT will, in all solicitations or advertisements for employees placed by or on behalf of CONSULTANT, state that well qualified applicants will receive consideration of employment without regard to race, color, religion, sex, age, disability, or national origin.

10.3. CONSULTANT will cause the foregoing provisions to be inserted in all sub-agreements for any work covered by this Agreement so that such provisions will be binding upon each sub-consultant.

### ARTICLE 11 - RESOLUTION OF CLAIMS AND DISPUTES

### 11.1. <u>NEGOTIATED RESOLUTION</u>

In the event that any dispute or claim arises under this Agreement, the parties shall timely cooperate and negotiate in good faith to resolve any such dispute or claim. Such cooperation shall include providing the other party with all information in order to properly evaluate the dispute or claim and making available the necessary personnel to discuss and make decisions relative to the dispute or claim.

### 11.2. MEDIATION

If the parties have been unable to reach an informal negotiated resolution to the dispute or claim within thirty (30) days following submission in writing of the dispute or claim to the other party, or such longer period of time as the parties may agree to in writing, either party may then request, in writing, that the dispute or claim be submitted to mediation (the "Mediation Notice"). After the other party's receipt or deemed receipt of the Mediation Notice, the parties shall endeavor to agree upon a mutually acceptable mediator, but if the parties have been unable to agree upon a mediator within ten (10) days following receipt of the Mediation Notice, then each party shall select a mediator and those two selected mediators shall select the mediator. A mediator selected by the parties' designated mediators shall meet the qualification set forth in as provided in Rule 4 of Part C., "Nevada Mediation Rules" of the "Rules Governing Alternative Dispute Resolutions adopted by the Nevada Supreme Court." Unless otherwise agreed to by the parties, in writing, the mediator shall have complete discretion over the conduct of the mediation proceeding. Unless otherwise agreed to by the parties, in writing, the mediation proceeding must take place within thirty (30) days following appointment of the mediator. The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in Washoe County, Nevada, unless otherwise agreed to by the parties, in writing. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

### 11.3. <u>LITIGATION</u>

In the event that the parties are unable to settle and/or resolve the dispute or claim as provided above, then either party may proceed with litigation in the Second Judicial District Court of the State of Nevada, County of Washoe.

### 11.4. CONTINUING CONTRACT PERFORMANCE

During the pendency of any dispute or claim the parties shall proceed diligently with performance of this Agreement and such dispute or claim shall not constitute an excuse or defense for a party's nonperformance or delay.

### ARTICLE 12 – PROJECT MANAGERS

- 12.1. RTC's Project Manager is Jeff Wilbrecht or such other person as is later designated in writing by RTC. RTC's Project Manager has authority to act as RTC's representative with respect to the performance of this Agreement.
- 12.2. CONSULTANT' Project Manager is Mike Davidson or such other person as is later designated in writing by CONSULTANT. CONSULTANT's Project Manager has authority to act as CONSULTANT's representative with respect to the performance of this Agreement.

### **ARTICLE 13 - NOTICE**

13.1. Notices required under this Agreement shall be given as follows:

RTC: Bill Thomas, AICP

Executive Director Jeff Wilbrecht, PE RTC Project Manager

**Regional Transportation Commission** 

1105 Terminal Way Reno, Nevada 89502 (775) 335-1872

(773) 333-187.

CONSULTANT: Mike Davidson, PE

Principal

Wood Rodgers, Inc.

1361 Corporate Boulevard

Reno, Nevada 89502 (775) 823-4064

### ARTICLE 14 - DELAYS IN PERFORMANCE

### 14.1. TIME IS OF THE ESSENCE

It is understood and agreed that all times stated and referred to herein are of the essence. The period for performance may be extended by RTC's Executive Director pursuant to the process specified herein. No extension of time shall be valid unless reduced to writing and signed by RTC's Executive Director.

### 14.2. UNAVOIDABLE DELAYS

If the timely completion of the services under this Agreement should be unavoidably delayed, RTC may extend the time for completion of this Agreement for not less than the number of days CONSULTANT was excusably delayed. A delay is unavoidable only if the delay is not reasonably expected to occur in connection with or during CONSULTANT's performance, is not caused directly or substantially by acts, omissions,

negligence or mistakes of CONSULTANT, is substantial and in fact causes CONSULTANT to miss specified completion dates, and cannot adequately be guarded against by contractual or legal means.

### 14.3. NOTIFICATION OF DELAYS

CONSULTANT shall notify RTC as soon as CONSULTANT has knowledge that an event has occurred or otherwise becomes aware that CONSULTANT will be delayed in the completion of the work. Within ten (10) working days thereafter, CONSULTANT shall provide such notice to RTC, in writing, furnishing as much detail on the delay as possible and requesting an extension of time.

### 14.4. REQUEST FOR EXTENSION

Any request by CONSULTANT for an extension of time to complete the work under this Agreement shall be made in writing to RTC. CONSULTANT shall supply to RTC documentation to substantiate and justify the additional time needed to complete the work and shall provide a revised schedule. RTC shall provide CONSULTANT with notice of its decision within a reasonable time after receipt of a request.

### **ARTICLE 15 - GENERAL PROVISIONS**

### 15.1. SUCCESSORS AND ASSIGNS

RTC and CONSULTANT bind themselves and their successors and assigns to the other party and to the successors and assigns of such party, with respect to the performance of all covenants of this Agreement. Except as set forth herein, neither RTC nor CONSULTANT shall assign or transfer interest in this Agreement without the written consent of the other. Nothing herein shall be construed as creating a personal liability on the part of any officer or agent or any public body which may be a party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than RTC and CONSULTANT.

### 15.2. NON TRANSFERABILITY

This Agreement is for CONSULTANT's professional services, and CONSULTANT's rights and obligations hereunder may not be assigned without the prior written consent of RTC.

### 15.3. SEVERABILITY

If any part, term, article, or provision of this Agreement is, by a court of competent jurisdiction, held to be illegal, void, or unenforceable, or to be in conflict with any law of the State of Nevada, the validity of the remaining provisions or portions of this Agreement are not affected, and the rights and obligations of the parties shall be construed and enforced as if this Agreement did not contain the particular part, term, or provision held invalid.

### 15.4. RELATIONSHIP OF PARTIES

CONSULTANT is an independent contractor to RTC under this Agreement. Accordingly, CONSULTANT is not entitled to participate in any retirement, deferred compensation, health insurance plans or other benefits RTC provides to its employees. CONSULTANT shall be free to contract to provide similar services for others while it is under contract to RTC, so long as said services and advocacy are not in direct conflict, as determined by RTC, with services being provided by CONSULTANT to RTC.

### 15.5. WAIVER/BREACH

Any waiver or breach of a provision in this Agreement shall not be deemed a waiver of any other provision in this Agreement and no waiver is valid unless in writing and executed by the waiving party. An extension of the time for performance of any obligation or act shall not be deemed an extension of time for the performance of any other obligation or act. This Agreement inures to the benefit of and is binding upon the parties to this Agreement and their respective heirs, successors and assigns.

### 15.6. REGULATORY COMPLIANCE

- A. CONSULTANT shall comply with all applicable federal, state and local government laws, regulations and ordinances. CONSULTANT shall be responsible for obtaining all necessary permits and licenses for performance of services under this Agreement. Upon request of RTC, CONSULTANT shall furnish RTC certificates of compliance with all such laws, orders and regulations.
- B. CONSULTANT represents and warrants that none of the services to be rendered pursuant to this Agreement constitute the performance of public work, as that term is defined by Section 338.010(17) of the Nevada Revised Statutes. To the extent CONSULTANT does engage in such public work, CONSULTANT shall be responsible for paying the prevailing wage as required by Chapter 338 of the Nevada Revised Statutes.

### 15.7. EXCLUSIVE AGREEMENT

There are no verbal agreements, representations or understandings affecting this Agreement, and all negotiations, representations and undertakings are set forth herein with the understanding that this Agreement constitutes the entire understanding by and between the parties.

### 15.8. AMENDMENTS

No alteration, amendment or modification of this Agreement shall be effective unless it is in writing and signed by both parties.

### 15.9. CONTINUING OBLIGATION

CONSULTANT agrees that if, because of death or any other occurrence it becomes impossible for any principal or employee of CONSULTANT to render the services required under this Agreement, neither CONSULTANT nor the surviving principals shall be relieved of any obligation to render complete performance. However, in such event, RTC may terminate this Agreement if it considers the death or incapacity of such principal or employee to be a loss of such magnitude as to affect CONSULTANT's ability to satisfactorily complete the performance of this Agreement.

### 15.10. APPLICABLE LAW AND VENUE

The provisions of this Agreement shall be governed and construed in accordance with the laws of the State of Nevada. The exclusive venue and court for all lawsuits concerning this Agreement shall be the Second Judicial District Court of the State of Nevada, County of Washoe, and the parties hereto submit to the jurisdiction of that District Court.

### 15.11. <u>ATTORNEYS</u>' FEES

In the event of a dispute between the parties result in a proceeding in any Court of Nevada having jurisdiction, the prevailing party shall be entitled to an award of costs and any reasonable attorneys' fees.

### 15.12. CERTIFICATION REQUIRED BY NEVADA SENATE BILL 27 (2017)

CONSULTANT expressly certifies and agrees, as a material part of this Agreement, that it is not currently engaged in a boycott of Israel. CONSULTANT further agrees, as a material part of this Agreement, it will not engage in a boycott of Israel for the duration of this Agreement. If, at any time during the formation or duration of this Agreement, CONSULTANT is engaged or engages in a boycott of Israel, it will constitute a material breach of this Agreement.

### ARTICLE 16 - FEDERAL FORMS AND CLAUSES

- 16.1. CONSULTANT has completed and signed the following: (1) Affidavit of Non-Collusion; (2) Certification Regarding Debarment, Suspension, Other Ineligibility and Voluntary Exclusion; (3) Certification Required by 31 U.S.C. § 1352, Restrictions on Lobbying Using Federal Appropriated Funds, and "Instructions for Completion of SF-LLL, Disclosure of Lobbying Activities". CONSULTANT affirms that such certifications remain valid and shall immediately notify RTC if circumstances change that affect the validity of these certifications.
- 16.2. This Agreement is funded in whole or in part with money administered by the Federal Transit Administration. As a condition for receiving payment under this Agreement, CONSULTANT agrees to comply with the federally required clauses set forth in Exhibit D.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement the day and year first above written.

REGIONAL TRANSPORTATION COMMISSION OF WASHOE COUNTY
By:Bill Thomas, AICP, Executive Director
WOOD RODGERS, INC.
By:Mark Casey, PE, Vice President

## EXHIBIT A SCOPE OF SERVICES



# EXHIBIT A SCOPE OF SERVICES FOR THE

### 4TH STREET STATION EXPANSION PROJECT RTC Project Number 0611002

### **SCOPE OF SERVICES**

This will generally consist of the following tasks:

Preliminary Design, National Environmental Policy Act (NEPA) Environmental Processing, Final Design and Construction Management of the 4th Street Station Expansion Project (Project) in conjunction with the partnership between the RTC and the Federal Transit Administration (FTA). The preliminary design phase of the Project anticipates building upon the previously prepared conceptual plan provided by the RTC, followed by an environmental analysis of the Project in order to fulfill the requirements of an FTA NEPA Categorical Exclusion (CE). Final design is anticipated to include site design of the expansion area consisting of a concrete bus aisle, electric bus charging pedestal infrastructure, a canopy matching the existing architectural theme, an employee parking lot, sidewalks, storm drain improvements, landscaping and other incidentals necessary for a complete design of the Project. Improvements within City of Reno right of way on Lake Street and Evans Avenue will be required for the Project.

### TASK 1 - PRELIMINARY INVESTIGATION AND PRELIMINARY DESIGN

### 1A. PROJECT MANAGEMENT (INCLUDED IN TASKS 1, 2, 3 & 5)

Prepare monthly progress reports, invoices, and billing.

Coordination with RTC Project Manager and staff will be ongoing throughout project. Project management and coordination meetings or conference calls will be held with the RTC and other parties as appropriate semiweekly throughout the project. Other interested parties may include the FTA and the City of Reno.

In coordination with the RTC Project Manager, CONSULTANT will prepare a project management plan in accordance with current FTA requirements 49CFR part 633.21 including all necessary sections as required in 49CFR part 633.25.

Deliverables – Invoicing, Progress Reports and Project Management Plan.

### 1B. INVESTIGATION OF EXISTING CONDITIONS

### 1B.1. Topographic Survey

a. CONSULTANT will provide a topographic survey for the project site. An unmanned aerial system (UAS) will be utilized to collect aerial imagery. Ground control and photo identification points will be

established and measured. One (1) Foot Contour intervals will be generated from the digital photographs. The horizontal control shall be based on published data provided by Washoe County and the North American Datum of 1983 (NAD83). The vertical control shall be based on published data provided by the City of Reno and the North American Vertical Datum of 1988 (NAVD 88). Existing conditions and 2D planimetric features shall be located and will include but not be limited to fences, roads, curbs, driveways, paths, buildings, walls, etc. Drainage (sewer and storm water) features and structures, visible from the surface of the ground, shall be located and shown on the plan. Utility (water, gas, power and communications) features and structures, visible from the surface of the ground, shall be located and shown on the plan. Invert elevations of pipes and manhole depths will be measured and displayed for sewer and storm drain structures.

- b. CONSULTANT will supplement the aerial survey with a ground survey to provide greater detail in obscured areas, to identify any utility facilities located on the subject roadways and adjacent parcels, and to provide design level topo on hardscape tie areas. Project accuracy will conform to general accepted photogrammetric standards established by the ASPRS Positional Accuracy Standards for Digital Geospatial Data (2014).
- c. CONSULTANT will perform a field boundary survey for the subject properties in accordance with Nevada Revised Statutes Chapter 625. CONSULTANT will search for and locate existing property monumentation. In the event that existing monumentation is not found, CONSULTANT will search for and locate adjacent properties in order to assist in the re-establishment of the subject property's corners. CONSULTANT will analyze calculated and measured distances and compare found monumentation to record maps, deeds, and title documentation. Title reports for APNs 007-311-21, 22 & 23 will be obtained by the CONSULTANT. A boundary resolution will be provided and, if necessary, CONSULTANT will meet with the RTC to discuss boundary conflicts and possible courses for problem resolutions. All easements of record as shown in the title reports will be plotted.

### 1B.2. Utility Investigation/Depiction

a. Overhead Utilities: CONSULTANT will investigate and locate all overhead utilities within the project limits and areas reasonably affected.

<u>Deliverables</u> - Depiction of all overhead utilities within the roadway right-of-way on plans developed under Task 3, Final Design.

b. Subsurface Utilities: CONSULTANT will investigate and locate subsurface utilities within the project limits, and areas reasonably affected, in accordance with the American Society of Civil Engineers Standard guideline for the Collection and Depiction of Existing Subsurface Utility Data, Quality Level C. Additionally, CONSULTANT will coordinate with Utility Owners to remove lids of surface features and document depth of utility device, or invert of pipe, within such surface features.

<u>Deliverables</u> - Depiction of subsurface utilities on plan sheets developed under Task 3, Final Design. An inventory of subsurface utility surface features by Owner, type, location, and depth of feature or pipe invert.

c. Utility coordination: Based on field investigation, CONSULTANT will provide RTC a list of utility companies whose utilities are likely to be within the project limits or reasonably affected by the project. RTC will issue the initial notification to the utility agencies on the list and CONSULTANT will coordinate with the utility agencies for upcoming work, facility relocation and new installation, and to ensure utilities likely affected by the project are drawn on the plan, evaluate potential conflicts through field investigation and investigate conflict resolution strategies. CONSULTANT will assist in relocation of utility with prior rights by facilitating meetings, review utility's design/cost for incorporation into a reimbursement agreement and/or incorporate the utility work into the RTC plans.

### 1C. PRELIMINARY DESIGN

CONSULTANT will prepare and submit for review up to three (3) conceptual design alternatives for the proposed project. Alternatives will build upon the initial conceptual plan provided by the RTC and will further consider sidewalks, pedestrian ramps, bus traffic turning movements, tie-ins into existing improvements and traffic signal modifications within City of Reno R/W, and the existing 4th Street Station and other physical constraints of the project area. Utility requirements and layouts for the project will be considered, including, but not limited to, storm drain connections for on-site storm drain management and electrical connections for bus charging equipment and switchgear.

Upon determination of the RTC's preferred alternative, the CONSULTANT will prepare Preliminary Design Plans based on the preferred alternative that will be suitable for RTC and City of Reno review and provide a basis of design sufficient for the NEPA environmental processing task. The Preliminary Plans are anticipated to include the following sheets:

- Cover Sheet
- Preliminary Site Plan
- Preliminary Electrical Plan for Charging Equipment and Switchgear
- Preliminary Traffic Signal Modifications Plan

CONSULTANT will prepare a design narrative of the Preliminary Design process and provide technical summaries of each design discipline's scopes of work. One design narrative document will be prepared based on the RTC's preferred alternative.

CONSULTANT will prepare a preliminary construction cost estimate for the RTC's preferred alternative.

CONSULTANT will prepare for and attend two (2) in-person meetings with RTC staff to discuss the developed preliminary alternatives for the project.

<u>Deliverables</u> – Conceptual Design Alternatives, Preliminary Design, Narrative and Cost Estimate.

### TASK 2 - NEPA ENVIRONMENTAL PROCESSING (OPTIONAL)

### 2A. PROJECT MANAGEMENT (OPTIONAL)

Refer to Task 1, Sub Task 1A for this task's scope of services.

CONSULTANT anticipates preparing for and attending three (3) in-person meetings with RTC staff throughout the duration of Task 2.

### 2B. NEPA ANALYSIS (OPTIONAL)

### **2B.1.** Federal Transit Administration NEPA CE Checklist (Optional)

CONSULTANT will provide environmental analysis and compile all research, analysis, and documentation necessary to complete an FTA NEPA Categorical Exclusion (CE) Checklist for the 4th Street Station Expansion Project. The CE Checklist will include a detailed project description and environmental study area, as well as discussion sections and analysis for the following environmental considerations:

- Air Quality and AQ Conformity
- Land Use and Zoning
- Traffic Impacts
- Cultural and Historic Resources
- Visual Quality
- Noise and Vibration
- ROW Acquisitions and Relocations
- Hazardous Materials
- Community Impacts
- Environmental Justice
- Parkland and Recreational Facilities
- Biological and Wetland Resources
- Water Quality
- Safety and Security
- Construction Impacts

Early research indicates the project would not result in any substantial environmental impacts and appears to be Categorically Excluded from further NEPA analysis under 771.118 subsection 3 and 5. While most of the topics above clearly would have no potential for impacts, some will require analysis and documentation in the checklist outlining why no impacts would occur, or why specific avoidance and minimization measures or best management practices are necessary to reduce potential environmental impacts. CONSULTANT will coordinate with RTC and FTA staff to review and ultimately approve the NEPA CE Checklist.

Deliverables - FTA NEPA Categorical Exclusion Checklist.

### 2B.2. Phase 1 Initial Site Assessment (ISA) (Optional)

CONSULTANT will coordinate with RTC to obtain a copy of the Environmental Assessment prepared for NEPA and construction of the existing 4th Street Station. Due to the duration of time that has passed since these documents and testing were prepared, CONSULTANT anticipates that an updated Phase 1 Initial Site Assessment will be required by FTA on this project. CONSULTANT will perform database research, review historic aerial photos, and perform a pedestrian survey of the project area. These efforts will help to identify any existing hazards or hazardous materials in the vicinity. The ISA will also evaluate the potential for impacts to the Site (i.e., levels of hazardous substances and/or petroleum products warranting regulatory cleanup action) from the presence of hazardous materials/wastes on, or within, the vicinity of the Site. For the purposes of this ISA, the "vicinity" of either Site is defined as properties located on or adjacent to the Site. Physical testing of soils or materials on-site is not included in this scope of work.

### TASK 3 - FINAL DESIGN (OPTIONAL)

### **3A.** PROJECT MANAGEMENT (OPTIONAL)

Refer to Task 1, Sub Task 1A for this task's scope of services.

CONSULTANT anticipates preparing for and attending seven (7) in-person monthly meetings with RTC staff throughout the duration of Task 3.

### **3B.** INVESTIGATION OF EXISTING CONDITIONS (OPTIONAL)

### **3B.1.** Reversion to Acreage Tract Map (Optional)

- a. CONSULTANT will prepare a Reversion to Acreage Tract Map in accordance with Nevada Revised Statutes Chapter 278 to revert the original lot lines common to subject parcels APNs 007-311-21, 22, & 23, filed in the Official Records of Washoe County, Nevada. All record easements will be plotted and any new on-site easements necessary for approval of the map will be granted and shown on the map, if applicable. The Reversion to Acreage Tract Map will be in accordance with local and state requirements. CONSULTANT will attend any required city and/or county meetings for approval. Entity comments will be addressed and resubmitted as needed. A legal description of the reverted parcel will also be provided pursuant to Nevada Revised Statutes 278.4955 6.
- b. CONSULTANT will prepare submittal applications, plot and send copies of the plat to all required entities. This includes owners, security interest holders, taxes, title companies, utility companies and government agencies. Signatures will then be obtained and notarized, if necessary. Upon approval, CONSULTANT will file the plat with the Washoe County Recorder's office.

### **3B.2.** Geotechnical Investigation (Optional)

CONSULTANT will prepare and submit a traffic control plan and encroachment permit application to the City of Reno. Traffic control will be provided during all phases of exploration performed within and adjacent to the active roadways.

CONSULTANT will perform a total of five (5) to seven (7) borings across the site. Three (3) to four (4) of the borings will initially be core then advanced to a maximum depth of five feet below the existing grade for pavement design parameters. One of the explorations will be located on Evans Avenue and one exploration will be located on Lake Street. An

additional two (2) to three (3) borings will be advanced to a maximum depth of 20-feet below the existing grade, or until refusal is encountered, in the proposed area of the canopy structure. Refusal is defined as less than one foot of drilling advance in 15 minutes. Each exploration will be logged by geotechnical personnel for soil characteristics (particle size, plasticity, texture, soil color, moisture, consistency, and stratigraphy). Samples of the subgrade soils will be obtained for laboratory testing on soil moisture (ASTM D2216), gradation (ASTM D6913), plasticity (ASTM D4318), moisture-density relationship (ASTM D1557), and R-Value (ASTM D2844). Corrosion testing will also be performed to assess the site soils' effect on concrete and steel elements. Explorations will be backfilled immediately after advance with the readily available site soils and/or pea gravel. Rapid set high strength grout will be used to backfill the structural sections.

Laboratory. CONSULTANT will perform laboratory tests on selected samples. Laboratory testing will consist of tests for:

- Gradation (5)
- Moisture Content (5)
- Atterberg Limit (5)
- Moisture-Density Relationship (3)
- R-Value (3)
- Chemical testing will be performed on one subgrade sample for pH, resistivity, redox potential, soluble sulfates, sulfides and chlorides.

Deliverables - Geotechnical Investigation Report.

### **3B.3.** Develop Feasible Pavement Construction Alternatives (Optional)

CONSULTANT will identify feasible pavement construction alternatives for the project. Among the alternatives that will be considered are:

- AC paving
- PCC paving

Upon completion of the geotechnical investigation, CONSULTANT will meet with RTC to present feasible pavement construction alternatives. CONSULTANT will then apply the design procedures contained in the latest (1993) AASHTO Guide for Design of Pavement Structures to generate the design layer thickness associated with each pavement alternative.

### **3B.4.** Utility Potholing (Optional)

CONSULTANT will hire a potholing contractor to investigate and locate specific subsurface utilities within the project limits, and areas reasonably

affected by the project that are deemed to have potential conflicts with construction. This is estimated as a single day of potholing for the project limits.

<u>Deliverables</u> - Depiction of subsurface utilities on plan sheets developed under Task 3, Final Design.

### **3C.** FINAL DESIGN (OPTIONAL)

### **3C.1.** Drainage Report (Optional)

CONSULTANT will prepare a drainage report to determine the impacts associated with the Project, including analysis of 5 and 100-year storm events, pre and post construction drainage patterns, impacts to existing public storm drain infrastructure and proposed storm drain system design.

<u>Deliverables</u> – Drainage Report.

### **3C.2.** Prepare Final Plans and Specifications (Optional)

- a. Prepare Final Construction Plans, Contract Documents and Technical Specifications suitable for construction bid advertisement for the approved alignment in accordance with RTC standards and requirements. RTC will provide the boilerplate on disk in MS Word format. The RTC, Local Entity and Quality Control review comments will be incorporated into the final Plans and Specifications.
- b. The final construction plans will be on 22" x 34" size sheets and will show all elements of the project construction, including plan views, R/W and property lines, cross-sections and construction/slope limits. The final plan set will include approximately the following sheets:
  - Cover Sheet
  - o Notes, Legend and Abbreviations Sheet
  - Horizontal Control
  - o Demolitions Plans (at 1"=20' scale)
  - O Site Plan Sheets (at 1"=20' scale)
  - o Grading Plan Sheets (at 1"=20' scale)
  - O Utility Plan Sheets (at 1"=20' scale)
  - o Signing and Striping Plan Sheets (at 1"=20' scale)
  - o Architectural Plan Sheets (scale TBD)
  - o Structural Plan Sheets (scale TBD)
  - o Electrical Infrastructure Plan Sheets (at 1"=20' scale)
  - o Traffic Signals Modification Sheets (at 1"=10' scale)
  - Site Lighting Plan Sheets (at 1"=20' scale)
  - o Detail Sheets (scales as noted).

- c. Depths of existing sanitary sewer and storm drain utilities will be checked and noted on the plans if there is any reason to expect conflict due to vertical clearances. All located, existing underground utilities will be shown on the Plan Sheets accompanied with the following "Note: Subsurface utilities are depicted by their Quality Levels in accordance American Society of Civil Engineers Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data (CI/ASCE 38-02). All utility information shown hereon is depicted to Quality Level "C", unless otherwise noted."
- d. Electrical and Site Lighting Design: CONSULTANT will prepare plans, specifications and estimates for the proposed electric bus charging pedestal infrastructure, switchgear and site lighting. A photometric study will be performed for the site lighting within the Project limits.
- e. Traffic Signal Modification Design: CONSULTANT will prepare plans, specifications and estimates for modifications to the existing traffic signal system at the Lake Street/Plaza Street intersection in support of the driveway and sidewalk modifications required for the Project.
- f. Architectural Design: CONSULTANT will prepare plans, specifications and estimates for architectural design of the proposed canopy structure adjacent to the proposed bus aisle. The canopy structure will be designed to match the architecture of the existing 4th Street Station.
- g. Structural Design: CONSULTANT will prepare plans, specifications and estimates for structural design of the proposed canopy structure adjacent to the proposed bus aisle.
- h. Landscape Design: CONSULTANT will prepare plans, specifications and estimates for landscape design within the limits of the Project. The proposed landscaping will be proposed to be consistent with the existing landscaping at the 4th Street Station.
- i. The Contract Documents and Technical Specifications will reference the latest edition of Standard Specifications for Public Works Construction (Orange Book) for standard construction items. Technical provisions will be prepared for approved deviations from the Orange Book and unique construction items not adequately covered in the Orange Book. The final plans and specifications will be signed and sealed by a Nevada Registered Professional Civil Engineer in responsible charge of preparation. Plans and specifications will be submitted to the RTC, City of Reno, utility agencies and other affected parties for review at the 60%, 90% and

100% stages of completion. The CONSULTANT will submit to the City of Reno Building Department to initiate the Grading/Site Improvement Permit process at the 90% stage of completion as well as Union Pacific Railroad at the 100% stage of completion to initiate the Right of Entry process.

- 60% Plans Two 11"x17" set to RTC, two 11"x17" sets to City of Reno, and electronic format sets to utility agencies.
- 90% Plans Two 11"x17" set to RTC, sets to City of Reno per Grading/Site Improvement Permit electronic submittal requirements, and electronic format sets to utility agencies.
- o 90% Specifications One set each to RTC and City of Reno
- o 100% Plans One 11"x17" each to RTC and City of Reno
- 100% Specifications One set each to RTC and City of Reno
- j. An independent checker will check, initial and date each plan sheet. A quality control review of the plans, contract documents and technical specifications will be performed which will focus on technical aspects of the plans and specifications and will ensure that all items of work are adequately covered.

<u>Deliverables</u> – Final Plans and Specifications delivered to the RTC, City of Reno and Utilities.

### 3C.3. Final Engineer's Opinion of Probable Construction Costs and Time (Optional)

Provide a final Engineer's opinion of probable construction costs for the project based on the final design and any alternatives or options. The cost opinion will be in the same format as the bid proposal form included in the contract documents. A quality control review of the cost opinion will be performed by the CONSULTANT. The CONSULTANT will also estimate the number of working or calendar days, as appropriate, for the construction of the projects.

Deliverables – Opinion of Probable cost and time of construction.

### **3D.** BIDDING SERVICES (OPTIONAL)

Plan Set and Specification Distribution: CONSULTANT will provide RTC with final plans and specifications, including addenda, in Portable Document Format (PDF), for use in the Ebid system.

Pre-bid Meeting: CONSULTANT will be available during the bidding process to answer technical questions and will hold the pre-bid meeting. All questions and responses will be documented and provided to RTC. CONSULTANT will prepare and provide PDF addenda, if required. All questions regarding legal aspects of the contract documents will be referred directly to RTC. CONSULTANT will prepare and provide a PDF summary of the pre-bid meeting, as directed by the RTC.

Bid Opening: CONSULTANT will attend the bid opening and review the bids received for irregularities and provide a recommendation for award. CONSULTANT will tabulate bid results into a MS Excel spreadsheet and check multiplication and addition of bid items.

Deliverables – Attendance at Pre-Bid meeting and Bid Opening, bid review.

### TASK 4 - DESIGN CONTINGENCY (OPTIONAL)

This is a design contingency for miscellaneous increases within the scope of this contract. CONSULTANT shall provide a letter detailing the need, scope, and not-to exceed budget for any proposed work. Work under this task shall proceed only with the RTC Project Manager's written approval.

### TASK 5 - CONSTRUCTION SERVICES (OPTIONAL)

The RTC and CONSULTANT shall review Optional Construction Services following the completion of final design to determine their appropriateness to the project. At this time, the budget for these services are prepared based upon the site improvements discussed within these scope of services with a contract duration of 130 Working Days. Should this be changed during the design process, this fee will be adjusted as appropriate.

### **5A.** PROJECT MANAGEMENT (OPTIONAL)

Refer to Task 1, Sub Task 1A for this task's scope of services.

### **5B.** CONSTRUCTION SERVICES (OPTIONAL)

### **5B.1.** Contract Administration (Optional)

Provide contract administration services as follows:

- Attend the preconstruction conference
- Perform construction coordination
- Review and provide recommendations on contractor's traffic control plans
- Review and stamp contractor's submittal for conformance to the contract documents, including plantmix bituminous pavement and Portland Cement concrete mix designs
- Review and provide recommendations on test results
- Review and provide recommendations on contractor's construction schedule and work progress
- Review construction for acceptance and/or mitigation
- Provide verification and approval of contractor's monthly pay request
- Supervise the inspection, surveying and material testing activities
- Provide recommendations to the RTC for any necessary construction changes due to field conditions
- Assist in change order review and approval

### **5B.2.** Construction Surveying (Optional)

Provide construction staking as follows:

- One set of stakes for demolition limits.
- One set of preliminary grading stakes at 50' stations denoting offsets and cut or fill to finish grade. This set of stakes will also delineate clearing and grubbing limits.
- One set of red tops at 50 feet centers for subgrade preparation.
- One set of final curb and gutter stakes at 50-foot stations and 25-foot stations at returns.
- One set of offset stakes for storm drains, traffic signals, canopy foundations and columns, and utility pull boxes and vaults.

### **5B.3.** Inspection (Optional)

Provide Inspector. Provide one part time inspector during all construction activities. 2-hour work days and a 130 working day contract period are anticipated. This inspector will:

- Attend the preconstruction conference
- Monitor the work performed by the Contractor and verify that the work is in accordance with the plans and specifications
- Assist in problem resolution with the RTC, contractor personnel, utility agencies, the public and others
- Prepare daily inspection reports, submitted weekly to RTC and CC'd to the appropriate government jurisdiction(s).

- Provide quantity reports and assist in contractor's monthly progress payments
- Provide verification of the distribution of public relation notices required to be delivered by the contractor
- Assist in preparation of the Punch List
- Maintain a field blueline set of drawings to incorporate contractor record drawing mark-ups

### **5B.4.** Materials Testing (Optional)

Provide Material Testing for compliance with the specifications per the latest edition of the Standard Specifications for Public Works Construction (Orange Book) testing requirements. Test reports, accompanied with CONSULTANT's recommendation regarding acceptance/mitigation of materials, shall be submitted promptly to the RTC and CC'd to appropriate governmental jurisdiction(s). Materials to be tested will include the following:

- a. Storm Drain: Full time inspection is required during storm drain installation. We will perform random backfill and bedding density testing and construction observation services during storm drain installation. Based on 4 days at 8 hours per day.
- b. Electrical: We will perform random bedding and backfill density testing services during electrical installation. The utility will be tested randomly on an on-call basis. Transformer pads will also be tested for Nevada Energy acceptance. Based on 4 trips at 2-1/2 hours per trip.
- c. Fine Grading: Once the mass grading and utility installation is complete and the subgrade is compacted prior to base course placement, density testing will be performed on parking lot, curb and gutter, valley gutter, and sidewalk subgrade and base course. Based on 21 trips at 2-1/2 hours per trip for subgrade and base course testing. Includes two laboratory proctors and one soil classification.
- d. Concrete Paving: We will collect and test concrete beam specimens during concrete paving placement. PCC paving will occur in Lake and Evans Streets and on-site for the bus aisle. It is anticipated that three sets of five beams will be collected for each concrete paving lot. Based on 7 trips at 8 hours per trip for the bus aisle paving and 7 trips at 7 hours for the Lake and Evans Streets paving, including beam specimen transport.
- e. Concrete Flatwork: We will collect and test one set of five concrete cylinders randomly during site concrete placement. One set of concrete cylinders will be collected randomly from curb-gutter and sidewalk concrete placement. Based on 6 trips at 6 hours per trip to

- collect and test 6 sets of 5 concrete cylinders. Includes laboratory testing of 15 sets of 5 cylinders and next day cylinder pick up.
- f. Asphalt Paving: Provide part time asphalt monitoring during on site asphalt placement to establish rolling patterns. One asphalt hot sample and 3 cores will be collected for laboratory testing. Our monitoring and sampling are based on a total of 1-1/2 day's work.

### **5C. RECORD DRAWINGS (OPTIONAL)**

Record Drawings. Provide as-built record drawings for the completed project. Two sets of electronic drawings, in single file electronic PDF format (22" x 34" at 300 dpi), will be provided to RTC for its files and distribution to the Local Entity. The PDF file shall include all plan sheets in one file with index/bookmark for easy access to different sheets or sections of the plan set.

The final record drawings must be identified, dated, and signed as the record drawings and must also contain the engineer's stamp and signature. The Consultant may either:

- 1. Provide the final revisions on the original engineer-stamped/signed reproducible drawings, which will then also be identified as the record drawings, or
- 2. Provide new engineer-stamped/signed reproducible drawings identified as the record drawings.

The Record Drawings shall include a scan of the original title sheet (including the appropriate signatures by RTC, local government, signed and stamped by the CONSULTANT) and identified as record drawings.

### TASK 6 - CONSTRUCTION CONTINGENCY (OPTIONAL)

This is a contingency for miscellaneous increases within the scope of this contract in the performance of services under Task 5. If CONSULTANT determines that it is necessary to perform work to be paid out of contingency, CONSULTANT shall provide a letter detailing the need, scope, and not-to-exceed budget for any proposed work. Work under this task shall proceed only with the RTC Project Manager's prior written approval.

PRELIMINA	RY PROJECT SCHE	DULE							
4th Street Station Expansion Project									
Milestone	Duration								
RTC Board Approval	2/18/2022								
PRELIMINARY INVESTIGATION AND PRELIMINARY DESIGN									
NTP - Preliminary Design	2/28/2022								
Existing Topo/Boundary	2/28/2022	4/8/2022	6 weeks						
Conceptual Alternatives/RTC Review	3/28/2022	4/8/2022	2 weeks						
Preliminary Design	4/11/2022	6/3/2022	8 weeks						
NEPA ENVIRO	ONMENTAL PROCES	SSING							
NTP - NEPA Environmental	4/3/2023								
NEPA Environmental	4/3/2023	4/1/2024	52 weeks						
F	INAL DESIGN								
NTP - Final Design	4/1/2024								
Geotechnical Investigation	4/1/2024	5/10/2024	6 weeks						
60% Plans & Estimate	4/1/2024	5/24/2024	8 weeks						
RTC/City 60% Review	5/27/2024	6/21/2024	4 weeks						
90% PS&E	6/24/2024	8/2/2024	6 weeks						
RTC/City 90% Review	8/5/2024	8/30/2024	4 weeks						
100% PS&E	9/2/2024	9/27/2024	4 weeks						
RTC/City 100% Review	9/30/2024	10/11/2024	2 weeks						
Bid Docs to RTC	10/14/2024	10/25/2024	2 weeks						
Advertise	10/30/2024	11/27/2024	4 weeks						
Pre-Bid Meeting	11/13/2024								
Bid Opening	11/27/2024								
CONSTRUCTION									
NTP - Construction	12/9/2024								
Construction Duration	12/16/2024	6/13/2025	26 weeks						

## EXHIBIT B COMPENSATION



### 4th Street Station Expansion Project Exhibit B

### Cost of Services

CUST	oi Services	т т		1																						
Sub															Staff										Т.	Totals
Task#	Sub Task	Item No.	Sub Task Description		Principal Enginee				I/Senior Eng. I		eer II/Project F			ior CAD Techi		Survey C		Technici			Clerical			Subconsultant		
				Hourly Rate	# of Hours	Cost	Hourly Rate	# of Hours	Cost	Hourly Rate	# of Hours	Cost	Hourly Rate	# of Hours	Cost	Hourly Rate # of Hou	rs Cost	Hourly Rate # of Hour	s Cost	Hourly Rate	# of Hours	Cost	Cost	Cost	# of Hours	Cost
										TASK 1 -	<b>PRELIMINA</b>	RY INVESTIGA	ATION AND	PRELIMINAR	Y DESIGN											
1.0	Project Management	1A I	Project Management	\$ 240.00		\$ -	\$ 225.00	4	\$ 900.00	\$ 155.00		\$ -	\$ 145.00		\$ -	\$ 215.00	\$ -	\$ 120.00	\$ -	\$ 100.00	2	\$ 200.00	\$ -	\$ -	6 9	\$ 1,100.00
IA	Project Management		Sub-Totals		0	\$ -		4	\$ 900.00		0	\$ -		0	\$ -	0	\$ -	0	\$ -		2	\$ 200.00	\$ -	\$ -	6 /	\$ 1,100.00
		45.4	T	\$ 240.00		A 700.00	\$ 200.00		A 4 000 00	A 455.00	0	\$ 930.00	\$ 145.00	00	A 4.040.00	\$ 215.00 12	\$ 2.580.00	A 100 00	1.6	A 400.00		400.00	\$ 1.000.00	•		\$ 11,470,00
1B	Investigation of Existing		Topographic Survey & Boundary						\$ 1,200.00								\$ 2,580.00		\$ -	\$ 100.00 \$ 100.00	4	\$ 400.00	\$ 1,000.00	\$ -	63 \$	
16	Conditions	1B.2	Utility Investigation	\$ 240.00	1	\$ 240.00	\$ 225.00	4	\$ 900.00	\$ 155.00	16	\$ 2,480.00	\$ 145.00	24	\$ 3,480.00	\$ 215.00	\$ -	\$ 120.00	\$ -	\$ 100.00		\$ -	\$ -	\$ -	45 \$	\$ 7,100.00
			Sub-10tais		4	\$ 960.00		10	\$ 2,100.00		22	\$ 3,410.00		56	\$ 8,120.00	12	\$ 2,580.00	0	\$ -		4	\$ 400.00	\$ 1,000.00	\$ -	108	\$ 18,570.00
1C	Preliminary Design	1C	Preliminary Design	\$ 240.00	4	\$ 960.00	\$ 225.00	32	\$ 7,200.00	\$ 155.00	24	\$ 3,720.00	\$ 145.00	32	\$ 4,640.00	\$ 215.00	\$ -	\$ 120.00	\$ -	\$ 100.00	4	\$ 400.00	\$ 1,000.00	\$ 46,500.00	96	\$ 64,420.00
10	Preliminary Design		Sub-Totals		4	\$ 960.00		32	\$ 7,200.00		24	\$ 3,720.00		32	\$ 4,640.00	0	\$ -	0	\$ -		4	\$ 400.00	\$ 1,000.00	\$ 46,500.00	96	\$ 64,420.00
										TASI	(2.NEPA FI	NVIRONMENT	TAL PROCE	SSING (OPTIC	ΝΔΙ)	· · · · · · · · · · · · · · · · · · ·										
		2A I	Project Management	\$ 252.00		\$ -	\$ 236.00	6	\$ 1.416.00				\$ 152.00			\$ 226.00	\$ -	\$ 126.00	- S	\$ 105.00	2	\$ 210.00	\$ -	\$ -	8 9	\$ 1,626.00
2A	Project Management	23 ( ).	Sub-Totals	Ψ 202.00	0	\$ -	Ψ 200.00	6	\$ 1,416,00	ψ 100.00	0	\$ -	ψ 102.00	0	\$ -	0	\$ -	Φ 120.00	\$ -	ψ 100.00	2	\$ 210.00	\$ -	\$ -	8	\$ 1,626.00
			Cub Totalo	'		Ψ			ψ 1,+10.00			Ψ			Ψ		Ψ		Ψ			Ψ 210.00	Ψ	Ų.		* .,
			FTA NEPA Categorical Exclusion	\$ 252.00		\$ -	\$ 210.00		\$ 7,350.00			\$ 7,160.00				\$ 226.00	\$ -		\$ 1,936.00			\$ -	\$ -	\$ -	91 \$	\$ 16,446.00
2B	NEPA Analysis (Optional)	2B.2	Phase 1 Initial Site Assessment	\$ 252.00		\$ -	\$ 210.00	3	\$ 630.00	\$ 179.00	8	\$ 1,432.00	\$ 152.00		\$ -	\$ 226.00	\$ -	\$ 121.00 40	\$ 4,840.00	\$ 105.00		\$ -	\$ -	\$ -	51	\$ 6,902.00
			Sub-Totals		0	\$ -		38	\$ 7,980.00		48	\$ 8,592.00		0	\$ -	0	\$ -	56	\$ 6,776.00	)	0	\$ -	\$ -	\$ -	142	\$ 23,348.00
											TASK	(3 - FINAL DE	ESIGN (OPTI	ONAL)												
3A	Project Management	3A I	Project Management	\$ 265.00		\$ -	\$ 248.00	22	\$ 5,456.00	\$ 171.00		\$ -	\$ 160.00		\$ -	\$ 237.00	\$ -	\$ 132.00	\$ -	\$ 110.00	3	\$ 330.00	\$ -	\$ -	25 \$	\$ 5,786.00
· ·	(Optional)		Sub-Totals		0	\$ -		22	\$ 5,456.00		0	\$ -		0	\$ -	0	\$ -	0	\$ -		3	\$ 330.00	\$ -	\$ -	25	\$ 5,786.00
		3B 1	Reversion to Acreage Tract Map	\$ 265.00	3	\$ 795.00	\$ 221.00	6	\$ 1.326.00	\$ 171.00	6	\$ 1.026.00	\$ 160.00	16	\$ 2,560.00	\$ 237.00	\$ -	\$ 132.00	T\$ -	\$ 110.00	8	\$ 880.00	\$ -	\$ -	39 9	\$ 6.587.00
			Geotechnical Investigation	\$ 265.00	1	\$ 265.00		12	T .,0=0.00	\$ 171.00	,	\$ -	\$ 160.00		\$ -	\$ 237.00	\$ -	\$ 132.00	\$ 3,564.00	Ţ	2	\$ 220.00	т	\$ 7,000.00	42 9	\$ 16,057.00
3B	Investigation of Existing			\$ 265.00	8		\$ 248.00		\$ 7,936.00			\$ -	\$ 160.00		\$ -	\$ 237.00	\$ -	\$ 132.00	\$ -	\$ 110.00	4	\$ 440.00		\$ -	44 9	\$ 10,496.00
	Conditions (Optional)		Utility Potholing	\$ 265.00			\$ 248.00			\$ 171.00	8	\$ 1,368.00			\$ 320.00	\$ 237.00 8	\$ 1,896.00		\$ -	\$ 110.00		\$ -	\$ -	\$ 2,000.00	23	\$ 6,841.00
		02.1	Sub-Totals	Ψ 200.00	13	\$ 3,445,00	Ψ 210.00	54	\$ 12,762,00	ψ 17 1.00	14	\$ 2,394,00	ψ 100.00	18	\$ 2,880,00	8	\$ 1,896,00	27	\$ 3,564,00	)	14	\$ 1,540,00	\$ 2,500,00	\$ 9,000,00	148	\$ 39.981.00
			our round			Ψ 0,110.00			Ψ 12,1 02.00			Ψ 2,001.00		1 .0	<del>\$\pi\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \</del>		ψ 1,000.00		ψ 0,001.00			<del>\$ 1,010.00</del>	Ç 2,000.00	ψ 0,000.00	-110	
			Drainage Report	\$ 265.00		\$ -	\$ 248.00	4	\$ 992.00	\$ 171.00		\$ 4,104.00	\$ 160.00		\$ 1,280.00		\$ -	\$ 132.00	\$ -	\$ 110.00	4	\$ 440.00	\$ -	\$ -	40 \$	\$ 6,816.00
		3C.2	Prepare Final Plans and Specifications	\$ 265.00	8	\$ 2,120.00	\$ 248.00	32	\$ 7,936.00	\$ 171.00	60	\$ 10,260.00	\$ 160.00	60	\$ 9,600.00	\$ 237.00	\$ -	\$ 132.00	\$ -	\$ 110.00	8	\$ 880.00	\$ 1,000.00	\$ -	168	\$ 31,796.00
		3C.2d	Electrical and Site Lighting Design	\$ 265.00		\$ -	\$ 248.00	4	\$ 992.00	\$ 171.00		\$ -	\$ 160.00		\$ -	\$ 237.00	\$ -	\$ 132.00	\$ -	\$ 110.00	4	\$ 440.00	\$ -	\$ 77,000.00	8 \$	\$ 78,432.00
		3C.2e	Traffic Signal Modification Design	\$ 265.00		\$ -	\$ 248.00	4	\$ 992.00	\$ 171.00		\$ -	\$ 160.00		\$ -	\$ 237.00	\$ -	\$ 132.00	\$ -	\$ 110.00	4	\$ 440.00	\$ -	\$ 18,000.00	8 /	\$ 19,432.00
3C	Final Design (Optional)		Architectural Design	\$ 265.00		\$ -	\$ 248.00	4		\$ 171.00		\$ -	\$ 160.00		\$ -	\$ 237.00	\$ -	\$ 132.00	\$ -	\$ 110.00	4	\$ 440.00		\$ 31,000.00	8 9	\$ 32.432.00
			Structural Design	\$ 265.00		\$ -	\$ 248.00	4		\$ 171.00		\$ -	\$ 160.00		\$ -	\$ 237.00	\$ -	\$ 132.00	\$ -	\$ 110.00	4	\$ 440.00	•	\$ 19,500.00	8	\$ 20,932.00
			Landscape Design	\$ 265.00		\$ -	\$ 248.00	4		\$ 171.00		\$ -	\$ 160.00		¢ -	\$ 237.00	¢ -	\$ 132.00	¢ -	\$ 110.00	4	\$ 440.00		\$ 11.500.00	8 9	\$ 12,932.00
				\$ 265.00	1	\$ 265.00		•		\$ 171.00	12	\$ 2,052.00			\$ -		¢ -	\$ 132.00	\$ -	\$ 110.00	<del></del>	\$ -	•	\$ 9.000.00	17 9	\$ 12,309.00
		30.5	Sub-Totals	Ψ 203.00	9	\$ 2385.00	Ψ 240.00	60	\$ 14.880.00	Ψ 171.00	96	\$ 16.416.00	ψ 100.00	68	\$ 10.880.00	Ψ 237.00	\$ -	Ψ 132.00	\$ -	Ψ 110.00	32	\$ 3,520,00	\$ 1,000,00	\$ 166,000,00	265	\$ 215,081,00
			- Cub Totalo			Ψ 2,000.00		00	ψ 14,000.00		00	· 10,+10.00		00	· 10,000.00		T ·	1	Τ·			ψ 0,020.00	1,000.00	ψ 100,000.00	200	2 10,001.00
				\$ 265.00			\$ 248.00			\$ 171.00	4	\$ 684.00	\$ 160.00		\$ -	Ψ 201.00	\$ -	\$ 132.00	\$ -	\$ 110.00	4	\$ 440.00		\$ -	12 \$	\$ 3,116.00
3D	Bidding Services (Optional)			\$ 265.00			\$ 248.00			\$ 171.00		\$ -	\$ 160.00		\$ -	\$ 237.00	\$ -	\$ 132.00	\$ -	\$ 110.00	2	\$ 220.00		\$ -	8 5	\$ 1,742.00
	. ,	3D.3	Bid Opening	\$ 265.00		\$ -	\$ 248.00	4	\$ 992.00	\$ 171.00		\$ -	\$ 160.00		\$ -	\$ 237.00	\$ -	\$ 132.00	\$ -	\$ 110.00	2	\$ 220.00	\$ -	\$ -	6 \$	\$ 1,212.00
			Sub-1 otals		2	\$ 530.00		12	\$ 2,976.00		4	\$ 684.00	<u> </u>	U	\$ -	0	\$ -	U	<b>5</b> -		8	\$ 880.00	\$ 1,000.00	\$ -	26	\$ 6,070.00
					_						TASK 4 - I	DESIGN CONT	TINGENCY (	OPTIONAL)			_		_							
4	Design Contingency (Optional)	4 (	Contingency									•			_								\$ 30,000.00	_		\$ 30,000.00
	(Optional)	<u> </u>	Sub-10tais		U	\$ -		U	\$ -		0	\$ -		U	\$ -	0	\$ -	U	\$ -			\$ -	\$ 30,000.00	\$ -	0	\$ 30,000.00
	Duningt Many and and	II 5. I.	D M			1 🌣	A 01005	0.0	Φ 40000	A 474 07		NSTRUCTION				T & 007.00		T # 400.00	10	0 4100		I 6 000 05 T		•	00	
5A	Project Management	5A	Project Management	\$ 265.00		\$ -	\$ 248.00	20	\$ 4,960.00	\$ 171.00		\$ -	\$ 160.00		\$ -	\$ 237.00	\$ -	\$ 132.00	\$ -	\$ 110.00	3	\$ 330.00	\$ -	\$ -	23 9	\$ 5,290.00
$\perp$	(Optional)		Sub-Totals		0	\$ -		20	\$ 4,960.00		0	\$ -		0	\$ -	0	\$ -	0	\$ -		3	\$ 330.00	\$ -	\$ -	23	\$ 5,290.00
		5B.1	Provide Contract Administration	\$ 265.00	24	\$ 6,360.00	\$ 248.00	80	\$ 19,840.00	\$ 171.00	60	\$ 10,260.00	\$ 160.00		\$ -	\$ 237.00	\$ -	\$ 127.00	\$ -	\$ 110.00		\$ -	\$ -	\$ 99,800.00	164	\$ 136,260.00
	Construction Services		Provide Construction Surveying	\$ 265.00		\$ -	\$ 248.00	24	\$ 5,952.00			\$ -	\$ 160.00		\$ -	\$ 237.00 80	\$ 18,960.00	\$ 127.00	\$ -	\$ 110.00		\$ -	\$ -	\$ -	104	\$ 24,912.00
5B	(Optional)		Provide Inspection	\$ 265.00		\$ -	\$ 248.00			\$ 171.00		\$ -	\$ 160.00		\$ -	\$ 237.00	\$ -	\$ 171.00 260	\$ 44,460.00	\$ 110.00		\$ -	\$ -	\$ -	260	\$ 44,460.00
	(Optional)	5B.4	Materials Testing	\$ 265.00		\$ -	\$ 248.00		\$ -	\$ 171.00		\$ -	\$ 160.00		\$ -	\$ 237.00	\$ -	\$ 127.00 252	\$ 32,004.00	\$ 110.00	44	\$ 4,840.00	\$ 9,000.00	\$ -	296	\$ 45,844.00
			Sub-Totals		24	\$ 6,360.00		104	\$ 25,792.00		60	\$ 10,260.00		0	\$ -	80	\$ 18,960.00	512	\$ 76,464.00	)	44	\$ 4,840.00	\$ 9,000.00	\$ 99,800.00	824	\$ 251,476.00
		50 1	Provide Record Drawings	\$ 265.00		l\$ -	\$ 248.00	2	\$ 496.00	\$ 171.00	16	\$ 2.736.00	\$ 160.00	40	\$ 6400.00	\$ 237.00	T ¢	\$ 132.00	I ¢	\$ 110.00		\$ -	¢	\$ 11.500.00	58 9	\$ 21.132.00
5C	Record Information (Optional)	JC 1	Provide Record Drawings Sub-Totals	φ 200.00	0	\$ -	ψ ∠40.00	2	\$ 490.00	φ 1/1.00	16	\$ 2,730.00	φ 100.00	40	\$ 6,400.00	Ψ 231.00	φ <u>-</u>	ψ 132.00	φ -	φ 110.00		\$	φ - ¢ -	\$ 11,500.00	58 6	\$ 21,132.00
			Sub-Totals		U	Ψ -			Ψ <del>4</del> 80.00	-	10 CC	2,730.00	CONTINCEN	ICV (ODTICAL	V 0,400.00		-		Ψ -				· -	Ψ 11,000.00	30	21,132.00
-	Construction Contingons	I 6 L	Construction Contingons:							- 1/	ASK 6 - CON	STRUCTION (	JONTINGEN	CT (UPTION)	AL)								\$ 10.000.00 I			¢ 10,000,00
6	Construction Contingency (Optional)	0 (	Construction Contingency																				\$ 10,000.00			\$ 10,000.00
CRAND	(Optional)		Sub Tatala		56	\$ 14,640,00		359	\$ 86,918,00		284	\$ 48 212 00		214	\$ 32,020,00	100	\$ 23.436.00	505	\$ 86 804 00		114		\$ 10,000.00	\$ 332,800,00	1 721	\$ 693,880,00
CINAIND	TOTALO		Sub-Totals		30	ψ 14,040.00		330	Ψ 00,910.00		204	Ψ 40,212.00		Z 14	ψ 32,920.00	100	φ 23,430.00	393	ψ 00,004.00	,		ask 1 Total - Prel	φ σσ,σσσ.σσ	ation and Droller	non/Design	Ψ 000,000.00
																				ļ	Ta	Task 2 Total -		montal Preservi	a (Optional)	\$ 84,090.00 \$ 24,974.00
																						rask z rotal -	- INEPA ENVIRON	mental Processin	g (Optional)	+ =:,=:::::
																							Task 3 I	otar - Finai Desig	(Optional)	\$ 266,918.00
																							Task 4 Total - D	esign Contingend	y (Optional)	\$ 30,000.00

### **EXHIBIT "B"**



### FEE SCHEDULE

CLASSIFICATION	STANDARD RATE
Principal Engineer/Geologist/Surveyor/Planner/GIS/LA* II	\$240
Principal Engineer/Geologist/Surveyor/Planner/GIS/LA* I	\$225
Senior Engineer/Geologist/Surveyor/Planner/GIS/LA* II	\$210
Senior Engineer/Geologist/Surveyor/Planner/GIS/LA* I	\$200
Project Engineer/Geologist/Surveyor/Planner/GIS/LA* II	\$190
Project Engineer/Geologist/Surveyor/Planner/GIS/LA* I	\$170
Engineer/Geologist/Surveyor/Planner/GIS/LA* II	\$155
Engineer/Geologist/Surveyor/Planner/GIS/LA* I	\$145
Assistant Engineer/Geologist/Surveyor/Planner/GIS/LA*	\$120
Designer	\$90
Senior CAD Technician/Graphics Designer II	\$145
Senior CAD Technician/Graphics Designer I	\$135
CAD Technician/Graphics Designer	\$120
Project Coordinator	\$120
Administrative Assistant	\$100
Construction Manager	\$155
Senior Inspector II	\$135
Senior Inspector I	\$125
Inspector II	\$115
Inspector I	\$100
Senior Field Technician I	\$120
Field Technician II	\$105
Field Technician I	\$95
1 Person Survey Crew	\$165
2 Person Survey Crew	\$215
3 Person Survey Crew	\$280
Consultants, Outside Services, Materials & Direct Charges	Cost Plus 10%
Overtime Work, Expert Witness Testimony and Preparation	Rate Plus 50%

### \*LA = Landscape Architect

Blueprints, reproductions, and outside graphic services will be charged at vendor invoice. Auto mileage will be charged at the IRS standard rate, currently 56.0 cents per mile.

Standard rates are subject to a 5% per year increase.



### **Exhibit B LABORATORY TESTING SERVICES FEE SCHEDULE**

TEST SUMMARY	UNIT PRICE
INDEX TESTS	
Visual Classification (ASTM D2488)	
a) Standard	20.00
b) Shelby Tube	20.00
Moisture Content (ASTM D2216)	23.00
Moisture Content & Dry Density (ASTM D2937)	40.00
Atterberg Limits (ASTM D4318)	
a) Plastic Index	110.00
b) Non-plastic	75.00
Particle Size Analysis (D6913)	100.00
a) Comb. Bulk Sieve Analysis (ASTM D6913)	150.00
Specific Gravity and Absorption	
a) Soils (ASTM D854)	95.00
b) Coarse Aggregates (ASTM C127)	95.00
c) Fine Aggregates (ASTM C128)	95.00
Organic Content (ASTM D2974)	110.00
MOISTURE-DENSITY RELATIONS	
Laboratory Compaction Curve (ASTM D1557/D698)	
a) Method A or B (4-inch mold)	175.00
b) Method C (6-inch mold)	200.00
Modified or Standard Check Point (4 or 6-inch mold)	95.00
Oversized Particles Rock Correction (ASTM D4718)	75.00
Harvard Miniature (Nevada T101)	175.00
California Impact (CAL 216)	200.00
Resistance Value & Expansion Pressure (ASTM D2844)	255.00
R-Value Including Soil Amendment (ASTM D2844)	300.00
California Bearing Ratio, three point (ASTM D1883)	600.00
CBR Including Soil Amendment (ASTM D1883)	Quote
AGGREGATE TESTS	
Percent Passing No 200 Sieve (ASTM C117)	95.00
Sieve Analysis (ASTM C136)	100.00
Sand Equivalent (ASTM D2419)	100.00
Hydrometer & No. 10 Sieve (ASTM D 422)	250.00
Durability Index (ASTM D3744)	145.00
Cleanness Value (CAL 227 & 120)	130.00
Organic Impurities in Sand (ASTM D40)	65.00
Clay Lumps, per sieve fraction (ASTM C142)	90.00
Crushed Particles/Fractured Faces (ASTM D5821)	95.00
Sodium Soundness, per sieve fraction (ASTM C88)	95.00
Dry Rodded Unit Weight (ASTM C29)	65.00
L.A. Abrasion, minus 1½-inch (ASTM C131)	165.00
L.A. Abrasion, minus 3-inch (ASTM C535)	200.00



### **Exhibit B LABORATORY TESTING SERVICES FEE SCHEDULE**

TEST SUMMARY	UNIT PRICE
AGGREGATE TESTS (CONTINUED)	
Lightweight Particles (ASTM C123)	170.00
Uncompacted Void Content (ASTM C1252)	75.00
Potential Alkali Reactivity (16 day) (ASTM C1260)	
a) Coarse Aggregate	800.00
b) Fine Aggregate	750.00
Potential Alkali Reactivity (1 year) (ASTM C1293)	
a) Coarse Aggregate	2,200.00
b) Fine Aggregate	2,000.00
Potential Alkali Reactivity of Cementitious Materials (ASTM C1567)	
a) Coarse Aggregate	1,400.00
b) Fine Aggregate	1,250.00
SOIL STRENGTH TESTS	
Unconfined Compression (ASTM D2166)	100.00
Direct Shear - 3 Points (ASTM D 3080)	390.00
Triaxial Shear, per point (max. 3" dia.)	Quote
Consolidation (ASTM D2435)	360.00
Swell-Consolidation (ASTM D4546)	
a) Methods A & B	250.00
b) Method C	425.00
Free Swell	100.00
UBC, Expansion Index (ASTM D4829)	165.00
HYDRAULIC CONDUCTIVITY	
Fixed-wall Permeability (ASTM D2435)	Quote
Flexible-wall Permeability (ASTM D5084)	Quote
CONCRETE & MASONRY TESTING	
Compression Strength Test Cylinders	
a) Concrete (ASTM C39)	27.00
b) Mortar (UBC 24-22)	30.00
c) Grout (UBC 24-28)	27.00
d) Hold Cylinders, not tested	22.00
e) Beam Flexural Strength (ASTM C78)	95.00
f) Drilled Concrete Cores (ASTM C42/ C174/ C1542)	55.00
Lightweight / Insulating Concrete	
a) Compression (ASTM C495)	27.00
b) Unit Weight (ASMT C567)	45.00
Concrete Masonry Unit (CMU)	
a) Compression (ASTM C140)	175.00
b) Absorption, Moisture Content & Unit Weight (ASTM C140)	95.00
CMU Prism Compression (UBC 24-26)	250.00
Grout Shotcrete	175.00
Concrete Shrinkage (ASTM C157 / SEAOC)	325.00



### **Exhibit B LABORATORY TESTING SERVICES FEE SCHEDULE**

TEST SUMMARY	UNIT PRICE
CONCRETE & MASONRY TESTING (CONTINUED)	
Rapid Chloride Permeability (ASTM C1202)	500.00
Youngs Modulus (ASTM C469)	110.00
Concrete Air / Oven Dry Unit Weight (ASTM C567)	170.00
Splitting Tensile (ASTM C496)	50.00
ASPHALT CONCRETE TESTS	
Marshall Mix Design (MS-2 Manual)	Quote
Superpave Mix Design (MS-2 Manual)	Quote
Rubber Binder Design	Quote
Tensile Strength Ratio (TSR)	Quote
Moisture Content (ASTM D1461)	22.00
Asphalt Content, Solvent Extraction (ASTM D2172)	155.00
Asphalt Content, Ignition Solvent Extraction (ASTM D2172)	155.00
Sieve Analysis/Gradation (ASTM D5444)	110.00
Theoretical Maximum Specific Gravity (ASTM D2041)	130.00
Marshall Stability & Flow, 3 specimens (ASTM D6929)	240.00
Hveem Stability, 3 specimens (ASTM D1560)	240.00
Bulk Density / Unit Weight (ASTM D2726)	40.00
Asphalt Content with Rotovapor Recovery (ASTM D2172, D5404)	500.00
Gyratory Compaction (AASHTO T312) (Set of Two)	160.00
Mechanical Analysis of Extracted Aggregate (AASHTO T30)	100.00
Theoretical Maximum Specific Gravity Asphalt Mixtures (AASHTO T209)	120.00
Tensile Strength Ratio (TSR)	Quote
Hamburg Wheel (AASHT0 T324)	Quote
EMULSIFIED ASPHALT & ASPHALT CEMENT	
Penetration (ASTM D5)	110.00
Residue by Evaporation (AASHTO T59/ASTM D248)	110.00
Saybolt Furol Viscosity (ASTM D88, AASHTO T72)	160.00
Torsional Recovery (CTM 332)	160.00
Softening Point, Ring and Ball (AASHTO T53/ASTM D36)	110.00
SUPERPAVE ASPHALT BINDER	
PG Grading Classification (AASHTO M320)	900.00
PG Grading Verification (AASHTO M320)	700.00
Flash & Fire Point, Cleveland Open Cup (ASTM D92)	100.00
Brookfield Viscosity (ASTM D4402)	90.00
Dynamic Shear Rheometer (AASHTO T315)	150.00
Bending Beam Rheometer (AASHTO T313)	150.00
Pressure Aging Vessel (AASHTO R28)	110.00
Asphalt Binder Content Asphalt Mixture Ignition Method (AASHTO T308)	110.00
Rolling Thin Film Oven (AASHTO T240)	110.00

Wood Rodgers, Inc. reserves the right to revise its Fee Schedule according to changes in its practices.

Accredited in all AASHTO equivalent test methods.

### EXHIBIT C INDEMNIFICATION AND INSURANCE



# EXHIBIT C INDEMNIFICATION AND INSURANCE REQUIREMENTS FOR PROFESSIONAL SERVICE AGREEMENTS [NRS 338 DESIGN PROFESSIONAL]

2021-10-18 Version

#### 1. INTRODUCTION

IT IS HIGHLY RECOMMENDED THAT CONSULTANTS CONFER WITH THEIR INSURANCE CARRIERS OR BROKERS TO DETERMINE THE AVAILABILITY OF THESE INSURANCE CERTIFICATES AND ENDORSEMENTS IN ADVANCE OF PROPOSAL SUBMISSION. IF THERE ARE ANY QUESTIONS REGARDING THESE INSURANCE REQUIREMENTS, IT IS RECOMMENDED THAT THE AGENT/BROKER CONTACT RTC'S FINANCE DIRECTOR AT (775) 335-1845.

#### 2. INDEMNIFICATION

CONSULTANT agrees, subject to the limitations in Nevada Revised Statutes Section 338.155, to save and hold harmless and fully indemnify RTC, Washoe County, including their elected officials, officers, employees, and agents (hereafter, "Indemnitees") from and against any and all claims, proceedings, actions, liability and damages, including reasonable attorneys' fees and defense costs incurred in any action or proceeding (collectively "Damages") arising out of the:

- A. Negligence, errors, omissions, recklessness or intentional misconduct of CONSULTANT or CONSULTANT's agents, employees, officers, directors, subconsultants, or anyone else for whom CONSULTANT may be legally responsible, which are based upon or arising out of the professional services of CONSULTANT; and
- B. Violation of law or any contractual provisions or any infringement related to trade names, licenses, franchises, patents or other means of protecting interests in products or inventions resulting from the use by the Indemnitees of any materials, devices, processes, equipment, or other deliverable (including software) supplied by CONSULTANT under or as a result of this Agreement, but excluding any violation or infringement resulting from the modification or alteration by the Indemnitees of any materials, devices, processes, equipment, or other deliverable (including software) not consented to by CONSULTANT.

CONSULTANT further agrees to defend, save and hold harmless and fully indemnify the Indemnitees from and against any and all Damages arising out the negligence, errors, omissions, recklessness or intentional misconduct of CONSULTANT or CONSULTANT's agents, employees, officers, directors, subconsultants, or anyone else for whom CONSULTANT may be legally responsible, which are not based upon or arising out of the professional services of CONSULTANT.

The Damages shall include, but are not limited to, those resulting from personal injury to any person, including bodily injury, sickness, disease or death and injury to real property or personal

property, tangible or intangible, and the loss of use of any of that property, whether or not it is physically injured.

If the Indemnitees are involved in defending actions of CONSULTANT or anyone else for whom CONSULTANT is legally responsible, CONSULTANT shall reimburse the Indemnitees for the time spent by such personnel at the rate of the Indemnitees pay or compensation for such services.

If an Indemnitee is found to be liable in the proceeding, then CONSULTANT'S obligation hereunder shall be limited to the proportional share of the liability attributed to CONSULTANT.

In determining whether a claim is subject to indemnification, the incident underlying the claim shall determine the nature of the claim.

In the event of a violation or an infringement under paragraph 2.B above and the use is enjoined, CONSULTANT, at its sole expense, shall either (1) secure for the Indemnitees the right to continue using the materials by suspension of any injunction or by procuring a license or licenses for the Indemnitees; or (2) modify the materials so that they become non-infringing. This covenant shall survive the termination of the Professional Services Agreement.

The provisions of this Agreement are separate and severable and it is the intent of the Parties hereto that in the event any provision of this Agreement should be determined by any court of competent jurisdiction to be void, voidable or too restrictive for any reason whatsoever, the remaining provisions of this Agreement shall remain valid and binding upon said Parties. It is also understood and agreed that in the event any provision should be considered, by any court of competent jurisdiction, to be void because it imposes a greater obligation on CONSULTANT than is permitted by law, such court may reduce and reform such provisions to limitations which are deemed reasonable and enforceable by said court.

#### 3. GENERAL REQUIREMENTS

Prior to the start of any work on a RTC project, CONSULTANT shall purchase and maintain insurance of the types and limits as described below insuring against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONSULTANT, its subconsultants, or their employees, agents, or representatives. The cost of all such insurance shall be borne by CONSULTANT.

#### 4. VERIFICATION OF COVERAGE

CONSULTANT shall furnish RTC with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth herein, on forms acceptable to RTC. All deductibles and self-insured retentions requiring RTC approval shall be shown on the certificate. All certificates and endorsements are to be addressed to RTC's Finance Director and be received by RTC before work commences. CONSULTANT agrees that RTC has the right to inspect CONSULTANT'S and the Sub's insurance policies, or certified copies of the policies, upon request. Copies of applicable policy forms or endorsements

confirming required additional insured, waiver of subrogation and notice of cancellation provisions are required to be provided with any certificate(s) evidencing the required coverage.

#### 5. NOTICE OF CANCELLATION

CONSULTANT or its insurers shall provide at least thirty (30) days' prior written notice to RTC prior to the cancellation or non-renewal of any insurance required under this Agreement. An exception may be included to provide at least ten (10) days' written notice if cancellation is due to non-payment of premium. CONSULTANT shall be responsible to provide prior written notice to RTC as soon as practicable upon receipt of any notice of cancellation, non-renewal, reduction in required limits or other material change in the insurance required under this Agreement.

#### 6. SUBCONSULTANTS & SUBCONTRACTORS

CONSULTANT shall include all Subcontractors and Subconsultants (referred to collectively as "Subs") as insureds under its liability policies OR shall cause Subs employed by CONSULTANT to purchase and maintain separate liability coverages and limits of the types specified herein. If any Subs maintain separate liability coverages and limits, each shall include the RTC, Washoe County, as additional insureds under its commercial general liability policy, subject to the same requirements stated herein, without requiring a written contract or agreement between each of the additional insureds and any sub-consultant or sub-contractor. Any separate coverage limits of liability maintained by Subs shall be at least \$1,000,000 per occurrence and at least \$2,000,000 for any applicable coverage aggregates or the amount customarily carried by the Sub, whichever is GREATER. If any Subs provide their own insurance with limits less than required of the Contractor, Contractor shall include Subs in their coverage up to the full limits required of the Contractor. When requested by RTC, CONSULTANT shall furnish copies of certificates of insurance evidencing coverage for each subconsultant. CONSULTANT need not require its non-design subcontractors to carry Professional Errors and Omissions Liability insurance.

#### 7. DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions that exceed \$5,000 per occurrence or claim must be declared to RTC's Finance Director prior to signing this Agreement. RTC is entitled to request and receive additional documentation, financial or otherwise, prior to giving its approval of the deductibles and self-insured retentions. Any changes to the deductibles or self-insured retentions made during the term of this Agreement or during the term of any policy must be declared to RTC's Finance Director prior to the change taking effect.

#### 8. ACCEPTABILITY OF INSURERS

Required insurance is to be placed with insurers with a Best's rating of no less than A-VII and acceptable to RTC. RTC may accept coverage with carriers having lower Best's ratings upon review of financial information concerning CONSULTANT and the insurance carrier. RTC reserves the right to require that CONSULTANT'S insurer(s) be licensed and admitted in the State of Nevada or meet any applicable state and federal laws and regulations for non-admitted insurance placements.

#### 9. OTHER CONDITIONS

- A. Failure to furnish the required certificate(s) or failure to maintain the required insurance may result in termination of this Agreement at RTC's option.
- B. If CONSULTANT fails to furnish the required certificate or fails to maintain the required insurance as set forth herein, RTC shall have the right, but not the obligation, to purchase said insurance at CONSULTANT's expense.
- C. Any waiver of CONSULTANT's obligation to furnish such certificate or maintain such insurance must be in writing and signed by an authorized representative of RTC. Failure of RTC to demand such certificate or other evidence of full compliance with these insurance requirements or failure of RTC to identify a deficiency from evidence that is provided shall not be construed as a waiver of CONSULTANT's obligation to maintain such insurance, or as a waiver as to the enforcement of any of these provisions at a later date.
- D. By requiring insurance herein, RTC does not represent that coverage and limits will necessarily be adequate to protect CONSULTANT, and such coverage and limits shall not be deemed as a limitation on CONSULTANT's liability under the indemnities granted to RTC in this contract.
- E. If CONSULTANT'S liability policies do not contain the standard ISO separation of insureds condition, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

#### 10. COMMERCIAL GENERAL LIABILITY

CONSULTANT shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less than \$2,000,000 each occurrence. If such CGL insurance contains a general aggregate limit, it shall be increased to equal twice the required occurrence limit or revised to apply separately to this project.

CGL insurance shall be written on ISO occurrence form CG 00 01 04 13 (or a substitute form providing equivalent coverage) and shall cover liability arising from premises, operations, products-completed operations, personal and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

RTC and any other Indemnitees listed in Section 2. INDEMNIFICATION of this Agreement shall be included as an insured under the CGL, using ISO additional insured endorsement CG 20 10 07/04 or CG 20 33 07/04 or a substitute providing equivalent coverage, and under the commercial umbrella, if any.

This insurance shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to RTC or any other Indemnitees under this Agreement.

CONSULTANT waives all rights against RTC and any other Indemnitees listed in section 2. INDEMNIFICATION of this Agreement for recovery of damages to the extent these damages are covered by the commercial general liability or commercial umbrella liability insurance maintained pursuant to this agreement. CONSULTANT's insurer shall endorse CGL policy to waive subrogation against RTC with respect to any loss paid under the policy.

#### 11. COMMERCIAL AUTOMOBILE LIABILITY

CONSULTANT shall maintain automobile liability and, if necessary, commercial umbrella liability insurance with a limit of not less than \$1,000,000 each accident. Such insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos).

Coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 25, or a substitute form providing equivalent liability coverage for all owned, leased, hired (rented) and non-owned vehicles (as applicable). RTC may agree to accept auto liability for non-owned and hired (rented) vehicles under the CGL if CONSULTANT does not own or operate any owned or leased vehicles.

CONSULTANT waives all rights against RTC, its officers, employees and volunteers for recovery of damages to the extent these damages are covered by the automobile liability or commercial umbrella liability insurance obtained by CONSULTANT pursuant to this Agreement.

### 12. INDUSTRIAL (WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY) INSURANCE

It is understood and agreed that there shall be no Industrial (Worker's Compensation and Employer's Liability) Insurance coverage provided for CONSULTANT or any subconsultants by RTC. CONSULTANT, and any subconsultants, shall procure, pay for and maintain the required coverages.

CONSULTANT shall maintain workers' compensation and employer's liability insurance meeting the statutory requirements of the State of Nevada, including but not limited to NRS 616B.627 and NRS 617.210. The employer's liability limits shall not be less than \$1,000,000 each accident for bodily injury by accident or \$1,000,000 each employee for bodily injury by disease.

CONSULTANT shall provide a Final Certificate for itself and each subconsultant evidencing that CONSULTANT and each subconsultant maintained workers' compensation and employer's liability insurance throughout the entire course of the project.

If CONSULTANT, or any subconsultant is a sole proprietor, coverage for the sole proprietor must be purchased and evidence of coverage must appear on the Certificate of Insurance and Final Certificate.

CONSULTANT waives all rights against RTC, its elected officials, officers, employees and agents for recovery of damages to the extent these damages are covered by the workers compensation and employer's liability or commercial umbrella liability insurance obtained by Tenant pursuant to this

agreement. CONSULTANT shall obtain an endorsement equivalent to WC 00 03 13 to affect this waiver.

#### 13. PROFESSIONAL ERRORS AND OMISSIONS LIABILITY

CONSULTANT shall maintain professional liability insurance applying to liability for a professional, error, act, or omission arising out of the scope of CONSULTANT'S services provided under this Agreement with a limit of not less than \$1,000,000 each claim and annual aggregate. CONSULTANT shall maintain professional liability insurance during the term of this Agreement and, if coverage is provided on a "claims made" or "claims made and reported" basis, shall maintain coverage or purchase an extended reporting period for a period of at least three (3) years following the termination of this Agreement.



#### EXHIBIT D FEDERALLY REQUIRED CLAUSES



#### EXHIBIT D FTA REQUIRED CLAUSES

#### 1 - NO GOVERNMENT OBLIGATION TO THIRD PARTIES

- A. The RTC and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying Agreement, absent the express written consent by the Federal Government, the Federal Government is not a party to the Agreement and shall not be subject to any obligations or liabilities to the RTC, the Contractor, or any other party (whether or not a part to that Agreement) pertaining to any matter resulting from the underlying Agreement.
- B. The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.
- 2 PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS [49 U.S.C. § 5323(I) (1); 31 U.S.C. §§ 3801-3812; 18 U.S.C. § 1001; 49 C.F.R. part 31]
  - A. The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801, et seq., and U.S. DOT regulations, "Program Fraud Civil Remedies", 49 C.F.R. Part 31, apply to its actions pertaining to the Agreement. Upon execution of the Agreement, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the Agreement or the FTA assisted project for which the work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.
  - B. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5323(I)(1) on the Contractor, to the extent the Federal Government deems appropriate.
  - C. The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

**3 - ACCESS TO RECORDS AND REPORTS** [49 U.S.C. § 5325(g); 2 C.F.R. § 200.333; 49 C.F.R. part 633]

The following access to records requirements apply to the Agreement:

- A. The Contractor agrees to provide the RTC, the FTA Administrator, the DOT Office of Inspector General, Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to the Agreement for the purposes of making audits, examinations, excerpts, and transcriptions, and as may be necessary for the RTC to meet its obligations under 2 CFR Part 200. This access includes timely and reasonable access to personnel for interviews and discussions related to the records. This right of access is not limited to the required retention period set forth in subsection C below, but continues as long as the records are retained.
- B. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
- C. The Contractor agrees to maintain all books, records, accounts, and reports required under the Agreement for a period of not less than three years, except in the event of litigation or settlement of claims arising from the performance of the Agreement, in which case the Contractor agrees to maintain such materials until the RTC, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims, or exceptions related thereto. The retention period commences after the RTC makes final payment and all other pending contract matters are closed.
- D. The Contractor shall include this clause in all subcontracts and shall require all subcontractors to include the clause in their subcontracts, regardless of tier.

#### 4 - FEDERAL CHANGES

The Contractor shall at all times comply with all applicable FTA regulations, policies, procedures, and directives, including without limitation those listed directly or by reference in the Master Agreement between the RTC and the FTA, as they may be amended or promulgated from time to time during the term of the Agreement. The Contractor's failure to so comply shall constitute a material breach of the Agreement.

**5 - ENERGY CONSERVATION** [42 U.S.C. 6321 et seq.; 49 C.F.R. part 622, subpart C]

The Contractor agrees to comply with the mandatory standards and policies relating to energy efficiency that are contained in the State Energy Conservation Plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. § 6321, et seq.).

#### 6 - CIVIL RIGHTS LAWS AND REGULATIONS

The Contractor agrees to comply with all applicable civil rights laws and regulations in accordance with applicable federal directives. The Contractor agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties. These include, but are not limited to, the following:

#### A. Nondiscrimination in Federal Public Transportation Programs:

Contractor shall prohibit discrimination on the basis of race, color, religion, national origin, sex (including gender identity), disability, or age. Contractor shall prohibit the (i) exclusion from participation in employment or a business opportunity for reasons identified in 49 U.S.C. § 5332; (ii) denial of program benefits in employment or a business opportunity identified in 49 U.S.C. § 5332; or (iii) discrimination identified in 49 U.S.C. § 5332, including discrimination in employment or a business opportunity. Contractor shall follow the most recent edition of Federal Transit Administration Circular 4702.1, "Title VI Requirements and Guidelines for Federal Transit Administration Recipients," to the extent consistent with applicable Federal laws, regulations, requirements, and guidance, and other applicable Federal guidance that may be issued.

#### B. Nondiscrimination—Title VI of the Civil Rights Act

- 1. Contractor shall prohibit discrimination on the basis of race, color, or national origin.
- Contractor shall comply with (i) Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000d et seq.; (ii) U.S. Department of Transportation regulations, "Nondiscrimination in Federally-Assisted Programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964," 49 CFR Part 21; and (iii) Federal transit law, specifically 49 U.S.C. § 5332.
- 3. Contractor shall follow (i) the most recent edition of Federal Transit Administration Circular 4702.1, "Title VI Requirements and Guidelines for Federal Transit Administration Recipients," to the extent consistent with applicable Federal laws, regulations, requirements, and guidance; (ii) U.S. Department of Justice "Guidelines for the enforcement of Title VI, Civil Rights Act of 1964," 28 CFR 50.3; and (iii) all other applicable Federal guidance that may be issued.

#### C. Equal Employment Opportunity

 Federal Requirements and Guidance. Contractor shall prohibit discrimination on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin, and (i) comply with Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e et seq.; (ii) facilitate compliance with Executive Order No. 11246, "Equal Employment Opportunity" September 24, 1965, 42 U.S.C. § 2000e note, as amended by any later Executive Order that amends

- or supersedes it in part and is applicable to Federal assistance programs; (iii) comply with Federal transit law, specifically 49 U.S.C. § 5332; (iv) comply with Federal Transit Administration Circular 4704.1 "Equal Employment Opportunity (EEO) Requirements and Guidelines for Federal Transit Administration Recipients;" and (v) follow other Federal guidance pertaining to equal employment opportunity laws, regulations, and requirements, and prohibitions against discrimination on the basis of disability.
- 2. Specifics. Contractor shall ensure that applicants for employment are employed and employees are treated during employment without discrimination on the basis of their race, color, religion, national origin, disability, age, sexual orientation, gender identity, or status as a parent, as provided in Executive Order No. 11246 and by any later executive order that amends or supersedes it, and as specified by U.S. Department of Labor regulations. Contractor shall take affirmative action that includes but is not limited to (i) recruitment advertising, recruitment, and employment; (ii) rates of pay and other forms of compensation; (iii) selection for training, including apprenticeship, and upgrading; and (iv) transfers, demotions, layoffs, and terminations. Contractor recognizes that Title VII of the Civil Rights Act of 1964, as amended, exempts Indian Tribes under the definition of "Employer."
- 3. Equal Employment Opportunity Requirements for Construction Activities. Contractor shall comply, when undertaking "construction" as recognized by the U.S. Department of Labor, with (i) U.S. Department of Labor regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 CFR Chapter 60; and (ii) Executive Order No. 11246, "Equal Employment Opportunity in Federal Employment," September 24, 1965, 42 U.S.C. § 2000e note, as amended by any later executive order that amends or supersedes it, referenced in 42 U.S.C. § 2000e note.

#### D. Nondiscrimination on the Basis of Sex:

Title IX of the Education Amendments of 1972, as amended, 20 U.S.C. § 1681 et seq. and implementing Federal regulations, "Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance," 49 CFR Part 25 prohibit discrimination on the basis of sex.

#### E. Nondiscrimination on the Basis of Age:

In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. §§ 621-634; Federal transit law at 49 U.S.C. § 5332; the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6101 et seq.; 49 CFR Part 90, and 29 CFR Part 1625, Contractor agrees to refrain from discrimination for reason of age. In addition, Contractor agrees to comply with applicable Federal implementing regulations.

#### F. Nondiscrimination on the Basis of Disability:

In accordance with Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794; the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. § 12101 et seq.; the Architectural Barriers Act of 1968, as amended, 42 U.S.C. § 4151 et seq.; and Federal transit law at 49 U.S.C. § 5332, Contractor agrees that

it will not discriminate against individuals on the basis of disability. Contractor further agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 CFR Part 1630, pertaining to employment of persons with disabilities. In addition, Contractor agrees to comply with applicable Federal implementing regulations.

- G. Drug or Alcohol Abuse Confidentiality and Other Civil Rights Protections: To the extent applicable, Contractor agrees to comply with the confidentiality and civil rights protections of the Drug Abuse Office and Treatment Act of 1972, as amended, 21 U.S.C. § 1101, et seq., the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act of 1970, as amended, 42 U.S.C. § 4541, et seq., and the Public Health Service Act, as amended, 42 U.S.C. §§ 290dd-290dd-2.
- H. Access to Services for Persons with Limited English Proficiency: Contractor agrees to promote accessibility of public transportation services to persons with limited understanding of English by following Executive Order No. 13166, "Improving Access to Services for Persons with Limited English Proficiency," 42 U.S.C. § 2000d-1 note, and U.S. DOT Notice, "DOT Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficiency (LEP) Persons," 70 Fed. Reg. 74087, Dec. 14, 2005.

#### 7 - INCORPORATION OF FTA TERMS

The preceding provisions include, in part, certain standard terms and conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, and FTA's Master Agreement, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any RTC requests which would cause the RTC to be in violation of the FTA terms and conditions.

- **8 SAFE OPERATION OF MOTOR VEHICLES** [23 U.S.C. part 402; Executive Order No. 13043; Executive Order No. 13513; U.S. DOT Order No. 3902.10]
  - A. Seat Belt Use. Contractor is encouraged to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company-owned vehicles, company-rented vehicles, or personally operated vehicles. The terms "company-owned" and "company-leased" refer to vehicles owned or leased either by Contractor or the RTC.
  - B. Distracted Driving. Contractor agrees to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by an employer, and driving a vehicle the driver owns or rents, a vehicle Contactor owns, leases, or

- rents, or a privately-owned vehicle when on official business in connection with the work performed under this Agreement.
- C. Contractor shall require the inclusion of these requirements in subcontracts of all tiers.
- 9 GOVERNMENT-WIDE DEBARMENT AND SUSPENSION [2 C.F.R. part 180; 2 C.F.R part 1200; 2 C.F.R. § 200.213; 2 C.F.R. part 200 Appendix II (I); Executive Order 12549; Executive Order 12689]
  - A. Contractor shall comply and facilitate compliance with U.S. Department of Transportation regulations, "Non-procurement Suspension and Debarment," 2 CFR Part 1200, which adopts and supplements the U.S. Office of Management and Budget "Guidelines to Agencies on Government wide Debarment and Suspension (Non-procurement)," 2 CFR Part 180. These provisions apply to each contract at any tier of \$25,000 or more, and to each contract at any tier for a federally required audit (irrespective of the contract amount), and to each contract at any tier that must be approved by a Federal Transit Administration official irrespective of the contract amount. As such, Contractor shall verify that its principals, affiliates, and subcontractors are eligible to participate in this federally funded contract and are not presently declared by any Federal department or agency to be:
    - 1. Debarred from participation in any federally assisted award;
    - 2. Suspended from participation in any federally assisted award;
    - 3. Proposed for debarment from participation in any federally assisted award;
    - 4. Declared ineligible to participate in any federally assisted award;
    - 5. Voluntarily excluded from participation in any federally assisted award; or
    - 6. Disqualified from participation in any federally assisted award.
  - B. Contractor certifies that it and/or its principals, affiliates, and subcontractors are not currently debarred or suspended. Contractor shall promptly inform the RTC of any change in the suspension or debarment status of Contractor or its principals, affiliates, and subcontractors during the term of the Agreement. Further, Contractor shall include a provision requiring compliance with the requirements of 2 CFR Part 180, Subpart C, as supplemented by 2 CFR Part 1200 in its lower-tier covered transactions.
  - C. The certification in this clause is a material representation of fact relied upon by RTC. If it is later determined by the RTC that Contractor knowingly rendered an erroneous certification, in addition to remedies available to the RTC, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
  - D. Contractor agrees to comply with the requirements of 2 CFR Part 180, Subpart C, as supplemented by 2 CFR Part 1200, throughout the term of the Agreement.

**10 - LOBBYING RESTRICTIONS** [31 U.S.C. § 1352; 2 C.F.R. § 200.450; 2 C.F.R. part 200 appendix II (J); 49 C.F.R. part 20]

Contractors who apply or bid for an award of \$100,000 or more shall file the certification required by 49 C.F.R. Part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. § 1352. Such disclosures are forwarded from tier to tier up to the RTC.

### 11 - CONTRACT WORK HOURS AND SAFETY STANDARDS ACT—NON-CONSTRUCTION

- A. Contractor shall comply with all Federal laws, regulations, and requirements providing wage and hour protections for non-construction employees, in accordance with 40 U.S.C. § 3702, Contract Work Hours and Safety Standards Act, and other relevant parts of that Act, 40 U.S.C. § 3701 et seq., and U.S. Department of Labor regulations, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Non-construction Contracts Subject to the Contract Work Hours and Safety Standards Act)," 29 CFR Part 5.
- B. Contractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three (3) years from the completion of the Agreement for all laborers and mechanics, including guards and watchmen, working on the Agreement. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.
- C. Such records maintained under this section shall be made available by Contractor for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration and the U.S. Department of Labor, and Contractor will permit such representatives to interview employees during working hours on the job.
- D. Contractor shall require the inclusion of the language of this section in subcontracts of all tiers.

- **12 CLEAN WATER REQUIREMENTS** [33 U.S.C. §§ 1251-1387; 2 C.F.R. part 200, Appendix II (G)]
  - A. The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251, et seq. The Contractor agrees to report each violation to the RTC and understands and acknowledges that the RTC will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
  - B. The Contractor also agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA.
- 13 CLEAN AIR ACT [42 U.S.C. §§ 7401 7671q; 2 C.F.R. part 200, Appendix II (G)]
  - A. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401, et seq. The Contractor agrees to report each violation to the RTC and understands and agrees that the RTC will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
  - B. The Contractor also agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA.

#### 14 - CENTERS FOR DISEASE CONTROL AND PREVENTION MASK ORDER

Unless and until it is repealed, Contractor shall comply with the Centers for Disease Control and Prevention Order of January 29, 2021, titled Requirement for Persons to Wear Masks While on Conveyances and at Transportation Hubs, or any updated or superseding order ("CDC Mask Order"). The Contractor shall also require its subcontractors at all tiers to comply with the CDC Mask Order.

MEETING DATE: February 18, 2022 AGENDA ITEM 4.10

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

#### **RECOMMENDED ACTION**

Approve a contract with Kimley-Horn and Associates to provide design services for the Intelligent Transportation Systems (ITS) Strategic Master Plan (SMP) in an amount not-to-exceed \$350,000.

#### **BACKGROUND AND DISCUSSION**

This Professional Services Agreement (PSA) with Kimley-Horn and Associates, for professional design services for the Intelligent Transportation Systems (ITS) Strategic Master Plan (SMP) project in the amount of \$350,000. The project includes the development of an ITS SMP for the mid to long term time period including: project management, ITS needs assessment and inventory, ITS deployment recommendations, ITS maintenance plan, ITS implementation plan, and the final ITS master plan.

Kimley-Horn and Associates was selected from the Request for Proposal (RFP) 22-05 as the most qualified firm to perform engineering design services for the ITS SMP. Negotiation of Kimley Horn and Associates' scope, schedule and budget indicated the amount for design services is within the appropriated budget.

#### FISCAL IMPACT

Appropriations are included in the FY 2022 and proposed FY 2023 Capital Budget.

#### PREVIOUS BOARD ACTION

September 17, 2021 Authorized a request for proposals for the Intelligent Transportation

Systems Strategic Master Plan (ITS SMP)

#### ATTACHMENT(S)

A. Professional Services Agreement

#### AGREEMENT FOR PROFESSIONAL SERVICES

This agreement (this "Agreement") is dated and effective as of February 21, 2022, by and between the Regional Transportation Commission of Washoe County ("RTC") and Kimley-Horn and Associates ("CONSULTANT").

#### WITNESSETH:

WHEREAS, RTC issued a Request for Proposals for interested persons and firms to develop an Intelligent Transportation System (ITS) Strategic Master Plan (SMP) in connection with the RTC 22-05 RFP and;

WHEREAS, CONSULTANT submitted a proposal (the "Proposal") and was selected to perform the work.

WHEREAS, RTC desires to create an ITS SMP to provide guidance for the mid and long term ITS Program;

NOW, THEREFORE, RTC and CONSULTANT, in consideration of the mutual covenants and other consideration set forth herein, do hereby agree as follows:

#### ARTICLE 1 – TERM AND ENGAGEMENT

- 1.1. The term of this Agreement shall be from the date first written above through August 31, 2023, unless terminated at an earlier date, or extended to a later date, pursuant to the provisions herein.
- 1.2. CONSULTANT will perform the work using the project team identified in the Proposal. Any changes to the project team must be approved by RTC's Project Manager.
- 1.3. CONSULTANT will promptly, diligently and faithfully execute the work to completion in accordance with applicable professional standards subject to any delays due to strikes, acts of God, act of any government, civil disturbances, or any other cause beyond the reasonable control of CONSULTANT.
- 1.4. CONSULTANT shall not proceed with work until both parties have executed this Agreement and a purchase order has been issued to CONSULTANT. If CONSULTANT violates that prohibition, CONSULTANT forfeits any and all right to reimbursement and payment for that work and waives any and all claims against RTC, its employees, agents, and affiliates, including but not limited to monetary damages, and any other remedy available at law or in equity arising under the terms of this Agreement. Furthermore, prior to execution and issuance of a purchase order, CONSULTANT shall not rely on the terms of this Agreement in any way, including but not limited to any written or oral representations, assurances or warranties made by RTC or any of its agents, employees or affiliates, or on any dates of performance, deadlines, indemnities, or any term contained in this Agreement or otherwise.

#### ARTICLE 2 - SERVICES OF CONSULTANT

#### 2.1. SCOPE OF SERVICES

The scope of services consist of the tasks set forth in Exhibit A.

#### 2.2. SCHEDULE OF SERVICES

Tasks and subtasks shall be completed in accordance with the schedule in Exhibit A. Any change(s) to the schedule must be approved by RTC's Project Manager.

#### 2.3. CONTINGENCY

Contingency line items identified in the scope of services are for miscellaneous increases within the scope of work. Prior to the use of any contingency amounts, CONSULTANT shall provide a letter to RTC's Project Manager detailing the need, scope, and not-to-exceed budget for the proposed work. Work to be paid for out of contingency shall proceed only with the RTC Project Manager's written approval.

#### 2.4. OPTIONS

RTC shall have the right to exercise its option(s) for all or any part of the optional tasks or subtasks identified in Exhibit A. CONSULTANT will prepare and submit a detailed scope of services reflecting the specific optional services requested, a schedule for such services, and a cost proposal. RTC will review and approve the scope of services and RTC and CONSULTANT will discuss and agree upon compensation and a schedule. CONSULTANT shall undertake no work on any optional task without written notice to proceed with the performance of said task. RTC, at its sole option and discretion, may select another individual or firm to perform the optional tasks or subtasks identified in Exhibit A.

#### 2.5. ADDITIONAL SERVICES

CONSULTANT will provide additional services when agreed to in writing by RTC and CONSULTANT.

#### 2.6. PERFORMANCE REQUIREMENTS

Any and all design and engineering work furnished by CONSULTANT shall be performed by or under the supervision of persons licensed to practice architecture, engineering, or surveying (as applicable) in the State of Nevada, by personnel who are careful, skilled, experienced and competent in their respective trades or professions, who are professionally qualified to perform the work, and who shall assume professional responsibility for the accuracy and completeness of documents prepared or checked by them, in accordance with appropriate prevailing professional standards. Notwithstanding the provision of any drawings, technical specifications, or other data by RTC, CONSULTANT shall have the responsibility of supplying all items and details required for the deliverables required hereunder.

Any sampling and materials testing shall be performed by an approved testing laboratory accredited by AASHTO or other ASTM recognized accrediting organization in the applicable test methods. If any geotechnical or materials testing is performed by a sub-consultant, that laboratory shall maintain the required certification. Proof of certification shall be provided to RTC with this Agreement. If certification expires or is removed during the term of this Agreement, CONSULTANT shall notify RTC immediately, and propose a remedy. If an acceptable remedy cannot be agreed upon by both parties, RTC may terminate this Agreement for default.

CONSULTANT shall provide only Nevada Alliance for Quality Transportation Construction (NAQTC) qualified personnel to perform field and laboratory sampling and testing during the term of this Agreement. All test reports shall be signed by a licensed NAQTC tester and notated with his/her license number.

#### 2.7. ERRORS AND OMISSIONS

CONSULTANT shall, without additional compensation, correct or revise any deficiencies, errors, or omissions caused by CONSULTANT in its analysis, reports, and services. CONSULTANT also agrees that if any error or omission is found, CONSULTANT will expeditiously make the necessary correction, at no expense to RTC. If an error or omission was directly caused by RTC, and not by CONSULTANT and RTC requires that such error or omission be corrected, CONSULTANT may be compensated for such additional work.

#### **ARTICLE 3 - COMPENSATION**

- 3.1. CONSULTANT shall be paid for hours worked at the hourly rates and rates for testing in Exhibit B. RTC shall not be responsible for any other costs or expenses except as provided in Exhibit B.
- 3.2. The maximum amount payable to CONSULTANT to complete each task is equal to the not-to-exceed amounts identified in Exhibit B. CONSULTANT can request in writing that RTC's Project Manager reallocate not-to-exceed amounts between tasks. A request to reallocate not-to-exceed amounts must be accompanied with a revised fee schedule, and must be approved in writing by RTC's Project Manager prior to performance of the work.

In no case shall CONSULTANT be compensated in excess of the following not-to exceed amounts:

Phase 1 Services (Tasks A1, B, and C)	\$187,727.50
Phase 2 Services (Tasks A2, D, E, and F)	\$145,272.50
Contingency – Optional Services (Task G)	\$17,000.00
Total Not-to-Exceed Amount	\$350,000.00

3.3. For any work authorized under Section 2.4, "Additional Services," RTC and CONSULTANT will negotiate not-to-exceed amounts based on the standard hourly rates and rates for testing in Exhibit B. Any work authorized under Section 2.4, "Additional Services," when performed by persons who are not employees or individuals employed by affiliates of CONSULTANT, will be billed at a mutually agreed upon rate for such services, but not more than 105% of the amounts billed to CONSULTANT for such services.

3.4. CONSULTANT shall receive compensation for preparing for and/or appearing in any litigation at the request of RTC, except: (1) if such litigation costs are incurred by CONSULTANT in defending its work or services or those of any of its sub-consultants; or (2) as may be required by CONSULTANT's indemnification obligations. Compensation for litigation services requested by RTC shall be paid at a mutually agreed upon rate and/or at a reasonable rate for such services.

#### **ARTICLE 4 - INVOICING**

- 4.1. CONSULTANT shall submit monthly invoices in the format specified by RTC. Invoices must be submitted to <a href="mailto:accountspayable@rtcwashoe.com">accountspayable@rtcwashoe.com</a>. RTC's payment terms are 30 days after the receipt of the invoice. Simple interest will be paid at the rate of half a percent (0.5%) per month on all invoices approved by RTC that are not paid within thirty (30) days of receipt of the invoice.
- 4.2. RTC shall notify CONSULTANT of any disagreement with any submitted invoice for consulting services within thirty (30) days of receipt of an invoice. Any amounts not in dispute shall be promptly paid by RTC.
- 4.3. CONSULTANT shall maintain complete records supporting every request for payment that may become due. Upon request, CONSULTANT shall produce all or a portion of its records and RTC shall have the right to inspect and copy such records.

#### ARTICLE 5 - ACCESS TO INFORMATION AND PROPERTY

- 5.1. Upon request and without cost to CONSULTANT, RTC will provide all pertinent information that is reasonably available to RTC including surveys, reports and any other data relative to design and construction.
- 5.2. RTC will provide access to and make all provisions for CONSULTANT to enter upon RTC facilities and public lands, as required for CONSULTANT to perform its work under this Agreement.

#### <u>ARTICLE 6 - OWNERSHIP OF WORK</u>

6.1. Plans, reports, studies, tracings, maps, software, electronic files, licenses, programs, equipment manuals, and databases and other documents or instruments of service prepared or obtained by CONSULTANT in the course of performing work under this Agreement, shall be delivered to and become the property of RTC. Software already developed and purchased by CONSULTANT prior to the Agreement is excluded from this requirement. CONSULTANT and its sub-consultants shall convey and transfer all copyrightable interests, trademarks, licenses, and other intellectual property rights in such materials to RTC upon completion of all services under this Agreement and upon payment in full of all compensation due to CONSULTANT in accordance with the terms of this Agreement. Basic survey notes, sketches, charts, computations and similar data prepared or obtained by CONSULTANT under this Agreement shall, upon request, also be provided to RTC.

- 6.2. CONSULTANT represents that it has secured all necessary licenses, consents, or approvals to use the components of any intellectual property, including computer software, used in providing services under this Agreement, that it has full legal title to and the right to reproduce such materials, and that it has the right to convey such title and other necessary rights and interests to RTC.
- 6.3. CONSULTANT shall bear all costs arising from the use of patented, copyrighted, trade secret, or trademarked materials, equipment, devices, or processes used on or incorporated in the services and materials produced under this Agreement.
- 6.4. CONSULTANT agrees that all reports, communications, electronic files, databases, documents, and information that it obtains or prepares in connection with performing this Agreement shall be treated as confidential material and shall not be released or published without the prior written consent of RTC; provided, however, that CONSULTANT may refer to this scope of work in connection with its promotional literature in a professional and commercially reasonable manner. The provisions of this subsection shall not apply to information in whatever form that comes into the public domain. The provisions of this paragraph also shall not restrict CONSULTANT from giving notices required by law or complying with an order to provide information or data when such order is issued by a court, administrative agency, or other entity with proper jurisdiction, or if it is reasonably necessary for CONSULTANT to defend itself from any suit or claim.

#### **ARTICLE 7 - TERMINATION**

#### 7.1. CONTRACT TERMINATION FOR DEFAULT

If CONSULTANT fails to perform services in the manner called for in this Agreement or if CONSULTANT fails to comply with any other provisions of this Agreement, RTC may terminate this Agreement for default. Termination shall be effected by serving a notice of termination on CONSULTANT setting forth the manner in which CONSULTANT is in default. CONSULTANT will only be paid the contract price for services delivered and accepted, or services performed in accordance with the manner of performance set forth in this Agreement.

If it is later determined by RTC that CONSULTANT had an excusable reason for not performing, such as a fire, flood, or events which are not the fault of or are beyond the control of CONSULTANT, RTC, after setting up a new performance schedule, may allow CONSULTANT to continue work, or treat the termination as a termination for convenience.

#### 7.2. CONTRACT TERMINATION FOR CONVENIENCE

RTC may terminate this Agreement, in whole or in part, at any time by written notice to CONSULTANT when it is in RTC's best interest. CONSULTANT shall be paid its costs, including contract closeout costs, and profit on work performed up to the time of termination. CONSULTANT shall promptly submit its termination claim to RTC to be paid CONSULTANT. If CONSULTANT has any property in its possession belonging to RTC, CONSULTANT will account for the same, and dispose of it in the manner RTC directs.

#### ARTICLE 8 - INSURANCE

- 8.1. CONSULTANT shall not commence any work or permit any employee/agent to commence any work until satisfactory proof has been submitted to RTC that all insurance requirements have been met.
- 8.2. In conjunction with the performance of the services/work required by the terms of this Agreement, CONSULTANT shall obtain all types and amounts of insurance set forth in Exhibit C, and shall comply with all provisions set forth therein.

#### **ARTICLE 9 - HOLD HARMLESS**

9.1. CONSULTANT's obligation under this provision is as set forth in Exhibit C. Said obligation would also extend to any liability of RTC resulting from any action to clear any lien and/or to recover for damage to RTC property.

#### ARTICLE 10 - EQUAL EMPLOYMENT OPPORTUNITY

- 10.1. During the performance of this Agreement, CONSULTANT agrees not to discriminate against any employee or applicant for employment because of race, color, religion, sex, age, disability, or national origin. CONSULTANT will take affirmative action to ensure that applicants are employed, and that employees are treated fairly during employment, without regard to their race, color, religion, sex, age, disability, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. CONSULTANT agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by RTC setting forth the provisions of this nondiscrimination clause.
- 10.2. CONSULTANT will, in all solicitations or advertisements for employees placed by or on behalf of CONSULTANT, state that well qualified applicants will receive consideration of employment without regard to race, color, religion, sex, age, disability, or national origin.
- 10.3. CONSULTANT will cause the foregoing provisions to be inserted in all sub-agreements for any work covered by this Agreement so that such provisions will be binding upon each subconsultant.

#### ARTICLE 11 - RESOLUTION OF CLAIMS AND DISPUTES

#### 11.1. NEGOTIATED RESOLUTION

In the event that any dispute or claim arises under this Agreement, the parties shall timely cooperate and negotiate in good faith to resolve any such dispute or claim. Such cooperation shall include providing the other party with all information in order to properly evaluate the dispute or claim and making available the necessary personnel to discuss and make decisions relative to the dispute or claim.

#### 11.2. MEDIATION

If the parties have been unable to reach an informal negotiated resolution to the dispute or claim within thirty (30) days following submission in writing of the dispute or claim to the other party, or such longer period of time as the parties may agree to in writing, either party may then request, in writing, that the dispute or claim be submitted to mediation (the "Mediation Notice"). After the other party's receipt or deemed receipt of the Mediation Notice, the parties shall endeavor to agree upon a mutually acceptable mediator, but if the parties have been unable to agree upon a mediator within ten (10) days following receipt of the Mediation Notice, then each party shall select a mediator and those two selected mediators shall select the mediator. A mediator selected by the parties' designated mediators shall meet the qualification set forth in as provided in Rule 4 of Part C., "Nevada Mediation Rules" of the "Rules Governing Alternative Dispute Resolutions adopted by the Nevada Supreme Court." Unless otherwise agreed to by the parties, in writing, the mediator shall have complete discretion over the conduct of the mediation proceeding. Unless otherwise agreed to by the parties, in writing, the mediation proceeding must take place within thirty (30) days following appointment of the mediator. The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in Washoe County, Nevada, unless otherwise agreed to by the parties, in writing. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

#### 11.3. <u>LITIGATION</u>

In the event that the parties are unable to settle and/or resolve the dispute or claim as provided above, then either party may proceed with litigation in the Second Judicial District Court of the State of Nevada, County of Washoe.

#### 11.4. CONTINUING CONTRACT PERFORMANCE

During the pendency of any dispute or claim the parties shall proceed diligently with performance of this Agreement and such dispute or claim shall not constitute an excuse or defense for a party's nonperformance or delay.

#### ARTICLE 12 – PROJECT MANAGERS

- 12.1. RTC's Project Manager is Blaine Petersen, P.E. or such other person as is later designated in writing by RTC. RTC's Project Manager has authority to act as RTC's representative with respect to the performance of this Agreement.
- 12.2. CONSULTANT' Project Manager is Michael Mosley, P.E. or such other person as is later designated in writing by CONSULTANT. CONSULTANT's Project Manager has authority to act as CONSULTANT's representative with respect to the performance of this Agreement.

#### <u>ARTICLE 13 - NOTICE</u>

#### 13.1. Notices required under this Agreement shall be given as follows:

RTC: Bill Thomas, AICP

**Executive Director** 

Blaine Petersen, P.E., PTOE

RTC Project Manager

**Regional Transportation Commission** 

1105 Terminal Way Reno, Nevada 89502 (775) 335-1871

CONSULTANT: Molly M. O'Brien, P.E., PTOE

Vice President/Principal-in-Charge

Michael Mosley, P.E., PTOE

Project Manager

Kimley-Horn and Associates, Inc. 7900 Rancharrah Pkwy, Suite 100

Reno, NV 89511 (775) 200-1979

#### ARTICLE 14 - DELAYS IN PERFORMANCE

#### 14.1. TIME IS OF THE ESSENCE

It is understood and agreed that all times stated and referred to herein are of the essence. The period for performance may be extended by RTC's Executive Director pursuant to the process specified herein. No extension of time shall be valid unless reduced to writing and signed by RTC's Executive Director.

#### 14.2. UNAVOIDABLE DELAYS

If the timely completion of the services under this Agreement should be unavoidably delayed, RTC may extend the time for completion of this Agreement for not less than the number of days CONSULTANT was excusably delayed. A delay is unavoidable only if the delay is not reasonably expected to occur in connection with or during CONSULTANT's performance, is not caused directly or substantially by acts, omissions, negligence or mistakes of CONSULTANT, is substantial and in fact causes CONSULTANT to miss specified completion dates, and cannot adequately be guarded against by contractual or legal means.

#### 14.3. NOTIFICATION OF DELAYS

CONSULTANT shall notify RTC as soon as CONSULTANT has knowledge that an event has occurred or otherwise becomes aware that CONSULTANT will be delayed in the completion of the work. Within ten (10) working days thereafter, CONSULTANT shall provide such notice to RTC, in writing, furnishing as much detail on the delay as possible and requesting an extension of time.

#### 14.4. REQUEST FOR EXTENSION

Any request by CONSULTANT for an extension of time to complete the work under this Agreement shall be made in writing to RTC. CONSULTANT shall supply to RTC documentation to substantiate and justify the additional time needed to complete the work and shall provide a revised schedule. RTC shall provide CONSULTANT with notice of its decision within a reasonable time after receipt of a request.

#### **ARTICLE 15 - GENERAL PROVISIONS**

#### 15.1. <u>SUCCESSORS AND ASSIGNS</u>

RTC and CONSULTANT bind themselves and their successors and assigns to the other party and to the successors and assigns of such party, with respect to the performance of all covenants of this Agreement. Except as set forth herein, neither RTC nor CONSULTANT shall assign or transfer interest in this Agreement without the written consent of the other. Nothing herein shall be construed as creating a personal liability on the part of any officer or agent or any public body which may be a party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than RTC and CONSULTANT.

#### 15.2. NON TRANSFERABILITY

This Agreement is for CONSULTANT's professional services, and CONSULTANT's rights and obligations hereunder may not be assigned without the prior written consent of RTC.

#### 15.3. SEVERABILITY

If any part, term, article, or provision of this Agreement is, by a court of competent jurisdiction, held to be illegal, void, or unenforceable, or to be in conflict with any law of the State of Nevada, the validity of the remaining provisions or portions of this Agreement are not affected, and the rights and obligations of the parties shall be construed and enforced as if this Agreement did not contain the particular part, term, or provision held invalid.

#### 15.4. RELATIONSHIP OF PARTIES

CONSULTANT is an independent contractor to RTC under this Agreement. Accordingly, CONSULTANT is not entitled to participate in any retirement, deferred compensation, health insurance plans or other benefits RTC provides to its employees. CONSULTANT shall be free to contract to provide similar services for others while it is under contract to RTC, so long as said services and advocacy are not in direct conflict, as determined by RTC, with services being provided by CONSULTANT to RTC.

#### 15.5. WAIVER/BREACH

Any waiver or breach of a provision in this Agreement shall not be deemed a waiver of any other provision in this Agreement and no waiver is valid unless in writing and executed by the waiving party. An extension of the time for performance of any obligation or act shall not be deemed an extension of time for the performance of any other obligation or act. This

Agreement inures to the benefit of and is binding upon the parties to this Agreement and their respective heirs, successors and assigns.

#### 15.6. <u>REGULATORY COMPLIANCE</u>

- A. CONSULTANT shall comply with all applicable federal, state and local government laws, regulations and ordinances. CONSULTANT shall be responsible for obtaining all necessary permits and licenses for performance of services under this Agreement. Upon request of RTC, CONSULTANT shall furnish RTC certificates of compliance with all such laws, orders and regulations.
- B. CONSULTANT represents and warrants that none of the services to be rendered pursuant to this Agreement constitute the performance of public work, as that term is defined by Section 338.010(17) of the Nevada Revised Statutes. To the extent CONSULTANT does engage in such public work, CONSULTANT shall be responsible for paying the prevailing wage as required by Chapter 338 of the Nevada Revised Statutes.

#### 15.7. EXCLUSIVE AGREEMENT

There are no verbal agreements, representations or understandings affecting this Agreement, and all negotiations, representations and undertakings are set forth herein with the understanding that this Agreement constitutes the entire understanding by and between the parties.

#### 15.8. <u>AMENDMENTS</u>

No alteration, amendment or modification of this Agreement shall be effective unless it is in writing and signed by both parties.

#### 15.9. CONTINUING OBLIGATION

CONSULTANT agrees that if, because of death or any other occurrence it becomes impossible for any principal or employee of CONSULTANT to render the services required under this Agreement, neither CONSULTANT nor the surviving principals shall be relieved of any obligation to render complete performance. However, in such event, RTC may terminate this Agreement if it considers the death or incapacity of such principal or employee to be a loss of such magnitude as to affect CONSULTANT's ability to satisfactorily complete the performance of this Agreement.

#### 15.10. APPLICABLE LAW AND VENUE

The provisions of this Agreement shall be governed and construed in accordance with the laws of the State of Nevada. The exclusive venue and court for all lawsuits concerning this Agreement shall be the Second Judicial District Court of the State of Nevada, County of Washoe, and the parties hereto submit to the jurisdiction of that District Court.

#### 15.11. ATTORNEYS' FEES

In the event of a dispute between the parties result in a proceeding in any Court of Nevada having jurisdiction, the prevailing party shall be entitled to an award of costs and any reasonable attorneys' fees.

#### 15.12. CERTIFICATION REQUIRED BY NEVADA SENATE BILL 27 (2017)

CONSULTANT expressly certifies and agrees, as a material part of this Agreement, that it is not currently engaged in a boycott of Israel. CONSULTANT further agrees, as a material part of this Agreement, it will not engage in a boycott of Israel for the duration of this Agreement. If, at any time during the formation or duration of this Agreement, CONSULTANT is engaged or engages in a boycott of Israel, it will constitute a material breach of this Agreement.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement the day and year first above written.

OF WASHOE COUNTY
By:
Bill Thomas, AICP, Executive Director
KIMLEY-HORN AND ASSOCIATES, INC.

REGIONAL TRANSPORTATION COMMISSION

Molly M. O'Brien, P.E., PTOE, RSP Vice President/Principal-in-Charge

### Exhibit A Scope of Services

#### Introduction

The Regional Transportation Commission of Washoe County (RTC) seeks to develop an Intelligent Transportation System (ITS) Strategic Master Plan (SMP) that will establish the region's long-term vision and goals (2050) including a time-phased implementation plan and an update to the Concept of Operations Truckee Meadows Collaborative Traffic Management plan completed in 2010 and associated Concept of Operations addendum in 2016.

#### **Background**

The RTC is an agency responsible for all transportation system policy, planning, construction, and operation for Washoe County. In this capacity, the RTC is a leader in ITS initiatives for the Northern Nevada region. For example, RTC developed the Truckee Meadows Collaborative Traffic Management report in close consultation with the Nevada Department of Transportation (NDOT), Federal Highway Administration (FHWA), and the cities of Reno and Sparks.

In continuation of these ITS efforts, RTC recognizes that the Truckee Meadows area continues to grow thereby intensifying the need for cooperation and interoperation. Several transportation agencies in the Truckee Meadows area maintain and operate portions of the regional intelligent transportation system.

This plan will be completed in two phases.

- Phase 1 will encompass Tasks A1, B, C, and G (A1 is are assumed to be half of the task.)
- Phase 2 will encompass Tasks A2, D, E, and F (A2 is are assumed to be half of the task.)

#### **Project Schedule**

The Consultant will complete project tasks and deliverables within an **18-month schedule**. Consultant will provide a schedule which assumes draft deliverable review by the RTC's Project Manager and RTC Project Team, and final comments incorporated into the Final Strategic Plan documents. The project schedule will be reviewed with the Project Manager and RTC Project Team at the kick-off meeting. Each phase is anticipated to last 9 months.

#### **Task Scopes**

#### Task A1 & A2 – Project Management and Communications

This task will include a kick-off meeting with the Regional Transportation Commission's (RTC) Project Team and the Consultant to map out project objectives, discuss meeting dates, discuss key milestones and deliverables, and discuss stakeholder outreach. ITS vision and goals talking points will be discussed at the project kick-off meeting with the RTC Project Team.

The RTC Project Team will consist of traffic operations staff from City of Reno, City of Sparks, Washoe County, and the Nevada Department of Transportation (NDOT).

This task will include recurring meetings with the RTC Project Team at key points in the project to review project status, outcomes, results, and recommendations. RTC Project Team meetings will be held at the RTC or remotely. The Consultant will develop agendas for the RTC Project Team meetings

and summarize the discussion points and action items. The RTC Project Team will provide input toward and review all project deliverables.

This task will also include monthly project management activities, including preparing monthly invoices and progress reports which will outline key task activities and percentage complete, as well as identify next steps or project issues and action items. Progress calls will occur between the Consultant team and the RTC's Project Manager to discuss project activities and status (once per month).

The Consultant will develop two ITS Plan progress summary presentations to provide elected officials and upper-level staff a vision for the direction of the work. The summary will include project status, the ITS Vision and ITS goals, and upcoming work that staff will present to the RTC Board. The RTC's Project Manager will review and provide input on the presentation to finalize.

#### Deliverables:

- Project management, coordination, and administration
- Meeting agendas and summaries for the kick-off meeting and RTC Project Team progress meetings
- Monthly invoices and progress reports
- Preparation of two progress presentations to the RTC or to another body (ITS Strategic Plan PowerPoint presentation)

#### Task B – ITS Inventory and Needs Assessment

The Consultant will review the inventory of existing network infrastructure and build an inventory of ITS Devices. This task will build on efforts already completed under previous ITS Planning by updating new developments and inventorying devices and systems not already inventoried. This task will include a review of the next City of Reno, City of Sparks, RTC and Washoe County planned Capital Improvement Programs (CIP) and Regional Transportation Improvement Program (RTIP) as well as major developments in the region that will impact the transportation network. The Consultant will provide ITS inventory update maps in format compatible with previous KMZ file or provide a recommendation for future inventory.

To understand stakeholders' needs Consultant will:

- Conduct a survey with each of the four local agencies
- Conduct one workshop to discuss needs with all agencies
- Conduct one pre-recommendation meeting with the RTC and one pre-recommendation meeting with NDOT. These pre-recommendation meetings need to have a representative qualified to make decisions for their agency on what to move forward with.
- Develop a summary of next steps as Consultant moves into Strategies for the RTC and present the needs assessment summary to all local agencies.

#### Deliverables:

- ITS inventory update in KMZ format or recommended format
- Recommendation of file storage and information sharing
- Needs assessment meetings and summary
- Draft and Final Technical Memorandum #1 ITS Inventory and Needs Assessment Report

#### Task C – ITS Deployment Recommendations

Consultant will examine previous Concept of Operations (Truckee Meadows Collaborative Traffic Management - Final Report v5), Concept of Operations Addendum and System Engineering Management Plan (SEMP.v4) and provide recommendations for future regional ITS conformity.

The Consultant will use the input collected in the previous task to develop deployment and integration strategies. ITS deployment strategies will focus on those steps needed to deploy, operate, integrate, and maintain the ITS program. Strategies will include such items as:

- Conduct two short workshops with all agencies to brainstorm strategies to meet needs and vision. One of these meetings will be with RTC upper-level management to provide direction of the overall vision of the plan.
- Developing a plan that focuses on strategies for building out the ITS communication network in the mid-term and long-term timeframe.
- Evaluations and vision for existing field technologies (such as CCTV (Closed Circuit Television Camera), DMS (Dynamic Message Sign), signal controllers, detectors, preemption)
- Evaluations and vision future field technologies (such as wrong way detection, artificial intelligence, other situational awareness technologies, public Wi-Fi, CV2x, adaptive signal control)
- Traffic Management Center (TMC) recommendations (virtual or brick and mortar), Center
  to Center (C2C) Network expansion, C2C software, mobility data acquisition, mobility
  applications, operations optimization, ITS guidelines, regional plan for autonomous
  vehicles /connected vehicles (AV/CV), public private partnerships (PPP), data sharing
  between agencies and departments, staffing, training, data sharing with public, asset
  management.
- Transportation System Management and Operation people, processes, programs
- Recommending a strategy for formalizing ITS design standards and specifications for ITS projects the RTC implements in the future. This will include a summary of other agencies that have existing details and specifications that the RTC could leverage.
- Coordination and development of strategies that will have synergy with the NDOT ITS Master Plan being developed concurrently.
- Present Strategies to agencies in a workshop and garner feedback
- Revise and present revision and recommendations of strategies

Strategies will be developed to support a range of operational areas including traffic management and operations, inter-agency coordination, work zone management, and traveler information. For each recommended strategy in the mid-term timeframe, the Consultant will include the following:

- Strategy name
- Brief strategy description
- Implementation timeframe (year) Lead and supporting/coordinating agencies
- Mapping to ITS goals and objectives; Coordination with other projects/programs and regional initiatives
- Staff resources required for implementation, operations, and maintenance
- Planning level cost estimates.

The Consultant will develop an RTC TMC design which includes layout and technology requirements, opinion of probable cost, schematics, and specification of requirements, and write an RFP (request for proposals) for procurement and installation. RTC to provide existing infrastructure data including power and communications. Permits for any building renovations or improvements will be done as an additional service. This subtask will be completed within first 6 months.

#### Deliverables:

- Draft and Final Technical Memorandum #2 ITS Deployment Plan
- RTC TMC design documents

#### Task D – ITS Maintenance Plan

A maintenance plan for equipment and systems will be developed to identify the ITS equipment replacement needs and staffing requirements in the mid-term and long-term. This maintenance plan will consider existing infrastructure and recommendations for frequency of preventative and replacement activities for the future of the ITS program devices and systems. Consideration for the funding levels to maintain the current and future ITS program operations will be included in this task.

#### Deliverables:

• Draft and Final Technical Memorandum #3 – ITS Maintenance Plan

#### Task E – Implementation Plan

The Consultant will prepare an Implementation Plan that outlines the mid-term and long-term action items for the RTC and summarizes the priorities for the RTC ITS program.

The Consultant will prepare prioritization criteria to identify the mid-term action items for the RTC. The Consultant will identify organize projects based on RTC project programming requirements. An annual budget will be established for improvements to program projects annually. Consultant will review opportunities to garner federal funding and federal grant. The Implementation Plan will include a phasing plan for deployment/ integration/ upgrades/ replacement, and will focus on the mid-term timeframe, with additional strategies noted for longer term.

The phasing plan will consider operational enhancements that are needed to support the growing ITS program. The yearly summary will also include potential opportunities to coordinate with other capital improvements, when additional staffing will be needed, strategies for outreach about the ITS program, and considerations the timing of key regional initiatives.

The Consultant will develop a high-level schematic map showing priority corridors a description of the recommended technologies and operational opportunities that would be beneficial to utilize along those priority corridors.

As part of the Implementation Plan, the Consultant will prepare a list of recommended supporting documents that will be needed to achieve the vision and operational priorities of the ITS program such as:

- Interlocal agreement
- Maintenance agreements
- Preventative maintenance agreements

- Standard Operating Procedures
- Transportation Systems Management and Operations (TSMO)
- Further planning

The Implementation Plan will also include a process that the RTC can use to review and update the ITS Strategic Plan on a periodic basis as the RTC's ITS program matures.

An update will be completed to the Concept of Operations Truckee Meadows Collaborative Traffic Management plan completed in 2010 and associated Concept of Operations addendum in 2016.

The Consultant will summarize the outcomes from this task into draft Technical Memorandum #3. An electronic draft will be provided to the RTC for review and comment.

#### **Deliverables**:

- Opportunities for coordinating ITS deployment with other capital improvement projects on the region's major arterials.
- Priority Corridor Map
- Update to Concept of Operations
- Draft and Final Technical Memoranda #4 Implementation Plan

#### Task F – Final ITS Strategic Master Plan

For the final Strategic Plan, the Consultant will incorporate comments received on the draft technical memoranda and prepare final versions of the technical memoranda, which will serve as chapters of the Strategic Plan document. The Consultant will develop an Executive Summary. The Executive Summary will note the vision and operational priorities, key outcomes, and priority recommendations, and the Implementation Plan phasing recommendations. A draft Executive Summary and draft ITS Strategic Plan will be provided to the RTC's Project Manager for review. Comments received will be incorporated into final versions of both documents.

The Consultant will develop a matrix of ITS strategies for devices, systems, and integration projects that could potentially require ITS Architecture project conformity to apply for federal funding.

The final Strategic Plan will be provided to the RTC Project Team in electronic format (.pdf and Microsoft Word). Consultant shall provide all source files for all figures, diagrams, tables, drawings, sketches, etc. as separate files additionally. One electric copy and one copy of a printed notebook with the final presentation and final ITS Strategic Plan will be provided to the RTC Project Team. The Consultant will develop an ITS Plan summary presentation including the ITS Vision and ITS goals for staff to present to the RTC Board. The RTC's Project Manager will review and provide input on the presentation to finalize.

#### Deliverables:

- Matrix of ITS strategies for ITS Architecture conformity
- Draft Executive Summary
- Draft ITS Strategic Plan
- Final Executive Summary and ITS Strategic Plan (provided electronically and in one notebook)

- Final Regional Transportation Commission ITS Strategic Plan PowerPoint presentation
- Two formal presentations

#### Task G – Contingency Services

This is a contingency for miscellaneous increases within the scope of this contract. CONSULTANT shall provide a letter detailing the need, scope, and not-to-exceed budget for any proposed work. Work under this task shall proceed only with the RTC Project Manager's written approval. A 5% contingency is included for the project.



## **Exhibit B - Schedule of Services RTC ITS Strategic Master Plan**



1/18/2022

v2.1

	1/10/2022					
TASK	DESCRIPTION	TASK TOTALS				
Phase 1						
A1	Project Management and Communication	\$ 18,287.50				
В	Inventory and Needs Assessment	\$ 42,015.00				
С	ITS Deployment Recommendations	\$ 127,425.00				
G	Contingency (5%)	\$ 17,000.00				
	Total Phase 1 Services	\$204,727.50				
Phase 2						
A2	Project Management and Communication	\$ 18,287.50				
D	Maintenance Plan	\$ 19,945.00				
E	Implementation Plan	\$ 77,935.00				
F	Final ITS Strategic Plan	\$ 29,105.00				
	Total Phase 2 Services	\$145,272.50				
		\$350,000.00				
	Total Services (Task A-G)					

Contract No.: Page 1 of 3



### Exhibit B - Schedule of Services RTC ITS Strategic Master Plan

Prepared by Kimley-Horn MSM/DH 1/18/2022 v2.1

									Prepared by I	Kimley-Horn	MSM/DH	1/18/2022	v2.1
TASK	DESCRIPTION	ITS System Manager	Senior Prof. II	Senior Prof. I	Prof.	Senior Technical Support	Analyst	Technical Support	Support Staff	Hours Subtotal	Expenses	Expense Description	Lump Sum Task Amounts
	Duele of Management and	\$280	\$255	\$225	\$170	\$145	\$140	\$120	\$110				
Α	Project Management and												
	Communication Project Management (18 months)	2	18		10					38			\$8,210.00
	Kickoff Meeting	1	8	3	18 4					16	\$660	Travel	\$4,335.00
	Monthly Progress calls (18 months)	'	9	9	18					36	\$660	Havei	\$7,380.00
	Invoicing, Progress Reports, Work		9	9	10					36			\$7,300.00
	Planning		18	4					18	40			\$7,470.00
	Progress Presentation Development (2)	1	10	5	10	5	10		10	41	\$1,400	Travel	\$9,180.00
	1 Togress Tresentation Development (2)	'	10		10		10			0	ψ1,400	Havei	\$0.00
	Subtotal Hours	4	63	21	50	5	10	0	18	171			ψυ.υ.
	Subtotal Fee	\$1,120	\$16,065	\$4,725	\$8,500	\$725	\$1,400		\$1,980		\$2,060		\$36,575.00
		¥1,12¢	<b>410,000</b>	<del>+ 1,1 = 0</del>	<del>+0,000</del>	<del></del>	<b>V</b> 1,100	4,0	<b>V.,555</b>		<del>+=,000</del>		400,010.0
В	Inventory and Needs Assessment												
	Review and build device inventory	1	2	3	4	30	30			70			\$10,695.00
	Prepare maps		2	2	10	10	10			34			\$5,510.00
	Agency Survey		4	4	5		5			18			\$3,470.00
	Needs Workshop	1	4	4	8					17	\$700	Travel	\$4,260.00
	Two Pre-recommendations Meetings		4	4	4					12			\$2,600.00
	Needs Summary & Present to Agencies		2	2	8		10			22			\$3,720.00
	Draft Tech Memo #1	1	1	4	10	10	20			46			\$7,385.00
	Final Tech Memo #1			3	5	10	10			28			\$4,375.00
										0			\$0.00
	Subtotal Hours	3	19	26	54	60	85	0	0	247			
	Subtotal Fee	\$840	\$4,845	\$5,850	\$9,180	\$8,700	\$11,900	\$0	\$0		\$700		\$42,015.00
С	ITS Deployment Recommendations												
	Review ConOps and SEMP	1		10	10					21			\$4,230.00
	Strategies Brainstorm Workshops		4	4	4					12			\$2,600.00
	Develop Strategies and												
	recommendations	4	35	40	70	20	80			249			\$45,045.0
	Standards and Specifications	10	20	10	10	20	40			110			\$20,350.0
	Coordination with NDOT Plan	4	5	5	10	1	_			10			\$2,400.0
	Funding Opportunities Research	1		10	10		5			26			\$4,930.0
	Present Strategies to Agencies Workshop		,	4	4					40	6700	Treval	#2 200 O
	RTC TMC Design	10	4 30	30	25	20	60		-	12 175	\$700 \$1,400	Travel Travel	\$3,300.00 \$34,150.00
	Draft Tech Memo #2	10	2	4	10	5	20		+	42	φ1,400	Havei	\$6,915.00
	Final Tech Memo #2	<del>  ' </del>		3	5		10		<del> </del>	22			\$3,505.00
	i mai redit Micilio #2			<u>ა</u>	5	4	10		+	0			\$3,505.00
	Subtotal Hours	27	100	120	148	69	215	0	0				φυ.υι
	Subtotal Fee	\$7,560	\$25,500	\$27,000	\$25,160	\$10,005	\$30,100	\$0	\$0		\$2,100		\$127,425.00
•				_									
D	Maintenance Plan												+
	Draft Tech Memo #3	5	20	20	30	<del> </del>			+	75			\$16,100.0
	Final Tech Memo #3	<u> </u>	4	5	10					19			\$3,845.00

# Exhibit "B"

TASK	DESCRIPTION	ITS System Manager	Senior Prof. II	Senior Prof. I	Prof.	Senior Technical Support	Analyst	Technical Support	Support Staff	Hours Subtotal	Expenses	Expense Description	Lump Sum Task Amounts
										0			\$0.00
	Subtotal Hours	5	24	25	40	0	0	0	0	94			
	Subtotal Fee	\$1,400	\$6,120	\$5,625	\$6,800	\$0	\$0	\$0	\$0		\$0		\$19,945.00
E	Implementation Plan												
	Prioritizations	2	15	20	30		10			77			\$15,385.00
	Phase Plan and Funding	3	5	10	15		10			43			\$8,315.00
	Coordination with Other CIPs		5	5	5		5			20			\$3,950.00
	Develop priority corridor map		2	5	10	40	15			72	\$700		\$11,935.00
	Recommended Documents			10						10			\$2,250.00
	Update to ConOps and SEMP		2	40	40		50			132			\$23,310.00
	Draft Tech Memo #4	1	5	10	10	5	20			51			\$9,030.00
	Final Tech Memo #4		1	3	5	4	10			23			\$3,760.00
	Subtotal Hours	6	35	103	115	49	120	0	0	0 428			\$0.00
	Subtotal Fee	\$1,680	\$8,925	\$23,175	\$19,550	\$7,105	\$16,800	\$0	\$0		\$700		\$77,935.00
F	Final ITS Strategic Plan												
	Architecture Matrix			10	10		7			20			\$3,950.00
	Draft ITS SMP	1	4	10	20	10	20			65			\$11,200.00
	Final ITS SMP			3	5	10	10			28			\$4,375.00
	Prepare Presentations (2)	1	10	10	10		10			41	\$1,400	Travel	\$9,580.00
	Subtotal Hours	2	14	33	45	20				154			
	Subtotal Fee	\$560	\$3,570	\$7,425	\$7,650	\$2,900	\$5,600	\$0	\$0		\$1,400		\$29,105.00
G	Contingency (5%)											5%	\$17,000.00
	Total Basic Services Hours	47	255	328	452	203	470	0	18	1,773			
	Total Basic Services Fee	\$13,160	\$65,025	\$73,800	\$76,840	\$29,435	\$65,800	\$0	\$1,980		\$6,960		\$350,000.00

#### **Exhibit C**

# INDEMNIFICATION AND INSURANCE REQUIREMENTS FOR PROFESSIONAL SERVICE AGREEMENTS [NRS 338 DESIGN PROFESSIONAL]

2021-10-18 Version

# 1. INTRODUCTION

IT IS HIGHLY RECOMMENDED THAT CONSULTANTS CONFER WITH THEIR INSURANCE CARRIERS OR BROKERS TO DETERMINE THE AVAILABILITY OF THESE INSURANCE CERTIFICATES AND ENDORSEMENTS IN ADVANCE OF PROPOSAL SUBMISSION. IF THERE ARE ANY QUESTIONS REGARDING THESE INSURANCE REQUIREMENTS, IT IS RECOMMENDED THAT THE AGENT/BROKER CONTACT RTC'S FINANCE DIRECTOR AT (775) 335-1845.

#### 2. INDEMNIFICATION

CONSULTANT agrees, subject to the limitations in Nevada Revised Statutes Section 338.155, to save and hold harmless and fully indemnify RTC, Washoe County, City of Reno and City of Sparks including their elected officials, officers, employees, and agents (hereafter, "Indemnitees") from and against any and all claims, proceedings, actions, liability and damages, including reasonable attorneys' fees and defense costs incurred in any action or proceeding (collectively "Damages") arising out of the:

- A. Negligence, errors, omissions, recklessness or intentional misconduct of CONSULTANT or CONSULTANT's agents, employees, officers, directors, subconsultants, or anyone else for whom CONSULTANT may be legally responsible, which are based upon or arising out of the professional services of CONSULTANT; and
- B. Violation of law or any contractual provisions or any infringement related to trade names, licenses, franchises, patents or other means of protecting interests in products or inventions resulting from the use by the Indemnitees of any materials, devices, processes, equipment, or other deliverable (including software) supplied by CONSULTANT under or as a result of this Agreement, but excluding any violation or infringement resulting from the modification or alteration by the Indemnitees of any materials, devices, processes, equipment, or other deliverable (including software) not consented to by CONSULTANT.

CONSULTANT further agrees to defend, save and hold harmless and fully indemnify the Indemnitees from and against any and all Damages arising out the negligence, errors, omissions, recklessness or intentional misconduct of CONSULTANT or CONSULTANT's agents, employees, officers, directors, subconsultants, or anyone else for whom CONSULTANT may be legally responsible, which are not based upon or arising out of the professional services of CONSULTANT.

The Damages shall include, but are not limited to, those resulting from personal injury to any person, including bodily injury, sickness, disease or death and injury to real property or personal property, tangible or intangible, and the loss of use of any of that property, whether or not it is physically injured.

If the Indemnitees are involved in defending actions of CONSULTANT or anyone else for whom CONSULTANT is legally responsible, CONSULTANT shall reimburse the Indemnitees for the time spent by such personnel at the rate of the Indemnitees pay or compensation for such services.

If an Indemnitee is found to be liable in the proceeding, then CONSULTANT'S obligation hereunder shall be limited to the proportional share of the liability attributed to CONSULTANT.

In determining whether a claim is subject to indemnification, the incident underlying the claim shall determine the nature of the claim.

In the event of a violation or an infringement under paragraph 2.B above and the use is enjoined, CONSULTANT, at its sole expense, shall either (1) secure for the Indemnitees the right to continue using the materials by suspension of any injunction or by procuring a license or licenses for the Indemnitees; or (2) modify the materials so that they become non-infringing. This covenant shall survive the termination of the Professional Services Agreement.

The provisions of this Agreement are separate and severable and it is the intent of the Parties hereto that in the event any provision of this Agreement should be determined by any court of competent jurisdiction to be void, voidable or too restrictive for any reason whatsoever, the remaining provisions of this Agreement shall remain valid and binding upon said Parties. It is also understood and agreed that in the event any provision should be considered, by any court of competent jurisdiction, to be void because it imposes a greater obligation on CONSULTANT than is permitted by law, such court may reduce and reform such provisions to limitations which are deemed reasonable and enforceable by said court.

# 3. GENERAL REQUIREMENTS

Prior to the start of any work on a RTC project, CONSULTANT shall purchase and maintain insurance of the types and limits as described below insuring against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONSULTANT, its subconsultants, or their employees, agents, or representatives. The cost of all such insurance shall be borne by CONSULTANT.

#### 4. VERIFICATION OF COVERAGE

CONSULTANT shall furnish RTC with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth herein, on forms acceptable to RTC. All deductibles and self-insured retentions requiring RTC approval shall be shown on the certificate. All certificates and endorsements are to be addressed to RTC's Finance Director and be received by RTC before work commences. CONSULTANT agrees that RTC has the right to inspect CONSULTANT'S and the Sub's insurance policies, or

certified copies of the policies, upon request. Copies of applicable policy forms or endorsements confirming required additional insured, waiver of subrogation and notice of cancellation provisions are required to be provided with any certificate(s) evidencing the required coverage.

#### 5. NOTICE OF CANCELLATION

CONSULTANT or its insurers shall provide at least thirty (30) days' prior written notice to RTC prior to the cancellation or non-renewal of any insurance required under this Agreement. An exception may be included to provide at least ten (10) days' written notice if cancellation is due to non-payment of premium. CONSULTANT shall be responsible to provide prior written notice to RTC as soon as practicable upon receipt of any notice of cancellation, non-renewal, reduction in required limits or other material change in the insurance required under this Agreement.

#### 6. SUBCONSULTANTS & SUBCONTRACTORS

CONSULTANT shall include all Subcontractors and Subconsultants (referred to collectively as "Subs") as insureds under its liability policies OR shall cause Subs employed by CONSULTANT to purchase and maintain separate liability coverages and limits of the types specified herein. If any Subs maintain separate liability coverages and limits, each shall include the RTC, Washoe County, City of Reno and City of Sparks as additional insureds under its commercial general liability policy, subject to the same requirements stated herein, without requiring a written contract or agreement between each of the additional insureds and any sub-consultant or sub-contractor. Any separate coverage limits of liability maintained by Subs shall be at least \$1,000,000 per occurrence and at least \$2,000,000 for any applicable coverage aggregates or the amount customarily carried by the Sub, whichever is GREATER. If any Subs provide their own insurance with limits less than required of the Contractor, Contractor shall include Subs in their coverage up to the full limits required of the Contractor. When requested by RTC, CONSULTANT shall furnish copies of certificates of insurance evidencing coverage for each subconsultant. CONSULTANT need not require its non-design subcontractors to carry Professional Errors and Omissions Liability insurance.

# 7. DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions that exceed \$5,000 per occurrence or claim must be declared to RTC's Finance Director prior to signing this Agreement. RTC is entitled to request and receive additional documentation, financial or otherwise, prior to giving its approval of the deductibles and self-insured retentions. Any changes to the deductibles or self-insured retentions made during the term of this Agreement or during the term of any policy must be declared to RTC's Finance Director prior to the change taking effect.

#### 8. ACCEPTABILITY OF INSURERS

Required insurance is to be placed with insurers with a Best's rating of no less than A-VII and acceptable to RTC. RTC may accept coverage with carriers having lower Best's ratings upon review of financial information concerning CONSULTANT and the insurance carrier. RTC reserves the right to require that CONSULTANT'S insurer(s) be licensed and admitted in the State

of Nevada or meet any applicable state and federal laws and regulations for non-admitted insurance placements.

#### 9. OTHER CONDITIONS

- A. Failure to furnish the required certificate(s) or failure to maintain the required insurance may result in termination of this Agreement at RTC's option.
- B. If CONSULTANT fails to furnish the required certificate or fails to maintain the required insurance as set forth herein, RTC shall have the right, but not the obligation, to purchase said insurance at CONSULTANT's expense.
- C. Any waiver of CONSULTANT's obligation to furnish such certificate or maintain such insurance must be in writing and signed by an authorized representative of RTC. Failure of RTC to demand such certificate or other evidence of full compliance with these insurance requirements or failure of RTC to identify a deficiency from evidence that is provided shall not be construed as a waiver of CONSULTANT's obligation to maintain such insurance, or as a waiver as to the enforcement of any of these provisions at a later date.
- D. By requiring insurance herein, RTC does not represent that coverage and limits will necessarily be adequate to protect CONSULTANT, and such coverage and limits shall not be deemed as a limitation on CONSULTANT's liability under the indemnities granted to RTC in this contract.
- E. If CONSULTANT'S liability policies do not contain the standard ISO separation of insureds condition, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

# 10. COMMERCIAL GENERAL LIABILITY

CONSULTANT shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less than \$2,000,000 each occurrence. If such CGL insurance contains a general aggregate limit, it shall be increased to equal twice the required occurrence limit or revised to apply separately to this project.

CGL insurance shall be written on ISO occurrence form CG 00 01 04 13 (or a substitute form providing equivalent coverage) and shall cover liability arising from premises, operations, products-completed operations, personal and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

RTC and any other Indemnitees listed in Section 2. INDEMNIFICATION of this Agreement shall be included as an insured under the CGL, using ISO additional insured endorsement CG 20 10 07/04 or CG 20 33 07/04 or a substitute providing equivalent coverage, and under the commercial umbrella, if any.

This insurance shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to RTC or any other Indemnitees under this Agreement.

CONSULTANT waives all rights against RTC and any other Indemnitees listed in section 2. INDEMNIFICATION of this Agreement for recovery of damages to the extent these damages are covered by the commercial general liability or commercial umbrella liability insurance maintained pursuant to this agreement. CONSULTANT's insurer shall endorse CGL policy to waive subrogation against RTC with respect to any loss paid under the policy.

#### 11. COMMERCIAL AUTOMOBILE LIABILITY

CONSULTANT shall maintain automobile liability and, if necessary, commercial umbrella liability insurance with a limit of not less than \$1,000,000 each accident. Such insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos).

Coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 25, or a substitute form providing equivalent liability coverage for all owned, leased, hired (rented) and non-owned vehicles (as applicable). RTC may agree to accept auto liability for non-owned and hired (rented) vehicles under the CGL if CONSULTANT does not own or operate any owned or leased vehicles.

CONSULTANT waives all rights against RTC, its officers, employees and volunteers for recovery of damages to the extent these damages are covered by the automobile liability or commercial umbrella liability insurance obtained by CONSULTANT pursuant to this Agreement.

# 12. INDUSTRIAL (WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY) INSURANCE

It is understood and agreed that there shall be no Industrial (Worker's Compensation and Employer's Liability) Insurance coverage provided for CONSULTANT or any subconsultants by RTC. CONSULTANT, and any subconsultants, shall procure, pay for and maintain the required coverages.

CONSULTANT shall maintain workers' compensation and employer's liability insurance meeting the statutory requirements of the State of Nevada, including but not limited to NRS 616B.627 and NRS 617.210. The employer's liability limits shall not be less than \$1,000,000 each accident for bodily injury by accident or \$1,000,000 each employee for bodily injury by disease.

CONSULTANT shall provide a Final Certificate for itself and each subconsultant evidencing that CONSULTANT and each subconsultant maintained workers' compensation and employer's liability insurance throughout the entire course of the project.

If CONSULTANT, or any subconsultant is a sole proprietor, coverage for the sole proprietor must be purchased and evidence of coverage must appear on the Certificate of Insurance and Final Certificate.

CONSULTANT waives all rights against RTC, its elected officials, officers, employees and agents for recovery of damages to the extent these damages are covered by the workers compensation and employer's liability or commercial umbrella liability insurance obtained by Tenant pursuant to this agreement. CONSULTANT shall obtain an endorsement equivalent to WC 00 03 13 to affect this waiver.

#### 13. PROFESSIONAL ERRORS AND OMISSIONS LIABILITY

CONSULTANT shall maintain professional liability insurance applying to liability for a professional, error, act, or omission arising out of the scope of CONSULTANT'S services provided under this Agreement with a limit of not less than \$1,000,000 each claim and annual aggregate. CONSULTANT shall maintain professional liability insurance during the term of this Agreement and, if coverage is provided on a "claims made" or "claims made and reported" basis, shall maintain coverage or purchase an extended reporting period for a period of at least three (3) years following the termination of this Agreement.

#### 14. NETWORK SECURITY AND PRIVACY LIABILITY

If CONSULTANT will have access to RTC computer or network systems for any reason and/or data including personal information (as defined in NRS 603A.040) or confidential information, CONSULTANT shall maintain network security and privacy liability insurance insuring against loss resulting from (1) privacy breaches [liability arising from the loss or disclosure of confidential information] (2) system breach (3) denial or loss of service (4) introduction, implantation, or spread of malicious software code (5) unauthorized access to or use of computer systems and (6) system failure. Coverage shall be provided with a limit of not less than \$1,000,000 per claim and annual aggregate.

MEETING DATE: February 18, 2022 AGENDA ITEM 4.11

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

# **RECOMMENDED ACTION**

Approve a contract with Jacobs Engineering Group, Inc. (Jacobs), to provide design services and engineering during construction for the Mill Street Widening project in an amount not-to-exceed \$1,539,340.

# **BACKGROUND AND DISCUSSION**

This Professional Services Agreement (PSA) with Jacobs is for professional design services for the Mill Street Widening project in the amount of \$1,417,730 and engineering during construction services (EDC) in the amount of \$121,610. Proposed improvements include widening Mill Street from Kietzke Lane to the I-580 southbound on-ramp from four to five lanes. Proposed improvements on Mill Street from the I-580 northbound on-ramp interchange to Terminal Way include a raised median but do not include widening the road and will maintain the existing four travel lanes. The project improvements exclude the I-580 interchange which was recently improved with NDOT's Spaghetti Bowl Xpress (SBX) Project.

Jacobs was selected from RTC's Engineering Design & Construction Management Services prequalified list due to their experience/familiarity working on the Reno Spaghetti Bowl Reconstruction Project (SBX) – which included improvements on parts of Mill Street – to prepare complete plans and specifications to allow the RTC to advertise for construction bids. The RTC entered into negotiations with Jacobs for the subject services. Successful negotiation of scope, schedule and budget resulted in the total agreement amount for the services that is within the appropriated budget.

# **FISCAL IMPACT**

Appropriations are included in the FY 21 Program of Projects and FY 23 Budget.

# PREVIOUS BOARD ACTION

June 20, 2019 Approved the Qualified Consultant List for Engineering Design and

**Construction Management Services** 

#### **ATTACHMENT(S)**

A. Professional Services Agreement

# AGREEMENT FOR PROFESSIONAL SERVICES

This agreement (this "Agreement") is dated and effective as of February 18, 2022, by and between the Regional Transportation Commission of Washoe County ("RTC") and Jacobs Engineering Group, Inc. ("CONSULTANT").

#### WITNESSETH:

WHEREAS, RTC has selected Jacobs Engineering Group, Inc. from the RTC Design and Construction shortlist to perform Design and Engineering Services in connection with the Mill Street Widening Project.

NOW, THEREFORE, RTC and CONSULTANT, in consideration of the mutual covenants and other consideration set forth herein, do hereby agree as follows:

# ARTICLE 1 – TERM AND ENGAGEMENT

- 1.1. The term of this Agreement shall be from the date first written above through December 31, 2025, unless terminated at an earlier date, or extended to a later date, pursuant to the provisions herein.
- 1.2. CONSULTANT will perform the work using the project team identified in the Exhibit A. Any changes to the project team must be approved by RTC's Project Manager.
- 1.3. CONSULTANT will promptly, diligently and faithfully execute the work to completion in accordance with applicable professional standards subject to any delays due to strikes, acts of God, act of any government, civil disturbances, or any other cause beyond the reasonable control of CONSULTANT.
- 1.4. CONSULTANT shall not proceed with work until both parties have executed this Agreement and a purchase order has been issued to CONSULTANT. If CONSULTANT violates that prohibition, CONSULTANT forfeits any and all right to reimbursement and payment for that work and waives any and all claims against RTC, its employees, agents, and affiliates, including but not limited to monetary damages, and any other remedy available at law or in equity arising under the terms of this Agreement. Furthermore, prior to execution and issuance of a purchase order, CONSULTANT shall not rely on the terms of this Agreement in any way, including but not limited to any written or oral representations, assurances or warranties made by RTC or any of its agents, employees or affiliates, or on any dates of performance, deadlines, indemnities, or any term contained in this Agreement or otherwise.

#### ARTICLE 2 - SERVICES OF CONSULTANT

# 2.1. SCOPE OF SERVICES

The scope of services consist of the tasks set forth in Exhibit A.

# 2.2. SCHEDULE OF SERVICES

Tasks and subtasks shall be completed in accordance with the schedule in Exhibit A. Any change(s) to the schedule must be approved by RTC's Project Manager.

# 2.3. CONTINGENCY

Contingency line items identified in the scope of services are for miscellaneous increases within the scope of work. Prior to the use of any contingency amounts, CONSULTANT shall provide a letter to RTC's Project Manager detailing the need, scope, and not-to-exceed budget for the proposed work. Work to be paid for out of contingency shall proceed only with the RTC Project Manager's written approval.

# 2.4. OPTIONS

RTC shall have the right to exercise its option(s) for all or any part of the optional tasks or subtasks identified in Exhibit A. CONSULTANT will prepare and submit a detailed scope of services reflecting the specific optional services requested, a schedule for such services, and a cost proposal. RTC will review and approve the scope of services and RTC and CONSULTANT will discuss and agree upon compensation and a schedule. CONSULTANT shall undertake no work on any optional task without written notice to proceed with the performance of said task. RTC, at its sole option and discretion, may select another individual or firm to perform the optional tasks or subtasks identified in Exhibit A.

# 2.5. <u>ADDITIONAL SERVICES</u>

CONSULTANT will provide additional services when agreed to in writing by RTC and CONSULTANT.

# 2.6. PERFORMANCE REQUIREMENTS

Any and all design and engineering work furnished by CONSULTANT shall be performed by or under the supervision of persons licensed to practice architecture, engineering, or surveying (as applicable) in the State of Nevada, by personnel who are careful, skilled, experienced and competent in their respective trades or professions, who are professionally qualified to perform the work, and who shall assume professional responsibility for the accuracy and completeness of documents prepared or checked by them, in accordance with appropriate prevailing professional standards. Notwithstanding the provision of any drawings, technical specifications, or other data by RTC, CONSULTANT shall have the

responsibility of supplying all items and details required for the deliverables required hereunder.

Any sampling and materials testing shall be performed by an approved testing laboratory accredited by AASHTO or other ASTM recognized accrediting organization in the applicable test methods. If any geotechnical or materials testing is performed by a subconsultant, that laboratory shall maintain the required certification. Proof of certification shall be provided to RTC with this Agreement. If certification expires or is removed during the term of this Agreement, CONSULTANT shall notify RTC immediately, and propose a remedy. If an acceptable remedy cannot be agreed upon by both parties, RTC may terminate this Agreement for default.

CONSULTANT shall provide only Nevada Alliance for Quality Transportation Construction (NAQTC) qualified personnel to perform field and laboratory sampling and testing during the term of this Agreement. All test reports shall be signed by a licensed NAQTC tester and notated with his/her license number.

# 2.7. ERRORS AND OMISSIONS

CONSULTANT shall, without additional compensation, correct or revise any deficiencies, errors, or omissions caused by CONSULTANT in its analysis, reports, and services. CONSULTANT also agrees that if any error or omission is found, CONSULTANT will expeditiously make the necessary correction, at no expense to RTC. If an error or omission was directly caused by RTC, and not by CONSULTANT and RTC requires that such error or omission be corrected, CONSULTANT may be compensated for such additional work.

# **ARTICLE 3 - COMPENSATION**

- 3.1. CONSULTANT shall be paid for hours worked at the hourly rates and rates for testing in Exhibit B. RTC shall not be responsible for any other costs or expenses except as provided in Exhibit B.
- 3.2. The maximum amount payable to CONSULTANT to complete each task is equal to the not-to-exceed amounts identified in Exhibit B. CONSULTANT can request in writing that RTC's Project Manager reallocate not-to-exceed amounts between tasks. A request to reallocate not-to-exceed amounts must be accompanied with a revised fee schedule, and must be approved in writing by RTC's Project Manager prior to performance of the work. In no case shall CONSULTANT be compensated in excess of the following not-to exceed amounts:

Design and Bidding Services (Tasks 1 to 6)	\$1,267,730.00
Design Contingency (Task 7)	\$150,000.00
Engineering Services During Construction (Task 8)	\$121,610.00
Total Not-to-Exceed Amount	\$1,539,340.00

- 3.3. For any work authorized under Section 2.4, "Additional Services," RTC and CONSULTANT will negotiate not-to-exceed amounts based on the standard hourly rates and rates for testing in Exhibit B. Any work authorized under Section 2.4, "Additional Services," when performed by persons who are not employees or individuals employed by affiliates of CONSULTANT, will be billed at a mutually agreed upon rate for such services, but not more than 105% of the amounts billed to CONSULTANT for such services.
- 3.4. CONSULTANT shall receive compensation for preparing for and/or appearing in any litigation at the request of RTC, except: (1) if such litigation costs are incurred by CONSULTANT in defending its work or services or those of any of its sub-consultants; or (2) as may be required by CONSULTANT's indemnification obligations. Compensation for litigation services requested by RTC shall be paid at a mutually agreed upon rate and/or at a reasonable rate for such services.

# ARTICLE 4 - INVOICING

- 4.1. CONSULTANT shall submit monthly invoices in the format specified by RTC. Invoices must be submitted to <a href="mailto:accountspayable@rtcwashoe.com">accountspayable@rtcwashoe.com</a>. RTC's payment terms are 30 days after the receipt of the invoice. Simple interest will be paid at the rate of half a percent (0.5%) per month on all invoices approved by RTC that are not paid within thirty (30) days of receipt of the invoice.
- 4.2. RTC shall notify CONSULTANT of any disagreement with any submitted invoice for consulting services within thirty (30) days of receipt of an invoice. Any amounts not in dispute shall be promptly paid by RTC.
- 4.3. CONSULTANT shall maintain complete records supporting every request for payment that may become due. Upon request, CONSULTANT shall produce all or a portion of its records and RTC shall have the right to inspect and copy such records.

# ARTICLE 5 - ACCESS TO INFORMATION AND PROPERTY

- 5.1. Upon request and without cost to CONSULTANT, RTC will provide all pertinent information that is reasonably available to RTC including surveys, reports and any other data relative to design and construction.
- 5.2. RTC will provide access to and make all provisions for CONSULTANT to enter upon RTC facilities and public lands, as required for CONSULTANT to perform its work under this Agreement.

#### ARTICLE 6 - OWNERSHIP OF WORK

6.1. Plans, reports, studies, tracings, maps, software, electronic files, licenses, programs, equipment manuals, and databases and other documents or instruments of service prepared or obtained by CONSULTANT in the course of performing work under this Agreement,

shall be delivered to and become the property of RTC. Software already developed and purchased by CONSULTANT prior to the Agreement is excluded from this requirement. CONSULTANT and its sub-consultants shall convey and transfer all copyrightable interests, trademarks, licenses, and other intellectual property rights in such materials to RTC upon completion of all services under this Agreement and upon payment in full of all compensation due to CONSULTANT in accordance with the terms of this Agreement. Basic survey notes, sketches, charts, computations and similar data prepared or obtained by CONSULTANT under this Agreement shall, upon request, also be provided to RTC.

- 6.2. CONSULTANT represents that it has secured all necessary licenses, consents, or approvals to use the components of any intellectual property, including computer software, used in providing services under this Agreement, that it has full legal title to and the right to reproduce such materials, and that it has the right to convey such title and other necessary rights and interests to RTC.
- 6.3. CONSULTANT shall bear all costs arising from the use of patented, copyrighted, trade secret, or trademarked materials, equipment, devices, or processes used on or incorporated in the services and materials produced under this Agreement.
- 6.4. CONSULTANT agrees that all reports, communications, electronic files, databases, documents, and information that it obtains or prepares in connection with performing this Agreement shall be treated as confidential material and shall not be released or published without the prior written consent of RTC; provided, however, that CONSULTANT may refer to this scope of work in connection with its promotional literature in a professional and commercially reasonable manner. The provisions of this subsection shall not apply to information in whatever form that comes into the public domain. The provisions of this paragraph also shall not restrict CONSULTANT from giving notices required by law or complying with an order to provide information or data when such order is issued by a court, administrative agency, or other entity with proper jurisdiction, or if it is reasonably necessary for CONSULTANT to defend itself from any suit or claim.

# **ARTICLE 7 - TERMINATION**

# 7.1. CONTRACT TERMINATION FOR DEFAULT

If CONSULTANT fails to perform services in the manner called for in this Agreement or if CONSULTANT fails to comply with any other provisions of this Agreement, RTC may terminate this Agreement for default. Termination shall be effected by serving a notice of termination on CONSULTANT setting forth the manner in which CONSULTANT is in default. CONSULTANT will only be paid the contract price for services delivered and accepted, or services performed in accordance with the manner of performance set forth in this Agreement.

If it is later determined by RTC that CONSULTANT had an excusable reason for not performing, such as a fire, flood, or events which are not the fault of or are beyond the control of CONSULTANT, RTC, after setting up a new performance schedule, may allow

CONSULTANT to continue work, or treat the termination as a termination for convenience.

# 7.2. <u>CONTRACT TERMINATION FOR CONVENIENCE</u>

RTC may terminate this Agreement, in whole or in part, at any time by written notice to CONSULTANT when it is in RTC's best interest. CONSULTANT shall be paid its costs, including contract closeout costs, and profit on work performed up to the time of termination. CONSULTANT shall promptly submit its termination claim to RTC to be paid CONSULTANT. If CONSULTANT has any property in its possession belonging to RTC, CONSULTANT will account for the same, and dispose of it in the manner RTC directs.

# **ARTICLE 8 - INSURANCE**

- 8.1. CONSULTANT shall not commence any work or permit any employee/agent to commence any work until satisfactory proof has been submitted to RTC that all insurance requirements have been met.
- 8.2. In conjunction with the performance of the services/work required by the terms of this Agreement, CONSULTANT shall obtain all types and amounts of insurance set forth in Exhibit C, and shall comply with all provisions set forth therein.

# ARTICLE 9 - HOLD HARMLESS

9.1. CONSULTANT's obligation under this provision is as set forth in Exhibit C. Said obligation would also extend to any liability of RTC resulting from any action to clear any lien and/or to recover for damage to RTC property.

# ARTICLE 10 - EQUAL EMPLOYMENT OPPORTUNITY

- 10.1. During the performance of this Agreement, CONSULTANT agrees not to discriminate against any employee or applicant for employment because of race, color, religion, sex, age, disability, or national origin. CONSULTANT will take affirmative action to ensure that applicants are employed, and that employees are treated fairly during employment, without regard to their race, color, religion, sex, age, disability, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. CONSULTANT agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by RTC setting forth the provisions of this nondiscrimination clause.
- 10.2. CONSULTANT will, in all solicitations or advertisements for employees placed by or on behalf of CONSULTANT, state that well qualified applicants will receive consideration of employment without regard to race, color, religion, sex, age, disability, or national origin.

10.3. CONSULTANT will cause the foregoing provisions to be inserted in all sub-agreements for any work covered by this Agreement so that such provisions will be binding upon each sub-consultant.

# ARTICLE 11 - RESOLUTION OF CLAIMS AND DISPUTES

# 11.1. NEGOTIATED RESOLUTION

In the event that any dispute or claim arises under this Agreement, the parties shall timely cooperate and negotiate in good faith to resolve any such dispute or claim. Such cooperation shall include providing the other party with all information in order to properly evaluate the dispute or claim and making available the necessary personnel to discuss and make decisions relative to the dispute or claim.

# 11.2. MEDIATION

If the parties have been unable to reach an informal negotiated resolution to the dispute or claim within thirty (30) days following submission in writing of the dispute or claim to the other party, or such longer period of time as the parties may agree to in writing, either party may then request, in writing, that the dispute or claim be submitted to mediation (the "Mediation Notice"). After the other party's receipt or deemed receipt of the Mediation Notice, the parties shall endeavor to agree upon a mutually acceptable mediator, but if the parties have been unable to agree upon a mediator within ten (10) days following receipt of the Mediation Notice, then each party shall select a mediator and those two selected mediators shall select the mediator. A mediator selected by the parties' designated mediators shall meet the qualification set forth in as provided in Rule 4 of Part C., "Nevada Mediation Rules" of the "Rules Governing Alternative Dispute Resolutions adopted by the Nevada Supreme Court." Unless otherwise agreed to by the parties, in writing, the mediator shall have complete discretion over the conduct of the mediation proceeding. Unless otherwise agreed to by the parties, in writing, the mediation proceeding must take place within thirty (30) days following appointment of the mediator. The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in Washoe County, Nevada, unless otherwise agreed to by the parties, in writing. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

# 11.3. LITIGATION

In the event that the parties are unable to settle and/or resolve the dispute or claim as provided above, then either party may proceed with litigation in the Second Judicial District Court of the State of Nevada, County of Washoe.

# 11.4. CONTINUING CONTRACT PERFORMANCE

During the pendency of any dispute or claim the parties shall proceed diligently with performance of this Agreement and such dispute or claim shall not constitute an excuse or defense for a party's nonperformance or delay.

# <u>ARTICLE 12 – PROJECT MANAGERS</u>

- 12.1. RTC's Project Manager is Roy Flores or such other person as is later designated in writing by RTC. RTC's Project Manager has authority to act as RTC's representative with respect to the performance of this Agreement.
- 12.2. CONSULTANT' Project Manager is Kaci Stansbury or such other person as is later designated in writing by CONSULTANT. CONSULTANT's Project Manager has authority to act as CONSULTANT's representative with respect to the performance of this Agreement.

# **ARTICLE 13 - NOTICE**

13.1. Notices required under this Agreement shall be given as follows:

RTC: Bill Thomas, AICP

**Executive Director** 

Roy Flores, P.E., M.P.A.

RTC Project Manager

**Regional Transportation Commission** 

1105 Terminal Way Reno, Nevada 89502

(775) 335-1881

CONSULTANT: Kaci Stansbury, P.E.

Project Manager

Jacobs Engineering Group, Inc. 50 West Liberty Street, Suite 205

Reno, NV 89501 (775) 772-7270

# ARTICLE 14 - DELAYS IN PERFORMANCE

#### 14.1. TIME IS OF THE ESSENCE

It is understood and agreed that all times stated and referred to herein are of the essence. The period for performance may be extended by RTC's Executive Director pursuant to the process specified herein. No extension of time shall be valid unless reduced to writing and signed by RTC's Executive Director.

# 14.2. UNAVOIDABLE DELAYS

If the timely completion of the services under this Agreement should be unavoidably delayed, RTC may extend the time for completion of this Agreement for not less than the number of days CONSULTANT was excusably delayed. A delay is unavoidable only if the delay is not reasonably expected to occur in connection with or during CONSULTANT's performance, is not caused directly or substantially by acts, omissions, negligence or mistakes of CONSULTANT, is substantial and in fact causes CONSULTANT to miss specified completion dates, and cannot adequately be guarded against by contractual or legal means.

# 14.3. NOTIFICATION OF DELAYS

CONSULTANT shall notify RTC as soon as CONSULTANT has knowledge that an event has occurred or otherwise becomes aware that CONSULTANT will be delayed in the completion of the work. Within ten (10) working days thereafter, CONSULTANT shall provide such notice to RTC, in writing, furnishing as much detail on the delay as possible and requesting an extension of time.

# 14.4. <u>REQUEST FOR EXTENSION</u>

Any request by CONSULTANT for an extension of time to complete the work under this Agreement shall be made in writing to RTC. CONSULTANT shall supply to RTC documentation to substantiate and justify the additional time needed to complete the work and shall provide a revised schedule. RTC shall provide CONSULTANT with notice of its decision within a reasonable time after receipt of a request.

# **ARTICLE 15 - GENERAL PROVISIONS**

# 15.1. SUCCESSORS AND ASSIGNS

RTC and CONSULTANT bind themselves and their successors and assigns to the other party and to the successors and assigns of such party, with respect to the performance of all covenants of this Agreement. Except as set forth herein, neither RTC nor CONSULTANT shall assign or transfer interest in this Agreement without the written consent of the other. Nothing herein shall be construed as creating a personal liability on the part of any officer or agent or any public body which may be a party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than RTC and CONSULTANT.

# 15.2. NON TRANSFERABILITY

This Agreement is for CONSULTANT's professional services, and CONSULTANT's rights and obligations hereunder may not be assigned without the prior written consent of RTC.

### 15.3. <u>SEVERABILITY</u>

If any part, term, article, or provision of this Agreement is, by a court of competent jurisdiction, held to be illegal, void, or unenforceable, or to be in conflict with any law of the State of Nevada, the validity of the remaining provisions or portions of this Agreement are not affected, and the rights and obligations of the parties shall be construed and enforced as if this Agreement did not contain the particular part, term, or provision held invalid.

# 15.4. <u>RELATIONSHIP OF PARTIES</u>

CONSULTANT is an independent contractor to RTC under this Agreement. Accordingly, CONSULTANT is not entitled to participate in any retirement, deferred compensation, health insurance plans or other benefits RTC provides to its employees. CONSULTANT shall be free to contract to provide similar services for others while it is under contract to RTC, so long as said services and advocacy are not in direct conflict, as determined by RTC, with services being provided by CONSULTANT to RTC.

# 15.5. WAIVER/BREACH

Any waiver or breach of a provision in this Agreement shall not be deemed a waiver of any other provision in this Agreement and no waiver is valid unless in writing and executed by the waiving party. An extension of the time for performance of any obligation or act shall not be deemed an extension of time for the performance of any other obligation or act. This Agreement inures to the benefit of and is binding upon the parties to this Agreement and their respective heirs, successors and assigns.

# 15.6. REGULATORY COMPLIANCE

- A. CONSULTANT shall comply with all applicable federal, state and local government laws, regulations and ordinances. CONSULTANT shall be responsible for obtaining all necessary permits and licenses for performance of services under this Agreement. Upon request of RTC, CONSULTANT shall furnish RTC certificates of compliance with all such laws, orders and regulations.
- B. CONSULTANT represents and warrants that none of the services to be rendered pursuant to this Agreement constitute the performance of public work, as that term is defined by Section 338.010(17) of the Nevada Revised Statutes. To the extent CONSULTANT does engage in such public work, CONSULTANT shall be responsible for paying the prevailing wage as required by Chapter 338 of the Nevada Revised Statutes.

#### 15.7. EXCLUSIVE AGREEMENT

There are no verbal agreements, representations or understandings affecting this Agreement, and all negotiations, representations and undertakings are set forth herein with

the understanding that this Agreement constitutes the entire understanding by and between the parties.

# 15.8. <u>AMENDMENTS</u>

No alteration, amendment or modification of this Agreement shall be effective unless it is in writing and signed by both parties.

# 15.9. CONTINUING OBLIGATION

CONSULTANT agrees that if, because of death or any other occurrence it becomes impossible for any principal or employee of CONSULTANT to render the services required under this Agreement, neither CONSULTANT nor the surviving principals shall be relieved of any obligation to render complete performance. However, in such event, RTC may terminate this Agreement if it considers the death or incapacity of such principal or employee to be a loss of such magnitude as to affect CONSULTANT's ability to satisfactorily complete the performance of this Agreement.

## 15.10. APPLICABLE LAW AND VENUE

The provisions of this Agreement shall be governed and construed in accordance with the laws of the State of Nevada. The exclusive venue and court for all lawsuits concerning this Agreement shall be the Second Judicial District Court of the State of Nevada, County of Washoe, and the parties hereto submit to the jurisdiction of that District Court.

# 15.11. ATTORNEYS' FEES

In the event of a dispute between the parties result in a proceeding in any Court of Nevada having jurisdiction, the prevailing party shall be entitled to an award of costs and any reasonable attorneys' fees.

# 15.12. CERTIFICATION REQUIRED BY NEVADA SENATE BILL 27 (2017)

CONSULTANT expressly certifies and agrees, as a material part of this Agreement, that it is not currently engaged in a boycott of Israel. CONSULTANT further agrees, as a material part of this Agreement, it will not engage in a boycott of Israel for the duration of this Agreement. If, at any time during the formation or duration of this Agreement, CONSULTANT is engaged or engages in a boycott of Israel, it will constitute a material breach of this Agreement.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement the day and year first above written.

REGIONAL TRANSPORTATION COMMISSION
OF WASHOE COUNTY
D
By:
Bill Thomas, AICP, Executive Director
JACOBS ENGINEERING GROUP, INC.
D.
By:
Ken Gilbreth, P.E., Vice President

#### Exhibit A

# SCOPE OF SERVICES FOR THE MILL STREET WIDENING PROJECT

#### INTRODUCTION

The Mill Street Widening Project limits are from 300 feet west of Kietzke Lane to Terminal Way and is approximately 0.75 miles in total length. Proposed improvements include widening Mill Street from Kietzke Lane to the I-580 southbound on-ramp from four to five lanes. Proposed improvements on Mill Street from the I-580 northbound on-ramp interchange to Terminal Way include a raised median but do not include widening the road and will maintain the existing four travel lanes. The project improvements exclude the I-580 interchange which was recently improved with NDOT's Spaghetti Bowl Xpress (SBX) Project.

The Scope of Work for the CONSULTANT includes Final Design, Utility Relocation Coordination, support during the bidding process, and Engineering Services during construction. General tasks identified in the base scope of work include utilizing the Stage 2 Design by Horrocks Engineers to complete the 90% design, 100% design, final design, cost estimate, special provisions, drainage report, geotechnical investigation, right-of-way services, and public involvement.

#### **BACKGROUND**

The RTC and NDOT entered into a Cooperative Agreement that included preliminary design improvements of the Mill Street Future Corridor Expansion incorporated into the Spaghetti Bowl Xpress (SBX) Phase 1 project. As part of the SBX contract, the Design-Builder – Ames Q&D Constructors (AQD) – was responsible for the preliminary design of the Mill Street Widening Project which included the roadway between Kietzke Lane and Terminal Way.

The preliminary design included two stages and was designed by AQD's engineering consultant (Horrocks Engineers). For the Stage 1 design, the consultant developed three (3) roadway widening options: 1) Centerline Widening; 2) Widening North; and 3) Widening South. Ultimately, a hybrid of Option 1 and 2 was chosen – Centerline Widening to the west of I-580 and Widening North to the east of I-580 – which the consultant was instructed to move forward to the Stage 2 Design. The consultant has completed the Stage 2 Design and this Professional Services Agreement Scope of Services will complete the project Final Design and go out to bid for construction.

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#### TASK 1. PROJECT MANAGEMENT

#### 1.1. PROJECT EXECUTION

CONSULTANT will provide project management services for the design through bidding services scope of work for the project and for project close-out activities; assumed to be forty-seven (47) months, February 2022 through December 2025. Project management includes project setup and administration, including preparation and execution of Subconsultant agreements, monthly budget monitoring and invoicing, monthly preparation and reporting of project progress (including work completed and documentation of any changes, actual and anticipated, in scope, schedule, and budget), preparation and monthly updates of the project schedule, continued management of Subconsultants, quality assurance on deliverables, coordination with the RTC Project Manager, and project closeout.

The CONSULTANT Project Manager will be responsible for the ongoing project coordination of CONSULTANT activities for the duration of the work. The CONSULTANT Project Manager shall also maintain communication, as appropriate, with local, state, federal, and private stakeholders as required for the progress of the scope of work detailed in this document. All significant communications shall be documented and reported to the RTC Project Manager. The CONSULTANT Project Manager will coordinate with team leads under his/her responsibility to discuss the progress of the project and identify issues and action items to be addressed.

The Project Manager is responsible for the contracting, coordination, and management of all Subconsultants. The CONSULTANT will be the primary point of contact for the RTC for all team Subconsultants and will be responsible for communicating and coordinating the direction from the RTC to all team members.

#### 1.2. PROJECT MANAGEMENT MEETINGS

#### 1.2.1. Project Kickoff Meetings

CONSULTANT will hold a kickoff meeting with RTC, City of Reno, and other agency staff as appropriate, to confirm the project objectives, approach, milestones, stakeholder and outreach approach, and potential project challenges. Six (6) CONSULTANT and Subconsultant staff will attend the meeting. CONSULTANT will prepare a meeting agenda, take and distribute meeting minutes, and track concerns about the project from the attendees.

CONSULTANT will also hold an internal kickoff meeting with CONSULTANT staff, and Subconsultants to internally align the team with the goals of the RTC and the goals of the project.

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# 1.2.2. Project Management Meetings

CONSULTANT will facilitate monthly Project Management Team Meetings with the RTC, City of Reno, and other parties, as appropriate, to discuss the design progress, upcoming milestones, scope, schedule, budget, risk status, key technical issues by discipline, and make informed decisions. CONSULTANT will prepare an agenda and distribute meeting notes and the action item log, identifying the person responsible for resolving each item and expected date of completion via email. It is anticipated that up to four (4) CONSULTANT and Subconsultant staff will attend the Project Management Meetings.

CONSULTANT will facilitate weekly Project Management Phone-Meetings with the RTC PM, as appropriate, to discuss the design progress, upcoming milestones, scope, schedule, budget, risk status, key technical issues, and on-going To-Do list status updates.

### 1.2.3. Design Coordination Meetings

CONSULTANT will hold a 1-hour biweekly design coordination meeting with task leads, design staff as appropriate, and Subconsultants to ensure cross-discipline coordination with design and schedule.

# 1.2.4. Right-of-Way Setting Meeting

CONSULTANT will facilitate a right-of-way setting meeting with RTC staff to review all the rights to be acquired and to review the responsibilities of the RTC, CONSULTANT, and Subconsultants, as applicable.

# 1.3. PROJECT MANAGEMENT (PMP)

CONSULTANT will prepare a Project Management Plan (PMP) that will include: Project Instructions, Risk Management Plan, Communications Protocols, Project Directory, Scope, Schedule, Budget, File/Information Sharing/Storage Protocols, and the Health and Safety Plan.

The PMP will be distributed to the CONSULTANT team, including Subconsultants, and will be updated as needed throughout the project duration.

#### 1.4. QUALITY MANAGEMENT PLAN (QMP)

CONSULTANT will prepare a Quality Management Plan (QMP) specific to the Mill Street Widening Project. A project Quality Manager will be assigned who be responsible for the development and implementation of the plan and provide initial training. The QMP will apply to both prime and Subconsultant team members. An independent quality review will be

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performed at each design deliverable when submitting the 90%, 100%, and Final milestone packages.

#### 1.5. FILE AND DOCUMENT MANAGMENT

CONSULTANT will update and maintain the Project Management Plan and all project files (electronic and hardcopy as appropriate) throughout the duration of the project. Copies of all outgoing and incoming correspondence will be provided to the Project Manager, or designee, on a continuing basis and distributed to the RTC Project Manager as needed. Word processing, data bases, spreadsheets, etc. will be prepared using a format compatible with Microsoft Office.

#### 1.6. DELIVERABLES

- Monthly Invoices that show staff names, hours, classifications, and billing rates, for each month of the anticipated project schedule
- Monthly Progress Reports to be included with the invoices
- Monthly schedule update
- Meeting Agenda & Minutes for Kickoff Meetings
- Meeting Agenda, Minutes and Action Item Log for Project Management Meetings
- Meeting Agenda, Minutes and Action Item Log for the Design Coordination Meetings
- Project Management Plan preparation and as-needed updates
- Quality Management Plan

# TASK 2. PUBLIC AND AGENCY INVOLVEMENT

# 2.1. PUBLIC OUTREACH PLAN AND METHODS

CONSULTANT will develop a Public Outreach and Involvement Plan that outlines specific objectives, organization and roles of stakeholder, and definition/schedule of target activities to accomplish the objectives of the project.

CONSULTANT will meet with the RTC Project Manager, and public information officers to review the overall strategy for public involvement. Following these meetings, CONSULTANT will draft a plan that supports the RTC's objectives and address the needs of the community.

#### 2.1.1. Stakeholder Database

CONSULTANT will develop a strategic and comprehensive stakeholder list. CONSULTANT will obtain an updated list of property owners within ½-mile of the project corridor from the County Assessor's Office. CONSULTANT will obtain lists of homeowner's associations/neighborhood associations within the project area. The stakeholder database will include project team members, elected officials, businesses,

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agencies, residents, community organizations and media. The database will include owners name and physical property location for property owners, and mailing and email address for elected officials, and other stakeholders. The database will be Microsoft Excel based and be updated as needed.

# 2.1.2. Website / Digital Outreach

CONSULTANT will establish and secure a domain name and maintain the Project website. The website will be updated monthly, at a minimum, and more often as project activity requires. The website will be for the entire project with an introductory main page, and separate subpages for west and east of I-580. Project information maintained on the website will include project descriptions, project photos, e-mail sign-up and comment page, RTC Project Manager contact information, frequently asked questions (FAQs), project schedules with updates to emphasize current activities, public meeting notices, and public meeting information. The website will include links to the RTC Home Page and any project related videos, including "The Road Ahead" television segments, and the livestream recordings from the public meetings. The website will be designed using WordPress, and all content will be approved by the RTC Public Informational Officer prior to being available to the public.

The comment page will be linked to an RTC domain email address, allowing the RTC to monitor and respond to any comments or project inquiries at their discretion.

CONSULTANT will not be responsible for providing public meeting notices to newspapers and television news media. The RTC Public Information Office will provide these services, as well as posting announcements and project updates to social media such as Facebook, Twitter, Instagram, etc.

# 2.1.3. Project Branding and Logo

CONSULTANT will develop three (3) project branding color and style palettes and three (3) project logo concepts for the RTC to choose from or to provide direction on how to modify/combine the concepts developed into one (1) final project branding color theme, style, and logo. Branding and a project logo will provide a consistent look on public outreach materials, including the website, and project documents.

#### 2.2. ONE-ON-ONE STAKEHOLDER MEETINGS

As the project progresses, it is assumed that certain interest groups, individuals, and/or public officials may request specific meetings to discuss project issues, concerns, and/or provide input to the project or process. These groups include residents, businesses, community organizations, Tribal Entities, and/or interested parties. CONSULTANT, Public Involvement Subconsultant, and/or RTC PM will attend individual one-on-one meetings with these groups during the course of the project. The specific need, number, and nature of these meetings will

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be dynamic and as necessary; however, forty (40) meetings, attended by two (2) CONSULTANT staff, are assumed in the base fee. CONSULTANT will manage a list of meetings, meeting attendees, and will provide meeting materials for distribution. CONSULTANT will include the RTC Project Manager in all one-on-one meetings.

#### 2.3. PUBLIC INFORMATION MEETINGS

Public Information Meetings will be held with businesses, property owners adjacent to the project improvements and other members of the public to discuss project limits, scope, tentative schedule, driveway access, public notification requirements, and concerns of adjacent properties. It is anticipated that two (2) public meetings will be held, once during the 90% design phase and once again, before finalization of the 100% design. Two (2) preparation meetings with RTC staff prior to each meeting are anticipated. Media placement will be coordinated through the RTC public information officer. CONSULTANT Project Manager, Design Manager, Public Information Specialist, and up to two (2) additional CONSULTANT staff will attend the public meetings as appropriate. CONSULTANT will provide up to five (5) total display boards covering the project limits, a PowerPoint presentation, and a project factsheet handout.

The Public Information Meetings will be held at the RTC Engineering Building located at 1105 Terminal Way, Reno, NV. CONSULTANT will provide flyers (in English and Spanish) to RTC for distribution. Translation to Spanish will be provided by the RTC. The RTC will use the Stakeholder Database prepared by the CONSULTANT under Task 2.1.1 to print, address, and mail post cards, including postage costs, themselves. Additionally, public meetings will be promoted on project website and social media.

Public Information Meeting #1 will focus on the design and Right-of-Way impacts. Public Information Meeting #2 will focus on possible construction traffic control and schedule.

#### 2.4. REGIONAL TRANSPORTATION COMMISSION BOARD MEETINGS

CONSULTANT will provide PowerPoint presentation to RTC Project Manager and staff for monthly presentations to the RTC Board of Commissioners

CONSULTANT Project Manager and Design Manager will attend the monthly RTC Board Meetings to support the RTC Project Manager during Mill Street Widening presentations and assist in responding to questions from the RTC Board Members. A total of two (2) meetings are anticipated. One (1) preparation meeting with RTC staff prior to each meeting are anticipated. Consultant will provide assistance with graphics and information for the RTC's PowerPoint presentation.

#### 2.5. RENO CITY COUNCIL OR NEIGHBORHOOD ADVISORY BOARD MEETING

CONSULTANT will provide PowerPoint presentation to RTC Project Manager and staff for presentation to the Reno City Council or Neighborhood Advisory Board (NAB) meeting, as

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required. A total of one (1) Reno City Council or NAB meeting and one (1) preparation meeting for the meeting is anticipated to be attended by the RTC Project Manager and Design Manager.

#### 2.6. DELIVERABLES

- Draft Public Outreach and Involvement Plan
- Final Public Outreach and Involvement Plan
- Stakeholder Database
- Project website with secure domain name
- Preparation and Attendance at forty (40) One-on-One Stakeholder Meetings
- Preparation and Attendance at two (2) Public Information Meetings
- Presentation Material and Attendance at two (2) RTC Board Meetings with one (1) preparation meeting for each RTC Board Meeting
- Presentation Material and Attendance at either one (1) Reno City Council Meeting or one (1) Neighborhood Advisory Board Meeting with one (1) preparation meeting.

#### TASK 3. INVESTIGATION OF EXISTING CONDITIONS

### 3.1. GEOTECHNICAL INVESTIGATION

CONSULTANT will perform geotechnical investigations and associated laboratory testing to develop geotechnical design recommendations for Mill Street.

# 3.1.1. Records and Field Investigation

In addition to the widening of Mill Street to five lanes from Kietzke Lane to I-580 southbound on ramp, it is assumed the existing lanes will be rehabilitated, possibly via mill and overlay.

CONSULTANT will research existing geotechnical studies and reports, perform field exploration, complete field/laboratory testing, and engineering analyses to allow formulation of geotechnical recommendations for design and construction.

Research will also include review of published geologic maps and fault hazard reports to establish the presence of any documented geologic hazards near the project location.

Field exploration will include up to twelve (12) borings located approximately every 300 to 400 feet along the roadway as well as at other selected locations to adequately reveal the subsurface soil and groundwater conditions for final design improvements. A majority of the borings will be advanced to 5 feet below the existing ground surface, and some selected borings will be advanced to 10 feet depth. Borings will be located within both the eastbound and westbound travel lanes. To more accurately assess internal pavement distresses and

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conditions to support a mill and overlay, up to twelve (12) pavement cores are scoped; pavement cores will be performed between boring locations.

Encroachment permits will be required with both NDOT and the City of Reno. For safety reasons, a 3<sup>rd</sup> party traffic control service will be hired for onsite traffic control and preparation of traffic control plans. Underground Service Alert (USA) will be contacted to clear all utilities in the location of the proposed boreholes.

Borings will be backfilled with tamped soil cuttings; borings and pavement cores will be capped with 6- to 8-inches of rapid set, quick strength, DOT approved concrete.

CONSULTANT will complete all necessary geotechnical and pavement analyses (using the 2021 Structural Design Guide for Flexible Pavement) to develop the geotechnical and pavement recommendations. The geotechnical task lead will participate in design team and agency meetings throughout the design process, as appropriate, up to twenty-four (24) hours.

The findings and recommendations will be summarized in a draft report for submittal to governing agencies. A final report will be issued addressing the comments; only one round of review and comments is scoped.

#### 3.1.2. Exclusions

None.

#### 3.1.3. Deliverables

- Draft Geotechnical Report for Agency Review
- Final Geotechnical Report

#### 3.2. PAVEMENT DESIGN

# 3.2.1. Pavement Distress / Condition Survey

CONSULTANT will perform a brief pavement distress/conditions survey within the project limits to provide a qualitative discussion of the distresses on the pavement, identifying the distress conditions, extent of the distress, etc. FHWA Distress Identification Manual for Long-Term Pavement Performance will be used to identify the distress. This survey would not provide the lengths of the various cracks or areas of alligator cracking, fatigue failure, etc. The extend and severity of these distresses will serve to support a selection of pavement rehabilitation or reconstruction alternatives.

For the existing PCC pavement within the intersection of Terminal Way/Greg Street and Mill Street, CONSULTANT will perform a visual assessment of the slab conditions for the

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entire PCCP including Terminal Way and Greg Street approaches (~250 LF down each approach). CONSULTANT will identify distressed slabs (cracks, spalls, joint sealant, etc.) and recommend replacement, repair, and/or maintenance options.

CONSULTANT will work with RTC to obtain, if any, PAVER reports compiled by Nichols Consulting Engineers (NCE) for streets that include previous work history, quantitative information on distress, as well as overall pavement condition index (PCI) from their inspections.

# 3.2.2. Falling Weight Deflectometer (FWD) Testing

CONSULTANT will perform Falling Weight Deflectometer (FWD) of the existing pavement. FWD testing, when combined with borings and cores, yields more complete information of the existing pavement and subgrade, filling in gaps in information between bore/core locations, and serving as a tool for back-calculating existing pavement support. The AASHTO preferred method for overlay design is based upon FWD testing results.

# 3.2.3. Heavy Vehicle Traffic Estimate

CONSULTANT will calculate design pavement loading for the project pavements. This design loading will be based upon existing traffic volumes as determined from NDOT Count Stations within the project limits and other RTC or City of Reno information, if available; traffic growth as determined from RTC's Regional Traffic Model; and truck percentages as field measured by CONSULTANT personnel. CONSULTANT will perform 13-hour truck classification counts at one point west of the I-580 interchange and one point east of the I-580 interchange. Counts will occur midweek when traffic is not expected to be impacted by construction, adverse weather, or holiday impacts.

# 3.2.4. Pavement Alternatives Analysis and Design

CONSULTANT will perform pavement design calculations in accordance with the 2021 Structural Design Guide for Flexible Pavement, dated February 2021, pavement design inputs as described above, and professional judgement and experience. Pavement alternatives to be evaluated will be:

- Grind and overlay
- Reconstruction with roadbed modification and asphalt concrete pavement
- Construction of widened sections and/or reconstruction with aggregate base and asphalt concrete
- Full depth asphalt concrete pavement

Pavement alternative selection, pavement designs, construction recommendations, and supporting information shall be documented within a Geotechnical Report/Pavement

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Design Report supplied to RTC for review and comment and finalized upon receipt of comments.

#### 3.2.5. Deliverables

- Pavement Design Report containing:
  - o Pavement Distress/Condition Survey Results
  - o FWD test result results
  - o Heavy Vehicle Count Spreadsheets
  - o Pavement design recommendations
- Identification of existing PCCP pavement distressed slabs and recommend replacement, repair, and/or maintenance options.

#### 3.3. EXISTING SUBSURFACE UTILITIES

CONSULTANT will coordinate with NV Energy, TMWA, City of Reno, Charter, AT&T, Verizon, MCI, Zayo and all other utility companies as necessary for obtaining records of existing improvements, upcoming work, facility relocations, and new installations. A total of twelve (12) utility coordination meetings are anticipated through the duration of the project.

CONSULTANT will investigate and locate subsurface utilities within the roadway R/W, and areas reasonably affected, in accordance with the American Society of Civil Engineers Standard guideline for the Collection and Depiction of Existing Subsurface Utility Data, Quality Level C. Additionally, CONSULTANT will coordinate with Utility Owners to remove lids of surface features and document depth of utility device, or invert of pipe, within such surface features.

# 3.3.1. Utilities

CONSULTANT will verify utilities shown on the Stage 2 Design plans prepared by Horrocks Engineers match existing utilities in the field, update the Utility Conflict Matrix, and include additional utilities west of Kietzke Lane. CONSULTANT will provide RTC a list of utility companies whose utilities are within the project limits or reasonably affected by the project. RTC will issue the initial notification to the utility agencies on the list and CONSULTANT will coordinate with the utility agencies for upcoming work, facility relocation, new installation, ensure utilities likely affected by the project are drawn on the plan and profile, evaluate potential conflicts through field investigation, and investigate conflict resolution strategies.

CONSULTANT will coordinate any utility relocations necessary to accommodate the project with the utility companies. The design and technical specifications required to relocate impacted facilities will be provided by others. CONSULTANT will include the approved utility design(s) and unique technical provision requirements for each utility in

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the contract documents. CONSULTANT will assist the RTC in preparation of applications necessary for submission to utility companies for facility relocations, as required.

Coordination costs to be burdened by the RTC with the utility companies will be included in the Engineer's estimate.

No upgrading or expanding of facilities shall be included in the project scope.

Where modifications to existing utility easements are necessary or new utility easements are required, the needed utility easement(s) will be reflected on the plans and provided to the agency or company for their right-of-way acquisition process.

No utility appraisal document preparation or utility acquisition and relocation activities are included.

As it is difficult to estimate the level of effort required to perform this task, a budget estimate of 150 hours is included in this scope of services for Task 3. Should the actual time required to coordinate exceed the budget estimate, CONSULTANT will notify the RTC, and the budget will be adjusted.

#### 3.3.2. Exclusions

None.

#### 3.4. UTILITY POTHOLING

Where additional detail is required to support the design and avoidance of utility impacts, CONSULTANT shall perform potholing. It is assumed a total of up to 20 potholes will be conducted to locate facilities in the project limits.

# 3.5. TOPOGRAPHIC SURVEY

# 3.5.1. Topographic Survey

CONSULTANT will coordinate with NDOT to obtain topographic survey information obtained from the SBX Phase 1 project. To ensure adequate detailed topography along curb flowlines, ADA compliant pedestrian pathways, and minimization and correct right of way impacts along properties, CONSULTANT will conduct field surveys and office support to provide topographic design surveys for the Mill Street Widening project. The survey information will be provided for the full right-of-way width, and 25 feet maximum beyond as necessary, will include cross-sections at 50-foot intervals. For the adjoining side streets, the existing ground topo shall extend 500' past the intersection with Mill Street. Field survey will include but is not limited to, centerline elevations, existing stripping, edge of pavement, curb/gutter, sidewalks, ADA ramps, multiuse paths, retaining walls, ditch

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features, hinge points, location/invert/rim elevations of all sewer and storm drain manholes and cross-manholes, location/invert/rim elevations of culverts, invert and rim elevations for all water and gas valves/boxes/vaults, location/invert/rim elevations of storm drain inlets/catch basins, utility poles/anchors, fences, signs, existing survey monuments, location of underground utility carsonite markers (if any), and any other key existing features.

Verification and densification of the location control provided, which is twelve construction control monuments supplied from the SBX contractor with the following datum and bearing source.

#### Vertical Datum:

Elevations are based on NAVD88 Holding published LOIS LPN 1566.

# Bearing Source:

Bearings of the Construction Control Monuments provided were derived from Nevada State Plane Coordinates NAD83 Datum West Zone Using LIOS LPN 1566 archived at NDOT under file LPN 1566. Coordinates and distances reflect a single combination ground to grid factor of 0.9998110357 and have been converted to ground coordinates. Monuments are stamped with "NDOT" and Monument name unless noted in the description All coordinates were scaled from 0,0.

#### 3.5.2. Deliverables

- MicroStation V8i file with topographic linework
- MicroStation InRoads Existing Ground Surface with 3D breaklines
- Label callouts for rim and pipe inverts of Storm Drains, Sewer Systems, and other utilities
- One (1)-Foot existing ground contour intervals at a scale of 1"=20' for full width of existing right of way and 150' beyond each side street intersection return

#### 3.6. RIGHT-OF-WAY MAPPING

CONSULTANT will provide the following services for this project:

- Verify property ownerships and Assessor's Parcel Numbers (APNs) within the project limits from the Stage 2 Design, as well as obtain copies of any recorded maps that identify road rights-of-way and property lines. RTC will provide information obtained for the Mill Street Complete Streets Project.
- Prepare right-of-way based on field survey of centerline monuments, section corners, and record maps. The field survey fee for this task includes up to a total of 100 right-of-way centerline monuments, property corners, section corners, and applicable public land survey monuments within the project limits.

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- Set new right-of-way corners based on acquisitions, prepare and file Record of Survey(s).
- Prepare right-of-way plan sheets as part of the overall construction plan sheet set. Identify the affected parcels by APN, address and ownership name. Right-of-way plans will include any and all existing easements, new easements, and property acquisitions.

#### 3.7. RIGHT-OF-WAY ENGINEERING SERVICES

CONSULTANT will provide the following services for this project:

- Obtain and review current preliminary title reports (PTR) for the affected ownerships along Mill Street. For budgetary purposes, it is estimated that forty-one (41) property ownerships will be affected resulting in forty-one (41) right-of-way acquisitions.
- Review title reports to determine if any easements exist that will affect the proposed route design if any easements exist, copies of the easement documents will be obtained, and they will be delineated on the base mapping.
- Where necessary, locate information not provided in the PTR, as necessary, perform research with the County of Washoe to obtain available record maps, assessor's parcel map, vesting ownership deeds, and easement documents to provide to the Project Team and identify existing rights of way.
- Visually inspect each property (aerial and street-level views) and note the effects of all proposed acquisitions; work with design engineers to ensure proposed acquisitions are minimal.
- Develop temporary and/or permanent easement documents including legal descriptions and sketch maps for use by the RTC per the RTC standards.
- Develop fee acquisition documents including legal descriptions and sketch maps for use by the RTC per the RTC standards.
- Develop legal descriptions and sketch maps for use by RTC, per the RTC standards, for transfers of right-of-way to the City of Reno or NDOT, as applicable.
- Develop legal descriptions and sketch maps for use by RTC, per the RTC standards, for disposal of remnant parcel not needed for the project.
- Develop Permission to Construct sketch maps for use by the RTC per the RTC standards
- Prepare a preliminary estimate of probable cost estimate, including temporary and/or permanent easements, acquisitions, and relocations based on readily available published information, and guidance from the SBX project. This estimate shall be for internal RTC use only for preliminary cost budget purposes.

#### 3.7.1. Exclusions

• CONSULTANT will not prepare an estimate of the total services and incidental costs associated with each real estate acquisition (appraisals, acquisition and title/escrow, legal services, etc.).

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• CONSULTANT will not include easement, acquisition, or relocation costs in the Engineer's Probable Cost Option.

#### 3.8. TRAFFFIC VOLUME VERIFICATION

#### 3.8.1. Data Collection

CONSULTANT will utilize the information found in Headway's Mill Street Corridor Study dated 12/10/2021. Additional traffic data collection will not be evaluated under this contract.

# 3.8.2. Update Travel Demand Forecast

CONSULTANT will utilize the information found in Headway's Mill Street Corridor Study dated 12/10/2021. Additional travel demand forecasts will not be evaluated under this contract.

# 3.8.3. Traffic Operations Report

CONSULTANT will utilize the information found in Headway's Mill Street Corridor Study dated 12/10/2021. Signal timing will not be evaluated under this contract.

# Final design will include:

- Single left turn lane from westbound Mill Street to the Northbound I-580 entrance ramp.
- Layout and design for traffic signal at Golden Lane/Redwood Place and Mill Street and abandon Louise Street. Signal timing will be provided by the RTC and/or the City of Reno.

#### 3.8.4. Deliverables

None.

# 3.9. ACCESS MANAGEMENT

According to the RTCs 2050 Regional Transportation Plan, Mill Street is classified as a "Medium Access Control Arterial" and will be utilized for this project. The CONSULTANT will review property access locations and provide recommendations, included shared driveway options, for select locations with special operational or safety concerns in a memorandum report. Access Management will be evaluated with the proposed design of raised median islands.

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The existing median along Mill Street just east of Matley Lane is currently a two-way-left-turn lane (TWLTL) configuration. Headway's Traffic Analysis reports recommends eliminating the TWLTL configuration, and access to and from Mill Street from Matley Lane will be reconfigured and confined to right-in/right-out only movements.

#### 3.10. SAFETY ASSESSMENT

CONSULTANT will obtain the Traffic Crash Data from NDOT for the years 2015 - 2017. CONSULTANT will identify existing hot spots and/or trends for special consideration. Characterization of the crash types and trends will be used to identify potential countermeasures that could be incorporated in the project design. Site specific crash analysis and diagramming is not included as a high-level, predictive type evaluation is intended.

#### 3.11. DATA COLLECTION

CONSULTANT will obtain the Stage 2 Design (PDF and electronic CADD files) from the RTC. Additional, as-built data (pdf and electronic CADD files) for Mill Street, Terminal Way, and surrounding side streets within the project will be obtained from the City of Reno.

CONSULTANT will coordinate with NDOT to obtain the current electronic design files for the SBX improvements on Mill Street. CONSULTANT will continue regular coordination with NDOT to ensure design/as-built information is updated.

# 3.12. ENVIROMENTAL SUPPORT – OPTIONAL TASK

If necessary, CONSULTANT will perform limited environmental analysis services for this project, which will not have any federal funding applied to it.

The completed EIS for NDOT's Reno Spaghetti Bowl Project encompasses the portion of Mill Street in the vicinity of NDOT's I-580 Right-of-Way.

Kietzke Lane is also NDOT Right-of-Way, however, improvements along Kietzke Lane include revised intersection returns with Mill Street to accommodate widening along Mill Street. No widening or lane configuration revisions are proposed for Kietzke Lane.

If any right-of-way acquisitions outside the limits of the Reno Spaghetti Bowl EIS require a Phase I Environmental Analysis, or if any right-of-way acquisitions require a Phase II Environmental Analysis to be completed at RTC's direction, RTC will provide authorization and funding under Task 7 - Design Contingency.

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#### TASK 4. 90% DESIGN

#### 4.1. DESIGN CRITERIA & SOFTWARE

# 4.1.1. Design Criteria

CONSULTANT will develop design criteria for Mill Street. Design standards will be established based on:

- Standard Specifications for Public Works Construction (Orange Book), Revision 8 of the 2012 Edition
- AASHTO Policy for Geometric Design of Highways and Streets (Green Book), 2011
- Manual on Uniform Traffic Control Devices 2010
- AASHTO Roadside Design Guide, 2011
- Guide for the Planning, Design, and Operation of Pedestrian Facilities, AASHTO, 2004
- RTC 2050 Regional Transportation Plans
- Truckee Meadows Regional Drainage Manual, latest version

If any structural design is needed beyond what is included in the Orange Book, The NDOT Structures Manual, 2008, and subsequent revisions, shall be used for design criteria.

CONSULTANT will prepare draft design criteria, consisting of a tabular format document of critical criteria and a summarized listing of the governing standards and references, for review by the RTC and other agencies for review and approval. A meeting will be held with the RTC and agencies to reconcile any outstanding review comments and prepare and submit the Final Design Criteria. CONSULTANT will review existing geometry for Stage 2 Design plans for consistency with the agreed upon standards.

Should the RTC direct the use of future releases of these references that would significantly alter the scope of work or increase the level of effort required to complete the work, incorporating these changes will be negotiated as additional services before additional work is initiated.

#### 4.1.2. Software

Project design and plans will be produced using MicroStation V8i and InRoads SS2, with the understanding that master files can be translated to AutoCAD at the completion of final design for final delivery to the RTC, if required. ProjectWise will be used to organize CADD files, included those of the Subconsultants.

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#### 4.1.3. Deliverables

- Draft Design Criteria for Agency Review
- Final Design Criteria

#### 4.2. 90% DESIGN

#### 4.2.1. Drainage Analysis

CONSULTANT will review previously received agency review comments that have not been addressed yet. CONSULTANT will provide responses to the comments and a hold a review meeting to ensure Agencies are in acceptance of proposed solutions, and all comments adequately addressed.

CONSULTANT will utilize the Mill Street Future Improvements – Drainage Memorandum, dated September 14, 2021 prepared by Horrocks Engineers as the basis of their drainage design.

This scope is based upon the drainage criteria outlined by the *Truckee Meadows Regional Drainage Manual (TMRDM)*, *Truckee Meadows Structural Controls Design and Low Impact Development Manual*.

CONSULTANT will estimate street surface flow characteristics (i.e., depth, velocity, spread width/dry lane, and velocity time depths) using Manning's Equations for 5-, 10-, and 100-year design storm events.

CONSULTANT will evaluate existing drainage facilities to ensure they meet drainage criteria using Manning's Equation for storm drain facilities and drop inlets.

CONSULTANT will complete a 90% Design of the proposed drainage facilities (culverts, roadside ditches, drop inlets, and storm drain facilities) to meet drainage criteria. Where possible, use of and tie-ins into existing drainage systems along Mill Street will be incorporated into the design.

#### 4.2.2. Lighting and Electrical Design

Electrical design will include any required new street lighting, relocating, and/or removing the existing street lighting, miscellaneous electrical connections (if any), electrical service points for lighting and signalized intersections, and coordination with NV Energy for any electrical utility relocations and any new service requirements. The project will be Flat Rate Corridor Lighting; therefore, CONSULTANT will provide the lighting analysis, and NV Energy is responsible for the lighting design, including electrical load and voltage drop calculations.

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## 4.2.3. 90% Roadway, Signing, Striping, Right of Way, Geometric, Utilities, Removals, Structural and Details

Incorporating the result of the Headway's Mill Street Corridor Study Traffic Analysis report dated December 10, 2021, and the RTC Final Design Open Items Matrix, CONSULTANT will advance the Stage 2 Design prepared by Horrocks Engineers, and prepare 90% preliminary design plans, a corresponding 90% preliminary opinion of probable construction cost estimate, and 90% technical specifications.

Evaluate the geometric layout for a new traffic signal at Golden Lane and Mill Street, with a new roadway (requiring right-of-way acquisitions) to the south to complete the fourth leg of the intersection. This signal would replace the RRFB installed with the SBX project to increase pedestrian safety. The installation of a signal at Golden Lane would require a right-in right-out only movement at Reservation Road. In addition, Louise Street and Redwood Place would either be abandoned or terminated with a cul-de-sac rather than intersect with Mill Street. The operational analysis was completed in Headway's Mill Street Corridor Study dated 12/10/2021. No additional operational analysis will be done by CONSULTANT.

#### 4.2.4. Landscape and Aesthetics

Mill Street is an existing commercial corridor with minimal landscaping/aesthetics adjacent to Mill Street. Although not anticipated, if any landscape or aesthetic design is necessary, RTC will provide authorization and funding under Task 7 - Design Contingency.

#### 4.2.5. 90% Plan Set

The sixty (60) plan sheets included in the Stage 2 Design will be advanced to the 90% level of detail. Additional sheets to be included are:

- Geometric Control and additional Grading Plans (8): Geometric control and grading plan information for median islands, separated sidewalks, ADA ramps, driveways, and any other feature needing geometry/grading defined for construction
- Additional Traffic Signal plans (5)
- Utility specific generated design (water, gas, etc.), as necessary from utility conflicts (10)
- Detailed analysis for lighting and/or electrical (4)
- Retaining Wall or other Special Structural Features (3)
- Additional Detail Sheets (10)
- Site reconstruction plans including landscape and aesthetic design for remediation of impacts to adjacent properties (10)

Approximately 110 Sheets total

Exclusions from the 90% Scope of Work:

- Cross Sections will not be included in the plans or provided to the agency(s)
- No public art design is included, nor identification of potential location(s)
- No soundwalls or soundwall aesthetic design is included
- Utility Companies are responsible for their own design and plan sheets.

#### 4.2.6. 90% Cost Estimate

CONSULTANT will prepare a detailed unit price engineer's estimate of probable construction cost.

#### 4.2.7. 90% Technical Provisions

CONSULTANT will provide detailed technical specifications as determined during the 90% design. Technical provisions will reference Revision 8 of the 2012 Edition of Standard Specifications for Public Works Construction (Orange Book) for standard construction items.

#### 4.2.8. 90% Design Submittal

CONSULTANT will submit 90% Design Documents and instructions for providing review comments to the agencies and utility companies as summarized below:

- RTC and City of Reno
  - 1 PDF copy of 11"x17" 90% design plans, Design Exception Summary (as necessary).
  - 1 PDF copy of 90% Technical Specifications
  - 1 PDF copy of Engineer's opinion of probable construction cost estimate
  - 1 Electronic Distribution of Review Comment Instructions & Comment Form
- Utility Companies with facilities in the area:
  - 1 PDF copy of 11"x17" 90% design plans
  - 1 copy Technical Specifications
  - 1 Electronic Distribution of Review Comment Instructions & Comment Form

#### 4.2.9. Constructability, Cost Estimate, and Technical Specification Review

Subconsultant Pre-Construction Services Group will provide an independent constructability review of the 90% design plans, an independent review of the 90% cost estimate, an independent review of the technical specifications, and provide a draft construction schedule. All reviews will be summarized into a formal report to be submitted to the RTC.

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#### TASK 5. FINAL DESIGN

#### 5.1. 100% DESIGN

CONSULTANT will organize a 90% review comment reconciliation meeting with the RTC and other agencies. Six (6) CONSULTANT team members are anticipated to attend the comment reconciliation meeting. The agreed upon revisions will be incorporated into the plans, allowing the CONSULTANT to finalize the design plans, specifications, and engineer's estimate to 100%.

CONSULTANT will submit 100% plans, specifications, and engineer's estimate to RTC, City of Reno, and utility companies with facilities in the project limits to verify all comments have been responded to, reconciled, and incorporated into the plans.

Subconsultant Pre-Construction Services Group will provide an independent constructability review of the 100% design plans, an independent review of the 100% cost estimate, an independent review of the technical specifications and update the construction schedule prepared at 100% design. All reviews will be summarized into a formal report to be submitted to the RTC.

#### 5.1.1. 100% Design Submittal

CONSULTANT will submit 100% Design Documents and instructions for providing review comments to the agencies and utility companies as summarized below:

- RTC and City of Reno
  - 1 PDF copy of 100% design plans, technical specifications, Design Exception Summary (as necessary), and construction cost estimate; full versions of drainage and geotechnical reports
  - 1 Electronic Distribution of Review Comment Instructions & Comment Form
- Utility Companies with facilities in the area:
  - 1 PDF of 100% design plans
  - 1 PDF copy Technical Specifications
  - 1 Electronic Distribution of Review Comment Instructions & Comment Form

#### 5.2. FINAL DESIGN

Once the agencies verify that all review comments have been addressed and no additional changes are required, CONSULTANT will sign and stamp the design plans and technical specifications for use as an advertised project.

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#### 5.2.1. Final Design Submittal

CONSULTANT will provide full size PDFs and a PDF of the Technical Specifications via a USB or FTP to the RTC for posting on their ProcureWare website for advertisement.

#### 5.3. NDOT ENCROACHMENT PERMIT

CONSULTANT will prepare and submit to NDOT color coded plans and drainage checklist for work performed within NDOT right-of-way for Contractor's required encroachment permit.

#### TASK 6. BIDDING SERVICES

CONSULTANT will provide services during bidding for the project. CONSULTANT Project Manager and Design Manager will attend the RTC hosted pre-bid meeting, respond to any Request for Information (RFIs) during the bidding period, and prepare any addenda that may be required.

CONSULTANT Project Manager and Design Manager will attend the project bid opening, review the bids received for any irregularities, and create a tabulation of the bid results in an excel spreadsheet-based format to verify the quantities and costs of the bid items.

After bid opening and award, CONSULTANT will prepare a Conformed Set of Specifications for distribution to the project and construction teams. All RTC and Contractor signed pages and any addenda will be incorporated into a final set of project specifications. CONSULTANT will also prepare a conformed set of plans, if any changes are required resulting from RFIs during the bidding process.

#### TASK 7. DESIGN CONTINGENCY

This is a contingency for miscellaneous increases within the scope of this contract in the performance of services under Tasks 1 to 6, and Task 8. If CONSULTANT determines that it is necessary to perform work to be paid out of contingency, CONSULTANT shall provide a letter detailing the need, scope, and not-to-exceed budget for any proposed work. Work under this task shall proceed only with the RTC Project Manager's prior written approval.

#### TASK 8. ENGINEERING SERVICES DURING CONSTRUCTION

CONSULTANT will provide project management services for the scope of work of this task for the duration of construction and preparation of the Record Drawings, assumed to occur from June 2024 through December 2025, a duration of eighteen (18) months. Project management includes task setup and administration, continued management of Subconsultants, quality assurance on

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deliverables, coordination with the RTC Project Manager and Construction Management Team, and task closeout.

CONSULTANT will provide engineering services during construction assumed to be from June 2024 through October 2025. The CONSULTANT Project Manager will be responsible for the ongoing coordination with the RTC Project Manager and the construction management team's Construction Manager; including attending weekly construction progress meetings and as necessary field site visits to the project construction site to observe the progress and the general quality of the work, and project specific questions.

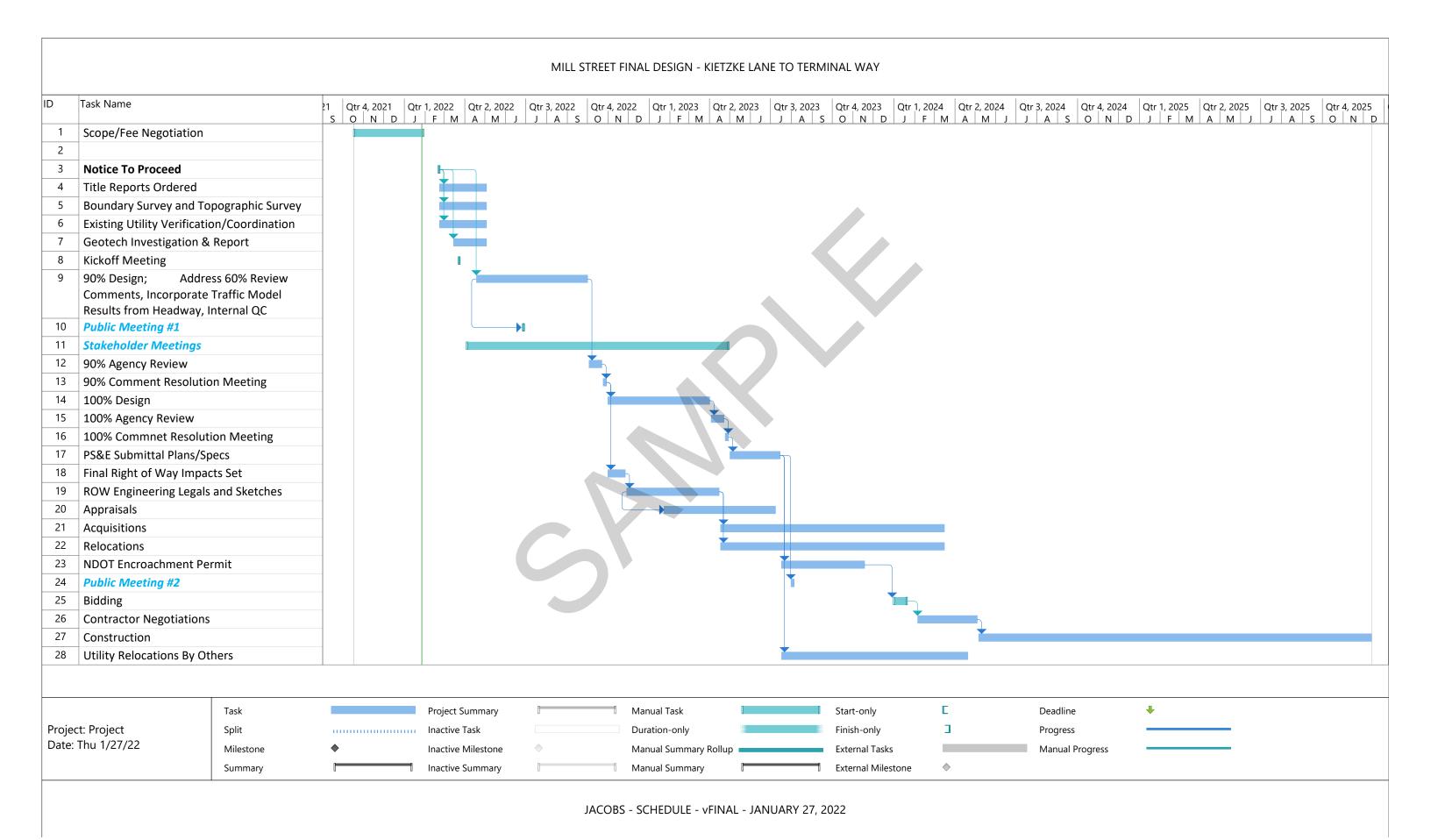
CONSULTANT will review and prepare written responses to Requests for Information (RFIs) from the Contractor for resolution of conflicts, providing clarifications, and/or interpretations of the plan and/or specifications prepared by CONSULTANT. CONSULTANT will maintain document control for the questions and responses.

CONSULTANT will review submittals and shop drawings as requested by the construction management team to ensure accuracy and conformance with the project plans and specifications.

CONSULTANT shall participate in the final inspection field review and shall coordinate with the construction management team regarding deficiencies to be included as part of the project punch/deficiency list.

Upon the Contractor achieving final project acceptance, or upon receipt of the as-built drawings from the Contractor, CONSULTANT shall complete a Record Drawing set of plan accounting for all known field revisions occurring during construction. Revision shall be shown in blue ink and shall be inserted by electronic methods. Each sheet of the plan set shall be dated and marked "RECORD DRAWING." CONSULTANT shall furnish one (1) USB Drive containing images of the Record Drawings to the RTC, Washoe County, and NDOT. The images shall be 11" x 17" and in .tiff or .pdf format with a resolution of not less than 300 dpi.

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### Exhibit B

Jacobs Fee	Summary for Mill Street Widening (Kietz	ke Lane t	to Termina	al Way) l	Final Desi	ign - vFIN	AL - 01/27/	2022																
	Tasks											Cl	assification	ıs, Hours,	and Fee									
	Project Title	Sr. Project Manager	Project Manager	Structural Engineer III	NEPA Specialist III	Project I Engineer IV	Project Engineer II	Project Engineer I	ROW	Sr Landscape	L & A	Office Survey Calcs/Utility	Field Survey Chief	Office Utility/ Survey	Field Utility/ Survey ROW PL	QA/QC Manage	CADD Tech	h Technical Editor / QC	Project Accountant	Admin / Project Controls			Sub-	T I.C
	Proposed Staff	John K	Kaci	Robbie	Ben Goldsworthy	Michael, Alfredo,Travis	Wynn, Kayann, Jared	Mateo		Linda C-K	Cameron	Duke	Duke-Field	Ethan, Dale	Ethan-Field; Dale-Field Aaron	Kim Noke	John Chelonis Trevor Pattiso	Meagan Thompson; Tim McMillan		Shawn/ Candy	Hours	Subtask Cost	Consultants	Total Costs
Task	Rate*	\$250.00	\$190.00	\$165.00	\$150.00	\$165.00	\$135.00	\$120.00	\$165.00	\$185.00	\$100.00	\$155.00	\$185.00	\$120.00	\$150.00 \$230.00	\$250.00	\$115.00	\$100.00	\$65.00	\$70.00				
1.0 Pr	oject Management	60	422	0	\$ -	0	52	0	0	0	0	26	0	0	0 4	0	8	8	96	454	1130	\$ 146,890	\$ -	
	oject Management Activities, Scheduling, Monthly	60	200																96	350	706	\$ 83,740		
In	voicing, Accounting, File Management		0	0	0	)	4			0	1	2			0	0			,,,	0	22			
	oject Management Meetings		48	0	0	,	48			0	1	24		· '	0	U				48	168		<u> </u>	
	Weekly PM Coordination Call		120				10			-	+	27								40	120		 I	-
	esign Coordination Meetings (see Task 4 for add hours)		30																		30		 I	
	ght of Way Setting Meeting		4													4		8			16			
1.3 Pro	oject Management Plan		6															4		24	34	\$ 3,220		
1.4 Qu	uality Management Plan		6															4		24	34	\$ 3,220	1	
																					0	\$ -		
																					0	\$ -	<u></u>	
2.0 Pu	ıblic Outreach	0	137	0	0	0	4	0	0	0	0	4	0	0	0 0	0	80	0	0	0	225	\$ 36,390	\$ 54,150	
2.1 Pu	ıblic Outreach Plan		5																		5	\$ 950		
2.1.1-2.1.3 Sta	akeholder Database/Website/Branding		20																		20	\$ 3,800		
2.2 Or	ne-On-One Stakeholder Mtgs (40 @ 2hr/each)		80																		80	\$ 15,200		
	ablic Information Mtgs (2 mtgs + 2 prep/mtg)		24				4					4					8	0			112	\$ 14,920	<u></u>	
	TC Board Meetings (2 mtgs w/ 1 prep/mtg)		4																		4	\$ 760	<del></del> -	_
2.5 Re	eno City Council -OR- NAB (1 mtg + 1 prep/mtg))		4								-					1					4	\$ 760		
arm m	1.16.1.61.6																				0	\$ -		-
SUB Ta	aylor Made Solutions															1					0	\$ -	\$ 54,150	
3.0 Pr	roject Development	0	16	4	0	0	44	24	368	0	0	638	250	140	600 188	45	16	0	0	0	2333	\$ 381,510	\$ 123,025	
	eotechnical Investigation		4	4			4								16						28	\$ 4,360		
	evenent Design		'				'								10						0	s -		-
	onstruction Materials Inc.																				0	\$ -	\$ 85,025	-
	xisting Subsurface Utilities															1					0	9	\$ 65,025	
-	xisting Utility Locate Verification													60	0 80	+					140	\$ 19,200	<u> </u>	
									<u> </u>			150		00	80									-
	tility Coordination						+ 4				<del> </del>	150									150			-
	tility Potholing										─		24			1					24		25.000	
	Potholing										┼──					1					0	\$ -	\$ 25,000	
	ppographic Survey										<u> </u>					-					0	\$ -		_
-	ontrol - Verify and Densify										<u> </u>		26		64	-					90			_
	ppographic Survey										<del></del>		40		280						320			
D	Prafting Topo / Ext. Ground .dtm											24		80	0						104	\$ 13,320	<del></del> -	_
	rst Take Aerial										<u> </u>										0	\$ -	\$ 3,000	
	raffic Control																				0	\$ -	\$ 10,000	
3.6 Ex	xisting Right of Way (Find Existing and Set New)										<u> </u>					1					0	\$ -	<del> </del>	
Fir	nd Existing Corners												60		60	2					152	\$ 27,460	<u> </u>	
Ac	ccurate R/W & Boundary Maps/CADD											24				6					40	\$ 7,400	<u> </u>	
Se	et New Right of Way Corners - File Record of Survey											40	100		100	0					280	\$ 48,900		
	ght of Way Engineering Services																				Ů	\$ -		
	Title Packages (41 @ 8/hr each)								328												328			
	Develop Legals and Sketch Maps (41 @ 12hr/each)										<u> </u>	400			10						500			
	QA/QC legals/sketch maps (41 @ 1 hr/each)															1	41				41	,		
	PRELIM Cost Est		12						40								4				56		<del></del>	
	raffic Volume Verification - No Work																				0	\$ -	<del></del>	
3.9 Ac	ccess Management			<u> </u>			20						<u> </u>	<u> </u>							20	\$ 2,700		

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		Sr. Project	Project	Structural	NEPA	Project	Project	Project	now.	Sr		Office Survey	Field	Office	Field Utility	/	QA/QC	G. DD. T. 1	Technical	Project	Admin /		
	Project Title	Manager	Manager		Specialist III	Engineer IV	Engineer II	Engineer I	ROW	Landscape	L & A	Calcs/Utility	Survey Chief	Utility/ Survey	Survey	ROW PLS	Manager	CADD Tech	Editor / QC	Accountant	Project Controls	Hours	Subtask Cost Sub- Consultants Total C
	Proposed Staff	John K	Kaci	Robbie	Ben Goldsworthy	Michael, Alfredo,Travis	Wynn, Kayann, Jared	Mateo		Linda C-K	Cameron	Duke	Duke-Field	Ethan, Dale	Ethan-Field; Dale-Field	Aaron	Kim Nokes	John Chelonis, Trevor Pattison	Meagan Thompson; Tim McMillan	1	Shawn/ Candy		Consultants
Task	Rate*	\$250.00	\$190.00	\$165.00	\$150.00	\$165.00	\$135.00	\$120.00	\$165.00	\$185.00	\$100.00	\$155.00	\$185.00	\$120.00	\$150.00	\$230.00	\$250.00	\$115.00	\$100.00	\$65.00	\$70.00		
3.10	Safety Assessment						20	)														20	\$ 2,700
3.11	Data Collection							24										16				40	\$ 4,720
3.12	Environmental Support - OPTIONAL TASK																					0	s -
																						0	s -
																						0	s -
4.0	90% - Design	0	86	36	0	202	542	50	20	0	0	66	0	20	0	0	40	434	16	0	14	1526	\$ 213,200 \$ 50,325
4.1	Design Criteria and ProjectWise Setup						16	,										60				76	\$ 9,060
4.2	90% Design																						
1.2.	Bi-Weekly Coord Calls- scope included in task 1.2.3			16	0	30	60	)	20		(	0 30	)	20				30				206	\$ 29,490
4.2.1	Drainage and Report						80	10										16	8		6	120	\$ 15,060
4.2.2	Lighting & Electrical																					0	s -
SUB	PK Electrical																					0	\$ - \$ 36,000
4.2.3	Roadway (Removals, Geo, Utilities, Signing, Striping, Detail	s, Structures?	?)	20		60	250	32										300				662	\$ 85,290
	RTC Final Design Open Items Matrix		16	5			32	. 8				16	j									72	\$ 10,800
	Signal at Golden/Mill					96	56	5														152	\$ 23,400
4.2.4	Landscape & Aesthetics - OPTIONAL TASK																					0	s -
4.2.5	90% Plan Set																	20				20	\$ 2,300
4.2.6	Cost Estimate		4	1		8	24				(	0 8										44	\$ 6,560
4.2.7	Specifications		60	)		8	16	5		0		8							8			100	\$ 16,920
4.2.8	Submittal		2	2														8			8	18	\$ 1,860
4.2.9	Constructability, ICE, Risk/Value, Schedule		4	1			8	3				4										16	\$ 2,460
SUB	PCSG																					0	\$ - \$ 14,325
	QA/QC																40	)				40	\$ 10,000
																						0	\$ -
5.0	Final Design	0	74	36	0	85	324	44	0	0	0	26	0	0	0	8	48	264	24	0	60	993	\$ 137,875 \$ 25,845
5.1	100 % Design and Submittal																						
	90% Comment Review & Resolution		8	3 2		4	16	,		0		0 8									16	54	\$ 7,030
	100% Roadway			24		48	150	16										180				418	\$ 54,750
	100% Drainage and Report						24											8	12		4	48	\$ 5,640
	100% Signal at Golden					8	8	3														16	\$ 2,400
	100% Lighting & Electrical								1													0	s -
SUB	PK Electrical																					0	\$ - \$ 11,000
	Right-of Way Setting Meeting		8	3			8	3				8				8		16				48	\$ 7,520
	100% Cost Estimate		4	1		4	24				(	0										32	\$ 4,660
	100% Specifications		24	1		4	. 8			0		4							6			46	\$ 7,520
	100% Constructability, ICE, Schedule																					0	s -
5.1.1	100% Submittal		2	2														8			8	18	\$ 1,860
	100% QA/QC																24	4				24	\$ 6,000
																						0	s -
5.2	PS&E Final Design and Submittal																						
	100% Comment Review & Resolution		8	3 2		4	16	5		0	(	0 4									16	50	
	PS&E Roadway			8		8	32	. 4										40				92	\$ 12,040
	PS&E Drainage and Report						8	3										4	2		8	22	\$ 2,300
	PS&E Lighting & Electrical											1				1						0	s -
SUB	PK Electrical															1						0	\$ - \$ 3,000
	PS&E Cost Estimate		4	1		4	12	!			(	0						<u> </u>				20	
	PS&E Specifications		8	3		1	2	!		0		2							4		8	25	\$ 3,225
	PS&E Constructability, ICE, Construction Schedule																					0	\$ -
5.2.1	PS&E Submittal		8	3			8	3		0						1		8				24	
	PS&E QA/QC											1				1	24	4				24	\$ 6,000
<u> </u>																1						0	s -
SUB	PCSG (100% and PS&E)															1						0	\$ - \$ 11,845
																						0	\$ -

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0 Bidd Pre-I RFIs Bid 0 Conf SUB PK F SUB PCS0	Proposed Staff  Rate*  DOT Encroachment Permit  idding Services e-Bid Meeting FIs during Bidding - Plans and Specs d Opening & Bid Tabulations onformed Plans & Specs  K Electrical	John K \$250.00	Kaci \$190.00	Robbie \$165.00	Ben Goldsworthy	Michael, Alfredo,Travis	Wynn, Kayann, Jared	Mateo		Linda C-K	Cameron	Duke		Ethan,	Ethan-Field;	! լ	' 1		Meagan	!	Shawn/	Hours	Subtask Cost	Consultants	Total Cos
5.3 NDC  D Bidd  Pre-I  RFIs  Bid C  Conf  SUB PK F  SUB PCS0	dding Services e-Bid Meeting FIs during Bidding - Plans and Specs d Opening & Bid Tabulations onformed Plans & Specs		\$190.00	\$165.00	\$150.00	016500						Duke	Duke-Field	Dale	Dale-Field	Aaron	Kim Nokes	John Chelonis, Trevor Pattison	Thompson; Tim McMillan		Candy				
0 Bidd Pre-I RFIs Bid 0 Conf SUB PK F SUB PCS0	e-Bid Meeting FIs during Bidding - Plans and Specs d Opening & Bid Tabulations onformed Plans & Specs	0				\$165.00	\$135.00	\$120.00	\$165.00	\$185.00	\$100.00	\$155.00	\$185.00	\$120.00	\$150.00	\$230.00	\$250.00	\$115.00	\$100.00	\$65.00	\$70.00		-		
Pre-I RFIs Bid ( Conf SUB PK E SUB PCS(	e-Bid Meeting FIs during Bidding - Plans and Specs d Opening & Bid Tabulations onformed Plans & Specs	0					8	24														32	\$ 3,960		
Pre-I RFIs Bid ( Conf SUB PK E SUB PCS(	e-Bid Meeting FIs during Bidding - Plans and Specs d Opening & Bid Tabulations onformed Plans & Specs	0																				0	\$ -		
RFIs Bid C Conf SUB PK F SUB PCS0  O Conf	FIs during Bidding - Plans and Specs d Opening & Bid Tabulations onformed Plans & Specs		26	0	0	0	10	0	0	0	0	2	0	0	0	0	0	12	0	0	0	50	\$ 7,980	\$ 1,540	
Bid Conf	d Opening & Bid Tabulations onformed Plans & Specs		4														$\overline{}$		,			4	\$ 760		
SUB PK F SUB PCSO	onformed Plans & Specs		12				6					2						4	ı			24	\$ 3,860		
SUB PK E SUB PCS			6																ı			6	\$ 1,140		
SUB PCS	/ Flactrical		4				4											8	J			16	\$ 2,220		
0 Con	X Electrical																					0	\$ -	\$ 1,000	
	CSG																1		]			0	\$ -	\$ 540	
																			I			0	\$ -		
Desi	ontingency - RTC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 150,000	\$ -	
	esign Contingency As Approved By RTC																					0	\$ 150,000		
																						0	s -		
) Eng	ngineering Services During Construction	0	344	16	0	16	86	0	0	0	0	40	0	0	0	0	0	104	0	60	80	746	\$ 109,910	\$ 11,700	
Proj	oject Management / Doc Control	0	120														i		1	60	80	260	\$ 32,300		
Wee	eekly Construction Meetings		160																			160	\$ 30,400		
RFIs	FIs		40	8		8	74				0	40						24				194	\$ 29,190		
Subi	abmittals		16	8		8				0	)											32	\$ 5,680		
As-F	s-Builts		8				12											80				100	\$ 12,340		
																				i		0	\$ -		
SUB P	PK Electrical																			i		0	\$ -	\$ 9,000	
SUB P	PCSG																			i		0	\$ -	\$ 2,700	
																				i		0	\$ -		
Hou	ours Per Staff	60	1105	92	0	303	1062	118	388	3 0		802	250	160	600	200	133	918	48	156	608	7003			
Base	ase Scope Direct Labor Costs	\$ 15,000	\$ 209,950	\$ 15,180	\$ -	\$ 49,995	\$ 143,370	\$ 14,160	\$ 64,020	\$ -	\$ -	\$ 124,310	\$ 46,250	\$ 19,200	\$ 90,000	\$ 46,000	\$ 33,250	\$ 105,570	\$ 4,800	\$ 10,140	\$ 42,560		\$ 1,183,755	\$ 266,585	
Dire	irect Expenses																						\$ 89,000		
		\$ 2,000																							
	eproduction for Submittals W Title Reports (Assume 41 @ \$2,000)	\$ 5,000 \$ 82,000																					l		
	( ( ( ( ψ-),ννν))	2,000								V /														1	
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			<del>                                     </del>																				I		

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#### **Exhibit C**

# INDEMNIFICATION AND INSURANCE REQUIREMENTS FOR PROFESSIONAL SERVICE AGREEMENTS [NRS 338 DESIGN PROFESSIONAL]

2021-10-18 Version

#### 1. INTRODUCTION

IT IS HIGHLY RECOMMENDED THAT CONSULTANTS CONFER WITH THEIR INSURANCE CARRIERS OR BROKERS TO DETERMINE THE AVAILABILITY OF THESE INSURANCE CERTIFICATES AND ENDORSEMENTS IN ADVANCE OF PROPOSAL SUBMISSION. IF THERE ARE ANY QUESTIONS REGARDING THESE INSURANCE REQUIREMENTS, IT IS RECOMMENDED THAT THE AGENT/BROKER CONTACT RTC'S FINANCE DIRECTOR AT (775) 335-1845.

#### 2. INDEMNIFICATION

CONSULTANT agrees, subject to the limitations in Nevada Revised Statutes Section 338.155, to save and hold harmless and fully indemnify RTC and City of Reno including their elected officials, officers, employees, and agents (hereafter, "Indemnitees") from and against any and all claims, proceedings, actions, liability and damages, including reasonable attorneys' fees and defense costs incurred in any action or proceeding (collectively "Damages") arising out of the:

- A. Negligence, errors, omissions, recklessness or intentional misconduct of CONSULTANT or CONSULTANT's agents, employees, officers, directors, subconsultants, or anyone else for whom CONSULTANT may be legally responsible, which are based upon or arising out of the professional services of CONSULTANT; and
- B. Violation of law or any contractual provisions or any infringement related to trade names, licenses, franchises, patents or other means of protecting interests in products or inventions resulting from the use by the Indemnitees of any materials, devices, processes, equipment, or other deliverable (including software) supplied by CONSULTANT under or as a result of this Agreement, but excluding any violation or infringement resulting from the modification or alteration by the Indemnitees of any materials, devices, processes, equipment, or other deliverable (including software) not consented to by CONSULTANT.

CONSULTANT further agrees to defend, save and hold harmless and fully indemnify the Indemnitees from and against any and all Damages arising out the negligence, errors, omissions, recklessness or intentional misconduct of CONSULTANT or CONSULTANT's agents, employees, officers, directors, subconsultants, or anyone else for whom CONSULTANT may be legally responsible, which are not based upon or arising out of the professional services of CONSULTANT.

The Damages shall include, but are not limited to, those resulting from personal injury to any person, including bodily injury, sickness, disease or death and injury to real property or personal

property, tangible or intangible, and the loss of use of any of that property, whether or not it is physically injured.

If the Indemnitees are involved in defending actions of CONSULTANT or anyone else for whom CONSULTANT is legally responsible, CONSULTANT shall reimburse the Indemnitees for the time spent by such personnel at the rate of the Indemnitees pay or compensation for such services.

If an Indemnitee is found to be liable in the proceeding, then CONSULTANT'S obligation hereunder shall be limited to the proportional share of the liability attributed to CONSULTANT.

In determining whether a claim is subject to indemnification, the incident underlying the claim shall determine the nature of the claim.

In the event of a violation or an infringement under paragraph 2.B above and the use is enjoined, CONSULTANT, at its sole expense, shall either (1) secure for the Indemnitees the right to continue using the materials by suspension of any injunction or by procuring a license or licenses for the Indemnitees; or (2) modify the materials so that they become non-infringing. This covenant shall survive the termination of the Professional Services Agreement.

The provisions of this Agreement are separate and severable and it is the intent of the Parties hereto that in the event any provision of this Agreement should be determined by any court of competent jurisdiction to be void, voidable or too restrictive for any reason whatsoever, the remaining provisions of this Agreement shall remain valid and binding upon said Parties. It is also understood and agreed that in the event any provision should be considered, by any court of competent jurisdiction, to be void because it imposes a greater obligation on CONSULTANT than is permitted by law, such court may reduce and reform such provisions to limitations which are deemed reasonable and enforceable by said court.

#### 3. GENERAL REQUIREMENTS

Prior to the start of any work on a RTC project, CONSULTANT shall purchase and maintain insurance of the types and limits as described below insuring against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONSULTANT, its subconsultants, or their employees, agents, or representatives. The cost of all such insurance shall be borne by CONSULTANT.

#### 4. VERIFICATION OF COVERAGE

CONSULTANT shall furnish RTC with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth herein, on forms acceptable to RTC. All deductibles and self-insured retentions requiring RTC approval shall be shown on the certificate. All certificates and endorsements are to be addressed to RTC's Finance Director and be received by RTC before work commences. CONSULTANT agrees that RTC shall have the right to review, with reasonable notice and subject to a nondisclosure agreement, the redacted Declarations Page of the insurance policies required herein and the endorsements or other sections of the policy document that affirm the coverages

requirements detailed above. Copies of applicable policy forms or endorsements confirming required additional insured, waiver of subrogation and notice of cancellation provisions are required to be provided with any certificate(s) evidencing the required coverage.

#### 5. NOTICE OF CANCELLATION

CONSULTANT or its insurers shall provide at least thirty (30) days' prior written notice to RTC prior to the cancellation or non-renewal of any insurance required under this Agreement. An exception may be included to provide at least ten (10) days' written notice if cancellation is due to non-payment of premium. CONSULTANT shall be responsible to provide prior written notice to RTC as soon as practicable upon receipt of any notice of cancellation, non-renewal, reduction in required limits or other material change in the insurance required under this Agreement.

#### 6. SUBCONSULTANTS & SUBCONTRACTORS

CONSULTANT shall include all Subcontractors and Subconsultants (referred to collectively as "Subs") as insureds under its liability policies OR shall cause Subs employed by CONSULTANT to purchase and maintain separate liability coverages and limits of the types specified herein. If any Subs maintain separate liability coverages and limits, each shall include the RTC and City of Reno as additional insureds under its commercial general liability policy, subject to the same requirements stated herein, without requiring a written contract or agreement between each of the additional insureds and any sub-consultant or sub-contractor. Any separate coverage limits of liability maintained by Subs shall be at least \$1,000,000 per occurrence and at least \$2,000,000 for any applicable coverage aggregates or the amount customarily carried by the Sub, whichever is GREATER. If any Subs provide their own insurance with limits less than required of the Contractor, Contractor shall include Subs in their coverage up to the full limits required of the Contractor. When requested by RTC, CONSULTANT shall furnish copies of certificates of insurance evidencing coverage for each subconsultant. CONSULTANT need not require its non-design subcontractors to carry Professional Errors and Omissions Liability insurance.

#### 7. DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions that exceed \$50,000 per occurrence or claim must be declared to RTC's Finance Director prior to signing this Agreement. RTC is entitled to request and receive additional documentation, financial or otherwise, prior to giving its approval of the deductibles and self-insured retentions. Any changes to the deductibles or self-insured retentions made during the term of this Agreement or during the term of any policy must be declared to RTC's Finance Director prior to the change taking effect.

#### 8. ACCEPTABILITY OF INSURERS

Required insurance is to be placed with insurers with a Best's rating of no less than A-VII and acceptable to RTC. RTC may accept coverage with carriers having lower Best's ratings upon review of financial information concerning CONSULTANT and the insurance carrier. RTC reserves the right to require that CONSULTANT'S insurer(s) be licensed and admitted in the State

of Nevada or meet any applicable state and federal laws and regulations for non-admitted insurance placements.

#### 9. OTHER CONDITIONS

- A. Failure to furnish the required certificate(s) or failure to maintain the required insurance may result in termination of this Agreement at RTC's option.
- B. If CONSULTANT fails to furnish the required certificate or fails to maintain the required insurance as set forth herein, RTC shall have the right, but not the obligation, to purchase said insurance at CONSULTANT's expense.
- C. Any waiver of CONSULTANT's obligation to furnish such certificate or maintain such insurance must be in writing and signed by an authorized representative of RTC. Failure of RTC to demand such certificate or other evidence of full compliance with these insurance requirements or failure of RTC to identify a deficiency from evidence that is provided shall not be construed as a waiver of CONSULTANT's obligation to maintain such insurance, or as a waiver as to the enforcement of any of these provisions at a later date.
- D. By requiring insurance herein, RTC does not represent that coverage and limits will necessarily be adequate to protect CONSULTANT, and such coverage and limits shall not be deemed as a limitation on CONSULTANT's liability under the indemnities granted to RTC in this contract.
- E. If CONSULTANT'S liability policies do not contain the standard ISO separation of insureds condition, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

#### 10. COMMERCIAL GENERAL LIABILITY

CONSULTANT shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less than \$2,000,000 each occurrence. If such CGL insurance contains a general aggregate limit, it shall be increased to equal twice the required occurrence limit or revised to apply separately to this project.

CGL insurance shall be written on ISO occurrence form CG 00 01 04 13 (or a substitute form providing equivalent coverage) and shall cover liability arising from premises, operations, products-completed operations, personal and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

RTC and any other Indemnitees listed in Section 2. INDEMNIFICATION of this Agreement shall be included as an insured under the CGL, using ISO additional insured endorsement CG 20 10 07/04 or CG 20 33 07/04 or a substitute providing equivalent coverage, and under the commercial umbrella, if any.

This insurance shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to RTC or any other Indemnitees under this Agreement.

CONSULTANT waives all rights against RTC and any other Indemnitees listed in section 2. INDEMNIFICATION of this Agreement for recovery of damages to the extent these damages are covered by the commercial general liability or commercial umbrella liability insurance maintained pursuant to this agreement. CONSULTANT's insurer shall endorse CGL policy to waive subrogation against RTC with respect to any loss paid under the policy.

#### 11. COMMERCIAL AUTOMOBILE LIABILITY

CONSULTANT shall maintain automobile liability and, if necessary, commercial umbrella liability insurance with a limit of not less than \$1,000,000 each accident. Such insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos).

Coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 25, or a substitute form providing equivalent liability coverage for all owned, leased, hired (rented) and non-owned vehicles (as applicable). RTC may agree to accept auto liability for non-owned and hired (rented) vehicles under the CGL if CONSULTANT does not own or operate any owned or leased vehicles.

CONSULTANT waives all rights against RTC, its officers, employees and volunteers for recovery of damages to the extent these damages are covered by the automobile liability or commercial umbrella liability insurance obtained by CONSULTANT pursuant to this Agreement.

## 12. INDUSTRIAL (WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY) INSURANCE

It is understood and agreed that there shall be no Industrial (Worker's Compensation and Employer's Liability) Insurance coverage provided for CONSULTANT or any subconsultants by RTC. CONSULTANT, and any subconsultants, shall procure, pay for and maintain the required coverages.

CONSULTANT shall maintain workers' compensation and employer's liability insurance meeting the statutory requirements of the State of Nevada, including but not limited to NRS 616B.627 and NRS 617.210. The employer's liability limits shall not be less than \$1,000,000 each accident for bodily injury by accident or \$1,000,000 each employee for bodily injury by disease.

CONSULTANT shall provide a Final Certificate for itself and each subconsultant evidencing that CONSULTANT and each subconsultant maintained workers' compensation and employer's liability insurance throughout the entire course of the project.

If CONSULTANT, or any subconsultant is a sole proprietor, coverage for the sole proprietor must be purchased and evidence of coverage must appear on the Certificate of Insurance and Final Certificate.

CONSULTANT waives all rights against RTC, its elected officials, officers, employees and agents for recovery of damages to the extent these damages are covered by the workers compensation and employer's liability or commercial umbrella liability insurance obtained by Tenant pursuant to this agreement. CONSULTANT shall obtain an endorsement equivalent to WC 00 03 13 to affect this waiver.

#### 13. PROFESSIONAL ERRORS AND OMISSIONS LIABILITY

CONSULTANT shall maintain professional liability insurance applying to liability for a professional, error, act, or omission arising out of the scope of CONSULTANT'S services provided under this Agreement with a limit of not less than \$1,000,000 each claim and annual aggregate. CONSULTANT shall maintain professional liability insurance during the term of this Agreement and, if coverage is provided on a "claims made" or "claims made and reported" basis, shall maintain coverage or purchase an extended reporting period for a period of at least three (3) years following the termination of this Agreement.

MEETING DATE: February 18, 2022 AGENDA ITEM 4.12

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

#### **RECOMMENDED ACTION**

Approve a contract with CA Group, Inc., to provide engineering during construction services for the Sparks Boulevard Project – Phase 1 from Greg Street to I-80 westbound ramps in an amount not-to-exceed \$612,978.

#### **BACKGROUND AND DISCUSSION**

This Professional Services Agreement (PSA) with CA Group, Inc., is for engineering during construction services for the Sparks Boulevard Project – Phase 1 from Greg Street to I-80 project in the amount \$612,978. The project includes the reconfiguration and restriping of Sparks Boulevard from Greg Street to I-80 westbound on and off ramps.

CA Group, Inc., was selected from the Civil Engineering Design and Construction Management Services List as a qualified firm to perform engineering, construction management and quality assurance. Negotiation of CA Group, Inc.'s scope, schedule and budget indicated the amount for design services is within the appropriated budget.

#### FISCAL IMPACT

Appropriations are included in the FY 2022 Capital Budget.

#### PREVIOUS BOARD ACTION

June 20, 2019 Approved the Qualified Consultant List for Engineering Design and

**Construction Management Services** 

#### **ATTACHMENT(S)**

A. Professional Services Agreement

#### AGREEMENT FOR PROFESSIONAL SERVICES

This agreement (this "Agreement") is dated and effective as of February 21, 2022 by and between the Regional Transportation Commission of Washoe County ("RTC") and CA Group, Inc ("CONSULTANT").

#### WITNESSETH:

WHEREAS, RTC has selected CONSULTANT from the Engineering Design and Construction Management shortlist to perform construction management and inspection services in connection with the Sparks Boulevard Widening Project.

NOW, THEREFORE, RTC and CONSULTANT, in consideration of the mutual covenants and other consideration set forth herein, do hereby agree as follows:

#### ARTICLE 1 - TERM AND ENGAGEMENT

- 1.1. The term of this Agreement shall be from the date first written above through December 31, 2023, unless terminated at an earlier date, or extended to a later date, pursuant to the provisions herein.
- 1.2. CONSULTANT will promptly, diligently and faithfully execute the work to completion in accordance with applicable professional standards subject to any delays due to strikes, acts of God, act of any government, civil disturbances, or any other cause beyond the reasonable control of CONSULTANT.
- 1.3. CONSULTANT shall not proceed with work until both parties have executed this Agreement and a purchase order has been issued to CONSULTANT. If CONSULTANT violates that prohibition, CONSULTANT forfeits any and all right to reimbursement and payment for that work and waives any and all claims against RTC, its employees, agents, and affiliates, including but not limited to monetary damages, and any other remedy available at law or in equity arising under the terms of this Agreement. Furthermore, prior to execution and issuance of a purchase order, CONSULTANT shall not rely on the terms of this Agreement in any way, including but not limited to any written or oral representations, assurances or warranties made by RTC or any of its agents, employees or affiliates, or on any dates of performance, deadlines, indemnities, or any term contained in this Agreement or otherwise.

#### <u>ARTICLE 2 - SERVICES OF CONSULTANT</u>

#### 2.1. SCOPE OF SERVICES

The scope of services consist of the tasks set forth in Exhibit A.

#### 2.2. SCHEDULE OF SERVICES

Tasks and subtasks shall be completed in accordance with the Exhibit A. Any change(s) to the scope of services must be approved by RTC's Project Manager.

#### 2.3. CONTINGENCY

Contingency line items identified in the scope of services are for miscellaneous increases within the scope of work. Prior to the use of any contingency amounts, CONSULTANT shall provide a letter to RTC's Project Manager detailing the need, scope, and not-to-exceed budget for the proposed work. Work to be paid for out of contingency shall proceed only with the RTC Project Manager's written approval.

#### 2.4. OPTIONS

RTC shall have the right to exercise its option(s) for all or any part of the optional tasks or subtasks identified in Exhibit A. CONSULTANT will prepare and submit a detailed scope of services reflecting the specific optional services requested, a schedule for such services, and a cost proposal. RTC will review and approve the scope of services and RTC and CONSULTANT will discuss and agree upon compensation and a schedule. CONSULTANT shall undertake no work on any optional task without written notice to proceed with the performance of said task. RTC, at its sole option and discretion, may select another individual or firm to perform the optional tasks or subtasks identified in Exhibit A.

#### 2.5. ADDITIONAL SERVICES

CONSULTANT will provide additional services when agreed to in writing by RTC and CONSULTANT.

#### 2.6. PERFORMANCE REQUIREMENTS

Any and all design and engineering work furnished by CONSULTANT shall be performed by or under the supervision of persons licensed to practice architecture, engineering, or surveying (as applicable) in the State of Nevada, by personnel who are careful, skilled, experienced and competent in their respective trades or professions, who are professionally qualified to perform the work, and who shall assume professional responsibility for the accuracy and completeness of documents prepared or checked by them, in accordance with appropriate prevailing professional standards. Notwithstanding the provision of any drawings, technical specifications, or other data by RTC, CONSULTANT shall have the responsibility of supplying all items and details required for the deliverables required hereunder.

Any sampling and materials testing shall be performed by an approved testing laboratory accredited by AASHTO or other ASTM recognized accrediting organization in the applicable test methods. If any geotechnical or materials testing is performed by a subconsultant, that laboratory shall maintain the required certification. Proof of certification shall be provided to RTC with this Agreement. If certification expires or is removed during the term of this Agreement, CONSULTANT shall notify RTC immediately, and propose a remedy. If an acceptable remedy cannot be agreed upon by both parties, RTC may terminate this Agreement for default.

CONSULTANT shall provide only Nevada Alliance for Quality Transportation Construction (NAQTC) qualified personnel to perform field and laboratory sampling and testing during the term of this Agreement. All test reports shall be signed by a licensed NAQTC tester and notated with his/her license number.

#### 2.7. ERRORS AND OMISSIONS

CONSULTANT shall, without additional compensation, correct or revise any deficiencies, errors, or omissions caused by CONSULTANT in its analysis, reports, and services. CONSULTANT also agrees that if any error or omission is found, CONSULTANT will expeditiously make the necessary correction, at no expense to RTC. If an error or omission was directly caused by RTC, and not by CONSULTANT and RTC requires that such error or omission be corrected, CONSULTANT may be compensated for such additional work.

#### ARTICLE 3 - COMPENSATION

- 3.1. CONSULTANT shall be paid for hours worked at the hourly rates and rates for testing in Exhibit B. RTC shall not be responsible for any other costs or expenses except as provided in Exhibit B.
- 3.2. The maximum amount payable to CONSULTANT to complete each task is equal to the not-to-exceed amounts identified in Exhibit B. CONSULTANT can request in writing that RTC's Project Manager reallocate not-to-exceed amounts between tasks. A request to reallocate not-to-exceed amounts must be accompanied with a revised fee schedule, and must be approved in writing by RTC's Project Manager prior to performance of the work. In no case shall CONSULTANT be compensated in excess of the following not-to exceed amounts:

Contract Administration (Task 2.1.A)	\$153,000
Construction Staking (Task 2.1.F)	\$80,000
Inspection (Task 2.1.G)	\$236,250
Materials Testing (Task 2.1.H)	\$143,728
Total Not-to-Exceed Amount	\$612,978

3.3. For any work authorized under Section 2.4, "Additional Services," RTC and CONSULTANT will negotiate not-to-exceed amounts based on the standard hourly rates

and rates for testing in Exhibit B. Any work authorized under Section 2.4, "Additional Services," when performed by persons who are not employees or individuals employed by affiliates of CONSULTANT, will be billed at a mutually agreed upon rate for such services, but not more than 105% of the amounts billed to CONSULTANT for such services.

3.4. CONSULTANT shall receive compensation for preparing for and/or appearing in any litigation at the request of RTC, except: (1) if such litigation costs are incurred by CONSULTANT in defending its work or services or those of any of its sub-consultants; or (2) as may be required by CONSULTANT's indemnification obligations. Compensation for litigation services requested by RTC shall be paid at a mutually agreed upon rate and/or at a reasonable rate for such services.

#### <u>ARTICLE 4 - INVOICING</u>

- 4.1. CONSULTANT shall submit monthly invoices in the format specified by RTC. Invoices must be submitted to <a href="mailto:accountspayable@rtcwashoe.com">accountspayable@rtcwashoe.com</a>. RTC's payment terms are 30 days after the receipt of the invoice. Simple interest will be paid at the rate of half a percent (0.5%) per month on all invoices approved by RTC that are not paid within thirty (30) days of receipt of the invoice.
- 4.2. RTC shall notify CONSULTANT of any disagreement with any submitted invoice for consulting services within thirty (30) days of receipt of an invoice. Any amounts not in dispute shall be promptly paid by RTC.
- 4.3. CONSULTANT shall maintain complete records supporting every request for payment that may become due. Upon request, CONSULTANT shall produce all or a portion of its records and RTC shall have the right to inspect and copy such records.

#### ARTICLE 5 - ACCESS TO INFORMATION AND PROPERTY

- 5.1. Upon request and without cost to CONSULTANT, RTC will provide all pertinent information that is reasonably available to RTC including surveys, reports and any other data relative to design and construction.
- 5.2. RTC will provide access to and make all provisions for CONSULTANT to enter upon RTC facilities and public lands, as required for CONSULTANT to perform its work under this Agreement.

#### <u>ARTICLE 6 - OWNERSHIP OF WORK</u>

6.1. Plans, reports, studies, tracings, maps, software, electronic files, licenses, programs, equipment manuals, and databases and other documents or instruments of service prepared or obtained by CONSULTANT in the course of performing work under this Agreement, shall be delivered to and become the property of RTC. Software already developed and purchased by CONSULTANT prior to the Agreement is excluded from this requirement.

CONSULTANT and its sub-consultants shall convey and transfer all copyrightable interests, trademarks, licenses, and other intellectual property rights in such materials to RTC upon completion of all services under this Agreement and upon payment in full of all compensation due to CONSULTANT in accordance with the terms of this Agreement. Basic survey notes, sketches, charts, computations and similar data prepared or obtained by CONSULTANT under this Agreement shall, upon request, also be provided to RTC.

- 6.2. CONSULTANT represents that it has secured all necessary licenses, consents, or approvals to use the components of any intellectual property, including computer software, used in providing services under this Agreement, that it has full legal title to and the right to reproduce such materials, and that it has the right to convey such title and other necessary rights and interests to RTC.
- 6.3. CONSULTANT shall bear all costs arising from the use of patented, copyrighted, trade secret, or trademarked materials, equipment, devices, or processes used on or incorporated in the services and materials produced under this Agreement.
- 6.4. CONSULTANT agrees that all reports, communications, electronic files, databases, documents, and information that it obtains or prepares in connection with performing this Agreement shall be treated as confidential material and shall not be released or published without the prior written consent of RTC; provided, however, that CONSULTANT may refer to this scope of work in connection with its promotional literature in a professional and commercially reasonable manner. The provisions of this subsection shall not apply to information in whatever form that comes into the public domain. The provisions of this paragraph also shall not restrict CONSULTANT from giving notices required by law or complying with an order to provide information or data when such order is issued by a court, administrative agency, or other entity with proper jurisdiction, or if it is reasonably necessary for CONSULTANT to defend itself from any suit or claim.

#### ARTICLE 7 - TERMINATION

#### 7.1. CONTRACT TERMINATION FOR DEFAULT

If CONSULTANT fails to perform services in the manner called for in this Agreement or if CONSULTANT fails to comply with any other provisions of this Agreement, RTC may terminate this Agreement for default. Termination shall be effected by serving a notice of termination on CONSULTANT setting forth the manner in which CONSULTANT is in default. CONSULTANT will only be paid the contract price for services delivered and accepted, or services performed in accordance with the manner of performance set forth in this Agreement.

If it is later determined by RTC that CONSULTANT had an excusable reason for not performing, such as a fire, flood, or events which are not the fault of or are beyond the control of CONSULTANT, RTC, after setting up a new performance schedule, may allow CONSULTANT to continue work, or treat the termination as a termination for convenience.

#### 7.2. CONTRACT TERMINATION FOR CONVENIENCE

RTC may terminate this Agreement, in whole or in part, at any time by written notice to CONSULTANT when it is in RTC's best interest. CONSULTANT shall be paid its costs, including contract closeout costs, and profit on work performed up to the time of termination. CONSULTANT shall promptly submit its termination claim to RTC to be paid CONSULTANT. If CONSULTANT has any property in its possession belonging to RTC, CONSULTANT will account for the same, and dispose of it in the manner RTC directs.

#### **ARTICLE 8 - INSURANCE**

- 8.1. CONSULTANT shall not commence any work or permit any employee/agent to commence any work until satisfactory proof has been submitted to RTC that all insurance requirements have been met.
- 8.2. In conjunction with the performance of the services/work required by the terms of this Agreement, CONSULTANT shall obtain all types and amounts of insurance set forth in Exhibit C, and shall comply with all provisions set forth therein.

#### ARTICLE 9 - HOLD HARMLESS

9.1. CONSULTANT's obligation under this provision is as set forth in Exhibit C. Said obligation would also extend to any liability of RTC resulting from any action to clear any lien and/or to recover for damage to RTC property.

#### ARTICLE 10 - EQUAL EMPLOYMENT OPPORTUNITY

- 10.1. During the performance of this Agreement, CONSULTANT agrees not to discriminate against any employee or applicant for employment because of race, color, religion, sex, age, disability, or national origin. CONSULTANT will take affirmative action to ensure that applicants are employed, and that employees are treated fairly during employment, without regard to their race, color, religion, sex, age, disability, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. CONSULTANT agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by RTC setting forth the provisions of this nondiscrimination clause.
- 10.2. CONSULTANT will, in all solicitations or advertisements for employees placed by or on behalf of CONSULTANT, state that well qualified applicants will receive consideration of employment without regard to race, color, religion, sex, age, disability, or national origin.

10.3. CONSULTANT will cause the foregoing provisions to be inserted in all sub-agreements for any work covered by this Agreement so that such provisions will be binding upon each sub-consultant.

#### ARTICLE 11 - RESOLUTION OF CLAIMS AND DISPUTES

#### 11.1. NEGOTIATED RESOLUTION

In the event that any dispute or claim arises under this Agreement, the parties shall timely cooperate and negotiate in good faith to resolve any such dispute or claim. Such cooperation shall include providing the other party with all information in order to properly evaluate the dispute or claim and making available the necessary personnel to discuss and make decisions relative to the dispute or claim.

#### 11.2. MEDIATION

If the parties have been unable to reach an informal negotiated resolution to the dispute or claim within thirty (30) days following submission in writing of the dispute or claim to the other party, or such longer period of time as the parties may agree to in writing, either party may then request, in writing, that the dispute or claim be submitted to mediation (the "Mediation Notice"). After the other party's receipt or deemed receipt of the Mediation Notice, the parties shall endeavor to agree upon a mutually acceptable mediator, but if the parties have been unable to agree upon a mediator within ten (10) days following receipt of the Mediation Notice, then each party shall select a mediator and those two selected mediators shall select the mediator. A mediator selected by the parties' designated mediators shall meet the qualification set forth in as provided in Rule 4 of Part C., "Nevada Mediation Rules" of the "Rules Governing Alternative Dispute Resolutions adopted by the Nevada Supreme Court." Unless otherwise agreed to by the parties, in writing, the mediator shall have complete discretion over the conduct of the mediation proceeding. Unless otherwise agreed to by the parties, in writing, the mediation proceeding must take place within thirty (30) days following appointment of the mediator. The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in Washoe County, Nevada, unless otherwise agreed to by the parties, in writing. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

#### 11.3. <u>LITIGATION</u>

In the event that the parties are unable to settle and/or resolve the dispute or claim as provided above, then either party may proceed with litigation in the Second Judicial District Court of the State of Nevada, County of Washoe.

#### 11.4. CONTINUING CONTRACT PERFORMANCE

During the pendency of any dispute or claim the parties shall proceed diligently with performance of this Agreement and such dispute or claim shall not constitute an excuse or defense for a party's nonperformance or delay.

#### <u>ARTICLE 12 – PROJECT MANAGERS</u>

- 12.1. RTC's Project Manager is Scott Gibson, P.E. or such other person as is later designated in writing by RTC. RTC's Project Manager has authority to act as RTC's representative with respect to the performance of this Agreement.
- 12.2. CONSULTANT' Project Manager is Shawn Jenkins, P.E. or such other person as is later designated in writing by CONSULTANT. CONSULTANT's Project Manager has authority to act as CONSULTANT's representative with respect to the performance of this Agreement.

#### ARTICLE 13 - NOTICE

13.1. Notices required under this Agreement shall be given as follows:

RTC: Bill Thomas, AICP

Executive Director Scott Gibson, P.E. RTC Project Manager

**Regional Transportation Commission** 

1105 Terminal Way Reno, Nevada 89502 (775) 335 - 1874

CONSULTANT: Chad Anson

Sr. Project Manager/Executive Vice President

CA Group, Inc.

1135 Terminal Way, Suite 106

Reno, NV 89511 775-283-8394

#### ARTICLE 14 - DELAYS IN PERFORMANCE

#### 14.1. <u>TIME IS OF THE ESSENCE</u>

It is understood and agreed that all times stated and referred to herein are of the essence. The period for performance may be extended by RTC's Executive Director pursuant to the process specified herein. No extension of time shall be valid unless reduced to writing and signed by RTC's Executive Director.

#### 14.2. <u>UNAVOIDABLE DELAYS</u>

If the timely completion of the services under this Agreement should be unavoidably delayed, RTC may extend the time for completion of this Agreement for not less than the number of days CONSULTANT was excusably delayed. A delay is unavoidable only if the delay is not reasonably expected to occur in connection with or during CONSULTANT's performance, is not caused directly or substantially by acts, omissions, negligence or mistakes of CONSULTANT, is substantial and in fact causes CONSULTANT to miss specified completion dates, and cannot adequately be guarded against by contractual or legal means.

#### 14.3. NOTIFICATION OF DELAYS

CONSULTANT shall notify RTC as soon as CONSULTANT has knowledge that an event has occurred or otherwise becomes aware that CONSULTANT will be delayed in the completion of the work. Within ten (10) working days thereafter, CONSULTANT shall provide such notice to RTC, in writing, furnishing as much detail on the delay as possible and requesting an extension of time.

#### 14.4. REQUEST FOR EXTENSION

Any request by CONSULTANT for an extension of time to complete the work under this Agreement shall be made in writing to RTC. CONSULTANT shall supply to RTC documentation to substantiate and justify the additional time needed to complete the work and shall provide a revised schedule. RTC shall provide CONSULTANT with notice of its decision within a reasonable time after receipt of a request.

#### **ARTICLE 15 - GENERAL PROVISIONS**

#### 15.1. SUCCESSORS AND ASSIGNS

RTC and CONSULTANT bind themselves and their successors and assigns to the other party and to the successors and assigns of such party, with respect to the performance of all covenants of this Agreement. Except as set forth herein, neither RTC nor CONSULTANT shall assign or transfer interest in this Agreement without the written consent of the other. Nothing herein shall be construed as creating a personal liability on the part of any officer or agent or any public body which may be a party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than RTC and CONSULTANT.

#### 15.2. NON TRANSFERABILITY

This Agreement is for CONSULTANT's professional services, and CONSULTANT's rights and obligations hereunder may not be assigned without the prior written consent of RTC.

#### 15.3. <u>SEVERABILITY</u>

If any part, term, article, or provision of this Agreement is, by a court of competent jurisdiction, held to be illegal, void, or unenforceable, or to be in conflict with any law of the State of Nevada, the validity of the remaining provisions or portions of this Agreement are not affected, and the rights and obligations of the parties shall be construed and enforced as if this Agreement did not contain the particular part, term, or provision held invalid.

#### 15.4. <u>RELATIONSHIP OF PARTIES</u>

CONSULTANT is an independent contractor to RTC under this Agreement. Accordingly, CONSULTANT is not entitled to participate in any retirement, deferred compensation, health insurance plans or other benefits RTC provides to its employees. CONSULTANT shall be free to contract to provide similar services for others while it is under contract to RTC, so long as said services and advocacy are not in direct conflict, as determined by RTC, with services being provided by CONSULTANT to RTC.

#### 15.5. WAIVER/BREACH

Any waiver or breach of a provision in this Agreement shall not be deemed a waiver of any other provision in this Agreement and no waiver is valid unless in writing and executed by the waiving party. An extension of the time for performance of any obligation or act shall not be deemed an extension of time for the performance of any other obligation or act. This Agreement inures to the benefit of and is binding upon the parties to this Agreement and their respective heirs, successors and assigns.

#### 15.6. <u>REGULATORY COMPLIANCE</u>

- A. CONSULTANT shall comply with all applicable federal, state and local government laws, regulations and ordinances. CONSULTANT shall be responsible for obtaining all necessary permits and licenses for performance of services under this Agreement. Upon request of RTC, CONSULTANT shall furnish RTC certificates of compliance with all such laws, orders and regulations.
- B. CONSULTANT represents and warrants that none of the services to be rendered pursuant to this Agreement constitute the performance of public work, as that term is defined by Section 338.010(17) of the Nevada Revised Statutes. To the extent CONSULTANT does engage in such public work, CONSULTANT shall be responsible for paying the prevailing wage as required by Chapter 338 of the Nevada Revised Statutes.

#### 15.7. EXCLUSIVE AGREEMENT

There are no verbal agreements, representations or understandings affecting this Agreement, and all negotiations, representations and undertakings are set forth herein with

the understanding that this Agreement constitutes the entire understanding by and between the parties.

#### 15.8. <u>AMENDMENTS</u>

No alteration, amendment or modification of this Agreement shall be effective unless it is in writing and signed by both parties.

#### 15.9. CONTINUING OBLIGATION

CONSULTANT agrees that if, because of death or any other occurrence it becomes impossible for any principal or employee of CONSULTANT to render the services required under this Agreement, neither CONSULTANT nor the surviving principals shall be relieved of any obligation to render complete performance. However, in such event, RTC may terminate this Agreement if it considers the death or incapacity of such principal or employee to be a loss of such magnitude as to affect CONSULTANT's ability to satisfactorily complete the performance of this Agreement.

#### 15.10. APPLICABLE LAW AND VENUE

The provisions of this Agreement shall be governed and construed in accordance with the laws of the State of Nevada. The exclusive venue and court for all lawsuits concerning this Agreement shall be the Second Judicial District Court of the State of Nevada, County of Washoe, and the parties hereto submit to the jurisdiction of that District Court.

#### 15.11. ATTORNEYS' FEES

In the event of a dispute between the parties result in a proceeding in any Court of Nevada having jurisdiction, the prevailing party shall be entitled to an award of costs and any reasonable attorneys' fees.

#### 15.12. CERTIFICATION REQUIRED BY NEVADA SENATE BILL 27 (2017)

CONSULTANT expressly certifies and agrees, as a material part of this Agreement, that it is not currently engaged in a boycott of Israel. CONSULTANT further agrees, as a material part of this Agreement, it will not engage in a boycott of Israel for the duration of this Agreement. If, at any time during the formation or duration of this Agreement, CONSULTANT is engaged or engages in a boycott of Israel, it will constitute a material breach of this Agreement.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement the day and year first above written.

REGIONAL TRANSPORTATION COMMISSION OF WASHOE COUNTY
By: Bill Thomas, AICP, Executive Director
CA GROUP, INC.
By: Chad Anson, Executive Vice President

#### **EXHIBIT A**

# SCOPE OF SERVICES FOR THE SPARKS BOULEVARD WIDENING PROJECT

#### 2.1. SCOPE OF SERVICES

This will generally consist of the following tasks:

#### 2.1.A. Contract Administration

- 1. Provide contract administration services as follows:
  - Attend the preconstruction conference
  - Perform construction coordination
  - Review and provide recommendations on contractor's traffic control plans
  - Review and approve (provide approval stamp) contractor's submittal for conformance to the contract documents, including portand concrete cement pavement, plantmix bituminous pavement, and Portland Cement concrete mix designs
  - Review and provide recommendations on test results
  - Review and provide recommendations on contractor's construction schedule and work progress
  - Review construction for acceptance and/or mitigation
  - Provide verification and approval of contractor's monthly pay request
  - Supervise the inspection, surveying and material testing activities
  - Provide recommendations to the RTC for any necessary construction changes due to field conditions
  - Assist in change order review and approval
- 2. Contingency. This is a contingency for miscellaneous increases within the scope of this contract. CONSULTANT shall provide a letter detailing the need, scope, and not-to-exceed budget for any proposed work. Work under this task shall proceed only with the RTC Project Manager's written approval.

#### 2.1.B. Construction Surveying

Provide construction staking as follows:

**Storm Drain Staking-** Construction stakes for the storm drain infrastructure will consist of offset and line stakes set for the proposed manholes, connection points, pipe ends, drop inlets, catch basins, headwall corners, drainage swales, and points along piping alignments not to exceed 50' station increments. Stakes will be graded

to the nearest one hundredth of a foot of the proposed rim, invert, and top back of curb/headwall elevations

Curb & Gutter Staking- Construction stakes for the curb & gutter and related improvements will consist of offset and when required line stakes for the proposed curb and gutter, median curbs, sidewalk, driveway aprons, barrier rail, and pedestrian ramp improvements. Construction stakes will be set at angle points, grade breaks, radius points, pedestrian ramp ½ points around curb returns, centerline pedestrian ramps, begin and end of driveways, begin and end of curves, and points on line not to exceed 50' station increments. Stakes will be graded to the nearest one hundredth of a foot of the proposed finished grade and/or top of curb elevations as prescribed within the improvement plans.

**Roadway Staking-** Construction stakes for the roadway improvements will consist of offset and when required line stakes for the proposed vertical and horizontal roadway centerline alignments and edge of pavement. Construction stakes will be set at angle points, grade breaks, radius points, begin and end of horizontal and vertical curves, high and low points of vertical curves, and points on line not to exceed 100' station increments on tangent runs and 50' increments along curves. Stakes will be graded to the nearest one hundredth of a foot of the proposed edge of paving and roadway centerline finished grades and will depict the roadway stationing, offset distances, and paving cross slope to the street centerline.

*Traffic Signal Improvements Staking*- Construction stakes for the proposed traffic signal improvements (approx. 4 intersections) will consist of offset and line stakes set for proposed signal poles, pedestrian pedestals, cabinet and controller locations, fiber optic conduit, and ancillary equipment as required.

Signage & Striping Layout- Upon completion of paving, BBV will provide painted marks for the proposed striping. Striping paint marks will be set at beginning of striping, 50' intervals on tangent runs, angle points, end of striping, begin of curves, 25' intervals along curves, end of curves, and radius points. In addition, BBV will layout the locations of proposed signage. Signage staking will consist of a stake set at the actual location of the proposed sign based upon station and offset. Stakes will delineate the sign type proposed for each location and will correspond to the sign schedule referenced on the plan set.

**Reset Survey Monuments-** BBV surveyors will survey the location of street centerline survey monuments and/or property corners associated with the alignments of streets slated for improvement and/or rehabilitation in anticipation that the monuments will be destroyed during construction. Upon completion of paving improvements, BBV will provide surveying services to reset the destroyed centerline monuments. The survey will consist of setting four intersecting reference points for each monument to be reset. Upon completion of installation of the monuments by the contractor, BBV will use the reference points to verify the location of the centerline intersections and punch the point on the monument. In

addition, BBV will prepare corner record forms for each monument replaced and will record them with the Washoe County Recorder's Office.

**Utility Raising Survey (OPTIONAL)-** Prior to construction activities, CONSULTANT will gather survey data associated with locations of surface evidence of existing utilities (valve cans, manhole covers, utility vaults, etc.) within the limits of the proposed street improvements for the Sparks Boulevard Improvement Project, South Phase. Upon completion of paving, CONSULTANT will stake out the locations of water & gas valve risers, utility vaults, sanitary sewer and storm drain manholes to facilitate their raising to finished grade and collar construction.

#### 2.1.C. Inspection

- 1. Provide Inspector. Provide one full time inspector during all construction activities. 10-hour workdays and a *135* working day contract period are anticipated. This inspector will:
  - Attend the preconstruction conference
  - Monitor the work performed by the Contractor and verify that the work is in accordance with the plans and specifications
  - Assist in problem resolution with the RTC, contractor personnel, utility agencies, the public and others
  - Prepare daily inspection reports, submitted weekly to RTC and CC'd to the appropriate government jurisdiction(s).
  - Provide quantity reports and assist in contractor's monthly progress payments
  - Provide verification of the distribution of public relation notices required to be delivered by the contractor
  - Assist in preparation of the Punch List
  - Maintain a field blueline set of drawings to incorporate contractor record drawing mark-ups
- 2. Provide Additional Inspector During Paving Operations. Provide additional inspector during mainline PCC and HMA paving days to monitor plantmix bituminous pavement placement and in-place density tests. 80 hours of field inspection and sampling and 24 hours of Nuclear Gauge time are anticipated.
- 3. Provide field support with office staff to assemble reports, track submittals, file, and distribute inspection and testing reports to management. 5 hours per week are anticipated for office staff.

#### 2.1.D. Materials Testing

1. Provide Material Testing for compliance with the specifications per the latest edition of the Standard Specifications for Public Works Construction

(Orange Book) and NDOT Standard Specifications (for improvements within NDOT Right-of-Way) testing requirements. Materials to be tested will include plantmix bituminous pavement, aggregate base, native subgrade material, structural fill material and Portland Cement Concrete (both paving and flatwork). Test reports, accompanied with CONSULTANT's recommendation regarding acceptance/mitigation of materials, shall be submitted promptly to the RTC and CC'd to appropriate governmental jurisdiction(s).

- 2. Provide AC Plant Inspection and Testing. Provide plantmix bituminous pavement plant inspection and laboratory aggregate testing. 9 hours for plant visits and sampling are anticipated. Laboratory tests will consist of sieve analysis, percent of wear, fractured faces and plasticity index.
- 3. Provide Asphalt Cement Testing. Sampling and testing of asphalt cement binder material shall be in accordance with Section 1.01A ASPHALT CEMENT of the RTC's Special Technical Specifications. For each paving day, the CONSULTANT's designated representative shall coordinate with and receive asphalt cement binder samples from the designated plant representative. The CONSULTANT's designated representative shall be present during all sampling operations. Each sample will be properly labeled and signed off by both representatives. A sample shall be taken during the production of each "lot" (500 ton) of plantmix bituminous pavement using container no larger than a quart in size. CONSULTANT to submit all asphalt cement binder samples to the Nevada Department of Transportation (NDOT), Material Laboratory, for testing. All samples should accompany with a NDOT form titled "Transmittal for Asphalt Samples" to be provided by the RTC.
- 4. Provide On-site Nuclear Gauge Testing & Sampling during the placement of aggregate base and fill materials, on-site thin-lift Nuclear Gauge testing & sampling for plantmix bituminous pavement placement, and on-site PCC testing & sampling. 643 hours of field testing are anticipated, and laboratory tests will include moisture density curves, Atterberg limits, and sieve analysis. Test frequency shall comply with the latest edition of the Orange Book.
- 5. Provide Plantmix Bituminous Pavement Testing. Provide plantmix bituminous pavement tests per each "lot" (500 tons) placed. Laboratory test shall include extraction, aggregate gradation, specific gravity, flow & stability and Marshall unit weight. Reports will also include voids in total mix and voids filled.
- 6. Provide Plantmix Bituminous Pavement coring and Lab Testing. Lab test shall include core unit weight. Test reports will include percent compaction.

- 7. Provide Top Lift Longitudinal Joint Testing and Coring. Nuclear density testing will be performed on each side of all longitudinal joints at 200 foot intervals per every 1,000 foot segment. A core will be taken in every 1,000 foot segment near the point of one of the density tests on the side of the joint with the lowest mean joint density. The cores will be tested for specific gravity (air voids and compaction). The test report will include a Paving Plan and a Data/Calculation Sheet.
- 8. Provide Portland Cement Concrete Pavement Testing. Provide PCCP tests for an estimated 8 pours. Laboratory test shall conform to Orange Book and NDOT Standard Specifications.



### STANDARD COST PROPOSAL SPREADSHEET

Contract Information: Sparks Boulevard Widening Phase 1 CM
Consultant Information: CA Group
Project Manager: Jeff Wilbrecht

	Billable Rate	\$250.00	\$220.00	\$135.00	\$135.00	\$110.00						
	Tasks			Human	Resources (Hour	s)	"	•				
	Name											
Task No.	Description	Project Principal	Resident Engineer & Manager	Primary Inspector	Secondary Inspector	Office Assistant		Total Labor Hours	Loaded Labor Costs	Houre	Subconsultant Costs	
2.1.E.	Contract Administration										II.	
2.1.E.1.	Contract Administration	40	600			100	I	740	\$153,000			
2.1.E.2	Construction Contingency (Optional)					100		0	\$0			
	Hours Subtotal:	40	600	0	0	100	0	740		0		
	Cost Subtotal:	\$10,000.00	\$132,000.00	\$0.00	\$0.00	\$11,000.00	\$0.00		\$153,000.00		\$0	
2.1.F.	Construction Staking											
	Construction Staking							0	\$0		\$80,000	Battle Born
	Hours Subtotal:	0	0	0	0	0	0	0		0		
	Cost Subtotal:	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$80,000	
2.1.G.	Inspection											
	Inspection			1450	300			1750	\$236,250			135 Working
	Hours Subtotal:	0	0	1450	300	0	0	1750		0		
	Cost Subtotal:	\$0.00	\$0.00	\$195,750.00	\$40,500.00	\$0.00	\$0.00		\$236,250.00		\$0	
2.1.H.	Materials Testing											
	Materials Testing							0	\$0	737.5	\$143,728	CME
	Hours Subtotal:	0	0	0	0	0	0	0		738		
	Cost Subtotal:	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$143,728	
2.1.l.	As-Built Information											
	As-Built Information							0	\$0			
	Hours Subtotal:	0	0	0	0	0	0	0		0		
	Cost Subtotal:	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0	
												Į.
	Overall Hours Totals:	40		1450	300	100	0	2490		738		
	Loaded, OH Costs Totals:	\$10,000	\$132,000	\$195,750	\$40,500	\$11,000	\$0		\$389,250.00		\$223,728	
	BASIC SCOPE CONTRACT SUMMARY			20	NTRACT TOTALS					1		
	DASIC SCOPE CONTRACT SUMMARY			CO	NIKACI IOIALS	Task				4		
	Total Estimated Basic Direct Labor Cost:	\$389,250			Labor Hours	Subtotal	Item					
	Optional Services	\$0		Task 2.1.E.	740	\$153,000		Administration		]		
	Subconsultants:	\$223,728		Task 2.1.E.2		\$0	Contigen	cy (OPTIONAI	_)			
	Dinast Francisco	ΦO.			0	<b>ው</b>	O	diam Odalija a				

## INDEMNIFICATION AND INSURANCE REQUIREMENTS FOR PROFESSIONAL SERVICE AGREEMENTS

2020-08-27 Version

#### 1. INTRODUCTION

IT IS HIGHLY RECOMMENDED THAT CONSULTANTS CONFER WITH THEIR INSURANCE CARRIERS OR BROKERS TO DETERMINE THE AVAILABILITY OF THESE INSURANCE CERTIFICATES AND ENDORSEMENTS IN ADVANCE OF PROPOSAL SUBMISSION. IF THERE ARE ANY QUESTIONS REGARDING THESE INSURANCE REQUIREMENTS, IT IS RECOMMENDED THAT THE AGENT/BROKER CONTACT RTC'S FINANCE DIRECTOR AT (775) 335-1845.

#### 2. INDEMNIFICATION

CONSULTANT agrees to defend, save and hold harmless and fully indemnify RTC, Washoe County, including their elected officials, officers, employees, and agents (hereafter, "Indemnitees") from and against any and all claims, proceedings, actions, liability and damages, including attorneys' fees and defense costs incurred in any action or proceeding (collectively "Damages") arising out of:

- A. Any breach of duty, neglect, error, misstatement, misleading statement or omission committed in the conduct of CONSULTANT'S profession, work or services rendered by (i) CONSULTANT, its employees, agents, officers, or directors, (ii) subconsultants (hereafter, "Subs"), or (iii) anyone else for which CONSULTANT may be legally responsible; and
- B. The negligent acts of CONSULTANT, its employees, agents, officers, directors, Subs, or anyone else for which CONSULTANT is legally responsible; and
- C. The infringement of any patent or copyright resulting from the use by the Indemnitees of any equipment, part, component or other deliverable (including software) supplied by CONSULTANT under or as a result of this Agreement, but excluding any infringement resulting from the modification or alteration by the Indemnitees of any equipment, part, component, or other deliverable (including software) except as consented to by CONSULTANT.

The Damages shall include, but are not limited to, those resulting from personal injury to any person, including bodily injury, sickness, disease or death and injury to real property or personal property, tangible or intangible, and the loss of use of any of that property, whether or not it is physically injured.

If the Indemnitees are involved in defending actions, CONSULTANT shall reimburse the Indemnitees for the time spent by such personnel at the rate the Indemnitees pay for such services.

If an Indemnitee is found to be liable in the proceeding, then CONSULTANT'S obligation hereunder shall be limited to the proportional share of the liability attributed to CONSULTANT.

In determining whether a claim is subject to indemnification, the incident underlying the claim shall determine the nature of the claim.

In the event of a violation or an infringement under paragraph 2.C above and the use is enjoined, CONSULTANT, at its sole expense, shall either (1) secure for the Indemnitees the right to continue using the materials by suspension of any injunction or by procuring a license or licenses for the Indemnitees; or (2) modify the materials so that they become non-infringing. This covenant shall survive the termination of this Agreement.

## 3. GENERAL REQUIREMENTS

Prior to the start of any work on a RTC project, CONSULTANT shall purchase and maintain insurance of the types and limits as described herein insuring against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONSULTANT, its Subs, or their employees, agents, or representatives. The cost of all such insurance shall be borne by CONSULTANT.

#### 4. VERIFICATION OF COVERAGE

CONSULTANT shall furnish RTC with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth herein, on forms acceptable to RTC. All deductibles and self-insured retentions requiring RTC approval shall be shown on the certificate. All certificates and endorsements are to be addressed to RTC's Finance Director and be received by RTC before work commences. The CONSULTANT agrees that RTC has the right to inspect CONSULTANT'S and the Sub's insurance policies, or certified copies of the policies, upon requests. Copies of applicable policy forms or endorsements confirming required additional insured, waiver of subrogation and notice of cancellation provisions are required to be provided with any certificate(s) evidencing the required coverage.

## 5. NOTICE OF CANCELLATION

CONSULTANT or its insurers shall provide at least thirty (30) days' prior written notice to RTC prior to the cancellation or non-renewal of any insurance required under this Agreement. An exception may be included to provide at least ten (10) days' written notice if cancellation is due to non-payment of premium. CONSULTANT shall be responsible to provide prior written notice to RTC as soon as practicable upon receipt of any notice of cancellation, non-renewal, reduction in required limits or other material change in the insurance required under this Agreement.

#### 6. SUBCONSULTANTS & SUBCONTRACTORS

CONSULTANT shall include all Subcontractors and Subconsultants (referred to collectively as "Subs") as insureds under its liability policies OR shall cause Subs employed by CONSULTANT to purchase and maintain separate liability coverages and limits of the types specified herein. If any Subs maintain separate liability coverages and limits, each shall include the RTC, Washoe County, as additional insureds under its commercial general liability policy, subject to the same requirements stated herein, without requiring a written contract or agreement between each of the

additional insureds and any sub-consultant or sub-contractor. Any separate coverage limits of liability maintained by Subs shall be at least \$1,000,000 per occurrence and at least \$2,000,000 for any applicable coverage aggregates or the amount customarily carried by the Sub, whichever is GREATER. If any Subs provide their own insurance with limits less than required of the Contractor, Contractor shall include Subs in their coverage up to the full limits required of the Contractor. When requested by RTC, CONSULTANT shall furnish copies of certificates of insurance evidencing coverage for each Sub. The CONSULTANT need not require its non-design subcontractors to carry Professional Errors and Omissions Liability insurance.

#### 7. DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions that exceed \$5,000 per occurrence or claim must be declared to RTC's Finance Director prior to signing this Agreement. RTC is entitled to request and receive additional documentation, financial or otherwise, prior to giving its approval of the deductibles and self-insured retentions. Any changes to the deductibles or self-insured retentions made during the term of this Agreement or during the term of any policy must be declared to the RTC's Finance Director prior to the change taking effect.

#### 8. ACCEPTABILITY OF INSURERS

Required insurance is to be placed with insurers with a Best's rating of no less than A-VII and acceptable to RTC. RTC may accept coverage with carriers having lower Best's ratings upon review of financial information concerning CONSULTANT and the insurance carrier. RTC reserves the right to require that CONSULTANT'S insurer(s) be licensed and admitted in the State of Nevada or meet any applicable state and federal laws and regulations for non-admitted insurance placements.

#### 9. OTHER CONDITIONS

- A. Failure to furnish the required certificate(s) or failure to maintain the required insurance may result in termination of this Agreement at RTC's option.
- B. If CONSULTANT fails to furnish the required certificate or fails to maintain the required insurance as set forth herein, RTC shall have the right, but not the obligation, to purchase said insurance at CONSULTANT's expense.
- C. Any waiver of CONSULTANT's obligation to furnish such certificate or maintain such insurance must be in writing and signed by an authorized representative of RTC. Failure of RTC to demand such certificate or other evidence of full compliance with these insurance requirements or failure of RTC to identify a deficiency from evidence that is provided shall not be construed as a waiver of CONSULTANT's obligation to maintain such insurance, or as a waiver as to the enforcement of any of these provisions at a later date.
- D. By requiring insurance herein, RTC does not represent that coverage and limits will necessarily be adequate to protect CONSULTANT, and such coverage and limits shall not

be deemed as a limitation on CONSULTANT's liability under the indemnities granted to RTC in this contract.

E. If CONSULTANT'S liability policies do not contain the standard ISO separation of insureds condition, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

## 10. COMMERCIAL GENERAL LIABILITY

CONSULTANT shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less than \$2,000,000 each occurrence. If such CGL insurance contains a general aggregate limit, it shall be increased to equal twice the required occurrence limit or revised to apply separately to this project.

CGL insurance shall be written on ISO occurrence form CG 00 01 04 13 (or a substitute form providing equivalent coverage) and shall cover liability arising from premises, operations, products-completed operations, personal and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

RTC and any other Indemnitees listed in Section 2. INDEMNIFICATION of this Agreement shall be included as an insured under the CGL, using ISO additional insured endorsement CG 20 10 07/04 or CG 20 33 07/04 or a substitute providing equivalent coverage, and under the commercial umbrella, if any.

This insurance shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to RTC or any other Indemnitees under this Agreement.

CONSULTANT waives all rights against RTC and any other Indemnitees listed in Section 2. INDEMNIFICATION of this Agreement for recovery of damages to the extent these damages are covered by the commercial general liability or commercial umbrella liability insurance maintained pursuant to this agreement. CONSULTANT's insurer shall endorse CGL policy to waive subrogation against RTC with respect to any loss paid under the policy.

#### 11. COMMERCIAL AUTOMOBILE LIABILITY

CONSULTANT shall maintain automobile liability and, if necessary, commercial umbrella liability insurance with a limit of not less than **\$1,000,000** each accident. Such insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos).

Coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 25, or a substitute form providing equivalent liability coverage for all owned, leased, hired (rented) and non-owned vehicles (as applicable). RTC may agree to accept auto liability for non-owned and hired (rented) vehicles under the CGL if CONSULTANT does not own or operate any owned or leased vehicles.

CONSULTANT waives all rights against RTC, its officers, employees and volunteers for recovery of damages to the extent these damages are covered by the automobile liability or commercial umbrella liability insurance obtained by CONSULTANT pursuant to this Agreement.

# 12. INDUSTRIAL (WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY) INSURANCE

It is understood and agreed that there shall be no Industrial (Worker's Compensation and Employer's Liability) Insurance coverage provided for CONSULTANT or any Subs by RTC. The CONSULTANT, and any Subs, shall procure, pay for and maintain the required coverages.

CONSULTANT shall maintain workers' compensation and employer's liability insurance meeting the statutory requirements of the State of Nevada, including but not limited to NRS 616B.627 and NRS 617.210. The employer's liability limits shall not be less than \$1,000,000 each accident for bodily injury by accident or \$1,000,000 each employee for bodily injury by disease.

CONSULTANT shall provide a Final Certificate for itself and each Sub evidencing that CONSULTANT and each Sub maintained workers' compensation and employer's liability insurance throughout the entire course of the project.

If CONSULTANT, or any Sub is a sole proprietor, coverage for the sole proprietor must be purchased and evidence of coverage must appear on the Certificate of Insurance and Final Certificate.

CONSULTANT waives all rights against RTC, its elected officials, officers, employees and agents for recovery of damages to the extent these damages are covered by the workers compensation and employer's liability or commercial umbrella liability insurance obtained by Tenant pursuant to this agreement. CONSULTANT shall obtain an endorsement equivalent to WC 00 03 13 to affect this waiver.

#### 13. PROFESSIONAL ERRORS AND OMISSIONS LIABILITY

CONSULTANT shall maintain professional liability insurance applying to liability for a professional, error, act, or omission arising out of the scope of CONSULTANT'S services provided under this Agreement with a limit of not less than \$1,000,000 each claim and annual aggregate. CONSULTANT shall maintain professional liability insurance during the term of this Agreement and, if coverage is provided on a "claims made" or "claims made and reported" basis, shall maintain coverage or purchase an extended reporting period for a period of at least three (3) years following the termination of this Agreement.

#### 14. NETWORK SECURITY AND PRIVACY LIABILITY

If CONSULTANT will have access to RTC computer or network systems for any reason and/or data including personal information (as defined in NRS 603A.040) or confidential information, CONSULTANT shall maintain network security and privacy liability insurance insuring against loss resulting from (1) privacy breaches [liability arising from the loss or disclosure of confidential information] (2) system breach (3) denial or loss of service (4) introduction, implantation, or spread of malicious software code (5) unauthorized access to or use of computer systems and (6) system failure. Coverage shall be provided with a limit of not less than \$1,000,000 per claim and annual aggregate.

MEETING DATE: February 18, 2022 AGENDA ITEM 4.13

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

## RECOMMENDED ACTION

Authorize a request for proposals (RFP) for the selection of a consultant to provide preliminary design, environmental analysis, final design and construction management services for the South Virginia Street Bus Only Lane Project.

## **BACKGROUND AND DISCUSSION**

The project looks to incorporate a northbound bus only lane on South Virginia Street from Moana Lane to approximately 800 feet north of Gentry Way. Additional scope for this Federally funded project include upgrade of the existing mini Bus Rapid Transit (BRT) station north of Brinkby Avenue to a full size station, and modification to the loading platform of several existing BRT stations along the Virginia Street Corridor. This project has preliminary received approval to utilize cost savings from the Virginia Street Bus RAPID Transit Extension project. Final approval for the use of federal funds will be dependent on final decisions from the Federal Transit Administration (FTA).

## FISCAL IMPACT

Appropriations for preliminary design of the project are included in the FY 2022 Budget. After FTA approval the RTC plans to utilize the cost savings from the Virginia Street Bus RAPID Transit Extension to fund the project.

#### PREVIOUS BOARD ACTION

There has been no previous Board action or direction on this matter.

## **ATTACHMENT(S)**

A. Scope of Services and Evaluation Criteria

#### SCOPE OF WORK

#### INTRODUCTION

The Regional Transportation Commission of Washoe County (RTC), in partnership with the Federal Transit Administration (FTA) plan to provide a northbound bus-only lane on South Virginia Street from Moana to approximately 800 feet north of Gentry Way. Additional scope for this Federally funded project include upgrade of existing mini Bus Rapid Transit (BRT) station north of Brinkby Avenue to a full size station, and modification to the loading platform of several existing BRT stations.

This Request for Proposal (RFP) seeks to select one (1) firm to provide complete services necessary to deliver the design of the proposed bus only lane, BRT structure, and BRT modification project. The proposed project will require compliance with the National Environmental Policy Act (NEPA) and that it will receive Categorical Exclusion (CE) determination. The proposed project will require a City of Reno building permit and to be delivered through typical design-bid-build project delivery.

#### **BACKGROUND**

The Virginia Line BRT service is RTC's highest ridership route, accounting for one of every sevenpassenger trips on RTC's transit system. RTC seeks to improve operational efficiency of this service and increase passenger conveniences by incorporating additional enhancements within the existing alignment.

## Project Scope

The proposed improvement to operational efficiency as part of this project includes a northbound bus only lane along South Virginia Street between Moana Lane and approximately 800 feet north of Gentry Way by modifying lane usage and changing the striping of the roadway. The northbound bus-only lane will commence north of the Moana Lane intersection following the existing queue-jump lane utilizing the existing drop lane towards Gentry Way. The bus only lane will continue northward from Gentry Way for about 800 feet by restriping the roadway to accommodate the proposed lane configuration then connect with the existing northbound bus only lane south of Hubbard Way.

The project anticipates utilizing existing right of way by repurposing and reconfiguring the existing roadway cross section to accommodate the bus only lane. Pavement rehabilitation is anticipated. Individual utility relocation along the project alignment to provide compliance with Americans with Disabilities Act is anticipated. Signal modifications and modernization is anticipated; the project will include transit signal priority upgrades.

Upgrade of the southbound BRT station at Gentry Way from a mini-station to a full size station will further improve operational efficiency of the system and enhance rider convenience and comfort. The station will meet current RTC design of a full size station, similar to the recently completed Plumb Lane Station. Station features include raised platform, overhead canopy structure, real time bus arrival information, seating, and other amenities. A Portland cement concrete bus pad will be included as well.

The original BRT stations constructed in 2011 were specifically tailored to RTC's articulated bus fleet; this fleet is at the end of its useful life. The newer replacement buses have a lower loading height such that the platform elevation of the older BRT structures needs to be modified to achieve the same operating efficiency as originally intended. Modifying the curb and platform height will allow buses to operate more efficiently during passenger boarding.

#### REQUESTED SERVICES TO BE PROVIDED

#### 1. PROJECT MANAGEMENT

The successful consultant (CONSULTANT) shall provide effective project management that will deliver the Project within established schedules and budgets; develop a project management plan that will effectively communicate, plan and execute the work required to successfully complete the project; and provide a cost and risk assessment and value engineering throughout the design development process. In addition, the CONSULTANT shall integrate the RTC's project manager into the project management plan, and coordinate all Project development activities with the RTC's Project Manager, property owners, permitting agencies, utility providers, and other stakeholders within the project area as directed. The initial Project Management tasks, activities, and deliverables are expected to include, but may not be limited to the following:

- Kickoff, progress, and miscellaneous stakeholder meetings
- Develop and manage a critical path schedule for the approved scope of services
- Pre-construction and construction schedules
- Project coordination and documentation
- Management and organization of sub-consultants and deliverables
- Coordination with utilities companies for service connections
- Coordination with permitting agencies
- Coordination of plans with RTC department stakeholders
- Value engineering
- Quality Assurance/Quality Control
- Project Manager support

#### 2. INVESTIGATION OF EXISTING CONDITIONS

The CONSULTANT will source and become completely familiar with the existing condition and past work performed within the area of proposed expansion. Utilities within the project area will be located and assessed for possible conflicts with the proposed Project. Topographic mapping and boundary will be determined to meet design needs.

#### 2.1 GEOTECHNICAL INVESTIGATION

The CONSULTANT will research existing geotechnical studies and reports, perform a geotechnical investigation/analysis to include a field review of existing conditions and review of existing geotechnical information.

Perform all field and laboratory investigations and perform all analyses to provide complete geotechnical report necessary for final design and construction of the project.

#### 2.2 TOPOGRAPHIC SURVEY

CONSULTANT will conduct field surveys, photogrammetric mapping and office support to provide topographic design surveys for the project.

#### 2.3 RIGHT OF WAY MAPPING AND ENGINEERING

The CONSULTANT will obtain recorded right-of-way based upon Washoe County GIS information. The right-of-way will be shown on the project plans and used as the basis for right-of-way engineering services.

CONSULTANT will perform boundary surveying including preparation of full Metes and Bounds descriptions of potentially impacted parcels. Right-of-way engineering services may include, but not limited to, exhibit maps, legal descriptions, and title reports for permanent and/or temporary construction easements needed to complete the project. it is possible parcels will be combined as result of improvements.

#### 2.4 SUBSURFACE UTILITIES

CONSULTANT will research, investigate, and locate subsurface utilities within proposed area of improvements, roadway R/W, and areas reasonably effected, in accordance with the American Society of Civil Engineers Standard guideline for the Collection and Depiction of Existing Subsurface Utility Data, Quality Level C. Additionally, CONSULTANT will coordinate with Utility Owners to remove any lids of surface features and document depth of utility device, or invert of pipe, within such surface features.

Based on field investigation and research performed, CONSULTANT will provide RTC a list of utility companies whose utilities are likely to be within the project limits or reasonably affected by the project. RTC will issue the initial notification to the utility agencies on the list and CONSULTANT will coordinate with the utility agencies for proposed work, facility relocation and/or new installation, and to insure utilities likely affected by the project are accurately shown on the plan and profile sheets. Additionally, CONSULTANT shall evaluate potential conflicts through field investigation, in coordination with utility providers, develop conflict resolution strategies.

#### 3. ENVIRONMENTAL SERVICES

The CONSULTANT shall provide environmental services up to and including completion of the NEPA process. CONSULTANT will identify foreseeable potential actions that would require federal agency review and provide recommendations as to the potential project development considerations that may be encountered

The CONSULTANT shall prepare Purpose and Need of the project along with project description. Review and document environmental resources within the project area, provide technical memos for warranted areas of study, complete Categorical Exclusion checklist.

The environmental tasks, activities, and deliverables provided by the CONSULTANT may include, but may not be limited to, the following:

- Data collection and field investigation
- NEPA coordination with FTA and resource agencies
- Perform and provide NEPA studies and technical reports
- Preparation of a NEPA document

## 4. PRELIMINARY DESIGN

The CONSULTANT shall be responsible for developing the plans for the proposed project as described within this RFP. Preliminary engineering tasks, activities, and deliverables are expected to include, but may not be limited to, the following:

- Prepare conceptual level plans, renderings, and alternatives necessary to perform feasibility and constructability review of proposed project scope to facilitate preferred project alternative
- Development of Preliminary (30%) Plans
- Prepare conceptual construction cost estimate

## 5. FINAL DESIGN

CONSULTANT shall prepare Final Construction Plans and Technical Specifications and provide technical support and coordination with the RTC to successfully finalize the design and prepare cost effective construction bid package, suitable for construction.

Final Construction Plans and Technical Specifications shall be in accordance with RTC's standards and requirements and City of Reno building codes.

The Final Design tasks, activities, and deliverables provided by the CONSULTANT include, but may not be limited to, the following:

- Prepare plans, construction estimates and specifications to deliver a complete project.
   Develop all plans and estimates according to RTC procedures. Coordinate with RTC
   to produce plans, construction estimates. Submit progress plans at 60% and 90%
   completion. Provide specification notes for any special items of work or phasing of
   construction to be included in the Special Provisions.
- Provide technical support and coordination to successfully complete all building permitting requirements
- Regular design review meetings with RTC PM and RTC Transit Department
- Plan production and distribution
- Provide 100% Design Plans, Specifications, and Engineer's Estimate
- Complete necessary permitting of the project
- Prepare, compile, and support RTC to generate final bid documents for Design-Bid-Build construction contractor procurement
- Provide support throughout the bidding process

#### 6. CONSTRUCTION ADMINISTRATION

#### 6.1 CONTRACT ADMINISTRATION

The CONSULTANT shall provide effective construction administration that will deliver the Project within established schedules and budgets. The initial construction administration tasks, activities, and deliverables are expected to include, but may not be limited to, the following:

- Facilitate the preconstruction conference
- Facilitate weekly construction meetings

- Perform construction coordination working directly with the RTC Project Manager
- Provide document control (submittals, RFI's, etc) to track and manage these documents
- Responsible for obtaining and reviewing baseline schedule and monthly schedule updates from the contractor
- Review and provide recommendations on contractor's traffic control plans
- Review and provide recommendations on material test results
- Review construction for acceptance and/or mitigation
- Provide verification and approval of contractor's monthly pay request
- Supervise the inspection, surveying and material testing activities
- Provide recommendations to the RTC for any necessary construction changes due to field conditions
- Assist in change order review and approval
- Prepare letter of substantial completion

The CONSULTANT shall provide sufficient personnel who possess the experience, knowledge, and character to adequately perform the requested services. The CONSULTANT's Construction Manager shall have experience in successful public works construction management in the northern Nevada area.

#### 6.2 CONSTRUCTION SURVEYING

The CONSULTANT shall provide construction staking as required on the project. it is assumed survey will consist of a minimum of the following items:

- Recover survey control
- Delineating the saw-cut lines for pavement demolition
- Offset stakes to foundation with cut/fill to top of platform elevation
- Offset stakes to face of curb, sidewalk, platform and driveway angle points, points of curvature, and grade breaks with cut/fill to finished grade elevation

#### 6.3 INSPECTION

The CONSULTANT shall provide one (1) inspector during construction activities as warranted by the activities within the contractor's schedule. This inspector will:

- Monitor the work performed by the Contractor and verify that the work is in accordance with the plans and specifications
- Assist in issue resolution with the RTC, contractor personnel, utility agencies, the public and others
- Prepare daily inspection reports, submitted weekly to RTC
- Provide quantity reports and assist in contractor's monthly progress payments
- Provide verification of the distribution of public relation notices required to be delivered by the contractor

- Assist in preparation of the Punch List
- Maintain a field blueline set of drawings to incorporate contractor record drawing markups

#### 6.4 MATERIALS TESTING

The CONSULTANT shall provide the following:

• Material Testing for compliance with the specifications and testing requirements per the latest edition of the Standard Specifications for Public Works Construction (Orange Book).

The CONSULTANT shall provide certified testing personnel in accordance with the Nevada Alliance for Quality Transportation Construction/Western Alliance for Quality Transportation Construction (NAQTC/WAQTC) guidelines.

The CONSULTANT shall provide an AASHTO accredited laboratory equipped to provide material testing for compliance with the specifications per the latest edition of the Standard Specifications for Public Works (Orange Book) and International Building Code (IBC) test procedures.

## 6.5 RECORD DRAWINGS

The CONSULTANT shall provide record drawings for the completed project. The final record drawings must be identified, dated, and signed as the record drawings and must also contain the Engineer of Record's stamp and signature.



#### ATTACHMENT B

## **Evaluation and Scoring Sheet**

## RTC xx-xx - South Virginia Bus Only Lane and BRT Project

Numerical Values for Scoring: Excellent = 90-100, Very Good = 80-89, Good = 70-79, Unacceptable = 0-69.

Evaluation Factor/Criteria	Weightin g (%)		Pre-Consensus Meeting Score			Descriptions of Strengths/Weaknesses and Explanations of Revised Scores (if any)
Factor 1 - Project Team:  a) Provide an organizational chart of the Project Team, including sub-consultant(s), and the responsibilities and the distrubtion of scope for the team members;  b) List personnel with their years of experience in design and other required services outlined in the RFP, length of employment with their current firm, training, education, licenses, capabilities, and strengths related to their role on this project.  c) For each key person identified, list at least two comparable projects in which he/she has played a key role. If a project listed for a key person is the same as one listed in Past Projects, provide just the project name and the role of the key person. For other projects, also provide the project owner and an owner reference.  d) Provide a summary of the project team members' experience working together on projects of similar scope.	30%	100				Strength(s):  Weakness(es):  Explanation of Revised Score(s) (if any):
Factor 1 Weighted Points Calculation(s)			0.0	0.0	0.0	
Factor 2 - Past Performance: Briefly describe relevant projects of similar scope completed by the Project Team by providing the following information for each relevant project: a) Project owner and reference (include name, current phone number, and title/role during the project); b) Description of the services provided by the Project Team on each project; c) List the Project Team members that worked on each project and their role on the project; d) Dates the services were provided, if the services were provided within the original schedule budget. Provide a brief description of any schedule and budget issues including how they may have been mitigated; e) Original agreement amount for services and a brief description of any amendments; f) Describe the notable project challenges and how the services provided by the team and/or individual team members contributed to successful outcomes.	30%	100				Strength(s):  Weakness(es):  Explanation of Revised Score(s) (if any):
Factor 2 Weighted Points Calculation(s)			0.0	0.0	0.0	

Evaluation Factor/Criteria	Weightin g (%)		Pre-Consensus Meeting Score	Ŭ		Descriptions of Strengths/Weaknesses and Explanations of Revised Scores (if any)
Factor 3 - Project Approach: Proposer's approach to identify and implement the project requirements in the Scope of Services.  a) Describe the Project Team's understanding of the project and associated requirements contained in Exhibit A - Scope of Services.  b) Identify and describe specific methods used to complete each project requirement (specific to project). Consider staffing strategies and opportunities that could result in additional value to the RTC through cost effective implementation and management of proposed services.	25%	100				Strength(s):  Weakness(es):  Explanation of Revised Score(s) (if any):
Factor 3 Weighted Points Calculation(s)			0.0	0.0	0.0	
Factor 4 - Availability and Capacity:  a) Demonstrate the anticipated availability of the key personnel for the duration of the project. Specify if the availability of the key personnel will change during the project. List significant projects that the key personnel are working on or are committed to work on, the percentage of time allocated to each project and the anticipated completion date for each project.  b) Demonstrate the capacity of the Project Team to meet the needs of the project. Consider the prime consultant's and sub-consultant's depth of staffing and other resources.  c) Provide a commitment that the proposer will provide key personnel as needed to successfully complete the project	10%	100				Strength(s):  Weakness(es):  Explanation of Revised Score(s) (if any):
Factor 4 Weighted Points Calculation(s)			0.0	0.0	0.0	
Factor 5 – Proximity of Project Team:  a) Describe key personnel office/firm geographical area location(s), if proposed key personnel are planning to work remotely from a location outside of the area please indicate.  b) Identify the location of the office/lab where key personnel reside and provide primary project control for this project.  c) Provide a percentage of work to be completed at each location.	5%	100				Strength(s): Weakness(es):
Factor 5 Weighted Points Calculation(s)			0.0	0.0	0.0	
TOTAL:	100%		0.0	0.0	0.0	
Name of Evaluator (print):					Employer:	

Signature of Evaluator: Date:

MEETING DATE: February 18, 2022 AGENDA ITEM 4.14

From: Angela Reich, SPHR Director of Administrative Services

#### **RECOMMENDED ACTION**

Approve modifications to RTC Personnel Rule 11.8 (Time When Vacation Shall Be Taken) and 11.14 (Use of Sick Leave).

## **BACKGROUND AND DISCUSSION**

At this time, RTC Personnel Rules allow for only full day increments of sick and vacation leave for employees who are not eligible for overtime. If approved, the recommended modification of Personnel Rule 11.8 (Time When Vacation Shall Be Taken) and 11.14 (Use of Sick Leave) will allow for partial day leave deductions when there is designated Family Medical Leave Act (FMLA) for employees who are not eligible for overtime.

## FISCAL IMPACT

There is no fiscal impact.

#### PREVIOUS BOARD ACTION

October 15, 2021 Approved modification of language to Personnel Rules.

## **ATTACHMENT(S)**

A. Modification of Personnel Rule 11.8 (Time When Vacation Shall Be Taken) and 11.14 (Use of Sick Leave).

#### 11.8 Time When Vacation Shall Be Taken

The time when vacation leave may be taken shall be determined by the Appointing Authority after considering the needs of the department and the seniority and wishes of the employees. For those employees who are not eligible for overtime pay, no deduction shall be made for absences of less than one (1) day with the exception of vacation leave in 30-minute increments to cover qualifying absences under the Family and Medical Leave Act (FMLA).

#### 11.14 Use of Sick Leave

viii. For those employees who are not eligible for overtime pay, no deduction shall be made for absences of less than one (1) day with the exception of sick leave in 30-minute increments to cover qualifying absences under the Family and Medical Leave Act (FMLA).

MEETING DATE: February 18, 2022 AGENDA ITEM 5.1

From: Nevada Department of Transportation (NDOT) Through: Dan Doenges, PTP, RSP, Director of Planning

## **RECOMMENDED ACTION**

Acknowledge receipt of a presentation on the Mt. Rose Highway Corridor Study.

## **BACKGROUND AND DISCUSSION**

The Mt. Rose Corridor Plan will define a vision for future Mt. Rose Highway corridor improvements from Veteran's Parkway to Douglas Fir Drive. As fast-paced development has occurred along Mt. Rose Highway, numerous requests and concerns have been received by NDOT and other agencies for enhancements to the corridor. In addition, this segment of highway forms a transition from an urban setting on the east to a more suburban and rural feel on the west. Mt. Rose Highway also serves as a primary travel route from Reno to Incline Village and the Lake Tahoe North Shore, resulting in a mixture of local commuters and tourists utilizing the roadway.

Through this Corridor Plan, NDOT, in conjunction with local agencies such as the RTC, City of Reno, and Washoe County, as well as the general public, will develop a long-term vision on functionality and philosophy in which new enhancements should accommodate.

## **FISCAL IMPACT**

There is no fiscal impact.

#### PREVIOUS BOARD ACTION

There has been no previous Board action on this item.

## **ADVISORY COMMITTEE(S) RECOMMENDATION**

The Citizens Multimodal Advisory Committee met on February 2, 2021, and the Technical Advisory Committee met on February 3, 2021, and both committees received a presentation on the Mt. Rose Highway Corridor Study.

MEETING DATE: February 18, 2022 AGENDA ITEM 6.1

From: Mark Maloney, Director of Public Transportation and Operations

## RECOMMENDATION

Approve Amendment #9 to the contract for operation and maintenance of paratransit and on-demand transit services with MTM Transit, LLC, to increase the Revenue Vehicle Hour Rate for Base Year 6 from \$62.11 to \$68.87 for normal service and from \$30.30 to \$35.42 for special/extra service.

## **SUMMARY**

In April 2017, the Regional Transportation Commission (RTC) negotiated an agreement with MTM Transit, LLC (MTM) for the operations and maintenance of the RTC ACCESS paratransit service. Pursuant to \$105D(3)(B) of the agreement, MTM has requested an adjustment to the Revenue Vehicle Hour Rate in Base Year 6. \$105D(3)(B)(ii) allows for the Contractor to propose an adjustment to its Fixed Monthly Payment or Revenue Vehicle Hour Rate in the event of an unanticipated increase or decrease of more than ten percent (10%) in the variable costs incurred in any year of the Contract Term as compared to the variable costs incurred in the prior year. Additionally, Section 202D provides that if staffing levels have been impacted by an event, such as the COVID-19 viral pandemic, then the Contractor shall provide a recovery plan. MTM is reporting its recovery plan daily.

The RTC and MTM desire to amend the Contract recognizing the unexpected impacts COVID has had not only on the economy but also on the transit industry as a whole, including transit operating costs. The RTC contractually agreed to review, discuss, and consider in good faith any request of the Contractor under Section 105D(3)(B), but it is within the sole discretion of the RTC to approve the changes to the Contract pursuant to Section 105D(3)(B).

As the Board is aware, the COVID-19 viral pandemic is an unprecedented global phenomenon having a significant impact on society with wide-ranging effects. On September 20, 2021, U.S. viral deaths surpassed the 675,446 total from the 1918 Spanish flu, the previously worst U.S. pandemic related death total on record. Yet despite these statistics and the risks, the public continues to rely on RTC's transit services.

Unfortunately, the prolonged nature of the health crisis is affecting the global economy beyond traditional measures with potentially long lasting and far reaching repercussions. Economic forecasts reflect continuing risks to a sustained global recovery posed by a resurgence of infectious cases and potential inflationary pressures associated with pent-up consumer demand fueled by an increase in personal savings. On the supply side, shortages reflect lingering disruptions to labor markets. Production and supply chain bottlenecks, disruptions in global energy markets, and shipping and transportation constraints are adding to inflationary pressures.

Nationally, we continue to experience continued supply chain disruptions due to the pandemic. For example, the production of parts for goods like automobiles has been curtailed at times. Transportation and warehousing costs—ground, air, and ocean—have also risen as cargo logistics have become more difficult and more expensive.

Due to these constraints - supply chain issues, the rising costs of parts, fuel, insurance, labor and the like – service providers such as MTM are finding it challenging to remain competitive in a tight, unpredictable, and tumultuous market.

The transit industry is enduring significant unplanned cost increases in the areas of parts, labor, fuel, other supplies and insurance. The availability of parts and supplies are also causing repair time issues which has an influence on equipment availability to meet service demand.

MTM submitted a request to adjust the Revenue Hour Rate pursuant to Sec. 105D(3)(B), along with proprietary information related to actual versus bid costs and a labor market study developed by the University Center for Economic Development at UNR (attached). RTC staff independently reviewed and analyzed MTM's requested contract change along with the supporting information. Based on its analysis, staff recommends the board approve this contract change.

## **FISCAL IMPACT**

The actual total annual costs are dependent on the actual annual service hours requested by RTC and provided by MTM in Base Year 6. Funding for this item would be included in the FY 2023 budget.

## **PREVIOUS BOARD ACTION**

Aug. 17, 2017

The Board approved Amendment #1 to make a clarifying change to the utilities provision of the Contract; decrease the IT Manager fixed cost by 50%; permit staff to make future amendments without Commission approval consistent with RTC internal policies and procedures; and authorized the RTC Executive Director to execute the amendment.

Apr. 20, 2017

The Board approved the agreement with Ride Right, LLC for six years with two, two-year options, for the operation and maintenance of RTC ACCESS Paratransit Service; and authorized the Executive Director to negotiate and execute the final agreement.

## **ATTACHMENT(S)**

- A. Contract Amendment #9
- B. UNR Labor Market Study

#### **CONTRACT AMENDMENT #9**

**WHEREAS**, the Regional Transportation Commission of Washoe County (RTC) and MTM Transit, LLC, formerly Ride Right, LLC (Contractor) (collectively, the Parties) entered into a contract for the Operation and Maintenance of RTC ACCESS Paratransit Services dated May 15, 2017 (Contract);

**WHEREAS**, the Contract was previously amended by Amendment #1 dated August 23, 2017, Amendment #2 dated July 24, 2018, Amendment #3 dated November 20, 2019, Amendment #4 dated December 30, 2019, Amendment #5 dated January 3, 2020, Amendment #6 dated August 5, 2021, Amendment #7 dated August 12, 2021; and Amendment #8 dated January 19, 2022;

**WHEREAS**, the Parties desire to amend the Contract to make a change to the Revenue Vehicle Hour Rate for Base Year 6 for normal service and for special/extra service;

**WHEREAS**, Section 105(D)(3)(B) allows Contractor to request an adjustment to the Revenue Vehicle Hour Rate in the event of an unanticipated increase or decrease of more than ten percent (10%) in the variable costs incurred in any year of the Contract Term as compared to the variable costs incurred in the prior year;

WHEREAS, RTC staff independently reviewed and analyzed Contractor's requested contract change along with supporting information;

**WHEREAS**, RTC agrees to increase the Revenue Vehicle Hour Rate for Base Year 6 as described herein.

**NOW, THEREFORE**, the RTC and the Contractor agree as follows:

## Section 1. Attachment C – Total Cost Summary

RTC and Contractor agree that Attachment C is modified to reflect the Revenue Vehicle Hour Rate for Base Year 6 effective July 1, 2022 through June 30, 2023 from \$62.11 to \$68.87 for normal service and from \$30.30 to \$35.42 for special/extra service.

## **Section 2.** Continuing Effect

Except for the changes made by this amendment, all the provisions of the Contract, as previously amended, remain in full force and effect.

IN WITNESS WHEREOF, this Amendment #9 is dated and effective, 20						
By:	By:					
Bill Thomas, AICP	Scott Transue					
Executive Director	Regional Vice President, Transit					
Regional Transportation	MTM Transit, LLC					
Commission of Washoe County	stransue@mtm-inc.net					
hthomas@rtcwashoe.com						

TECHNICAL REPORT UCED 2021/22-15

## A 2021 LABOR MARKET STUDY OF NORTHWESTERN NEVADA PERTAINING TO THE TRANSPORTATION AND MATERIAL MOVING OCCUPATION SECTOR



UNIVERSITY OF NEVADA, RENO

## A 2021 LABOR MARKET STUDY OF NORTHWESTERN NEVADA PERTAINING TO THE TRANSPORTATION AND MATERIAL MOVING OCCUPATION SECTOR

Frederick Steinmann is an Assistant Research Professor with the University Center for Economic Development, College of Business at the University of Nevada, Reno.

December 2021

This publication, A 2021 Labor Market Study of Northwestern Nevada Pertaining to the Transportation and Material Moving Occupation sector, was published by the University Center for Economic Development in the College of Business at the University of Nevada, Reno. This publication's statements, findings, conclusions, recommendations, and/or data represent solely the findings and views of the authors and do not necessarily represent the views of MTM Transit, the University of Nevada, Reno, or any reference sources used or quoted by this study. Reference to research projects, programs, books, magazines, or newspaper articles does not imply an endorsement or recommendation by the authors unless otherwise stated. Correspondence regarding this document should be sent to:

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# **Executive Summary**

The results of the analysis presented in this University Center for Economic Development technical report supports the conclusion that individuals employed specific employment categories in the Transportation and Material Moving Occupation sector (NAICS 53-0000), the Office and Administrative Support Occupation sector (NAICS 43-0000), and the Installation, Maintenance, and Repair Occupation sector (NAICS 49-0000) in the Reno-Sparks Metropolitan Statistical Area and in the Carson City Metropolitan Statistical Area are generally compensated with hourly median wages, hourly mean wages, and annual mean wages earned that are typically greater than occupation-ide hourly median wages, hourly mean wages, and annual mean wages earned. Hourly median wages, hourly mean wages, and annual mean wages earned in the Drivers that Required and Do Not Require a Commercial Driver's License, Road Supervisors, Dispatchers, Reservationists, Mechanics, and Technicians and Utility Personnel employment categories within the Reno-Sparks Metropolitan Statistical Area and within the Carson City Metropolitan Statistical Area are generally greater than comparable hourly median wages, hourly mean wages, and annual mean wages earned at the state of Nevada level and the national United States level. The relatively high hourly median wages, hourly mean wages, and annual mean wages earned by workers within the Reno-Sparks Metropolitan Statistical Area and within the Carson City Metropolitan Statistical Area are likely due to a much 'tighter' and more competitive local and regional labor market compared to the labor market at the state level and national level.

The following results presented here include a detailed summary of the analysis completed within this University Center for Economic Development technical report, including a summary of the analysis conducted on existing average monthly unemployment rates, per capita personal income levels, and a summary analysis of hourly median wages, hourly mean wages, and annual mean wages earned for All Occupation Sectors (NAICS 00-0000).

## • Average Monthly Unemployment Rates

Between 2013 and 2021, the average monthly unemployment rate for the Reno-Sparks Metropolitan Statistical Area was an estimated 5.8 percent, an estimated 5.8 percent for all of Washoe County, and an estimated 6.7 percent for the Carson City Metropolitan Statistical Area. Comparatively, the average monthly unemployment rate for the entire state of Nevada between 2013 and 2021 was an estimated 7.2 percent and was an estimated 5.5 percent for the entire United States.

Between 2013 and 2021, the average monthly unemployment rate for the Reno-Sparks Metropolitan Statistical Area declined by a net 5.3 percent or by a percentage decrease of -54.1 percent, declined by a net 5.3 percent or by a percentage decrease of -54.1 percent for all of Washoe County, and declined by an estimated 5.9 percent or by a percentage decrease of -54.6 percent. The average monthly unemployment rate for the entire state of

Nevada declined by an estimated 2.1 percent or by a percentage decrease of -21.0 percent between 2013 and 2021 and declined by an estimated 1.9 percent or by a percentage decrease of -25.7 percent.

## • Per Capita Personal Income

Between 2013 and 2020, the average annual per capita personal income for the Reno-Sparks Metropolitan Statistical Area was an estimated \$55,019 per year, was an estimated \$55,059 per year for all of Washoe County, and was an estimated \$47,749 per year for the Carson City Metropolitan Statistical Area. For the entire state of Nevada, the average annual per capita personal income between 2013 and 2020 was an estimated \$46,574 per year and was an estimated \$51,506 per year for the entire United States.

Per capita personal income for the Reno-Sparks Metropolitan Statistical Area increased by a net \$22,018 or by 50.0 percent between 2013 and 2020, increased by a net \$21,967 or by 49.8 percent for all of Washoe County, and increased by a net \$15,539 or by 37.9 percent for the Carson City Metropolitan Statistical Area. Per capita personal income for the entire state of Nevada increased by a net \$14,155 or by 35.8 percent between 2013 and 2020 and increased by a net \$14,585 or by 32.5 percent for the entire United States.

## • Hourly Median Wage for All Occupation Sectors (NAICS 00-0000)

The annual average hourly median wage for All Occupation Sectors for the Reno-Sparks Metropolitan Statistical Area was an estimated \$17.70 and was an estimated \$19.99 for the Carson City Metropolitan Statistical Area between May 2016 and May 2020. Between May 2016 and May 2020, the annual average hourly median wage for All Occupation Sectors for the entire state of Nevada was an estimated \$17.31 and was an estimated \$18.76 for the entire United States.

Between May 2016 and May 2020, the hourly median wage for All Occupation Sectors in the Reno-Sparks Metropolitan Statistical Area increased by a net \$2.36 or by 14.1 percent and increased by a net \$2.78 or by 14.9 percent in the Carson City Metropolitan Statistical Area. For All Occupation Sectors, the hourly median wage for the entire state of Nevada increased by a net \$1.96 or by 11.8 percent between May 2016 and May 2020 and increased by a net \$2.36 or by 13.3 percent for the entire United States.

#### • Hourly Mean Wage for All Occupation Sectors (NAICS 00-0000)

The annual average hourly mean wage for All Occupation Sectors for the Reno-Sparks Metropolitan Statistical Area was an estimated \$22.97 and was an estimated \$24.30 for the Carson City Metropolitan Statistical Area between May 2016 and May 2020. Between May 2016 and May 2020, the annual average hourly mean wage for All Occupation Sectors for the entire state of Nevada was an estimated \$22.39 and was an estimated \$25.19 for the entire United States.

Between May 2016 and May 2020, the hourly mean wage for All Occupation Sectors in the Reno-Sparks Metropolitan Statistical Area increased by a net \$3.01 or by 13.8 percent and increased by a net \$3.28 or by 14.4 percent for the Carson City Metropolitan Statistical Area. For All Occupation Sectors, the hourly mean wage for the entire state of Nevada increased by a net \$3.04 or by 14.4 percent between May 2016 and May 2020 and increased by a net \$3.21 or by 13.5 percent for the entire United States.

## • Annual Mean Wage Earned for All Occupation Sectors (NAICS 00-0000)

The annual average annual mean wage earned for All Occupation sectors for the Reno-Sparks Metropolitan Statistical Area was an estimated \$47,774 and was an estimated \$50,444 for the Carson City Metropolitan Statistical Area between May 2016 and May 2020. Between May 2016 and May 2020, the annual average annual mean wage earned for All Occupation Sectors for the entire state of Nevada was an estimated \$46,562 and was an estimated \$52,402 for the entire United States

Between May 2016 and May 2020, the annual mean wage earned for All Occupation Sectors in the Reno-Sparks Metropolitan Statistical Area increased by a net \$6,280 or by 13.9 percent and increased by a net \$6,820 or by 14.4 percent for the Carson City Metropolitan Statistical Area. For All Occupation Sectors, the annual mean wage earned for the entire state of Nevada increased by a net \$6,300 or by 14.4 percent between May 2016 and May 2020 and increased by a net \$6,680 or by 13.5 percent for the entire United States.

Three major occupation sectors were used to estimate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for six specific employment categories, including *Drivers that Required and Do Not Require a Commercial Driver's License, Road Supervisors, Dispatchers, Reservationists, Mechanics*, and *Technicians and Utility Personnel*. The three major occupation sectors used in this analysis include the Transportation and Material Moving Occupation Sector (NAICS 53-0000), the Office and Administrative Support Occupation Sector (NAICS 43-0000), and the Installation, Maintenance, and Repair Occupation Sector (NAICS 49-0000). The following results presented here include a detailed comparison of the hourly median wage, hourly mean wage, and annual mean wage earned for each of these three major occupation sectors to the hourly median wage, hourly mean wage, and annual mean wage earned for All Occupation Sectors (NAICS 00-0000) in May 2020 for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

• Transportation and Material Moving Occupation Sector (estimating Drivers that Required and Do Not Require a Commercial Driver's License and Road Supervisors)

In May 2020, the hourly median wage for the Transportation and Material Moving Occupation Sector for the Reno-Sparks Metropolitan Statistical Area was \$17.62, the hourly mean wage was \$18.86, and the annual mean wage was \$39,220 compared to an hourly median wage of \$19.14, an hourly mean wage of \$24.75, and an annual mean

wage earned of \$51,490 for All Occupation Sectors in the Reno-Sparks Metropolitan Statistical Area.

For the Carson City Metropolitan Statistical Area, the hourly median wage for the Transportation and Material Moving Occupation Sector was \$14.76 in May 2020, the hourly mean wage was \$16.03, and the annual mean wage earned was \$33,330 compared to an hourly median wage of \$21.42, an hourly mean wage of \$26.07, and an annual mean wage earned of \$54,230 for All Occupation Sectors in the Carson City Metropolitan Statistical Area.

For the entire state of Nevada, the hourly median wage for the Transportation and Material Moving Occupation Sector was \$16.05 in May 2020, the hourly mean wage was \$19.47, and the annual mean wage earned was \$40,500 compared to an hourly median wage of \$18.55, an hourly mean wage of \$24.21, and an annual mean wage earned of \$50,360 for All Occupation sectors for the entire state of Nevada.

For the entire United States, the hourly median wage for the Transportation and Material Moving Occupation Sector was \$16.38 in May 2020, the hourly mean wage was \$19.08, and the annual mean wage earned was \$39,680 compared to an hourly median wage of \$20.17, an hourly mean wage of \$27.07, and an annual mean wage earned of \$56,310 for All Occupation Sectors for the entire United States.

• Office and Administrative Support Occupation Sector (estimating *Dispatchers* and *Reservationists and Call-Takers*)

In May 2020, the hourly median wage for the Office and Administrative Support Occupation Sector for the Reno-Sparks Metropolitan Statistical Area was \$18.57, the hourly mean wage was \$19.82, and the annual mean wage earned was \$41,220 compared to an hourly median wage of \$19.14, an hourly mean wage of \$24.75, and an annual mean wage earned of \$51,490 for All Occupation Sectors in the Reno-Sparks Metropolitan Statistical Area.

For the Carson City Metropolitan Statistical Area, the hourly median wage for the Office and Administrative Support Occupation Sector was \$19.11 in May 2020, the hourly mean wage was \$19.89, and the annual mean wage earned was \$41,370 compared to an hourly median wage of \$21.42, an hourly mean wage of \$26.07, and an annual mean wage earned of \$54,230 for All Occupation Sectors in the Carson City Metropolitan Statistical Area.

For the entire state of Nevada, the hourly median wage for the Office and Administrative Support Occupation Sector was \$17.78 in May 2020, the hourly mean wage was \$18.79, and the annual mean wage earned was \$39,090 compared to an hourly median wage of \$18.55, an hourly mean wage of \$24.21, and an annual mean wage earned of \$50,360 for All Occupation sectors for the entire state of Nevada.

For the entire United States, the hourly median wage for the Office and Administrative Support Sector was \$18.62 in May 2020, the hourly mean wage was \$20.38, and the annual mean wage earned was \$42,390 compared to an hourly median wage of \$20.17, an hourly mean wage of \$27.07, and an annual mean wage earned of \$56,310 for All Occupation Sectors for the entire United States.

• <u>Installation, Maintenance, and Repair Occupation Sector</u> (estimating *Mechanics* and *Technicians and Utility Personnel*)

In May 2020, the hourly median wage for the Installation, Maintenance, and Repair Occupation Sector for the Reno-Sparks Metropolitan Statistical Area was \$23.85, the hourly mean wage was \$25.21, and the annual mean wage earned was \$52,440 compared to an hourly median wage of \$19.14, an hourly mean wage of \$24.75, and an annual mean wage earned of \$51,490 for All Occupation Sectors in the Reno-Sparks Metropolitan Statistical Area.

For the Carson City Metropolitan Statistical Area, the hourly median wage for the Installation, Maintenance, and Repair Occupation Sector was \$22.44 in May 2020, the hourly mean wage was \$23.14, and the annual mean wage earned was \$48,130 compared to an hourly median wage of \$21.42, an hourly mean wage of \$26.07, and an annual mean wage earned of \$54,230 for All Occupation Sectors in the Carson City Metropolitan Statistical Area.

For the entire state of Nevada, the hourly median wage for the Installation, Maintenance, and Repair Occupation Sector was \$24.48 in May 2020, the hourly mean wage was \$25.80, and the annual mean wage earned was \$53,650 compared to an hourly median wage of \$18.55, an hourly mean wage of \$24.21, and an annual mean wage earned of \$50,360 for All Occupation sectors for the entire state of Nevada.

For the entire United States, the hourly median wage for the Installation, Maintenance, and Repair Occupation Sector was \$23.44 in May 2020, the hourly mean wage was \$25.17, and the annual mean wage earned was \$52,360 compared to an hourly median wage of \$20.17, an hourly mean wage of \$27.07, and an annual mean wage earned of \$56,310 for All Occupation Sectors for the entire United States.

The following results presented here include a detailed comparison of the hourly median wage, hourly mean wage, and annual mean wage earned for just the Transportation and Material moving Occupation Sector (NAICS 53-0000) in May 2020 for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

• Hourly Median Wage for the Transportation and Material Moving Occupation Sector (NAICS 53-0000)

The annual average hourly median wage for the Transportation and Material Moving Occupation Sector for the Reno-Sparks Metropolitan Statistical Area was an estimated

\$15.84 and was an estimated \$13.65 for the Carson City Metropolitan Statistical Area between May 2016 and May 2020. Between May 2016 and May 2020, the annual average hourly median wage for the Transportation and Material Moving Occupation Sector for the entire state of Nevada was an estimated \$15.15 and was an estimated \$15.54 for the entire United States.

Between May 2016 and May 2020, the hourly median wage for the Transportation and Material Moving Occupation Sector in the Reno-Sparks Metropolitan Statistical Area increased by a net \$3.02 or by 20.7 percent and increased by a net \$2.06 or by 16.2 percent in the Carson City Metropolitan Statistical Area. For the Transportation and Material Moving Occupation Sector, the hourly median wage for the entire state of Nevada increased by a net \$1.51 or by 10.4 percent between May 2016 and May 2020 and increased by a net \$1.60 or by 10.8 percent for the entire United States.

## Hourly Mean Wage for the Transportation and Material Moving Occupation Sector (NAICS 53-0000)

The annual average hourly mean wage for the Transportation and Material Moving Occupation Sector for the Reno-Sparks Metropolitan Statistical Area was an estimated \$17.66 and was an estimated \$15.43 for the Carson City Metropolitan Statistical Area between May 2016 and May 2020. Between May 2016 and May 2020, the annual average hourly mean wage for the Transportation and Material Moving Occupation Sector for the entire state of Nevada was an estimated \$18.52 and was an estimated \$18.18 for the entire United States.

Between May 2016 and May 2020, the hourly mean wage for the Transportation and Material Moving Occupation Sector in the Reno-Sparks Metropolitan Statistical Area increased by a net \$2.19 or by 13.1 percent and increased by a net \$0.98 or by 6.5 percent for the Carson City Metropolitan Statistical Area. For the Transportation and Material Moving Occupation Sector, the hourly mean wage for the entire state of Nevada increased by a net \$1.88 or by 10.7 percent between May 2016 and May 2020 and increased by a net \$1.74 or by 10.0 percent for the entire United States.

## Annual Mean Wage Earned for the Transportation and Material Moving Occupation Sector (NAICS 53-0000)

The annual average annual mean wage earned for the Transportation and Material Moving Occupation Sector for the Reno-Sparks Metropolitan Statistical Area was an estimated \$36,728 and was an estimated \$32,098 for the Carson City Metropolitan Statistical Area between May 2016 and May 2020. Between May 2016 and May 2020, the annual average annual mean wage earned for the Transportation and Material Moving Occupation Sector for the entire state of Nevada was an estimated \$38,522 and was an estimated \$37,806 for the entire United States

Between May 2016 and May 2020, the annual mean wage earned for the Transportation and Material Moving Occupation Sector in the Reno-Sparks Metropolitan Statistical Area

increased by a net \$4,540 or by 13.1 percent and increased by a net \$2,020 or by 6.5 percent for the Carson City Metropolitan Statistical Area. For the Transportation and Material Moving Occupation Sector, the annual mean wage earned for the entire state of Nevada increased by a net \$3,910 or by 10.7 percent between May 2016 and May 2020 and increased by a net \$3,610 or by 10.0 percent for the entire United States.

The following results presented here include a detailed comparison of the estimated hourly median wage, the estimated hourly mean wage, the estimated annual mean wage earned, and estimated total employment in May 2020 for the six selected employment categories, including *Drivers that Required and Do Not Require a Commercial Driver's License, Road Supervisors*, *Dispatchers, Reservationists*, *Mechanics*, and *Technicians and Utility Personnel* employment categories, for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

Table ES-1 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for the Reno-Sparks Metropolitan Statistical Area for May 2020 for each of the six selected employment categories. The hourly mean wage, the hourly mean wage, and the hourly mean wage earned for each of the six selected employment categories that were *greater than* the hourly median wage, the hourly mean wage, and the annual mean wage earned for each employment category's major occupation sector are highlighted in GREEN. he hourly mean wage, the hourly mean wage, and the hourly median wage, the hourly mean wage, and the annual mean wage earned for each employment categories that were *less than* the hourly median wage, the hourly mean wage, and the annual mean wage earned for each employment category's major occupation sector are highlighted in YELLOW.

For the Reno-Sparks Metropolitan Statistical Area, the hourly median wage, hourly mean wage, and annual mean wage earned for *Road Supervisors*, for *Dispatchers*, and for *Mechanics* were all greater than the hourly median wage, hourly mean wage, and annual mean wage earned for each employment category's corresponding major occupation sector in May 2020. The hourly median wage, hourly mean wage, and annual mean wage earned for *Drivers that Require and Do Not Require a Commercial Driver's License*, for *Reservationists and Call-Takers*, and for *Technicians and Utility Personnel* were all less than the hourly median wage, hourly mean wage, and the annual mean wage earned for each employment category's corresponding major occupation sector.

In May 2020, there were an estimated 7,160 total individuals working as *Drivers that Require* and *Do Not Require a Commercial Driver's License* and 880 total individuals working as *Road Supervisors* in the Reno-Sparks Metropolitan Statistical Area. An additional 880 total individuals working as *Dispatchers* in the Reno-Sparks Metropolitan Statistical Area in May 2020 and an additional 2,050 total individuals working as *Reservationists and Call-Takers*. In May 2020, there were an estimated 2,890 total individuals working as *Mechanics* in the Reno-Sparks Metropolitan Statistical Area and an estimated 3,740 total individuals working as *Technicians and Utility Personnel*. In May 2020, 27,060 total individuals were working in the Transportation and Material Moving Occupation sector in the Reno-Sparks Metropolitan Statistical Area, 31,030 total individuals were working in the Office and Administrative Support

Occupation sector, and 8,870 total individuals were working in the Installation, Maintenance, and Repair Occupation sector.

ES-1 – Summary of Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, and Total Employment Analysis Reno-Sparks Metropolitan Statistical Area May 2020							
Category	Hourly Median Wage	Hourly Mean Wage	Annual Mean Wage Earned	Total Employment			
Transportation and Material Moving Occupations	\$17.62	\$18.86	\$39,220	27,060			
Drivers that Require and Do Not Require a Commercial Driver's License	\$16.08	\$17.62	\$36,652	7,160			
Road Supervisors	\$26.63	\$28.19	\$58,640	880			
Office and Administrative Support Occupations	\$18.57	\$19.82	\$41,220	31,030			
Dispatchers	\$23.18	\$23.76	\$49,425	380			
Reservationists and Call-Takers	\$15.40	\$15.87	\$32,995	2,050			
Installation, Maintenance, and Repair Occupations	\$23.85	\$25.21	\$52,440	8,870			
Mechanics	\$26.49	\$27.58	\$57,370	2,890			
Technicians and Utility Personnel	\$22.75	\$23.61	\$49,099	3,740			

Table ES-2 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for the Carson City Metropolitan Statistical Area for May 2020 for each of the six selected employment categories. The hourly mean wage, the hourly mean wage, and the hourly mean wage earned for each of the six selected employment categories that were *greater than* the hourly median wage, the hourly mean wage, and the annual mean wage earned for each employment category's major occupation sector are highlighted in GREEN. he hourly mean wage, the hourly mean wage, and the hourly mean wage earned for each of the six selected employment categories that were *less than* the hourly median wage, the

hourly mean wage, and the annual mean wage earned for each employment category's major occupation sector are highlighted in YELLOW.

	rly Median Wage rned, and Total E rson City Metropo May	mployment An Olitan Statistica	alysis	Mean Wage
Category	Hourly Median Wage	Hourly Mean Wage	Annual Mean Wage Earned	Total Employment
Transportation and Material Moving Occupations	\$14.76	\$16.03	\$33,330	1,520
Drivers that Require and Do Not Require a Commercial Driver's License	\$15.78	\$15.95	\$33,163	290
Road Supervisors	\$22.72	\$23.19	\$48,230	80
Office and Administrative Support Occupations	\$19.11	\$19.89	\$41,370	4,590
Dispatchers	N/A	N/A	N/A	N/A
Reservationists and Call-Takers	\$16.07	\$15.71	\$32,680	210
Installation, Maintenance, and Repair Occupations	\$22.44	\$23.14	\$48,130	1,040
Mechanics	\$22.15	\$24.67	\$51,307	280
Technicians and Utility Personnel	\$19.49	\$19.17	\$39,860	370

For the Carson City Metropolitan Statistical Area, the hourly median wage for *Drivers that Require and Do Not Require a Commercial Driver's License* was greater than the hourly median wage for the area's Transportation and Material Moving Occupation sector. The hourly median wage, the hourly median wage, and the annual mean wage earned for *Road Supervisors* were each greater than the hourly median wage, hourly mean wage, and annual mean wage earned for the area's Transportation and Material Moving Occupation Sector in May 2020. The hourly mean wage and the annual mean wage earned for *Mechanics* in the Carson City Metropolitan Statistical Area in May 2020 were each greater than the hourly mean wage and the

annual mean wage earned for the Carson City Metropolitan Statistical Area's Installation, Maintenance, and Repair Occupation sector.

There were an estimated 290 total individuals working as *Drivers that Require and Do Not Require a Commercial Driver's License* and 80 total individuals working as *Road Supervisors* in the Carson City Metropolitan Statistical Area. An unknown number of individuals were working as *Dispatchers* in the Carson City Metropolitan Statistical Area in May 2020 but an additional 210 total individuals working as *Reservationists and Call-Takers*. In May 2020, there were an estimated 280 total individuals working as *Mechanics* in the Carson City Metropolitan Statistical Area and an estimated 370 total individuals working as *Technicians and Utility Personnel*. In May 2020, 1,520 total individuals were working in the Transportation and Material Moving Occupation sector in the Carson City Metropolitan Statistical Area, 4,590 total individuals were working in the Office and Administrative Support Occupation sector, and 1,040 total individuals were working in the Installation, Maintenance, and Repair Occupation sector.

Table ES-3 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for the entire state of Nevada for May 2020 for each of the six selected employment categories. The hourly mean wage, the hourly mean wage, and the hourly mean wage earned for each of the six selected employment categories that were *greater than* the hourly median wage, the hourly mean wage, and the annual mean wage earned for each employment category's major occupation sector are highlighted in GREEN. he hourly mean wage, the hourly mean wage, and the hourly mean wage, the hourly mean wage, and the annual mean wage earned for each employment categories that were *less than* the hourly median wage, the hourly mean wage, and the annual mean wage earned for each employment category's major occupation sector are highlighted in YELLOW.

For May 2020, the hourly median wage and the hourly mean wage for *Drivers that Require and* Do Not Require a Commercial Driver's License and the hourly median wage, hourly mean wage, and annual mean wage earned for Road Supervisors for the entire state of Nevada were greater than the hourly median wage, the hourly mean wage, and the annual mean wage earned for the Transportation and Material Moving Occupation sector for the entire state of Nevada. Only the annual mean wage earned for Drivers that Require and Do Not Require a Commercial Driver's License in May 2020 for the entire state of Nevada was less than the annual mean wage earned for the Transportation and Material Moving Occupation sector in May 2020 for the entire state of Nevada. The hourly median wage, the hourly mean wage, and the annual mean wage earned for *Dispatchers* was greater than the hourly median wage, the hourly mean wage, and the annual mean wage earned for the Office and Administrative Support Occupation sector but the hourly median wage, the hourly mean wage, and the annual mean wage earned for Reservationists and Call-Takers was less than the hourly median wage, the hourly mean wage, and the annual mean wage earned for the Office and Administrative Support Occupation sector for the entire state of Nevada in May 2020. The hourly median wage for Mechanics and Technicians and Utility Personnel were each greater than the hourly median wage for the Installation, Maintenance, and Repair Occupation sector statewide and the hourly mean wage and the annual mean wage earned for just Technicians and Utility Personnel were each greater than the hourly mean wage and the annual mean wage earned for the state of Nevada's Installation, Maintenance, and Repair Occupation sector in May 2020.

ES-3 – Summary of Hou Ea	rly Median Wage rned, and Total E State of May	mployment An Nevada	0 /	Mean Wage
Category	Hourly Median Wage	Hourly Mean Wage	Annual Mean Wage Earned	Total Employment
Transportation and Material Moving Occupations	\$16.05	\$19.47	\$40,500	116,640
Drivers that Require and Do Not Require a Commercial Driver's License	\$16.98	\$18.34	\$38,135	31,070
Road Supervisors	\$25.73	\$27.38	\$56,935	3,750
Office and Administrative Support Occupations	\$17.78	\$18.79	\$39,090	173,100
Dispatchers	\$21.99	\$23.05	\$47,930	2,520
Reservationists and Call-Takers	\$15.30	\$16.40	\$34,105	10,890
Installation, Maintenance, and Repair Occupations	\$24.48	\$25.80	\$53,650	49,350
Mechanics	\$24.93	\$25.32	\$52,667	14,230
Technicians and Utility Personnel	\$24.97	\$26.34	\$54,780	29,580

There were an estimated 31,070 total individuals working as *Drivers that Require and Do Not Require a Commercial Driver's License* and 3,750 total individuals working as *Road Supervisors* throughout the entire state of Nevada. An additional 2,520 total individuals working as *Dispatchers* throughout the entire state of Nevada and an additional 10,890 total individuals working as *Reservationists and Call-Takers*. There were an estimated 14,230 total individuals working as *Mechanics* throughout the entire state of Nevada and an estimated 29,580 total individuals working as *Technicians and Utility Personnel*. In May 2020, 116,640 total individuals were working in the Transportation and Material Moving Occupation sector throughout the entire state of Nevada, 173,100 total individuals were working in the Office and Administrative Support Occupation sector, and 49,350 total individuals were working in the Installation, Maintenance, and Repair Occupation sector.

Table ES-4 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for the entire United States for May 2020 for each of the six selected employment categories. The hourly mean wage, the hourly mean wage, and the hourly mean wage earned for each of the six selected employment categories that were *greater than* the hourly median wage, the hourly mean wage, and the annual mean wage earned for each employment category's major occupation sector are highlighted in GREEN. he hourly mean wage, the hourly mean wage, and the hourly mean wage, the hourly mean wage, and the annual mean wage, and the annual mean wage earned for each employment categories that were *less than* the hourly median wage, the hourly mean wage, and the annual mean wage earned for each employment category's major occupation sector are highlighted in YELLOW.

ES-4 – Summary of Hou Ea	rly Median Wage rned, and Total E United May	mployment An States	<i>O</i> /	Mean Wage
Category	Hourly Median Wage	Hourly Mean Wage	Annual Mean Wage Earned	Total Employment
Transportation and Material Moving Occupations	\$16.38	\$19.08	\$39,680	12,163,360
Drivers that Require and Do Not Require a Commercial Driver's License	\$17.55	\$18.89	\$39,286	3,976,410
Road Supervisors	\$26.08	\$28.35	\$58,960	487,450
Office and Administrative Support Occupations	\$18.62	\$20.38	\$42,390	18,548,360
Dispatchers	\$20.26	\$21.80	\$45,330	281,740
Reservationists and Call-Takers	\$16.96	\$18.78	\$39,060	1,078,440
Installation, Maintenance, and Repair Occupations	\$23.44	\$25.17	\$52,360	5,486,930
Mechanics	\$24.33	\$25.49	\$53,012	1,772,190
Technicians and Utility Personnel	\$23.67	\$24.78	\$51,539	3,166,410

In May 2020, the hourly median wage for *Drivers that Required and Do Not Require a Commercial Driver's License* and the hourly median wage, the hourly mean wage, and the annual mean wage earned for *Road Supervisors* were each greater than the hourly median wage, the hourly mean wage, and the annual mean wage earned for the Transportation and Material Moving Occupation sector for the entire United States. The hourly median wage, the hourly mean wage, and the annual mean wage earned for *Dispatchers* were each greater than the hourly median wage, the hourly mean wage, and the annual mean wage for the Office and Administrative Support sector nationwide but the hourly median wage, the hourly mean wage, and the annual mean wage for the Office and Administrative Support sector nationwide in May 2020. The annual median wage, the hourly mean wage, and the annual mean wage earned for *Mechanics* and just the annual median wage for *Technicians and Utility Personnel* were greater than the annual median wage, the hourly mean wage, and the annual mean wage for the Installation, Maintenance, and Repair Occupation sector in May 2020 for the entire United States.

There were an estimated 3,976,410 total individuals working as *Drivers that Require and Do Not Require a Commercial Driver's License* and 487,450 total individuals working as *Road Supervisors* throughout the entire United States. An additional 281,740 total individuals working as *Dispatchers* throughout the entire United States and an additional 1,078,440 total individuals working as *Reservationists and Call-Takers*. There were an estimated 1,772,190 total individuals working as *Mechanics* throughout the entire United States and an estimated 3,166,410 total individuals working as *Technicians and Utility Personnel*. In May 2020, 12,163,360 total individuals were working in the Transportation and Material Moving Occupation sector throughout the entire United States, 18,548,360 total individuals were working in the Office and Administrative Support Occupation sector, and 5,486,930 total individuals were working in the Installation, Maintenance, and Repair Occupation sector.

The following results presented here include a detailed comparison of the projected increase in the hourly median wage, the hourly mean wage, and the estimated annual mean wage earned for All Occupations (NAICS 00-0000), the Office and Administrative Support Occupations sector (NAICS 43-0000), the Installation, Maintenance, and Repair Occupations sector (NAICS 49-0000), and for the Transportation and Material Moving Occupations sector (NAICS 53-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States. These projections are based upon the annual average percentage change in the hourly median wage, the hourly mean wage, and the annual mean wage earned between May 2016 and May 2020 for each occupation sector and for each geographic area and are estimated for 2021 and 2022.

Table ES-5 presents a summary of the projected hourly median wage, the projected hourly mean wage, and the projected annual mean wage earned for All Occupations (NAICS 00-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, for the entire state of Nevada, and for the entire United States for 2021 and 2022.

For All Occupations, the predicated hourly median wage for the Reno-Sparks Metropolitan Statistical Area is expected to increase to \$19.78 in 2021 and to \$20.45 in 2022 and increase to

\$22.18 in 2021 and to \$22.97 in 2022 for the Carson City Metropolitan Statistical Area. The predicated hourly mean wage for All Occupations for the Reno-Sparks Metropolitan Statistical Area is expected to increase to \$25.57 in 2021 and to \$26.41 in 2022 and increase to \$26.96 in 2021 and to \$27.89 in 2022 for the Carson City Metropolitan Statistical Area. The predicated annual mean wage earned for All Occupations in the Reno-Sparks Metropolitan Statistical Area is expected to increase to \$53,199 in 2021 and to \$54,965 in 2022 and increase to \$56,089 in 2021 and to \$58,012 in 2022 for the Carson City Metropolitan Statistical Area.

Comparatively, the predicated hourly median wage for All Occupations for the entire state of Nevada is expected to increase to \$24.90 in 2021 and to \$25.61 in 2022 and increase to \$20.81 in 2021 and to \$21.47 in 2022 for the entire United States. The predicated hourly mean wage for All Occupations for the entire state of Nevada is expected to increase to \$25.04 in 2021 and to \$25.90 in 2022 and increase to \$27.94 in 2021 and to \$28.84 in 2022 for the entire United States. The predicated annual mean wage earned for All Occupations for the entire state of Nevada is expected to increase to \$52,088 in 2021 and to \$53,876 in 2022 and increase to \$58,120 in 2021 and to \$59,989 in 2022 for the entire United States.

		Wage Earned ons (NAICS 00-00	00)	
Category	Reno-Sparks MSA	Carson City MSA	State of Nevada	<b>United States</b>
Predicated Hourly Median Wage				
2021	\$19.78	\$22.18	\$24.90	\$20.81
2022	\$20.45	\$22.97	\$25.61	\$21.47
Predicated Hourly Mean Wage				
2021	\$25.57	\$26.96	\$25.04	\$27.94
2022	\$26.41	\$27.89	\$25.90	\$28.84
Predicated Annual Mean Wage Earned				
2021	\$53,199	\$56,089	\$52,088	\$58,120
2022	\$54,965	\$58,012	\$53,876	\$59,989

Table ES-6 presents a summary of the projected hourly median wage, the projected hourly mean wage, and the projected annual mean wage earned for Office and Administrative Support Occupations (NAICS 43-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, for the entire state of Nevada, and for the entire United States for 2021 and 2022.

For Office and Administrative Support Occupations, the predicated hourly median wage for the Reno-Sparks Metropolitan Statistical Area is expected to increase to \$19.15 in 2021 and to \$19.74 in 2022 and increase to \$19.72 in 2021 and to \$20.35 in 2022 for the Carson City Metropolitan Statistical Area. The predicated hourly mean wage for Office and Administrative

Support Occupations for the Reno-Sparks Metropolitan Statistical Area is expected to increase to \$20.40 in 2021 and to \$20.99 in 2022 and increase to \$20.48 in 2021 and to \$21.09 in 2022 for the Carson City Metropolitan Statistical Area. The predicated annual mean wage earned for Office and Administrative Support Occupations in the Reno-Sparks Metropolitan Statistical Area is expected to increase to \$42,416 in 2021 and to \$43,647 in 2022 and increase to \$42,596 in 2021 and to \$43,859 in 2022 for the Carson City Metropolitan Statistical Area.

Office a	22 Predicted Hourly Mean nd Administrative Surks MSA, Carson Ci	Wage Earned upport Occupation	s (NAICS 43-00	00)
Category	Reno-Sparks MSA	Carson City MSA	State of Nevada	<b>United States</b>
Predicated Hourly Median Wage				
2021	\$19.15	\$19.72	\$18.18	\$19.23
2022	\$19.74	\$20.35	\$18.59	\$19.86
Predicated Hourly Mean Wage				
2021	\$20.40	\$20.48	\$19.17	\$21.05
2022	\$20.99	\$21.09	\$19.56	\$21.74
Predicated Annual				
Mean Wage Earned				
2021	\$42,416	\$42,596	\$39,881	\$43,782
2022	\$43,647	\$43,859	\$40,687	\$45,221

Comparatively, the predicated hourly median wage for Office and Administrative Support Occupations for the entire state of Nevada is expected to increase to \$18.18 in 2021 and to \$18.59 in 2022 and increase to \$19.23 in 2021 and to \$19.86 in 2022 for the entire United States. The predicated hourly mean wage for Office and Administrative Support Occupations for the entire state of Nevada is expected to increase to \$19.17 in 2021 and to \$19.56 in 2022 and increase to \$21.05 in 2021 and to \$21.74 in 2022 for the entire United States. The predicated annual mean wage earned for Office and Administrative Support Occupations for the entire state of Nevada is expected to increase to \$39,881 in 2021 and to \$40,687 in 2022 and increase to \$43,782 in 2021 and to \$45,221 in 2022 for the entire United States.

Table ES-7 presents a summary of the projected hourly median wage, the projected hourly mean wage, and the projected annual mean wage earned for Installation, Maintenance, and Repair Occupations (NAICS 49-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, for the entire state of Nevada, and for the entire United States for 2021 and 2022.

For Installation, Maintenance, and Repair Occupations, the predicated hourly median wage for the Reno-Sparks Metropolitan Statistical Area is expected to increase to \$24.73 in 2021 and to \$25.65 in 2022 and increase to \$22.85 in 2021 and to \$23.27 in 2022 for the Carson City Metropolitan Statistical Area. The predicated hourly mean wage for Installation, Maintenance,

and Repair Occupations for the Reno-Sparks Metropolitan Statistical Area is expected to increase to \$26.19 in 2021 and to \$27.21 in 2022 and increase to \$23.62 in 2021 and to \$24.11 in 2022 for the Carson City Metropolitan Statistical Area. The predicated annual mean wage earned for Installation, Maintenance, and Repair Occupations in the Reno-Sparks Metropolitan Statistical Area is expected to increase to \$54,486 in 2021 and to \$56,612 in 2022 and increase to \$49,133 in 2021 and to \$50,156 in 2022 for the Carson City Metropolitan Statistical Area.

Installatio	22 Predicted Hourly Mean on, Maintenance, and rks MSA, Carson Ci	Wage Earned Repair Occupation	ons (NAICS 49-0	000)
Category	Reno-Sparks MSA	Carson City MSA	State of Nevada	<b>United States</b>
Predicated Hourly Median Wage				
2021	\$24.73	\$22.85	\$24.90	\$24.13
2022	\$25.65	\$23.27	\$25.33	\$24.83
Predicated Hourly Mean Wage				
2021	\$26.19	\$23.62	\$26.34	\$25.90
2022	\$27.21	\$24.11	\$26.89	\$26.65
Duadiastad Amural				
Predicated Annual Mean Wage Earned				
2021	\$54,486	\$49,133	\$54,767	\$53,884
2022	\$56,612	\$50,156	\$55,907	\$55,452

Comparatively, the predicated hourly median wage for Installation, Maintenance, and Repair Occupations for the entire state of Nevada is expected to increase to \$24.90 in 2021 and to \$25.33 in 2022 and increase to \$24.13 in 2021 and to \$24.83 in 2022 for the entire United States. The predicated hourly mean wage for Installation, Maintenance, and Repair Occupations for the entire state of Nevada is expected to increase to \$26.34 in 2021 and to \$26.89 in 2022 and increase to \$25.90 in 2021 and to \$26.65 in 2022 for the entire United States. The predicated annual mean wage earned for Installation, Maintenance, and Repair Occupations for the entire state of Nevada is expected to increase to \$54,767 in 2021 and to \$55,907 in 2022 and increase to \$53.884 in 2021 and to \$55.452 in 2022 for the entire United States.

Table ES-8 presents a summary of the projected hourly median wage, the projected hourly mean wage, and the projected annual mean wage earned for Transportation and Material Moving Occupations (NAICS 53-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, for the entire state of Nevada, and for the entire United States for 2021 and 2022.

For Transportation and Material Moving Occupations, the predicated hourly median wage for the Reno-Sparks Metropolitan Statistical Area is expected to increase to \$18.47 in 2021 and to \$19.36 in 2022 and increase to \$15.33 in 2021 and to \$15.93 in 2022 for the Carson City Metropolitan Statistical Area. The predicated hourly mean wage for Transportation and Material

Moving Occupations for the Reno-Sparks Metropolitan Statistical Area is expected to increase to \$19.46 in 2021 and to \$20.07 in 2022 and increase to \$16.29 in 2021 and to \$16.56 in 2022 for the Carson City Metropolitan Statistical Area. The predicated annual mean wage earned for Transportation and Material Moving Occupations in the Reno-Sparks Metropolitan Statistical Area is expected to increase to \$40,454 in 2021 and to \$41,727 in 2022 and increase to \$33,868 in 2021 and to \$34,415 in 2022 for the Carson City Metropolitan Statistical Area.

Transpor	22 Predicted Hourly Mean tation and Material rks MSA, Carson Ci	Wage Earned Moving Occupation	ons (NAICS 53-0	000)
Category	Reno-Sparks MSA	Carson City MSA	State of Nevada	<b>United States</b>
Predicated Hourly Median Wage				
2021	\$18.47	\$15.33	\$16.45	\$16.81
2022	\$19.36	\$15.93	\$16.87	\$17.25
Predicated Hourly Mean Wage				
2021	\$19.46	\$16.29	\$19.97	\$19.55
2022	\$20.07	\$16.56	\$20.49	\$20.02
Predicated Annual Mean Wage Earned				
2021	\$40,454	\$33,868	\$41,543	\$40,646
2022	\$41,727	\$34,415	\$42,613	\$41,636

Comparatively, the predicated hourly median wage for Transportation and Material Moving Occupations for the entire state of Nevada is expected to increase to \$16.45 in 2021 and to \$16.87 in 2022 and increase to \$16.81 in 2021 and to \$17.25 in 2022 for the entire United States. The predicated hourly mean wage for Transportation and Material Moving Occupations for the entire state of Nevada is expected to increase to \$19.97 in 2021 and to \$20.49 in 2022 and increase to \$19.55 in 2021 and to \$20.02 in 2022 for the entire United States. The predicated annual mean wage earned for Transportation and Material Moving Occupations for the entire state of Nevada is expected to increase to \$41,543 in 2021 and to \$42,613 in 2022 and increase to \$40,646 in 2021 and to \$41,636 in 2022 for the entire United States.

## 1.0 Introduction

#### Overview

In November 2021, faculty from the University Center for Economic Development, part of the College of Business at the University of Nevada, Reno, were asked by representatives from MTM Transit to develop and produce a comprehensive labor market study of the northeastern Nevada area pertaining to specific employment categories of the area's public transportation sector. As part of this effort, hourly median wage data, hourly mean wage data, annual mean wage earned data, and total employment data for six individual employment categories were collected and analyzed. The six specific employment categories selected for additional analysis as part of this study included:

- Drivers that Require and Do Not Require a Commercial Driver's License (CDL)
- Road Supervisors
- Dispatchers
- Reservationists and Call-Takers
- Mechanics (Licensed and Unlicensed)
- Technicians and Utility Personnel

Additional data collection and analysis for the area's average monthly unemployment rate and per capita personal income, and for the hourly median wage, hourly mean wage, and annual mean wage earned for all employment occupation sectors, was also completed as part of this regional labor study of the northwestern Nevada region. Whenever possible, examination in the change in these data categories was completed for both the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, for the entire state of Nevada, and for the entire United States.

Data from the U.S. Federal Reserve Economic Dataset and from the U.S. Bureau of Labor Statistics Occupational Employment Statistics was used to complete this analysis. The U.S. Bureau of Labor Statistics collects and reports hourly median wage data, hourly mean wage data, annual mean wage earned data, and total employment data using the North American Industry Classification System (NAICS). Because of this existing classification system, the six aforementioned employment categories, including (1) Drivers that Require and Do Not Require a Commercial Driver's License, (2) Road Supervisors, (3) Dispatchers, (4) Reservationists and Call-Takers, (5) Mechanics, and (6) Technicians and Utility Personnel, have to be estimated using existing major and detailed occupation sector categories and codes. Hourly median wage

data, hourly mean wage data, annual mean wage earned data, and total employment data was estimated using specific detailed occupation sector data in three major occupation sectors including (1) Transportation and Material Moving Occupation, NAICS 53-0000, (2) Office and Administrative Support Occupation, NAICS 43-0000, and (3) Installation, Maintenance, and Repair Occupation, NAICS 49-0000.

Section 2.0 of this University Center for Economic Development technical report presents a general overview of specific labor market conditions in the northwestern Nevada region including changes in the estimated average monthly unemployment rate and per capita personal income for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, for the entire state of Nevada, and for the entire United States. Change in the estimated hourly median wage, hourly mean wage, and the annual mean wage earned for All Occupation sectors (NAICS 00-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, for the entire state of Nevada, and for the entire United States over the May 2016 to May 2020 period is also presented in Section 2.0. Section 2.0 of this University Center for Economic Development technical report also presents a comparison of the estimated hourly median wage, hourly mean wage, and annual mean wage earned for All Occupation sectors (NAICS 00-0000) and 22 major occupation sectors including the Transportation and Material Moving Occupation sector (NAICS 53-0000), the Office and Administrative Support Occupation sector (NAICS 43-0000), and the Installation, Maintenance, and Repair Occupation sector (NAICS 49-0000).

Section 3.0 of this University Center for Economic Development technical report presents a detail examination of hourly median wage data, hourly mean wage data, annual mean wage earned data, and total employment data for the three major occupation sectors used as proxies to estimate specific wage and employment data for each of the six selected employment categories listed above, including (1) Drivers that Require and Do Not Require a Commercial Driver's License, (2) Road Supervisors, (3) Dispatchers, (4) Reservationists and Call-Takers, (5) Mechanics, and (6) Technicians and Utility Personnel. Individual detailed occupation sectors in the Transportation and Material Moving Occupation sector (NAICS 53-0000) were used to estimate the hourly median wage, hourly mean wage, annual mean wage earned, and total employment for Drivers that Require and Do Not Require a Commercial Driver's License and for Road Supervisors. Individual detailed occupation sectors in the Office and Administrative Support Occupation sector (NAICS 43-0000) were used to estimate the hourly median wage, hourly mean wage, annual mean wage earned, and total employment for Dispatchers and for Reservationists and Call-Takers. Individual detailed occupation sectors in the Installation, Maintenance, and Repair Occupation sector (NAICS 49-0000) were used to estimate the hourly median wage, hourly mean wage, annual mean wage earned, and total employment for Mechanics and for Technicians and Utility Personnel.

## 2.0 Analysis: General Labor Market Conditions

This section contains a general examination of labor market conditions in the northwestern Nevada region including an assessment of the change in unemployment and per capita personal income. Additional analysis for the change in hourly median wage, hourly mean wage, and annual mean wage earned for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the United States is also presented in this section.

## 2.1 Unemployment and Per Capita Personal Income

Changes in the estimated monthly unemployment rate and in per capita personal income for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the United States are presented in this sub-section. Data on the change in both the estimated monthly unemployment rate and in per capita personal income presented in this sub-section generally captures the recovery period of the post-Great Recession era and the immediate economic impacts of the COVID-19 global pandemic.

## 2.1.a Average Monthly Unemployment Rate

Table 2.1 presents the change in the estimated average monthly unemployment rate, not seasonally adjusted, for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the United States between 2013 and 2021. Data on the change in the estimated average monthly unemployment rate for 2021 was only available between January 1, 2021 and December 1, 2021.

Between 2013 and 2021, the estimated average monthly unemployment rate for the Reno-Sparks Metropolitan Statistical Area decreased from an estimated 9.8 percent in 2013 to an estimated 4.5 percent in 2021, a net decrease of 5.3 percent or by a percentage decrease of -54.1 percent. Due to the COVID-19 global pandemic, the estimated average monthly unemployment rate for the Reno-Sparks Metropolitan Statistical Area increased from an estimated 3.3 percent in 2019 to an estimated 7.9 percent in 2021 but has since declined to an estimated 4.5 percent in 2021. For the Carson City Metropolitan Statistical Area, the estimated average monthly unemployment rate has declined from an estimated 10.8 percent in 2013 to an estimated 4.9 percent in 2021, a net decrease of 5.9 percent or by a percentage decrease of -54.6 percent. Similar to the trend present in the Reno-Sparks Metropolitan Statistical Area, the estimated average monthly unemployment rate for the Carson City Metropolitan Statistical Area increased from an estimated 3.9 percent in 2019 to an estimated 8.3 percent in 2020 due to economic impacts of the COVID-19 global pandemic. However, the estimated monthly unemployment rate for the Carson City Metropolitan Statistical Area has declined from an estimated 8.3 percent in 2020 to an estimated 4.9 percent in 2021, a percentage decrease of -41.0 percent.

	Percent Change		-16.2%	-14.5%	-7.5%	-10.2%	-11.4%	-5.1%	118.9%	-32.1%		•		
ates	United States	7.4%	6.2%	5.3%	4.9%	4.4%	3.9%	3.7%	8.1%	5.5%		-1.9%	-25.7%	5.5%
Adjusted a, United St	Percent Change		-18.0%	-15.9%	-15.9%	-13.8%	-12.0%	-11.4%	233.3%	-39.2%				•
Seasonally e of Nevada	State of Nevada	10.0%	8.2%	%6'9	%8.5	9:0%	4.4%	3.9%	13.0%	%6°L		-2.1%	-21.0%	7.2%
Table 2.1 – Average Monthly Unemployment Rate, Not Seasonally Adjusted Reno-Sparks MSA, Carson City MSA, Washoe County, State of Nevada, United States 2013 through 2021	Percent Change		-20.4%	-19.2%	-19.0%	-17.6%	-16.7%	-5.7%	139.4%	-43.0%				•
Unemployment R 4SA, Washoe Cou 2013 through 2021	Washoe County	9.8%	7.8%	6.3%	5.1%	4.2%	3.5%	3.3%	7.9%	4.5%		-5.3%	-54.1%	5.8%
Monthly Un City MSA 2013	Percent Change		-17.6%	-18.0%	-15.1%	-19.4%	%0.8-	-15.2%	112.8%	-41.0%				•
- Average I ISA, Carsoi	Carson City MSA	10.8%	%6.8	7.3%	6.2%	5.0%	4.6%	3.9%	8.3%	4.9%		-5.9%	-54.6%	6.7%
Table 2.1 o-Sparks M	Percent Change		-20.4%	-19.2%	-19.0%	-17.6%	-16.7%	% <i>L</i> :5-	139.4%	-43.0%				
Ren	Reno- Sparks MSA	9.8%	%8·L	9:3%	5.1%	4.2%	3.5%	3.3%	%6°L	4.5%		-5.3%	-54.1%	5.8%
	Year	2013	2014	2015	2016	2017	2018	2019	2020	2021*	2013-2021	Actual Change	2013-2021 Percent Change	2013-2017 Average

Source: United States Federal Reserve, Federal Reserve Economic Dataset, Economic Research Division U.S. Federal Reserve \* NOTE: 2021 only includes monthly unemployment data up to December 1, 2021 Bank of St. Louis, Unemployment Rate Not Seasonally Adjusted

For all of Washoe County, the estimated average monthly unemployment rate declined between 2013 and 2021, declining from an estimated 9.8 percent in 2013 to an estimated 4.5 percent in 2021, a net decrease of 5.3 percent or by a percentage decrease of -54.1 percent. Countywide, the estimated average monthly unemployment rate for all of Washoe County did increase between 2019 and 2020, increasing from an estimated 3.3 percent in 2019 to an estimated 7.9 percent in 2020, but decreased significantly between 2020 and 2021, decreasing from an estimated 7.9 percent in 2020 to an estimated 4.5 percent.

Statewide, the estimated average monthly unemployment rate declined from an estimated 10.0 percent in 2013 to an estimated 7.9 percent in 2021, a net decrease of 2.1 percent or by a percentage decrease of -21.0 percent. The estimated average monthly unemployment rate for the entire state of Nevada did increase between 2019 and 2020, increasing from an estimated 3.9 percent in 2019 to an estimated 13.0 percent in 2020, but has since declined from an estimated 13.0 percent in 2020 to an estimated 7.9 percent in 2021. Nationwide, the estimated average monthly unemployment rate declined from an estimated 7.4 percent in 2013 to an estimated 5.5 percent in 2021, a net decrease of 1.9 percent or by a percentage decrease of -25.7 percent. The estimated average monthly unemployment rate for the entire United States did increase between 2019 and 2020, increasing from an estimated 3.7 percent in 2019 to an estimated 8.1 percent in 2020, but has since declined from an estimated 8.1 percent in 2020 to an estimated 5.5 percent in 2021.

### 2.1.b Per Capita Personal Income

Table 2.2 presents the change in the estimated per capita personal income, not seasonally adjusted, for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the United States between 2013 and 2020.

Between 2013 and 2020, per capita personal income for the Reno-Sparks Metropolitan Statistical Area increased significantly, increasing from an estimated \$44,057 in 2013 to an estimated \$66,075 in 2020, a net increase of \$22,018 or by an estimated 50.0 percent. For the Carson City Metropolitan Statistical Area, per capita personal income increased from an estimated \$40,971 in 2013 to an estimated \$56,510 in 2020, a net increase of \$15,539 or by an estimated 37.9 percent. For all of Washoe County, per capita personal income increased from an estimated \$44,109 in 2013 to an estimated \$66,076 in 2020, a net increase of \$21,967 or by an estimated 49.8 percent. The estimated average annual per capita personal income for the Reno-Sparks Metropolitan Statistical Area, at \$55,019 per year, for the Carson City Metropolitan Statistical Area, at \$47,749 per year, and for all of Washoe County, at \$55,059 per year, were each greater than the estimated average annual per capita personal income for the entire state of Nevada, at \$46,574 per year between 2013 and 2020. The estimated average annual per capita personal income for the Reno-Sparks Metropolitan Statistical Area and for all of Washoe County were each greater than the estimated average annual per capita personal income for the entire United States, at \$51,506 per year between 2013 and 2020.

Statewide, per capita personal income for the entire state of Nevada increased from an estimated \$39,565 in 2013 to an estimated \$53,720 in 2020, a net increase of \$14,155 or by a percentage increase of 35.8 percent. Nationwide, per capita personal income for the entire United States

		Percent	Change		4.8%	4.0%	1.9%	4.0%	4.5%	3.6%	6.0%		1			•			
	ates	United	States	\$44,865	\$47,002	\$48,876	\$49,806	\$51,811	\$54,155	\$56,081	\$59,450		\$14,585			32.5%			\$51,506
sted	i, United St	Percent	Change		5.2%	6.4%	2.1%	4.5%	4.5%	4.0%	4.5%		1			•			
onally Adju	e of Nevada	State of	Nevada	\$39,565	\$41,637	\$44,314	\$45,232	\$47,279	\$49,424	\$51,419	\$53,720		\$14,155			35.8%			\$46,574
e, Not Seas	ounty, Stat 020	Percent	Change		5.1%	9.5%	3.7%	7.1%	8.1%	3.2%	4.9%					•			
onal Incom	ISA, Washoe Cour 2013 through 2020	Washoe	County	\$44,109	\$46,366	\$50,774	\$52,678	\$56,441	\$61,033	\$62,994	\$66,076		\$21,967			49.8%			\$55,059
Capita Pers	City MSA 2013	Percent	Change		4.3%	5.9%	0.0%	5.9%	5.1%	5.0%	%6.9		ı			•			
Table 2.2 - Per Capita Personal Income, Not Seasonally Adjusted	Reno-Sparks MSA, Carson City MSA, Washoe County, State of Nevada, United States 2013 through 2020	Carson	City MSA	\$40,971	\$42,752	\$45,281	\$45,264	\$47,952	\$50,378	\$52,880	\$56,510		\$15,539			37.9%			\$47,749
Table	o-Sparks M	Percent	Change		5.1%	9.5%	3.8%	7.2%	8.1%	3.2%	5.0%		1			•			
	Rend	Reno-	Sparks MSA	\$44,057	\$46,318	\$50,711	\$52,614	\$56,415	\$61,005	\$62,954	\$66,075		\$22,018			20.0%			\$55,019
			Year	2013	2014	2015	2016	2017	2018	2019	2020	2013-2021	Actual	Change	2013-2021	Percent	Change	2013-2017	Average

Source: United States Federal Reserve, Federal Reserve Economic Dataset, Economic Research Division U.S. Federal Reserve Bank of St. Louis, Unemployment Rate Not Seasonally Adjusted

increased from an estimated \$44,865 in 2013 to an estimated \$59,450 in 2020, a net increase of \$14,585 or by 32.5 percent.

## 2.2 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned

Changes in the hourly median wage, hourly mean wage, and annual mean wage earned for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, for the state of Nevada, and for the entire United States are presented in this sub-section. An overview in the estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for individual occupation sectors for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, for the state of Nevada, and for the entire United States is also presented in this sub-section.

## 2.2.a Regional, State and National Change in Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned

Table 2.3 presents the change in hourly median wage, hourly mean wage, and annual mean wage earned for all occupations for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, for the state of Nevada, and for the entire United States between May 2016 and May 2020.

Between May 2016 and May 2020, the hourly median wage for all occupations for the Reno-Sparks Metropolitan Statistical Area increased from an estimated \$16.78 in 2016 to an estimated \$19.14 in 2020, a net increase of \$2.36 or by an estimated 14.1 percent. For the Carson City Metropolitan Statistical Area, the hourly median wage increased from an estimated \$18.64 in 2016 to an estimated \$21.42 in 2020, a net increase of \$2.78 or by an estimated 14.9 percent. Between May 2016 and May 2020, the hourly median wage for the entire state of Nevada increased from an estimated \$16.59 in 2016 to an estimated \$18.55 in 2020, a net increase of \$1.96 or by an estimated 11.8 percent. Nationwide, the hourly median wage for the entire United States increased from an estimated \$17.81 in 2016 to an estimated \$20.17 in 2020, a net increase of \$2.36 or by an estimated 13.3 percent. The estimated annual average hourly median wage for the Reno-Sparks Metropolitan Statistical Area between May 2016 and May 2020 was an estimated \$17.70 per year, greater than the estimated annual average hourly median wage for the entire state of Nevada, an estimated \$17.31 per year, but was less than the estimated annual average hourly median wage for the entire United States, an estimated \$18.76 per year. The estimated annual average hourly median wage for the Carson City Metropolitan Statistical Area between May 2016 and May 2020 was an estimated \$19.99 per year, greater than the estimated annual average hourly median wage for both the entire state of Nevada and for the entire United States over the May 2016 to May 2020 period.

The hourly mean wage for all occupations for the Reno-Sparks Metropolitan Statistical Metropolitan Statistical Area increased from an estimated \$21.74 in May 2016 to an estimated \$24.75 in May 2020, a net increase of \$3.01 or by an estimated 13.8 percent. The hourly mean wage for the Carson City Metropolitan Statistical Area increased from an estimated \$22.79 in May 2016 to an estimated \$26.07 in May 2020, a net increase of \$3.28 or by an estimated 14.4

	320 2016-2020 hange Average			% \$17.70	% \$19.99	% \$17.31	% \$18.76		% \$22.97	% \$24.30	6 \$22.39	6 \$25.19		% \$47,774	% \$50,544	% \$46,562	6 \$52,402
e Earned tes	2016-2020 Percent Change			14.1%	14.9%	11.8%	13.3%		13.8%	14.4%	14.4%	13.5%		13.9%	14.4%	14.4%	13.5%
Table 2.3 – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned All Occupations (NAICS 00-0000) Reno-Sparks MSA, Carson City MSA, State of Nevada, United States	2016-2020 Actual Change			\$2.36	\$2.78	\$1.96	\$2.36		\$3.01	\$3.28	\$3.04	\$3.21		\$6,280	\$6,820	\$6,330	\$6,680
n Wage, Ann CS 00-0000) State of Neva	May 2020			\$19.14	\$21.42	\$18.55	\$20.17		\$24.75	\$26.07	\$24.21	\$27.07		\$51,490	\$54,230	\$50,360	\$56,310
an Wage, Hourly Mean Wage, An All Occupations (NAICS 00-0000)  A, Carson City MSA, State of Nev	2016 through 2020   May 2019   M			\$17.97	\$20.38	\$17.51	\$19.14		\$23.30	\$24.77	\$22.70	\$25.72		\$48,460	\$51,530	\$47,210	\$53,490
All Occus All Occus MSA, Carsor	May 2018			\$17.52	\$20.19	\$17.09	\$18.58		\$22.78	\$24.44	\$22.20	\$24.98		\$47,380	\$50,840	\$46,170	\$51,960
3 – Hourly N Reno-Sparks	May 2017			\$17.09	\$19.32	\$16.79	\$18.12		\$22.28	\$23.42	\$21.65	\$24.34		\$46,330	\$48,710	\$45,040	\$50,620
Lable 2	May 2016			\$16.78	\$18.64	\$16.59	\$17.81		\$21.74	\$22.79	\$21.17	\$23.86		\$45,210	\$47,410	\$44,030	\$49,630
		Hough	Median Wage	Reno-Sparks MSA	Carson City MSA	State of Nevada	United States	Hourly Mean Wage	Reno-Sparks MSA	Carson City MSA	State of Nevada	United States	Annual Mean Wage Earned	Reno-Sparks MSA	Carson City MSA	State of Nevada	United States

Hourly Mean Wage, Annual Mean Wage for All Occupations (NAICS 00-0000)

percent. Between May 2016 and May 2020, the hourly mean wage for the entire state of Nevada increased from an estimated \$21.17 in 2016 to an estimated \$24.21 in 2020, a net increase of \$3.04 or by 14.4 percent. For the entire United States, the hourly mean wage increased from an estimated \$23.86 in 2016 to an estimated \$27.07 in 2020, a net increase of \$3.21 or by an estimated 13.5 percent. The estimated annual average hourly mean wage for the Reno-Sparks Metropolitan Statistical Area over the 2016 to 2020 period, an estimated \$22.97 per year, was greater than the estimated annual average hourly mean wage for the entire state of Nevada, an estimated \$22.39 per year, but less than the estimated annual average hourly mean wage for the entire United States, an estimated \$25.19 per year. The estimated annual average hourly mean wage for the Carson City Metropolitan Statistical Area over the 2016 to 2020 period, an estimated \$24.30 per year, was also greater than the estimated annual average hourly mean wage for the entire state of Nevada and less than the estimated annual average hourly mean wage for the entire States.

Between May 2016 and May 2020, the annual mean wage earned for all occupations for the Reno-Sparks Metropolitan Statistical Area increased from an estimated \$45,210 in 2016 to an estimated \$51,490 in 2020, a net increase of \$6,280 or by an estimated 13.9 percent. For the Carson City Metropolitan Statistical Area, the annual mean wage earned increased from an estimated \$47,410 in 2016 to an estimated \$54,230 in 2020, a net increase of \$6,820 or by an estimated 14.4 percent. Between May 2016 and May 2020, the annual mean wage earned for the entire state of Nevada increased from an estimated \$44,030 in 2016 to an estimated \$50,360 in 2020, a net increase of \$6,330 or by an estimated 14.4 percent. Nationwide, the annual mean wage earned for the entire United States increased from an estimated \$49,630 in 2016 to an estimated \$56,310 in 2020, a net increase of \$6,680 or by an estimated 13.5 percent. The estimated annual average annual mean wage earned for the Reno-Sparks Metropolitan Statistical Area between May 2016 and May 2020 was an estimated \$47,774 per year, greater than the estimated annual average annual mean wage earned for the entire state of Nevada, an estimated \$46,562 per year, but less than the estimated annual average annual mean wage earned for the entire United States, an estimated \$52,402 per year. The estimated annual average annual mean wage earned for the Carson City Metropolitan Statistical Area between May 2016 and May 2020 was an estimated \$52,402 per year, greater than the estimated annual average annual mean wage earned for the entire state of Nevada but less than the estimated annual average annual mean wage earned for the entire United States.

## 2.2.b Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned by Major Occupation Sector

Table 2.4 presents the hourly median wage, the hourly mean wage, and the annual mean wage earned for all major occupation sectors for the Reno-Sparks Metropolitan Statistical Area in May 2020. Individual major occupation sectors with an hourly median wage, hourly mean wage, and annual mean wage greater than the hourly median wage, hourly mean wage, and annual mean wage for the entire Reno-Sparks Metropolitan Statistical Area in May 2020 are highlighted.

In May 2020, the hourly median wage for All Occupations (NAICS 00-0000) for just the Reno-Sparks Metropolitan Statistical Area was \$19.14, was \$24.75 for the hourly mean wage, and was \$51,490 for the annual mean wage earned. The hourly median wage, the hourly mean wage, and

NAICS Code 00-0000				
0000-00	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020
	All Occupations	\$19.14	\$24.75	\$51,490
11 0000	Monogonous O Commencial	647 04	C V V J	\$112,200
13-0000	Business and Financial Operations Occupations	\$29.92	\$33.05	\$68.750
15-0000	Computer and Mathematical Occupations	\$36.53	\$40.76	\$84,790
17-0000	Architecture and Engineering Occupations	\$36.90	\$40.49	\$84,210
19-0000	Life, Physical, and Social Science Occupations	\$30.08	\$33.19	\$69,040
21-0000	Community and Social Service Occupations	\$26.37	\$28.38	\$59,030
23-0000	Legal Occupations	\$45.19	\$48.35	\$100,560
25-0000	Educational Instruction and Library Occupations	\$21.59	\$24.63	\$51,220
27-0000 Arts.	Arts, Design, Entertainment, Sports, and Media Occupations	\$21.48	\$25.59	\$53,220
	Healthcare Practitioners and Technical Occupations	\$37.83	\$47.10	\$97,970
31-0000	Healthcare Support Occupations	\$14.85	\$15.84	\$32,950
33-0000	Protective Service Occupations	\$27.08	\$27.14	\$56,450
35-0000	Food Preparation and Serving Related Occupations	\$10.88	\$12.12	\$25,210
	Building and Grounds Cleaning and Maintenance Occupations	\$14.68	\$15.53	\$32,310
39-0000	Personal Care and Service Occupations	\$11.79	\$14.17	\$29,480
41-0000	Sales and Related Occupations	\$14.83	\$19.97	\$41,530
43-0000	Office and Administrative Support Occupations	\$18.57	\$19.82	\$41,220
45-0000	Farming, Fishing, and Forestry Occupations	\$15.68	\$17.26	\$35,900
47-0000	Construction and Extraction Occupations	\$24.04	\$25.35	\$52,730
49-0000	Installation, Maintenance, and Repair Occupations	\$23.85	\$25.21	\$52,440
51-0000	Production Occupations	\$17.81	\$19.28	\$40,100
53-0000	Transportation and Material Moving Occupations	\$17.62	\$18.86	\$39,220

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage for All Occupations (NAICS 00-0000) and Major Occupation Sectors

the annual mean wage earned for the Transportation and Material Moving Occupations sector (NAICS 53-0000) for just the Reno-Sparks Metropolitan Statistical Area, at \$19.14, \$24.75, and \$51,490 in May 2020, were each less than the hourly median wage, the hourly mean wage, and the annual mean wage earned for All Occupations in the Reno-Sparks Metropolitan Statistical Area in May 2020. Management Occupations (NAICS 11-0000) had the highest hourly median wage, \$47.04, the highest hourly mean wage, \$54.47, and the highest annual mean wage earned, \$113,300, in May 2020 in the Reno-Sparks Metropolitan Statistical Area out of all the individual major occupation sectors. Food Preparation and Serving Related Occupations (NACIS 35-0000) had the lowest hourly median wage, \$10.88, the lowest hourly mean wage, \$12.12, and the lowest annual mean wage earned, \$25,210, in May 2020 in the Reno-Sparks Metropolitan Statistical Area out of all the individual major occupation sectors.

Table 2.5 presents the hourly median wage, the hourly mean wage, and the annual mean wage earned for all major occupation sectors for the Carson City Metropolitan Statistical Area in May 2020. Individual major occupation sectors with an hourly median wage, hourly mean wage, and annual mean wage greater than the hourly median wage, hourly mean wage, and annual mean wage for the entire Carson City Metropolitan Statistical Area in May 2020 are highlighted.

In May 2020, the hourly median wage for All Occupations (NAICS 00-0000) for just the Carson City Metropolitan Statistical Area was \$21.42, was \$26.07 for the hourly mean wage, and was \$54,230 for the annual mean wage earned. The hourly median wage, the hourly mean wage, and the annual mean wage earned for the Transportation and Material Moving Occupations sector (NAICS 53-0000) for just the Carson City Metropolitan Statistical Area, at \$14.76, \$16.03, and \$33,330 in May 2020, were each less than the hourly median wage, the hourly mean wage, and the annual mean wage earned for All Occupations in the Carson City Metropolitan Statistical Area in May 2020. Like the Reno-Sparks Metropolitan Statistical Area, Management Occupations (NAICS 11-0000) had the highest hourly median wage, \$48.01, the highest hourly mean wage, \$56.07, and the highest annual mean wage earned, \$116,630, in May 2020 in the Carson City Metropolitan Statistical Area out of all the individual major occupation sectors. Also like the Reno-Sparks Metropolitan Statistical Area, Food Preparation and Serving Related Occupations (NAICS 35-0000) had the lowest hourly median wage, \$10.97, the lowest hourly mean wage, \$12.01, and the lowest annual mean wage earned, \$24,970, in May 2020 in the Carson City Metropolitan Statistical Area out of all the individual major occupation sectors.

Table 2.6 presents the hourly median wage, the hourly mean wage, and the annual mean wage earned for all major occupation sectors for the entire state of Nevada in May 2020. Individual major occupation sectors with an hourly median wage, hourly mean wage, and annual mean wage greater than the hourly median wage, hourly mean wage, and annual mean wage for the entire state of Nevada in May 2020 are highlighted.

For the entire state of Nevada, the hourly median wage for All Occupations (NAICS 00-0000) in May 2020 was \$18.55, was \$24.21 for the hourly mean wage, and was \$50,360 for the annual mean wage earned. The hourly median wage, the hourly mean wage, and the annual mean wage earned for the Transportation and Material Moving Occupation sector (NACIS 53-0000) for the entire state of Nevada, at \$16.05, \$19.47, and \$40,500 in May 2020, were each less than the hourly median wage, the hourly mean wage, and the annual mean wage earned for All

	Table 2.5 – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned All Major Occupation Sectors	Wage, Annual Mear Sectors	n Wage Earned	
	Carson City MSA May 2020	A		
NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020
0000-00	All Occupations	\$21.42	\$26.07	\$54,230
11-0000	Management Occupations	\$48.01	\$56.07	\$116,630
13-0000	Business and Financial Operations Occupations	\$30.49	\$32.07	\$66,690
15-0000	Computer and Mathematical Occupations	\$35.27	\$36.68	\$76,290
17-0000	Architecture and Engineering Occupations	\$31.28	\$33.06	\$68,770
19-0000	Life, Physical, and Social Science Occupations	\$30.31	\$31.78	\$66,100
21-0000	Community and Social Service Occupations	\$28.12	\$28.04	\$58,320
23-0000	Legal Occupations	\$46.30	\$51.73	\$107,610
25-0000	Educational Instruction and Library Occupations	\$24.09	\$24.00	\$49,920
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	\$17.91	\$22.33	\$46,440
29-0000	Healthcare Practitioners and Technical Occupations	\$38.09	\$44.97	\$93,540
31-0000	Healthcare Support Occupations	\$14.15	\$15.12	\$31,460
33-0000	Protective Service Occupations	\$27.03	\$26.90	\$55,960
35-0000	Food Preparation and Serving Related Occupations	\$10.97	\$12.01	\$24,970
37-0000	Building and Grounds Cleaning and Maintenance Occupations	\$15.07	\$15.52	\$32,290
39-0000	Personal Care and Service Occupations	\$11.07	\$12.80	\$26,620
41-0000	Sales and Related Occupations	\$16.27	\$21.34	\$44,380
43-0000	Office and Administrative Support Occupations	\$19.11	\$19.89	\$41,370
47-0000	Construction and Extraction Occupations	\$23.10	\$25.61	\$53,260
49-0000	Installation, Maintenance, and Repair Occupations	\$22.44	\$23.14	\$48,130
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	\$27.04	\$29.41	\$61,170
51-0000	Production Occupations	\$18.18	\$19.74	\$41,070
53-0000	Transportation and Material Moving Occupations	\$14.76	\$16.03	\$33,330
		11 0000	1 3.4 1. 117	11 11

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage for All Occupations (NAICS 00-0000) and Major Occupation Sectors

	Table 2.6 – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned All Major Occupation Sectors State of Nevada May 2020	Wage, Annual Mean Sectors	n Wage Earned	
NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020
0000-00	All Occupations	\$18.55	\$24.21	\$50,360
11-0000	Management Occupations	\$45.70	\$53.45	\$111,170
13-0000	Business and Financial Operations Occupations	\$30.10	\$32.45	\$67,490
15-0000	Computer and Mathematical Occupations	\$35.61	\$38.29	\$79,650
17-0000	Architecture and Engineering Occupations	\$36.80	\$38.88	\$80,870
19-0000	Life, Physical, and Social Science Occupations	\$30.77	\$33.37	\$69,410
21-0000	Community and Social Service Occupations	\$25.94	\$27.21	\$56,600
23-0000	Legal Occupations	\$43.35	\$48.80	\$101,510
25-0000	Educational Instruction and Library Occupations	N/A	N/A	N/A
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	\$22.70	\$27.80	\$57,830
29-0000	Healthcare Practitioners and Technical Occupations	\$39.30	\$44.82	\$93,220
31-0000	Healthcare Support Occupations	\$14.35	\$15.59	\$32,430
33-0000	Protective Service Occupations	\$19.31	\$23.26	\$48,370
35-0000	Food Preparation and Serving Related Occupations	\$11.56	\$13.26	\$27,580
37-0000	Building and Grounds Cleaning and Maintenance Occupations	\$15.25	\$15.80	\$32,870
39-0000	Personal Care and Service Occupations	\$11.30	\$13.97	\$29,050
41-0000	Sales and Related Occupations	\$14.19	\$19.09	\$39,700
43-0000	Office and Administrative Support Occupations	\$17.78	\$18.79	\$39,090
45-0000	Farming, Fishing, and Forestry Occupations	\$14.70	\$18.00	\$37,430
47-0000	Construction and Extraction Occupations	\$24.06	\$26.25	\$54,600
49-0000	Installation, Maintenance, and Repair Occupations	\$24.48	\$25.80	\$53,650
51-0000	Production Occupations	\$17.26	\$19.12	\$39,780
53-0000	Transportation and Material Moving Occupations	\$16.05	\$19.47	\$40,500

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage for All Occupations (NAICS 00-0000) and Major Occupation Sectors

	Table 2.7 – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned All Major Occupation Sectors United States May 2020	Wage, Annual Mear Sectors	n Wage Earned	
NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020
0000-00	All Occupations	\$20.17	\$27.07	\$56,310
11-0000	Management Occupations	\$52.77	\$60.81	\$126,480
13-0000	Business and Financial Operations Occupations	\$34.73	\$38.79	\$80,680
15-0000	Computer and Mathematical Occupations	\$43.92	\$46.53	\$96,770
17-0000	Architecture and Engineering Occupations	\$6.68\$	\$43.41	\$90,300
19-0000	Life, Physical, and Social Science Occupations	\$33.54	\$38.15	\$79,360
21-0000	Community and Social Service Occupations	\$22.85	\$25.09	\$52,180
23-0000	Legal Occupations	\$40.82	\$54.00	\$112,320
25-0000	Educational Instruction and Library Occupations	\$25.18	\$28.75	\$59,810
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	\$25.55	\$30.96	\$64,400
29-0000	Healthcare Practitioners and Technical Occupations	\$33.59	\$41.30	\$85,900
31-0000	Healthcare Support Occupations	\$14.40	\$15.50	\$32,250
33-0000	Protective Service Occupations	\$21.02	\$25.11	\$52,220
35-0000	Food Preparation and Serving Related Occupations	\$12.26	\$13.30	\$27,650
37-0000	Building and Grounds Cleaning and Maintenance Occupations	\$14.39	\$15.75	\$32,760
39-0000	Personal Care and Service Occupations	\$13.52	\$15.68	\$32,610
41-0000	Sales and Related Occupations	\$15.15	\$22.00	\$45,750
43-0000	Office and Administrative Support Occupations	\$18.62	\$20.38	\$42,390
45-0000	Farming, Fishing, and Forestry Occupations	\$14.27	\$16.02	\$33,310
47-0000	Construction and Extraction Occupations	\$23.37	\$25.93	\$53,940
49-0000	Installation, Maintenance, and Repair Occupations	\$23.44	\$25.17	\$52,360
51-0000	Production Occupations	\$18.00	\$20.08	\$41,760
53-0000	Transportation and Material Moving Occupations	\$16.38	\$19.08	\$39,680
Source: U.S. B.	Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean	stics, May 2020 Hoo	ırly Median Wage,	Hourly Mean

Wage, Annual Mean Wage for All Occupations (NAICS 00-0000) and Major Occupation Sectors

Occupations throughout the entire state of Nevada in May 2020. Management Occupations (NAICS 11-0000) had the highest hourly mean wage, \$45.70, the highest hourly mean wage, \$53.45, and the highest annual mean wage earned, \$111,170, out of the major occupations sectors for the entire state of Nevada in May 2020. Personal Care and Service Occupations (NAICS 39-0000) had the lowest hourly median wage, \$11.30, in May 2020 and Food Preparation and Serving Related Occupations (NAICS 35-0000) had the lowest hourly mean wage, \$13.26, and the lowest annual mean wage earned, \$27,580, in May 2020 for the entire state of Nevada out of all the individual major occupation sectors.

Table 2.7 presents the hourly median wage, the hourly mean wage, and the annual mean wage earned for all major occupation sectors for the entire United States in May 2020. Individual major occupation sectors with an hourly median wage, hourly mean wage, and annual mean wage greater than the hourly median wage, hourly mean wage, and annual mean wage for the entire United States in May 2020 are highlighted.

For the entire United States, the hourly median wage for All Occupations (NAICS 00-0000) in May 2020 was \$20.17, was \$27.07 for the hourly mean wage, and was \$56,310 for the annual mean wage earned. The hourly median wage, the hourly mean wage, and the annual mean wage earned for the Transportation and Material Moving Occupation sector (NAICS 53-0000) for the entire United States, at \$16.38, \$19.08, and \$39,680 in May 2020, were each less than the hourly median wage, the hourly mean wage, and the annual mean wage earned for All Occupations throughout the entire United States in May 2020. Like the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, and the entire state of Nevada, Management Occupations (NAICS 11-0000) had the highest hourly mean wage, \$52.77, the highest hourly mean wage, \$52.77, the highest hourly mean wage earned, \$126,480, out of the major occupation sectors for the entire United States in May 2020. For the entire United States in May 2020, Food Preparation and Serving Related Occupations (NAICS 35-0000) had the lowest hourly median wage, \$12.26, the lowest hourly mean wage, \$13.30, and the lowest annual mean wage earned, \$27,650, out of all the individual major occupation sectors in the United States.

# 3.0 Analysis: Evaluation of Labor Market Conditions in Major Occupations Sectors

This section presents a detailed analysis of the Transportation and Material Moving Occupation sector (NAICS 53-0000) along with a detailed analysis of specific individual occupation sectors used as proxies to assess the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for specific individual employment categories related to transportation. Six specific individual employment categories, including (1) Drivers that Require and Do Not Require a Commercial Driver's License (CDL), (2) Road Supervisors, (3) Dispatchers, (4) Reservationists and Call-Takers, (5) Mechanics, and (6) Technicians and Utility Personnel, were each selected. Individual occupation sectors in the Transportation and Material Moving Occupation sector (NAICS 53-0000) were used to approximate wage and total employment estimates for Drivers that Require and Do Not Require a CDL and Road Supervisors. Individual occupation sectors in the Office and Administrative Support Occupations sector (NACIS 43-0000) were used to approximately wage and total employment estimates for Dispatchers and Reservationists and Call-Takers. Individual occupation sectors in the Installation, Maintenance, and Repair Occupations sector (NAICS 49-0000) were used to approximately wage and total employment estimates for Mechanics and Technicians and Utility Personnel.

## 3.1 Transportation and Material Moving Occupation (NAICS 53-0000)

This section presents a general overview of the Transportation and Material Moving Occupation (NAICS 53-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States based on wage and occupation data provided by the U.S. Bureau of Labor Statistics for May 2020.

### 3.1.a General Overview of the Transportation and Material Moving Occupation Sector

Table 3.1 presents the change in hourly median wage, hourly mean wage, and annual mean wage earned for just the Transportation and Material Moving Occupation sector (NAICS 53-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, for the state of Nevada, and for the entire United States between May 2016 and May 2020.

Between May 2016 and May 2020, the net and percentage growth of the hourly median wage, hourly mean wage, and the annual mean wage earned for all Transportation and Material Moving Occupations (NACIS 53-0000) for just the Reno-Sparks Metropolitan Statistical Area was greater than the net and percentage growth of the hourly median wage, hourly mean wage, and the annual mean wage earned for all Transportation and Material Moving Occupations in the Carson City Metropolitan Statistical Area, for the entire state of Nevada, and for the entire United States. For just the Reno-Sparks Metropolitan Statistical Area, the hourly median wage for all Transportation and Material Moving Occupations increased from an estimated \$14.60 in

	Table.	Table 3.1 – Hourly M All Transporta Reno-Sparks	Aedian Wage, ntion and Mat MSA, Carson 20	e, Hourly Mean Warerial Moving Occon City MSA, State 2016 through 2020	n Wage, Anno Occupations State of Nevace 2020	3.1 – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned All Transportation and Material Moving Occupations (NAICS 53-0000) Reno-Sparks MSA, Carson City MSA, State of Nevada, United States 2016 through 2020	Earned (10)	
	May 2016	May 2017	May 2018	May 2019	May 2020	2016-2020 Actual Change	2016-2020 Percent Change	2016-2020 Average
Hourly Median Wage								
Reno-Sparks MSA	\$14.60	\$14.96	\$15.64	\$16.37	\$17.62	\$3.02	20.7%	\$15.84
Carson City MSA	\$12.70	\$13.49	\$13.25	\$14.04	\$14.76	\$2.06	16.2%	\$13.65
State of Nevada	\$14.54	\$14.79	\$15.09	\$15.30	\$16.05	\$1.51	10.4%	\$15.15
United States	\$14.78	\$15.19	\$15.74	\$15.60	\$16.38	\$1.60	10.8%	\$15.54
Hourly Mean Wage								
Reno-Sparks MSA	\$16.67	\$17.10	\$17.84	\$17.83	\$18.86	\$2.19	13.1%	\$17.66
Carson City MSA	\$15.05	\$15.58	\$15.27	\$15.23	\$16.03	\$0.98	6.5%	\$15.43
State of Nevada	\$17.59	\$18.08	\$18.65	\$18.81	\$19.47	\$1.88	10.7%	\$18.52
United States	\$17.34	\$17.82	\$18.41	\$18.23	\$19.08	\$1.74	10.0%	\$18.18
Annual Mean Wage Earned								
Reno-Sparks MSA	\$34,680	\$35,560	\$37,100	\$37,080	\$39,220	\$4,540	13.1%	\$36,728
Carson City MSA	\$31,310	\$32,400	\$31,760	\$31,690	\$33,330	\$2,020	6.5%	\$32,098
State of Nevada	\$36,590	\$37,610	\$38,780	\$39,130	\$40,500	\$3,910	10.7%	\$38,522
United States	\$36,070	\$37,070	\$38,290	\$37,920	\$39,680	\$3,610	10.0%	\$37,806
Source: U.S. E	Bureau of Lab	or Statistics, O	ccupational E	nployment Sta	utistics, May 2	016 through Ma	Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2016 through May 2020 Hourly Median Wage,	edian Wage,

Hourly Mean Wage, Annual Mean Wage for All Transportation and Material Moving Occupations (NAICS 53-0000)

May 2016 to an estimated \$17.62 in May 2020, a net increase of \$3.02 or by 20.7 percent. The hourly mean wage of all Transportation and Material Moving Occupations for the Reno-Sparks Metropolitan Statistical Area increased from an estimated \$16.67 in May 2016 to an estimated \$17.83 in May 2020, a net increase of \$2.19 or by 13.1 percent. The annual mean wage earned of all Transportation and Material Moving Occupations for the Reno-Sparks Metropolitan Statistical Area increased from an estimated \$34,680 in May 2016 to an estimated \$39,220 in May 2020, a net increase of \$4,540 or by 13.1 percent.

For the Carson City Metropolitan Statistical Area, the hourly median wage for all Transportation and Material Moving Occupations increased from an estimated \$12.70 in May 2016 to an estimated \$14.76 in May 2020, a net increase of \$2.06 or by 16.2 percent. The hourly mean wage for all Transportation and Material Moving Occupations for the Carson City Metropolitan Statistical Area increased from an estimated \$15.05 in May 2016 to an estimated \$16.03 in May 2020, a net increase of \$0.98 or by 6.5 percent. The annual mean wage earned for all Transportation and Material Moving Occupations for the Carson City Metropolitan Statistical Area also increased between May 2016 and May 2020, increasing from an estimated \$31,310 in May 2016 to an estimated \$33,330 in May 2020, a net increase of \$2,020 or by 6.5 percent.

The hourly median wage for all Transportation and Material Moving Occupations for the entire state of Nevada increased between May 2016 and May 2020, increasing from an estimated \$14.54 in May 2016 to an estimated \$16.05 in May 2020, a net increase of \$1.51 or by 10.4 percent. For all Transportation and Material Moving Occupations for the entire state of Nevada, the hourly mean wage increased from an estimated \$17.59 in May 2016 to an estimated \$19.47 in May 2020, a net increase of \$1.88 or by 10.7 percent. The annual mean wage earned for all Transportation and Material Moving Occupations for the entire state of Nevada increased from an estimated \$36,590 in May 2016 to an estimated \$40,500 in May 2020, a net increase of \$3,910 or by 10.7 percent.

For the entire United States, the hourly median wage for all Transportation and Material Moving Occupations increased from an estimated \$14.78 in May 2016 to an estimated \$16.38 in May 2020, a net increase of \$1.60 or by 10.8 percent. The hourly mean wage for all Transportation and Material Moving Occupations for the entire United States increased from an estimated \$17.34 in May 2016 to an estimated \$19.08 in May 2020, a net increase of \$1.74 or by 10.0 percent. The annual mean wage earned for all Transportation and Material Moving Occupations for the entire United States also increased between May 2016 and May 2020, increasing from an estimated \$36,070 in May 2016 to an estimated \$39,680 in May 2020, a net increase of \$3,610 or by 10.0 percent.

Over the May 2016 to May 2020 period, the estimated annual average hourly median wage for all Transportation and Material Moving Occupations for just the Reno-Sparks Metropolitan Statistical Area was an estimated \$15.84 per year. This estimate was greater than the estimated annual average hourly median wage for just the Carson City Metropolitan Statistical Area over the May 2016 to May 2020 period, an estimated \$13.65 per year, greater than the estimated annual average hourly median wage for the entire state of Nevada, an estimated \$15.15 per year, and greater than the estimated annual average hourly median wage for the entire United States, an estimated \$15.54 per year. The estimated annual average hourly mean wage for all

Transportation and Material Moving Occupations for just the Reno-Sparks Metropolitan Statistical Area was an estimated \$17.66 per year. This estimate was greater than the estimated annual average hourly median wage for just the Carson City Metropolitan Statistical Area over the May 2016 to May 2020 period, an estimated \$15.43 per year. However, this estimate was less than the estimated annual average hourly median wage for all Transportation and Material Moving Occupations for the entire state of Nevada, an estimated \$18.52 per year, and less than the estimated annual average hourly median wage for the entire United States, an estimated \$18.18 per year, over the May 2016 to May 2020 period.

The estimated annual average annual mean wage earned for all Transportation and Material Moving Occupations for just the Reno-Sparks Metropolitan Statistical Area was an estimated \$36,728 per year for the May 2016 to May 2020 period. This estimate was greater than the estimated annual average annual mean wage earned for just the Carson City Metropolitan Statistical Area over the same May 2016 to May 2020 period, an estimated \$32,098 per year. However, the estimated annual average annual mean wage earned for all Transportation and Material Moving Occupations for just the Reno-Sparks Metropolitan Statistical Area was less than the estimated annual average annual mean wage earned for the entire state of Nevada, an estimated \$38,522 per year, and less than the estimated annual average annual mean wage earned for the entire United States, an estimated \$37,806 per year.

#### 3.1.b Detailed Examination of the Transportation and Material Moving Occupation Sector

As previously mentioned, six specific individual employment categories, including (1) Drivers that Require and Do Not Require a Commercial Driver's License (CDL), (2) Road Supervisors, (3) Dispatchers, (4) Reservationists and Call-Takers, (5) Mechanics, and (6) Technicians and Utility Personnel, were each selected for a more thorough examination as part of this labor market study of the northwestern Nevada region. For *Drivers that Require and Do Not Require a Commercial Driver's License (CDL)* and for *Road Supervisors*, individual detailed occupation sectors within the Transportation and Material Moving Occupation sector were used to approximate hourly median wages, hourly mean wages, annual mean wages earned, and total employment. In Table 3.2 (Reno-Sparks Metropolitan Statistical Area), Table 3.3 (Carson City Metropolitan Statistical Area), Table 3.4 (State of Nevada), and Table 3.5 (United States), those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Drivers that Require and Do Not Require a Commercial Drivers License (CDL)* employment category and those individual detailed occupation sectors highlighted in ORANGE are used to approximate the *Road Supervisors* employment category.

Table 3.2 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for individual detailed occupation sectors in the Transportation and Material Moving Occupation sector (NAICS 53-0000) for just the Reno-Sparks Metropolitan Statistical Area in May 2020. Those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Drivers that Require and Do Not Require a Commercial Drivers License (CDL)* employment category and those individual detailed industry sectors highlighted in ORANGE are used to approximate the *Road Supervisors* employment category.

	Table 3.2 – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Transportation and Material Moving Occupations (NACIS 53-0000) and Detailed Sectors Reno-Sparks MSA May 2020	e, Annual Mean ons (NACIS 53-6 s MSA	Wage Earned	, Total Employe	ed
NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020	Total Employed May 2020
53-0000	Transportation and Material Moving Occupations	\$17.62	\$18.86	\$39,220	27,060
53-1047	First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	\$26.63	\$28.19	\$58,640	880
53-2012	Commercial Pilots	N/A	N/A	\$88,380	09
53-3031	Driver/Sales Workers	\$16.78	\$18.33	\$38,120	260
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$24.32	\$25.19	\$52,390	4,170
53-3033	Light Truck Drivers	\$19.45	\$21.37	\$44,440	1,440
53-3052	Bus Drivers, Transit and Intercity	\$14.50	\$14.73	\$30,640	70
53-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	\$9.58	\$11.49	\$23,910	830
53-3099	Motor Vehicle Operators, All Other	\$11.82	\$14.62	\$30,410	06
53-6021	Parking Attendants	\$8.88	\$10.72	\$22,300	150
53-6031	Automotive and Watercraft Service Attendants	\$13.60	\$14.29	\$29,730	270
53-6051	Transportation Inspectors	\$41.80	\$41.40	\$86,110	30
53-6098	Aircraft Service Attendants and Transportation Workers, All Other	\$16.20	\$16.85	\$35,050	70
53-7051	Industrial Truck and Tractor Operators	\$20.30	\$20.10	\$41,820	1,790
53-7061	Cleaners of Vehicles and Equipment	\$13.78	\$14.13	\$29,390	380
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$16.61	\$17.15	\$35,660	7,870
53-7063	Machine Feeders and Offbearers	\$16.22	\$16.28	\$33,870	40
53-7064	Packers and Packagers, Hand	\$14.83	\$14.76	\$30,690	2,720
53-7065	Stockers and Order Fillers	\$17.01	\$17.58	\$36,560	5,260

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Transportation and Material Moving Occupations (NAICS 53-0000)

For the Reno-Sparks Metropolitan Statistical Area in May 2020, six individual detailed occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in the Drivers that Require and Do Not Require a Commercial Driver's License (CDL) specific individual employment category. These six individual detailed occupation sectors included Driver/Sales Workers (NAICS 53-3031), Heavy and Tractor-Trailer Truck Drivers (NAICS 53-3032), Light Truck Drivers (NAICS 53-3033), Bus Drivers, Transit and Intercity (NAICS 53-3052), Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity (NAICS 53-3058), and Motor Vehicle Operators, All Other (NACIS 53-3099). The estimated average hourly median wage for May 2020 over all six of these individual detailed occupation sectors was an estimated \$16.08 and the estimated average hourly mean wage for all six of these individual detailed occupation sectors was an estimated \$17.62. The estimated average annual mean wage earned for all six of these individual detailed occupation sectors in May 2020, acting as a proxy for *Drivers that Require and Do Not* Require a Commercial Driver's License (CDL), was an estimated \$36,652. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for Drivers that Require and Do Not Require a Commercial Driver's License (CDL) of \$16.08, \$17.62, and \$36,652 were each less than the hourly median wage, at \$17.62, the hourly mean wage, at \$18.86, and the annual mean wage earned of \$39,220, for all Transportation and Material Moving Occupations for the Reno-Sparks Metropolitan Statistical Area in May 2020. The six individual detailed occupation sectors used as a proxy for *Drivers that Require and Do* Not Require a Commercial Driver's License (CDL) employed a total of 7,160 total individuals, accounting for an estimated 26.5 percent of the 27,060 total individuals employed in the Transportation and Material Moving Occupation sector for the entire Reno-Sparks Metropolitan Statistical Area in May 2020.

Only one individual detailed occupation sector was used to approximately the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in the *Road* Supervisors specific individual employment category for the Reno-Sparks Metropolitan Statistical Area in May 2020. The First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors (NAICS 53-1047) was used as a proxy for the Road Supervisors specific individual employment category. The hourly median wage of the First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors sector in May 2020 was \$26.63, the hourly mean wage was \$28.19, and the annual mean wage earned was \$58,640. The hourly median wage, hourly mean wage, and annual mean wage earned for the First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors sector for the Reno-Sparks Metropolitan Statistical Area were each greater than the hourly median wage, at \$17.62, the hourly mean wage, at \$18.86, and the annual mean wage earned of \$39,220, for all Transportation and Material Moving Occupations for the Reno-Sparks Metropolitan Statistical Area in May 2020. In May 2020, the First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors sector for the Reno-Sparks Metropolitan Statistical Area employed a total of 880 total individuals, accounting for an estimated 3.3 percent of the 27,060 total individuals employed in the Transportation and Material Moving Occupation sector for the entire Reno-Sparks Metropolitan Statistical Area in May 2020.

Table 3.3 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for individual detailed occupation sectors in the Transportation and Material Moving Occupation sector (NAICS 53-0000) for just the Carson City Metropolitan Statistical Area in May 2020. Those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Drivers that Require and Do Not Require a Commercial Drivers License (CDL)* employment category and those individual detailed industry sectors highlighted in ORANGE are used to approximate the *Road Supervisors* employment category.

For the Carson City Metropolitan Statistical Area in May 2020, three individual detailed occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in the Drivers that Require and Do Not Require a Commercial Driver's License (CDL) specific individual employment category. These three individual detailed occupation sectors included the Heavy and Tractor-Trailer Truck Drivers (NAICS 53-3032), Light Truck Drivers (NAICS 53-3033), and Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity (NAICS 53-3058). The estimated average hourly median wage for May 2020 over all three of these individual detailed occupation sectors was an estimated \$15.78 and the estimated average hourly mean wage for all three of these individual detailed occupation sectors was an estimated \$15.95. The estimated average annual mean wage earned for all three of these individual detailed occupation sectors in May 2020, acting as a proxy for Drivers that Require and Do Not Require a Commercial Driver's License (CDL), was an estimated \$33,163. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for Drivers that Require and Do Not Require a Commercial Driver's License (CDL) of \$15.78, \$15.95, and \$33,163 were each less than the hourly median wage, at \$17.62, the hourly mean wage, at \$18.86, and the annual mean wage earned of \$39,220, for all Transportation and Material Moving Occupations for the Reno-Sparks Metropolitan Statistical Area in May 2020. The three individual detailed occupation sectors used as a proxy for Drivers that Require and Do Not Require a Commercial Driver's License (CDL) employed a total of 290 total individuals, accounting for 19.1 percent of the 1,520 total individuals employed in the Transportation and Material Moving Occupation sector for the entire Carson City Metropolitan Statistical Area in May 2020.

Only one individual detailed occupation sector was used to approximately the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in the *Road Supervisors* specific individual employment category for the Carson City Metropolitan Statistical Area in May 2020. The First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors (NAICS 53-1047) was used as a proxy for the *Road Supervisors* specific individual employment category. The hourly median wage of the First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors sector in May 2020 was \$22.72, the hourly mean wage was \$23.19, and the annual mean wage earned was \$48,230. The hourly median wage, hourly mean wage, and annual mean wage earned for the First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors sector for the Carson City Metropolitan Statistical Area were each greater than the hourly median wage, at \$14.76, the hourly mean wage, at \$16.03, and the annual mean wage earned of \$33,330, for all Transportation and Material Moving Occupations for the Carson City Metropolitan Statistical Area in May 2020. In

	Table 3.3 – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Transportation and Material Moving Occupations (NACIS 53-0000) and Detailed Sectors Carson City MSA May 2020	ge, Annual Meal ons (NACIS 53- y MSA	n Wage Earned .0000) and Deta	i, Total Employ iled Sectors	ed
NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020	Total Employed May 2020
53-0000	Transportation and Material Moving Occupations	\$14.76	\$16.03	\$33,330	1,520
53-1047	First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	\$22.72	\$23.19	\$48,230	80
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$21.66	\$20.21	\$42,030	110
53-3033	Light Truck Drivers	\$14.41	\$15.48	\$32,190	110
53-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	\$11.26	\$12.15	\$25,270	70
53-6031	Automotive and Watercraft Service Attendants	\$12.96	\$13.39	\$27,840	80
53-7051	Industrial Truck and Tractor Operators	\$16.58	\$19.41	\$40,380	30
53-7061	Cleaners of Vehicles and Equipment	\$11.65	\$12.08	\$25,120	150
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$15.12	\$15.58	\$32,410	270
53-7064	Packers and Packagers, Hand	\$12.93	\$13.92	\$28,960	150
53-7065	Stockers and Order Fillers	\$15.20	\$15.31	\$31,850	420
			** ** 0000	111 111	1 16

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Transportation and Material Moving Occupations (NAICS 53-0000)

May 2020, the First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors sector for the Carson City Metropolitan Statistical Area employed a total of 80 total individuals, accounting for an estimated 5.3 percent of the 1,520 total individuals employed in the Transportation and Material Moving Occupation sector for the entire Carson City Metropolitan Statistical Area in May 2020.

Table 3.4 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for individual detailed occupation sectors in the Transportation and Material Moving Occupation sector (NAICS 53-0000) for the entire state of Nevada in May 2020. Those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Drivers that Require and Do Not Require a Commercial Drivers License (CDL)* employment category and those individual detailed industry sectors highlighted in ORANGE are used to approximate the *Road Supervisors* employment category.

For the entire state of Nevada in May 2020, six individual detailed occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in the Drivers that Require and Do Not Require a Commercial Driver's License (CDL) specific individual employment category. These six individual detailed occupation sectors included Driver/Sales Workers (NAICS 53-3031), Heavy and Tractor-Trailer Truck Drivers (NAICS 53-3032), Light Truck Drivers (NAICS 53-3033), Bus Drivers, Transit and Intercity (NAICS 53-3052), Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity (NAICS 53-3058), and Motor Vehicle Operators, All Other (NACIS 53-3099). The estimated average hourly median wage for May 2020 for the entire state of Nevada over all six of these individual detailed occupation sectors was an estimated \$16.98 and the estimated average hourly mean wage for all six of these individual detailed occupation sectors was an estimated \$18.34. The estimated average annual mean wage earned for all six of these individual detailed occupation sectors in May 2020, acting as a proxy for Drivers that Require and Do Not Require a Commercial Driver's License (CDL) for the entire state of Nevada, was an estimated \$38,135. The estimated hourly median wage earned for *Drivers that Require and Do Not* Require a Commercial Driver's License (CDL) of \$16.98 was greater than the hourly median wage, at \$16.05, for all Transportation and Material Moving Occupations for the entire state of Nevada in May 2020. However, the estimated hourly mean wage and the estimated annual mean wage earned, of \$18.34 and \$38,135, for Drivers that Require and Do Not Require a Commercial Driver's License (CDL) was less than the hourly mean wage, at \$19.47, and less than the annual mean wage earned, at \$40,500, for all Transportation and Material Moving Occupations for the entire state of Nevada in May 2020. The six individual detailed occupation sectors used as a proxy for Drivers that Require and Do Not Require a Commercial Driver's License (CDL) for the entire state of Nevada employed a total of 31,070 total individuals, accounting for an estimated 26.6 percent of the 116,640 total individuals employed in the Transportation and Material Moving Occupation sector for the entire state of Nevada in May 2020.

Two individual detailed occupation sectors, Aircraft Cargo Handling Supervisors (NAICS 53-1041) and First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Superiors (NAICS 53-1047), were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for

	May 2020	2			
NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020	Total Employed May 2020
53-0000	Transportation and Material Moving Occupations	\$16.05	\$19.47	\$40,500	116,640
53 1041	Aircroft Para Handling Sungerisors	¢75.31	88 703	080 23	110
53-1047	First-Line Supervisors of Transportation and Material Moving Workers. Except Aircraft Cargo Handling Supervisors	\$26.15	\$26.87	\$55,890	3,640
53-2011		N/A	N/A	\$236,260	1,520
53-2012	Commercial Pilots	N/A	N/A	\$110,490	630
53-2021	Air Traffic Controllers	\$63.44	\$60.53	\$125,890	N/A
53-2022	Airfield Operations Specialists	\$41.98	\$38.77	\$80,640	100
53-2031	Flight Attendants	N/A	N/A	\$58,160	3,230
53-3031	Driver/Sales Workers	\$12.39	\$14.90	\$30,990	2,380
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$23.92	\$24.59	\$51,140	12,100
53-3033	Light Truck Drivers	\$16.80	\$18.47	\$38,410	6,580
53-3052	Bus Drivers, Transit and Intercity	\$20.29	\$19.97	\$41,530	1,860
23-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and	\$14.21	\$14.62	\$30,410	7,370
52 2000	Motor Volticle Ougestone All Other	\$14.05	¢17 /7	¢26 220	002
53-7011	MOUNT VEHICLE OPERATORS, ALI OHIEL	\$37.83	436.97	\$76.890	180
53-4022	Railroad Brake, Signal, and Switch Operators and Locomotive	\$28.93	\$28.18	\$58,620	70
53-4031	Firers Railroad Conductors and Yardmasters	\$29.64	\$29.51	\$61.380	200
53-6021	Parking Attendants	\$12.54	\$12.80	\$26,620	2,050
53-6031	Automotive and Watercraft Service Attendants	\$12.63	\$13.35	\$27,760	1,270
53-6051	Transportation Inspectors	\$48.96	\$45.34	\$94,310	160
53-6061	Passenger Attendants	\$12.63	\$13.06	\$27,170	09
53-6098	Aircraft Service Attendants and Transportation Workers, All Other	\$16.37	\$17.52	\$36,430	920
53-7011	Conveyor Operators and Tenders	\$18.27	\$18.32	\$38,110	130
53-7021	Crane and Tower Operators	\$39.66	\$36.84	\$76,630	220
53-7051	Industrial Truck and Tractor Operators	\$19.94	\$20.91	\$43,490	5,310
53-7061	Cleaners of Vehicles and Equipment	\$11.26	\$12.26	\$25,510	3,410

Wage, Annual Mean Wage, Total Employed for All Transportation and Material Moving Occupations (NAICS 53-0000)

v of North		Table 3.4 Cont'd – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Transportation and Material Moving Occupations (NACIS 53-0000) and Detailed Sectors State of Nevada May 2020	Vage, Annual M ons (NACIS 53-0 vada 20	lean Wage Eari 1000) and Detai	ned, Total Empl led Sectors	oyed
woot.	NAICS Code	Major Occupation Sector	Hourly Median Wage	Hourly Mean Wage	Annual Mean Wage Earned	Total Employed
2552			May 2020	May 2020	<b>May 2020</b>	May 2020
NL	53-0000	Transportation and Material Moving Occupations	\$16.05	\$19.47	\$40,500	116,640
	53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$15.09	\$17.17	\$35,710	32,540
, D	53-7063	Machine Feeders and Offbearers	\$17.04	\$16.41	\$34,130	270
ort	53-7064	Packers and Packagers, Hand	\$13.38	\$13.61	\$28,300	5,840
011	53-7065	Stockers and Order Fillers	\$14.07	\$15.00	\$31,200	22,170
nin	53-7081	Refuse and Recyclable Material Collectors	\$14.63	\$15.93	\$33,130	066
o t	53-7199	Material Moving Workers, All Other	\$18.18	\$19.82	\$41,220	120

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Transportation and Material Moving Occupations (NAICS 53-0000)

**Road Supervisors** for the entire state of Nevada in May 2020. The estimated average annual mean wage of these two individual detailed occupations sectors was an estimated \$25.73 and the estimated average hourly mean wage for each of these two individual detailed occupation sectors was an estimated \$27.38. The estimated average annual mean wage earned for these two individual detailed occupation sectors in May 2020, acting as a proxy for **Road Supervisors** for the entire state of Nevada, was an estimated \$56,935. The hourly median wage, hourly mean wage, and annual mean wage earned for these two individual detailed occupation sectors for the entire state of Nevada were each greater than the hourly median wage, at \$16.05, the hourly mean wage, at \$19.47, and the annual mean wage earned of \$40,500, for all Transportation and Material Moving Occupations for the entire state of Nevada in May 2020. The two individual detailed occupation sectors used as a proxy for **Road Supervisors** for the entire state of Nevada employed a total of 3,750 total individuals, accounting for an estimated 3.2 percent of the 116,400 total individuals employed in the Transportation and Material Moving Occupation sector for the entire state of Nevada in May 2020.

Table 3.5 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for individual detailed occupation sectors in the Transportation and Material Moving Occupation sector (NAICS 53-0000) for the entire United States in May 2020. Those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Drivers that Require and Do Not Require a Commercial Drivers License (CDL)* employment category and those individual detailed industry sectors highlighted in ORANGE are used to approximate the *Road Supervisors* employment category.

For the entire United States in May 2020, seven individual detailed occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in the *Drivers that Require and Do Not Require a Commercial Driver's License (CDL)* specific individual employment category. These seven individual detailed occupation sectors included Ambulance Drivers and Attendants, Expert Medical Technicians (NACIS 53-3010), Driver/Sales Workers (NAICS 53-3031), Heavy and Tractor-Trailer Truck Drivers (NAICS 53-3032), Light Truck Drivers (NAICS 53-3033), Bus Drivers, Transit and Intercity (NAICS 53-3052), Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity (NAICS 53-3058), and Motor Vehicle Operators, All Other (NACIS 53-3099). Note that Motor Vehicle Operators (NACIS 53-3010), Driver/Sales Workers and Truck Drivers (NAICS 53-3030), Passenger Vehicle Drivers (NAICS 53-3050), and Miscellaneous Motor Vehicle Operators (NAICS 53-3090) were purposefully excluded from inclusion in this analysis as these four occupation sectors are main summary occupation sectors that includes the hourly median wage, hourly mean wage, annual mean wage earned, and total employment data captured in the seven individual detailed occupation sectors already listed.

The estimated average hourly median wage for May 2020 for the entire United States for the seven individual detailed occupation sectors used as a proxy for *Drivers that Require and Do Not Require a Commercial Driver's License (CDL)* was an estimated \$17.55 and the estimated average hourly mean wage for all seven of these individual detailed occupation sectors was an estimated \$18.89. The estimated average annual mean wage earned for all seven for these individual detailed occupation sectors in May 2020, acting as a proxy for *Drivers that Require and Do Not Require a Commercial Driver's License (CDL)* for the entire United States, was an

	United States May 2020	ates 20			
	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020	Total Employed May 2020
53-0000 Iransportati	Transportation and Material Moving Occupations	\$16.38	\$19.08	\$39,680	12,163,360
52 1000 Curronitions of Tr	"nonce out of ind Motorial Maring Workow	¢36.37	679.04	658 330	187 150
Supervisors	Of Haispoltation and Material Moving Wolners Aircraft Cargo Handling Supervisors	\$20.37	\$28.04 \$78.66	\$50,620	10.020
	First-Line Supervisors of Transportation and Material Moving	\$26.38	\$28.03	\$58,300	477,430
	Workers, Except Aircraft Cargo Handling Supervisors				`
53-2000	Air Transportation Workers	N/A	N/A	\$111,420	269,710
53-2010 Airc	Aircraft Pilots and Flight Engineers	N/A	N/A	\$163,480	120,670
53-2011 Airline Pi	Airline Pilots, Copilots, and Flight Engineers	N/A	N/A	\$186,870	83,550
	Commercial Pilots	N/A	N/A	\$110,830	37,120
	Air Traffic Controllers and Airfield Operations Specialists	\$47.91	\$50.54	\$105,120	32,780
	Air Traffic Controllers	\$62.70	\$61.27	\$127,440	22,190
53-2022 Ai	Airfield Operations Specialists	\$24.68	\$28.06	\$58,360	10,590
53-2030	Flight Attendants	N/A	N/A	\$59,150	116,260
53-3000	Motor Vehicle Operators	\$19.52	\$20.56	\$42,770	3,976,410
53-3010 Ambulance Drivers	Ambulance Drivers and Attendants, Except Emergency Medical	\$13.43	\$14.76	\$30,700	14,120
	Technicians		1		
0	Driver/Sales Workers and Truck Drivers	\$20.40	\$21.25	\$44,200	3,148,070
	Driver/Sales Workers	\$13.44	\$15.32	\$31,870	420,890
	Heavy and Tractor-Trailer Truck Drivers	\$22.66	\$23.42	\$48,710	1,797,710
	Light Truck Drivers	\$17.81	\$19.74	\$41,050	929,470
	Passenger Vehicle Drivers	\$16.67	\$17.93	\$37,300	762,820
53-3052	Bus Drivers, Transit and Intercity	\$22.07	\$23.13	\$48,110	162,850
53-3058 Passenger Vehic	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	\$15.54	\$16.52	\$34,360	299,980
53-3090   Miscel	Miscellaneous Motor Vehicle Operators	\$17.87	\$19.33	\$40,200	51,390
53-3099 Moto	Motor Vehicle Operators, All Other	\$17.87	\$19.33	\$40,200	51,390
53-4000 R	Rail Transportation Workers	\$30.97	\$31.42	\$65,360	114,040
53-4010 Locoi	Locomotive Engineers and Operators	\$33.58	\$33.15	\$68,960	41,690

	May 2020	70			
NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020	Total Employed May 2020
53-0000	Transportation and Material Moving Occupations	\$16.38	\$19.08	\$39,680	12,163,360
53-4011	Locomotive Engineers	\$34.55	\$33.97	\$70,660	37,110
53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers	\$24.86	\$26.54	\$55,200	4,580
53-4020	Railroad Brake, Signal, and Switch Operators and Locomotive Firers	\$27.82	\$26.87	\$55,890	14,630
53-4030	Railroad Conductors and Yardmasters	\$30.78	\$31.46	\$65,440	44,920
53-4040	Subway and Streetcar Operators	\$33.38	\$31.48	\$65,480	11,250
53-4090	Miscellaneous Rail Transportation Workers	\$23.06	\$26.28	\$54,670	1,540
53-4099	Rail Transportation Workers, All Other	\$23.06	\$26.28	\$54,670	1,540
53-5000	Water Transportation Workers	\$28.48	\$35.35	\$73,530	63,020
53-5010	Sailors and Marine Oilers	\$21.60	\$26.77	\$55,680	25,570
53-5020	Ship and Boat Captains and Operators	\$35.39	\$41.76	\$86,860	29,980
53-5021	Captains, Mates, and Pilots of Water Vessels	\$37.08	\$43.14	\$89,740	27,590
53-5022	Motorboat Operators	\$26.88	\$25.72	\$53,500	2,380
53-5030	Ship Engineers	\$36.53	\$38.99	\$81,110	7,480
53-6000	Other Transportation Workers	\$13.83	\$16.81	\$34,970	330,830
53-6010	Bridge and Lock Tenders	\$25.16	\$23.85	\$49,610	3,080
53-6020	Parking Attendants	\$13.02	\$13.42	\$27,910	123,790
53-6031	Automotive and Watercraft Service Attendants	\$12.76	\$13.53	\$28,150	112,750
53-6040	Traffic Technicians	\$22.98	\$25.55	\$53,140	7,430
53-6050	Transportation Inspectors	\$37.69	\$39.10	\$81,320	27,360
53-6060	Passenger Attendants	\$13.83	\$14.62	\$30,410	22,990
53-6098	Aircraft Service Attendants and Transportation Workers, All Other	\$18.17	\$21.12	\$43,920	33,430
53-7000	Material Moving Workers	\$14.77	\$16.00	\$33,290	6,921,900
53-7010	Conveyor Operators and Tenders	\$17.20	\$18.05	\$37,540	23,160
53-7020	Crane and Tower Operators	\$28.71	\$30.77	\$64,010	44,060
53-7030	Dredge Operators	\$23.66	\$25.86	\$53,790	1,750
53-7040	Hoist and Winch Operators	\$30.10	\$30.16	\$62,730	4,460

<b>I</b> arket	L	Table 3.5 Cont'd – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Transportation and Material Moving Occumations (NACIS 53-0000) and Detailed Sectors	Wage, Annual Mons (NACIS 53-0	[ean Wage Earr 0000) and Detai	ned, Total Empled Sectors	oyed
Study			tates			
of Nort	NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020	Total Employed May 2020
hw	53-0000	Transportation and Material Moving Occupations	\$16.38	\$19.08	\$39,680	12,163,360
est						
ter	53-7050	Industrial Truck and Tractor Operators	\$18.06	\$18.85	\$39,210	640,950
n l	53-7060	Laborers and Material Movers	\$14.38	\$15.40	\$32,040	6,021,330
Ne	53-7061	Cleaners of Vehicles and Equipment	\$13.29	\$14.14	\$29,400	341,660
va	53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$14.96	\$16.21	\$33,710	2,805,200
da	53-7063	Machine Feeders and Offbearers	\$15.87	\$16.57	\$34,470	64,240
Pe	53-7064	Packers and Packagers, Hand	\$13.49	\$14.07	\$29,270	599,270
rta	53-7065	Stockers and Order Fillers	\$14.03	\$14.91	\$31,010	2,210,960
in	53-7070	Pumping Station Operators	\$27.21	\$27.65	\$57,500	26,430
ing	53-7071	Gas Compressor and Gas Pumping Station Operators	\$32.62	\$30.66	\$63,770	3,800
t to	53-7072	Pump Operators, Except Wellhead Pumpers	\$23.12	\$24.92	\$51,830	10,580
tl	53-7073	Wellhead Pumpers	\$29.19	\$29.09	\$60,500	12,050
ne	53-7080	Refuse and Recyclable Material Collectors	\$18.80	\$20.49	\$42,620	120,850

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Transportation and Material Moving Occupations (NAICS 53-0000)

Tank Car, Truck, and Ship Loaders Miscellaneous Material Moving Workers

53-7120 53-7190

12,610 26,300

\$50,670

\$24.36

\$21.93 \$15.80 estimated \$39,286. The estimated hourly median wage earned for *Drivers that Require and Do Not Require a Commercial Driver's License (CDL)* of \$17.55 was greater than the hourly median wage, at \$16.38, for all Transportation and Material Moving Occupations for the entire United States in May 2020. However, the estimated hourly mean wage and the estimated annual mean wage earned, of \$18.89 and \$39,286, for *Drivers that Require and Do Not Require a Commercial Driver's License (CDL)* was less than the hourly mean wage, at \$19.08, and less than the annual mean wage earned, at \$39,680, for all Transportation and Material Moving Occupations for the entire United States in May 2020. The seven individual detailed occupation used as a proxy for *Drivers that Require and Do Not Require a Commercial Driver's License (CDL)* for the entire United States employed a total of 3,976,410 total individuals, accounting for an estimated 32.7 percent of the 12,163,360 total individuals employed in the Transportation and Material Moving Occupation sector for the entire United States in May 2020.

Two individual detailed occupation sectors, Aircraft Cargo Handling Supervisors (NAICS 53-1041) and First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Superiors (NAICS 53-1047), were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for *Road Supervisors* for the entire United States in May 2020. Note that Supervisors of Transportation and Material Moving Workers (NAICS 53-1000) was purposefully excluded from inclusion in this analysis as this occupation sector is a main summary occupation sector that includes the hourly median wage, hourly mean wage, annual mean wage earned, and total employment data captured in the two individual detailed occupation sectors already listed.

The estimated average hourly median wage for May 2020 for the entire United States for the two individual detailed occupation sectors used as a proxy for *Road Supervisors* was an estimated \$26.08 and the estimated average hourly mean wage for both of these individual detailed occupation sectors was an estimated \$28.35. The estimated average annual mean wage for these two individual detailed occupation sectors in May 2020, acting as a proxy for *Road Supervisors* for the entire United States, was an estimated \$58,960. The hourly median wage, hourly mean wage, and annual mean wage earned for these two individual detailed occupation sectors for the entire United States were each greater than the hourly median wage, at \$16.38, the hourly mean wage, at \$19.08, and the annual mean wage earned of \$39,680, for all Transportation and Material Moving Occupations for the entire United States in May 2020. The two individual detailed occupation sectors used as a proxy for *Road Supervisors* for the entire United States employed a total of 487,450 total individuals, accounting for an estimated 4.0 percent of the 12,163,360 total individuals employed in the Transportation and Material Moving Occupation sector for the entire United States in May 2020.

#### 3.2 Office and Administrative Support Occupation (NAICS 43-0000)

This section presents a general overview of the Office and Administrative Support Occupation (NAICS 43-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States based on wage and occupation data provided by the U.S. Bureau of Labor Statistics for May 2020. Individual detailed occupation sectors within the Office and Administrative Support Occupation are used as

proxies for the *Dispatchers* and *Reservationists and Call-Takers* specific individual employment categories.

#### 3.2.a Detailed Examination of the Office and Administrative Support Occupation Sector

As previously mentioned, six specific individual employment categories, including (1) Drivers that Require and Do Not Require a Commercial Driver's License (CDL), (2) Road Supervisors, (3) Dispatchers, (4) Reservationists and Call-Takers, (5) Mechanics, and (6) Technicians and Utility Personnel, were each selected for a more thorough examination as part of this labor market study of the northwestern Nevada region. For *Dispatchers* and for *Reservationists and Call-Takers*, individual detailed occupation sectors within the Office and Administrative Support Occupations sector (NAICS 43-0000) were used to approximate hourly median wages, hourly mean wages, annual mean wages earned, and total employment. In Table 3.6 (Reno-Sparks Metropolitan Statistical Area), Table 3.7 (Carson City Metropolitan Statistical Area), Table 3.8 (State of Nevada), and Table 3.9 (United States), those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Dispatchers* employment category and those individual detailed occupation sectors highlighted in ORANGE are used to approximate the *Reservationists and Call-Takers* employment category.

Table 3.6 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for individual detailed occupation sectors in the Office and Administrative Support Occupation sector (NAICS 43-0000) for just the Reno-Sparks Metropolitan Statistical Area in May 2020. Those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Dispatchers* employment category and those individual detailed industry sectors highlighted in ORANGE are used to approximate the *Reservationists and Call-Takers* employment category.

For the Reno-Sparks Metropolitan Statistical Area in May 2020, two individual detailed occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in the *Dispatchers* employment category. These two individual detailed occupation sectors included Public Safety Telecommunicators (NAICS 43-5031) and Dispatchers, Except Police, Fire, and Ambulance (NAICS 43-5032). The estimated average hourly median wage for May 2020 for both of these individual detailed occupation sectors was an estimated \$23.18 and the estimated average hourly mean wage for both of these individual detailed occupation sectors was an estimated \$23.76. The estimated average annual mean wage earned for both of these individual detailed occupation sectors in May 2020, acting as a proxy for *Dispatchers*, was an estimated \$49,425. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for Dispatchers of \$23.18, \$23.76, and \$49,425 were each greater than the hourly median wage, at \$18.57, the hourly mean wage, at \$19.82, and the annual mean wage earned, at \$41,220, for all Office and Administrative Support Occupations for the Reno-Sparks Metropolitan Statistical Area in May 2020. Both of the individual detailed occupation sectors used as a proxy for Dispatchers employed a total of 380 individuals, accounting for an estimated 1.2 percent of the 31,030 total individuals employed in the Office and Administrative Support Occupation sector for the entire Reno-Sparks Metropolitan Statistical Area in May 2020.

	NAICS Code 43-0000 43-2011 43-3021 43-3021 43-3041 43-3051 43-3051 43-3051 43-4041 43-4041 43-4051 43-4071 43-4071 43-4081	Table 3.6 - Hourly Median Wage, Hourly Mean Wage, Annual Mean Bigpatchers, Reservationists, Call-Takers	ge, Annual Meists, Call-Tal Occupations, s MSA 20 Hourly Median Wage May 2020 \$13.42 \$20.26 \$19.61 \$19.61 \$20.74 \$12.32 \$20.74 \$12.32 \$20.74 \$15.99 \$22.98 \$15.99 \$23.92 \$15.99 \$13.72 \$13.72 \$13.72	an Wage Earner kers  NAICS 43-0000  Hourly Mean Wage  May 2020  \$19.82  \$28.05  \$28.05  \$28.05  \$28.05  \$28.05  \$28.05  \$28.04  \$19.88  \$21.43  \$12.77  \$24.89  \$18.30  \$18.30  \$18.30  \$18.30  \$18.30  \$18.53  \$17.38  \$25.24  \$18.53  \$11.38  \$25.24  \$11.38  \$25.24  \$11.38  \$25.24  \$11.38  \$25.24  \$11.38  \$25.24  \$11.38	Annual Mean Wage Earned May 2020  S41,220  \$41,220  \$41,220  \$41,220  \$41,200  \$42,100  \$44,560  \$44,560  \$44,560  \$44,560  \$44,560  \$44,560  \$44,560  \$44,560  \$526,570  \$51,760  \$52,500  \$38,060  \$53,440  \$52,500  \$53,900	Total Employed May 2020 31,030  1,910 1,910 190 540 540 540 190 190 110 410 N/A 4,250 80 4,250 80 4,250 80 4,250 80 4,250 80 4,250 80 4,250 80 4,250 80 4,250 80 4,250 80 4,250
	43-4121	Library Assistants, Clerical Loan Interviewers and Clerks	\$21.57	\$21.10	\$43,880	160
	43-4151	New Accounts Clerks Order Clerks	\$18.60	\$19.72	\$41,010	N/A 520
	43-4161	Human Resources Assistants, Except Payroll and Timekeeping	\$20.10	\$20.64	\$42,920	200
	43-4171	Receptionists and Information Clerks  Reception and Transmortation Ticket A nearts and Traval Clerks	\$15.86	\$16.05	\$33,370	1,710
t	43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	\$14.73	\$15.08	\$32,020	340

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Office and Administrative Support Occupations (NAICS 43-0000)

	Tal	Table 3.6 Cont'd – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Dispatchers, Reservationists, Call-Takers (Office and Administrative Support Occupations, NAICS 43-0000) Reno-Sparks MSA May 2020	Vage, Annual nists, Call-Tal Occupations, S MSA	Mean Wage Ea kers NAICS 43-0000	rned, Total Em	ployed
N.	NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020	Total Employed May 2020
43	43-0000	Office and Administrative Support Occupations	\$18.57	\$19.82	\$41,220	31,030
43	43-4199	Information and Record Clerks, All Other	\$16.96	\$17.14	\$35,650	099
43	43-5011	Cargo and Freight Agents	\$15.32	\$17.82	\$37,060	180
43	43-5021	Couriers and Messengers	\$16.72	\$16.51	\$34,330	460
43	43-5031	Public Safety Telecommunicators	\$27.74	\$28.20	\$58,660	110
43	43-5032	Dispatchers, Except Police, Fire, and Ambulance	\$18.61	\$19.32	\$40,190	270
43	43-5051	Postal Service Clerks	\$19.48	\$22.29	\$46,360	130
43	43-5052	Postal Service Mail Carriers	\$24.88	\$25.58	\$53,200	480
43	43-5053	Postal Service Mail Sorters, Processors, and Processing Machine	\$29.62	\$25.76	\$53,580	170
		Operators				
43.	43-5061	Production, Planning, and Expediting Clerks	\$21.71	\$22.20	\$46,170	600
43	43-5071	Shipping, Receiving, and Inventory Clerks	\$17.45	\$17.84	\$37,100	2,220
43	43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	\$18.21	\$18.16	\$37,760	190
43	43-6011	Executive Secretaries and Executive Administrative Assistants	\$30.62	\$30.43	\$63,290	220
43	43-6012	Legal Secretaries and Administrative Assistants	\$23.44	\$24.95	\$51,900	340
43	43-6013	Medical Secretaries and Administrative Assistants	\$19.39	\$20.26	\$42,140	400
43	43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	\$19.45	\$20.94	\$43,550	3,210
43	43-9021	Data Entry Keyers	\$15.06	\$16.47	\$34,250	210
43	43-9041	Insurance Claims and Policy Processing Clerks	\$18.58	\$19.46	\$40,480	350
43	43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	\$16.82	\$16.19	\$33,680	N/A
43	43-9061	Office Clerks, General	\$19.00	\$19.47	\$40,500	5,390
Sour	ce: U.S	Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean	Statistics, May	2020 Hourly Me	dian Wage, Hou	rly Mean

Wage, Annual Mean Wage, Total Employed for All Office and Administrative Support Occupations (NAICS 43-0000)

For *Reservationists and Call-Takers*, two individual detailed occupation sectors were used to approximately the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in this employment category for the Reno-Sparks Metropolitan Statistical Area in May 2020. These two individual detailed occupation sectors included Receptionists and Information Clerks (NAICS 43-4171) and Reservation and Transportation Ticket Agents and Travel Clerks (NAICS 43-4181). The estimated average hourly median wage for May 2020 for both of these individual detailed occupation sectors was an estimated \$15.40 and the estimated average hourly mean wage for both of these individual detailed occupation sectors was an estimated \$15.87. The estimated average annual mean wage earned for both of these individual detailed occupation sectors in May 2020, acting as a proxy for Reservationists and Call-Takers, was an estimated \$32,995. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for Reservationists and Call-Takers of \$15.40, \$15.87, and \$32,995 were each less than the hourly median wage, at \$18.57, the hourly mean wage, at \$19.82, and the annual mean wage earned, at \$41,220, for all Office and Administrative Support Occupations for the Reno-Sparks Metropolitan Statistical Area in May 2020. Both of the individual detailed occupation sectors used as a proxy for Reservationists and Call-Takers employed 2,050 total individuals, accounting for an estimated 6.6 percent of the 31,030 total individuals employed in the Office and Administrative Support Occupation sector for the entire Reno-Sparks Metropolitan Statistical Area in May 2020.

Table 3.7 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for individual detailed occupation sectors in the Office and Administrative Support Occupation sector (NAICS 43-0000) for just the Carson City Metropolitan Statistical Area in May 2020. Those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Dispatchers* employment category and those individual detailed industry sectors highlighted in ORANGE are used to approximate the *Reservationists and Call-Takers* employment category. Due to a limited amount of available data for the Carson City Metropolitan Statistical Area for May 2020, no appropriate proxy for *Dispatchers* existed and only one appropriate proxy for *Reservationists and Call-Takers* existed.

For *Reservationists and Call-Takers*, Receptionists and Information Clerks (NAICS 43-4171) was used to approximately the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in this employment category for the Carson City Metropolitan Statistical Area in May 2020. The average hourly median wage for May 2020 for Receptionists and Information Clerks was \$16.07 and the average hourly mean wage was \$15.71. The average annual mean wage earned for Receptionists and Information Clerks, serving as a proxy for *Reservationists and Call-Takers* for the Carson City Metropolitan Statistical Area in May 2020, was \$32,680. The hourly median wage, the hourly mean wage, and the annual mean wage earned for Receptionists and Information Clerks of \$16.07, \$15.71, and \$32,680 were each less than the hourly median wage, at \$19.11, the hourly mean wage, at \$19.89, and the annual mean wage earned, at \$41,370, for all Office and Administrative Support Occupations for the Carson City Metropolitan Statistical Area in May 2020. Receptionists and Information Clerks employed 210 total individuals, accounting for an estimated 4.6 percent of the 4,590 total individuals employed in the Office and Administrative Support Occupations sector for the entire Carson City Metropolitan Statistical Area in May 2020.

202:		Table 3.7 – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Dispatchers, Reservationists, Call-Takers	e, Annual Menists, Call-Ta	an Wage Earned kers	d, Total Emplo	yed
<b>.</b>		(Office and Administrative Support Occupations, NAICS 43-0000)  Carson City MSA  May 2020	Occupations, MSA	NAICS 43-0000	<b>(</b>	
~	NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020	Total Employed May 2020
	43-0000	Office and Administrative Support Occupations	\$19.11	\$19.89	\$41,370	4,590
227	43-1011	First-Line Supervisors of Office and Administrative Support Workers	\$25.89	\$25.87	\$53,800	250
	43-3011	Bill and Account Collectors	\$18.03	\$18.81	\$39,130	N/A
	43-3021	Billing and Posting Clerks	\$16.95	\$17.48	\$36,350	100
	43-3031	Bookkeeping, Accounting, and Auditing Clerks	\$19.08	\$19.53	\$40,620	410
_	43-3071	Tellers	\$16.06	\$16.17	\$33,640	70
_	43-4051	Customer Service Representatives	\$16.72	\$17.68	\$36,770	250
	43-4061	Eligibility Interviewers, Government Programs	\$23.93	\$25.22	\$52,460	50
	43-4071	File Clerks	\$21.78	\$20.67	\$43,000	40
	43-4131	Loan Interviewers and Clerks	\$17.60	\$16.92	\$35,180	30
	43-4161	Human Resources Assistants, Except Payroll and Timekeeping	\$21.52	\$21.00	\$43,690	50
	43-4171	Receptionists and Information Clerks	\$16.07	\$15.71	\$32,680	210
	43-4199	Information and Record Clerks, All Other	\$16.64	\$17.88	\$37,200	09
	43-5052	Postal Service Mail Carriers	\$22.66	\$24.04	\$50,000	70
_	43-5061	Production, Planning, and Expediting Clerks	\$23.55	\$23.73	\$49,360	50
	43-5071	Shipping, Receiving, and Inventory Clerks	\$16.13	\$17.27	\$35,910	130
	43-6011	Executive Secretaries and Executive Administrative Assistants	\$30.64	\$29.67	\$61,710	50
	43-6012	Legal Secretaries and Administrative Assistants	\$20.87	\$20.53	\$42,700	70
	43-6013	Medical Secretaries and Administrative Assistants	\$18.89	\$19.35	\$40,250	70
	43-6014	Secretaries and Administrative Assistants, Except Legal,	\$19.68	\$20.12	\$41,840	950
_		Medical, and Executive				
	43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	\$13.73	\$14.23	\$29,600	50
	43-9061	Office Clerks, General	\$19.61	\$21.45	\$44,620	750
_						

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Office and Administrative Support Occupations (NAICS 43-0000)

Table 3.8 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for individual detailed occupation sectors in the Office and Administrative Support Occupation sector (NAICS 43-0000) for the entire State of Nevada in May 2020. Those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Dispatchers* employment category and those individual detailed industry sectors highlighted in ORANGE are used to approximate the *Reservationists and Call-Takers* employment category.

For the entire state of Nevada in May 2020, two individual detailed occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in the *Dispatchers* employment category. These two individual detailed occupation sectors included Public Safety Telecommunicators (NAICS 43-5031) and Dispatchers, Except Police, Fire, and Ambulance (NAICS 43-5032). The estimated average hourly median wage for May 2020 for both of these individual detailed occupation sectors was an estimated \$21.99 and the estimated average hourly mean wage for both of these individual detailed occupation sectors was an estimated \$23.05. The estimated average annual mean wage earned for both of these individual detailed occupation sectors in May 2020, acting as a proxy for Dispatchers, was an estimated \$47,930. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for *Dispatchers* of \$21.99, \$23.05, and \$47,930 were each greater than the hourly median wage, at \$17.78, the hourly mean wage, at \$18.79, and the annual mean wage earned, at \$39,090, for all Office and Administrative Support Occupations for the entire state of Nevada in May 2020. Both of the individual detailed occupation sectors used as a proxy for *Dispatchers* employed 2,520 total individuals, accounting for an estimated 1.5 percent of the 173,100 total individuals employed in the Office and Administrative Support Occupation sector for the entire state of Nevada in May 2020.

For *Reservationists and Call-Takers*, two individual detailed occupation sectors were used to approximately the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in this employment category for the state of Nevada in May 2020. These two individual detailed occupation sectors included Receptionists and Information Clerks (NAICS 43-4171) and Reservation and Transportation Ticket Agents and Travel Clerks (NAICS 43-4181). The estimated average hourly median wage for May 2020 for both of these individual detailed occupation sectors was an estimated \$15.30 and the estimated average hourly mean wage for both of these individual detailed occupation sectors was an estimated \$16.40. The estimated average annual mean wage earned for both of these individual detailed occupation sectors in May 2020, acting as a proxy for Reservationists and Call-Takers, was an estimated \$34,105. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for Reservationists and Call-Takers of \$15.30, \$16.40, and \$34,105 were each less than the hourly median wage, at \$17.78, the hourly mean wage, at \$18.79, and the annual mean wage earned, at \$39,090, for all Office and Administrative Support Occupations for the entire state of Nevada in May 2020. Both of the individual detailed occupation sectors used as a proxy for *Reservationists and Call-Takers* employed 10,890 total individuals, accounting for an estimated 6.3 percent of the 173,100 total individuals employed in the Office and Administrative Support Occupation sector for the entire state of Nevada in May 2020.

yed	Total Employed May 2020	173,100	11,060	1,040	250	2,060	3,580	9,950	1,260	086	520	3,700	1,200	310	1,410	450	27,530	410	1,440	3,800	3,680	350	2,150	150	1,600	1,020	8,340	2,550
d, Total Employ	Annual Mean Wage Earned May 2020	\$39,090	\$54,390	\$32,880	\$54,400	\$38,180	\$40,270	\$42,570	\$31,340	\$47,950	\$42,790	\$32,720	\$38,490	\$56,600	\$48,180	\$39,150	\$35,310	\$50,410	\$33,660	\$30,240	\$33,730	\$40,040	\$39,860	\$36,590	\$37,540	\$40,150	\$31,500	\$36,710
in Wage Earne kers NAICS 43-0000	Hourly Mean Wage May 2020	\$18.79	\$26.15	\$15.81	\$26.16	\$18.35	\$19.36	\$20.46	\$15.07	\$23.05	\$20.57	\$15.73	\$18.50	\$27.21	\$23.16	\$18.82	\$16.97	\$24.24	\$16.18	\$14.54	\$16.22	\$19.25	\$19.16	\$17.59	\$18.05	\$19.30	\$15.15	\$17.65
ge, Annual Mea onists, Call-Tak Occupations, I evada 20	Hourly Median Wage May 2020	\$17.78	\$25.02	\$15.00	\$26.01	\$17.65	\$18.68	\$19.72	\$14.54	\$22.63	\$20.44	\$15.41	\$17.70	\$22.29	\$21.98	\$18.26	\$16.03	\$23.93	\$15.63	\$14.06	\$15.83	\$18.98	\$19.11	\$16.90	\$17.25	\$18.69	\$14.68	\$15.91
Table 3.8 – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Dispatchers, Reservationists, Call-Takers (Office and Administrative Support Occupations, NAICS 43-0000) State of Nevada May 2020	Major Occupation Sector	Office and Administrative Support Occupations	First-Line Supervisors of Office and Administrative Support	Switchboard Operators, Including Answering Service	1.5		Billing and Posting Clerks	Bookkeeping, Accounting, and Auditing Clerks	Gambling Cage Workers	Payroll and Timekeeping Clerks	Procurement Clerks	Tellers	Financial Clerks, All Other	Brokerage Clerks	Court, Municipal, and License Clerks	Credit Authorizers, Checkers, and Clerks	Customer Service Representatives	Eligibility Interviewers, Government Programs	File Clerks	Hotel, Motel, and Resort Desk Clerks	Interviewers, Except Eligibility and Loan	Library Assistants, Clerical	Loan Interviewers and Clerks	New Accounts Clerks	Order Clerks	Human Resources Assistants, Except Payroll and Timekeeping	Receptionists and Information Clerks	43-4181 Reservation and Transportation Ticket Agents and Travel Clerks \$15.91 \$17.65 \$36,710 2,550
	NAICS Code	43-0000	43-1011	43-2011	43-2099	43-3011	43-3021	43-3031	43-3041	43-3051	43-3061	43-3071	43-3099	43-4011	43-4031	43-4041	43-4051	43-4061	43-4071	43-4081	43-4111	43-4121	43-4131	43-4141	43-4151	43-4161	43-4171	43-4181

A 2021 Labor Market Study of Northwestern Nevada Pertaining to the Transportation and Material Moving Occupation Sector

Wage, Annual Mean Wage, Total Employed for All Office and Administrative Support Occupations (NAICS 43-0000)

	Tab	Table 3.8 Cont'd - Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed	Wage, Annual	Mean Wage Ea	rned, Total En	ployed
		Dispatchers, Reservationists, Call-Takers (Office and Administrative Support Occupations, NAICS 43-0000) State of Nevada May 2020	onists, Call-Tal Occupations, yada	kers NAICS 43-000(		
or Market	NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020	Total Employed May 2020
	43-0000	Office and Administrative Support Occupations	\$17.78	\$18.79	\$39,090	173,100
	43-4199	Information and Record Clerks, All Other	\$17.08	\$17.08	\$35,530	3,010
	43-5011	Cargo and Freight Agents	\$14.37	\$17.44	\$36,270	086
	43-5021	Couriers and Messengers	\$16.39	\$15.99	\$33,260	1,330
	43-5031	Public Safety Telecommunicators	\$26.22	\$27.21	\$56,590	510
	43-5032	Dispatchers, Except Police, Fire, and Ambulance	\$17.75	\$18.88	\$39,270	2,010
	43-5041	Meter Readers, Utilities	\$23.93	\$24.58	\$51,120	120
	43-5051	Postal Service Clerks	\$21.94	\$22.92	\$47,670	099
	43-5052	Postal Service Mail Carriers	\$24.89	\$25.59	\$53,220	2,550
	43-5053	Postal Service Mail Sorters, Processors, and Processing Machine	\$24.59	\$24.82	\$51,620	092
		Operators				
	43-5061	Production, Planning, and Expediting Clerks	\$21.29	\$23.10	\$48,060	2,190
	43-5071	Shipping, Receiving, and Inventory Clerks	\$16.12	\$16.87	\$35,090	7,780
	43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	\$14.98	\$16.88	\$35,110	069
	43-6011	Executive Secretaries and Executive Administrative Assistants	\$31.16	\$31.73	\$65,990	1,480
	43-6012	Legal Secretaries and Administrative Assistants	\$23.92	\$24.81	\$51,600	1,970
	43-6013	Medical Secretaries and Administrative Assistants	\$18.14	\$18.91	\$39,330	2,750
4,	43-6014	Secretaries and Administrative Assistants, Except Legal,	\$18.77	\$19.68	\$40,940	15,920
		Medical, and Executive				
4	43-9021	Data Entry Keyers	\$15.46	\$16.28	\$33,860	086
4	43-9022	Word Processors and Typists	\$13.49	\$14.28	\$29,710	110
4	43-9041	Insurance Claims and Policy Processing Clerks	\$19.17	\$20.80	\$43,250	1,680
4	43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	\$15.36	\$16.02	\$33,330	580
	43-9061	Office Clerks, General	\$17.90	\$18.62	\$38,730	26,900
	43-9071	Office Machine Operators, Except Computer	\$15.09	\$16.08	\$33,440	300
	43-9081	Proofreaders and Copy Markers	\$20.88	\$21.10	\$43,880	09
4	43-9199	Office and Administrative Support Workers, All Other	\$9.42	\$12.62	\$26,260	6,490
Č						

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Office and Administrative Support Occupations (NAICS 43-0000)

Table 3.9 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for individual detailed occupation sectors in the Office and Administrative Support Occupation sector (NAICS 43-0000) for the entire United States in May 2020. Those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Dispatchers* employment category and those individual detailed industry sectors highlighted in ORANGE are used to approximate the *Reservationists and Call-Takers* employment category.

For the United States in May 2020, two individual detailed occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in the *Dispatchers* employment category. These two individual detailed occupation sectors included Public Safety Telecommunicators (NAICS 43-5031) and Dispatchers, Except Police, Fire, and Ambulance (NAICS 43-5032). The estimated average hourly median wage for May 2020 for both of these individual detailed occupation sectors was an estimated \$20.26 and the estimated average hourly mean wage for both of these individual detailed occupation sectors was an estimated \$21.80. The estimated average annual mean wage earned for both of these individual detailed occupation sectors in May 2020, acting as a proxy for Dispatchers, was an estimated \$45,330. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for *Dispatchers* of \$20.26, \$21.80, and \$45,330 were each greater than the hourly median wage, at \$18.62, the hourly mean wage, at \$20.38, and the annual mean wage earned, at \$42,390, for all Office and Administrative Support Occupations for the entire United States in May 2020. Both of the individual detailed occupation sectors used as a proxy for *Dispatchers* employed 281,740 total individuals, accounting for an estimated 1.5 percent of the 18,548,360 total individuals employed in the Office and Administrative Support Occupation sector for the entire United States in May 2020.

For *Reservationists and Call-Takers*, two individual detailed occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in this employment category for the entire United States in May 2020. These two individual detailed occupation sectors included Receptionists and Information Clerks (NAICS 43-4170) and Reservation and Transportation Ticket Agents and Travel Clerks (NAICS 43-4180). The estimated average hourly median wage for May 2020 for both of these individual detailed occupation sectors was an estimated \$16.96 and the estimated average hourly mean wage for both of these individual detailed occupation sectors was an estimated \$18.78. The estimated average annual mean wage earned for both of these individual detailed occupation sectors in May 2020, acting as a proxy for Reservationists and Call-Takers, was an estimated \$39,060. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for Reservationists and Call-Takers of \$16.96, \$18.78, and \$39,060 were each less than the hourly median wage, at \$18.62, the hourly mean wage, at \$20.38, and the annual mean wage earned, at \$42,390, for all Office and Administrative Support Occupations for the entire United States in May 2020. Both of the individual detailed occupation sectors used as a proxy for *Reservationists and Call-Takers* employed 1,078,440 total individuals, accounting for an estimated 5.8 percent of the 18,548,360 total individuals employed in the Office and Administrative Support Occupation sector for the entire United States in May 2020.

V 2031 I abou Worket Strick of Nonthinestern Manage Boutsinia at a 12	NAICS Code 43-0000 43-2000 43-2000 43-2000 43-2000 43-3000 43-3000 43-3020 43-3020 43-3040 43-3040 43-3040 43-3040 43-3040 43-3040 43-4000 43-4000 43-4020 43-4020 43-4030	Communications Equipment Operators   States	e, Annual Meninst, Call-Tal Occupations, Iates  20  Hourly Median Wage May 2020 818.62  \$18.62  \$18.62  \$18.62  \$18.63  \$19.02  \$19.02  \$19.02  \$19.02  \$19.02  \$19.03  \$22.44  \$22.44  \$22.44  \$22.44  \$22.61  \$19.03  \$20.39  \$19.03  \$20.39  \$19.03  \$20.39  \$19.03  \$20.39  \$19.03  \$20.39  \$19.03  \$20.39  \$19.03  \$20.39  \$19.03  \$20.39  \$19.03  \$20.39  \$19.03  \$20.39  \$19.03  \$20.39  \$19.03  \$20.39  \$19.03  \$20.39  \$19.03  \$20.39	## Wage Earned    NAICS 43-0000   NAICS 43-0000   NAICS 43-0000   NAICS 43-0000   Wage   Wage   May 2020     S20.38   S20.38     S16.34   S16.85     S23.68   S23.68     S23.68   S23.21     S21.20   S14.28     S21.20   S14.28     S21.20   S14.28     S23.21   S23.21     S23.27   S18.22     S23.27   S18.22     S23.27   S18.22     S23.27   S18.22     S23.27   S23.21     S23.27   S23.21     S23.27   S23.27     S18.22   S23.27     S23.27   S18.22     S23.27   S18.22     S23.27   S18.22     S23.27   S23.21     S23.27   S23.21     S23.27   S23.27     S23.27   S23.27	Annual Mean Wage Earned May 2020  S42,390  \$42,390  \$42,390  \$33,980  \$33,980  \$33,980  \$33,980  \$49,260  \$49,260  \$49,260  \$49,260  \$44,100  \$44,400	
43	43-4050 43-4060	Customer Service Representatives Eligibility Interviewers, Government Programs	\$17.23 \$22.65	\$18.51	\$38,510 \$47,990	2,833,250 138,820
43 5	43-4070	File Clerks Hotel, Motel, and Resort Desk Clerks	\$16.39	\$17.38	\$36,140	91,560
43.	43-4110	Interviewers, Except Eligibility and Loan	\$17.39	\$18.10	\$37,640	173,800

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Office and Administrative Support Occupations (NAICS 43-0000)

	ToT	ole 2 0 Cont'd Housey Medion West House I	Tourn A one V	Moon Wood Do	unod Total Dun	mlorrod
		Office and Administrative Support Occupations, NAICS 43-0000)  May 2020	nists, Call-Tal Occupations, ates	kers NAICS 43-0000		nacordi
	NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020	Total Employed May 2020
	43-0000	Office and Administrative Support Occupations	\$18.62	\$20.38	\$42,390	18,548,360
	43-4120	Library Assistants, Clerical	\$13.81	\$14.78	\$30,740	84,560
	43-4130	Loan Interviewers and Clerks	\$19.89	\$20.57	\$42,780	204,100
	43-4140	New Accounts Clerks	\$18.15	\$19.17	\$39,870	45,250
	43-4150	Order Clerks	\$17.11	\$18.10	\$37,660	119,640
	43-4160	Human Resources Assistants, Except Payroll and Timekeeping	\$20.79	\$21.24	\$44,170	108,470
	43-4170	Receptionists and Information Clerks	\$14.96	\$15.58	\$32,410	968,420
	43-4180	Reservation and Transportation Ticket Agents and Travel Clerks	\$18.96	\$21.98	\$45,710	110,020
	43-4190	Miscellaneous Information and Record Clerks	\$20.59	\$21.10	\$43,880	148,870
	43-4199	Information and Record Clerks, All Other	\$20.59	\$21.10	\$43,880	148,870
	43-5000	Material Recording, Scheduling, Dispatching, and Distributing Workers	\$19.79	\$21.60	\$44,930	2,149,050
	43-5010	Cargo and Freight Agents	\$21.04	\$22.68	\$47,170	96,510
	43-5020	Couriers and Messengers	\$14.89	\$15.87	\$33,010	70,700
	43-5030	Dispatchers	\$20.07	\$21.72	\$45,170	281,740
	43-5031	Public Safety Telecommunicators	\$20.82	\$22.02	\$45,800	93,290
	43-5032	Dispatchers, Except Police, Fire, and Ambulance	\$19.70	\$21.57	\$44,860	188,450
	43-5040	Meter Readers, Utilities	\$20.16	\$22.19	\$46,160	26,490
	43-5050	Postal Service Workers	\$24.59	\$25.24	\$52,500	525,920
	43-5051	Postal Service Clerks	\$24.11	\$24.62	\$51,200	86,950
	43-5052	Postal Service Mail Carriers	\$24.56	\$25.57	\$53,180	333,570
	43-5053	Postal Service Mail Sorters, Processors, and Processing Machine	\$25.55	\$24.73	\$51,440	105,400
	43-5060	Production Planning and Expediting Clerks	\$23.86	\$25.00	\$52,000	362 090
	43-5070	Shipping, Receiving, and Inventory Clerks	\$16.95	\$17.89	\$37,210	727,640
	43-5110	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	\$17.62	\$18.31	\$38,080	57,960
	43-6000	Secretaries and Administrative Assistants	\$19.71	\$21.54	\$44,800	3,111,790
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Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Office and Administrative Support Occupations (NAICS 43-0000)

ployed	Total Employed May 2020	18,548,360	503,390	160,950	597,100	1,850,360	3,541,850	194,440	151,520	42,920	7,090	240,740	79,310	2,788,090	40,640	6,610	9,320	175,600
rned, Total Em	Annual Mean Wage Earned May 2020	\$42,390	\$65,230	\$52,750	\$39,000	\$40,420	\$38,290	\$37,350	\$35,850	\$42,630	\$50,600	\$45,070	\$33,700	\$37,770	\$36,580	\$44,670	\$52,120	\$39,340
Mean Wage Ea kers NAICS 43-0000	Hourly Mean Wage May 2020	\$20.38	\$31.36	\$25.36	\$18.75	\$19.43	\$18.41	\$17.96	\$17.24	\$20.50	\$24.33	\$21.67	\$16.20	\$18.16	\$17.59	\$21.48	\$25.06	\$18.91
Wage, Annual onists, Call-Tal Occupations, ates	Hourly Median Wage May 2020	\$18.62	\$30.34	\$23.55	\$17.96	\$18.68	\$17.25	\$17.22	\$16.56	\$19.73	\$22.86	\$20.22	\$15.35	\$16.98	\$16.70	\$19.78	\$24.21	\$17.25
Table 3.9 Cont'd – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Dispatchers, Reservationists, Call-Takers (Office and Administrative Support Occupations, NAICS 43-0000) United States May 2020	Major Occupation Sector	Office and Administrative Support Occupations	Executive Secretaries and Executive Administrative Assistants	Legal Secretaries and Administrative Assistants	Medical Secretaries and Administrative Assistants	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	Other Office and Administrative Support Workers	Data Entry and Information Processing Workers	Data Entry Keyers	Word Processors and Typists	Desktop Publishers	Insurance Claims and Policy Processing Clerks	Mail Clerks and Mail Machine Operators, Except Postal Service	Office Clerks, General	Office Machine Operators, Except Computer	Proofreaders and Copy Markers	Statistical Assistants	Miscellaneous Office and Administrative Support Workers
Tal	NAICS Code	43-0000	43-6011	43-6012	43-6013	43-6014	43-9000	43-9020	43-9021	43-9022	43-9030	43-9040	43-9050	43-9060	43-9070	43-9080	43-9110	43-9190

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Office and Administrative Support Occupations (NAICS 43-0000)

#### 3.3 Installation, Maintenance, and Repair Occupation (NAICS 49-0000)

This section presents a general overview of the Installation, Maintenance, and Repair Occupation (NAICS 49-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States based on wage and occupation data provided by the U.S. Bureau of Labor Statistics for May 2020. Individual detailed occupation sectors within the Office and Administrative Support Occupation are used as proxies for the *Mechanics* and *Technicians and Utility Personnel* specific individual employment categories.

#### 3.2.a Detailed Examination of the Installation, Maintenance, and Repair Occupation Sector

As previously mentioned, six specific individual employment categories, including (1) Drivers that Require and Do Not Require a Commercial Driver's License (CDL), (2) Road Supervisors, (3) Dispatchers, (4) Reservationists and Call-Takers, (5) Mechanics, and (6) Technicians and Utility Personnel, were each selected for a more thorough examination as part of this labor market study of the northwestern Nevada region. For *Mechanics* and for *Technicians and Utility Personnel*, individual detailed occupation sectors within the Installation, Maintenance, and Repair Occupation sector (NAICS 49-0000) were used to approximate hourly median wages, hourly mean wages, annual mean wages earned, and total employment. In Table 3.10 (Reno-Sparks Metropolitan Statistical Area), Table 3.11 (Carson City Metropolitan Statistical Area), Table 3.12 (State of Nevada), and Table 3.13 (United States), those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Mechanics* employment category and those individual detailed occupation sectors highlighted in ORANGE are used to approximate the *Technicians and Utility Personnel* employment category.

Table 3.10 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for individual detailed occupation sectors in the Installation, Maintenance, and Repair Occupation sector (NAICS 49-0000) for the Reno-Sparks Metropolitan Statistical Area in May 2020. Those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Mechanics* employment category and those individual detailed industry sectors highlighted in ORANGE are used to approximate the *Technicians and Utility Personnel* employment category.

Eight individual detailed occupation sectors were used to estimate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for *Mechanics* in the Reno-Sparks Metropolitan Statistical Area for May 2020. The estimated hourly median wage for May 2020 for the Reno-Sparks Metropolitan Statistical Area for *Mechanics*, based on the eight detailed occupation sectors used as a proxy, was an estimated \$26.49 and the estimated hourly mean wage for May 2020 was an estimated \$27.58. The estimated annual mean wage earned for *Mechanics* in May 2020 was an estimated \$57,370. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for *Mechanics* of \$26.49, \$27.58, and \$57,370 were each greater than the hourly median wage, at \$23.85, the hourly mean wage, at \$25.21, and the annual mean wage earned, at \$57,370, for the Installation, Maintenance, and Repair Occupation sector for the Reno-Sparks Metropolitan Statistical Area in

yed	Total Employed May 2020	8,870	640	N/A	40	N/A	30	50	08	NI/A	N/A	110	230	950	340	340	50	100	360	N/A	350	110	520	09
d, Total Emplo el 0)	Annual Mean Wage Earned May 2020	\$52,440	\$72,470	\$32,280	\$54,920	\$61,500	\$64,300	\$41,260	\$63,160	\$30,670	\$58.950	\$68,670	\$56,460	\$52,760	\$59,070	\$66,100	\$40,180	\$50,400	\$33,120	\$48,930	\$60,290	\$39,080	\$55,430	\$48,130
n Wage Earne Utility Personn NAICS 49-000	Hourly Mean Wage May 2020	\$25.21	\$34.84	\$15.52	\$26.41	\$29.57	\$30.91	\$19.84	\$30.36	¢14.75	\$28.34	\$33.02	\$27.14	\$25.37	\$28.40	\$31.78	\$19.32	\$24.23	\$15.92	\$23.53	\$28.99	\$18.79	\$26.65	\$23.14
e, Annual Mea , Technicians, l r Occupations, s MSA	Hourly Median Wage May 2020	\$23.85	\$35.30	\$14.36	\$25.46	\$29.17	\$30.00	\$20.15	\$32.05	\$11.46	\$27.09	\$30.81	\$25.81	\$25.20	\$26.29	\$28.99	\$18.87	\$23.60	\$15.17	\$23.19	\$29.37	\$17.99	\$26.55	\$22.95
Table 3.10 – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Mechanics (Licensed and Unlicensed), Technicians, Utility Personnel (Installation, Maintenance, and Repair Occupations, NAICS 49-0000)  Reno-Sparks MSA May 2020	Major Occupation Sector	Installation, Maintenance, and Repair Occupations	First-Line Supervisors of Mechanics, Installers, and Repairers	Computer, Automated Teller, and Office Machine Repairers	Radio, Cellular, and Tower Equipment Installers and Repairers	Telecommunications Equipment Installers and Repairers, Except Line Installers	Avionics Technicians	Electric Motor, Power Tool, and Related Repairers	Electrical and Electronics Repairers, Commercial and Industrial	Andiovienal Equipment Installant and Danaisans	Security and Fire Alarm Systems Installers		Automotive Body and Related Repairers	Automotive Service Technicians and Mechanics	Bus and Truck Mechanics and Diesel Engine Specialists	Mobile Heavy Equipment Mechanics, Except Engines	Outdoor Power Equipment and Other Small Engine Mechanics	Recreational Vehicle Service Technicians	Tire Repairers and Changers	Mechanical Door Repairers	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Home Appliance Repairers	Industrial Machinery Mechanics	Maintenance Workers, Machinery
	NAICS Code	49-0000	49-1011	49-2011	49-2021	49-2022	49-2091	49-2092	49-2094	7000 01	49-2097	49-3011	49-3021	49-3023	49-3031	49-3042	49-3053	49-3092	49-3093	49-9011	49-9021	49-9031	49-9041	49-9043

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Installation, Maintenance, and Repair Occupations (NAICS 49-0000)

mployed	Total Employed May 2020	8,870	06	2,520	120	70	340	180
arned, Total E nel 00)	Annual Mean Wage Earned May 2020	\$52,440	\$72,260	\$48,430	\$41,150	\$49,060	N/A	\$76 170
Mean Wage Ea Utility Person , NAICS 49-00	Hourly Mean Wage May 2020	\$25.21	\$34.74	\$23.28	\$19.79	\$23.59	N/A	\$22.18
Wage, Annual ), Technicians, ir Occupations s MSA	Hourly Median Wage May 2020	\$23.85	\$31.16	\$21.39	\$19.53	\$22.85	N/A	\$0.00
Table 3.10 Cont'd – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Mechanics (Licensed and Unlicensed), Technicians, Utility Personnel (Installation, Maintenance, and Repair Occupations, NAICS 49-0000)  Reno-Sparks MSA  May 2020	Major Occupation Sector	Installation, Maintenance, and Repair Occupations	Medical Equipment Repairers	Maintenance and Repair Workers, General	Coin, Vending, and Amusement Machine Servicers and Repairers	Locksmiths and Safe Repairers	HelpersInstallation, Maintenance, and Repair Workers	Installation Maintanance and Panair Workers All Other
Tab	NAICS Code	49-0000	49-9062	49-9071	49-9091	49-9094	49-9098	40 0000

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Installation, Maintenance, and Repair Occupations (NAICS 49-0000)

May 2020. Total employment of all eight detailed occupation sectors used as a proxy for *Mechanics* combined was an estimated 2,890 total individuals, accounting for an estimated 32.6 percent of the 8,870 total individuals employed in the Installation, Maintenance, and Repair Occupations for the Reno-Sparks Metropolitan Statistical Area in May 2020.

For Technicians and Utility Personnel, 17 individual detailed occupation sectors were used to estimate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for this specific employment category for the Reno-Sparks Metropolitan Statistical Area for May 2020. The estimated hourly median wage for Technicians and Utility Personnel for the Reno-Sparks Metropolitan Statistical Area in May 2020 was an estimated \$22.75 and the estimated hourly mean wage was an estimated \$23.61. The estimated annual mean wage earned for Technicians and Utility Personnel for the Reno-Sparks Metropolitan Statistical Area in May 2020, using the 17 individual detailed occupation sectors as a proxy for this employment category, was an estimated \$49,099. In May 2020, the estimated hourly median wage, at \$22.75, the estimated hourly mean wage, at \$23.61, and the estimated annual mean wage earned, at \$49,099 were each less than the hourly median wage, at \$23.85, the estimated hourly mean wage, at \$25.21, and less than the estimated annual mean wage earned, at \$52,440, for the Installation, Maintenance, and Repair Occupation sector for the Reno-Sparks Metropolitan Statistical Area for May 2020. Total estimated employment for the Technicians and Utility Personnel employment category was an estimated 3,740 total individuals, accounting for an estimated 42.2 percent of the 8,870 total individuals employed in the Reno-Sparks Metropolitan Statistical Area in May 2020.

Table 3.11 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for individual detailed occupation sectors in the Installation, Maintenance, and Repair Occupation sector (NAICS 49-0000) for the Carson City Metropolitan Statistical Area in May 2020. Those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Mechanics* employment category and those individual detailed industry sectors highlighted in ORANGE are used to approximate the *Technicians and Utility Personnel* employment category.

For the Carson City Metropolitan Statistical Area in May 2020, three individual detailed occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in the *Mechanics* employment category. These three individual detailed occupation sectors included Automotive Service Technicians and Mechanics (NAICS 49-3023), Heating, Air Conditioning, and Refrigeration Mechanics and Installers (NAICS 49-9021), and Industrial Machinery Mechanics (NAICS 49-9041). The estimated hourly median wage for *Mechanics* for the Carson City Metropolitan Statistical Area for May 2020 was an estimated \$25.15, the estimated hourly mean wage was an estimated \$24.67, and the estimated average annual mean wage earned for this employment category was an estimated \$51,307. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned, at \$25.15, \$24.67, and \$51,307 for the Carson City Metropolitan Statistical Area for May 2020 for *Mechanics* was greater than the hourly median wage, at \$22.44, the hourly mean wage, at \$23.14, and the annual mean wage earned, at \$48,130 for the entire Installation, Maintenance, and Repair Occupation sector. Total employment for all three individual detailed occupation sectors, used as a proxy for *Mechanics*, for May 2020 for

	Table 3.11 – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Mechanics (Licensed and Unlicensed), Technicians, Utility Personnel (Installation, Maintenance, and Repair Occupations, NAICS 49-0000)  Carson City MSA  May 2020	ge, Annual Me ), Technicians, ir Occupations 7 MSA	an Wage Earne Utility Personr , NAICS 49-000	ed, Total Emple nel 00)	yed
NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020	Total Employed May 2020
49-0000	Installation, Maintenance, and Repair Occupations	\$22.44	\$23.14	\$48,130	1,040
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	\$27.04	\$29.41	\$61,170	100
49-3023	Automotive Service Technicians and Mechanics	\$25.43	\$23.96	\$49,830	160
49-3093	Tire Repairers and Changers	\$12.93	\$14.79	\$30,760	50
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$24.48	\$23.98	\$49,870	06
49-9041	Industrial Machinery Mechanics	\$25.54	\$26.07	\$54,220	30
49-9071	Maintenance and Repair Workers, General	\$18.06	\$19.33	\$40,200	280
49-9099	Installation, Maintenance, and Repair Workers, All Other	\$27.48	\$23.38	\$48,620	40

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Installation, Maintenance, and Repair Occupations (NAICS 49-0000)

the Carson City Metropolitan Statistical Area was an estimated 280 total individuals, accounting for an estimated 26.9 percent of the 1,040 total individuals employed in the Installation, Maintenance, and Repair Occupation sector for just the Carson City Metropolitan Statistical Area in May 2020.

For Technicians and Utility Personnel, three individual detailed occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in this employment category for the Carson City Metropolitan Statistical Area in May 2020. These three individual detailed occupation sectors included Tire Repairers and Changers (NAICS 49-3093), Maintenance and Repair Workers, General (NAICS 49-9071), and Installation, Maintenance, and Repair Workers, All Other (NAICS 49-9099). The estimated average hourly median wage for May 2020 for each of these three individual detailed occupation sectors was an estimated \$19.49, the estimated average hourly mean wage for May 2020 was an estimated \$19.17, and the estimated annual mean wage earned for May 2020 for these three individual detailed occupation sectors was an estimated \$39,860. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for Technicians and Utility Personnel of \$19.49, \$19.17, and \$39,860 were each less than the hourly median wage, at \$22.44, the hourly mean wage, at \$23.14, and the annual mean wage earned, at \$48,430, for all Installation, Maintenance, and Repair Occupations for the Carson City Metropolitan Statistical Area in May 2020. Each of the three individual detailed occupation sectors used as a proxy for *Technicians and Utility Personnel* employed 370 total individuals, accounting for an estimated 35.6 percent of the 1,040 total individuals employed in the Installation, Maintenance, and Repair Occupations sector for the Carson City Metropolitan Statistical Area in May 2020.

Table 3.12 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for individual detailed occupation sectors in the Installation, Maintenance, and Repair Occupation sector (NAICS 49-0000) for the entire state of Nevada in May 2020. Those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Mechanics* employment category and those individual detailed industry sectors highlighted in ORANGE are used to approximate the *Technicians and Utility Personnel* employment category.

For the entire state of Nevada in May 2020, 11 individual detailed occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in the *Mechanics* employment category. The estimated average hourly median wage for May 2020 for these 11 individual detailed occupation sectors for May 2020 for the entire state of Nevada was an estimated \$24.93, the estimated hourly mean wage was an estimated \$25.32, and the estimated annual mean wage earned was an estimated \$52,667. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for these 11 individual detailed occupations sectors in May 2020, acting as a proxy for *Mechanics*, was greater than the hourly median wage, at \$22.44, but less than the hourly mean wage, at \$25.80, and less than annual mean wage earned, at \$53,650, for all Installation, Maintenance, and Repair Occupations for the entire state of Nevada in May 2020. For all 11 individual detailed occupation sectors used to approximate total employment in the *Mechanics* employment category for the state of Nevada, the *Mechanics* employment sector employed

yed	Total Employed May 2020	49,350	4,060	1,140	110	068	270	170	40	420	06	N/A	640	1,420	1,160	280	4,160	1,610	06	2,130	80	140	160	30
ed, Total Emplo nel 00)	Annual Mean Wage Earned May 2020	\$53,650	\$74,480	\$47,400	\$59,280	\$56,740	\$68,480	\$40,260	\$82,390	\$64,730	\$94,690	\$36,180	\$58,860	\$84,570	\$46,580	\$35,110	\$47,270	\$56,430	\$51,210	\$65,990	\$43,890	\$53,920	\$38,550	\$33,050
an Wage Earne Utility Personr , NAICS 49-000	Hourly Mean Wage May 2020	\$25.80	\$35.81	\$22.79	\$28.50	\$27.28	\$32.92	\$19.36	\$39.61	\$31.12	\$45.52	\$17.40	\$28.30	\$40.66	\$22.40	\$16.88	\$22.72	\$27.13	\$24.62	\$31.72	\$21.10	\$25.92	\$18.53	\$15.89
ge, Annual Mes), Technicians, ir Occupations vada	Hourly Median Wage May 2020	\$24.48	\$34.53	\$18.91	\$26.69	\$25.81	\$31.75	\$18.14	\$39.91	\$32.02	\$46.07	\$15.99	\$28.12	\$40.39	\$20.65	\$16.42	\$21.82	\$25.68	\$24.60	\$32.35	\$20.67	\$27.37	\$17.69	\$15.71
Table 3.12 – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Mechanics (Licensed and Unlicensed), Technicians, Utility Personnel (Installation, Maintenance, and Repair Occupations, NAICS 49-0000)  State of Nevada May 2020	Major Occupation Sector	Installation, Maintenance, and Repair Occupations	First-Line Supervisors of Mechanics, Installers, and Repairers	Computer, Automated Teller, and Office Machine Repairers	Radio, Cellular, and Tower Equipment Installers and Repairers	Telecommunications Equipment Installers and Repairers, Except	Avionics Technicians	Electric Motor, Power Tool, and Related Repairers	Electrical and Electronics Installers and Repairers, Transportation Equipment	Electrical and Electronics Repairers, Commercial and Industrial Equipment	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	Audiovisual Equipment Installers and Repairers	Security and Fire Alarm Systems Installers	Aircraft Mechanics and Service Technicians	Automotive Body and Related Repairers	Automotive Glass Installers and Repairers	Automotive Service Technicians and Mechanics	Bus and Truck Mechanics and Diesel Engine Specialists	Farm Equipment Mechanics and Service Technicians	Mobile Heavy Equipment Mechanics, Except Engines	Motorboat Mechanics and Service Technicians	Motorcycle Mechanics	Outdoor Power Equipment and Other Small Engine Mechanics	Bicycle
	NAICS Code	49-0000	49-1011	49-2011	49-2021	49-2022	49-2091	49-2092	49-2093	49-2094	49-2095	49-2097	49-2098	49-3011	49-3021	49-3022	49-3023	49-3031	49-3041	49-3042	49-3051	49-3052	49-3053	49-3091

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Installation, Maintenance, and Repair Occupations (NAICS 49-0000)

<b>Employed</b>	Total Employed May 2020	49,350	280	1,290	280	180	3,000	200	2,360	370	N/A	1,080	1,270	290	110	13,870	1,280	200	290	1,060	1,830
arned, Total F nel 00)	Annual Mean Wage Earned May 2020	\$53,650	\$50,610	\$31,440	\$51,940	\$59,130	\$55,820	\$40,760	\$58,750	\$57,950	\$64,100	\$69,280	\$43,450	\$55,180	\$81,980	\$47,990	\$43,210	\$53,330	\$50,660	\$38,820	\$49,500
Mean Wage E Utility Person , NAICS 49-00	Hourly Mean Wage May 2020	\$25.80	\$24.33	\$15.12	\$24.97	\$28.43	\$26.84	\$19.60	\$28.25	\$27.86	\$30.82	\$33.31	\$20.89	\$26.53	\$39.41	\$23.07	\$20.78	\$25.64	\$24.36	\$18.66	\$23.80
Wage, Annual), Technicians, ir Occupations evada	Hourly Median Wage May 2020	\$24.48	\$24.00	\$14.36	\$24.35	\$30.11	\$26.61	\$18.41	\$27.86	\$26.54	\$28.86	\$29.23	\$18.29	\$24.82	\$35.98	\$21.90	\$19.56	\$25.17	\$18.83	\$17.83	\$23.43
Table 3.12 Cont'd – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Mechanics (Licensed and Unlicensed), Technicians, Utility Personnel (Installation, Maintenance, and Repair Occupations, NAICS 49-0000)  State of Nevada May 2020	Major Occupation Sector	Installation, Maintenance, and Repair Occupations	Recreational Vehicle Service Technicians	Tire Repairers and Changers	Mechanical Door Repairers	Control and Valve Installers and Repairers, Except Mechanical Door	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Home Appliance Repairers	Industrial Machinery Mechanics	Maintenance Workers, Machinery	Millwrights	Electrical Power-Line Installers and Repairers	Telecommunications Line Installers and Repairers	Medical Equipment Repairers	Precision Instrument and Equipment Repairers, All Other	Maintenance and Repair Workers, General	Coin, Vending, and Amusement Machine Servicers and Repairers	Locksmiths and Safe Repairers	Riggers	HelpersInstallation, Maintenance, and Repair Workers	Installation, Maintenance, and Repair Workers, All Other
Tab	NAICS Code	49-0000	49-3092	49-3093	49-9011	49-9012	49-9021	49-9031	49-9041	49-9043	49-9044	49-9051	49-9052	49-9062	49-9069	49-9071	49-9091	49-9094	49-9096	49-9098	49-9099

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Installation, Maintenance, and Repair Occupations (NAICS 49-0000) 14,230 total individuals, accounting for 28.8 percent of the 49,350 total individuals employed in the Installation, Maintenance, and Repair Occupation sector for the entire state of Nevada in May 2020.

For *Technicians and Utility Personnel*, 27 individual detailed occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in this employment category for the entire state of Nevada in May 2020. The estimated average hourly median wage for May 2020 for all 27 of these individual detailed occupation sectors was an estimated \$24.97, the estimated hourly mean wage was an estimated \$26.34, and the estimated annual mean wage earned was an estimated \$54,780. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for all 27 individual detailed occupation sectors used as a proxy for *Technicians and Utility Personnel* of \$24.97, \$26.34, and \$54,780 were each greater than the hourly median wage, of \$24.48, the hourly mean wage, of \$25.80, and the annual mean wage earned, at \$53,650, for all Installation, Maintenance, and Repair Occupations for the entire state of Nevada in May 2020. All 27 individual detailed occupation sectors used as a proxy for *Technicians and Utility Personnel* employed 29,580 total individuals, accounting for an estimated 59.9 percent of the 49,350 total individuals employed in the Installation, Maintenance, and Repair Occupation sector for the entire state of Nevada in May 2020.

Table 3.13 presents a summary of the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment for individual detailed occupation sectors in the Installation, Maintenance, and Repair Occupation sector (NAICS 49-0000) for the entire United States in May 2020. Those individual detailed occupation sectors highlighted in YELLOW are used to approximate the *Mechanics* employment category and those individual detailed industry sectors highlighted in ORANGE are used to approximate the *Technicians and Utility Personnel* employment category.

For the entire United States in May 2020, six individual broad occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in the *Mechanics*. The estimated average hourly median wage for May 2020 for these six individual broad occupation sectors was an estimated \$24.33, the estimated hourly mean wage was an estimated \$25.49, and the estimated annual mean wage earned was an estimated \$53,012. The estimated hourly median wage, the estimated hourly mean wage, and the estimated annual mean wage earned for *Mechanics* of \$24.33, \$25.49, and \$53,012 were each greater than the hourly median wage, at \$23.44, the hourly mean wage, at \$25.17, and the annual mean wage earned, at \$52,360, for all Installation, Maintenance, and Repair Occupations for the entire United States in May 2020. All six of the individuals broad occupation sectors used as a proxy for *Mechanics* employed 1,772,190 total individuals, accounting for an estimated 32.3 percent of the 5,486,930 total individuals employed in the Installation, Maintenance, and Repair Occupation sector for the entire United States in May 2020.

For *Technicians and Utility Personnel*, 11 individual broad occupation sectors were used to approximate the hourly median wage, the hourly mean wage, the annual mean wage earned, and total employment in this employment category for the entire United States in May 2020. The estimated average hourly median wage for May 2020 for all 11 individual broad occupation

	United States May 2020	ates 20			
NAICS Code	Major Occupation Sector	Hourly Median Wage May 2020	Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020	Total Employed May 2020
49-0000	Installation, Maintenance, and Repair Occupations	\$23.44	\$25.17	\$52,360	5,486,930
0007		000	100	000	1
49-1000	Supervisors of Installation, Maintenance, and Repair Workers First-Line Supervisors of Mechanics. Installers, and Repairers	\$33.77	\$35.14	\$73,100	475,000
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	\$33.77	\$35.14	\$73,100	475,000
49-2000	Electrical and Electronic Equipment Mechanics, Installers, and Repairers	\$26.59	\$27.60	\$57,400	526,000
49-2010	Computer, Automated Teller, and Office Machine Repairers	\$19.76	\$21.05	\$43,790	91,930
49-2020	Radio and Telecommunications Equipment Installers and Repairers	\$29.45	\$29.76	\$61,900	203,730
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	\$27.75	\$29.23	\$60,790	13,210
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	\$29.55	\$29.80	\$61,980	190,510
49-2090	Miscellaneous Electrical and Electronic Equipment Mechanics, Installers, and Repairers	\$27.29	\$28.29	\$58,850	230,350
49-2091	Avionics Technicians	\$32.61	\$33.26	\$69,180	21,390
49-2092	Electric Motor, Power Tool, and Related Repairers	\$22.40	\$23.68	\$49,250	15,380
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	\$33.75	\$33.87	\$70,440	10,390
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	\$29.81	\$30.46	\$63,350	55,200
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	\$41.03	\$39.98	\$83,150	23,070
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	\$19.02	\$19.83	\$41,250	10,230
49-2097	Audiovisual Equipment Installers and Repairers	\$19.93	\$21.57	\$44,850	25,760
49-2098	Security and Fire Alarm Systems Installers	\$24.49	\$25.07	\$52,150	68,920
49-3000	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	\$22.37	\$23.76	\$49,420	1,553,160
49-3010	Aircraft Mechanics and Service Technicians	\$31.94	\$33.19	\$69,040	128 300

Wage, Annual Mean Wage, Total Employed for All Installation, Maintenance, and Repair Occupations (NAICS 49-0000)

	Major Occupation Sector  Major Occupation Sector  Installation, Maintenance, and Repair Occupations  Automotive Technicians and Repairers Automotive Glass Installers and Repairers Automotive Glass Installers and Repairers Automotive Glass Installers and Mechanics Automotive Service Technicians and Mechanics Bus and Truck Mechanics and Diesel Engine Specialists Heavy Vehicle and Mobile Equipment Service Technicians Mobile Heavy Equipment Mechanics, Except Engines Rail Car Repairers  Motorboat Mechanics and Service Technicians Motorboat Mechanics and Mobile Equipment Mechanics Miscellaneous Vehicle and Mobile Equipment Mechanics Installers, and Repairers Bicycle Repairers Tire Repairers and Changers		Hourly Mean Wage May 2020 \$25.17 \$23.77 \$19.07 \$23.77 \$19.07 \$25.04 \$25.04 \$25.04 \$25.04 \$25.04 \$25.04 \$25.04 \$25.04 \$25.04 \$25.04 \$25.04 \$25.04 \$25.06 \$21.87 \$19.88 \$21.87 \$19.42 \$116.12 \$116.12 \$116.12 \$116.12	Annual Mean Wage Earned May 2020 \$52,360 \$47,060 \$49,430 \$39,660 \$46,760 \$45,350 \$55,110 \$55,100 \$55,1	Total  Employed  May 2020  5,486,930  5,486,930  137,120 137,120 18,490 620,110 253,010 205,720 147,680 205,720 147,680 20,440 13,490 11,290 11,290 11,290 11,290 11,290 98,560
		\$22.26	\$23.87	\$49,650	2,932,770
	Control and Valve Installers and Repairers, Except Mechanical Door	\$20.78	\$21.80	\$45,350	50,660
49-9020 Heatin	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$24.32	\$25.68	\$53,410	344,020

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Installation, Maintenance, and Repair Occupations (NAICS 49-0000)

NAICS         Major Occupation Sector         Hourty Mean         Annual Annual         Total Mean Wage         Annual Employed           49-0000         Installation, Maintenance, and Repair Cocupations         \$23,44         \$23,17         \$23,360         \$480,300           49-0000         Installation, Maintenance, and Repairers         \$20,00         \$21,06         \$48,3810         \$2,560           49-9043         Industrial Machinery Installation, Repair, and Maintenance         \$20,00         \$21,06         \$56,790         \$46,530           49-9044         Industrial Machinery Installation, Repair, and Maintenance         \$22,00         \$21,06         \$56,790         \$46,00           49-9044         Maintenance Workers, Machinery         \$25,66         \$27,30         \$56,790         \$46,530           49-9044         Mindustrial Machinery Machinery Machinery         \$25,68         \$22,49         \$56,790         \$46,00           49-9044         Mindustrial Repairers         \$25,68         \$22,49         \$56,79         \$40,00           49-9045         Refractory Macrinis Repairers         \$25,53         \$52,40         \$55,00         \$40,00           49-9045         Refractory Macrinis Repairers         \$28,00         \$22,40         \$27,40         \$24,00         \$20,00         \$45,00         <		Table 3.13 Cont'd – Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage Earned, Total Employed Mechanics (Licensed and Unlicensed), Technicians, Utility Personnel (Installation, Maintenance, and Repair Occupations, NAICS 49-0000)  United States	Wage, Annual), Technicians, ir Occupations ates	Mean Wage E. Utility Persons, NAICS 49-00	arned, Total El	nployed
Installation, Maintenance, and Repair Occupations   \$22,44   \$25,17   \$52,360     Home Appliance Repairs and Maintenance   \$20,00   \$21,06   \$54,3810     Industrial Machinery Mechanics   \$20,00   \$21,06   \$54,3810     Maintenance Workers, Machinery Mechanics   \$25,40   \$27,30   \$55,790     Maintenance Workers, Machinery Mechanics   \$25,68   \$27,53   \$55,790     Maintenance Workers, Machinery Beckensons   \$20,00   \$23,00   \$23,00     Refractory Materials Repairers, Except Brickmasons   \$26,25   \$28,40   \$55,000     Refractory Materials Repairers and Repairers   \$28,27   \$28,30   \$25,40   \$55,000     Electrical Power-Line Installers and Repairers   \$28,30   \$22,71   \$23,60   \$57,410     Telecommunications Line Installers and Repairers   \$28,30   \$29,74   \$51,800     Telecommunications Line Installers and Repairers   \$24,40   \$25,80   \$52,700     Telecommunications Line Installers and Repairers   \$24,40   \$25,80   \$52,700     Musical Instrument and Equipment Repairers   \$21,70   \$19,10   \$53,710     Watch and Clock Repairers   \$21,77   \$19,12   \$53,700     Musical Instrument Repairers and Tuners   \$21,77   \$19,12   \$53,700     Minitenance and Repair Workers, All Other   \$20,53   \$53,40   \$53,40     Minitenance and Repairers   \$21,00   \$21,00   \$21,00   \$21,00     Maintenance and Repairers   \$21,00   \$21,00   \$21,00   \$21,00     Repairers   Repairers   \$21,00	NAIC	Major Occupation Sector		Hourly Mean Wage May 2020	Annual Mean Wage Earned May 2020	Total Employed May 2020
Home Appliance Repairers	49-000		\$23.44	\$25.17	\$52,360	5,486,930
Industrial Machinery Installation, Repair, and Maintenance   \$26.40   \$27.30   \$56,790     Morkers   Workers   Workers   S26.68   \$27.57   \$57,350     Maintenance Workers, Machinery   \$26.68   \$27.53   \$28.40   \$51,960     Milwrights   Milwrights   \$26.68   \$27.53   \$28.40   \$51,960     Milwrights   Refractory Materials Repairers   \$26.25   \$26.48   \$55,080     Electrical Power-Line Installers and Repairers   \$35.07   \$35.77   \$51,860     Telecommunications Line Installers and Repairers   \$35.07   \$35.77   \$51,860     Precision Instrument and Equipment Repairers   \$35.07   \$35.78   \$52,390     Musical Instrument Repairers   \$24.81   \$26.49   \$53,800     Musical Instrument Repairers   \$24.81   \$26.49   \$53,800     Precision Instrument Repairers   \$17.70   \$19.12   \$59,770     Watch and Clock Repairers   \$17.70   \$19.12   \$59,770     Watch and Clock Repairers   \$19.64   \$21.35   \$42,740     Precision Instrument Repairers   \$10.00   \$20.55   \$43,790     Watch and Clock Repairers   \$10.00   \$20.23   \$43,490     Coin, Vending, and Amusement Machine Servicers and Repair Workers   \$18.80   \$20.23   \$43,490     Coin, Vending, and Amusement Machine Servicers and Repair Workers   \$16.89   \$17.48   \$36,240     Manufactured Building and Mobile Home Installers   \$16.89   \$17.48   \$36,240     Riggers   Riggers   \$20.00   \$10.00   \$20.23   \$45,200     Riggers   \$20.00   \$20.23   \$45,200     Riggers   \$20.00   \$20.45   \$25,500     Riggers   \$20.00   \$20.23   \$34,500     Riggers   \$20.00   \$20.45   \$25,500     Helpers-Installation, Maintenance, and Repair Workers   \$15.27   \$26,160     Installation, Maintenance, and Repair Workers   \$16.89   \$26,160     Installation, Maintenance, and Repair Workers   \$16.45   \$26,160     Riggers   \$20.42   \$26,160     Repairers   \$20.42   \$26,160     Repairers   \$26,00   \$26,160     Repairers   \$26,00   \$26,160     Repairers   \$26,00   \$26,00     Repairers   \$26,00	49-903		\$20.00	\$21.06	\$43.810	27.640
Industrial Machinery Mechanics   \$26.68   \$27.57   \$57,350     Maintenance Workers, Machinery   \$54.08   \$51,960     Maintenance Workers, Machinery   \$54.08   \$51,960     Materials Repairers, Except Brickmasons   \$52.05   \$52.40   \$55,080     Electrical Power-Line Installers and Repairers   \$53.71   \$52.46   \$57,940     Electrical Power-Line Installers and Repairers   \$53.71   \$53.607   \$53.78   \$57,940     Electrical Power-Line Installers and Repairers   \$53.607   \$535.78   \$57,940     Telecommunications Line Installers and Repairers   \$53.40   \$55,090     Precision Instrument and Equipment Repairers   \$54.40   \$52.40   \$55,090     Musical Instrument Repairers and Tuners   \$19.39   \$20.55   \$42,740     Musical Instrument Repairers and Tuners   \$17.70   \$19.12   \$55,090     Musical Instrument Repairers and Tuners   \$17.70   \$19.12   \$55,090     Musical Instrument Repairers and Tuners   \$17.70   \$19.12   \$53,000     Musical Instrument Repairers   \$19.64   \$52.05   \$55,000     Musical Instrument and Equipment Repairers   \$19.64   \$52.05   \$55,000     Musical Instrument and Repairers   \$19.64   \$52.05   \$53,000     Musical Instrument and Repairers   \$18.80   \$20.53   \$53,000     Musical Instrument and Repairers   \$18.80   \$20.91   \$53,000     Musical Instrument and Repairers   \$18.80   \$22.23   \$54,240     Coim, Vending, and Amusement Machine Servicers and Repair Workers   \$16.89   \$17.48   \$53,000     Riggers   Commercial Divers   \$16.89   \$17.48   \$15,270     Riggers   \$16.89   \$16.89   \$17.48   \$15,000     Signal and Track Switch Repairers   \$16.80   \$16.33   \$15,370     Helpers-Installation, Maintenance, and Repair Workers, All Other   \$20.42   \$22.19   \$46,160     Installation, Maintenance, and Repair Workers, All Other   \$20.42   \$22.19   \$46,160     Repairers   \$16.89   \$16.89   \$16.80   \$16.80     Repairers   \$16.80   \$16.80   \$16.80   \$16.80     Repairers   \$16.80   \$16.80   \$16.80   \$16.80     Repairers   \$16.80   \$16.80   \$16.80     Repairers   \$16.80   \$16.80   \$16.80     Repairers   \$16.80   \$16.80	49-904		\$26.40	\$27.30	\$56,790	496,380
Maintenance Workers, Machinery         \$24,08         \$24,98         \$51,960           Refractory Materials Repairers         \$27,53         \$28,40         \$50,080           Refractory Materials Repairers, Except Brickmasons         \$26,26         \$50,080         \$55,080           Line Installers and Repairers         \$32,11         \$32,66         \$67,340         \$55,080           Electrical Power-Line Installers and Repairers         \$36,07         \$32,40         \$55,080         \$67,400           Telecommunications Line Installers and Repairers         \$28,30         \$29,74         \$61,860         \$67,40           Camera and Photographic Equipment Repairers         \$28,30         \$29,74         \$61,860         \$61,860           Musical Instrument and Equipment Repairers         \$19,39         \$20,55         \$42,740         \$55,000           Precision Instrument and Clock Repairers         \$11,77         \$23,35         \$48,560         \$48,560           Precision Instrument and Clock Repairers         \$11,77         \$23,35         \$48,560         \$48,560           Precision Instrument and Equipment Repairers, All Other         \$20,53         \$50,53         \$50,40         \$52,340           Maintenance and Repair Workers, General         \$18,64         \$21,05         \$43,40         \$26,53	49-904		\$26.68	\$27.57	\$57,350	385,980
Refractory Materials Repairers	49-904.		\$24.08	\$24.98	\$51,960	65,240
Refractory Materials Repairers	49-904		\$27.53	\$28.40	\$59,080	44,400
Electrical Power-Line Installers and Repairers	49-904.		\$26.26	\$26.48	\$55,080	160
Electrical Power-Line Installers and Repairers	49-905		\$32.71	\$32.66	\$67,940	237,420
Telecommunications Line Installers and Repairers   \$28.30   \$59.74   \$61,860     Precision Instrument and Equipment Repairers   \$19.39   \$20.55   \$42,740     Camera and Photographic Equipment Repairers   \$19.39   \$20.55   \$42,740     Musical Instrument Repairers and Tuners   \$17.70   \$19.12   \$55,000     Musical Instrument Repairers and Tuners   \$24.81   \$23.35   \$48,560     Precision Instrument and Equipment Repairers, All Other   \$29.53   \$30.05   \$62,500     Maintenance and Repair Workers, General   \$19.64   \$21.05   \$56,200     Miscellaneous Installation, Maintenance, and Repair Workers and Repair Workers and Repair Workers and Repair Repairers   \$18.07   \$19.09   \$39,710     Coin, Vending, and Amusement Machine Servicers and Repairers   \$26.35   \$56,340     Coin, Vending and Amusement Machine Servicers and Repairers   \$16.89   \$17.48   \$53,300     Manufactured Building and Mobile Home Installers   \$24.45   \$25.49   \$53,020     Signal and Track Switch Repairers   \$16.89   \$17.48   \$53,020     Signal and Track Switch Repairers   \$16.87   \$16.33   \$55,970     Helpers-Installation, Maintenance, and Repair Workers   \$15.27   \$16.33   \$52,19   \$46,160     Installation, Maintenance, and Repair Workers   \$20.42   \$22.19   \$54,160     Installation, Maintenance, and Repair Workers   \$10.042   \$22.19   \$16.00     Precision Installation, Maintenance, and Repair Workers   \$10.00   \$22.19   \$16.00     Precision Installation, Maintenance, and Repair Workers   \$10.00   \$22.19   \$16.30     Precision Installation, Maintenance, and Repair Workers   \$10.00   \$22.19   \$16.00     Precision Installation, Maintenance, and Repair Workers   \$10.00   \$22.10     Precision Installation, Maintenance, and Repair Workers   \$10.00   \$22.10     Precision Installation, Maintenance, and Repair Workers   \$20	49-905	Electrical Power-Line	\$36.07	\$35.78	\$74,410	114,930
Precision Instrument and Equipment Repairers         \$24.40         \$25.88         \$53.830           Camera and Photographic Equipment Repairers         \$19.39         \$20.55         \$42,740           Musical Equipment Repairers         \$19.39         \$20.55         \$42,740           Musical Instrument Repairers and Tuners         \$17.70         \$19.12         \$39,770           Watch and Clock Repairers         \$21.77         \$23.35         \$845,500           Precision Instrument and Equipment Repairers, All Other         \$29,53         \$50.05         \$62,500           Maintenance and Repair Workers, General         \$19,64         \$21.05         \$43,790         1           Wind Turbine Service Technicians         \$18.80         \$20.91         \$43,490         \$40,10           Coin, Vending, and Amusement Machine Servicers and Repair workers         \$18.80         \$20.91         \$43,490           Coin, Vending, and Amusement Machine Servicers and Commercial Divers         \$26.35         \$34,54         \$11,850           Locksmiths and Safe Repairers         \$20.00         \$22.23         \$46,240           Manufactured Building and Mobile Home Installers         \$16.89         \$17.48         \$36,300           Riggers         \$20.45         \$26.53         \$75,970           Repairers Asylich Repairers<	49-905.		\$28.30	\$29.74	\$61,860	122,480
Camera and Photographic Equipment Repairers         \$19.39         \$20.55         \$42,740           Medical Equipment Repairers         \$24.81         \$26.49         \$55,090           Musical Instrument Repairers and Tuners         \$17.70         \$19.12         \$39,770           Precision Instrument Repairers, All Other         \$29.53         \$30.05         \$62,500           Maintenance and Repair Workers, General         \$19.64         \$21.05         \$43,790         1           Wind Turbine Service Technicians         \$27.03         \$28.53         \$59,340         1           Miscellaneous Installation, Maintenance, and Repair Workers         \$18.80         \$20.91         \$43,490         1           Coin, Vending, and Amusement Machine Servicers and Repairers         \$18.07         \$19.09         \$39,710         1           Coin, Vending, and Amusement Machine Servicers and Repairers         \$26.35         \$34.54         \$71,850         1           Manufactured Building and Mobile Home Installers         \$16.89         \$17.48         \$36,360         1           Riggers         Signal and Track Switch Repairers         \$15.27         \$14.45         \$15.97           Release-Installation, Maintenance, and Repair Workers         \$15.27         \$16.89         \$17.48         \$17.40           Hostalla	49-906		\$24.40	\$25.88	\$53,830	71,430
Medical Equipment Repairers         \$24.81         \$26.49         \$55,090           Musical Instrument Repairers and Tuners         \$17.70         \$19.12         \$39,770           Precision Instrument and Equipment Repairers, All Other         \$21.77         \$23.35         \$48,560           Maintenance and Repair Workers, General         \$29.53         \$30.05         \$62,500           Wind Turbine Service Technicians         \$20.53         \$30.05         \$43,790         1           Wind Turbine Service Technicians         \$18.80         \$20.91         \$43,490         1           Coin, Vending, and Amusement Machine Servicers and Repair Workers         \$18.07         \$19.09         \$39,710           Repairers         Commercial Divers         \$26.35         \$34.54         \$37,105           Locksmiths and Safe Repairers         \$16.89         \$17.48         \$35,200           Riggers         \$22.23         \$36,360         \$35,020           Riggers         \$36.54         \$36,360         \$35,020           Riggers         \$36.54         \$35,020         \$33,960           Repairers—Installation, Maintenance, and Repair Workers, All Other         \$20.42         \$22.19         \$46,160           Installation, Saintenance, and Repair Workers, All Other         \$20.42         \$22.1	49-906		\$19.39	\$20.55	\$42,740	3,320
Musical Instrument Repairers and Tuners         \$17.70         \$19.12         \$39,770           Watch and Clock Repairers         \$21.77         \$23.35         \$48,560           Precision Instrument and Equipment Repairers, All Other         \$29.53         \$30.05         \$62,500           Maintenance and Repair Workers, General         \$19.64         \$21.05         \$43,790         1           Wind Turbine Service Technicians         \$10.09         \$20.91         \$43,490         1           Miscellaneous Installation, Maintenance, and Repair Workers         \$18.07         \$19.09         \$39,710           Coin, Vending, and Amusement Machine Servicers and Repairers         \$26.35         \$34,240         \$39,710           Repairers         \$20.01         \$10.09         \$39,710         \$30,710         \$30,710           Repairers         \$26.35         \$22.23         \$46,240         \$30,710         \$30,710           Manufactured Building and Mobile Home Installers         \$16.89         \$17.48         \$35,300         \$35,000           Riggers         Signal and Track Switch Repairers         \$25.49         \$53,020         \$10,00         \$10,00         \$25.49         \$25,970           Helpers-Installation, Maintenance, and Repair Workers, All Other         \$20.42         \$22.19         \$46,160	49-906	Medical Equip	\$24.81	\$26.49	\$55,090	48,510
Watch and Clock Repairers         \$21.77         \$23.35         \$48,560           Precision Instrument and Equipment Repairers, All Other         \$29.53         \$30.05         \$62,500           Maintenance and Repair Workers, General         \$19,64         \$21.05         \$43,790         1           Miscellaneous Installation, Maintenance, and Repair Workers         \$18.80         \$20.91         \$43,490         1           Coin, Vending, and Amusement Machine Servicers and Repairers         \$18.07         \$19.09         \$39,710         1           Coin, Vending, and Amusement Machine Servicers and Repairers         \$26.35         \$34.54         \$71,850         1           Coin, Vending, and Amusement Machine Servicers and Repairers         \$26.35         \$34.54         \$71,850         1           Manufactured Building and Mobile Home Installers         \$16.89         \$17.48         \$36,300         1           Riggers         \$24.45         \$25.49         \$53,300         1           Signal and Track Switch Repairers         \$15.27         \$16.33         \$33,960           HelpersInstallation, Maintenance, and Repair Workers         \$16.33         \$46,160         1           Installation, Maintenance, and Repair Workers, All Other         \$20.42         \$22.19         \$46,160	49-906.	Musical Instrument	\$17.70	\$19.12	\$39,770	7,070
Precision Instrument and Equipment Repairers, All Other         \$29.53         \$30.05         \$62,500           Maintenance and Repair Workers, General         \$19.64         \$21.05         \$43,790         1           Miscellaneous Installation, Maintenance, and Repair Workers         \$18.80         \$20.91         \$43,490         1           Coin, Vending, and Amusement Machine Servicers and Repairers         \$18.07         \$19.09         \$39,710         \$43,490           Repairers         Commercial Divers         \$26.35         \$34.54         \$71,850         2           Manufactured Building and Mobile Home Installers         \$16.89         \$17.48         \$36,360         2           Riggers         \$36.54         \$35,300         \$53,00         \$53,00         2           Right and Track Switch Repairers         \$36.54         \$36.53         \$57,970         \$50.72         \$16.33         \$33,960           HelpersInstallation, Maintenance, and Repair Workers, All Other         \$20.42         \$22.19         \$46,160         \$46,160	49-906		\$21.77	\$23.35	\$48,560	2,430
Maintenance and Repair Workers, General         \$19.64         \$21.05         \$43,790         1           Miscellaneous Installation, Maintenance, and Repair Workers         \$18.80         \$20.91         \$43,490         1           Coin, Vending, and Amusement Machine Servicers and Repairers         \$18.07         \$19.09         \$39,710         \$39,710           Coin, Vending, and Amusement Machine Servicers and Repairers         \$26.35         \$34.54         \$71,850         \$36,240           Manufactured Building and Mobile Home Installers         \$16.89         \$17.48         \$36,360         \$36,360           Riggers         Riggers         \$36.445         \$25.49         \$53,020         \$75,970           Helpers-Installation, Maintenance, and Repair Workers         \$15.27         \$16.33         \$36,160           Installation, Maintenance, and Repair Workers, All Other         \$20.42         \$22.19         \$46,160	49-906		\$29.53	\$30.05	\$62,500	10,100
Wind Turbine Service Technicians         \$27.03         \$28.53         \$59,340           Miscellaneous Installation, Maintenance, and Repair Workers         \$18.07         \$19.09         \$39,710           Coin, Vending, and Amusement Machine Servicers and Repairers         \$26.35         \$34.54         \$39,710           Repairers         \$26.35         \$34.54         \$71,850           Manufactured Building and Mobile Home Installers         \$16.89         \$17.48         \$36,360           Riggers         \$24.45         \$25.49         \$53,020           Riggers         \$36.64         \$36.53         \$75,970           HelpersInstallation, Maintenance, and Repair Workers         \$15.27         \$16.33         \$46,160           Installation, Maintenance, and Repair Workers, All Other         \$20.42         \$22.19         \$46,160	49-907		\$19.64	\$21.05	\$43,790	1,357,630
Miscellaneous Installation, Maintenance, and Repair Workers         \$18.80         \$20.91         \$43,490           Coin, Vending, and Amusement Machine Servicers and Repairers         \$18.07         \$19.09         \$39,710           Repairers         \$26.35         \$34.54         \$71,850           Commercial Divers         \$26.35         \$34.54         \$71,850           Manufactured Building and Mobile Home Installers         \$16.89         \$17.48         \$36,360           Riggers         \$24.45         \$25.49         \$53,020           Signal and Track Switch Repairers         \$36.64         \$36.53         \$75,970           HelpersInstallation, Maintenance, and Repair Workers, All Other         \$20.42         \$46,160	49-908	,	\$27.03	\$28.53	\$59,340	5,860
Coin, Vending, and Amusement Machine Servicers and Repairers         \$18.07         \$19.09         \$39,710           Repairers         \$26.35         \$34.54         \$71,850           Commercial Divers         \$21.00         \$22.23         \$46,240           Manufactured Building and Mobile Home Installers         \$16.89         \$17.48         \$36,360           Riggers         \$24.45         \$25.49         \$53,020           Signal and Track Switch Repairers         \$36.64         \$36.53         \$75,970           Helpers-Installation, Maintenance, and Repair Workers, All Other         \$20.42         \$21.33         \$33,960           Installation, Maintenance, and Repair Workers, All Other         \$20.42         \$22.19         \$46,160	49-909		\$18.80	\$20.91	\$43,490	319,050
Reparters         \$26.35         \$34.54         \$71,850           Commercial Divers         \$21.00         \$22.23         \$46,240           Manufactured Building and Mobile Home Installers         \$16.89         \$17.48         \$36,360           Riggers         \$24.45         \$25.49         \$53,020           Signal and Track Switch Repairers         \$36.64         \$36.53         \$75,970           Helpers-Installation, Maintenance, and Repair Workers         \$15.27         \$16.33         \$33,960           Installation, Maintenance, and Repair Workers, All Other         \$20.42         \$22.19         \$46,160	49-909		\$18.07	\$19.09	\$39,710	25,080
Locksmiths and Safe Repairers         \$21.00         \$22.23         \$46,240           Manufactured Building and Mobile Home Installers         \$16.89         \$17.48         \$36,360           Riggers         \$24.45         \$25.49         \$53,020           Signal and Track Switch Repairers         \$36.64         \$36.53         \$75,970           Helpers-Installation, Maintenance, and Repair Workers, All Other         \$20.42         \$16.33         \$33,960           Installation, Maintenance, and Repair Workers, All Other         \$20.42         \$21.19         \$46,160	49-906		\$26.35	\$34.54	\$71.850	3.460
Manufactured Building and Mobile Home Installers         \$16.89         \$17.48         \$36,360           Riggers         \$24.45         \$25.49         \$53,020           Signal and Track Switch Repairers         \$36.64         \$36.53         \$75,970           HelpersInstallation, Maintenance, and Repair Workers, All Other         \$20.42         \$16.33         \$33,960           Installation, Maintenance, and Repair Workers, All Other         \$20.42         \$22.19         \$46,160	49-909		\$21.00	\$22.23	\$46,240	16.180
Riggers         \$24.45         \$25.49         \$53,020           Signal and Track Switch Repairers         \$36.64         \$36.53         \$75,970           HelpersInstallation, Maintenance, and Repair Workers, All Other         \$20.42         \$16.33         \$33,960	49-909.		\$16.89	\$17.48	\$36,360	2,900
Signal and Track Switch Repairers\$36.64\$36.53\$75,970HelpersInstallation, Maintenance, and Repair Workers, All Other\$15.27\$16.33\$33,960	49-909		\$24.45	\$25.49	\$53,020	21,700
HelpersInstallation, Maintenance, and Repair Workers \$15.27 \$16.33 \$33,960 Installation, Maintenance, and Repair Workers, All Other \$20.42 \$22.19 \$46,160	49-909	Signal and Track	\$36.64	\$36.53	\$75,970	7,250
Installation, Maintenance, and Repair Workers, All Other \$20.42 \$22.19 \$46,160	49-909.		\$15.27	\$16.33	\$33,960	91,430
	49-909		\$20.42	\$22.19	\$46,160	151,050

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Installation, Maintenance, and Repair Occupations (NAICS 49-0000) sectors was an estimated \$23.67, the estimated average hourly mean wage was an estimated \$24.78, and the estimated annual mean wage earned was an estimated \$51,539. The estimated hourly median wage, of \$23.67, for the 11 individual broad occupation sectors used as a proxy for *Technicians and Utility Personnel* was slightly greater than the hourly median wage, of \$23.44, for all Installation, Maintenance, and Repair Occupations for the entire United States in May 2020. However, the estimated hourly mean wage, of \$24.78, and the estimated annual mean wage earned, of \$51,539, for the 11 individual broad occupation sectors used as a proxy for *Technicians and Utility Personnel* were each less than the hourly mean wage, of \$25.17, and the annual mean wage earned, of \$52,360, for all Installation, Maintenance, and Repair Occupations for the entire United States in May 2020. The 11 individual broad occupation sectors used as a proxy for *Technicians and Utility Personnel* employed 3,166,410 total individuals, accounting for an estimated 57.7 percent of the 5,486,930 total individuals employed in the Installation, Maintenance, and Repair Occupation sector for the entire United States in May 2020.

# 4.0 Analysis: Projected Future Hourly Median Wage, Hourly Mean Wage, and Annual Mean Wages Earned by Sector

This section presents a detailed analysis of projected estimates of hourly median wage, hourly mean wage, and annual mean wages earned for All Occupations (NAICS 00-0000), the Office and Administrative Support Occupations sector (NAICS 43-0000), the Installation, Maintenance, and Repair Occupation sector (NAICS 49-0000), and the Transportation and Material Moving Occupation sector (NAICS 53-0000). The projected future values of hourly median wage, hourly mean wage, and annual mean wages earned for All Occupations and each of the three major employment occupation sectors presented in this section for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, for the state of Nevada, and for the entire United States are based on the estimated annual average percentage change for each wage category for the May 2016 to May 2020 period.

### 4.1 Projected Future Hourly Median Wage, Hourly Mean Wage, and Annual Mean Wages Earned for All Occupations (NAICS 00-0000)

Table 4.1 presents the projected value for hourly median wage for All Occupations (NAICS 00-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

Between May 2016 and May 2020, the hourly median wage for All Occupations for the Reno-Sparks Metropolitan Statistical Area increased by an annual average percentage change of 3.4 percent and increased by an annual average percentage change of 3.5 percent for the Carson City Metropolitan Statistical Area. Statewide, the hourly median wage for All Occupations for the entire state of Nevada increased by an annual average percentage change of 2.8 percent and increased by an annual average percentage change of 3.2 percent for the entire United States between May 2016 and May 2020.

For the Reno-Sparks Metropolitan Statistical Area and based on the annual average percentage change of 3.4 percent between May 2016 and May 2020, the projected hourly median wage for All Occupations is expected to increase to an estimated \$19.78 in 2021 and to an estimated \$20.45 in 2022. Both estimates for 2021 and 2022 are less than the projected hourly median wage of \$24.90 in 2021 and the projected hourly median wage of \$25.61 in 2022 for the entire state of Nevada and also less than the projected hourly median wage of \$20.81 in 2021 and the projected hourly median wage of \$21.47 in 2022 for the entire United States. The projected hourly median wage for All Occupations for the Carson City Metropolitan Statistical Area is an estimated \$22.18 for 2021 and an estimated \$22.97 for 2022. The projected hourly median wage for the Carson City Metropolitan Statistical Area in both 2021 and 2022 are each less than the

projected hourly median wage for the entire state of Nevada for both 2021 and 2022 but greater than the projected hourly median wage for the entire United States for both 2021 and 2022.

	Tabl	e 4.1 – 202			•		age	
	Reno-Sna	Al rks MSA,	-	ions (NAI)			ed States	
Year	Reno-	Percent	Carson	Percent	State of	Percent	United	Percent
	Sparks MSA	Change	City MSA	Change	Nevada	Change	States	Change
2016	\$16.78	-	\$18.64	-	\$16.59	-	\$17.81	-
2017	\$17.09	1.8%	\$19.32	3.6%	\$16.79	1.2%	\$18.12	1.7%
2018	\$17.52	2.5%	\$20.19	4.5%	\$17.09	1.8%	\$18.58	2.5%
2019	\$17.97	2.6%	\$20.38	0.9%	\$17.51	2.5%	\$19.14	3.0%
2020	\$19.14	6.5%	\$21.42	5.1%	\$18.55	5.9%	\$20.17	5.4%
Annual Average	-	3.4%	-	3.5%	-	2.8%	-	3.2%
2021 Predicated Value	\$19.78	-	\$22.18	-	\$24.90	-	\$20.81	-
2022 Predicated Value	\$20.45	-	\$22.97	-	\$25.61	-	\$21.47	-

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2016 through May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage for All Occupations (NAICS 00-0000)

Table 4.2 presents the projected value for hourly mean wage for All Occupations (NAICS 00-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

Between May 2016 and May 2020, the hourly mean wage for All Occupations for the Reno-Sparks Metropolitan Statistical Area increased by an annual average percentage change of 3.3 percent and increased by an annual average percentage change of 3.4 percent for the Carson City Metropolitan Statistical Area. Statewide, the hourly mean wage for All Occupations for the entire state of Nevada increased by an annual average percentage change of 3.4 percent and increased by an annual average percentage change of 3.2 percent for the entire United States between May 2016 and May 2020.

Based on the annual average percentage change of 3.3 percent in the hourly mean wage for the Reno-Sparks Metropolitan Statistical Area between May 2016 and May 2020, the projected hourly mean wage for All Occupations for the Reno-Sparks Metropolitan Statistical Area is a projected \$25.57 for 2021 and a projected \$26.41 for 2022. Both projected hourly mean wage estimates of \$25.57 for 2021 and \$26.41 for 2022 for the Reno-Sparks Metropolitan Statistical Area are greater than the projected hourly mean wage estimates of \$25.04 for 2021 and \$25.90 for 2022 for the entire state of Nevada but less than the projected hourly mean wage estimates of \$27.94 for 2021 and \$28.84 for 2022 for the entire United States. For the Carson City

Metropolitan Statistical Area, the projected hourly mean wage, based on an estimated annual average percentage change of 3.4 percent between May 2016 and May 2020, the projected hourly mean wage for 2021 is an estimated \$26.96 and the projected mean wage for 2022 is an estimated \$27.89. Both projected hourly mean wage estimates for the Carson City Metropolitan Statistical Area are greater than the projected hourly mean wage estimates for the entire state of Nevada for both 2021 and 2022 but are less than the projected hourly mean wage estimates for the entire United States for both 2021 and 2022.

	Tab	ole 4.2 – 20			ed Hourly CS 00-000		ige	
	Reno-Spai	rks MSA,	-	`			ted States	
Year	Reno- Sparks	Percent Change	Carson City	Percent Change	State of Nevada	Percent Change	United States	Percent Change
2016	MSA \$21.74	-	<b>MSA</b> \$22.79	-	\$21.17	-	\$23.86	-
2017	\$22.28	2.5%	\$23.42	2.8%	\$21.65	2.3%	\$24.34	2.0%
2018	\$22.78	2.2%	\$24.44	4.4%	\$22.20	2.5%	\$24.98	2.6%
2019	\$23.30	2.3%	\$24.77	1.4%	\$22.70	2.3%	\$25.72	3.0%
2020	\$24.75	6.2%	\$26.07	5.2%	\$24.21	6.7%	\$27.07	5.2%
Annual Average	-	3.3%	-	3.4%	-	3.4%	-	3.2%
2021 Predicated Value	\$25.57	-	\$26.96	-	\$25.04	-	\$27.94	-
2022 Predicated Value	\$26.41	-	\$27.89	-	\$25.90	-	\$28.84	-

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2016 through May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage for All Occupations (NAICS 00-0000)

Table 4.3 presents the projected value for annual mean wages earned for All Occupations (NAICS 00-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

For the Reno-Sparks Metropolitan Statistical Area, the annual mean wage earned for All Occupations increased by an annual average percentage change of 3.3 percent and increased by an annual average percentage change of 3.4 percent for the Carson City Metropolitan Statistical Area between May 2016 and May 2020. Between May 2016 and May 2020, the annual mean wage earned for the entire state of Nevada for All Occupations increased by an annual average percentage change of 3.4 percent and increased by an annual average percentage change of 3.2 percent for the entire United States.

Based on the annual average percentage change in the annual mean wage earned for All Occupations for the Reno-Sparks Metropolitan Statistical Area of 3.3 percent between May 2016 and May 2020, the projected annual mean wage earned for the Reno-Sparks Metropolitan

Statistical Area is estimated to increase to \$53,199 in 2021 and is estimated to increase to \$54,965 in 2022. Both projected annual mean wage earned estimates for the Reno-Sparks Metropolitan Statistical Area are greater than the projected annual mean wage earned estimated for the entire state of Nevada of \$52,088 for 2021 and \$53,876 for 2022 but less than the projected annual mean wage earned estimated for the entire United States of \$58,120 for 2021 and \$59,989 for 2022. For the Carson City Metropolitan Statistical Area, the projected annual mean wage earned for All Occupations is estimated to increase to \$56,089 in 2021 and is estimated to increase to \$58,012 in 2022. Both projected annual mean wage earned estimates for the Carson City Metropolitan Statistical Area are greater than the projected annual mean wage earned estimates for the entire state of Nevada in both 2021 and 2022 but less than the projected annual mean wage earned estimates for the entire United States in both 2021 and 2022.

			l Occupati	ions (NAI	CS 00-000	0)		
	Reno-Spai	rks MSA,	Carson Ci	ty MSA, S	tate of Ne	vada, Unit	ted States	
Year	Reno- Sparks	Percent Change	Carson City	Percent Change	State of Nevada	Percent Change	United States	Percent Change
	MSA	Change	MSA	Change	1 (C vada	Change	States	Change
2016	\$45,210	-	\$47,410	-	\$44,030	-	\$49,630	-
2017	\$46,330	2.5%	\$48,710	2.7%	\$45,040	2.3%	\$50,620	2.0%
2018	\$47,380	2.3%	\$50,840	4.4%	\$46,170	2.5%	\$51,960	2.6%
2019	\$48,460	2.3%	\$51,530	1.4%	\$47,210	2.3%	\$53,490	2.9%
2020	\$51,490	6.3%	\$54,230	5.2%	\$50,360	6.7%	\$56,310	5.3%
Annual Average	-	3.3%	-	3.4%	-	3.4%	-	3.2%
2021 Predicated	\$53,199	-	\$56,089	-	\$52,088	-	\$58,120	-
Value								
2022 Predicated Value	\$54,965	-	\$58,012	-	\$53,876	-	\$59,989	-

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2016 through May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage for All Occupations (NAICS 00-0000)

## 4.2 Projected Future Hourly Median Wage, Hourly Mean Wage, and Annual Mean Wages Earned for Office and Administrative Support Occupations (NAICS 43-0000)

Individual detailed occupation sectors in the Office and Administrative Support Occupations sector (NAICS 43-0000) were used to estimate the hourly median wage, hourly mean wage, and annual mean wages earned for *Dispatchers* and for *Reservationists and Call-Takers*. Projected future hourly median wage, projected hourly mean wage, and projected annual mean wages earned for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan

Statistical Area, the entire state of Nevada, and for the entire United States for the Office and Administrative Support Occupations sector for 2021 and 2022 are presented in this sub-section.

Table 4.4 presents the projected value for hourly median wage for the Office and Administrative Support Occupations sector (NAICS 43-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

	Office an	e 4.4 – 202 nd Admini rks MSA,	istrative S	upport Oc	cupations	(NAICS 4	3-0000)	
Year	Reno- Sparks	Percent Change	Carson City	Percent Change	State of Nevada	Percent Change	United States	Percent Change
	MSA	Change	MSA	Change	incraua	Change	States	Change
2016	\$16.43	-	\$16.85	-	\$16.26	-	\$16.37	-
2017	\$16.79	2.2%	\$17.55	4.2%	\$16.47	1.3%	\$16.70	2.0%
2018	\$17.24	2.7%	\$18.03	2.7%	\$16.72	1.5%	\$17.19	2.9%
2019	\$17.90	3.8%	\$18.66	3.5%	\$17.29	3.4%	\$18.07	5.1%
2020	\$18.57	3.7%	\$19.11	2.4%	\$17.78	2.8%	\$18.62	3.0%
Annual Average	-	3.1%	-	3.2%	-	2.3%	-	3.3%
2021 Predicated Value	\$19.15	-	\$19.72	-	\$18.18	-	\$19.23	-
2022 Predicated Value	\$19.74	-	\$20.35	-	\$18.59	-	\$19.86	-

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2016 through May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Office and Administrative Support Occupations (NAICS 43-0000)

Between May 2016 and May 2020, the hourly median wage for the Office and Administrative Support Occupations sector increased by an annual average percentage change of 3.1 percent and increased by an annual average percentage change of 3.2 percent for the Carson City Metropolitan Statistical Area. Statewide, the hourly median wage for the Office and Administrative Support Occupations sector for the entire state of Nevada increased by an annual average percentage change of 3.3 percent for the entire United States between May 2016 and May 2020.

For the Reno-Sparks Metropolitan Statistical Area and based on the annual average percentage change of 3.1 percent between May 2016 and May 2020, the projected hourly median wage for the Office and Administrative Support Occupations sector is expected to increase to an estimated \$19.15 in 2021 and to an estimated \$19.74 in 2022. Both estimates for 2021 and 2022 are greater than the projected hourly median wage of \$18.18 for 2021 and the projected hourly median wage of \$18.59 for 2022 for the entire state of Nevada and also greater than the projected hourly median wage of \$19.23 for 2021 and the projected hourly median wage of \$19.86 for

2022 for the entire United States. The projected hourly median wage for the Office and Administrative Support Occupations sector for the Carson City Metropolitan Statistical Area is an estimated \$19.72 for 2021 and an estimated \$20.35 for 2022. The projected hourly median wage for the Carson City Metropolitan Statistical Area in both 2021 and 2020 are each greater than the projected hourly median wage for the entire state of Nevada for both 2021 and 2022 and greater than the projected hourly median wage for the entire United States for both 2021 and 2022.

Table 4.5 presents the projected value for hourly mean wage for the Office and Administrative Support Occupations sector (NAICS 43-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

		ole 4.5 – 20			•		0	
	Office an	nd Admini	istrative S	upport Oc	cupations	(NAICS 4	3-0000)	
	Reno-Spa	rks MSA,	Carson Ci	ty MSA, S	tate of Ne	vada, Unit	ted States	
Year	Reno-	Percent	Carson	Percent	State of	Percent	United	Percent
	Sparks	Change	City	Change	Nevada	Change	States	Change
	MSA		MSA					
2016	\$17.68	-	\$17.70	-	\$17.35	-	\$17.91	-
2017	\$17.96	1.6%	\$18.27	3.2%	\$17.47	0.7%	\$18.24	1.8%
2018	\$18.35	2.2%	\$18.83	3.1%	\$17.69	1.3%	\$18.75	2.8%
2019	\$19.11	4.1%	\$19.47	3.4%	\$18.28	3.3%	\$19.73	5.2%
2020	\$19.82	3.7%	\$19.89	2.2%	\$18.79	2.8%	\$20.38	3.3%
Annual	-	2.9%	-	3.0%	-	2.0%	-	3.3%
Average								
2021								
Predicated	\$20.40	-	\$20.48	-	\$19.17	-	\$21.05	-
Value								
2022								
Predicated	\$20.99	-	\$21.09	-	\$19.56	-	\$21.74	-
Value								

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2016 through May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Office and Administrative Support Occupations (NAICS 43-0000)

Between May 2016 and May 2020, the hourly mean wage for the Office and Administrative Support Occupations sector for the Reno-Sparks Metropolitan Statistical Area increased by an annual average percentage change of 2.9 percent and increased by an annual average percentage change of 3.0 percent for the Carson City Metropolitan Statistical Area. Statewide, the hourly mean wage for the Office and Administrative Support Occupations sector for the entire state of Nevada increased by an annual average percentage change of 2.0 percent and increased by an annual average percentage change of 3.3 percent for the entire United States between May 2016 and May 2020.

Based on the annual average percentage change of 2.9 percent in the hourly mean wage for the Reno-Sparks Metropolitan Statistical Area between May 2016 and May 2020, the projected hourly mean wage for the Office and Administrative Support Occupations sector is a projected \$20.40 for 2021 and a projected \$20.99 for 2022. Both projected hourly mean wage estimated of \$20.40 for 2021 and \$20.99 for 2022 for the Reno-Sparks Metropolitan Statistical Area are greater than the projected hourly mean wage estimated of \$19.17 for 2021 and \$19.56 for 2022 for the entire state of Nevada but are less than the projected hourly mean wage estimates of \$21.05 for 2021 and \$21.74 for 2022 for the entire United States. For the Carson City Metropolitan Statistical Area, the projected hourly mean wage, based on an estimated annual average percentage change of 3.0 percent between May 2016 and May 2020, the projected hourly mean wage for 2021 is an estimated \$20.48 and the projected hourly mean wage for 2022 is an estimated \$21.09. Both projected hourly mean wage estimates for the Carson City Metropolitan Statistical Area are greater than the projected hourly mean wage for the entire state of Nevada for both 2021 and 2022 but are less than the projected hourly mean wage estimates for the entire United States for both 2021 and 2022.

Table 4.6 presents the projected value for annual mean wages earned for the Office and Administrative Support Occupations sector (NAICS 43-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

Table 4.6 – 2021 and 2022 Predicted Annual Mean Wage Earned Office and Administrative Support Occupations (NAICS 43-0000) Reno-Sparks MSA, Carson City MSA, State of Nevada, United States								
Year	Reno-	Percent	Carson	Percent	State of	Percent	United	Percent
	Sparks	Change	City	Change	Nevada	Change	States	Change
	MSA		MSA					
2016	\$36,770	-	\$36,810	-	\$36,090	-	\$37,260	-
2017	\$37,360	1.6%	\$37,990	3.2%	\$36,350	0.7%	\$37,950	1.9%
2018	\$38,180	2.2%	\$39,170	3.1%	\$36,780	1.2%	\$38,990	2.7%
2019	\$39,740	4.1%	\$40,500	3.4%	\$38,030	3.4%	\$41,040	5.3%
2020	\$41,220	3.7%	\$41,370	2.1%	\$39,090	2.8%	\$42,390	3.3%
Annual	-	2.9%	-	3.0%	-	2.0%	-	3.3%
Average								
2021 Predicated Value	\$42,416	-	\$42,596	-	\$39,881	-	\$43,782	-
2022 Predicated Value	\$43,647	-	\$43,859	-	\$40,687	-	\$45,221	-

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2016 through May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Office and Administrative Support Occupations (NAICS 43-0000)

For the Reno-Sparks Metropolitan Statistical Area, the annual mean wage earned for the Office and Administrative Support Occupations sector increased by an annual average percentage

change of 2.9 percent and increased by an annual average percentage change of 3.0 percent for the Carson City Metropolitan Statistical Area between May 2016 and May 2020. Between May 2016 and May 2020, the annual mean wage earned for the entire state of Nevada for the Office and Administrative Support Occupations sector increased by an annual average percentage change of 2.0 percent and increased by an annual average percentage change of 3.3 percent for the entire United States.

Based on the annual average percentage change in the annual mean wage earned for the Office and Administrative Support Occupations sector for the Reno-Sparks Metropolitan Statistical Area of 2.9 percent between May 2016 and May 2020, the projected annual mean wage earned for the Reno-Sparks Metropolitan Statistical Area is estimated to increase to \$42,416 in 2021 and is estimated to increase to \$43,647 in 2022. Both projected annual mean wage earned estimates for the Reno-Sparks Metropolitan Statistical Area are greater than the projected annual mean wage earned estimated for the entire state of Nevada of \$39,881 for 2021 and \$40,687 for 2022 but less than the projected annual mean wage earned estimated for the entire United States of \$43,782 for 2021 and \$45,221 for 2022. For the Carson City Metropolitan Statistical Area, the projected annual mean wage earned for the Office and Administrative Support Occupations sector is estimated to increase to \$42,596 in 2021 and is estimated to increase to \$43,859 in 2022. Both projected annual mean wage earned estimates for the Carson City Metropolitan Statistical Area are greater than the projected annual mean wage earned for the entire state of Nevada in both 2021 and 2022 but less than the projected annual mean wage earned estimates for the entire United States in both 2021 and 2022.

# 4.3 Projected Future Hourly Median Wage, Hourly Mean Wage, and Annual Mean Wages Earned for Installation, Maintenance, and Repair Occupations (NAICS 49-0000)

Individual detailed occupation sectors in the Installation, Maintenance, and Repair Occupation sector (NAICS 49-0000) were used to estimate the hourly median wage, hourly mean wage, and annual mean wages earned for *Mechanics* and for *Technicians and Utility Personnel*. Projected future hourly median wage, projected hourly mean wage, and projected annual mean wages earned for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the entire state of Nevada, and for the entire United States for 2021 and 2022 for the Installation, Maintenance, and Repair Occupation Sector are presented in this sub-section.

Table 4.7 presents the projected value for hourly median wage for the Installation, Maintenance, and Repair Occupations sector (NAICS 49-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

Between May 2016 and May 2020, the hourly median wage for the Installation, Maintenance, and Repair Occupations sector increased by an annual average percentage change of 3.7 percent and increased by an annual average percentage change of 1.8 percent for the Carson City Metropolitan Statistical Area. Statewide, the hourly median wage for the Installation,

Maintenance, and Repair Occupations sector for the entire state of Nevada increased by an annual average percentage change of 1.7 percent and increased by an annual average percentage change of 2.9 percent for the entire United States between May 2016 and May 2020.

	Table 4.7 – 2021 and 2022 Predicted Hourly Median Wage Installation, Maintenance, and Repair Occupations (NAICS 49-0000) Reno-Sparks MSA, Carson City MSA, State of Nevada, United States									
Year	Reno-	Percent	Carson	Percent	State of	Percent	United	Percent		
	Sparks	Change	City	Change	Nevada	Change	States	Change		
	MSA		MSA							
2016	\$20.66	-	\$20.90	-	\$22.86	-	\$20.89	-		
2017	\$20.59	-0.3%	\$20.60	-1.4%	\$23.37	2.2%	\$21.40	2.4%		
2018	\$22.02	6.9%	\$21.16	2.7%	\$23.78	1.8%	\$21.89	2.3%		
2019	\$23.32	5.9%	\$21.11	-0.2%	\$24.41	2.6%	\$22.42	2.4%		
2020	\$23.85	2.3%	\$22.44	6.3%	\$24.48	0.3%	\$23.44	4.5%		
Annual Average	-	3.7%	-	1.8%	-	1.7%	-	2.9%		
2021 Predicated Value	\$24.73	-	\$22.85	-	\$24.90	-	\$24.13	-		
2022 Predicated Value	\$25.65	-	\$23.27	-	\$25.33	-	\$24.83	-		

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2016 through May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Installation, Maintenance, and Repair Occupations (NAICS 49-0000)

For the Reno-Sparks Metropolitan Statistical Area and based on the annual average percentage change of 3.7 percent between May 2016 and May 2020, the projected hourly median wage for the Installation, Maintenance, and Repair Occupations sector is expected to increase to an estimated \$24.73 in 2021 and to an estimated \$25.65 in 2022. The projected hourly median wage for the Installation, Maintenance, and Repair Occupations sector for the Reno-Sparks Metropolitan Statistical Area for 2021 is less than the 2021 projected hourly median wage for the Installation, Maintenance, and Repair Occupations sector for the entire state of Nevada, a projected \$24.90, but greater than the 2022 projected hourly median wage for the Installation, Maintenance, and Repair Occupations sector for the entire state of Nevada, a projected \$25.33. The projected hourly median wage for the Installation, Maintenance, and Repair Occupations sector for the Reno-Sparks Metropolitan Statistical Area for both 2021 and 2022 is greater than the projected hourly median wage for the Installation, Maintenance, and Repair Occupations sector for the entire United States for both 2021, a projected \$24.13, and for 2022, a projected \$24.83. For the Carson City Metropolitan Statistical Area, the projected hourly median wage for the Installation, Maintenance, and Repair Occupations in both 2021 and 2022, a projected \$22.85 and a projected \$23.27, is less than the projected hourly median wage for the Installation, Maintenance, and Repair Occupations sector for both the entire state of Nevada and for the entire United States in both 2021 and 2022.

Table 4.8 presents the projected value for hourly mean wage for the Installation, Maintenance, and Repair Occupations sector (NAICS 49-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

Table 4.8 – 2021 and 2022 Predicted Hourly Mean Wage Installation, Maintenance, and Repair Occupations (NAICS 49-0000) Reno-Sparks MSA, Carson City MSA, State of Nevada, United States									
Year	Reno- Sparks MSA	Percent Change	Carson City MSA	Percent Change	State of Nevada	Percent Change	United States	Percent Change	
2016	\$21.65	-	\$21.37	-	\$23.75	-	\$22.45	-	
2017	\$21.78	0.6%	\$20.73	-3.0%	\$24.41	2.8%	\$23.02	2.5%	
2018	\$23.05	5.8%	\$21.93	5.8%	\$24.74	1.4%	\$23.54	2.3%	
2019	\$24.28	5.3%	\$21.92	0.0%	\$25.38	2.6%	\$24.10	2.4%	
2020	\$25.21	3.8%	\$23.14	5.6%	\$25.80	1.7%	\$25.17	4.4%	
Annual Average	-	3.9%	-	2.1%	-	2.1%	-	2.9%	
2021 Predicated Value	\$26.19	-	\$23.62	-	\$26.34	-	\$25.90	-	
2022 Predicated Value	\$27.21	-	\$24.11	-	\$26.89	-	\$26.65	-	

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2016 through May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Installation, Maintenance, and Repair Occupations (NAICS 49-0000)

Between May 2016 and May 2020, the hourly mean wage for the Installation, Maintenance, and Repair Occupations sector for the Reno-Sparks Metropolitan Statistical Area increased by an annual average percentage change of 3.9 percent and increased by an annual average percentage change of 2.1 percent for the Carson City Metropolitan Statistical Area. Statewide, the hourly mean wage for the Installation, Maintenance, and Repair Occupations sector for the entire state of Nevada increased by an annual average percentage change of 2.1 percent and increased by an annual average percentage change of 2.9 percent for the entire United States between May 2016 and May 2020.

Based on the annual average percentage change of 3.9 percent in the hourly mean wage for the Reno-Sparks Metropolitan Statistical Area between May 2016 and May 2020, the projected hourly mean wage for the Installation, Maintenance, and Repair Occupations sector is a projected \$26.19 for 2021 and a projected \$27.21 for 2022. The projected hourly mean wage for the Installation, Maintenance, and Repair Occupations sector for the Reno-Sparks Metropolitan Statistical Area for 2021 is less than the projected hourly mean wage for the Installation, Maintenance, and Repair Occupations sector for the entire state of Nevada in 2021, a projected \$26.34, but greater than the projected hourly mean wage for the Installation, Maintenance, and Repair Occupations sector for the entire state of Nevada in 2022, a projected \$26.89. The

projected hourly mean wage for the Installation, Maintenance, and Repair Occupations sector for the Reno-Sparks Metropolitan Statistical Area for both 2021 and 2022 are each greater than the projected hourly mean wage for the Installation, Maintenance, and Repair Occupations sector for the entire United States for both 2021, a projected \$25.90, and for 2022, a projected \$26.65. For the Carson City Metropolitan Statistical Area, the projected hourly mean wage, based on an estimated annual average percentage change of 2.1 percent between May 2016 and May 2020, is expected to increase to a projected \$23.62 in 2021 and to a projected \$24.11 in 2022. Both projected hourly mean wage estimates for the Carson City Metropolitan Statistical Area for the Installation, Maintenance, and Repair Occupations sector for 2021 and 2022 are less than the projected hourly mean wage estimates for the entire state of Nevada and for the entire United States for both 2021 and 2022.

Table 4.9 presents the projected value for annual mean wages earned for the Installation, Maintenance, and Repair Occupations sector (NAICS 49-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

Table 4.9 – 2021 and 2022 Predicted Annual Mean Wage Earned Installation, Maintenance, and Repair Occupations (NAICS 49-0000) Reno-Sparks MSA, Carson City MSA, State of Nevada, United States									
Year	Reno-	Percent	Carson	Percent	State of	Percent	United	Percent	
	Sparks	Change	City	Change	Nevada	Change	States	Change	
	MSA		MSA						
2016	\$45,030	-	\$44,440	-	\$49,410	-	\$46,690	-	
2017	\$45,310	0.6%	\$43,120	-3.0%	\$50,770	2.8%	\$47,870	2.5%	
2018	\$47,950	5.8%	\$45,610	5.8%	\$51,450	1.3%	\$48,960	2.3%	
2019	\$50,510	5.3%	\$45,580	-0.1%	\$52,790	2.6%	\$50,130	2.4%	
2020	\$52,440	3.8%	\$48,130	5.6%	\$53,650	1.6%	\$52,360	4.4%	
Annual Average	-	3.9%	-	2.1%	-	2.1%	-	2.9%	
2021									
Predicated Value	\$54,486	-	\$49,133	-	\$54,767	-	\$53,884	-	
2022 Predicated Value	\$56,612	-	\$50,156	-	\$55,907	-	\$55,452	-	

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2016 through May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Installation, Maintenance, and Repair Occupations (NAICS 49-0000)

For the Reno-Sparks Metropolitan Statistical Area, the annual mean wage earned for the Installation, Maintenance, and Repair Occupations sector increased by an annual average percentage change of 3.9 percent and increased by an annual average percentage change of 2.1 percent for the Carson City Metropolitan Statistical Area between May 2016 and May 2020. Between May 2016 and May 2020, the annual mean wage earned for the entire state of Nevada for the Installation, Maintenance, and Repair Occupations sector increased by an annual average

percentage change of 2.1 percent and increased by an annual average percentage change of 2.9 percent for the entire United States.

Based on the annual average percentage change in the annual mean wage earned for the Installation, Maintenance, and Repair Occupations sector for the Reno-Sparks Metropolitan Statistical Area of 3.9 percent between May 2016 and May 2020, the projected annual mean wage earned for the Reno-Sparks Metropolitan Statistical Area is estimated to increase to \$54,486 in 2021 and is estimated to increase to \$56,612 in 2022. The projected annual mean wage earned for the Installation, Maintenance, and Repair Occupations sector for the Reno-Sparks Metropolitan Statistical Area for 2021 is less than the projected annual mean wage earned for the Installation, Maintenance, and Repair Occupations sector for the entire state of Nevada in 2021, a projected \$54,767, but greater than the projected annual mean wage earned for the Installation, Maintenance, and Repair Occupations sector for the entire state of Nevada in 2022, a projected \$55,907. The projected annual mean wage earned for the Installation, Maintenance, and Repair Occupations sector for the Reno-Sparks Metropolitan Statistical Area in both 2021 and 2022 is greater than the projected annual mean wage earned for the Installation, Maintenance, and Repair Occupations sector for the entire United States for both 2021, a projected \$53,884, and for 2022, a projected \$55,452. For the Carson City Metropolitan Statistical Area, the projected annual mean wage for the Installation, Maintenance, and Repair Occupations sector is estimated to increase to \$49,133 in 2021 and is estimated to increase to \$50,156 in 2022. Both projected annual mean wage earned estimates for the Carson City Metropolitan Statistical Area for the Installation, Maintenance, and Repair Occupations sector are less than the projected annual mean wage earned estimates for the entire state of Nevada and for the entire United States for both 2021 and 2022.

# 4.4 Projected Future Hourly Median Wage, Hourly Mean Wage, and Annual Mean Wages Earned for Transportation and Material Moving Occupations (NAICS 53-0000)

Individual detailed occupation sectors in the Transportation and Material Moving Occupation sector (NAICS 53-0000) were used to estimate the hourly median wage, hourly mean wage, and annual mean wages earned for *Divers that Require and Do Not Require a Commercial Driver's License* and for *Road Supervisors*. Projected future hourly median wage, projected hourly mean wage, and projected annual mean wages earned for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the entire state of Nevada, and for the entire United States for 2021 and 2022 for the Transportation and Material Moving Occupation Sector are presented in this sub-section.

Table 4.10 presents the projected value for hourly median wage for the Transportation and Material Moving Occupations sector (NAICS 53-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

Between May 2016 and May 2020, the hourly median wage for the Transportation and Material Moving Occupations sector increased by an annual average percentage change of 4.8 percent and increased by an annual average percentage change of 3.9 percent for the Carson City Metropolitan Statistical Area. Statewide, the hourly median wage for the Transportation and Material Moving Occupations sector for the entire state of Nevada increased by an annual average percentage change of 2.5 percent and increased by an annual average percentage change of 2.6 percent for the entire United States between May 2016 and May 2020.

Table 4.10 – 2021 and 2022 Predicted Hourly Median Wage Transportation and Material Moving Occupations (NAICS 53-0000)											
Reno-Sparks MSA, Carson City MSA, State of Nevada, United States											
Year	Reno-	Percent	Carson	Percent	State of	Percent	United	Percent			
	Sparks	Change	City	Change	Nevada	Change	States	Change			
	MSA		MSA								
2016	\$14.60	-	\$12.70	-	\$14.54	-	\$14.78	-			
2017	\$14.96	2.5%	\$13.49	6.2%	\$14.79	1.7%	\$15.19	2.8%			
2018	\$15.64	4.5%	\$13.25	-1.8%	\$15.09	2.0%	\$15.74	3.6%			
2019	\$16.37	4.7%	\$14.04	6.0%	\$15.30	1.4%	\$15.60	-0.9%			
2020	\$17.62	7.6%	\$14.76	5.1%	\$16.05	4.9%	\$16.38	5.0%			
Annual	-	4.8%	-	3.9%	-	2.5%	-	2.6%			
Average											
2021											
Predicated	<b>\$18.47</b>	-	\$15.33	-	\$16.45	-	\$16.81	-			
Value											
2022											
Predicated	\$19.36	-	\$15.93	-	<b>\$16.87</b>	-	\$17.25	-			
Value											

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2016 through May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Transportation and Material Moving Occupations (NAICS 53-0000)

For the Reno-Sparks Metropolitan Statistical Area and based on the annual average percentage change of 4.8 percent between May 2016 and May 2020, the projected hourly median wage for the Transportation and Material Moving Occupations sector is expected to increase to an estimated \$18.47 in 2021 and to an estimated \$19.36 in 2022. The projected hourly median wage for the Transportation and Material Moving Occupations sector for the Reno-Sparks Metropolitan Statistical Area for both 2021 and 2022 is estimated to be greater than the projected hourly median wage for the Transportation and Material Moving Occupations sector for the entire state of Nevada for both 2021 and 2022, an estimated \$16.45 and an estimated \$16.87. The projected hourly median wage for the Transportation Moving Occupations sector for the Reno-Sparks Metropolitan Statistical Area is also estimated to be greater than the projected hourly median wage for the Transportation and Material Moving Occupations sector for the entire United States for both 2021 and 2022, an estimated \$16.81 and an estimated \$17.25. For the Carson City Metropolitan Statistical Area, the projected hourly median wage for the Transportation and Material Moving Occupations sector in both 2021 and 2022, a projected \$15.33 and a projected \$15.93, are both less than the projected hourly median wage for the

Transportation and Material Moving Occupations sector for both the entire state of Nevada and for the entire United States in both 2021 and 2022.

Table 4.11 presents the projected value for hourly mean wage for the Transportation and Material Moving Occupations sector (NAICS 53-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

	Table 4.11 – 2021 and 2022 Predicted Hourly Mean Wage										
	Transportation and Material Moving Occupations (NAICS 53-0000)										
Reno-Sparks MSA, Carson City MSA, State of Nevada, United States											
Year	Reno-	Percent	Carson	Percent	State of	Percent	United	Percent			
	Sparks	Change	City	Change	Nevada	Change	States	Change			
	MSA		MSA								
2016	\$16.67	-	\$15.05	-	\$17.59	-	\$17.34	-			
2017	\$17.10	2.6%	\$15.58	3.5%	\$18.08	2.8%	\$17.82	2.8%			
2018	\$17.84	4.3%	\$15.27	-2.0%	\$18.65	3.2%	\$18.41	3.3%			
2019	\$17.83	-0.1%	\$15.23	-0.3%	\$18.81	0.9%	\$18.23	-1.0%			
2020	\$18.86	5.8%	\$16.03	5.3%	\$19.47	3.5%	\$19.08	4.7%			
Annual	-	3.2%	-	1.6%	-	2.6%	-	2.4%			
Average											
2021											
Predicated	\$19.46	-	\$16.29	-	<b>\$19.97</b>	-	\$19.55	-			
Value											
2022											
Predicated	\$20.07	-	<b>\$16.56</b>	-	\$20.49	-	\$20.02	-			
Value											

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2016 through May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Transportation and Material Moving Occupations (NAICS 53-0000)

Between May 2016 and May 2020, the hourly mean wage for the Transportation and Material Moving Occupations sector for the Reno-Sparks Metropolitan Statistical Area increased by an annual average percentage change of 3.2 percent and increased by an annual average percentage change of 1.6 percent for the Carson City Metropolitan Statistical Area. Statewide, the hourly mean wage for the Transportation and Material Moving Occupations sector for the entire state of Nevada increased by an annual average percentage change of 2.6 percent and increased by an annual average percentage change of 2.4 percent for the entire United States between May 2016 and May 2020.

Based on the annual average percentage change of 3.2 percent in the hourly mean wage for the Reno-Sparks Metropolitan Statistical Area between May 2016 and May 2020, the projected hourly mean wage for the Transportation and Material Moving Occupations sector is a projected \$19.46 for 2021 and a projected \$20.07 for 2022. The projected hourly mean wage for the Transportation and Material Moving Occupations sector for the Reno-Sparks Metropolitan Statistical Area for 2021 and 2022 is less than the projected hourly mean wage for the

Transportation and Material Moving Occupations sector for the entire state of Nevada for 2021 and 2022, a projected \$19.97 and a projected \$20.49. The projected hourly mean wage for the Transportation and Material Moving Occupations sector for the Reno-Sparks Metropolitan Statistical Area for 2021 is less than the projected hourly mean wage for the Transportation and Material Moving Occupations sector for the entire United States in 2021, a projected \$19.55, but greater than the projected hourly mean wage for the Transportation and Material Moving Occupations sector for the entire United States in 2022, a projected \$20.02. For the Carson City Metropolitan Statistical Area, the projected hourly mean wage for the Transportation and Material Moving Occupations sector, based on an estimated annual average percentage change of 1.6 percent between May 2016 and May 2020, is expected to increase to a projected \$16.29 in 2021 and to a projected \$16.56 in 2022. Both projected hourly mean wage estimates for the Carson City Metropolitan Statistical Area for the Transportation and Material Moving Occupations sector for 2021 and 2022 are less than the projected hourly mean wage estimates for the entire state of Nevada and for the entire United States for both 2021 and 2022.

Table 4.12 presents the projected value for annual mean wages earned for the Transportation and Material Moving Occupations sector (NAICS 53-0000) for the Reno-Sparks Metropolitan Statistical Area, the Carson City Metropolitan Statistical Area, the state of Nevada, and for the entire United States.

Table 4.12 – 2021 and 2022 Predicted Annual Mean Wage Earned											
Transportation and Material Moving Occupations (NAICS 53-0000)											
	Reno-Sparks MSA, Carson City MSA, State of Nevada, United States										
Year	Reno-	Percent	Carson	Percent	State of	Percent	United	Percent			
	Sparks	Change	City	Change	Nevada	Change	States	Change			
	MSA		MSA					C			
2016	\$34,680	-	\$31,310	-	\$36,590	-	\$36,070	-			
2017	\$35,560	2.5%	\$32,400	3.5%	\$37,610	2.8%	\$37,070	2.8%			
2018	\$37,100	4.3%	\$31,760	-2.0%	\$38,780	3.1%	\$38,290	3.3%			
2019	\$37,080	-0.1%	\$31,690	-0.2%	\$39,130	0.9%	\$37,920	-1.0%			
2020	\$39,220	5.8%	\$33,330	5.2%	\$40,500	3.5%	\$39,680	4.6%			
Annual	-	3.1%	-	1.6%	-	2.6%	_	2.4%			
Average											
2021											
Predicated	\$40,454	-	\$33,868	-	\$41,543	-	\$40,646	-			
Value											
2022											
Predicated	\$41,727	-	\$34,415	-	\$42,613	-	\$41,636	-			
Value											

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2016 through May 2020 Hourly Median Wage, Hourly Mean Wage, Annual Mean Wage, Total Employed for All Transportation and Material Moving Occupations (NAICS 53-0000)

For the Reno-Sparks Metropolitan Statistical Area, the annual mean wage earned for the Transportation and Material Moving Occupations sector increased by an annual average percentage change of 3.1 percent and increased by an annual average percentage change of 1.6

percent for the Carson City Metropolitan Statistical Area between May 2016 and May 2020. Between May 2016 and May 2020, the annual mean wage earned for the entire state of Nevada for the Transportation and Material Moving Occupations sector increased by an annual average percentage change of 2.6 percent and increased by an annual average percentage change of 2.4 percent for the entire United States.

Based on the annual average percentage change in the annual mean wage earned for the Transportation and Material Moving Occupations sector for the Reno-Sparks Metropolitan Statistical Area of 3.1 percent between May 2016 and May 2020, the projected annual mean wage earned for the Reno-Sparks Metropolitan Statistical Area is estimated to increase to \$40,454 in 2021 and is estimated to increase to \$41,727 in 2022. The projected annual mean wage earned for the Transportation and Material Moving Occupations sector for the Reno-Sparks Metropolitan Statistical Area for both 2021 and 2022 is less than the projected annual mean wage earned for the Transportation and Material Moving Occupations sector for the entire state of Nevada for both 2021, a projected \$41,543, and for 2022, a projected \$42,613. The projected annual mean wage earned for the Transportation and Material Moving Occupations sector for the Reno-Sparks Metropolitan Statistical Area for 2021 is less than the projected annual mean wage earned for the Transportation and Material Moving Occupations sector for the entire United States for 2021, a projected \$40,646, but greater than the projected annual mean wage earned for the entire United States for 2022, a projected \$41,636. For the Carson City Metropolitan Statistical Area, the projected annual mean wage for the Transportation and Material Moving Occupations sector is estimated to increase to \$33,868 in 2021 and is estimated to increase to \$34,415 in 2022. Both projected annual mean wage earned estimates for the Carson City Metropolitan Statistical Area for the Transportation and Material Moving Occupations sector are less than the projected annual mean wage earned estimates for the entire state of Nevada and for the entire United States for both 2021 and 2022.

MEETING DATE: February 18, 2022 AGENDA ITEM 7.1

From: Bill Thomas, Executive Director

Monthly verbal update/messages from RTC Executive Director Bill Thomas – *no action will be taken on this item*.

MEETING DATE: February 18, 2022 AGENDA ITEM 7.2

From: Bill Thomas, Executive Director

Monthly update/messages from RTC Executive Director Bill Thomas on federal matters related to the RTC – no action will be taken on this item.

## **ATTACHMENT**

A. Written report prepared by Cardinal Infrastructure and Thompson Coburn

Federal Update for the Regional Transportation Commission of Washoe County Prepared by Cardinal Infrastructure and Thompson Coburn February 18, 2022 Board Meeting Prepared February 11, 2022

#### **Appropriations**

The current continuing resolution (CR) for government funding expires February 18, 2022. On February 8<sup>th</sup>, the House passed, in a vote of 272-162, a CR to keep the government funded through March 11, 2022, as the larger appropriations package is still under negotiation. Senate Majority Leader Schumer said the stop-gap funding measure will be taken-up before the expiration of the current CR. This will be the third CR to keep the government funded since the beginning of FY 2022 in October.

According to reports, congressional leaders reached an overall agreement to increase defense and non-defense budgets, making progress toward an agreement on an omnibus funding package before the March 11 CR expires. While an overall framework is in place, there are still several policy riders and allocations among domestic programs to negotiate.

## **Budget Reconciliation**

While both Senator Manchin (D-WV) and other Democrats have mentioned that there are no formal talks going on to revive the bill, it appears that some have indicated they would be willing to salvage the parts of the Build Back Better (BBB) Act that Senator Manchin has said he would support.

Some prefer Senator Manchin put forward a proposal of a pared-back BBB, but as of now it does not appear that he will make the first move. Senator Manchin continues to state that the current BBB is dead, and that any narrower version of the bill would need to go through regular order (a lengthier but the typical legislative process that emphasizes the role of committees and requires that the legislation has relevant committee hearings and markups). His comments indicate there is still a very long road ahead and that it will likely be months before anything passes on this front if at all.

In its current form, the bill provides, among other funding provisions, \$9.75 billion for the newly created Affordable Housing Access Program Competitive grants program, to be issued jointly by the Federal Transit Administration (FTA) and the Department of Housing and Urban Development to support access to affordable housing and the enhancement of mobility, including the purchase of vehicles and related infrastructure, for residents in disadvantaged communities or neighborhoods, in persistent poverty communities, or for low-income riders generally.

#### **Infrastructure Law Implementation**

Politico published an article on implementation of the Infrastructure Investment and Jobs Act and the impacts of a delayed FY 2022 appropriations bill beyond a CR. U.S. DOT Undersecretary for Policy, Carlos Monje, speaking at a virtual congressional briefing, noted that the federal government is still operating under FY 2021 funding levels in the CR - meaning that increased program authorization levels cannot yet be fully realized until a full year appropriations bill is enacted.

According to Monje, this is putting constraints on U.S. DOT staffing needs as well as slowing down the rollout of new transit programs. Without a FY 2022 appropriations bill in place "there could be policy disagreements between the House and Senate on program details and DOT would have to change the contours of a grant program midstream."

That said, some programs, like bus discretionary grants, benefited from advanced appropriations in the infrastructure bill and solicitations for funding can advance despite the timing of FY 2022 appropriations - though the *total* amount of funding available is still subject to funding provided in the appropriations bill.

### **FTA Apportionment**

The FTA issued a partial year apportionment because of funding under the Further Extending Government Funding Act, which provided partial-year spending authority through February 18, 2022. The apportioned amounts also included advanced appropriations under the Infrastructure Investment and Jobs Act for the State of Good Repair and the Enhanced Mobility of Seniors and Individuals with Disabilities formula programs. Full-year formula funding will be available once Congress passes an FY 2022 appropriations bill.

### **Charging and Fueling Infrastructure**

The Biden-Harris Administration announced it has begun the process of distributing \$5 billion in formula funds over five years to help states develop electric vehicle charging station networks along designated Alternative Fuel Corridors. U.S. DOT also released guidance for state departments of transportation related to implementation of the program, known as the National Electric Vehicle Infrastructure (NEVI) Formula Program.

The NEVI Formula Program will provide dedicated funding to states to strategically deploy EV charging infrastructure and establish an interconnected network to facilitate data collection, access, and reliability. State plans must be submitted to the Joint Office of Energy and Transportation by August 1, 2022. U.S. DOT also published the Request for Nominations for the 6th round of alternative fuel corridor designations.

This \$5 billion in state formula funding will be complemented by the availability of an additional \$2.5 billion for the Charging and Fueling Infrastructure discretionary grant program. This program will make competitive grants to improve public access to EV charging, hydrogen, propane, and natural gas fueling stations, along designated alternative fuel corridors.

## **Executive Order on Project Labor Agreements**

On February 4<sup>th</sup>, the President issued an Executive Order on Use of Project Labor Agreements (PLA) for Federal Construction Projects. The Executive Order instructs Federal agencies to require "every contractor or subcontractor engaged in construction" on Federal construction projects costing the Federal Government \$35 million or more to "agree, for that project, to negotiate or become a party to" a PLA with "one or more appropriate labor organizations." This does not appear to apply to RTC contractors – it covers direct contractors to the Federal Government.

MEETING DATE: February 18, 2022 AGENDA ITEM 7.3

From: Kristina Swallow, Director NDOT

Monthly verbal update/messages from NDOT Director Kristina Swallow – *no action will be taken on this item*.