LOCATION:

Meeting via teleconference/Zoom only pursuant to NRS 241.023 and Emergency Directive 006.

DATE March 19, 2021
TIME 9:00 a.m.

REGIONAL TRANSPORTATION COMMISSION OF WASHOE COUNTY
BOARD MEETING AGENDA

Meeting via teleconference/Zoom only pursuant to NRS 241.023 and Emergency Directive 006.
The meeting may be viewed live on RTC's YouTube channel at:
bit.ly/RTCWashoeYouTube

I. Pursuant to Section 1 of Governor Steve Sisolak's Declaration of Emergency Directive 006 ("Directive 006"), the requirement contained in NRS 241.023(1)(b) that there be a physical location designated for meetings of public bodies where members of the public are permitted to attend and participate has been suspended. Pursuant to Section 3 of Directive 006, the requirements contained in NRS 241.020(4)(a) that public notice agendas be posted at physical locations within the State of Nevada has likewise been suspended. Pursuant to Section 5 of Directive 006, the requirement contained in NRS 241.020(3)(c) that physical locations be available for the public to receive supporting material for public meetings has been suspended.

II. Members of the public may provide public comment by one of the following: (1) submitting comments via online Public Comment Form (https://www.rtcwashoe.com/about/contact/contact-form/); (2) emailing comments to: rtcpubliccomments@rtcwashoe.com; or (3) leaving a voicemail at (775) 335-0018. Comments received prior to 4:00 p.m. on March 18, 2020, will be entered into the record.

III. 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.

IV. The supporting materials for the meeting will be available at https://www.rtcwashoe.com/meetings/. In addition, a member of the public may request supporting materials electronically from Denise Thompson at the following email address: dthompson@rtcwashoe.com.

V. The RTC appreciates the public's patience and understanding during these difficult and challenging circumstances.

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1. CALL TO ORDER

1.1 Roll Call

1.2 Pledge of Allegiance

2. PUBLIC COMMENT

Public input received prior to 4:00pm March 18th will be added to the record for this meeting. No live comment will be heard during the meeting. See paragraph II above.

3. APPROVAL OF AGENDA (*For Possible Action*)

4. CONSENT ITEMS (*For Possible Action*)

Minutes

4.1 Approve Minutes of the February 19, 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 existing Professional Services Agreement (PSA) with Atkins North America, Inc., for additional design services related to the Sky Vista Parkway Rehabilitation Project in the amount of $235,421 for a new total not-to-exceed amount of $1,944,489 *(For Possible Action)*

4.8 Approve Amendment No. 2 to the existing Professional Services Agreement (PSA) with Poggemeyer Design Group, Inc., for final design services on the Mill Street Complete Street Project in the amount of $5,200.00, for a new total not-to-exceed amount of $715,550 *(For Possible Action)*

4.9 Approve a Regional Road Impact Fee (RRIF) Offset Agreement between the RTC, Red Rock Mega Storage, LLC, and the City of Reno for the dedication of offset-eligible improvements for the modification of the Red Rock Road/Moya Boulevard intersection *(For Possible Action)*

4.10 Approve a recommendation to commence with the sale of five (5) remnant parcels acquired in connection with the Moana Lane Widening Project (APN# 024-020-11; 024-02-08; 020-255-15; 020-255-16; 020-051-02) by sale to adjoining property owners, sealed bids, public auction, or direct sale as may be authorized by law *(For Possible Action)*

4.11 Approve a recommendation to commence with the sale of thirteen (13) remnant parcels acquired in connection with the Moana Lane Extension Project (Airway Drive) (APN# 020-291-33; 020-292-31; 020-292-33; 020-292-34; 020-292-35; 020-293-01; 020-321-49; 025-241-31; 025-263-14; 025-263-1; 025-263-16; 025-263-17; 025-263-18) by sale to adjoining property owners, sealed bids, public auction, or direct sale as may be authorized by law *(For Possible Action)*

Public Transportation/Operations Department

4.12 Approve an interlocal agreement with the State of Nevada, Department of Health and Human Services (DHHS), Division of Health Care Financing and Policy (DHCFP/Medicaid), to reimburse the RTC for completing paratransit eligibility evaluations for eligible Medicaid recipients as outlined in the ADA regulations of the Federal Transit Administration *(For Possible Action)*

4.13 Approve Amendment No. 3 to the Transit Vehicle Purchase Agreement with Proterra, Inc., dated December 9, 2019, for the purchase of two (2) 125 kw shop chargers for a total price of $106,934 *(For Possible Action)*

Executive, Administrative and Finance Departments

4.14 Approve revisions to Management Policy P-40, Information Technology Acceptable Use *(For Possible Action)*

4.15 Approve a new Management Policy P-63, Real Property Disposition *(For Possible Action)*

5. METROPOLITAN PLANNING ORGANIZATION (MPO) ITEMS

PUBLIC HEARING ITEMS

5.1 Conduct a public hearing regarding approval of the 2050 Regional Transportation Plan (RTP); adopt a resolution approving the RTP *(For Possible Action)*

a. Staff presentation
b. Public hearing
c. Action

5.2 Conduct a public hearing regarding approval of the Federal Fiscal Years (FFY) 2021-2025 Regional Transportation Improvement Program (RTIP); adopt a resolution approving the RTIP and approve a self-certification regarding the metropolitan transportation planning process *(For Possible Action)*

a. Staff presentation
b. Public hearing
c. Action

6. DISCUSSION ITEMS AND PRESENTATIONS

6.1 Update regarding the 2021 Nevada Legislative Session – Mike Hillerby *(Informational Only)*

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 input received prior to 4:00pm March 18th will be added to the record for this meeting. No live comment will be heard during the meeting. See paragraph II above.

10. ADJOURNMENT (*For Possible Action*)

Pursuant to Section 3 of Directive 006, the requirements contained in NRS 241.020(4)(a) that public notice agendas be posted at physical locations within the State of Nevada has likewise been suspended. Current posting locations:

RTC website: www.rtcwashoe.com, State website: https://notice.nv.gov/

AGENDA ITEM 4.1

REGIONAL TRANSPORTATION COMMISSION
WASHOE COUNTY, NEVADA

FRIDAY **9:11A.M.** **February 19, 2021**

PRESENT:

Neoma Jardon, Reno City Council Member, Chair
Ed Lawson, Mayor of Sparks, Vice Chair
Vaughn Hartung, Washoe County Commissioner
Oscar Delgado, Reno City Council Member
Bob Lucey, Washoe County Commissioner

Bill Thomas, RTC Executive Director
Adam Spear, Legal Counsel
Kristina Swallow, Director of NDOT

The regular monthly meeting, held via Zoom, 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:

Item 2 PUBLIC INPUT

Vice 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. Comments received prior to 4:00 p.m. February 18h are included in this record of the meeting.

Ms. Jane Fox submitted in writing February 13, 2021, at 8:20 p.m., a request for the Board to consider adding ADA (ACCESS) service to the Spanish Springs area as her neighbor has a need for it. She was referred to the RTC's FlexRIDE program in the meantime, as it provides door-to-door service for those in the various service areas.

Mr. John Locke submitted in writing February 16, 2021, at 12:24 p.m., a letter stating that Keolis Transportation is not following up on driver call-in complaints as they should be.

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

Item 3 APPROVAL OF AGENDA

RTC Executive Director Bill Thomas requested that Item 4.11 be pulled from the agenda.

Commissioner Hartung requested that Item 4.8 be pulled for discussion.

On motion of Commissioner Hartung, seconded by Commissioner Delgado, which motion unanimously carried, Chair Jardon ordered that the agenda for this meeting be approved with the aforementioned changes.

Item 4 .1 thru 4.11 CONSENT ITEMS

Minutes

4.1 Approve Minutes of the December 18, 2020 Meeting *(For Possible Action)*

4.2 Approve Minutes of the January 15, 2021 Meeting *(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 and 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 Acknowledge receipt of a report on the Transportation Alternatives (TA) Set-Aside Program and funding for safety projects on local roads *(For Possible Action)* – *Item pulled for discussion*

Engineering Department

4.9 Approve a Professional Services Agreement (PSA) with Kimley-Horn and Associates to provide design services and optional engineering during construction for the ITS Phase 4 Project in an amount not to exceed $397,607; authorize the RTC Executive Director to execute the agreement *(For Possible Action)*

Executive, Administrative and Finance Departments

4.10 Acknowledge receipt of the Investment Committee report for the quarter ended December 31, 2020 (*For Possible Action)*

4.11 Approve a new Regional Transportation Commission (RTC) Management Policy #63, Real Property Disposition *(For Possible Action)* – *Item pulled from the agenda*

On motion of Commissioner Hartung, seconded by Commissioner Lucey, which motion carried unanimously, Chair Jardon ordered that Consent Items 4.1 through 4.10 be approved, with the exception of Item 4.8 which was pulled for discussion.

4.8 Acknowledge receipt of a report on the Transportation Alternatives (TA) Set-Aside Program and funding for safety projects on local roads *(For Possible Action) – Under discussion*

Commissioner Hartung first thanked staff for the Set-Aside program, then asked for a brief explanation as to how this program will work.

E.D. Thomas said the program is to use a funding source targeted toward safety for use on safety issues within the transportation network. He then introduced Deputy Executive Director Amy Cummings to explain further.

Ms. Cummings stated that these are federal funds that flow through the RTC and are distributed by the RTC. A call for projects is put out to the jurisdictions and there is a formal application process, after review of the applications, the Board makes the awards. Each jurisdiction must persue a Stewardship Agreement or Local Public Agency Agreement with NDOT to spend those funds in their jurisdiction.

Commissioner Hartung would like to eventually know how long the process will take once a project is decided upon for submittal, and can funds roll over fiscal years or do they need to be expended in one year, two years, etc.

Chair Jardon wants to make sure there is some level of structure regarding the distribution of dollars. She wants it to be a fair but flexible program.

E.D. Thomas said RTC staff will work with NDOT and local jurisdiction staff to determine the best process for the program.

Commissioner Hartung then made a motion to approve consent Item 4.8, which was seconded by Commissioner Delgado and passed unanimously.

Item 5.1 thru 5.3 PUBLIC HEARING ITEMS

5.1 Conduct a public hearing on proposed services changes to add a pilot FlexRIDE transit service connecting the Truckee Meadows area to the Incline Village area along with miscellaneous time adjustments to other RTC RIDE routes, beginning on or after May 1, 2021; approve a May 2021 RTC RIDE Service Adjustment, currently scheduled for May 1, 2021, including a pilot FlexRIDE transit service connecting to the Lake Tahoe area and miscellaneous time adjustments *(For Possible Action)*

a. Staff presentation
b. Public input
c. Action

Mr. Jim Gee, RTC Service Planning and Innovation Manger, addressed the Board to give a presentation on the May service changes planned for RIDE, but specifically, the proposed FlexRIDE pilot program to Incline Village. The purpose is to entice drivers to get out of their cars and use the service while ultimately, lessening some of the traffic in Lake Tahoe. FlexRIDE technology and vehicles will be used and the park & ride area at the Summit Mall will be the

location for pick-up/drop-off. This will be an on-demand service where passengers may be grouped together to make it as efficient as possible. The service will run between Memorial Day and Labor Day, between the hours of 7:00 a.m. and 9:00 pm., which follows the hours of Sand Harbor State Park. Trips should be pre-reserved and will cost $5.00 per person, with an extra $2.00 per person for trips to Sand Harbor which will cover the park's walk-in fee. Mr. Gee then explained some details planned for public outreach and related support and/or concerns. There will also be a joint contract with TMRPA for marketing purposes. He then offered to answer questions.

Chair Jardon asked if there are multiple trips per day or one each way per day. Mr. Gee responded that there will be multiple rides as it is an on-demand service.

Commissioner Lucey is very happy to see this service coming to fruition and believes it will be beneficial to the community.

Commissioner Hartung asked if a bicycle or a water "toy," such as a paddleboard, can be brought on the trip.

Mr. Gee said yes on the bicycles, as each vehicle has a bicycle rack that can hold up to 3 bikes. He further explained that with the on-demand software, the reservationists can ask what will be brought on the trip and determine space requirements that way. The service runs up and down Mt. Rose Highway.

Mr. Gee added that Sky Tavern is interested in being considered for the service as a destination location as well as at the various trailheads.

Commissioner Hartung thinks this is a great idea to get some drunk drivers off the road also.

Commissioner Lucey asked what software is being used for scheduling.

Mr. Gee said that passengers will initially book their rides via phone call. If the program is successful, it will be switched to a software program.

Commissioner Lucey would like to have a conversation with the executive director about some potential opportunities for this program.

Chair Jardon believes transitioning to a software program will be a key priority if the program is successful.

Commissioner Lucey would like this topic brought to the Board workshop in March for further discussion on a software transition for the program.

E.D. Thomas mentioned that there is a stop at the lake that is controversial, but that it is not the RTC, it is another service provider's stop.

Mr. Mark Maloney, RTC Public Transportation and Operations Director, agreed that existing microtransit runs extensively off of software, but for this program, the app currently being used

does not have the option to add a bicycle, a cooler or other beach toy, so once use of the service is better known, those items can be added into the app as needed.

Commissioner Delgado asked if the fee is $5.00 per person and the response was yes, $5.00 each way + $2.00 if going to Sand Harbor State Park. There will be reduced fees for ADA qualified passengers and seniors.

Commissioner Delgado asked if there will be bilingual outreach available and Mr. Gee responded that currently, reservations may be taken bilingually and there will be bilingual outreach once an official outreach program is put into action.

There was a general consensus that this could be a pretty costly option for some lower income families. Commissioner Lucey suggested there possibly be a family price option or some other way to make the program usable to a broader group of potential riders.

Mr. Maloney explained that there are cost differences, such as children under five being free and seniors having a reduced fare that may also make the program more affordable for families riding together.

Commissioner Hartung added that it will be important for the public to understand exactly how the service works to determine if it is for them or not.

This item being a public hearing, Chair Jardon opened the meeting to public input and called on anyone wishing to speak.

There being no comment on this topic submitted prior to the deadline of February 18th at 4:00 pm, the Chair closed public input.

On motion of Commissioner Lucey, seconded by Commissioner Hartung, which motion carried unanimously, Chair Jardon ordered that the May 2021 RTC RIDE Service Adjustment, currently scheduled for May 1, 2021, including a pilot FlexRIDE transit service connecting to the Lake Tahoe area and miscellaneous time adjustments, be approved.

A copy of the full presentation is available by contacting Denise Thompson (dthompson@rtcwashoe.com)

Item 6 .1 DISCUSSION ITEMS AND PRESENTATIONS

6.1 Acknowledge receipt of a report on the Arlington Bridges Project Update and Public Engagement Direction *(For Possible Action)*

Ms. Judy Tortelli, RTC Project Manager, addressed the Board to give a presentation on the status of the project and an overview of the recommended concepts for the bridges. She said the purpose of this presentation is to revisit the goal of this study, to review design options and feasibility, and purpose and need. Five design options were shown, along with the benefits and drawbacks of each. Ms. Tortelli then reviewed the project timeline, which began in 2019.

To date, there have been three Stakeholder Working Group meetings, one public outreach meeting and two Technical Advisory Board meetings. In early 2021, the project is going to the RTC Board (today's meeting) and to the Reno City Council. There is another public outreach meeting planned for the first quarter of 2021 and the feasibility study should also be completed.

Ms. Tortelli continued, explaining why the underdeck arch, tied arch and elevated bridge alternatives were eliminated, then showed the two remaining alternatives and their benefits. She then turned the presentation over to Barb Santer, Sr. Landscape Architect for Stantec, who discussed aesthetic design goals and elements.

Goals for aesthetics are as follow:

- Cohesive Design Language
- Enhancement of the Pedestrian Experience
- Contextual and Historical Relevance
- Innovation and Sustainability

Suggested elements incorporate modern design elements with historical features, specific lighting design and bridge accent lighting, and pedestrian safety lighting in the walkway. Ms. Santer concluded with various textured surface options and designs, and their individual benefits, and then Ms. Tortelli discussed next steps.

Chair Jardon asked how long the public participation process will run.

Ms. Tortelli said she plans to record a presentation similar to today's presentation that the public can review through the month of March and provide input.

Commissioner Hartung serves on the Flood Management Authority and asked if recommendations are being requested or is it just feedback. He is concerned that there may still be obstructions during flooding events that will need to be removed, so the Clear Span option is the best of the two remaining options.

Chair Jardon asked if the option with reduced height on the pathway will hinder anyone.

Ms. Tortelli said they have not gotten into that level of design yet. That will occur once a preferred option is decided upon.

Chair Jardon asked who makes the ultimate decision if there is an equal split on design choice.

E.D. Thomas responded that because it is currently an RTC project, this body would have the ultimate decision. The decision on who should be in charge of this project is anticipated for discussion at the next City Council meeting.

Chair Jardon asked if the amphitheater and basketball courts are impacted, will the reparations be paid for out of project funds or by the city.

E.D. Thomas said that again, it is up to the Board if they would like to add additional funding to the project or to let the City take the lead on that. He added that getting the NEPA process going could make a difference on the outcome of this project.

Chair Jardon doesn't think that the elevated bridge design that impedes on the amphitheater and potentially the basketball courts is really feasible because no one has $10 million sitting around to relocate amphitheaters, etc.

Commissioner Lucey asked if there are Public/Private Partnership (P3) opportunities with this project.

Commissioner Hartung said that this is one of the projects that's been under discussion at the Flood Management Authority for some time, as all the bridges, except Virginia Street, need to be replaced. He suggested that the project could potentially be funded by bonding it.

E.D. Thomas reminded everyone that we don't want to spend all funds on just one bridge and ignore the others, so great thought needs to go into the funding mechanism used.

Commissioner Hartung said he looks forward to that conversation.

On motion of Commissioner Hartung, seconded by Commissioner Delgado, which motion carried unanimously, Chair Jardon ordered that receipt of the report be acknowledged.

A copy of the full presentation is available by contacting Denise Thompson (dthompson@rtcwashoe.com)

Item 7 .1 METROPOLITAN PLANNING ORGANIZATION (MPO) ITEMS

7.1 Acknowledge receipt of a report on the draft 2050 Regional Transportation Plan (RTP) *(For Possible Action)*

Ms. Amy Cummings, RTC Deputy Executive Director and Director of Planning, addressed the Board to provide an update presentation on the draft 2050 RTP. A preliminary map was provided in the agenda packets for this meeting. The hope is to put the Plan out for public comment and then bring it back to the Board for approval, hopefully in March. She then provided an update on the guiding principles of the RTC.

There had been a suggestion during a public input meeting to remove "healthy communities" from the guiding principles and Commissioner Hartung spoke up to say he disagreed and thinks it should be left in. Chair Jardon agreed with him.

Next, Ms. Cummings provided maps of proposed projects for 2021 – 2025 in South Reno, the North Valleys and the Downtown Reno Circulation area.

The 2026-2030 time period highlights improvements on both Greg Street and McCarran. The Pyramid/US 395 Connector will be in its third phase, but funding may be moved to some needed McCarran Blvd improvements.

Chair Jardon asked if the Pyramid/US 395 project is removed from the Plan, can it be put back in later if needed. Ms. Cummings confirmed.

Both the Chair and Commissioner Hartung said they still do not understand the purpose of that project and would like further studies done to see how it will ultimately help the residents of the area.

Commissioner Hartung would like an additional lane on southbound Pyramid Hwy., from Integrity to Egyptian. He is very passionate about having that lane added for safety because it alleviates the truck traffic. He also believes the Pyramid/McCarran intersection will eventually need improvement to make more room for increase traffic. He thinks there are opportunities for the property on the NW corner of the intersection that should be looked at.

Chair Jardon asked what was needed from this conversation (direction, approval, etc.).

E.D. Thomas explained that the most important result of today's presentation is to get direction, then the final Plan will be brought in March with the adjustments requested today. With regard to the Pyramid/US 395 project, he thinks it should stay on the Plan but scale it back. It ultimately pertains to the overall network design.

Chair Jardon asked what "scale it back" means.

Ms. Cummings explained that best efforts are being made for projections into the out years, but things may change in the next 10 and require reevaluation. She added that the design for the Pyramid/US 395 connector can definitely be pushed out and that construction would be in the 15-20 year timeframe. The connector is also part of NDOT's Spaghetti Bowl analysis, so is part of the design for their planned US 395 improvements.

Chair Jardon agrees to pushing it out and scaling it back.

Commissioner Hartung agrees that the lines should be left on the map for future evaluation and review to see if the project is still viable. He would like the focus to be on current needs.

Ms. Cummings said capacity projects that are currently in development are desperately needed, so they are definitely the immediate focus.

The RTC continues to be as efficient as possible with limited funding and the long-term vision for the RAPID is to extend the Lincoln Line to West 4th Street and the Virginia Street BRT to the Summit Mall area. It will most likely take years to be able to fund the operation of the BRT though.

Commissioner Lucey thanked RTC staff for all of their work on the Plan and reminded everyone that this is a living document that can be molded when necessary.

Commissioner Hartung said he didn't see the southern or northern alignments out to TRIC and would like those lines to stay on the map.

Ms. Cummings explained that these maps only show Washoe County and pointed out the lines for those alignments that are in Washoe County.

On motion of Commissioner Hartung, seconded by Commissioner Delgado, which motion carried unanimously, Chair Jardon ordered that receipt of the report be acknowledged with the direction provided.

A copy of the full presentation is available by contacting Denise Thompson (dthompson@rtcwashoe.com)

Item 8.1 thru 8.3 REPORTS

Item 8.1 RTC Executive Director Report *(Informational)*

1. E.D. Gibson announced the upcoming service anniversary milestones for the following employees:
   - Tina Wu, Senior Technical Transit Planner – 25 years of service on March 1st
   - Sharon Britt, Senior Financial Analyst – 20 years of service on March 12th
   - Lee Anne Olivas, Office Administrator – 20 years of service on March 19th

   Our thanks and appreciation to Tina, Sharon and Lee Anne for their public service to the RTC and our community.

2. As of February 16, 2021, 35 out of 75 Keolis transit drivers have received the first dose of the COVID-19 vaccination. The remaining bus drivers will be scheduled for vaccination when the Washoe County Health District adds additional vaccination dates.

   Commissioner Hartung thanked Commissioner Lucey for his help in getting our transit coach operators their Covid-19 shots.

   Chair Jardon added that Commissioner Hartung was also an integral part of making that happen and thanked him and E.D. Thomas for their hard work as well.

   Overall, reported rates of positive infections among bus drivers have dropped significantly. To date, there are 19 COVID-19 positive reports of which only one employee is presently not on the job - having reported their positive test result. For everyone's safety and as a matter of practice, any employee expressing symptoms of COVID-19 is asked to stay home until a negative lab test result is provided to Keolis. No employee may return to work without first providing a negative lab test result.

   While this is a far more stringent requirement than most employers, we believe Keolis' low infection and transmission rates are a testament to their rigidity in this matter, ensuring a safe and healthy workplace.

To date, RTC ACCESS contractor, MTM, has not had any drivers test positive for COVID-19. Of their 38 drivers, 24 have signed up to receive the vaccine.

For additional information, signage has been posted advising riders that federal law requires the use of masks on transit vehicles and property. On average, there is 99.9% compliance by riders. (Medical and age restrictions may apply)

Chair Jardon asked if the reports of refusal to wear a mask are being tracked or recorded somewhere.

Mr. Mark Maloney, RTC Public Transportation and Operations Director, said that yes, it is tracked electronically as each call comes in. He then explained how each variable is handled, dependent on their location and whether they are inbound or outbound. Nothing has arisen to the police level. There is currently no "secret shopper" type of program to have people ride on the bus to keep an eye on things; however, Mr. Maloney and his staff do randomly ride the buses to see what's going on first hand.

Chair Jardon thanked the coach drivers and called them heroes for stepping up the way they have.

3. The final component of the Virginia Street Bus RAPID Transit Extension Project is ready to launch. On Saturday, March 6th, RTC will open the RAPID Virginia Line extension with service from Meadowood Mall, through Midtown and Downtown Reno to the University of Nevada, Reno.

   On Monday, March 8th at 11 am, there will be a small, in-person media-op event at the new University RAPID station to mark the official launch of the RAPID Virginia Line Extension, weather permitting. The media-op will feature a handful of speakers giving brief remarks, supplemented with media interviews as requested. The media-op will not be a public event, as we are being mindful of public safety during the ongoing pandemic. But the media op will be streamed live on Facebook. Chair Jardon and Amy Cummings will give remarks on behalf of the RTC.

   To celebrate the new extension service, rides on the RAPID Virginia Line will be free to everyone from March 6 through March 19.

   A Zoom virtual celebration is also being planned and details will be provided in the coming weeks.

   Chair Jardon asked if, when the time comes, that an official kick-off event can be planned.

   E.D. Thomas said that he isn't sure how far out that will be, but yes, it can be planned at that time.

4. The RTC Board Retreat is scheduled for March 15th at 9:00 a.m. and will be held in-person with the commissioners at the Washoe County Chambers *and* via ZOOM to accommodate staff presentations and our federal lobbying partners who will present. Board Commissioners were asked to bring their laptop or tablet to the retreat with them.

   The regular March Board meeting will be held Friday, March 19th, at 9:00 a.m. via Zoom.

Item 8.2 RTC Federal Report *(Informational)*

A written report is provided, as set forth in the briefing materials for this agenda item. E.D. Thomas also mentioned that there are potential funding opportunities out of Washington DC that staff is currently watching.

Item 8.3 NDOT Director Report *(Informational)*

Ms. Kristina Swallow, NDOT Director, addressed the Board to give a presentation containing updates on current Nevada safety statistics, the Spaghetti Bowl SBX project, Tahoe Basin improvements, and the 2021 NV State Legislative Session.

Unfortunately, fatalities in the first month and a half have already increased by 4% throughout the state.

Dir. Swallow then talked about the "Big Merge" project near the Spaghetti Bowl that will begin later this spring and will last approximately 14 months.

Dir. Swallow also said that Mr. Jeff Lerud has accepted the position of Acting Deputy Director of Operations and Maintenance. She then concluded her report and offered to answer questions.

Commissioner Hartung would like a status on the road safety audit he requested for Pyramid Highway, just south of Egyptian, to the end of the valley.

A copy of the full presentation is available by contacting Denise Thompson (dthompson@rtcwashoe.com)

Item 9.1 *COMMISSIONER ANNOUNCEMENTS AND UPDATES*

Commissioner Hartung would like continuing updates on the TA Set-Aside program at future meetings.

Chair Jardon would like a bigger discussion on the FlexRIDE software, potential and platform.

Item 10 *PUBLIC INPUT*

Chair Jardon opened the meeting to public input pertaining to topics relevant to the Regional Transportation Commission (RTC) that are not included in the current agenda.

There being no additional comment submitted prior to the deadline of Feb. 18 at 4:00 pm, the Chair closed public input.

Item 11 ***ADJOURNMENT***

On motion of Commissioner Hartung, seconded by Commissioner Delgado, which motion carried unanimously, Chair Jardon ordered that the meeting be adjourned.

There being no further business to come before the Board, the meeting adjourned at 11:30 a.m.

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NEOMA JARDON, Chair
Regional Transportation Commission

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.2**

From: Amy Cummings, AICP/LEED AP, Director of Planning and Deputy Director

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RECOMMENDED ACTION

Acknowledge receipt of the monthly Planning Activity Report

PLANNING STUDIES

Eagle Canyon Extension Alignment Alternatives and Planning and Environmental Linkages (PEL) Study

The purpose of the study is to enhance mobility and connectivity between the growing communities of Spanish Springs and Lemmon Valley and to facilitate safe and equitable access to economic and recreational opportunities while preserving the character and heritage of the area. The project team is currently developing a draft report and has concluded a refined environmental analysis on the proposed corridor alignment alternatives.

Electric and Alternative Fuel Vehicle Infrastructure and Advanced Mobility Plan

The purpose of this plan is to address existing electric and alternative fuel vehicle infrastructure needs in the area as well as to best prepare for continued advances in mobility technology, including the following:

- Systems planning for autonomous and connected transportation infrastructure
- Systems planning and engineering services for autonomous transit infrastructure
- Traffic analysis for micromobility systems and projects
- Systems planning for electric and hydrogen fuel cell charging infrastructure
- Traffic analysis relating to safety of these proposed systems.

A contract was approved at the September 18, 2020, Board meeting, and a kick-off meeting with the consultant team was held on November 2. A stakeholder meeting was held on February 9, 2021.

Automatic Road Feature Extraction from State-Owned Mobile LiDAR Data for Traffic Safety Analysis and Evaluation

The RTC, in partnership with the University of Nevada, Reno (UNR), has received a grant from the US Department of Transportation (DOT) to develop a tool—Automatic Road Feature Extraction from LiDAR (ARFEL)—that automatically extracts highly accurate road geometric features from mobile light-detection-and-ranging (LiDAR) data collected on roads, which will further be used to:

- Analyze relationships between crashes and road factors;
- Identify locations and characteristics of crashes using network screening;
- Select appropriate countermeasures and strategies;
- Evaluate safety improvement projects.

On September 4, an agreement between USDOT, UNR and RTC was executed. On October 28-30, RTC staff attended an online peer exchange with other grantees to share information on the project. The creation of the tool has begun along with all required auxiliary documentation to meet deadlines previously set by the agreement.

Bicycle and Pedestrian Planning

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

- The RTC internal working group has been working to determine count locations for this program.
- Staff reached out to NDOT to seek a count location on Mt. Rose Highway because they are conducting a corridor study in that area.
- RTC staff continues to update the regional bike map.
- The Truckee Meadows Bicycle Alliance met in February to discuss potential dates for Bike Month and Bike Month Community Activities.

Vision Zero Truckee Meadows (VZTM)

- Agendas are posted on www.visionzerotruckeemeadows.com. The next meeting is scheduled for April 8, 2021, at 3:00pm.
- Between January 1, 2021, and January 31, 2021, two pedestrians and zero bicyclists were killed in Washoe County. During this same time in 2020, there were three pedestrian and zero bicycle fatalities. The data states that there was a 33% decrease in pedestrian fatalities in Washoe County during this same timeframe in 2021 as compared to 2020 data.
- The RTC has submitted an application for a mini grant through the State of Nevada Bicycle and Pedestrian Advisory Board Share the Road Funding call for projects. The application was submitted on behalf of the Vision Zero Truckee Meadows task force and funds are being sought for a community engagement outreach campaign. There is not a set budget for the VZTM since it is a regional task force; therefore the RTC submitted the application for funding to purchase bus tail space (exterior rear bus advertising posters) and interior posters to help display safety messaging for drivers and vulnerable road users.

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 – 2

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

Staff has met with the planning staff from each jurisdiction to discuss the development review process. This occurs every few years in order to communicate and confirm that the information provided to each jurisdiction is valuable. Staff from planning, public transit and engineering participated in the collaboration meetings. Staff from TMRPA also attended the meetings.

COMMUNITY AND MEDIA OUTREACH ACTIVITIES

RTC staff conducted the following outreach activities from February 19 - March 19:

February 22	Regional Information Center Meeting
March 1	Regional Information Center Meeting
March 1	Arlington Avenue Bridges Virtual Community Presentation
March 1	Arlington Avenue Bridges Survey
March 3	RTC Technical Advisory Committee (TAC) Meeting
March 4	RTC Citizens Multimodal Advisory Committee (CMAC) Meeting
March 6-19	FREE RIDEs on RAPID Virginia Line to Celebrate Launch
March 8	Regional Information Center Meeting
March 15	Regional Information Center Meeting
March 17	RTC St. Patrick's Day FREE Safe RIDE

Media Relations & Social Media

The RTC issued five news releases and participated in four media interviews on various topics, including the launch of the RAPID Virginia Line Extension, construction resuming on the Sun Valley Blvd. Project, the public comment period for the draft 2050 Regional Transportation Plan, the public comment period for the 2021-2025 Regional Transportation Improvement Program, the Arlington Bridges virtual community meeting and survey, Token Transit, and more.

Social media was used to promote construction resuming on the Sun Valley Blvd. Project, the public comment period for the draft 2050 Regional Transportation Plan, the public comment period for the 2021-2025 Regional Transportation Improvement Program, the Arlington Bridges virtual community meeting and survey, the monthly RTC Board Meeting, 211 Day, and more.

Social media metrics for the month of February: 34,660 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 the Nevada Office of Traffic Safety's Save Yourself Campaign, the launch of the RAPID Virginia Line Extension, an update on the Sun Valley Blvd. Project, and an update on the 2050 Regional Transportation Plan.

COORDINATION WITH PARTNER AGENCIES

Truckee Meadows Regional Planning Agency (TMRPA)

The RTC continues to have coordination meetings with staff from the TMRPA as the agencies progress with the Shared Work Program. Areas for collaboration include population and employment forecasts, and analysis of demographic and socioeconomic issues.

Nevada Department of Transportation (NDOT)

The RTC continues to have coordination meetings with staff from NDOT. Areas for collaboration include development of local public agency agreements between NDOT and RTC, maintenance of the regional travel demand model, bicycle and pedestrian improvements, transportation alternatives projects, coordination regarding funding and the State Transportation Improvement Program, One Nevada statewide plan, the I-80 and US 395 widening and improvements to the Spaghetti Bowl, and other ongoing transportation studies.

Statewide Transportation Planning

RTC meets monthly with staff from NDOT, the Federal Highway Administration (FHWA), RTC of Southern Nevada, Tahoe Regional Planning Agency, Tahoe Transportation District and the Carson Area Metropolitan Planning Organization to discuss statewide transportation planning issues. Other topics addressed include statewide data for performance measures analysis, comments on proposed rulemaking and reauthorization of federal transportation legislation.

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.3**

From: Brian Stewart, 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

The program is a multi-year effort to upgrade existing bus stops to comply with state and federal requirements, including the Americans with Disabilities Act (ADA). The first phase of bus stop improvements located within public right-of-way (13 bus stops) is complete. The process of obtaining necessary easements for other locations is ongoing. The design consultant, CA Group submitted easement packages for the second phase (37 bus stops) in July and acquisition work continues.

The right-of-way process continues for bus stops in Phase 2 and 3. The team is compiling plans, specifications, and estimates for the second construction package that is anticipated to advertise as soon as agency reviews are complete.

Center Street Multimodal Improvements Project

The project consists of constructing a two-way cycle track, from Ninth Street to Moran Street, in Reno. The majority of the improvements include traffic signal, pavement markings and signage modifications. Sidewalk improvements in some locations are being incorporated. The project includes design and construction of a dedicated bicycle corridor between the university and downtown/midtown. The 30% design (preliminary design) is complete. Additional traffic analysis of the downtown road network is occurring prior to continuing forward with final design. Pending the results of the additional analysis and further coordination, an Interlocal Cooperative Agreement (ICA) with the City of Reno will be presented to the RTC Board for approval.

Mill Street Complete Street (Terminal Way to McCarran Boulevard)

The scope of this project is to design and construct various complete street improvements along Mill Street, from Terminal Way to McCarran Boulevard, as identified in the RTC Complete Streets Masterplan completed in July 2016, and the Mill/Terminal corridor study completed in March 2013. The emphasis of this project is to assess and identify improvements for pedestrians, bicyclists, and transit riders, as well as motorists. Deficiencies in pedestrian access related to Charter Schools and AACT High School in the area, along with a number of ADA deficient bus stops will be addressed.

100% design plans and solicitation documents are being prepared for submission to the City of Reno for review. Advertisement for bids is planned to start in May 2021.

CAPACITY/CONGESTION RELIEF PROJECTS

ITS Pilot Project, Design of Phase 2 ITS Connectivity

The pilot project connected traffic signal systems of the City of Reno, the City of Sparks, Washoe County, and NDOT through fiber optic communication lines. This project also includes design of Phase 2A and 2B, which will expand communication to outlying signal systems and install ITS devices to monitor and remotely adjust traffic signals to respond to special events, changing traffic conditions and to provide information to drivers and traffic incidents. Construction of the Pilot Project is complete. The ITS Phase 2A Project is complete. Phase 2B is now complete.

ITS Phase 3

The project includes conduit and fiber optic cable at the following locations:

- Lake Street, from 1st Street to 2nd Street;
- Lemmon Drive, from North Virginia Street to US 395; and
- Rock Boulevard, from Greg Street to Prater Way

Also included in ITS Phase 3 is a Road Weather Information Sensor (RWIS) at Sharlands Avenue at Robb Drive. The weather sensors will detect ice on the road; thereby, alerting Reno maintenance crews that snowplow operations are required in the northwest. The project will install 20 Gridsmart Performance Packages. These are upgrades to existing Gridsmart detection systems and can detect/count pedestrians and bicycles. Advertisement is scheduled in March 2021.

North Valleys Package 3B

Package 3B includes adding capacity to the right turn lane at North Virginia Street/Business 395. This project also includes improvements to two bus stop pads located within the project area and associated access and drainage improvements. Re-design is underway for a part of the storm drain system due to NDOT permitting requirements. The project is scheduled for construction in summer 2021.

Sparks Boulevard Project

The project seeks to increase safety, maintain roadway capacity and improve bicycle and pedestrian facilities by widening Sparks Boulevard to six (6) lanes between Greg Street and Baring Boulevard. Professional engineering services are underway with Atkins North America, Inc., to begin environmental studies and preliminary design. The RTC, in cooperation with the City of Sparks, Nevada Department of Transportation (NDOT) and the Federal Highway Administration (FHWA), is initiating an Environmental Assessment (EA) to evaluate and document the proposed Project's potential impacts.

During the public scoping meeting and the virtual workshops conducted as part of the alternatives development, the proposed project limits extended from (and included) the Greg Street intersection to (and included) the Baring Boulevard intersection. Since that time, the RTC identified potential regional traffic impacts that could result from constructing the Sparks Boulevard Project simultaneously with construction of Phase 1 of the Pyramid Connector Project. To avoid regional

impacts, the RTC proposes to advance the capacity improvements on Sparks Boulevard, between Greg Street and the I-80 westbound ramps, in the 2022 construction season as a separate action in the National Environmental Policy Act (NEPA) process. The remainder of the Sparks Boulevard Project, from the I-80 westbound ramps north to the Baring Boulevard intersection, is the revised Sparks Boulevard Project Area that will be constructed in the 2024/2025 season and continue to be analyzed as part of the EA project.

Traffic Signal Timing 6 Project

Following a three year cycle schedule, the project includes review and timing optimization of approximately one-third (1/3) of the signals in the region per year. For 2020, this begins a new cycle where signals that were retimed in 2016 will be reevaluated and retimed to address the changes to traffic demand. For 2020, approximately ninety-five (95) intersections will have revised timing implemented. Timing plans are developed in coordination with the local entities and the University of Nevada, Reno. In the process, re-evaluation of the other settings such as vehicle passage times are calculated at each intersection to make sure they are up to current standards.

Progress through March 2021:

- Plumb Lane (4 Signals) – Kietzke Lane to Terminal Way – Completed
- Moana Lane (3 Signals) – Kietzke Lane to Neil Road – Completed
- Mill Street (4 Signals) – Kietzke Lane to Terminal Way – New timing under development.
- Peckham Lane (6 Signals) – S. Virginia Street to Airway Drive – New timing under development.
- N. Virginia Street BRT Project – TSP signal timing – Estimated completion: early May 2021
- S. McCarran Blvd (22 Signals) – Mill St. to Cashill Blvd – Estimated completion: May 2021
- W. McCarran Blvd (12 Signals) – W. Plumb Lane to Kings Row – Estimated completion: June 2021

Traffic Engineering (TE) Spot 9 – Package 1 Project

The project includes:

- Traffic signal improvements at the intersection of Sharlands Avenue and Mae Anne Avenue;
- Installation of battery backup systems for signalized intersections on Sun Valley Drive, from Scottsdale Road to 7th Street;
- Minor striping improvements to improve traffic flow at Pyramid Way at York Way; and
- Completion of a traffic study to determine potential improvements to the southbound right turn lane at the intersection of Vista Boulevard and Baring Boulevard. This component of the project will not move forward due to following a cost benefit analysis.

Titan Electrical Contractors began construction on February 15, 2021.

Traffic Engineering (TE) Spot 9 – Package 2 Project
The project includes various traffic updates throughout the Reno/Incline area:

- Traffic signal cabinet and camera upgrades at various intersections in the Reno area;
- New traffic signal at the intersection of Rock Boulevard/Edison Way; and a
- 4th Street/Mesa/Woodland intersection study for future improvements.

Titan Electrical Contractors was awarded the contract. Construction is in progress and expected to be complete by early April.

Traffic Engineering (TE) Spot 10 – Fuel Tax Project
The project is currently in the final design phase and includes:

- Traffic signal at the intersection of Veterans Parkway and Long Meadow Drive;
- Update traffic signal equipment at the intersection of Victorian Avenue and 16th Street; and
- Rectangular Rapid Flashing Beacon (RRFB) installation at various locations within Reno, Washoe County and Sparks including Western Skies near Brown Elementary School, Steamboat at Horse Ranch, Mayberry at Keele Drive, 7th at McDonald Drive, Sadleir Way at Valley Road, Vista at Domaine Drive, Sparks Boulevard at Ion Drive, Sparks Boulevard at Cathedral, and Golden Valley at Estates Drive.

Traffic Engineering (TE) Spot 10 - South Project
The project is currently in the preliminary design phase and includes:

- A new roundabout at the intersection of 4th Street and Woodland Avenue;
- Geometric improvements at the nearby intersection of 4th Street and Mesa Park Road; and a
- Left turn bay extension for the southbound left turn lane at South Virginia and Kietzke Lane.

Traffic Engineering (TE) Spot 10 - North Project
The project is currently in the final design phase and includes:

- A traffic signal improvement at the intersection of Clear Acre/N. McCarran Boulevard; and a
- Traffic Signal improvement at the intersection of El Rancho Drive/Victorian Avenue.

The project opened bids on March 5, 2021. Construction is slated to start late summer 2021, dependent on signal pole lead-time.

CORRIDOR IMPROVEMENT PROJECTS

Arlington Avenue Bridges
The Arlington Avenue Bridges Project is a feasibility study to analyze possible replacement bridge types and aesthetic themes, document design and environmental criteria, improve safety and multi-modal access in the Wingfield Park area, and review flood-capacity requirements. The crossing of the Truckee River at Arlington Avenue has served the community of Reno and provided access to Wingfield Park for nearly a century. The bridges were built in the 1930's and while structurally safe to drive over, they are showing signs of wear resulting from the variety of modifications over the years, their age, and the repeated exposure to flood events. The second and final public information meeting is being held virtually the month of March. Input gathered from the

community will be analyzed and the team will make final recommendations. NDOT, FHWA and the City of Reno will review final recommendations prior to feasibility being completed. Once the feasibility study is complete, a Request for Proposals will be advertised for the NEPA/Design phase of the project. Construction of the bridges is anticipated to begin in 2025.

Lemmon Drive Project

The project includes widening Lemmon Drive, from US 395 to Military Road, from four lanes to six lanes and reconstructing the US 395/Lemmon Drive interchange (Segment 1) and improving Lemmon Drive, from Fleetwood Drive to Ramsey Way (Segment 2). Final Design plans for Segment 1 is under agency review. The anticipated construction start date is June 2021. The project team continues the Level 2 screening process for the top three (3) alternatives. The Top 3 Alternatives were presented to the RTC Board at the August 20, 2020, meeting. The Level 2 screening process includes a qualitative evaluation where the top alternatives are screened on the criteria developed and agreed upon the Technical Advisory Committee (TAC).

Oddie Boulevard/Wells Avenue Improvement Project

100% design plans and solicitation documents are being prepared for submission to the City of Reno for review. Advertisement for bids is planned to start in May 2021. The RTC is in the selection process for a construction manager consultant. The selected firm and Professional Services Agreement (PSA) will be presented to the RTC Board in April. Additional project information can be viewed at: http://oddiewellsproject.com/.

Pyramid Highway and US 395 Connection

Working with FHWA, the RTC transferred the $23 million BUILD Grant that it received from the USDOT to NDOT for construction of Phase 1 that is scheduled to begin in 2023. NDOT continues to work on the design that consists of increased roadway capacity and multimodal improvements on Pyramid, from Queen Way to Golden View Drive. Design of this phase is scheduled to be complete in August 2022 and the estimated overall Phase 1 cost is $54.1 million. In January 2021, the RTC Board and NDOT approved an interlocal agreement associated with Phase 1. The agreement establishes the funding and administrative responsibilities for the remainder of the project. NDOT will administer remaining activities including right-of-way acquisition, utility relocation and construction.

Sun Valley Boulevard Corridor Improvement Project

At the beginning of March, construction activities resumed at the intersection of Sun Valley Boulevard and 7th Avenue. Improvements include added capacity and safety at the intersection, along with traffic signal upgrades. The project included two (2) illuminated crosswalks with flashers at Quartz Lane and Middle Fork Lane, ADA ramps, sidewalk, and bus stops to serve the extension of Bus Route 5. Pavement was reconstructed and striped to add bicycle lanes. Additional information can be viewed at: http://SunValleyBlvd.org

Truckee River Shared Use Path Project

The proposed pathway will start at John Champion Memorial Park and continue along the south side of the Truckee River. The RTC is working to acquire easements necessary for the pathway. Coordination has progressed on the required United States Army Corp of Engineers (USACE) 408 permit. This project was included in the fiscal year (FY) 2017 Program of Projects. The design

portion of this project is funded through federal funds and includes oversight by NDOT through a Local Public Agency (LPA) agreement. The project is agreed to be constructed by NDOT through the agreement approved for Spaghetti Bowl Xpress (SBX) after the RTC completes NEPA and the required acquisitions.

Virginia Street RAPID Extension

Roadway construction on the project is complete. Coordination has been occurring with the FTA over the past reporting period regarding starting up revenue service for the extension of the RAPID Virginia Line BRT service, from 4th STREET STATION to UNR. Revenue service for the extension began service on March 6, 2021. Additional information can be viewed at: http://virginiastreetproject.com/

PAVEMENT PRESERVATION PROJECTS

2021 Preventive Maintenance (Various Locations)

The 2021 Preventive Maintenance project consists of patching, crack sealing, and slurry seal activities on approximately 200 lane miles of roadway. Lumos and Associates, Inc., is currently working on the scope for this year's program and candidate roadways and striping plans have been submitted to the local agencies for review and prioritization. The project is on schedule to bid the week of March 22, 2021.

Golden Valley Road Rehab Project

The project includes rehabilitation/reconstruction of Golden Valley Road, from Yorkshire Drive to North Virginia Street. Lumos & Associates, Inc., is the consultant for Design and Engineering During Construction services. The RTC and Union Pacific Railroad (UPRR) have entered into an agreement for railroad crossing improvements. Construction bids will be opened on March 25, 2021. Construction is anticipated to begin in the spring of 2021 and be complete by the end of the summer of 2021.

Kings Row Rehab Project – Phase 1

The project includes rehabilitation/reconstruction of Kings Row, from Keystone Avenue to Wyoming Avenue. Lumos and Associates, Inc., is the consultant for Design and Engineering During Construction Services. The consultant is currently finalizing the plans. Work is also progressing to obtain rights to easements for ADA compliance. This project is on track for construction to start in summer 2021.

Kings Row Rehab Project – Phase 2

The project includes rehabilitation/reconstruction of Kings Row, from Wyoming Avenue to McCarran Boulevard. Lumos and Associates, Inc., has been selected as the consultant for Design and Engineering During Construction Services. The professional services agreement for this work was approved by the RTC Board at their November 2020 meeting. Preliminary design and investigation related work is in progress for this project. Construction is expected to begin in spring/summer of 2022.

Newport Lane Rehab Project
The project includes rehabilitation/reconstruction of Newport Lane, from Link Lane to McDaniel Street. CA Group is the consultant for Design and Engineering During Construction Services. Design will be complete in early 2021. The construction start date has not been determined.

Peckham Lane Rehab Project
The project includes rehabilitation/reconstruction of Peckham Lane, from S. Virginia Street to Baker Lane. The project also includes driveway, sidewalk and curb ramp improvements. Traffic signal improvements at the intersection of Peckham and Baker are planned as well as providing fiber optic interconnectivity between South Virginia Street and Baker Lane. Engineering work has started, with preliminary design expected to be complete by May 2021. Construction is anticipated to begin late spring/early summer of 2022.

Reno Consolidated 20-01 – Mayberry Drive, California Avenue, and First Street
The project includes rehabilitation/reconstruction of the following street segments: Mayberry Drive, from Memory Lane to California Avenue, California Avenue, from Hunter Lake Drive to Booth Street, and First Street, from Sierra Center to Virginia Street. Nichols Consulting Engineers (NCE) is working on incorporating agency/public comments, design and grading of improvements. Utility coordination meetings and property acquisitions are ongoing. 100% design submittal is scheduled for March. Utility adjustments and relocations being performed by NV Energy are underway and Truckee Meadows Water Authority work will begin in May. Construction is scheduled to begin in the summer of 2021.

Reno Consolidated 21-01 – Lund Lane, Armstrong Lane, and Yuma Lane
The project includes rehabilitation/reconstruction of the following street segments: Lund Lane, from Wedekind Road to Northtowne Lane, Armstrong Lane, from Susileen Drive to Yuma Lane, and Yuma Lane, from Armstrong Lane to Hunter Lake Drive. Eastern Sierra Engineering (ESE) is the consultant providing Design and Engineering During Construction Services. The project team is currently incorporating agency design review comments and public comments received in September. Design of the project is complete. Bids were opened on February 17, 2021, with Sierra Nevada Construction the lowest bidder. Construction is anticipated to begin in April.

Reno Consolidated 22-01 – Sky Valley Drive and Sky Mountain Drive
The project includes rehabilitation/reconstruction of the following street segments: Sky Valley Drive, from Summit Ridge Drive to the Highland Ditch, and Sky Mountain Drive, from the Highland Ditch to Summit Ridge Drive. Eastern Sierra Engineering (ESE) has completed all field investigations and topographic survey work. ESE is working on preliminary design, identification of existing utilities, horizontal layout of improvements and analyzing bus stop improvements, including connectivity. 50% design submittal is scheduled for March. Construction is scheduled to begin in the spring of 2022.

Sky Vista Parkway Rehabilitation Project
The project includes rehabilitation/widening of Sky Vista Parkway, from just east of Vista Knolls Parkway to Silver Lake Road. Atkins Engineering, SNA-Lavalin (Atkins) is the consultant for Design and Engineering During Construction Services. Final design is anticipated to be complete in fall 2021. A right-of-way setting meeting was held and easements, both temporary and permanent, have been identified. Advertisement for bids will follow right-of-way acquisition in March 2022.

Sparks Consolidated 21-01 – Packer Way and Wild Island Court Project
The project includes rehabilitation/reconstruction of Packer Way, from Glendale Avenue to the Cul de Sac, and Wild Island Court, from Lincoln Way to the Cul de Sac, in the City of Sparks. Wood Rodgers Inc., is the consultant for Design and Engineering During Construction Services. Construction is scheduled for the spring of 2021. This project will open bids on March 10, 2021.

REPORT ON NEGOTIATED SETTLEMENT AGREEMENTS FOR THE ACQUISITION OF PROPERTY

Project	Property Owner	Purchase Amount	Amount Over Appraisal
Mill Street Complete Street Project	J&O Nevada LLC	$2,890	$0
Mill Street Complete Street Project	Diamond Boat, LLC	$4,950	$0
Mill Street Complete Street Project	Decker, Michael P.	$1,040	$0
Mill Street Complete Street Project	Haley Bogart & Amy Bogart	$4,280	$0
Mill Street Complete Street Project	EADAC Investment Company	$24,990	$0
TE Spot 10 –North Project	Abheydeep Virk & Jaspal Sanghera	$1,000	$0

CONTRACTS UP TO $100,000

Johnson Perkins Griffin in the not-to-exceed amount of $19,500 for the appraisal of parcels associated with Reno Consolidated 20-01: Mayberry Drive, California Avenue and First Street Rehabilitation/Reconstruction Project.

Paragon Partners, LTD., in the not-to-exceed amount of $46,140 for the acquisition of parcels associated with Reno Consolidated 20-01: Mayberry Drive, California Avenue and First Street Rehabilitation/Reconstruction Project.

Wise Consulting in the not-to-exceed amount of $7,500 for Wrondel Property Abatement and Demo Investigation Services associated with the Peppermill Station Project.

REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.4**

From: Mark Maloney, Director of Public Transportation and Operations

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RECOMMENDED ACTION

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

BACKGROUND AND DISCUSSION

Highlights

National Transit Operator Appreciation Day – Thursday, March 18, is designated – ***National Transit Operator Appreciation Day***. In honor of its drivers, Keolis scheduled a food truck for Villanova and Fourth Street Station. Details to follow next month.

RTC Launches New Virginia Line Bus Rapid Transit (BRT) Service – On Saturday, March 6, RTC launched its Virginia Street RAPID Extension to the University of Nevada, Reno. This extension to the University is the final phase of this project. The University and the community will benefit from the extended RAPID service including new stations with convenient locations and quick access to destinations along the Virginia Street corridor from campus to downtown Reno, Midtown Reno and Meadowood Mall. The new BRT Virginia Line has features that allow buses to travel more quickly along the corridor with fewer stops than on regular bus routes, including transit stops approximately every half mile, raised level-boarding platforms to allow passengers to get on and off quickly, dedicated bus lanes in some locations, and technology that allows the bus to communicate with traffic signals to help keep the route on schedule. This new route features two new electric buses, including the newly wrapped Renown Hospital bus, and will operate on 10-minute headways along Virginia Street.

RTC Announces Call for Projects under the FTA Section 5310 Program for Enhanced Mobility of Seniors and Individuals with Disabilities – On March 15, RTC announced a Call for Projects open through April 16, 2021, under the Federal Transit Administration's (FTA) Section 5310 Grant program. The 5310 Program is available to enhance mobility for seniors and persons with disabilities by providing funds that support the special needs of seniors beyond traditional public transportation services and for those with disabilities beyond that required by the Americans with Disabilities Act (ADA). Eligible applicants include private, non-profit organizations, state and local governmental authorities where no private, non-profits are readily available to provide the proposed service, or an operator of public transportation. Section 5310 funds are available for capital, operating and administrative expenses. Total available funding for a two-year call for projects is $821,333 (55% Capital = $415,124; 45% Operating = $339,646; plus Coronavirus Response and Relief Supplemental Appropriations Act of 2021 (CRRSSA) funding (100% Operating = $65,562.)) Project recommendations will be brought to the Board at its June meeting. For additional information visit https://www.rtcwashoe.com/accessibility-5310-grant-program-information.

RTC RIDE Key Highlights

- In late February, Keolis began a nationwide search for a replacement GM. In the interim, Omar Oliveros will be on sight providing guidance and oversight to the Reno team.
- Aline Frantzen, Keolis CEO, and Mike Ake, RVP Operations, visited the property the last week of February to facilitate the GM transition. Mike will return later in March.
- Keolis finished its operator bid in preparation for the new March 6 service enhancements.
- In February, Keolis released 4 new bus operators into revenue service.
- During Washoe County's vaccination event on February 12, Keolis manned a bus to provide a warm shelter for seniors.
- New Fleet Update:
    - 8 - 2020 New Flyer coaches are in revenue service.
    - 2 - 2020 Proterras were released to revenue service on March 6 with the launch of the new Virginia Line BRT.
    - 9 - 2020 New Flyers are being prepped for revenue service
- In February, the Keolis maintenance staff completed their training on the new Proterra buses.
- The Keolis safety team has been working on workplace violence awareness and winter weather driving. Keolis continues to educate its drivers on de-escalation techniques, specifically in regards to enforcing the new federal mask mandate issued by the CDC.
- Keolis continues the disinfecting process for COVID prevention in the buildings and on the buses.
- Keolis, in coordination with the RTC, rolled out its vaccination campaign to staff in early February. Staff is ensuring that all Keolis employees interested in receiving the vaccine, are scheduling their appointments. They are continually monitoring progress from the time staff receive their appointments until they receive the actual vaccine. Feedback has been positive and employees are eager to get the vaccination. Employees are "thanking Keolis and RTC for making this happen for their health and wellbeing."

Keolis to Install New Temperature Screeners

• Three Temperature Screeners are being configured for deployment at the operations and Villanova Buildings A and B. Once configured they will log daily activity and visits of all staff, vendors and visitors to the location. The machines are configured to use the Face Recognition feature for compliance tracking and contact tracing purposes. If contact trace reporting is necessary, the combination of face recognition, logging of screeners and DriveCam installed on all vehicles will help determine exposure to fellow staff and visitors. Procedures are being finalized to notify all staff about the changes, how-and-when to use them, where they are located and proper reporting procedures.

• Safety Logs are being updated to accurately track vendor and guest badges as well.

RTC ACCESS Key Highlights

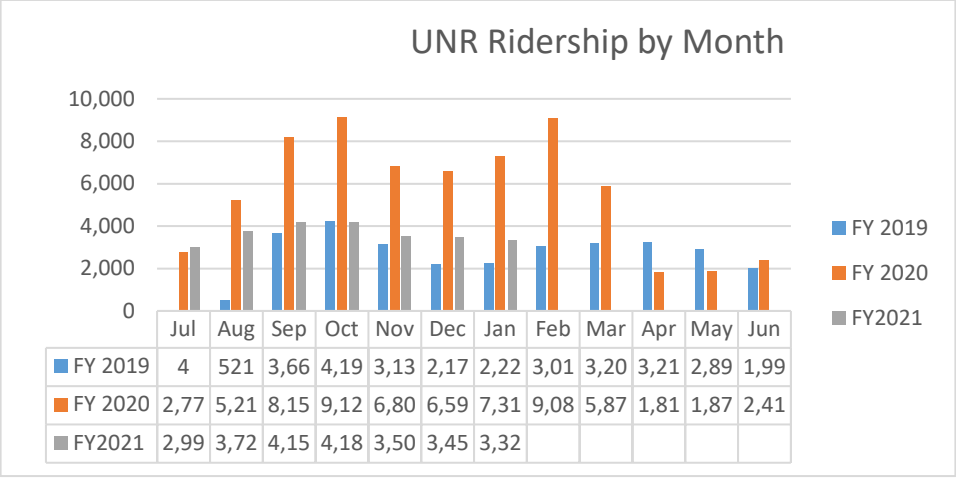
- COVID-19 Vaccination update:
  - 35 of 56 Operators signed-up to receive the vaccine
  - To date, 30 have received their first dose
  - 27 of the 35, have scheduled and will receive their second dose, beginning March 3rd
  - Management staff continues to reach out to those drivers not yet scheduled and/or who signed up but did not receive the vaccine
- FlexRIDE update:
  - Average weekly completed bookings = 1,300
  - Approximately 100 new (first time riders) weekly
  - Average median wait time = 11 minutes
- MTM management held a Valentine's Day Safety Blitz focusing on "Slips, Trips and Falls," and offered "heart" healthy snacks.

TRANSIT DEMAND MANAGEMENT (TDM) Update

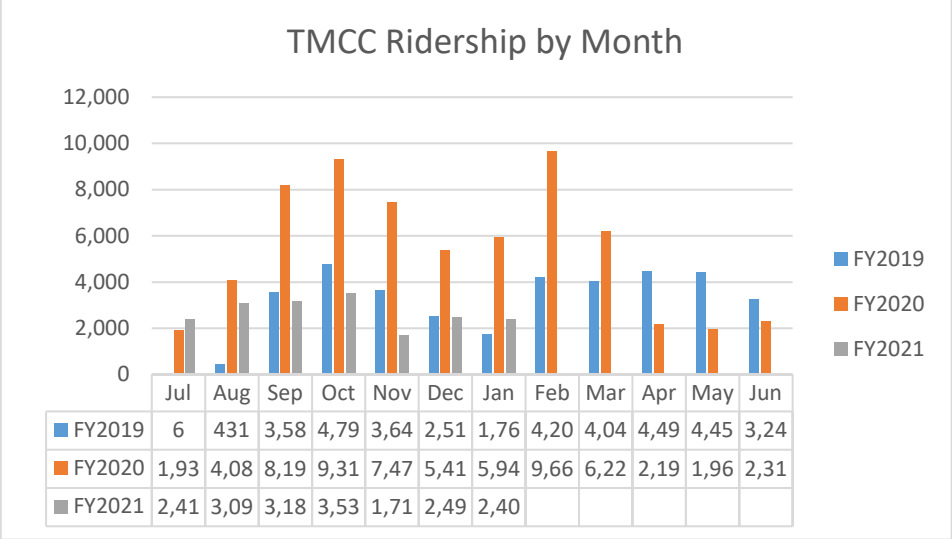
- Vanpools rose to 235 from 233, with over 150 of those serving the Tahoe-Reno Industrial Center (TRIC). Vans are still running to the Army Depot, the prisons and Air National Guard. Tesla continues operations with COVID-19 precautions. Staff is working with Walmart and Chewy, who could join the vanpool program early this year. The Vanpool program has not only rebounded to its pre-pandemic level (218) but has added to that total. Staff will continue to monitor this situation.
- There are no updates on the trip reduction ordinance for the City of Reno.
- Staff met via Zoom with Dominique Hall, ASUN President, and Sandra Rodriguez, ASUN Advisor, to answer questions regarding the ED Pass program before the students meet with UNR President Sandoval. Both student ASUN representatives fully support the ED Pass

program and advised that the Senate of the Associated Students is moving forward with this issue, bringing it to the students for a vote on March 10th. Staff issued a letter for President Sandoval outlining RTC's commitment to the program. Staff also applied and received a Congestion Mitigation Air Quality grant to extend the pilot program to the end of 2021, pending the vote.

- Staff continues to work with developers to include bus pass subsidy programs in redeveloped apartment complexes in Reno.
- Ridership numbers from the ED pass program thru January 2021:



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 2019	4	521	3,66	4,19	3,13	2,17	2,22	3,01	3,20	3,21	2,89	1,99
FY 2020	2,77	5,21	8,15	9,12	6,80	6,59	7,31	9,08	5,87	1,81	1,87	2,41
FY2021	2,99	3,72	4,15	4,18	3,50	3,45	3,32					

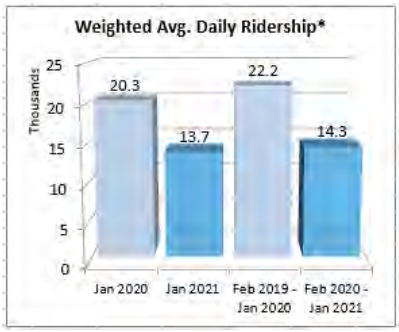


	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY2019	6	431	3,58	4,79	3,64	2,51	1,76	4,20	4,04	4,49	4,45	3,24
FY2020	1,93	4,08	8,19	9,31	7,47	5,41	5,94	9,66	6,22	2,19	1,96	2,31
FY2021	2,41	3,09	3,18	3,53	1,71	2,49	2,40					

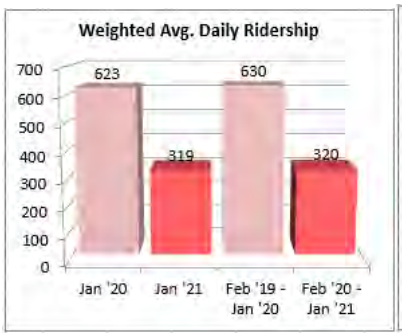
Looking at ridership trends, you can see that that ridership during the pandemic is still higher than ridership before the ED Pass pilot program began.

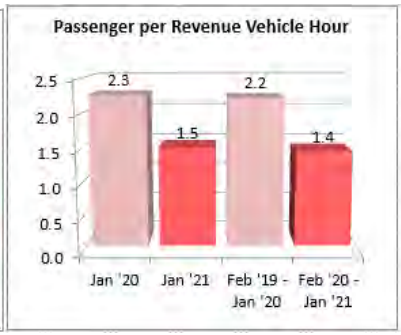
JANUARY 2021 TRANSIT PERFORMANCE

RTC RIDE



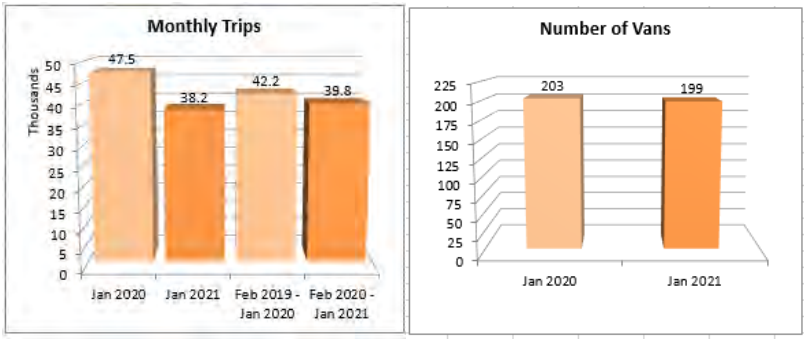
RTC ACCESS





TART

RTC VANPOOL



ATTACHMENTS

A. RTC RIDE Performance Statistics Table
B. RTC ACCESS Performance Statistics Table
C. TART Performance Statistics Table
D. RTC RIDE Fiscal Year Comparison Charts
E. RTC ACCESS Fiscal Year Comparison Charts
F. TART Fiscal Year Comparison Charts
G. RTC Vanpool Fiscal Year Comparison Charts

ATTACHMENT A

RTC RIDE Performance Statistics[1]

Performance Indicator	Current month compared with same month last year			Current 12-months compared with previous year		
	Jan 2021	Percent Change	Jan 2020	Feb 2020 - Jan 2021	Percent Change	Feb 2019 - Jan 2020
Monthly Ridership	410,170	-34.1%	622,853	5,189,225	-35.2%	8,011,633
Weighted Avg. Daily Ridership	13,670	-32.5%	20,259	14,346	-35.3%	22,161
Revenue Vehicle Hours (RVH)*	22,138	-2.4%	22,686	263,932	0.0%	263,931
Rides Per RVH*	18.5	-32.5%	27.5	19.7	-35.2%	30.4
Revenue Vehicle Miles (RVM)*	236,861	-5.1%	249,690	2,872,109	-0.8%	2,896,583
Complaints Per 25,000 Rides	3.35	9.9%	3.05	3.52	-3.5%	3.65
On-Time Performance[2]	89.2%	0.3%	89.0%	91.2%	1.3%	90.0%

Performance Indicator	Dec 2020	Percent Change	Dec 2019	Jan 2019 - Dec 2020	Percent Change	Jan 2018 - Dec 2019
Revenue	$226,745	-42.2%	$392,595	$3,017,259	-37.3%	$4,816,053
Farebox Recovery Ratio	6.2%	-57.3%	14.6%	9.1%	-40.1%	15.2%
Subsidy per Ride	$7.92	116.3%	$3.66	$5.57	67.0%	$3.34

[1] RTC Transit includes RTC RIDE, RTC RAPID, RTC REGIONAL CONNECTOR, and UNR Midtown Direct

[2] Percent of trips zero min. early and five minutes or less late

* - RVH and RVM are preliminary for January

ATTACHMENT B

RTC ACCESS Performance Statistics

Performance Indicator	Current month compared with same month last year			Current 12-months compared with previous year		
	Jan '21	Percent Change	Jan '20	Feb '20 - Jan '21	Percent Change	Feb '19 - Jan '20
Monthly Ridership	8,918	-53.0%	18,959	113,384	-49.5%	224,652
Weighted Avg. Daily Ridership	319	-48.8%	623	320	-49.2%	630
Revenue Vehicle Hours	6,026	-28.2%	8,399	79,661	-21.3%	101,243
Passenger per Revenue Vehicle Hour (does not include taxi data)	1.48	-34.4%	2.26	1.42	-35.9%	2.22
Revenue Vehicle Miles (RVM)	76,827	-46.8%	144,366	940,342	-44.9%	1,706,404
Complaints per 1,000 Rides	0.67	-8.9%	0.74	0.68	49.6%	0.45
ADA Capacity Denials	0	0.0%	0	0	0.0%	0
Other Denials	0	0.0%	0	0	0.0%	0
Accidents per 100,000 Miles	0.00	-100.0%	0.69	0.82	10.1%	0.74
On-Time Performance (does not include taxi data)	97.1%	4.6%	92.8%	97.7%	6.9%	91.4%
Taxi On-Time Performance	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Performance Indicator	**Sept '20**	**Percent Change**	**Sept '19**	**July '20 - Sept '20**	**Percent Change**	**Sept '19 - July '19**
Revenue*	$113,566	-29.4%	$160,905	$323,504	-30.5%	$465,547
Farebox Recovery Ratio*	14.16%	-39.36%	23.35%	14.64%	-31.04%	21.23%
Subsidy per Passenger*	$56.47	177.5%	$20.35	$54.27	147.4%	$21.94

*September 2020 data is the latest available.

ATTACHMENT C

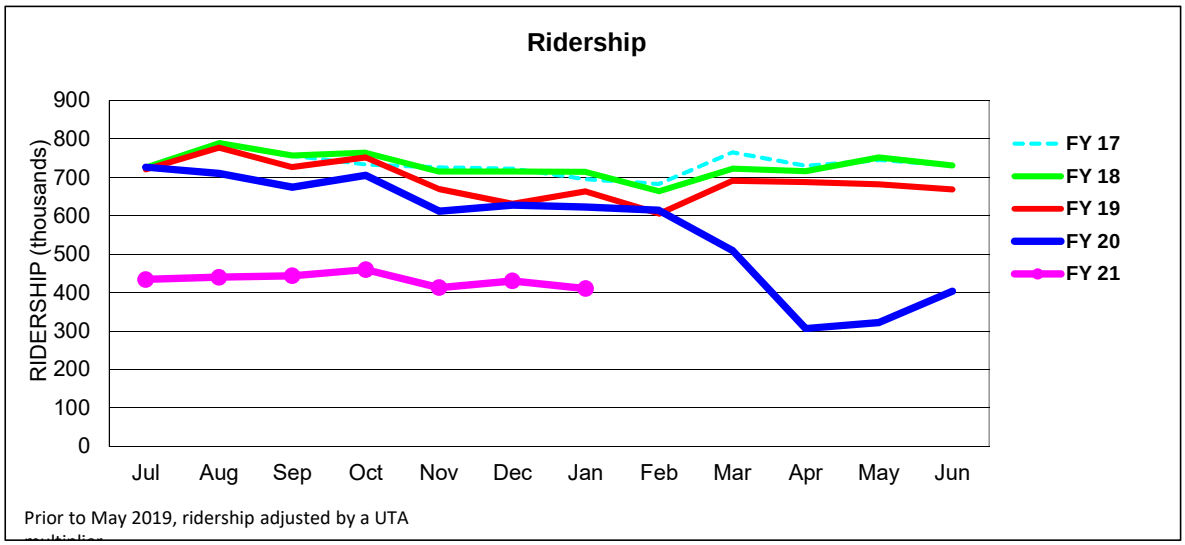
TART Performance Statistics

Performance Indicator	Current month compared with same month last year			Current 12-months compared with previous year		
	Jan 2021	Percent Change	Jan 2020	Feb 2020 - Jan 2021	Percent Change	Feb 2019 - Jan 2020
Monthly Ridership	1,673	-72.1%	5,997	24,773	-43.9%	44,144
Weighted Avg. Daily Ridership	55.5	-71.2%	192.4	69.1	-43.5%	122.3
Revenue Vehicle Hours (RVH)	337	-13.0%	388	4,344	-2.4%	4,452
Rides per RVH	5.0	-67.9%	15.5	5.7	-42.5%	9.9
Revenue Vehicle Miles (RVM)	5,081	-17.4%	6,148	85,081	-8.8%	93,263
Revenue*	$0	N/A	$0	$0	-100.0%	$37,624
Farebox Recovery Ratio*	0.0%	N/A	0.0%	0.0%	-100.0%	7.0%
Subsidy per Ride	$25.45	221.1%	$7.93	$21.88	92.1%	$11.39

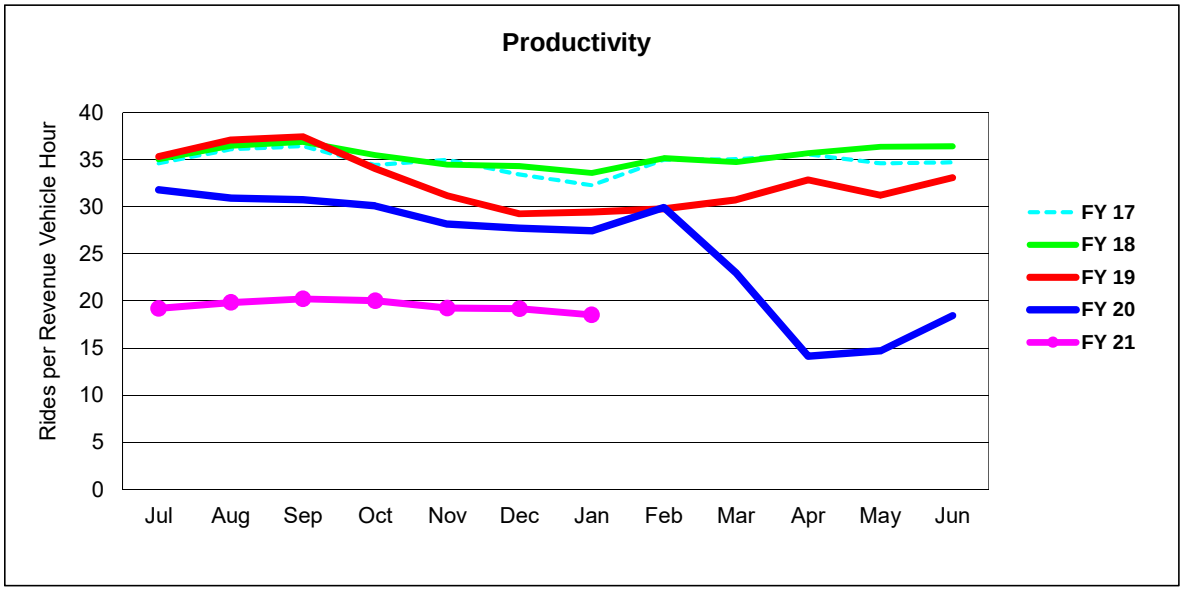
* - Effective December 12, 2019 TART started providing free rides for a two-year trial period.

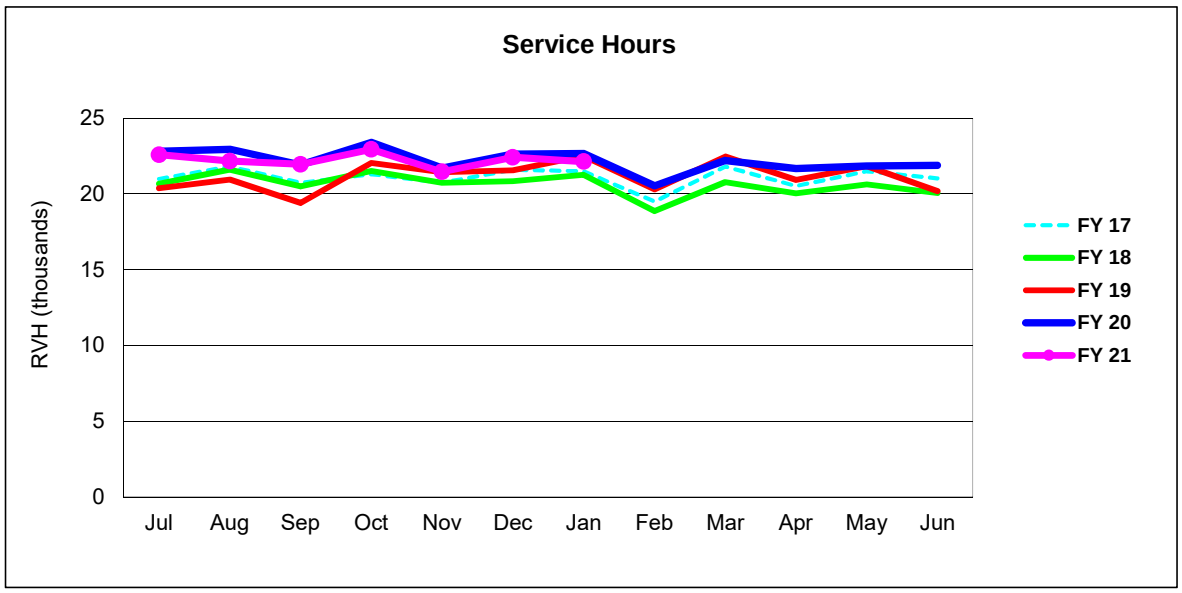
ATTACHMENT D

RTC RIDE
Fiscal Year Comparisons



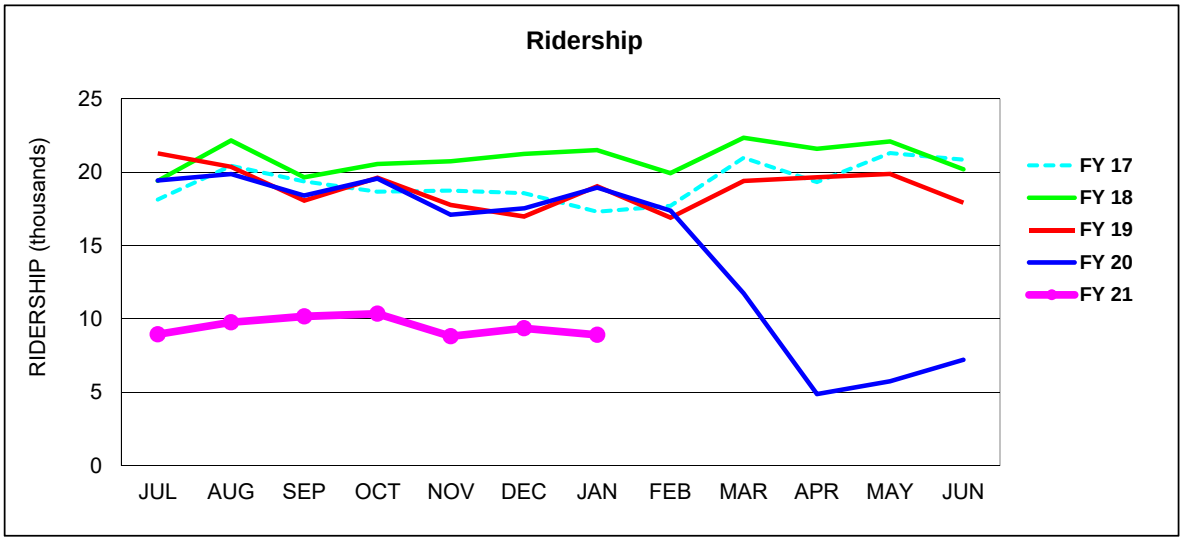
Prior to May 2019, ridership adjusted by a UTA multiplier

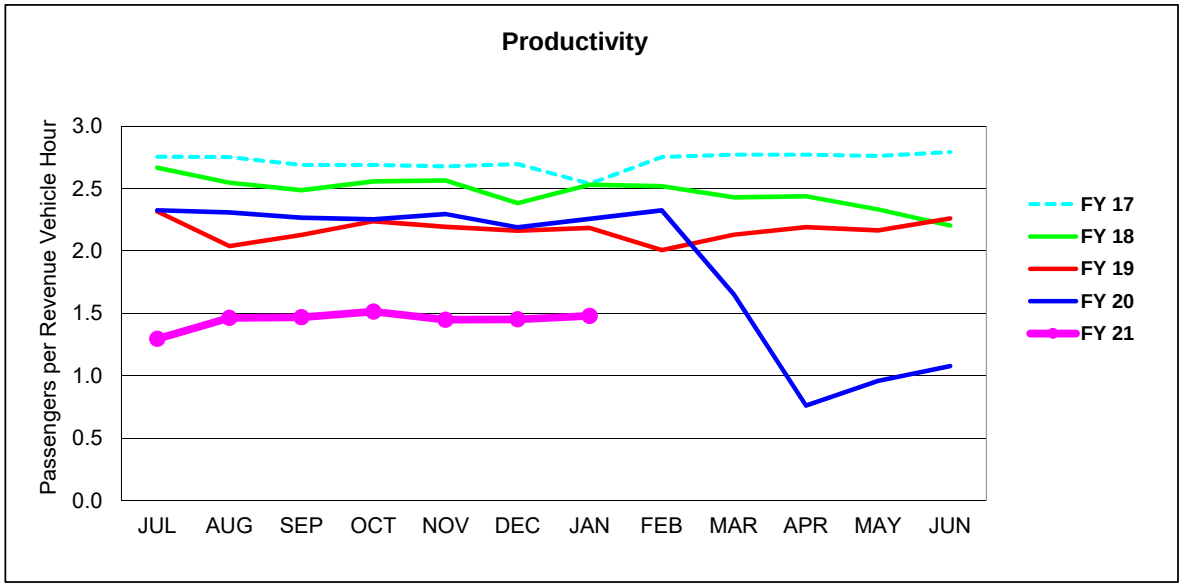


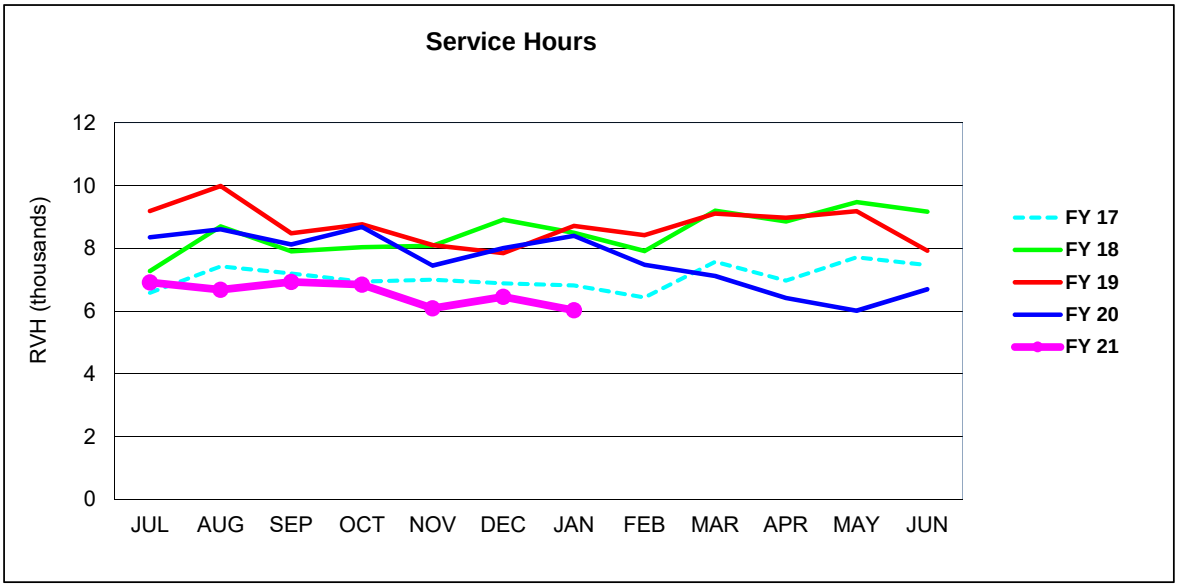


ATTACHMENT E

RTC ACCESS
Fiscal Year Comparisons

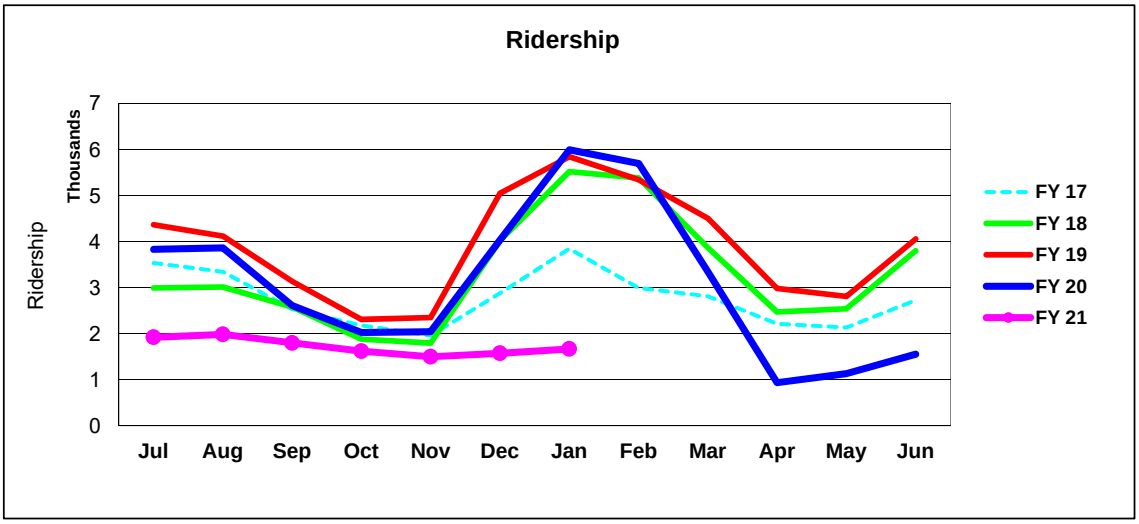


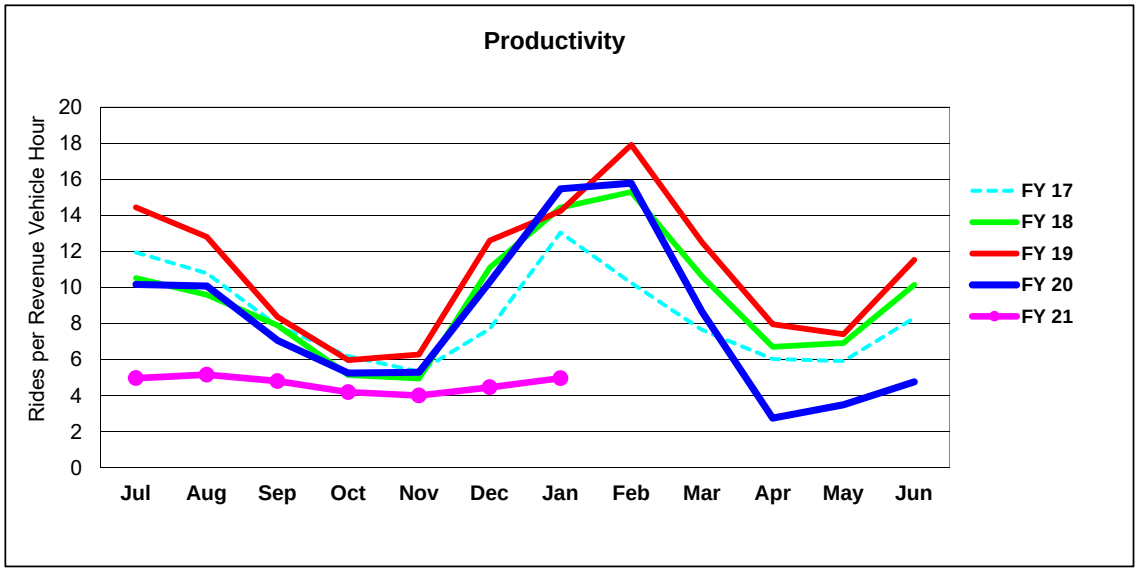


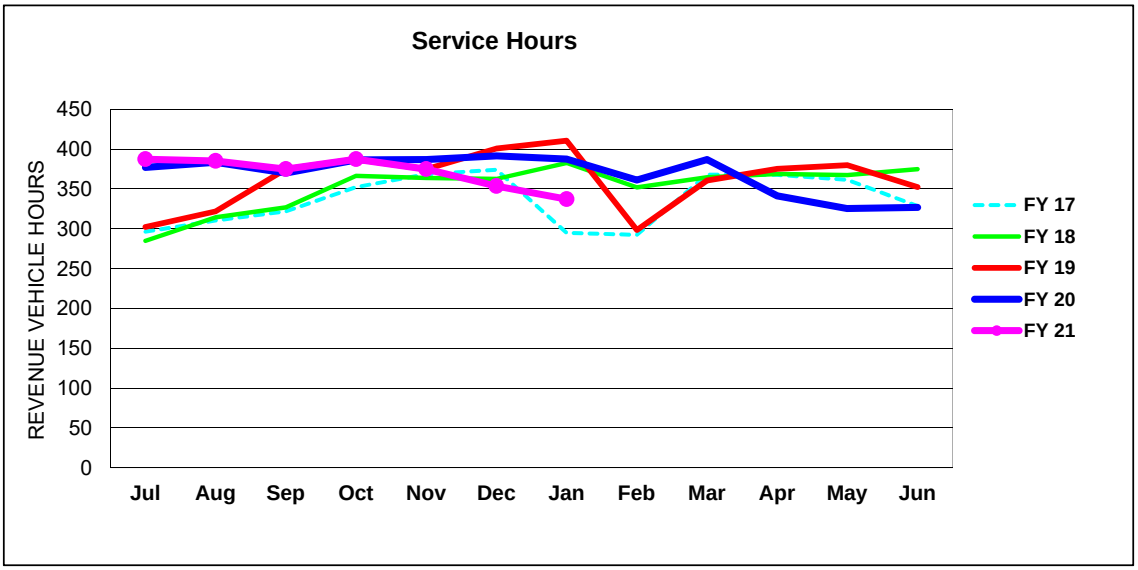


ATTACHMENT F

TART - Nevada
Fiscal Year Comparisons

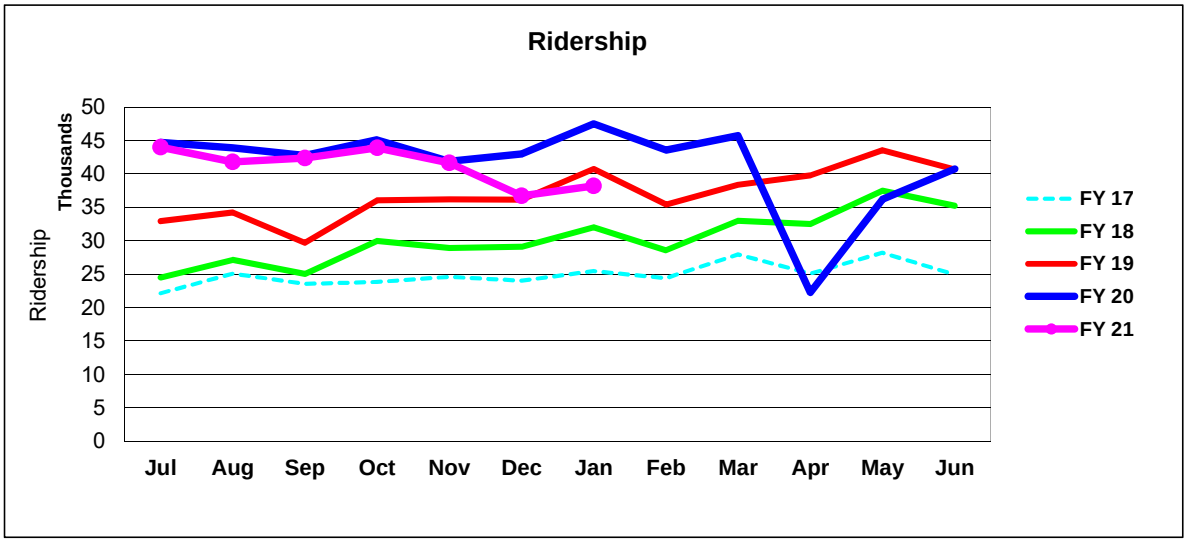


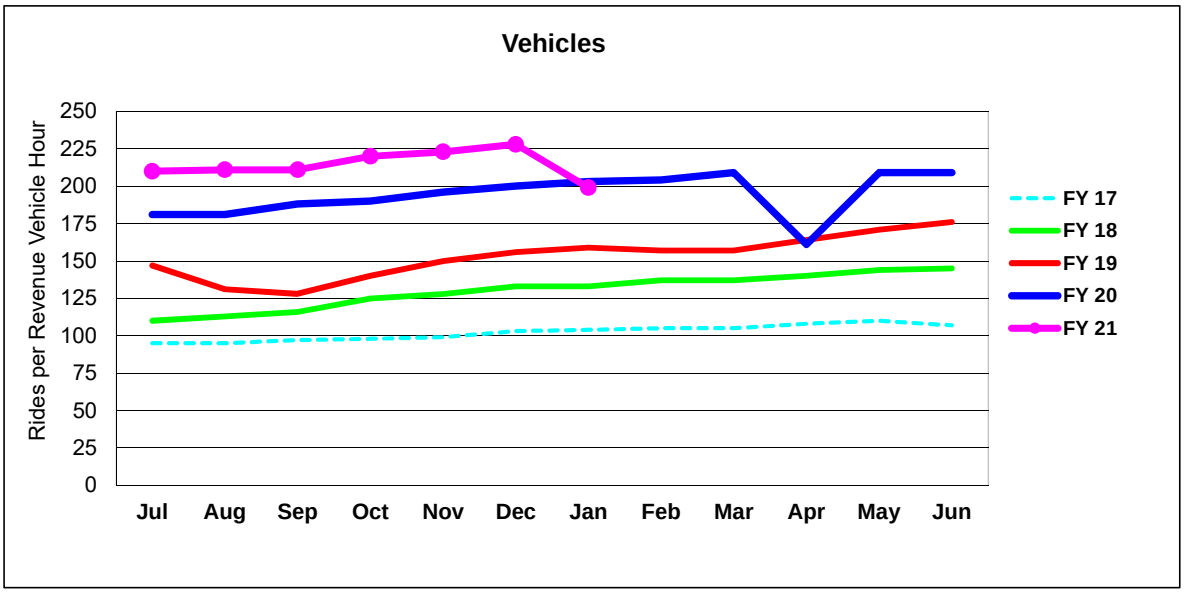




ATTACHMENT G

RTC Vanpool
Fiscal Year Comparisons





REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.5**

From: Stephanie Haddock, Finance Director/CFO

RECOMMENDATION

Acknowledge receipt of the monthly Procurement Activity Report.

PROJECTS CURRENTLY ADVERTISED

Invitations for Bids (IFB)	
Project	**Due Date**
Golden Valley Road Rehabilitation	3/25/2021
Sparks Consolidated 21-01	3/10/2021
TE Spot 10-North	3/05/2021

Request for Proposals (RFP)	
Project	**Due Date**
RTC 21-29 Armed and Unarmed Transit Center Security Services	3/17/2021

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
Reno Consolidated 21-01	Sierra Nevada Construction	2/22/2021	$1,536,007

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
RTC Properties Snow and Ice Removal Services	Dynamic Nevada Construction, LLC	$54,420

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

There were none.

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.6**

From: Amy Cummings, AICP/LEED AP
Director of Planning, Deputy Executive Director

Mark Maloney
Director of Public Transportation

Brian Stewart, P.E.
Engineering 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) and is comprised of 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) that 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 March 3, 2021, and recommended approval of the 2050 Regional Transportation Plan (RTP) and FFY 2021-2025 Regional Transportation Improvement Program (RTIP).

Technical Advisory Committee (TAC)

The TAC met on March 4, 2021, and recommended approval of the 2050 Regional Transportation Plan (RTP) and FFY 2021-2025 Regional Transportation Improvement Program (RTIP).

Regional Road Impact Fee Technical Advisory Committee (RRIF TAC)

The RRIF TAC met on February 25, 2021, and acknowledged receipt of a report on COVID-19 impacts on transportation trends, a report on project lists in the draft 2050 RTP, and a report on the RRIF General Administrative Manual, and projects proposed to be included in the Capital Improvement Plan.

FISCAL IMPACT

There is no fiscal impact associated with this agenda item.

REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.7**

From: Brian Stewart, Director of Engineering

RECOMMENDED ACTION

Approve Amendment No. 1 to the existing Professional Services Agreement (PSA) with Atkins North America, Inc., for additional design services related to the Sky Vista Parkway Rehabilitation Project in the amount of $235,421 for a new total not-to-exceed amount of $1,944,489.

BACKGROUND AND DISCUSSION

This amendment adds funds for additional design services for this project. Additional funding is needed for design elements not taken into account during initial scoping of this project and the associated effort to complete the final solicitation documents. These include landscape design for roundabout area and other areas, retaining wall design, underground exploration of utilities, and additional right-of-way research affected by the roadway widening.

This amendment adds $235,421 to the current PSA amount of $1,709,038, for a new total not to exceed amount of $1,944,459. The fee schedule and amended scope of services associated with this amendment are included as Attachment A.

FISCAL IMPACT

Project appropriations are included in the approved FY 2021 Budget.

PREVIOUS BOARD ACTION

December 23, 2019 Approved the PSA with Atkins North America, Inc.

ATTACHMENT

A. PSA Amendment No. 1

AMENDMENT NO. 1

The Regional Transportation Commission of Washoe County ("RTC") and Atkins North America, Inc. ("CONSULTANT"), entered into an agreement dated December 23, 2019 (the "Agreement"). This Amendment No. 1 is dated and effective as of March 19, 2021.

RECITALS

WHEREAS, RTC and CONSULTANT entered into the Agreement in order for CONSULTANT to perform engineering services in connection with the Sky Vista Parkway Rehabilitation Project (the "Project"); and

WHEREAS, additional effort and services are needed in connection with the design of retaining walls and landscaping impacts, and as a result of delays in the local government design review process; and

WHEREAS, the parties desire for CONSULTANT to provide additional services for Project Management, Preliminary and Final Design (Tasks 1, 4 and 5 respectively) as described in Exhibit A, at an additional cost of $235,421.

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

1. Section 3.2 will be replaced in its entirety with:

   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:

Total Services (Tasks 1 - 6)	$1,122,473
Design Contingency (Task 7)	$50,000
Optional Construction Services (Tasks 8 - 9)	$721,986
Construction Contingency (Task 10)	$50,000
Total Not-to-Exceed Amount	$1,944,459

2. Exhibit A is replaced in its entirety with the version of Exhibit A attached hereto.

3. Exhibit B is replaced in its entirety with the version of Exhibit B attached hereto.

4. All other provisions of the Agreement shall remain in full force and effect.

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

REGIONAL TRANSPORTATION COMMISSION
OF WASHOE COUNTY

By:_____
Bill Thomas, AICP, Executive Director

ATKINS NORTH AMERICA, INC.

By: _____
Roger Philippi, P.E.

EXHIBIT A

SCOPE OF SERVICES

INTRODUCTION

CONSULTANT will provide engineering services for the Sky Vista Parkway Rehabilitation Project.

The project limits include Sky Vista Parkway from and including the Vista Knoll Parkway intersection to and including the Silver Lake Road intersection.

Anticipated improvements include reconstructing and widening the existing two-lane roadway (one lane in each direction) to include four lanes (two lanes in each direction) with a raised median; dedicated left turn lanes; dedicated right turn lanes where necessary; new curb, gutter and sidewalk along both sides of the roadway; bicycle lanes; pedestrian ramps; traffic signal infrastructure; utility adjustments; grading; and drainage improvements. Existing raised median; transit pullouts; curb, gutter and sidewalk; and multi-use path reconfiguration, removal, and/or replacement will be necessary. The intersections along Sky Vista Parkway including Vista Knoll Parkway, Trading Post Road, Black Bear Drive, and Silver Lake Road will be reconfigured and reconstructed to accommodate the widened roadway section. Multiple existing and future development access locations including the North Valleys Regional Park will also be reconfigured and reconstructed to accommodate the widened roadway section.

The scope of services will generally consist of the following tasks:

1. PROJECT MANAGEMENT

1.1. Team and Project Management

CONSULTANT will provide project management services for the duration of the Sky Vista Parkway Rehabilitation Project including closeout activities; remaining duration assumed to be six months (6) months, February 2021 through July 2021.

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); risk management; preparation and monthly project schedule updates; management of Subconsultants, oversight of quality assurance on deliverables; file management; project closeout; and general project administration.

CONSULTANT Project Manager will serve as the Regional Transportation Commission (RTC)'s single point of contact and will have primary responsibility for coordinating the efforts of the project team and subconsultants.

1.2. Project Coordination

CONSULTANT Project Manager will keep the RTC Project Manager informed of progress with bi-weekly informal briefings via email or phone call. CONSULTANT Project Manager will participate in a project kickoff meeting as well as 50%, 90%, and 100% design review meetings, and up to three coordination meetings with the RTC and City of Reno.

Deliverables – Meeting agendas and minutes; Invoicing and progress reports

1.3. Project Management Plan (PMP)

CONSULTANT will prepare a Project Management Plan (PMP) that will include: Project Instructions, Risk Management Plan, Communications Protocols; Project Directory, Scope, Schedule, and Budget, File and Information Sharing and Storage Protocols, and the 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 Sky Vista Parkway and Rehabilitation Project. A Quality Manager will be assigned who be responsible for the development and implementation of the plan. The QMP will apply to both prime and Subconsultant team members. An independent quality review will be performed on each design deliverable including the 50%, 90%, 100%, and Final milestone packages.

2. PUBLIC AND AGENCY INVOLVEMENT

2.1. Public Information Meetings

CONSULTANT will prepare applicable exhibits, assist with facilitation, and document two (2) public information meetings. Public Information Meetings will be held once during preliminary design and once again before construction with the property owners adjacent to the project work zone to discuss project limits, scope, tentative schedule, traffic control, driveway access, public notification requirements, and any concerns of adjacent properties before the plans and specifications are finalized.

It is assumed the RTC will identify appropriate venues, design and place print ads, prepare mailers and press releases, cover the direct costs associated with the meeting venues, print ads, court reporter, Spanish translator, and mailers and those costs are not included as part of the CONSULTANT'S fee.

Deliverables - Public information meeting exhibits and summaries.

2.2. Stakeholder Meetings

CONSULTANT will be available for one-on-one briefings/meetings with and presentations to community stakeholders as requested by the RTC Project Manager. It is anticipated that the CONSULTANT will attend up to five (5) one-on-one presentations and/or meetings during this project. CONSULTANT will provide meeting minutes as directed by the RTC.

Deliverables - Community stakeholder meeting exhibits and summaries.

2.3. City of Reno Council Presentation Assistance

CONSULTANT will provide materials to the RTC staff for up to two (2) presentations to the RTC Board and Reno City Council if required.

Deliverables – Meeting materials, PowerPoint presentations.

3. INVESTIGATION OF EXISTING CONDITIONS

3.1. Condition Survey

CONSULTANT will visually evaluate and document the condition of the existing roadway and project site conditions.

CONSULTANT will evaluate curb and gutter, sidewalk, and driveway approaches based upon RTC criteria. The CONSULTANT shall also evaluate existing pedestrian ramps for compliance with current ADA standards and consider multi-modal improvements.

3.2. Traffic Data

Traffic data is needed to estimate the past 18-kip equivalent single axle load (ESAL) applications that have contributed to the current condition of the pavement, as well as the future 18-kip ESAL applications that will be required for reconstruction design. It is assumed that all the information on average daily traffic (current and future), truck percentages and truck factors will be available from RTC and/or City of Reno traffic records. Additionally, CONSULTANT will utilize the 2035 RTP traffic volumes for Sky Vista Parkway identified in the North Valleys Multimodal Transportation Study with updated traffic count information for the intersection locations provided by the RTC to determine traffic operations and turn lane storage lengths.

CONSULTANT shall review RTC RIDE bus route schedules, calculate and include ESAL's in the pavement design to ensure proposed structural sections will accommodate a 20-year pavement design life.

CONSULTANT shall review previously completed private developer traffic studies provided by the RTC for applicability to this project and utilize the information within

to the extent practicable. Minor stop-controlled side street intersections will not be evaluated. Signal timing will not be evaluated. No separate traffic study will be performed. Traffic analysis will be performed to support roadway design development, but no standalone Traffic Report will be produced.

3.3. Geotechnical Investigation

In addition to the widening of Sky Vista Parkway to four lanes, it is assumed the existing two-lane roadway will be reconstructed. CONSULTANT will perform geotechnical investigations and associated laboratory testing to develop geotechnical design recommendations.

3.3.1. Research

CONSULTANT will research existing geotechnical studies and reports, perform field exploration, and complete field and 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.

3.3.2. Field Exploration

Prior to start of the geotechnical investigation, CONSULTANT shall perform Subsection Identification and Core Location Selection. Information from the condition surveys will be reviewed and locations for pavement coring and boring will be identified by CONSULTANT and reviewed and approved by the RTC.

CONSULTANT will obtain an encroachment permit from the City of Reno for field exploration activities. A third-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. If significant utility conflicts exist based on USA markings and borehole locations cannot be adjusted, CONSULTANT will notify the RTC, and with the RTC Project Manager's concurrence, request approval to pothole a sufficient number of locations to obtain more detailed information, as part of Task 7, Design Contingency. If pothole information is not needed or concurrence by the RTC Project Manager is not obtained, CONSULATANT will take every precaution to lower the risk of damaging underground structures; however, if insufficient or incorrect data results in damage to underground structures, the cost for repair will be the responsibility of the RTC.

It is anticipated that exploration will be completed by 14 exploratory borings to depths of 5 to 10 feet below the existing grade surface. It is anticipated that exploration will require 3 days to complete. Borings will be backfilled with cement grout per City of Reno requirements.

CONSULTANT will log material encountered during exploration in the field. The existing structural section will be measured. Bulk samples of the subgrade soils will be obtained for R-value and moisture-density relationship testing. Representative samples will be returned to CONSULTANT's Reno laboratory for testing.

Percolation testing will also be completed at 3 locations along the roadway alignment in the road shoulders at depths of 4 to 5 feet. The soil profile will be determined to 10 feet at these locations.

3.3.3. Laboratory Testing

Representative samples of each significant soil type will be tested in the laboratory as to index properties, such as moisture content, grain size distribution and plasticity. These index properties are indicative of mechanical behavior of the soils.

Moisture-density curve relationship tests will also be completed on representative subgrade soils. Optimum moisture content determined by these tests will be compared to in-place subgrade soil moisture contents and provides a basis to determine if unstable subgrade soils will be encountered.

R-value testing will be performed on representative samples of anticipated subgrade soils. R-value testing is a measure of subgrade strength and expansion potential and is used in the design of flexible pavements.

3.3.4. Structural Testing Design

Structural section design recommendations will be based on AASHTO methodology and the current RTC Flexible Pavement Design Manual. Design recommendations will also follow City of Reno structural section recommendations based on the roadway classification.

Traffic projections will be provided by the RTC as discussed in Section 3.2. These traffic projections will be utilized to determine growth factors and ESAL counts. The average ESAL factors for the roadway functional classification will be based on the latest NDOT Annual Traffic Report.

3.3.5. Geotechnical Investigation Report

Upon completion of the field, laboratory testing, and analysis phases of the investigation, the findings and recommendations will be summarized in a draft report for submittal to the RTC and the City of Reno including the following:

- Description of the project site with the approximate locations of the explorations presented on a site plan

- Descriptive logs of the explorations performed for this study
- Summary of existing structural section thicknesses
- General summary of subgrade soil description
- Subgrade soil moisture and ground water conditions
- Laboratory test results
- Subgrade soil design resilient modulus
- Soil percolation rates for infiltration design
- ESAL count determination
- Structural section alternative design recommendations
- Construction recommendations including:
    - Site preparation and grading recommendations
    - Subgrade soil stabilization alternatives
    - Structural section construction recommendations
    - Anticipated construction difficulties

A final report will be issued addressing the comments; only one round of review and comments is scoped. After addressing any comments, a final Geotechnical Investigation Report will be completed.

Deliverables – Geotechnical Investigation Report.

3.4. Subsurface Utilities

Utilities within the project area will be located and assessed for possible conflict with the proposed project.

CONSULTANT will investigate and locate subsurface utilities within the 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 lids of surface features and document depth of utility device, or invert of pipe, within such surface features.

Based on field investigation, CONSULTANT will provide the RTC a list of utility companies whose utilities are likely to be within the project limits or reasonably affected by the project. CONSULTANT will issue the initial notification to the utility agencies on the list and coordinate with the utility agencies for upcoming work, facility relocation and new installation, and to insure utilities likely affected by the project are drawn on the plan and profile, evaluate potential conflicts through field investigation, investigate conflict resolution strategies.

Monthly utility coordination meetings will not be held with the RTC and affected utility companies.

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 the contract documents if provided by the affected utility agency in a timely manner that meets the CONSULTANT design schedule. CONSULTANT will assist the RTC in preparation of applications necessary for submission to utility companies for facility relocations, as required.

No upgrading or expanding of facilities shall be included.

CONSULTANT will distribute design review submittals to utility agencies for review and comment and provide the RTC a list of utility agencies provided design review submittals and Utility Agency review comments.

Deliverables - Depiction of subsurface utilities on plan sheets developed under Task 4, Preliminary Design, and Task 5, Final Design. An inventory of subsurface utility surface features by owner, type, location, and depth of feature or pipe invert.

3.5. Utility Potholing

Should insufficient information be available from existing records to determine if conflicts between the proposed work and existing utilities will occur, CONSULTANT shall request approval from the RTC to pothole a sufficient number of locations to make such a determination. CONSULTANT will hire a potholing subconsultant to investigate and locate specific subsurface utilities within the roadway R/W, and areas reasonably effected by the project that are deemed to have potential conflicts with construction. This is estimated up to a total of 20 potholes will be conducted to locate facilities within the project limits.

Deliverables - Depiction of subsurface utilities on plan sheets developed under Task 4, Preliminary Design, and Task 5, Final Design.

3.6. Topographic Survey

Topographic mapping and Boundary will be determined to meet design needs.

CONSULTANT will conduct field surveys and provide photogrammetric mapping and office support to produce topographic design surveys within the project area. The survey information will be provided for the full right-of-way width and/or limits of proposed construction. The existing ground topography shall extend 500-feet to 1,000- feet past the intersections with Vista Knoll Parkway and the Silver Lake Road as necessary.

All key existing features of the project site will include, but will not be limited to: centerline elevations; existing stripping; edge of pavement; curb, gutter, and sidewalks; ADA ramps; multi-use paths; retaining walls; ditch features; hinge points; location, invert and rim elevations of all sewer and storm drain manholes and cross-manholes; culverts; location, invert and rim elevations for all water and gas valves,

boxes and vaults; location, invert and rim elevations of storm drain inlets and catch basins; utility poles and anchors; fences; signs; existing survey monuments; location of underground utility carsonite markers (if any); and any other key existing features. Field survey will include up to 25 right of way centerline monuments, boundary corners, section corners, and applicable public land survey monuments within the project limits.

CONSULTANT will perform an aerial planimetric survey. CONSULTANT will provide aerial imagery and topography for 200-feet beyond centerline on each side of the roadway from and including 500-feet to 1,000-feet beyond the Vista Knoll Parkway and the Silver Lake Road intersections.

CONSULTANT will perform minor supplemental field survey as necessary as design progresses.

The horizontal datum shall be Nevada State Plane Coordinate System, West Zone NAD83/94 (HARN), based on GPS surveys. The vertical datum shall be NAVD 88 based on digital bar-code leveling circuits to published City or County, benchmarks.

Deliverables – Color aerial imagery ortho photos compatible with both MicroStation and AutoCAD; MicroStation V8i .dgn file with topographic linework, InRoads existing ground .dtm including 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 200-feet beyond the existing centerline and 500-feet to 1,000-feet beyond each of the project limit intersection returns.

3.7. Right-of-Way Mapping

CONSULTANT will research ownerships and Assessor's Parcel Numbers (APNs) within the project limits, as well as obtain copies of any recorded maps that identify road rights-of-way and boundary lines.

CONSULTANT will prepare right-of-way based on field survey of centerline monuments, section corners, and record maps. Field surveys to adequately locate existing boundary lines is included in Section 3.6.

The right-of-way will be shown on the project plans and used as the basis for Right-of-Way Engineering services included in Section 3.8. Owners names an assessor's parcel numbers will be shown on the base mapping.

Deliverables – Record Right of Way in electronic CADD format.

3.8. Access Management

According to the RTCs 2040 Regional Transportation Plan, Sky Vista Parkway is classified as a "Medium Access Control Arterial." The traffic volumes for Sky Vista Parkway (2035 RTC) exceed the threshold for a minor arterial roadway and qualify for a major arterial roadway, therefore requiring the use of a raised median island. Access Management will be evaluated with the proposed design of a raised median island utilizing the RTCs Access Standards as outlined in the 2040 Regional Transportation Plan and the City of Reno Public Works Design Manual.

3.9. Safety Assessment

CONSULTANT will review the August 2010 to August 2015 crash data provided in the 2017 North Valleys Multimodal Transportation Study and will also obtain updated crash data from NDOT for August 2015-August 2018. 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.

3.10. Data Collection

CONSULTANT will obtain as-built data (.pdf and electronic CADD files) for the Sky Vista Parkway project limits from the RTC and/or the City of Reno if available.

4. PRELIMINARY DESIGN

4.1. Design Criteria

CONSULTANT will develop design criteria for the project and will establish guidance 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), 2018
- Manual on Uniform Traffic Control Device, 2010
- AASHTO Roadside Design Guide, 2011
- Guide for the Planning, Design, and Operation of Pedestrian Facilities, AASHTO, 2004
- City of Reno Public Works Design Manual, 2009
- City of Reno Construction Standard Details, 2018
- Truckee Meadows Regional Drainage Manual, 4/30/2009 version

If structural design is needled beyond what is included in the Orange Book, The NDOT Structures Manual, 2008 and subsequent revisions, shall be used.

CONSULTANT will prepare draft-design criteria with a summarized listing of the governing standards and references, for review by the RTC and City of Reno for review and approval. CONSULTANT will review existing geometry for consistency with the agreed upon standards. Should the RTC or City of Reno 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.

Deliverables – Draft and Final Design Criteria memorandums.

4.2. Alternative Development

CONSULTANT will prepare and submit for review a proposed alternative for a widened four-lane typical section utilizing the City of Reno's four (4) lane section for a major arterial roadway recommended in the City of Reno Public Works Design Manual, including development of up to two (2) conceptual alternatives for the proposed Silver Lake Road intersection. Considerations will build upon elements within the previous North Valleys Multimodal Corridor Study if applicable and will consider LOS, the existing right of way width, number of lanes entering and exiting the intersections, turning movements and storage lengths, other access locations in proximity, typical lane widths, bicycle lanes, sidewalks, pedestrian ramps, bus and other large traffic turning movements and the physical constraints of the project area.

CONSULTANT will identify the R/W needed, (if any) and prepare conceptual construction cost estimates for the proposed intersection alternatives.

Deliverables – Alternative Exhibits and planning level estimates.

4.3. Drainage Analysis

CONSULTANT will prepare a drainage analysis to determine the impacts associated with the changes to or addition of curb and gutter, sidewalk, and raised median for Sky Vista Parkway. Drainage will be reviewed, and recommendations made to improve any drainage deficiencies. The Drainage Analysis will require on-site and off-site components and will be performed in accordance with the April 30, 2009 version of the Truckee Meadows Regional Drainage Manual (TMRDM). Sky Vista Parkway will be considered an Arterial for calculation of the on-site minor and major storm events in the TMRDM as well as dry width criteria. The Rational Formula will be used to calculate on-site runoff for the 5-year and 100-year, minor and major storm events respectively. HEC-22 methodology will be used to evaluate drainage inlet interception, bypass, flow depth, and flow spread. Any areas of design exception will be summarized and discussed within the drainage report.

This section of Sky Vista Parkway falls within the Swan Lake watershed and therefore will require storage of impervious area runoff volumes in accordance with Section 709 of the TMRDM to achieve no-adverse-impact (NAI) to Swan Lake. On-site volumetric analysis will be based on the 100-year, 10-day storm event, while off-site routing of peak flows will be based on the 100-year, 24-hour storm event. Volumetric analysis and mitigation are assumed to be limited to added impervious areas (e.g. added roadway width, sidewalk, curb and gutter, etc.). Sky Vista Parkway is within a FEMA Zone X and therefore no submittals to FEMA are included in this scope of work.

A Draft Technical Drainage Report will be prepared to summarize the results of the on-site and off-site analysis performed for the 50% design. The report will summarize the criteria and guidelines used in the analyses, the anticipated performance of the drainage facilities within the project design, conformance with criteria, and any noted design criteria exception areas.

Deliverables – Draft Technical Drainage Report (50%), Final Technical Drainage Report (90%), Drainage Report Addendum (100%, if needed).

4.4. Environmental Analysis

It is assumed no environmental analysis, including sound studies, and/or environmental permits will be required.

4.5. Lighting and Electrical Design

Electrical design will include any required new street lighting, relocating, and/or removing the existing street lighting, irrigation control power, 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. CONSULTANT will provide electrical load and voltage drop calculations.

Lighting design, if any, for the 50% submittal will be conceptual only. No detailed analysis will be completed at the 50% design for lighting. Proposed street lighting will include intersection locations only.

ITS design will not be included.

4.6. Right-of-Way Engineering Services

It is estimated up to twenty (20) additional parcels will require permanent and/or temporary easements and/or potentially partial fee takes to construct the planned improvements. CONSULTANT will perform boundary surveying including preparation of full Metes and Bounds descriptions of 20 individual parcels. This will include property record research, drafting of property boundaries from record descriptions, calculation of search coordinates for field boundary survey, field boundary survey on each affected parcel, post processing and reduction of field data, boundary resolution

based upon field findings, preparation of legal descriptions and exhibit maps of individual affected parcels. CONSULTANT will obtain Title Reports and updates as required and will invoice the RTC for these items as reimbursable expenses.

Right of Way Appraisal, Property Owner Negotiations, Escrow Coordination and Title Clearance is not included within this task.

Deliverables – Property Boundary for 20 additional parcels along with exhibit maps and legal descriptions for easements on each parcel.

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4.7. 50% Design

Incorporating the results of the alternative development, traffic analysis, and drainage analysis CONSULTANT will prepare preliminary design for widening Sky Vista Parkway to four (4) lanes. Roadway plans will be designed in accordance with design criteria developed in sub-task 4.1. CONSULTANT will prepare a list of the exceptions (if any) identifying station limits, standards, and potential mitigations.

Plan sheets will be drafted electronically at full size 1 " = 25' scale, on 22" x 34" size paper, and produced electronically in .pdf format, but printed at only half size 1" = 50' scale, on 11" x 17" sized paper.

The following is a listing of plan sheets (and amount of detail) anticipated in the project contract documents for the 50% Design submittal:

Title Sheet (1)

Index of Sheets, General Notes, Legend, and Abbreviations (2)

Typical Section Sheets (2)

- As-constructed and proposed improvement typical sections
- Minimum and maximum roadway widths
- Preliminary roadside designs (slopes, curbs, gutters, dikes, and traffic barriers)
- Proposed pedestrian and bicycle improvements
- Proposed retaining wall locations (if necessary)
- Removal limits
- Pavement section depths

Survey Control / Right of Way Sheets (9)

- Existing Right of Way limits
- Schedule of coordinates, basis of bearing, stationing and offsets, the control coordinates, and datum statement

Removals and Utility Sheets (5)

- Removal Limits, including existing roadway, signs, drainage, etc.

- Existing Utilities and Proposed Utility adjustments/relocations
- Sign removals
- Existing ground contours at 1' interval

Roadway Plan and Profile Sheets (9)

- Plan view over profile view stacked window layout
- Horizontal curve data, bearings, distances and station and offsets for angle points, tapers, and curves
- Preliminary locations for curbs, gutters, and sidewalk
- Preliminary road widths
- Preliminary cut and fill slope limits
- Vertical grade and curve data
- Superelevation Diagrams (if necessary)

Drainage Plan and Profile Sheets (9)

- Plan view over pipe profile view stacked window layout
- Locations of existing and proposed drainage facilities
- Locations of utilities shown in plan view
- Locations of utility crossings in pipe profile view
- Proposed ground contours at l' interval

Striping Sheets (5)

- Proposed striping detailing lane arrangements including turn lanes, storage lengths, acceleration lanes, and deceleration lanes

Approximately 42 Sheets Total.

Exclusions from the 50% Design:

- Specific/Custom Details will not be prepared
- Utility specific generated design (water, gas, etc.), as necessary resulting from utility conflicts, will not be prepared
- Site reconstruction plans for adjacent properties will not be prepared
- Geometric Control and Grading plans will not be prepared
- Drainage Details will not be prepared
- Retaining Wall and/or Sound Wall plans will not be prepared
- Lighting Plans will not be prepared
- Signal, Traffic Signal Interconnect, and ITS plans will not be prepared
- Detailed analysis for electrical will not be completed
- Cross Sections will not be prepared
- No landscape and aesthetic design for new or remediation for project impacts is included

4.8. Cost Estimate, and Technical Specification Outline

CONSULTANT will prepare a detailed unit price engineer's estimate of probable construction cost in the same format as the bid proposal form to be included in the contract documents. Bid item numbers will correspond to the appropriate sections in the RTC's Orange Book.

The RTC will provide CONSULTANT the most recent RTC Technical Specifications templates. Technical provisions will reference Revision 8 of the 2012 Edition of Standard Specifications for Public Works Construction (Orange Book) for standard construction items. Technical provisions will be prepared for changes to the standards or unique site conditions not adequately covered in the Orange Book. CONSULTANT will prepare 50% technical provisions which will include a detailed outline of the technical provisions for those items not identified as part of the Standard Specifications.

4.9. 50% Design Submittal

CONSULTANT will submit the 50% Design as summarized:

RTC:

- 3 copies 11" x 17" 50% Design plans, Design Exception Summary (if necessary)
- l copy Engineer's opinion of probable construction cost estimate
- 2 CDs with 22" x 34" .pdf of 50% Design plans; Engineer’s estimate; full version of Draft Hydraulic Report; full version of Geotechnical Report
- 1 Electronic Distribution of Review and Comment Form and previous submittal responses (if applicable)

City of Reno:

- 2 copies 11" x 17" 50% Design plans, Design Exception Summary (if necessary)
- I copy Engineer's opinion of probable construction cost estimate
- 2 CDs with 22" x 34" .pdf of 50% Design plans; Engineer’s estimate; full version of Draft Hydraulic Report; full version of Geotechnical Report
- 1 Electronic Distribution of Review and Comment Form and previous submittal responses (if applicable)

Utility Agencies:

- 1 copy 11" x 17" 50% Design plans
- 1 copy of the Technical Specifications
- 1 Electronic Distribution of Review and Comment Form and previous submittal responses (if applicable)

4.10. 50% Design Review Comment Resolution

CONSULTANT will prepare for and attend one in-person meeting with RTC and City of Reno staff to discuss the 50% Design. CONSULTANT will consolidate and provide responses to the 50% Design plan review comments with the 90% Design deliverables.

4.11. 90% Design

Incorporating agency comments from the 50% Design review, CONSULTANT will advance the design and prepare 90% Design plans, a corresponding 90% preliminary engineer's estimate, and 90% technical specifications.

The Draft Technical Drainage Report will be updated as the design progresses. Review comments received from the 50% Design will be incorporated and a Final Technical Drainage Report will be prepared for the 90% Design submittal.

Plan sheets included in the 50% Design submittal will be advanced to the 90% level of detail.

Additional sheets to be included are:

- Geometric Control and Grading plans - Geometric control and grading plan information for median islands, ADA ramps, driveways, and any other feature needing geometry/grading defined for construction
- Signal and Traffic Signal Interconnect plans
- Utilities
- Detailed analysis for lighting and/or electrical
- Detail Sheets
- Structures Sheets
- Landscape and Aesthetic Sheets

Approximately 138 Sheets Total.

Exclusions from the 90% Design:

- Utility specific generated design (water, gas, etc.), as necessary resulting from utility conflicts, will not be prepared
- Site reconstruction plans for adjacent properties will not be prepared
- ITS plans will not be prepared
- Cross Sections will not be prepared

CONSULTANT will prepare for and attend one in-person meeting with RTC and City of Reno staff to discuss the 90% Design.

4.12. Constructability, Cost Estimate, and Technical Specification Review

CONSULTANT 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 develop a draft construction schedule to determine the number of working or calendar days, as appropriate, for the construction of the project.

4.13. 90% Design Submittal

CONSULTANT will submit the 90% Design as summarized:

RTC:

- 3 copies 11" x 17" 90% Design plans, Design Exception Summary (if necessary)
- 1 copy 90% Technical Specifications
- l copy Engineer's opinion of probable construction cost estimate
- 2 CDs with 22" x 34" .pdf of 90% Design plans; Engineer's estimate; full version of Hydraulic Report; full version of Geotechnical Report
- 1 Electronic Distribution of Review and Comment Form and previous submittal responses (if applicable)

City of Reno:

- 2 copies 11" x 17" 90% Design plans, Design Exception Summary (if necessary)
- 1 copy 90% Technical Specifications
- I copy Engineer's opinion of probable construction cost estimate
- 2 CDs with 22" x 34" .pdf of 90% Design plans; Engineer's estimate; full version of Hydraulic Report; full version of Geotechnical Report
- 1 Electronic Distribution of Review and Comment Form and previous submittal responses (if applicable)

Utility Agencies:

- 1 copy 11" x 17" 90% Design plans
- 1 copy of the Technical Specifications
- 1 Electronic Distribution of Review and Comment Form and previous submittal responses (if applicable)

4.14. 90% Design Review Comment Resolution

CONSULTANT will prepare for and attend one in-person meeting with RTC and City of Reno staff to discuss the 90% Design. CONSULTANT will consolidate and provide responses to the 90% plan review comments with the 100% Design deliverables.

4.15. Structural Design

CONSULTANT will advance the design of retaining walls, entrance sign foundations, and hydraulic energy dissipater in conjunction with other disciplines and incorporating input from the RTC, the City of Reno, and Washoe County.

CONSULTANT will provide preliminary structural design for the following:

- Three (3) gravity retaining walls
- One (1) hydraulic energy dissipater including wingwalls
- One (1) North Valleys Regional Park entrance sign foundation

4.16. Landscape and Aesthetics

CONSULTANT will advance the design of landscape and aesthetics in conjunction with other disciplines and incorporating input from the RTC, the City of Reno, and Washoe County.

CONSULTANT will provide preliminary landscape and aesthetic design for the following areas impacted by the project roadway improvements:

- Silver Lake Road Roundabout
- North Valleys Regional Park entrance (north) at Silver Lake Road
- Sky Vista Parkway between Black Bear Drive and Silver Lake Road
- Sky Vista Parkway North Valleys Regional Park entrance (south) and Trading Post Road

5. 100% DESIGN

5.1. 100% Design

Incorporating agency comments from the 90% Design review, CONSULTANT will advance the design and prepare 100% Design plans, engineer's estimate, and technical specifications. 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.

Additional changes to the drainage report are not anticipated after the 90% design submittal; however, if required, a drainage report addendum will be issued for the 100% design submittal.

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.

5.3. Final Design Submittals

CONSULTANT will submit the 100% Design submittal as summarized:

RTC:

- 3 copies 11" x 17" 100% Design plans, Design Exception Summary (if necessary)
- 1 copy 100% Technical Specifications
- l copy Engineer's opinion of probable construction cost estimate
- 2 CDs with 22" x 34" .pdf of 100% Design plans; Engineer's estimate; full version of Hydraulic Report; full version of Geotechnical Report
- 1 Electronic Distribution of Review and Comment Form and previous submittal responses

City of Reno:

- 2 copies 11" x 17" 100% Design plans, Design Exception Summary (if necessary)
- 1 copy 90% 'Technical Specifications
- 1 copy Engineer's opinion of probable construction cost estimate
- 2 CDs with 22" x 34" .pdf of 100% Design plans; Engineer's estimate; full version of Hydraulic Report; full version of Geotechnical Report
- 1 Electronic Distribution of Review and Comment Form and previous submittal responses

Utility Agencies:

- 1 copy 11" x 17" 100% Design plans
- 1 copy of the Technical Specifications
- 1 Electronic Distribution of Review and Comment Form and previous submittal responses

For the Final Design submittal CONSULTANT will provide a full sized .pdf and a .pdf of the Technical Specifications to the RTC for posting on their e-bid system for advertisement.

CONSULTANT will submit a 11" x 17" hard copy of the Final Design plans and 1 hard copy of the Technical Specifications to the RTC and City of Reno.

5.4. Final Engineer's Opinion of Probable Construction Costs and Time

CONSULTANT will provide a final engineer's opinion of probable construction costs for the project based on the final design. 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. CONSULTANT will also provide the final estimate of the number of working or calendar days, as appropriate, for the construction of the project.

5.5 Structural Design

CONSULTANT will advance the design of retaining walls, entrance sign foundations, and hydraulic energy dissipater in conjunction with other disciplines and incorporating input from the RTC, the City of Reno, and Washoe County.

CONSULTANT will provide final structural design for the following:

- Three (3) gravity retaining walls
- One (1) hydraulic energy dissipater including wingwalls
- One (1) North Valleys Regional Park entrance sign foundation

5.6 Landscape and Aesthetics

CONSULTANT will advance the design of landscape and aesthetics in conjunction with other disciplines and incorporating input from the RTC, the City of Reno, and Washoe County.

CONSULTANT will provide final landscape and aesthetic design for the following areas impacted by the project roadway improvements:

- Silver Lake Road Roundabout
- North Valleys Regional Park entrance (north) at Silver Lake Road
- Sky Vista Parkway between Black Bear Drive and Silver Lake Road
- Sky Vista Parkway North Valleys Regional Park entrance (south) and Trading Post Road Bidding Service

6. Bidding Services

6.1 Bidding Services

CONSULTANT will be available during the bidding process to respond to Requests for Information (RFIs) and will attend the RTC hosted pre-bid meeting. All questions and responses will be documented and provided to the RTC, and prepare and provide any addenda, if required. All questions regarding legal aspects of the contract documents will be referred directly to the RTC. CONSULTANT will prepare and provide a summary of the pre-bid meeting, as directed by the RTC.

CONSULTANT will attend the bid opening, review the bids received for irregularities, and provide a recommendation for award. CONSULTANT will tabulate bid results into a MS Excel spreadsheet 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.

Deliverables – Pre-Bid meeting minutes, bid review tabulation, conformed set of design plans and specifications.

7. Design Contingency

7.1 Design Contingency

This is a contingency for miscellaneous increases within the scope of this contract in performance of services under Task 1 through Task 6. If CONSULTANT determines that it is necessary to perform work outside of the scope covered in Task 1 through Task 6, 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.

The RTC and CONSULTANT shall review Optional Construction Services following the completion of final design.

8. Contract Administration (Optional)

8.1. Contract Administration (Optional)

CONSULTANT shall provide contract administration services as follows:

- 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

8.2. Construction Surveying (Optional)

Provide construction staking as follows:

- 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 sub grade preparation

- One set of final curb and gutter, sidewalk, pedestrian ramps, and roadway centerline finish grades stakes at 50-foot stations and 25-foot stations at returns
- One set of offset stakes for storm drains, head walls, traffic signals, and utility pull boxes and vaults
- Roadway monuments, referenced in four directions

8.3. Inspection (Optional)

CONSULTANT will provide one full time inspector during all construction activities. 10-hour work days and a 220 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

CONSULTANT will provide additional inspector during mainline paving days to monitor plantmix bituminous pavement placement and in-place density tests. 100 hours of field inspection and sampling and 100 hours of Nuclear Gauge time are anticipated.

8.4. Materials Testing (Optional)

8.4.1. Materials Testing

CONSULTANT will provide Material Testing for compliance with the specifications per the latest edition of the Standard Specifications for Public Works Construction (Orange Book) testing requirements. Materials to be tested will include plantmix bituminous pavement, aggregate base, native subgrade material, structural fill material and Portland Cement Concrete. 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).

8.4.2. AC Plant Inspection and Testing

CONSULTANT will provide plantmix bituminous pavement plant inspection and laboratory aggregate testing. 12 hours for plant visits and sampling are anticipated. Laboratory tests will consist of sieve analysis, percent of wear, fractured faces and plasticity index.

8.4.3. Asphalt Cement Testing

CONSULTANT will 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, CONSULTANT's designated representative shall coordinate with and receive asphalt cement binder samples from the designated plant representative. 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 or testing. All samples should accompany with a NDOT form titled 'Transmittal for Asphalt Samples" to be provided by the RTC.

8.4.4. On-site Nuclear Gauge Testing and Sampling

CONSULTANT will provide on-site nuclear gauge testing and sampling during the placement of aggregate base and fill materials, on-site thin-lift Nuclear Gauge testing and sampling for plantmix bituminous pavement placement, and on-site PCC testing and sampling, 1,023 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.

8.4.5. Plantmix Bituminous Pavement Testing

CONSULATANT will provide plantmix bituminous pavement tests per each "lot" (500 tons) placed. Laboratory test shall include extraction, aggregate gradation, specific gravity, flow and stability and Marshall unit weight. Reports will also include voids in total mix and voids filled.

8.4.6. Plantmix Bituminous Pavement Coring

CONSULTANT will provide plantmix bituminous pavement coring and Lab Testing. Lab test shall include core unit weight. Test reports will include percent compaction.

8.4.7. Top Lift Longitudinal Joint Testing and Coring

CONSULTANT will 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.

9. Record Information (Sole Option and Discretion of RTC)

9.1 Record Information (Sole Option and Discretion of RTC)

The RTC and CONSULTANT shall review Optional Construction Services following the completion of final design.

CONSULTANT will provide as-built record drawings for the completed project. Two sets of electronic drawings, in single file .pdf format (22" x 34"), will be provided to the RTC for its files and distribution to the City of Reno. 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. CONSULTANT may either provide the final revisions on the original engineer-stamped/signed reproducible drawings, which will then also be identified as the record drawings or 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 the RTC and local government representatives, signed and stamped by CONSULTANT) and identified as record drawings.

10. Construction Contingency (Sole Option and Discretion of RTC)

10.1 Construction Contingency (Sole Option and Discretion of RTC)

The RTC and CONSULTANT shall review Optional Construction Services following the completion of final design. This is a contingency for miscellaneous increases within the scope of this contract in the performance of services under Task 8 and Task 9. If CONSULTANT determines that it is necessary to perform work outside of the scope covered in Task 8 and Task 9, 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.

Exhibit B - Amendment with Fee Summary Detail - Sky Vista Parkway Rehabilitation Project

			Office Personnel																		Survey Personnel			Summary									
Task N .	Item N .	Task	Pr ject Principal	Pr ject Direct r	Design Manager	Quality Manager	Sr. Engineer III	Sr. Engineer II	Sr. Engineer I	Pr ject Engineer II	Pr ject Engineer I	Structures Manager	Sr. Structural Engineer II	Structural Engineer II	Structural Engineer I	Landscape Architect Manager	Sr. Landscape Architect III	Sr. Landscape Architect II	Public Inf rmati n Specialist	Office/ Clerical	Pr fessi nal Land Survey r	Seni r Party Chief	2 Pers n Survey Crew	T tal H urs	Lab r	Expense	5% Sub Markup	Atkins	CME	PK Electrical	SUE	Aer tech	T tal Subs	T tal Price
		Staff	Matt Baird	David D ds n	Brian Janes	James Marrs	Mike Dempsey/ Danja Petr	Kamal Qaiser	Austin C ler/ Sharla Gibs n	Bryan Hutchins	Bradley Miller	Yuhe Yang	Ningyu Ga	Pete V mvas/ TBD	TBD	Wilis n McBurney	Chad Hayes/ Leslie R tner	Lindzay Green	McKenna Keefer	Stacy Y k yama	Eric Christians n	Andrew Hauskaas												
		Year 1 Bill Rates (2020)	$260.00	$240.00	$240.00	$220.00	$190.00	$180.00	$155.00	$135.00	$120.00	$240.00	$180.00	$135.00	$120.00	$190.00	$135.00	$120.00	$85.00	$80.00	$130.00	$110.00	$190.00											
1	**01**	**Project Management**	20	422	204	8													16	88				742	$165,965			$165,965						$165,964.52
	01.01	Team and Pr ject Management	20	288	154															80				542	$118,916			$118,916						$118,915.64
	01.02	Pr ject C rdinati n		102	42																			144	$34,923			$34,923						$34,922.88
	01.03	Pr ject Management Plan (PMP)		16	8															4				28	$6,144			$6,144						$6,143.84
	01.04	Quality Management Plan (QMP)		16		8														4				28	$5,982			$5,982						$5,982.16
2	**02**	**Public and Agency Involvement**		34	26				100										16					176	$31,588			$31,588						$31,588.23
	02.01	Public Inf rmati n Meetings		16	8				40										16					80	$13,460			$13,460						$13,459.86
	02.02	Stakeh lder Meetings		10	10				40															60	$11,116			$11,116						$11,115.50
	02.03	City f Ren Presentati n Assistance		8	8				20															36	$7,013			$7,013						$7,012.87
3	**03**	**Investigation of Existing Conditions**		18	12		80	24	112												32	56	140	474	$82,439		$4,114	$86,553	$43,580		$30,000	$8,700	$82,280	$168,832.64
	03.01	C nditi n Survey		8	8			16	16															48	$9,297			$9,297						$9,296.60
	03.02	Traffic Data					40		8															48	$8,933			$8,933						$8,932.82
	03.03	Ge technical Investigati n		4	4																			8	$1,940		$2,179	$4,119	$43,580				$43,580	$47,699.16
	03.04	Subsurface Utilities							16															16	$2,506			$2,506						$2,506.04
	03.05	Utility P th ling		2					16															18	$2,991		$1,500	$4,491				$30,000		$34,491.08
	03.06	T p graphic Survey						8	8												16	32	140	204	$35,759		$435	$36,194				$8,700	$8,700	$44,894.19
	03.07	Right f Way Mapping																			16	24		40	$4,845			$4,845						$4,844.75
	03.08	Access Management		2			20		20															42	$7,457			$7,457						$7,457.49
	03.09	Safety Assessment		2			20		20															42	$7,457			$7,457						$7,457.49
	03.10	Data C llecti n							8															8	$1,253			$1,253						$1,253.02
4	**04**	**Preliminary Design**		58	146	38	324	152	1056	372	588	18	100	70	70	4	50	110		16	200	280	48	3310	$570,200	$16,000	$450	$586,650		$9,000			$9,000	$595,650.29
	04.01	Design Criteria		2	2		4		24		24													56	$8,407			$8,407						$8,407.36
	04.02	Alternative Devel pment		16	16		64		200		24													320	$54,284			$54,284						$54,284.06
	04.03	Drainage Analysis			72			64		164	64													364	$59,236			$59,236						$59,235.51
	04.04	Envir nmental Analysis																																
	04.05	Lighting and Electrical Design					16		8															24	$4,325		$200	$4,525		$4,000			$4,000	$8,524.94
	04.06	Right f Way Engineering Services																			200	280	48	528	$67,662	$16,000		$83,662						$83,662.27
	04.07	50% Design		8	8	16	80	8	384	128	232													864	$129,991			$129,991						$129,990.72
	04.08	50% Estimate, Spec Review		8	16			24	24															72	$13,945			$13,945						$13,944.90
	04.09	50% Design Submittal		2	2				8											8				20	$2,870			$2,870						$2,869.82
	04.10	50% Design Review C mment Res luti n		2	2			8	8															20	$3,678			$3,678						$3,678.22
	04.11	90% Design		8	8	22	80	16	368	80	236													818	$124,211		$250	$124,461		$5,000			$5,000	$129,460.66
	04.12	90% C nstructability, Estimate, Spec Review		8	16		80	24	24															184	$33,807			$33,807						$33,807.50
	04.13	90% Design Submittal		2	2						8									8				20	$2,587			$2,587						$2,586.88
	04.14	90% Design Review C mment Res luti n		2	2			8	8															20	$3,678			$3,678						$3,678.22
	04.15	Structural Design										18	100	70	70									258	$40,592			$40,592						$40,591.79
	04.16	Landscape Design														4	50	110						164	$20,927			$20,927						$20,927.46
5	**05**	**Final Design**		22	26	26	58	32	260	84	172	14	40	34	30	8	35	80		16				696	$143,668		$250	$143,918		$5,000			$5,000	$148,917.84
	05.01	100% Design		8	10	20	48	16	180	84	140													506	$77,566		$250	$77,816		$5,000			$5,000	$82,815.98
	05.02	Final Design		2	4	6	10		48		32													102	$16,107			$16,107						$16,107.37
	05.03	Final Design Submittals		4	4				16											16				40	$5,740			$5,740						$5,739.64
	05.04	Final Engineer's OPCC and Time		8	8			16	16															48	$9,297			$9,297						$9,296.60
	05.05	Structural Design										14	40	34	30									118	$18,947			$18,947						$18,946.88
	05.06	Landscape Design														8	35	80						123	$16,011			$16,011						$16,011.37
6	**06**	**Bidding Services**		8	24				24															56	$11,520			$11,520						$11,519.70
	06.01	Bidding Services		8	24				24															56	$11,520			$11,520						$11,519.70
7	**07**	**Design Contingency**																							$50,000			$50,000						$50,000.00
	07.01	Design C ntingency																							$50,000			$50,000						$50,000.00

Exhibit B - Amendment 1 Fee Summary Detail - Sky Vista Parkway Rehabilitation Project

Task N .	Item N .	Task	Office Personnel																		Survey Personnel			Summary										
			Pr ject Principal	Pr ject Direct r	Design Manager	Quality Manager	Sr. Engineer III	Sr. Engineer II	Sr. Engineer I	Pr ject Engineer II	Pr ject Engineer I	Structures Manager	Sr. Structural Engineer II	Structural Engineer II	Structural Engineer I	Landscape Architect Manager	Sr. Landscape Architect III	Sr. Landscape Architect II	Public Inf rmati n Specialist	Office/ Clerical	Pr fessi nal Land Survey r	Seni r Party Chief	2 Pers n Survey Crew	T tal H urs	Lab r	Expense	5% Sub Markup	Atkins	CME	PK Electrical	SUE	Aer tech	T tal Subs	T tal Price
		Staff	Matt Baird	David D ds n	Brian Janes	James Marrs	Mike Dempsey/ Danja Petr	Kamal Qaiser	Austin C ller/ Sharla Gibs n	Bryan Hutchins	Bradley Miller	Yuhe Yang	Ningyu Ga	Pete V mvas/ TBD	TBD	Wilis n McBurney	Chad Hayes/ Leslie R tner	Lindzay Green	McKenna Keefer	Stacy Y k yama	Eric Christians n	Andrew Hauskaas												
		Year 1 Bill Rates (2020)	$260.00	$240.00	$240.00	$220.00	$190.00	$180.00	$155.00	$135.00	$120.00	$240.00	$180.00	$135.00	$120.00	$190.00	$135.00	$120.00	$85.00	$80.00	$130.00	$110.00	$190.00											
1	**01**	**Project Management**	20	422	204	8														88				742	$165,965			$165,965						$165,964.52
8	**08**	**Construction Services (Optional)**	10	40	40			40	80												40	100	220	3378	$516,175.22		$9,513	$525,688	$190,255				$190,255	$715,942.97
	08.01	C ntract Administrati n	10	40	40			40	80															618	$130,384			$130,384						$130,383.60
	08.02	C nstructi n Surveying																			40	100	220	360	$59,533			$59,533						$59,532.94
	08.03	Inspecti n																						2400	$326,259			$326,259						$326,258.68
	08.04	Materials Testing																									$9,513	$9,513	$190,255				$190,255	$199,767.75
9	**09**	**Record Information (Optional)**		2					20		20													42	$6,043			$6,043						$6,042.79
	09.01	Rec rd Drawings		2					20		20													42	$6,043			$6,043						$6,042.79
10	**10**	**Construction Contingency (Optional)**																							$50,000			$50,000						$50,000.00
	10.01	C nstructi n C ntingency																							$50,000			$50,000						$50,000.00
		T tal H urs	30	604	478	72	462	248	1,652	456	780	32	140	104	100	12	85	190	16	120	272	436	408											
		Rate/H ur Escalated t Midp int f Pr ject Phase	$525.46	$485.04	$485.04	$444.62	$383.99	$363.78	$313.26	$272.84	$242.52	$242.52	$181.89	$136.42	$121.26	$192.00	$136.42	$121.26	$171.79	$161.68	$266.87	$225.81	$390.04											
		T tal C st	$7,882	$146,482	$115,925	$16,006	$88,702	$45,109	$258,749	$62,206	$94,583	$7,761	$25,465	$14,187	$12,126	$2,304	$11,595	$23,039	$1,374	$9,701	$36,295	$49,228	$79,569	8,874	$1,627,597	$16,000	$14,327	$1,657,924	$233,835	$14,000	$30,000	$8,700	$286,535	$1,944,459

Escalati n Fact r f r Design Phase 1.05%
Escalati n Fact r f r CM Phase 4.24%

	H urs	Price
T tal Design	5454	$1,172,473.21
T tal CM	3420	$771,985.76

Exhibit B - Amendment 1 with Fee Summary - Sky Vista Parkway Rehabilitation Project

Task N .	Item N .	Task	Summary										
			T tal H urs	Lab r	Expense	5% Sub Markup	Atkins	CME	PK Electrical	SUE	Aer tech	T tal Subs	T tal Price
1	**01**	**Project Management**	204	$46,362	$0	$0	$46,362	$0	$0	$0	$0	$0	$46,361.74
	01.01	Team and Pr ject Management	156	$34,721	$0	$0	$34,721	$0	$0	$0	$0	$0	$34,720.78
	01.02	Pr ject C rdinati n	48	$11,641	$0	$0	$11,641	$0	$0	$0	$0	$0	$11,640.96
	01.03	Pr ject Management Plan (PMP)	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	01.04	Quality Management Plan (QMP)	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
2	**02**	**Public and Agency Involvement**	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	02.01	Public Inf rmati n Meetings	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	02.02	Stakeh lder Meetings	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	02.03	City f Ren Presentati n Assistance	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
3	**03**	**Investigation of Existing Conditions**	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	03.01	C nditi n Survey	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	03.02	Traffic Data	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	03.03	Ge technical Investigati n	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	03.04	Subsurface Utilities	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	03.05	Utility P th ling	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	03.06	T p graphic Survey	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	03.07	Right f Way Mapping	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	03.08	Access Management	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	03.09	Safety Assessment	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	03.10	Data C llecti n	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
4	**04**	**Preliminary Design**	518	$132,092	$0	$0	$132,092	$0	$0	$0	$0	$0	$132,092.15
	04.01	Design Criteria	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	04.02	Alternative Devel pment	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	04.03	Drainage Analysis	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	04.04	Envir nmental Analysis	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	04.05	Lighting and Electrical Design	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	04.06	Right f Way Engineering Services	264	$33,831	$0	$0	$33,831	$0	$0	$0	$0	$0	$33,831.13
	04.07	50% Design	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	04.08	50% Estimate, Spec Review	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	04.09	50% Design Submittal	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	04.10	50% Design Review C mment Res luti n	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	04.11	90% Design	254	$36,742	$0	$0	$36,742	$0	$0	$0	$0	$0	$36,741.78
	04.12	90% C nstructability, Estimate, Spec Review	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	04.13	90% Design Submittal	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	04.14	90% Design Review C mment Res luti n	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	04.15	Structural Design	258	$40,592	$0	$0	$40,592	$0	$0	$0	$0	$0	$40,591.79
	04.16	Landscape Design	164	$20,927	$0	$0	$20,927	$0	$0	$0	$0	$0	$20,927.46

Exhibit B - Amendment 1 with Fee Summary - Sky Vista Parkway Rehabilitation Project

Task N .	Item N .	Task	Summary										
			T tal H urs	Lab r	Expense	5% Sub Markup	Atkins	CME	PK Electrical	SUE	Aer tech	T tal Subs	T tal Price
5	**05**	**Final Design**	152	$56,967	$0	$0	$56,967	$0	$0	$0	$0	$0	$56,966.94
	05.01	100% Design	122	$17,502	$0	$0	$17,502	$0	$0	$0	$0	$0	$17,501.86
	05.02	Final Design	30	$4,507	$0	$0	$4,507	$0	$0	$0	$0	$0	$4,506.83
	05.03	Final Design Submittals	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	05.04	Final Engineer's OPCC and Time	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	05.05	Structural Design	118	$18,947	$0	$0	$18,947	$0	$0	$0	$0	$0	$18,946.88
	05.06	Landscape Design	123	$16,011	$0	$0	$16,011	$0	$0	$0	$0	$0	$16,011.37
6	**06**	**Bidding Services**	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	06.01	Bidding Services	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
7	**07**	**Design Contingency**	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	07.01	Design C ntingency	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
8	**08**	**Construction Services (Optional)**	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	08.01	C ntract Administrati n	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	08.02	C nstructi n Surveying	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	08.03	Inspecti n	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	08.04	Materials Testing	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
9	**09**	**Record Information (Optional)**	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	09.01	Rec rd Drawings	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
10	**10**	**Construction Contingency (Optional)**	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	10.01	C nstructi n C ntingency	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
	T tal H urs												
	Rate/H ur Escalated t Midp int f Pr ject Phase												
	T tal C st		874	$235,421	$0	$0	$235,421	$0	$0	$0	$0	$0	$235,421

Escalati n Fact r f r Design Phase	1.05%
Escalati n Fact r f r CM Phase	4.24%

	H urs	Price
T tal Design	874	$235,420.83
T tal CM	0	$0.00

Exhibit B - Amendment 1 with Fee Summary - Sky Vista Parkway Rehabilitation Project

Task N .	Task	Original C ntract Fee	Additi nal Eff rt	Additi nal Services	Expense	Amendment 1 T tal	Amendment 1 C ntract Fee
1	**Project Management**	$119,602.78	$46,361.74	$0.00	$0.00	$46,361.74	$165,964.52
2	**Public and Agency Involvement**	$31,588.23	$0.00	$0.00	$0.00	$0.00	$31,588.23
3	**Investigation of Existing Conditions**	$168,832.64	$0.00	$0.00	$0.00	$0.00	$168,832.64
4	**Preliminary Design**	$463,558.14	$70,572.91	$61,519.24	$0.00	$132,092.15	$595,650.29
5	**Final Design**	$91,950.90	$22,008.69	$34,958.25	$0.00	$56,966.94	$148,917.84
6	**Bidding Services**	$11,519.70	$0.00	$0.00	$0.00	$0.00	$11,519.70
7	**Design Contingency**	$50,000.00	$0.00	$0.00	$0.00	$0.00	$50,000.00
8	**Construction Services (Optional)**	$715,942.97	$0.00	$0.00	$0.00	$0.00	$715,942.97
9	**Record Information (Optional)**	$6,042.79	$0.00	$0.00	$0.00	$0.00	$6,042.79
10	**Construction Contingency (Optional)**	$50,000.00	$0.00	$0.00	$0.00	$0.00	$50,000.00
	T tal C st	$1,709,038	$138,943	$96,477	$0	$235,421	$1,944,459

REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.8**

From: Brian Stewart, Director of Engineering

RECOMMENDED ACTION

Approve Amendment No. 2 to the existing Professional Services Agreement (PSA) with Poggemeyer Design Group, Inc., for final design services on the Mill Street Complete Street Project in the amount of $5,200, for a new total not-to-exceed amount of $715,550.

BACKGROUND AND DISCUSSION

Poggemeyer Design Group, Inc., was awarded a contract by the Executive Director for design of the Mill Street Complete Street Project in December 2017. Originally envisioned as "just" a sidewalk project, the complexity, scope and cost of the project became clearer through the design development process. Originally, the construction was planned to occur in two phases, with Phase 1 from Rock Boulevard to McCarran Boulevard, and Phase 2 from Terminal Way to Rock Boulevard. However, efforts to secure the required right of way have been successful for the entire project area and having a complete project constructed in one season provides for lower costs, less disruption and continuity throughout.

This amendment will add $5,200 of design services to the contract. Bidding and construction will commence this summer.

FISCAL IMPACT

Project appropriations are included in the approved FY 2021 Budget.

PREVIOUS BOARD ACTION

February 21, 2020	Approved Amendment 1 to the PSA with Poggemeyer Design Group, Inc., for final design and EDC services.
December 15, 2017	Approved the PSA with Poggemeyer Design Group, Inc., for design services.

ATTACHMENT(S)

A. PSA Amendment No. 2

AMENDMENT NO. 2

The Regional Transportation Commission of Washoe County ("RTC") and Poggemeyer Design Group, Inc. ("CONSULTANT"), entered into an agreement dated March 6, 2018, as previously Amended by Amendment 1, dated February 24, 2020 (the "Agreement"). This Amendment No. 2 is dated and effective as of March 19, 2021.

RECITALS

WHEREAS, RTC and CONSULTANT entered into the Agreement in order for CONSULTANT to perform engineering and design services in connection with the Mill Street Complete Street Project (the "Project"); and

WHEREAS, the parties desire to amend the Agreement for CONSULTANT to provide additional final design services to re-package the plans into one construction phase as described in Attachment A hereto, at an additional cost of $5,200.

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

1. Section 5.1 of the Agreement is replaced in its entirety with the following:

   CONSULTANT's fee for the work described in Section 2.1, "Scope of Services," will be based upon actual time and effort for the completion of each separate task at the hourly rates and rates for testing in Exhibit B. 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:

Original Services (Tasks 2.1.A to 2.1.E)	$193,482
Additional Services (Tasks 000, 100, 200, 300, 400, 500, 600)	$93,148
Construction Management Services (Task 700)	$428,920
Total	$715,550

2. Exhibit A of the Agreement will now include the additional final design services described in Attachment A attached hereto.

3. Exhibit B of the Agreement will now include the additional costs described in Attachment A hereto.

4. All other provisions of the Agreement as previously amended shall remain in full force and effect.

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

REGIONAL TRANSPORTATION COMMISSION
OF WASHOE COUNTY

By:_____
Bill Thomas, AICP, Executive Director

POGGEMEYER DESIGN GROUP, INC.

By:_____
Bill Hoffman, P.E.
Northern Nevada Operations Manager

Attachment A

POGGEMEYER DESIGN GROUP
A Kleinfelder Company

January 28, 2021

RTC Washoe
1105 Terminal Way Suite 108
Reno, NV 89502

Attention: Scott Gibson, PE – Project Manager

RE: REGIONAL TRANSPORTATION COMMISSION OF WASHOE COUNTY (RTC)
PROPOSAL FOR AMENDMENT TO THE MILL STREET COMPLETE STREET PROJECT DESIGN CONTRACT PHASE RECOMBINATION

Mr. Gibson,

Pursuant to your request, Poggemeyer Design Group, Inc. (PDG) is pleased to provide the following proposal to amend the existing design contract for the Mill Street Complete Street Project.

SCOPE OF WORK

The existing project scope includes the design of sidewalk, bicycle lane, and bus stop improvements along the Mill Street corridor from Terminal Way to McCarran Boulevard. However, the existing amendment approved in early 2020 allowed PDG to split the project plans into two phases for budget purposes. PDG created two plan sets, one for Phase I construction from approximately 200 feet west of Rock Boulevard to McCarran Boulevard in summer 2021, and one for Phase II construction from Terminal Way to approximately 200 feet west of Rock Boulevard in summer 2022.

RTC has determined, based on PDG's estimate of probable cost, that the budget exists to complete the project construction in one phase, during the summer of 2021. Many changes to the plans have been executed in the past year, making the original combined plan set obsolete. PDG will therefore need to recombine the plan sets into one phase, and is requesting additional funding to carry out this scope of work.

In general, our scope of work includes the following:

- *Rebuilding the sheet set structure*
- *Integrating the covers*
- *Integrating callouts*
- *Integrating details*
- *Re-drawing portions of the project*
- *Re-assembling sheets*

CIVIL ENGINEERING TASKS:

Task 1.1 – Rebuilding the Sheet Set Structure: The sheet set, which pulls the various sheets in the plan set from their respective separate drawing files, needs to be rebuilt to include all of the necessary sheets from both phases. Each sheet will be renamed and renumbered.

Task 1.2 – Integrating the Covers: One cover sheet for both phases will be created, based on the original cover sheet for the combined phase plans. A new table of contents will be developed.

Task 1.3 – Integrating Callouts: Over the past year, design changes have taken place on each phase separately, which created new removal and construction callouts specific to one phase. The callout numberings must therefore be integrated into a uniform set. Callouts across the plans will need to be changed to match the uniform set.

Task 1.4 – Integrating Details: New details were created specific to either phase, in similar fashion to the callouts. These details must be included in the combined phase package. A uniform set of detail sheets must be created, and the callout references to detail number and page must be corrected accordingly.

Task 1.5 – Re-drawing Portions of the Project: When the plans were separated, duplicates of the sheets were made and then edited to remove the portions of the removal, construction, and signage/marking not applicable to that set. Since this time, changes have occurred. To recombine the plans near the phase line, a combination of redrawing and external referencing will be employed to ensure all components appear on both sides of the former boundary.

Task 1.6 – Re-assembling Sheets: Each sheet will be carefully examined to ensure it fits in the context of the set, and appropriate revisions will be made to correct inconsistencies or missing information.

PDG proposes to furnish Engineering Services for the above-described work on a Time and Materials basis, as noted below and in Appendix A, "Fee Schedule Breakdown".

FEE SCHEDULE

Task 1.1	Rebuilding the Sheet Set Structure	$390
Task 1.2	Integrating the Covers	$260
Task 1.3	Integrating Callouts	$650
Task 1.4	Integrating Details	$650
Task 1.5	Re-drawing Portions of the Project	$2,600
Task 1.6	Re-assembling Sheets	$650
TOTAL FEE		***$5,200***

ASSUMPTIONS & EXCLUSIONS

All work not described above is generally excluded from this scope of work and shall be completed by others or under separate agreement with PDG. Specifically excluded are the following:

- This proposal reflects the one (1) complete project described above and assumes that all deliverables and approvals will be obtained as a single phase utilizing a single set of project documents. Any phasing or other breakout required, except as expressly identified above, will incur additional fees to be negotiated with the Owner/Client/Architect.
- Any value engineering effort after the Design Development Phase will require an additional service.

The following PDG individuals have been assigned to this project:

Bill Hoffman, P.E. – Senior Project Manager
Evan Klouse – Engineer Intern

We hope you find this proposal satisfactory and look forward to working together, please feel free to contact us with any questions.

Respectfully Submitted,
POGGEMEYER DESIGN GROUP INC., A KLEINFELDER COMPANY

Bill Hoffman, PE
Northern Nevada Operations Manager

APPENDIX "A"

RTC Washoe
Mill Street Complete Street Project
Phase Recombination Amendment
Projected Period: February 1, 2021 Thru December 30, 2021

Work Description	Staff Classification	Estimated Hours	Hourly Rate	Subtotal
TASK 1.1 Rebuilding the Sheet Set Structure	Engineer Intern	3.00	$ 130.00	$ 390.00
TASK 1.2 Integrating the Covers	Engineer Intern	2.00	$ 130.00	$ 260.00
TASK 1.3 Integrating Callouts	Engineer Intern	5.00	$ 130.00	$ 650.00
TASK 1.4 Integrating Details	Engineer Intern	5.00	$ 130.00	$ 650.00
TASK 1.5 Re-drawing Portions of the Project	Engineer Intern	20.00	$ 130.00	$ 2,600.00
TASK 1.6 Re-assembling Sheets	Engineer Intern	5.00	$ 130.00	$ 650.00
			ESTIMATED PROJECT TOTAL	***$ 5,200.00***

REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.9**

From: Brian Stewart, Director of Engineering

RECOMMENDED ACTION

Approve a Regional Road Impact Fee (RRIF) Offset Agreement between the RTC, Red Rock Mega Storage, LLC, and the City of Reno for the dedication of offset-eligible improvements for the modification of the Red Rock Road/Moya Boulevard intersection.

BACKGROUND AND DISCUSSION

Under the RRIF Program, developers who construct or dedicate offered improvements contained in the RRIF Capital Improvement Program (CIP) will be "paid" for these contributions in RRIF Waivers. To do this, the developer must enter into a RRIF Offset Agreement that will be approved by both the RTC and the local government. The RRIF Offset Agreement specifically identifies the proposed improvements, the estimated RRIF waivers that will be earned, requirements for quality control/quality assurance and the duties and responsibilities of each party. The RRIF Offset Agreement being authorized by this action will result in an estimated $155,737 in RRIF waivers being issued to Red Rock Mega Storage, LLC.

FISCAL IMPACT

No fiscal impact will result from this action. The amount of RRIF waivers to the developer will be based on Offset-Eligible Costs equal to or less than impact fees owed for all or a portion of the land uses within the Development of Record.

PREVIOUS BOARD ACTION

There has been no previous Board action or direction on this matter.

ATTACHMENT(S)

A. Offset Agreement #513007

ATTACHMENT A

Red Rock Road / Moya Boulevard
Intersection Modifications

OFFSET AGREEMENT
Offset Agreement # 513007

BETWEEN

THE REGIONAL TRANSPORTATION COMMISION,
A special purpose unit of the Government

And

CITY OF RENO
a Municipal Corporation

And

Red Rock Mega Storage, LLC

Developer of Record

For

APN 087-350-05 Mini-Warehouse Development

Development of Record

North Service Area

TABLE OF CONTENTS

EXHIBITS

OFFSET AGREEMENT

This Offset Agreement ("Offset Agreement") is entered by and between the REGIONAL TRANSPORTATION COMMISSION (hereinafter designated "RTC"), a special purpose unit of Government; CITY OF RENO, a municipal corporation, (hereinafter designated "Local Government"); and RED ROCK MEGA STORAGE, LLC (hereinafter designated "the Developer of Record").

1. **General**

1.1 **Ordinance, Manual and CIP**. The City of Sparks, the City of Reno, Washoe County, and RTC have entered into an Interlocal Cooperative Agreement for the purposes of implementing the Regional Road Impact Fee ("RRIF") Program. The Participating Local Government has passed a Regional Road Impact Fee Ordinance ("Ordinance") to implement the RRIF. RTC and the Participating Local Government have adopted the Regional Road Impact Fees General Administrative Manual, Current Edition ("Manual"), specifying the provisions and procedures for administration of the RRIF, as well as the Regional Road Impact Fee System Capital Improvement Plan ("CIP") Current Edition, identifying the regional streets and improvements which shall be constructed in whole or in part with funds generated from the RRIF. The terms and provisions of the Manual and the CIP are incorporated herein by reference as if fully set forth. All capitalized terms not otherwise defined herein shall have the definitions and meanings as used in the Ordinance, Manual and CIP. Amendments approved by the RTC and local governments are incorporated by reference to the same extent as if set forth in full herein.

1.2 **Basis for this Offset Agreement.** The parties intend this Offset Agreement to be an Offset Agreement as provided in Section X of the Manual, to provide for waivers of Regional Road Impact Fees ("RRIF Waiver") in exchange for contributions of Offered Improvements (which may include right-of-way ("ROW") dedication), which may then be used to offset Regional Road Impact Fees which would otherwise be chargeable to the Developer of Record's Development of Record. Section X of the Manual contains specific provisions pertaining to Waivers and is attached hereto and incorporated herein as Exhibit "A".

1.3 **Effective Date of Offset Agreement.** This Offset Agreement shall be binding and effective as of the last date of execution below.

1.4 **Eligibility of Offered Improvements.** The Offered Improvements have been identified by the Local RRIF Administrator as being included in the Exhibit "D" of the CIP, titled North Capital Improvement Plan.

2. **The Development of Record and Offered Improvements.**

2.1 **Description of the Development of Record.** The Development of Record for which the RRIF Waivers shall be issued is known as Red Rock Mega Storage. The Developer of Record owns or is the agent for the record owners of the entire Development. A site plan and narrative description of the Development

of Record, including the proposed land uses and units of development is attached hereto as Exhibit "B-1". The legal description of the Development of Record is attached as Exhibit "B-2."

2.2 **Offered Improvements.**

2.2.1 **Description of Offered Improvements.** The Developer of Record has submitted an application shown herein as Exhibit "C" describing the specific Offered Improvements which the Developer of Record proposes to construct and/or dedicate. The Offered Improvements are generally described as the modifications of the traffic signal at the Red Rock Road / Moya Boulevard intersection on the west side of Red Rock Road. The RTC RRIF Administrator and Local RRIF Administrator have approved the application, subject to the limitations set forth in the letter of approval incorporated herein as Exhibit "D".

2.2.2 **Completion and Acceptance of Offered Improvements.** Unless extended by written consent of the RTC RRIF Administrator, all Offered Improvements, shall be commenced within 6 months of the date of the Offset Agreement, and completed in substantial conformance with approved plans within two (2) years of the date of the Offset Agreement. This Offset Agreement shall terminate and be of no further force or effect if the Offered Improvements are not commenced within one (1) year of the date of the Offset Agreement. The time for completion may be extended by written consent of the RTC RRIF Administrator and the Local RRIF Administrator one time for not more than one (1) year, upon a written request for extension submitted not less than ninety (90) days prior to expiration of the originally agreed time for completion. Additional extensions of the time for completion shall require an amendment to this Offset Agreement pursuant to Section 4.2. The Offered Improvements shall be accepted by the Local RRIF Administrator and the RTC RRIF Administrator upon correction by the Developer of Record of any identified deficiencies to the satisfaction of the Local RRIF Administrator and the RTC RRIF Administrator. Acceptance of the Offered Improvements by the Local RRIF Administrator and the RTC shall not be unreasonably withheld. Any real property the Developer of Record proposes to offer for dedication pursuant shall be valued pursuant to the provisions of Section X.F.2.c.(2) of the Manual.

2.2.3 **Design and Construction Standards.** All design and construction of the Offered Improvements shall be in accordance with the latest edition of the Standard Specifications as of the date of this agreement for Public Works Construction ("Standard Specifications"), including any addenda, as adopted by the Participating Local Government and modified by the Special Technical Specifications ("STS") as prepared by RTC and contained herein as part of Exhibit "E". Additionally, all design and construction of Offered Improvements shall be in accordance with all policies of the RTC, including the latest version as of the date of this agreement of the following: Policy for the Street and Highway Program, RRIF CIP, and Traffic Noise Mitigation Policy Report, all incorporated herein as if fully set forth. In the case of conflicting standards, the conflict shall be brought to the immediate attention of the RTC RRIF Administrator who

shall, in conjunction with the Local RRIF Administrator, resolve the discrepancy within five (5) working days.

2.2.4 **Quality Assurance/Quality Control (QA/QC).** In making the Offered Improvements, the Developer of Record shall institute a QA/QC Program meeting the requirements of Exhibit "E". The Developer of Record may utilize an alternate QA/QC Program with the approval of the RTC RRIF Administrator and Local RRIF Administrator.

2.2.5 **Warranty.** The Developer of Record shall warrant all materials and workmanship of the Offered Improvements in accordance with the provisions of the latest edition of the Standard Specifications. The Developer of Record is directed in particular to Section 117.00 which is contained herein as Exhibit "F".

3. **RRIF Waivers.**

3.1 **The Developer of Record and Development of Record.** The Developer of Record is the party to whom all RRIF Waivers earned under this Offset Agreement shall be issued. RRIF Waivers earned under this Offset Agreement may not be applied outside of the Development of Record.

3.2 **RRIF Waivers are Personal Assets of The Developer of Record.** The parties agree that all RRIF Waivers received pursuant to this Offset Agreement shall be the personal assets of the Developer of Record.

3.3 **Calculation of RRIF Waiver**. RRIF Waivers will be expressed in dollars upon the final RRIF Waiver determination pursuant to Section 3.5. RRIF Waivers may be utilized to pay Regional Road Impact Fees which would otherwise be due for development within a Development of Record. To the extent RRIF Waivers are utilized for development of units of development and land uses in strict conformance with Exhibits "B-1" and "B-2," RRIF Waivers earned shall be applied as if a Building Permit (or Certificate of Occupancy, whichever applies) were granted for each such unit of development as of the date of this Offset Agreement, notwithstanding that actual construction of such unit of development occurs thereafter. For sake of clarity, it is the parties' intent that Regional Road Impact Fees for all future development within the Development of Record which is conducted in conformity with Exhibits "B-1" and"B-2" shall be "grandfathered in" at the RRIF rates existing as of the date of this Offset Agreement, up to the total amount identified in the Notice of RRIF Waiver. The rates existing as of the date of this Offset Agreement are attached hereto as Schedule 1. To the extent units of development or land uses are changed from the uses depicted in Exhibit "B-1," or the legal description of the Development of Record is modified from the description set forth in Exhibit "B-2", earned RRIF Waivers may be used within the Development of Record for such development, but the RRIF Waivers must be utilized at the then-current Regional Road Impact Fee rate as of the date of issuance of the Building Permit for each unit of development.

3.4 **RRIF Waiver Usage and Transferability.** The usage and transferability of RRIF Waivers earned under this Offset Agreement are as follows:

3.4.1 RRIF Waivers earned under this Offset Agreement may be used to pay for up to 100% of the Regional Road Impact Fees due as the result of development within the Development of Record.

3.4.2 RRIF Waivers earned under this Offset Agreement may not be used to pay for Regional Road Impact Fees due as a result of development outside of the Development of Record.

3.4.3 RRIF Waivers earned under this Offset Agreement are transferable to a third party, provided that all RRIF Waivers earned under this Offset Agreement may only be used to pay for Regional Road Impact Fees due as a result of development within the Development of Record.

3.5 **Interim RRIF Waivers.** The Developer of Record shall be entitled to apply for and receive Interim RRIF Waivers for satisfactorily completed portions of the Offered Improvements (including Right of Way) according to the schedule at Exhibit "G". This provision shall in no way be construed as constituting acceptance in whole or part of any of the Offered Improvements. To the extent that Offered Improvements are ultimately not accepted, or if the Developer of Record is otherwise in material default under this Offset Agreement, the Developer of Record shall pay the actual Regional Road Impact Fees which would have otherwise been due had the Developer of Record not utilized Interim RRIF Waivers.

3.6 **Final RRIF Waiver Determination.** The final determination of RRIF Waivers shall be calculated by the RTC RRIF Administrator after consultation with the Local RRIF Administrator within thirty (30) calendar days of final acceptance of the Offered Improvements by the RTC RRIF Administrator and the Local RRIF Administrator and submission by the Developer of Record of all documentation required by the RTC RRIF Administrator to make said final determination. The RTC RRIF Administrator shall issue a written instrument identifying the amount of the RRIF Waivers to the Developer of Record within three (3) working days of the earlier to occur of the following:

3.6.1 the date the appeal period of the final determination expires pursuant to Article XII of the RRIF GAM;

3.6.2 the date the Developer of Record waives in writing the appeal period, or;

3.6.3 in the event of an appeal pursuant to Article XII of the RRIF GAM, the date of a final decision on all issues on appeal.

3.7 **Expiration of RRIF Waivers.** RRIF Waivers shall not expire and may be used in perpetuity to pay Regional Road Impact Fees which would otherwise be due as a result of development within the Development of Record.

4. **Miscellaneous** The parties further agree as follows:

4.1 **Governing Law: Venue.** This Offset Agreement is being executed and delivered in Washoe County, Nevada, and is intended to be performed in the State of Nevada, and the laws of Nevada shall govern the validity, construction, enforcement and interpretation of this Offset Agreement. Venue for any legal action arising out of this Offset Agreement shall be in Washoe County, Nevada.

4.2 **Entirety and Amendments.** This Offset Agreement embodies the entire Offset Agreement between the parties and supersedes all prior negotiations, agreements and understandings, if any, relating to the

Property, and may be amended or supplemented only by an instrument in writing executed by the party against whom enforcement is sought, provided that nothing contained in Subsection 4.2 shall be interpreted to change, amend or modify the conditions of the Development of Record approval by the Participating Local Government. No oral statements or representations made before or after the execution of this Offset Agreement regarding the subject matter of this Offset Agreement are binding on any party, nor may any such oral statements or representations be relied on by a party.

4.3 **Invalid Provisions.** If any provision of this Offset Agreement is held to be illegal, invalid, unenforceable under present or future laws, such provision shall be fully severable. The Offset Agreement shall be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a part of the Offset Agreement. The remaining provisions of the Offset Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance from this Offset Agreement.

4.4 **Parties Bound and Assignment.** The Offset Agreement shall be binding upon and inure to the benefit of the parties, and their respective heirs, personal representatives, successors and assigns. The Developer of Record may assign RRIF Waivers which have been calculated pursuant to Section 3.6 to a successor developer or developers, provided however, that such RRIF Waivers may only be utilized to offset Regional Road Impact Fees which would otherwise be due as a result of development within the Development of Record.

4.5 **Further Acts.** In addition to the acts recited in this Offset Agreement to be performed, the parties agree to perform, or cause to be performed, any and all further acts as may be reasonably necessary to consummate the obligations contemplated hereby.

4.6 **Headings.** Headings used in this Offset Agreement are used for reference purposes only and do not constitute substantive matter to be considered in construing the terms of this Offset Agreement.

4.7 **Notice.** All notices given pursuant to this Offset Agreement shall be in writing and shall be given by personal delivery, by facsimile transmission, by United States mail or by United States express mail or other established express delivery service (such as Federal Express), postage or delivery charge prepaid, addressed to the appropriate party at the address set forth below:

REGIONAL TRANSPORTATION COMMISSION,
Engineering Department
Attn: Dale Keller, P.E.
1105 Terminal Way, Suite 108
Reno, Nevada 89502
Telephone: (775) 348-1827
Facsimile: (775) 348-0170

THE CITY OF RENO
Community Development
Attn: Michael Mischel, P.E.
1 E. First Street
PO Box 1900
Reno, NV 89505
Telephone: (775) 326-6607
Facsimile: (775) 334-2382

Developer of Record
Attn: Jon Erickson
2250 Saddletree Trail
Reno, NV 89523
Telephone: (925) 899-4823

The persons and address to whom notices are to be given may be changed anytime by any party upon written notice to the other party. All notices given pursuant to this Offset Agreement shall be deemed given upon receipt.

4.8 **Receipt Defined.** For the purposes of this Offset Agreement, the term "receipt" shall mean any of the following: (a) the date of delivery of the notice or other document as shown on the return receipt; (b) the date of actual receipt of the notice or other document; or (c) in the case of refusal to accept delivery or inability to deliver the notice or other document, the earlier of: (i) the date of the attempted delivery or refusal to accept delivery; (ii) the date of the postmark on the return receipt; or (iii) the date of receipt of notice of refusal or notice of non-delivery by the sending party.

4.9 **Due Authorization.** The parties agree that they have the legal authority to enter into this Offset Agreement and the undersigned officer, representative or employee represents that he or she has the authority to execute this agreement on the behalf of the party represented.

4.10 **Indemnification.** Developer of Record shall indemnify, defend and hold harmless the RTC and the Participating Local Government, their offices, officials, employees and volunteers, from any and all costs, liabilities, damages, claims, demands, suits, action, attorneys, fees, or expenses of any kind ("claims") that arise out of, or are in way related, in whole or in part to the negligence or misconduct, or acts or omissions, of the Developer of Record, its officers, agents, employees, members, volunteers, contractors and anyone else for whom it is legally liable, while performing or failing to perform Developer of Record's duties under this Offset Agreement. Said indemnification excludes any claims to the extent caused by the negligence or willful misconduct of the RTC and /or the Participating Local Government. The Developer of Record's obligations set forth in this Section shall expire and terminate as to any claims based on, related to, arising from or in connection with the Offered Improvements' failure to comply with the Standard Specifications on the date of expiration of the applicable warranty period provided in Section 2.2.5 above.

4.11 **Termination of Offset Agreement.** This Offset Agreement may be unilaterally terminated by the RTC RRIF Administrator if twelve (12) consecutive months elapse without reasonable progress being made

on the Offered Improvements. In the event of any such termination, Interim RRIF Waivers must be immediately surrendered or repaid in accordance with Section 3.5.

4.12 **Future Development Approvals.** The Participating Local Government agrees that future development approvals for the Development of Record shall not be denied on the basis of the policy level of service being exceeded on the Offered Improvements.

In Witness Whereof, the parties have executed this Offset Agreement on the ____day of _____, 20____.

REGIONAL TRANSPORTATION COMMISSION
A Special Purpose Unit of Government

APPROVED AS TO LEGAL FORM:

By:_____
Neoma Jardon, Chair

_____
Adam Spear, RTC Director of Legal Services

STATE OF NEVADA

COUNTY OF WASHOE

The above-instrument was acknowledged before me this _____day of _____, 20____, by Neoma Jardon, Chairman of the Regional Transportation Commission.

_____
Notary Public

CITY OF RENO
A Municipal Corporation

APPROVED AS TO LEGAL FORM:

By:_____
Hillary Schieve, Mayor

By:_____
City Attorney

STATE OF NEVADA)
) ss
COUNTY OF WASHOE)

The above-instrument was acknowledged before me this _____day of _____, 2020 by

Hillary Schieve, Mayor of the City of Reno, Nevada.

Attest by City Clerk:_____
City Clerk

DEVELOPER OF RECORD:

By:_____

STATE OF
COUNTY OF

The above-instrument was acknowledged before me this _____day of _____, 20____ by

_____.

_____
Notary Public

EXHIBIT "A"
(Section X of the Regional Road Impact
Fees General Administrative Manual, Current Edition)

evelope in phases, regar less of whether pro ect approval was grante for a total or phase evelopment, an regar less of whether traffic mitigation measures require at the time of pro ect approval have been complete by the applicant. A "phase evelopment" means:

(1) A pro ect which was approve as a phase evelopment,

(2) A pro ect which receive approval for a total pro ect, which has not been totally evelope pursuant to such

approval at the en of a five year perio starting with such approval.

C. Exemption Base on Error

Exemptions from payment of the impact fee base on error shall be sub ect to the provisions foun in Section .C. of this Manual.

D. Determination an Appeals

The etermination of eligibility for an exemption shall be ma e by the RTC RR F A ministrator. f the feepayer isagrees with the fin ings on the RTC RR F A ministrator, the feepayer may appeal the ecision (see Section X).

X. IMPACT FEE OFFSETS REQUESTED AFTER THE 5th EDITION RRIF GAM/CIP (3/2/2015) UPDATE

A. General

1. RR F Waivers.

a. RR F Waivers are Offset-Eligible Costs equal to or less than impact fees owe for all or a portion of the lan uses within a Development of Recor .

b. When RR F Waivers are approve , impact fees assesse by the Participating Local Government, will be "waive " until the fees waive within the Development of Recor cumulatively equal the amount of Offset-Eligible Costs approve , as in icate in the RTC's Notice of RR F Waiver.

c. n the event the lan uses within the Development of Recor are mo ifie greater than 10% of the lan uses as i entifie in the Offset Agreement, RR F Waivers will be re-evaluate at the then-current RR F rate. Determination of a RR F Waiver mo ification will be base on a comparison of the impact fees owe for the mo ifie lan uses, inclu ing any complete portions of the evelopment, an the

impact fees owe as i entifie in the Offset Agreement The Local RR F A ministrator will notify the RTC RR F A ministrator of the Development of Recor mo ification The RTC RR F A ministrator will issue a new Notice of RR F Waiver with the remaining value of RR F Waivers expresse in ollars All remaining RR F Waivers shall be utilize at the then-current RR F rate as of the ate of issuance of the Buil ing Permit for each unit of evelopment See Exhibit

2 Participating Local Governments may waive impact fees otherwise owe at the time of issuance of a buil ing permit or issuance of the Certificate of Occupancy, as the case may be, if the RTC RR F A ministrator has issue a Notice of RR F Waiver for the Development of Recor within which the buil ing permit is sought

3 Applications for a RR F Waiver for the e ication or construction of Offere mprovements must be ma e to the RTC RR F A ministrator on a form provi e by the RTC for such purposes

4 The RTC RR F A ministrator an the RTC General Counsel are the sole officials authorize to communicate, on behalf of the RTC Boar , with a person submitting an application for RR F Waivers Representations an communications by other officials, unless expressly authorize by the RTC RR F A ministrator, may not be relie upon for purposes of the regional roa impact fee obligations, offere Offset-Eligible mprovements, or the terms of a propose Offset Agreement The Offset Agreement shall superse e all prior written an oral communications, regar less of source

Any offer to e icate or construct Offset-Eligible mprovements, pursuant to this section of the Manual an Offset Agreement, may be with rawn at any time prior to the transfer of legal title

B Offset Agreement

1 With respect to improvements commence on or before November 1, 2018, Offset Agreements must be approve prior to the start of work on any Offset-Eligible mprovement an prior to the issuance of any buil ing permit for which RR F Waivers are requeste With respect to improvements commence after November 1, 2018, Offset Agreements must be approve prior to the earliest to occur of: (i) twelve (12) months from commencement of construction of the improvement, (ii) completion of work on any Offset-Eligible mprovement, an (iii) utilization of RR F Waivers earne as a result of construction of any Offset-Eligible mprovement

2 The RTC RR F A ministrator will issue a Notice of RR F Waiver per the terms of a fully execute , final Offset Agreement accepting Offset-Eligible mprovements offere by the Developer of Recor

3. An nterim Notice of RR F Waiver may e issue uring phases of construction or e ication of lan that provi e reasona le assurance that over-cre iting shall not occur

4. To the extent that Offere mprovements are ultimately not accepte , or if the Developer of Recor is otherwise in material efault un er this Offset Agreement, the Developer of Recor shall pay the actual Regional Roa mpact Fees which woul have otherwise een ue ha the Developer of Recor not utilize nterim Waivers.

C. Proce ure

1. Upon receipt of a complete Offset application, the RTC RR F A ministrator will istri ute the application materials to the RTC General Counsel, other appropriate RTC staff, an the RR F A ministrator for each Participating Local Government in which the offere Offset-Eligi le mprovement is locate (the "affecte Participating Local Government").

2. The RTC RR F A ministrator will coor inate with the RR F A ministrator for each affecte Participating Local Government to insure all comments are receive an given consi eration prior to final action y the RTC Boar of a propose Offset Agreement.

3. After review y the RTC General Counsel, other appropriate RTC staff, an the RR F A ministrator of the affecte Participating Local Governments, the RTC RR F A ministrator will prepare a staff report an Offset Agreement for consi eration y the RTC Boar an the Governing Bo ies of each Participating Local Government in which the propose improvements are locate .

   a. The RTC RR F A ministrator's report an Offset Agreement will esta lish which improvements offere y the Developer of Recor qualify as Offset-Eligi le Costs an the appropriate ollar amount an approve lan use esignations of any resulting RR F Waivers, accor ing to the provisions of this Manual.

   . Approve Offsets may not excee the actual Offset-Eligi le Costs, as escri e in Section X.F, elow.

   c. RR F Waivers shall e expresse in ollars an y the amounts of Regional Roa mpact Fees to e waive in terms of lan uses using the mpact Fee Sche ule, in effect as of the ate of approval for the Offset Agreement.

   . f the RTC RR F A ministrator etermines that cost estimates su mitte y the Developer of Recor are either unrelia le or inaccurate, the final etermination of the amount of the RR F Waiver shall e ma e y the RTC RR F A ministrator ase upon

reasonable engineering criteria, construction costs estimates, property appraisals, or other professionally accepte means of eterming the value of the Offere mprovements.

4. Base on the report of the RTC RR F A ministrator, the provisions of this Manual, the Capital mprovements Plan, available fun s for RTC projects, an other relevant factors, the RTC Boar an the Governing Bo ies of the affecte Participating Local Governments will make a final ecision whether to accept, reject, or to propose amen ments to the Offset Agreement propose by the Developer of Recor , in exchange for RR F Waivers

5. Once a final ecision has been ma e by the RTC Boar an the Governing Bo ies of the affecte Participating Local Governments, the RTC RR F A ministrator will sen by registere mail a copy or copies of the approve Offset Agreement for the final consent an signature of the Developer of Recor . The final Agreement will be eeme to have been receive by the Developer of Recor three (3) ays after mailing by the RTC RR F A ministrator.

6. The Developer of Recor must sign, ate, an return the approve Offset Agreement in icating his or her consent to the terms therein within thirty (30) ays of receiving the approve Offset Agreement from the RTC RR F A ministrator. f the RTC RR F A ministrator oes not receive the signe agreement within thirty ays, the application for Offsets an offere improvements will be eeme with rawn.

7. Unless an execute Offset Agreement expressly provi es otherwise, i.e. as for provisions for nterim RR F Waivers, no RR F Waivers will be ma e until all Offset Eligible mprovements have been complete an , if applicable, e icate to the RTC or Participating Local Government as provi e in the Offset Agreement.

8. Lan e ications accepte as an Offset Eligible mprovement must be accompanie by the following ocumentation prior to issuance of a Notice of RR F Waiver being issue , as provi e below:

   a. The elivery to the appropriate governmental bo y of an irrevocable offer of e ication, with sufficient fun s to pay all costs of transfer of title inclu ing recor ing.

   b. The escrow of taxes for the current year or the payment of sai taxes for the year.

   c. The issuance of a title insurance policy subsequent to recor ing of the ee an escrow of taxes.

9. Unless expressly provi e , or otherwise inclu e in an execute Offset

Agreement, it is the responsibility of the eveloper of Recor to submit sufficient ocumentation to the RTC RR F A ministrator to establish that the terms of the Offset Agreement have been met an that RR F Waivers are to be ma e.

10. Once the RTC RR F A ministrator has ma e such a etermination, he or she will issue a Notice of RR F Waiver to the affecte Participating Local Governments.

. Application for RR F Waivers

1. Generally.

   a. An offer to construct or e icate Offset-Eligible mprovements may be ma e by submitting an Application for mpact Fee Offsets to the RTC RR F A ministrator. The application must contain the information an ocumentation require by this section of the Manual an sufficiently i entify an escribe the offere C P improvements, which otherwise woul have been built by the RTC with collecte Regional Roa mpact Fees.

   b. After review an recommen ations are ma e by the RTC RR F A ministrator an the affecte Participating Local Government RR F A ministrators, the RTC RR F A ministrator will forwar a raft Offset Agreement, application, an staff report to the RTC Boar an the Governing Bo ies of the Participating Local Governments for a final ecision, in accor ance with Section X.C, above.

2. Contents an require ocumentation of Offset Application. Each application for an Offset Agreement must contain the following:

   a. The name of the eveloper of Recor offering to make Offset-Eligible mprovements an requesting RR F Waivers, as provi e in this Manual.

   b. The contribution, payment, construction, or lan e ication which will constitute the Offere mprovements an the legal escription or other a equate escription of the project or evelopment, referre to an the evelopment of Recor , to which the Offere mprovements are relate .

   c. The name, a ress, phone number, fax number, email a ress an a contact person of the eveloper of Recor for which Offsets are propose .

   . The name, Local Government File Number, an three copies of the site plan of the evelopment of Recor for which Offsets are propose .

e. List of approve lan uses an the estimate impact fees for those uses ithin the Development of Recor for hich RR F Waivers are requeste .

f. Name, a ress, phone number, fax number, email a ress an contact person of the Engineer of Recor .

g. The propose plans an specifications for the specific construction prepare an certifie by a uly qualifie engineer, registere an license in the State of Neva a.

h. When a Developer of Recor offers to e icate right-of- ay containe in the RR F C P, he or she shall present:

(1) Preliminary Title Report.

(2) Copy of De ication Map containing propose e ication.

(3) Documentation sufficient to establish the applicant's opinion of value of property to be offere for e ication, as provi e in Section X.F.2.c.(2).

i. Sufficient ocumentation to verify the actual costs of Offere mprovements, in accor ance ith Section (F)(2), belo .

E. Offset Agreement Requirements.

1. No e ication or construction project may be accepte in exchange for RR F Waiver except pursuant to an execute Offset Agreement bet een the RTC, the Participating Local Governments an the provi er of the e ication or construction, hich must inclu e the follo ing:

a. The projecte costs for the propose Offere mprovements, base on the valuation provisions of Section X.F.2, belo , inclu ing provisions for verifying costs an facilitating changes in costs or plans.

b. The time by hich the construction of the Offere mprovements shall be pai , complete , or e icate an any provisions for extensions thereof.

c. The propose amount in ollars an lan uses of RR F Waivers to be approve , base on the estimate costs of Offere mprovements.

. The terms an con itions that must be met before the RTC RR F A ministrator ill issue a Notice of RR F Waiver to an affecte Participating Local Government authorizing the aiver of Regional Roa mpact Fees, in accor ance ith the provisions of this Manual.

e. The parties' ac nowle gement that RR F Waivers shall be limite for use for the payment of impact fees associate with the Development of Recor liste in the Offset Agreement. RR F Waivers shall not expire.

f. RR F Waivers shall be assigne to offset the impact fees within the Development of Recor pursuant to the Offset Agreement.

g. f the esignate lan uses for the Development of Recor i entifie in the Offset Agreement change, the remaining waivers shall be re-assesse as outline in the provisions in Section X.A.1.c

h. A provision requiring that all Offset-Eligible mprovements accepte will be in accor ance with RTC requirements an stan ar s.

i. Any labor, wor safety, prevailing wage, or other applicable laws or regulations with which the Developer of Recor must comply; an

j. such other terms an con itions agree to by the parties.

2. Any changes to an Offset Agreement approve by the RTC Boar , other than those a resse in Section X.F.2. below, will require an amen ment to the Offset Agreement using the same proce ure as its original a option.

F. Calculation of Offsets.

1. Eligibility.

a. RR F Waivers may be approve only for Offset-Eligible Costs, as efine in this Manual, which are limite to the costs the RTC otherwise woul have incurre for non-Site-Relate mprovements in the C P, also as efine in this Manual. Among the types of roa way improvements not consi ere Offset-eligible are site-relate mprovements, local an /or private streets, improvements which are compensate for by a governmental bo y.

b. RR F Waivers may be given only pursuant to a vali Offset Agreement, execute accor ing to the provisions of this Manual.

c. All Offset-Eligible Costs are available for RR F Waivers only if associate with Offset-Eligible mprovements that meet esign stan ar s approve by the RTC, but only to the extent such costs on't excee the scope of the project as planne by the RTC in the C P or as escribe in the applicable Offset Agreement.

2. Valuation.

a. RR F Waivers approve by the RTC, pursuant to the terms of an execute Offset Agreement, will be base on an may not excee

verifie costs of the e ication or construction of Offset-Eligi le mprovements offere y the Developer of Recor an accepte y the RTC.

. The RTC will not approve RR F Waivers in excess of the Regional Roa mpact Fees owe for a Development of Recor as of the ate of the applica le Offset Agreement.

c. f the actual verifie costs are use , the RR F Waiver shall e calculate as follows:

(1) Construction of Facilities an Provision of Equipment. The RR F Waiver may not excee the actual cost of construction or equipment, as evi ence y receipts an other sufficient ocumentation provi e y the eveloper of the pu lic facility an

verifie y the RTC RR F A ministrator. Actual costs shall e ase on local information for similar improvements; may inclu e the cost of construction, planning feasi ility, alignment stu ies, plan-line stu ies, preliminary engineering, relevant geotechnical, environmental an cultural resource stu ies, permitting, the cost of all lan s, property, rights, easements, an franchises acquire , construction financing charges, plans an specifications, surveys, engineering an legal services, construction inspection an testing, an all other expenses necessary or inci ent to etermining the feasi ility or practica ility of such construction.

(2) De ication of Lan .

(a) f the lan in question is su ject to a vali agreement, zoning approval or evelopment approval, which esta lishe a valuation or prescri es a metho of valuation, the agreement, zoning approval or evelopment approval shall control.

( ) f the e ication is ma e pursuant to a con ition of iscretionary zoning or evelopment approval, the value of the lan shall e etermine as of the ate imme iately prece ing the iscretionary evelopment approval. The value shall e ase upon the con ition of the property an the regulatory zoning in place imme iately prior to the iscretionary approval

(c) Valuation shall e ase on the fair market value of the lan upon execution of the Offset Agreement y the Developer of Recor or final approval of the propose Offset Agreement y the RTC Boar or Governing Bo ies of the affecte Participating Local Government, whichever is earlier.

. All changes in the estimate of Offset E igib e Costs or to the approve plans an specifications (prior to or after execution of an Offset Agreement), shall require approval of the RTC RR F A ministrator. The applicant shall provi e the RTC RR F A ministrator copies of all contracts or agreements ma e for esign services, construction, or engineering uring construction within fifteen (15) ays after their execution.

XI. UNEXPIRED CREDITS APPROVED PRIOR TO THE 5th EDITION RRIF GAM/CIP (3/2/2015)

A. Applicability. This section applies to Capital Contribution Front En ing Agreements (CCFEAs) entere into prior to the Effective Date an to CCFEA Cre its issue pursuant to such CCFEAs.

B. ntent. t is the intent of the RTC Boar , an affecte Participating Local Governments, to carry forwar the policies an un erstan ing in place

when CCFEAs were entere into, prior to the changes to the a option of the 5th E ition RR F GAM/C P. Therefore, to the extent possible an practical, outstan ing Cre its may be use or transferre as provi e prior to a option of the 5th E ition RR F GAM/C P, as provi e in this section of the Manual an in accor ance with the terms of vali , unexpire CCFEAs.

C. CCFEA Cre it Usage.

1. The transferability an usage of CCFEA Cre its issue pursuant to a vali , unexpire CCFEA are as follows:

   a. Cre its may be use by the Developer of Recor to pay for up to 100% of the Regional Roa mpact Fees on any traffic generating evelopment of lan inclu e in the Development of Recor .

   b. Cre its may be use by the Developer of Recor to pay for up to 100% of the Regional Roa mpact Fees on any traffic generating evelopment of the Developer of Recor within the same CCFEA Cre it Benefit District as the Development of Recor .

   c. CCFEA Cre its are transferable to a thir party. To transfer cre its, the current cre it hol er of CCFEA Cre its will notify RTC through the RR F Automation program the amount of VMT's to be transferre an the name an contact information of the thir party. CCFEA Cre its will be subtracte from the current CCFEA Cre it hol er's account an transferre to a new automation account in the name of the thir party.

EXHIBIT "B"
(Site Plan and Description of Development of Record)
(Must include proposed units of development and land use categories)

January 12, 2021

Dale Keller, PE
RRIF Administrator
Regional Transportation Commission of Washoe County
1105 Terminal Way, Suite 108
Reno, NV 89502

RRIF Offset Agreement Application for: Red Rock Mega Storage

Dear Mr. Keller,

Red Rock Mega Storage, LLC (Developer of Record) hereby requests an RRIF Offset Agreement and RRIF Waivers for the modification of the traffic signal at the Red Rock Road/Moya Boulevard intersection within the City of Reno.

The **Capital Improvements** include:

- Modification of the traffic signal system
- Widening of Red Rock Road to construct the northbound left-turn lane
- Curb, gutter, and sidewalk improvements along the frontage
- Minor signing and striping upgrades
- Additional Right-of-Way will be dedicated.

The modifications of the traffic signal system on the west side of Red Rock Road consistent with planned widening are the only improvements for which RRIF waivers are sought.

The project **Construction Plans and Specifications** have been completed, and are in the process of being reviewed and approved by the City of Reno, and are included in this application as *Attachment A*.

The **Developer of Record** is:

Red Rock Mega Storage, LLC
2250 Saddletree Trail, Reno, NV 89523
Phone: 925.899.4823
Fax: n/a
Email: jon@redrockmegastorage.net
Contact: Jon Erickson

The **Development of Record** is:

Red Rock Mega Storage
Local Government File Numbers
SUP: LDC18-00073
Demolition: BLD19-10748
Building: BLD20-01210E
Mass Grading: BLD20-00756E
Zoning: General Commercial (GC)
Traffic Signal Improvements: BLD20-01210E

The **Site Plan** for the Development of Record is included as *Attachment B*. The approved special use permit allows a maximum of 200,000 sf of floor space for the project and this size is anticipated.

Approved Land Uses within the development and the **Associated Regional Road Impact Fees** based on the current impact fee schedule (6th Edition, December 1, 2020, included as *Attachment C*) are as follows:

Mini-Warehouse (North Service Area) – 200,000 sqft. @ 1.54 VMT / 1,000 sqft. = 308 VMT
308 VMT @ $505.64/VMT = $155,737.12

The cost of the traffic signal modifications is greater than the RRIF amount, however, the Waiver amount being requested is equal to the RRIF amount ($155,737.12).

The **Engineer of Record** for this offset agreement is:

Headway Transportation, LLC
5482 Longley Lane, Suite B
Reno, NV 89511
Phone: 775.322.4300
Email: rpettinari@headwaytransportation.com
Contact: Rich Pettinari, PE

Qualifications of Inspection and Testing Firm

Headway Transportation is the local expert in traffic signal design and inspection as has extensive experience inspecting traffic signal, signing, and striping improvements for RTC administered contracts. Headway staff were intimately involved in the recent Orange Book specifications update and are knowledgeable in the unique aspects of the work. There are no special certifications required by the RTC for traffic signal inspection services. Other public improvements requiring sampling, testing, or quality assurance activities will be provided through an ACI and or NAQTC certified firm.

Inspection Manager/Oversight: Rich Pettinari, PE
Daily Inspector(s): Rich Pettinari, PE (traffic signal)

Preliminary Engineering Cost Estimate

The project design is complete and permitting is in the final stages. The design fees are known, the general contractor will request bids from subcontractors when the site permit has been issued. The full project estimate is provided below.

Project Cost Estimate

Red Rock/Moya Traffic Signal Improvements
Red Rock Mega Storage

Item	Description	Estimated Cost	Final Cost
1	Engineering Fees	$12,000.00	
2	Permit Fees	$3,000.00	
3	Contractors	$375,000.00*	
4	Inspection/Testing	$14,000.00	
5	Contingency	$10,000.00	
Total		**$414,000**	
Waiver Amount Requested		**$155,737.12**	

* Estimated cost for the entire intersection's traffic signal modification.

Traffic Design Report & Project Eligibility

The proposed traffic signal modifications on the west side of Red Rock are eligible for RRIF Offset and Waivers under the "Capacity Project" category in the 2040 RTP (*Attachment D*). The alignment of the new curb along the project's frontage has been designed at an agreed-upon location with the project owner, RTC, and the City of Reno that accounts for the future widening of Red Rock Road, and it's anticipated that the improvements along the frontage of the project will not be modified during the future Red Rock Road widening project. The Red Rock/Moya traffic signal was constructed by the RTC approximately 3 years ago. The project is at the intersection of two existing regional roadways and serves regional needs as identified in the North Valleys Region Multimodal Study administered by the RTC.

Attachments E and F are the original traffic study memorandum submitted as part of the SUP application demonstrating the proposed improvements will provide an acceptable Level of Service and traffic operations at the Red Rock/Moya intersection through at least a 10-year horizon and an updated trip generation letter dated February 14, 2020.

Project Specifications

The project specifications are shown within the project construction plan sheets (*Attachment A*). All work is required to comply with the Standard Specifications for Public Works Construction (Orange Book) current edition, consistent with RTC requirements for Public Works projects. The plans specifically require compliance with the City of Reno and NDOT standard details.

Engineering Cost Estimate

The project costs outlined above are based on the Engineer's Estimate. An actual bid result will supersede an Engineer's Estimate in this case.

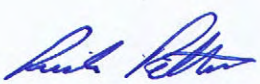
Construction Schedule

Time is of the essence with this project as the signal improvements are to be constructed during the Red Rock Road improvements which are scheduled to be completed by August 2021. The project consists of multiple building permits and Certificates of Occupancy are expected to be issued from May 2021 to August 2021 as the improvements for each building permit is completed. See Attachment G for the project's construction schedule.

Considering the tight schedule outlined above, we respectfully request prompt attention to this application and agree to provide any additional information immediately upon your request. Depending on the specific terms of the agreement, it may be necessary that the developer of record pay the RRIF fees and later be reimbursed upon completion of the improvements. Please consider this aspect during the drafting of the agreement.

Thank you in advance for your consideration,

Sincerely,
HEADWAY TRANSPORTATION, LLC



Rich Pettinari, PE
Associate
Engineer of Record on behalf of Red Rock Mega Storage, LLC

Attachments:

A – Construction Plans
B – Site Plan
C – Impact Fee Schedule
D – 2040 RTP Project Listing
E, F – Traffic Letters
G – Construction Schedule

ATTACHMENT A – CONSTRUCTION PLANS

1. TRAFFIC SIGNAL SHEETS (TS SHEETS) ARE FOR TRAFFIC SIGNAL WORK ONLY.

2. THE PLANS/SPECIFICATIONS STRUCTURE SHALL BE AS FOLLOWS, IN ORDER OF HIERARCHY:

   THE PROJECT PLANS, SPECIFICATIONS, AND DETAILS.
   STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK), 2012 REVISION 8 EDITION
   CITY OF RENO "TRAFFIC SIGNAL CONTROLLER CABINET SPECIFICATIONS" (2007)
   CITY OF RENO STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION
   NDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, 2020

3. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK) 2012, REVISION 8 EDITION, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) CURRENT EDITION, THE NATIONAL ELECTRIC CODE (NEC), AND THE NATIONAL ELECTRIC SAFETY CODE (NESC).

4. THE PRECISE LOCATIONS OF UNDERGROUND UTILITIES ARE UNKNOWN, CALL FOR UTILITY LOCATES AT LEAST 48 HOURS PRIOR TO DIGGING AND PROCEED WITH CAUTION.

5. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR AND/OR REPLACE ALL FACILITIES AND FEATURES DAMAGED BY THE CONTRACTOR'S ACTIVITIES, INCLUDING LANDSCAPING AND IRRIGATION SYSTEMS, TO THEIR PRE-CONSTRUCTION CONDITION AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DOCUMENT AND NOTIFY THE ENGINEER OF DAMAGED EQUIPMENT AND/OR FACILITIES PRIOR TO BEGINNING WORK.

6. CONCRETE FLATWORK SHALL BE REMOVED AND REPLACED, IN KIND, TO EXISTING JOINT LINES. TRENCHING THROUGH, AND PATCHING OF, SIDEWALK PANEL(S) OR CURB & GUTTER WILL NOT BE PERMITTED.

7. CONTRACTOR SHALL EXERCISE CAUTION IN REMOVING AND RE-PULLING EXISTING CONDUCTORS AND CABLES TO REMAIN IN SERVICE. CONDUCTORS AND CABLES DAMAGED BY THE CONTRACTOR SHALL BE REPLACED, IN FULL LENGTH, AT NO COST TO THE OWNING AGENCY. SPLICING OF CONDUCTORS WILL NOT BE PERMITTED.

8. CONTRACTOR TO REMOVE ALL CONDUCTORS AND CABLES NOT USED IN THE FINISHED CONFIGURATION. COORDINATE WITH THE CITY'S SIGNAL MAINTENANCE CREW TO DETERMINE UNUSED CONDUCTORS/CABLES.

9. CLEAN EXISTING PULL BOXES TO REMAIN AND INSTALL DRAIN ROCK BEFORE INSTALLING NEW CABLE AT LOCATIONS WHERE RE-CABLING IS SHOWN ON THE PLANS. NO DIRECT PAYMENT.

10. ALL SIGNAL EQUIPMENT, HARDWARE, UNBROKEN PULL BOX LIDS, AND SIGNS REMOVED THROUGH THE COURSE OF WORK SHALL BE DELIVERED TO THE MAINTAINING AGENCY'S CORPORATE YARD.

11. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL INCIDENTAL ITEMS AND PERFORM ALL WORK AS NECESSARY TO COMPLETE FULLY FUNCTIONAL TRAFFIC SIGNAL SYSTEMS.

THESE NOTES SUPERCEDE CITY OF RENO STANDARD DETAILS R-413F, R-413G, & R-413H.

1. ALL EQUIPMENT SHALL BE IN ACCORDANCE WITH CITY OF RENO "TRAFFIC SIGNAL CONTROLLER CABINET SPECIFICATIONS."

2. LOOP AMPLIFIERS SHALL BE RACK MOUNT IN ACCORDANCE WITH CITY OF RENO "TRAFFIC CONTROLLER CABINET SPECIFICATIONS."

3. ONE WEEK PRIOR TO SIGNAL TURN ON, CONTRACTOR SHALL COORDINATE WITH CITY OF RENO SIGNAL TECHNICIANS FOR PROGRAMMING OF CONTROLLER AND MMU. PROGRAMMING OF CONTROLLER AND MMU WILL BE PERFORMED BY CITY OF RENO STAFF ONLY.

4. NOTIFY THE CITY OF RENO, KURT DIETRICH (775) 334-3334, AT LEAST 72 HOURS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEMS AND PRIOR TO TURN-ONS.

5. SIGNAL TURN-ONS SHALL BE SCHEDULE BETWEEN 5:00 AM AND 4:00 PM ON MONDAY THROUGH THURSDAY. COORDINATE WITH CITY OF RENO SIGNAL TECHNICIANS.

6. SIGNAL HEAD BRACKETS SHALL HAVE ADEQUATE EXTENSIONS TO ALLOW SIGNAL HEAD ADJUSTMENT/ROTATION FOR DIRECT ALIGNMENT TO THE STOP BAR AT THE VIEWING LANE.

7. THE LOCATION OF NEW SIGNAL HEADS SHALL BE APPROVED BY THE ENGINEER AND OWNING AGENCY. SIGNAL HEAD TENONS SHALL BE FIELD WELDED, BY A CERTIFIED WELDER, AND LOCATED IN THE CENTER OF THE VIEWING LANE, UNLESS APPROVED OTHERWISE.

8. SIGNAL CABLE SHALL CONFORM TO IMSA SPEC 19-1 OR 20-1 AND BE COLOR CODED. CABLES SHALL BE RUN FROM CONTROLLER TO POLE TERMINAL BLOCK WITHOUT SPLICING. IN-POLE CONDUCTORS PAST THE TERMINAL BLOCK SHALL BE INDIVIDUAL #14 AWG THHN/THWN-2 OR APPROVED EQUAL. CABLES WITH 15 OR MORE CONDUCTORS SHALL HAVE #10 AWG NEUTRAL.

9. NEW PULL BOXES SHALL BE TRAFFIC RATED WITH LABELED METAL LIDS AND LIDS SHALL BE GROUNDED. PULL BOXES SHALL NOT BE INSTALL IN PEDESTRIAN RAMPS WITHOUT THE ENGINEER'S APPROVAL.

10. THE FINAL LOCATION OF ALL POLES, PULL BOXES, CABINETS, AND CONDUIT RUNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. CONDUIT RUNS SHOWN IN THE PLANS ARE SCHEMATIC FOR THE PURPOSE OF PLAN LEGIBILITY.

11. LOOP DETECTOR WIRE SHALL BE IMSA SPEC 51-5-1984 #14 AWG WITH POLYETHYLENE ENCASING TUBE OR APPROVED EQUAL. DETECTOR LEAD IN CABLES (DLCs) SHALL BE IMSA SPEC 50-2-1984, #16 AWG POLYETHYLENE JACKETED OR APPROVED EQUAL.

12. LOOP LAYOUTS AND SAND POCKET LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO SAWCUTTING.

13. A FACTORY REPRESENTATIVE FROM THE MANUFACTURER OF THE SIGNAL CABINET, CONTROLLER, AND MMU MUST BE PRESENT FOR ALL SIGNAL TURN-ONS.

14. FLASHING YELLOW ARROW SIGNAL SHALL NOT BE ENABLED UNTIL STAFF FROM THE OWNING AGENCY ARE PRESENT TO CONFIRM SETUP AND OPERATIONS.

15. RETROREFLECTIVE MATERIALS FOR ALL SIGNAL POLE MOUNTED SIGNS SHALL BE 3M DIAMOND GRADE (DG3) WITH 3M CLEAR TRANSPARENT OVERLAY #1170 OR APPROVED EQUAL.

16. ALL HARDWARE SHALL HAVE A BLACK FACTORY FINISH.

17. ALL NEW PEDESTRIAN PUSH BUTTONS SHALL BE 2" DIAMETER. UTILIZE POLARA iNS 2-WIRE PUSH BUTTON STATION (iNS2) OR APPROVED EQUAL. NEW PUSH BUTTON STATIONS SHALL HAVE 9"X15" SIZE R10-3e SIGNS AND MUST HAVE CORRESPONDING STREET NAME IN BRAILLE OR RAISED PRINT. THE ARROW SHALL POINT IN THE DIRECTION OF THE CROSSING AND THE SIGN SHALL BE ALIGNED WITH THE CROSSWALK. PUSH BUTTON ASSEMBLIES SHALL FIT TIGHT AGAINST POLES. BUTTON HEIGHT SHALL BE SET AT 42" FROM SIDEWALK/PEDESTRIAN RAMP GRADES.

18. PRE-EMPTION EQUIPMENT SHALL BE GLOBAL TRAFFIC TECHNOLOGIES (GTT) OPTICOM MODEL 721 DETECTORS (4 PER INTERSECTION), MODEL 764 4-CHANNEL MULTI-MODE PHASE SELECTOR, MODEL 760 1 SLOT 4 CHANNEL CARD RACK, AND OPTICOM 138 DETECTOR CABLE, OR APPROVED EQUAL. CONTRACTOR TO FIELD VERIFY EXISTING MULTI-PHASE SELECTOR AND CARD RACK PRIOR TO ORDERING.

19. RADAR DETECTOR SHALL BE WAVETRONIX MATRIX STOP BAR SMARTSENSOR (WX-SS-225) WITH CLICK 650 CABINET INTERFACE DEVICE WITH SDLC OUTPUT, 400 FOOT 6 CONDUCTOR MATRIX/200V CABLE WITH CONNECTOR, ATP-MATRIX 3 TYPE 3 HOME RUN CABLE PR#18, 2 TRIADS #22, IN LINE TERMINAL STRIP JUNCTION BOX, AND 6" 3 AXIS ALUMINUM SENSOR MOUNT BRACKET OR APPROVED EQUALS.

20. INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE TEMPLE EDGE-LIT, OR APPROVED EQUAL. 2

CITY OF RENO GENERAL TRAFFIC SIGNAL NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING SUBSTRUCTURES, WHETHER SHOWN OR NOT, AND TO NOTIFY ALL UTILITY COMPANIES TO VERIFY IN THE FIELD THE LOCATION OF THEIR INSTALLATIONS AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL SUBSTRUCTURES FROM DAMAGE, AS WELL AS ANY OTHER PUBLIC INFRASTRUCTURE. THE EXPENSE TO REPAIR OR FOR REPLACEMENT SHALL BE BORNE BY THE CONTRACTOR.

2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION) AND THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION), AND SUPPLEMENTED BY THE STATE OF NEVADA STANDARD PLANS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION).

3. THE LOCATION OF CONTROLLER, PULL BOXES WITH GROUND RODS, AND CONDUIT RUNS SHALL BE WITHIN THE EXISTING RIGHT-OF-WAY OR ANY EASEMENT GRANTED OUTSIDE THE RIGHT-OF-WAY.

4. DESIGN ENGINEER SHALL BE RESPONSIBLE **FOR** THE LOCATION OF ALL ELECTRICAL, SIGNAL POLE, ~~CONTROLLER,~~ CONDUIT, LOOP DETECTOR, AND PULL BOXES. **FINAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD AND APPROVED BY THE DESIGN ENGINEER AND CITY TRAFFIC ENGINEER.**

5. ~~CONTROLLERS AND CABINETS SHALL MEET THE REQUIREMENTS OF THE NEMA STANDARD PUBLICATION (LATEST EDITION) AND THE CITY OF RENO SPECIFICATIONS FOR TRAFFIC SIGNAL CONTROLLERS AND CABINETS.~~

6. ~~CONTACT THE PUBLIC WORKS TRAFFIC ENGINEERING DIVISION FOR TRAFFIC ACTUATED CONTROLLER UNIT SPECIFICATIONS.~~

7. ~~UNLESS SHOWN OTHERWISE, THE CONTROLLER CABINET SHALL BE WIRED FOR EIGHT (8) PHASE OPERATION WITH TWO (2) OVERLAPS AND SHALL BE FURNISHED WITH ALL NECESSARY MODULES, LOAD SWITCHES, AND EQUIPMENT REQUIRED FOR FULL EIGHT (8) PHASE OPERATION WITH TWO (2) OVERLAPS.~~

8. ALL NEW SIGNAL POLES WILL HAVE TWO (2) HANDHOLES AND AN ACCESS DOOR FOR THE TERMINAL BLOCK. SEE TRAFFIC SIGNAL POLE DETAIL DRAWING R-413A FOR TRAFFIC SIGNAL EQUIPMENT DIMENSIONS. FOR POLE DETAILS, SEE THE NEVADA DEPARTMENT OF TRANSPORTATION'S "STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION" (NDOT-SPRBC), LATEST EDITION.

9. UNLESS SHOWN OTHERWISE, No. 5 PULL BOX SHALL BE USED AT LOCATIONS WHERE CONDUIT RUNS CONTAIN TRAFFIC SIGNAL CABLE OR CARRY POWER. No. 3-1/2 SHALL ONLY BE USED AS APPROVED BY CITY OF RENO TRAFFIC ENGINEER. TRAFFIC RATED BOX SHALL BE USED IN VEHICULAR AREAS ONLY, INCLUDING, BUT NOT LIMITED TO TRAVEL WAY, DRIVEWAY APPROACHES AND WITHIN PEDESTRIAN RAMPS AT INTERSECTION CURB RETURNS. ALL PULL BOXES WITH METAL LIDS SHALL BE GROUNDED PER TRAFFIC RATED PULL BOX DETAIL.

10. ALL EXPOSED CONDUIT SHALL BE OF A RIGID PVC SCHEDULE 80 AND SHALL EXTEND TO A MINIMUM DEPTH OF 18 INCHES. **ALL OTHER CONDUIT SHALL BE PVC SCHEDULE 40 MINIMUM.**

11. ~~ALL CONDUIT RUNS FOR SIGNAL CABLE SHALL CONSIST OF TWO 3" CONDUITS BETWEEN PULL BOXES AND BETWEEN THE PULL BOXES AND POLES. THERE SHALL BE THREE 3" CONDUITS FROM THE CONTROLLER CABINET TO THE PULL BOXES.~~

12. ALL CONDUIT RUNS TERMINATING IN A PULL BOX SHALL HAVE A MINIMUM OF SIX INCHES OF CLEARANCE FROM THE BOTTOM OF THE LID, AND SHALL RISE A MINIMUM OF THREE INCHES ABOVE THE TOP OF THE DRAIN ROCK.

13. ALL NEW CONDUIT RUNS SHALL HAVE A PULL TAPE.

14. ALL CONDUIT TERMINATIONS SHALL HAVE A "BELL END" INSTALLATION AND BE SEALED WITH CONDUIT SEALER AFTER WIRE INSTALLATION. CONDUIT ENDS SHALL NOT TERMINATE WITHIN A SWEEP SECTION. ALL CONDUCTORS AND THEIR TERMINATION SHALL BE CLEARLY MARKED ON THE CABINET SCHEMATIC WIRING DIAGRAM.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
	APPROVED BY: JF | DATE: 1/2013

MODIFIED BY HEADWAY TRANSPORTATION

LINED OUT NOTES ARE NOT APPLICABLE TO THIS PROJECT

FIBER OPTIC INTERCONNECT SYSTEM SPECIFICATIONS

1. THE FIBER OPTIC CABLE MAY BE TESTED BY CITY OF RENO PERSONNEL AT THE CONTRACTOR'S EXPENSE, PRIOR TO ACCEPTANCE.
2. ALL FIBER AT CONTROLLER CABINET END SHALL HAVE 50 FEET OF TAIL TO REACH THE FIBER SPLICING TRAILER.
3. ALL FIBER RUNS SHALL HAVE A FIVE (5) FOOT LOOP COILED IN EACH PULL BOX.
4. NO BENDS GREATER THAN SIX TIMES THE FIBER DIAMETER SHALL BE ACCEPTED.
5. ALL CONDUITS SHALL HAVE A PULL STRING INSTALLED FOR FUTURE USE. MINIMUM TENSILE STRENGTH SHALL BE 500 LBS.
6. ANY CONDUIT CONTAINING FIBER ONLY, SHALL HAVE AN ORANGE #14 LOCATE WIRE INSTALLED.
7. CITY FORCES WILL INSTALL ALL FIBER ENDS AND TERMINATE FIBER OPTIC CABLES IN THE CABINET.
8. CITY FORCES WILL TEST AND VERIFY FIBER CONNECTIVITY TO THE CENTRAL COMPUTER SYSTEM.

15. THE RED, YELLOW AND GREEN INDICATION FOR ALL NEW VEHICULAR SIGNAL HEADS SHALL BE 12 INCH LIGHT EMITTING DIODE (LED) AND INCLUDE "AlInGap" TECHNOLOGY. UTILIZE "GELCORE" RX11, "DIALITE" 433 SERIES OR APPROVED EQUAL. ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE COUNTDOWN "LED" WITH HAND SYMBOL (PORTLAND ORANGE) AND WALKING MAN SYMBOL (LUNAR WHITE).

16. ALL VEHICULAR HEADS SHALL HAVE "TUNNEL" VISORS WITH 4 INCH SLOT AT BOTTOM WITH LOUVERED BACK PLATES. ALL SIGNAL HEADS TO BE MANUFACTURED BY "ECONOLITE", "EAGLE" OR APPROVED EQUAL. ~~IF DIRECTED BY THE ENGINEER, EXTRA BACK PLATES TO BE PROVIDED FOR STOCK.~~ **HARDWARE SHALL BE ALUMINUM AND HAVE A BLACK FACTORY FINISH.**

17. ~~ALL NEW PEDESTRIAN PUSH BUTTONS SHALL BE THE 2 INCH DIAMETER WITH INTERNATIONAL WALKING MAN SYMBOL SIGN. FOR MOUNTING HEIGHT AND ADDITIONAL DETAILS, SEE STANDARD PLAN SHEET NO. T-30.1.3.1 OF NDOT-SPRBC. UTILIZE "Polara" BULLDOG W/MOMENTARY "LED" AND YELLOW COLLAR, OR APPROVED EQUAL. USE 5" X 7-3/4" STATION FOR 1A POLES AND SMALLER.~~

18. ~~ALL INTERSECTIONS SHALL HAVE A BATTERY BACK UP SYSTEM. THE SYSTEM SHALL BE MOUNTED TO THE METERED SERVICE CABINET OF THE SYSTEM AND WILL BE A 24 VOLT OR 48 VOLT SYSTEM. THE CABINET SHALL BEAR A 508 UL LABEL. THE SYSTEM SHALL SUPPLY A MINIMUM UNINTERRUPTED CONTINUOUS POWER SUPPLY (UPS) SERVICE FOR UP TO 2 HOURS. THE SYSTEM SHALL FEATURE AN EVENT COUNTER AND TIMER. THE SYSTEM SHALL HAVE A TWO (2) YEAR PARTS AND LABOR TRANSFERABLE WARRANTY TO THE CITY OF RENO. THE UPS UNIT AND THE METERED PEDESTAL SHALL BE DESIGNED AS ONE COMPLETE UNIT. THE UPS SYSTEM SHALL BE A PIGGYBACK DESIGN SYSTEM AND HANG ON THE METERED SERVICE PEDESTAL.~~

19. ~~WHEN CONTROLLER CABINETS ARE NOT LOCATED IN A SIDEWALK, THEY SHALL HAVE A CONCRETE SERVICE PAD INSTALLED IN FRONT OF THE CABINET, THE SAME WIDTH AS CABINET AND AT LEAST 3 FEET LONG. NO IMPROVEMENTS SHALL BE PERMITTED TO BLOCK CABINET DOOR IN COMPLIANCE WITH NEC. SPRINKLER SYSTEMS SHALL BE DIRECTED AWAY FROM AND NOT ALLOWED TO SPRAY CABINET OR PULL BOXES DIRECTLY.~~

20. ~~ALL NEW TRAFFIC SIGNALS SHALL BE CONNECTED INTO THE CITY OF RENO'S TRAFFIC SIGNAL CENTRAL COMPUTER SYSTEM VIA THE NEAREST RECEIVER SITE BY FIBER-OPTIC OR AN APPROVED OTHER.~~

21. ~~FOR FIBER OPTIC AND EQUIPMENT CONTACT CITY OF RENO TRAFFIC ENGINEERING FOR LATEST SPECIFICATIONS.~~

22. THE LUMINAIRE FIXTURES SHALL BE 120 VOLT, 250 WATT EQUIVALENT LED, 180 DEGREE CUTOFF WITH FLAT GLASS, TYPE III DISTRIBUTION WITH AUTO/REG BALLAST AND INTEGRAL CONTROLS. PHOTO CELL TO BE LOCATED IN METERED SERVICE PEDESTAL.

23. ~~PREEMPTION OF SIGNALS BY EMERGENCY VEHICLES SHALL BE PROVIDED BY INSTALLING **OPTICOM** MODEL 762 PHASE SECTOR DETECTORS WITH THE MODEL 752N PHASE SELECTOR, OR AN APPROVED EQUAL. **PROVIDE CABLE AND ALL INCIDENTALS FOR A FULLY FUNCTIONAL SYSTEM.**~~

24. LOOP DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF RENO STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION **(R-406A & R-406B).**

25. ~~THE CONTRACTOR SHALL PROVIDE AN UNDERGROUND SERVICE PEDESTAL. THE MAIN BREAKER SHALL BE 100 AMP MINIMUM (120/240 VAC, 60 HZ, SINGLE PHASE, 3 WIRE) IN ACCORDANCE WITH NDOT STANDARD PLAN T-30.1.6. INDIVIDUAL CIRCUIT BREAKERS SHALL INCLUDE 120 VOLT, 30 AMP 1-POLE CIRCUIT BREAKER FOR SIGNAL; 30 AMP 2-POLE CIRCUIT BREAKER FOR LIGHTING CONTACTOR; 20 AMP 1-POLE CIRCUIT BREAKER FOR STREET LIGHTS; 20 AMP 1-POLE CIRCUIT BREAKER FOR SIGNS; 15 AMP 1-POLE CIRCUIT BREAKER FOR CONTROL; AND A 15 AMP 1-POLE CIRCUIT BREAKER FOR GFI RECEPTACLE. THE CONDUCTOR TO THE CABINET FROM THE BREAKER SHALL BE A MINIMUM OF 10 GAUGE WIRE. SEE METERED SERVICE SCHEDULES FOR EACH LOCATION.~~

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
NOTES - TRAFFIC SIGNALS & POLES	R-413G
	APPROVED BY: JF | DATE: 1/2013

MODIFIED BY HEADWAY TRANSPORTATION

26. ~~THE CONTRACTOR SHALL COORDINATE WITH NV ENERGY IN PROVIDING SERVICE FOR THE SIGNAL WITHIN NV ENERGY STANDARDS.~~

27. ~~POWER PANEL SURGE PROTECTION SHALL BE PROVIDED AND APPROVED THROUGH THE SUBMITTAL PROCESS TO THE PUBLIC WORKS TRAFFIC ENGINEERING DIVISION.~~

28. EXISTING VEHICLE DETECTOR LOOPS DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AND MADE FULLY FUNCTIONAL WITHIN TWO WORKING DAYS. IF NOT MADE FUNCTIONAL WITHIN THE TWO DAYS FOLLOWING DAMAGE, THE CITY MAY PERFORM THE REPAIR AND BACK-CHARGE THE CONTRACTOR AT THE EXPENSE OF $1000 PER LOOP. SPLICING WILL NOT BE CONSIDERED AS AN ADEQUATE REPAIR.

29. THE CONTRACTOR SHALL COORDINATE TRAFFIC SIGNAL INSTALLATIONS OR MODIFICATIONS WITH THE CITY OF RENO TRAFFIC ENGINEER AT 334-2243.

30. NO SPLICES SHALL BE PERMITTED BETWEEN THE CONTROLLER CABINET AND THE TRAFFIC SIGNAL POLE. ALL CONNECTIONS SHALL BE MADE AT THE JUNCTION BOX, OR IN THE CASE OF LOOPS, AT THE LOOP STUB. ANY DEVIATION TO THIS REQUIREMENT SHALL BE APPROVED BY THE CITY TRAFFIC ENGINEER PRIOR TO THE WORK.

31. VEHICLE DETECTOR LOOPS DAMAGED DURING CONSTRUCTION WHICH ARE PERMITTED BY THE CITY TRAFFIC ENGINEER TO BE TEMPORARILY SPLICED, MUST BE REPLACED PRIOR TO FINAL ACCEPTANCE.

32. ~~IF ANY PAVEMENTS MARKINGS ARE TO BE RELOCATED, VEHICLE DETECTOR LOOPS SHALL BE RELOCATED ACCORDINGLY TO REMAIN CONSISTENT WITH CITY OF RENO STANDARD DETAIL NO. R-406A AND NO. R-406B.~~

33. AS A PART OF ANY STREET WIDENING PROJECT OR THE ADDITION OF ANY STREET TRAVEL LANES TO EXISTING LANES, SUCH AS TURN LANES, ACCELERATION OR DECELERATION LANES, ETC., THE CONTRACTOR MUST EXTEND ANY TRAFFIC CONTROL CONDUITS AND/OR WIRING AND REPLACE ALL AFFECTED VEHICLE LOOP DETECTOR WIRING (SPLICING SHALL NOT BE ALLOWED).

34. SIGNAL EQUIPMENT SHALL BE PROVIDED AND APPROVED THROUGH THE SUBMITTAL PROCESS TO THE PUBLIC WORKS TRAFFIC ENGINEERING DIVISION.

35. FOR POLE DETAILS NOT SHOWN, SEE POLE MANUFACTURER'S DETAILED DRAWINGS.

36. ALL SIGNAL POLES SHALL CONFORM TO NDOT TYPE 35 AND 35A SPECIFICATIONS, INCLUDING BOLT CIRCLE DIMENSIONS, ANCHOR BOLTS, AND FOOTING DIMENSIONS.

37. FINAL POLE APPROVAL AND SUBMITTALS TO BE APPROVED BY THE CITY OF RENO.

38. ~~CLAM SHELL FOR TYPE 7D POLE TO BE USED ONLY WHEN POLE IS INCLUDED AS A SIGNAL POLE. DO NOT USE CLAM SHELL WHEN TYPE 7D POLE IS USED IN SERIES LIGHTING.~~

39. ~~POLE MAY BE MANUFACTURED AS EITHER A DOUBLE OF SINGLE CANDYCANE CONFIGURATION.~~

40. ~~VIDEO DETECTION MAY BE USED IF APPROVED BY THE CITY TRAFFIC ENGINEER.~~

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
NOTES - TRAFFIC SIGNALS & POLES	R-413H
	APPROVED BY: JF | DATE: 1/2013

MODIFIED BY HEADWAY TRANSPORTATION

NEW	EXISTING	
■	▨	PULL BOX (EXCEPT NO. 9)
■	▦	NO. 9 PULL BOX
⊠	⊠	TRAFFIC SIGNAL CONTROLLER CABINET
(2a)	(2a)	VEHICLE DETECTOR LOOP 2 = PHASE # a = CHANNEL
●	○	TRAFFIC SIGNAL OR STREET LIGHT POLE
———	———	CONDUIT
⊶	⊶	METERED SERVICE
◉	◎	POWER SOURCE
◀	◀	3 SECTION, THRU SIGNAL HEAD
◀	◀	3 SECTION, ARROW SIGNAL HEAD (UNLESS OTHERWISE NOTED)
▭	▭	PEDESTRIAN SIGNAL HEAD
ee	ee	EMERGENCY VEHICLE DETECTOR
▬	▭	STOP BAR PRESENCE RADAR SENSOR
- - -	- - -	PROPERTY LINE OR RIGHT OF WAY
- - -	- - -	EASEMENT

ABB.	MEANING
AWG	AMERICAN WIRE GAUGE
BW	BACK OF WALK
DLC	DETECTOR LEAD IN CABLE
EG	EXISTING GROUND
EP	EDGE OF PAVEMENT
EX.	EXISTING
FFC	FRONT FACE OF CURB
FL	FLOW LINE
FYA	FLASHING YELLOW ARROW
FYG	FLUORESCENT YELLOW GREEN
IISNS	INTERNALLY ILLUMINATED STREET NAME SIGN
IMSA	INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION
LED	LIGHT EMITTING DIODE
MA	MAST ARM
MAX	MAXIMUM
MIN	MINIMUM
MMU	MALFUNCTION MANAGEMENT UNIT
OHP	OVERHEAD POWER
PB	PULLBOX
PCC	PORTLAND CEMENT CONCRETE
POE	POWER OVER ETHERNET
PPB	PEDESTRIAN PUSH BUTTON
PTZ	PAN, TILT, ZOOM
R/W	RIGHT OF WAY
SPEC	SPECIFICATION
SW	SIDEWALK
TBD	TO BE DETERMINED
TC	TOP OF CURB
TDC	TOP OF DEPRESSED CURB
TYP	TYPICAL

Underground Service Alert
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TWO WORKING DAYS BEFORE YOU DIG

HEADWAY TRANSPORTATION

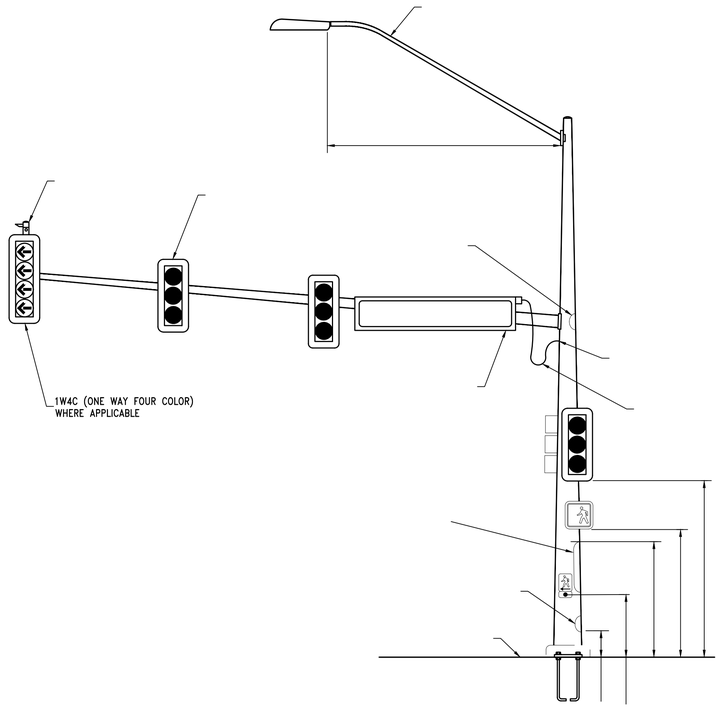
REV.	DATE	DESCRIPTION	BY	APP'D
1	9-28-20	UPDATED DUE TO SITE PLAN CHANGES	RP	LC
2	11-3-20	PLAN CLARIFICATION UPDATE	RP	LC

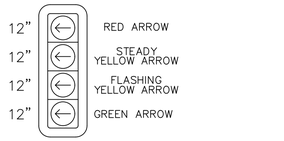
CIVIL IMPROVEMENT PLANS FOR
RED ROCK MEGA STORAGE
TRAFFIC SIGNAL NOTES AND SPECIFICATIONS
RENO — WASHOE COUNTY — NEVADA

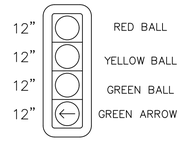
DESIGNED BY: RP
CHECKED BY: LC
SCALE
HORIZ:
VERT:
JOB NO: 30798

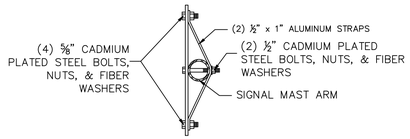
PROFESSIONAL ENGINEER — STATE OF NEVADA
RICHARD PETTINARI
Exp. 12/31/21
CIVIL
No. 20191
2/1/21
DATE

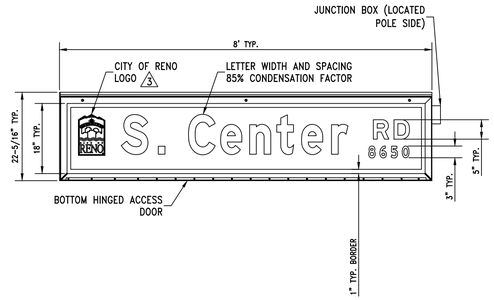
SHEET TS-1 OF 39











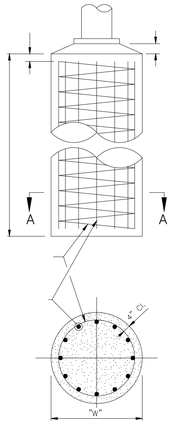
NOTES:

1. THE CITY OF RENO LOGO AND BLOCK NUMBERS SHALL BE PRESENT ON ALL SIGN FACES. SEE IISNS SCHEDULES FOR LEGENDS. ALL **NEW** STREET NAME SIGNS SHALL BE 8 FOOT **SINGLE** FACED WITH CASE SENSITIVE LETTERING. CITY LOGO SHALL BE LOCATED AT THE LEFT SIDE OF THE SIGN.
2. SIGNS SHALL BE WIRED USING 16/3 SOOW OR SJOOW CABLE.
3. LOGO HEIGHT SHALL NOT EXCEED HEIGHT OF UPPERCASE LETTERING. LOGO APPLIQUES ARE NOT ALLOWED.
4. LOGO SHALL NOT BE PRESENT ON SIGNS MOUNTED TO POLE INSIDE NDOT RIGHT OF WAY.
5. **SIGN SHALL BE MOUNTED TO MAST ARM. MOUNTING HARDWARE SHALL BE STAINLESS STEEL, RIGID AND ALLOW FOR HORIZONTAL LEVELING ADJUSTMENTS.**

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
POLE STREET NAME SIGN	R-413E
	APPROVED BY: JF | DATE: 3/2014

MODIFIED BY HEADWAY TRANSPORTATION

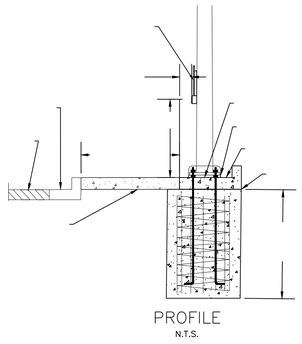
INTERNALLY ILLUMINATED STREET NAME SIGN



SECTION A–A

POLE FOUNDATION TABLE

POLE TYPE	MAST ARM LENGTH	**"D"	**"W" ①	ANCHOR BOLTS (4 EACH)
PPB POST	N/A	1'–6"	1'–6"	3/8"x 12"x 2"
1A & 1B	N/A	3'	2'	3/4"x 36"x 4"
7	ALL	5'	2'–6"	*1"x 36"x 4"
14	ALL	5'	2'–6"	*1"x 36"x 4"
28	ALL	12'	3'	3/8"x 12"x 2"
30 AND 35	≤ 45'	12'	3'	1 3/4"x 60"x 6"
30A AND 35A	≤ 60'	12'	3'	2"x 66"x 6"
30B AND 35B	≤ 85'	20'	4'	***2 1/4"x 72"



PROFILE
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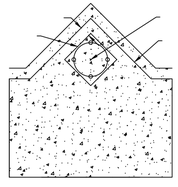

PLAN
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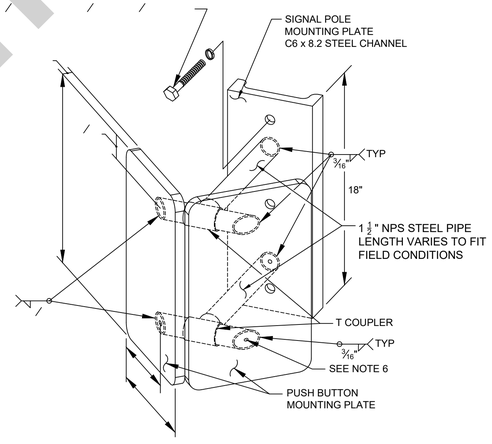


DUAL PUSH BUTTON STATIONS

- INCH RADIUS ON ALL CORNERS. SMOOTH AND NEATLY ROUND EXPOSED EDGES TO A ⅜" RADIUS. ALL MATERIAL SHALL CONFORM TO THE NDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE

- INCH NPS STEEL PIPE USE SCHEDULE 80. 2 INCH NPS PIPE SHOULD ONLY BE USED WITH AN

DRILL AND TAP HOLES 20TPI INTO SIGNAL POLE.
ATTACH PUSH BUTTON TO MOUNTING PLATE PER MANUFACTURER'S RECOMMENDATIONS.
- INCH HOLES IN MOUNTING PLATES AT LOWER EXTENSION PIPE FOR CONDUCTORS. SMOOTH EDGES TO PREVENT DAMAGE TO CONDUCTOR INSULATION.
GALVANIZED FINISH ON STANDARD POLES OR FLAT BLACK POWDER COAT WHEN LOCATED ON

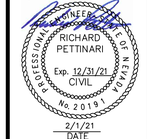
PEDESTRIAN PUSH BUTTON EXTENSION

HEADWAY TRANSPORTATION

REV.	DATE	DESCRIPTION	BY	APP'D
1	9-28-20	UPDATED DUE TO SITE PLAN CHANGES	RP	LC

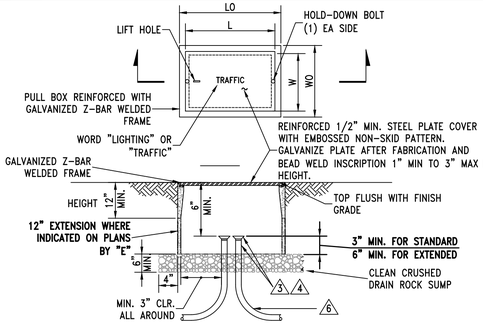
CIVIL IMPROVEMENT PLANS FOR
RED ROCK MEGA STORAGE
TRAFFIC SIGNAL DETAILS
WASHOE COUNTY NEVADA
RENO

DESIGNED BY: RP
CHECKED BY: LC
SCALE
HORIZ:
VERT:
JOB NO: 30798



2/1/21
DATE

SHEET TS-21 OF 39



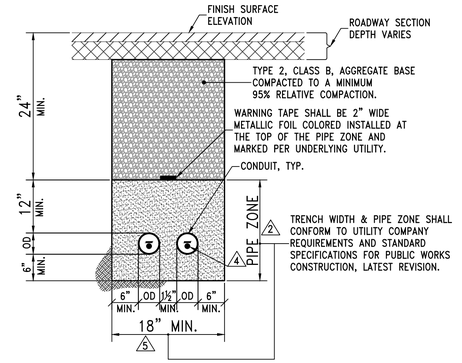
PULL BOX	CONCRETE BOX		COVER (STEEL COVER)		HEIGHT	EXTENSION
	LO	WO	L	W	H	E
No. 3-1/2	19"	12"	14-1/2"	8-3/4"	12"	12"
No. 5	25"	15"	20-1/2"	10-1/2"	12"	12"
No. 7	35"	22"	30"	17"	12"	12"
No. 9	52"	35"	47-3/4"	30"	14"	12"

NOTES:

1. ~~No. 5 TRAFFIC RATED PULL BOXES SHALL BE USED AT LOCATION WHERE CONDUIT RUNS CONTAIN TRAFFIC SIGNAL CABLE OR CARRY POWER.~~ No. 3-1/2 TRAFFIC RATED PULL BOXES SHALL ONLY BE USED AS APPROVED BY CITY OF RENO TRAFFIC ENGINEER.
2. TRAFFIC RATED BOX SHALL BE USED IN VEHICULAR AREAS ONLY, INCLUDING, BUT NOT LIMITED TO TRAVEL WAY, DRIVEWAY APPROACHES AND WITHIN PEDESTRIAN RAMPS AT INTERSECTION CURB RETURNS OR AS APPROVED BY CITY OF RENO TRAFFIC ENGINEER.
3. ALL CONDUIT TERMINATIONS SHALL HAVE A "BELL END" INSTALLATION AND BE SEALED WITH CONDUIT SEALER AFTER WIRE INSTALLATION.
4. ALL EXPOSED CONDUIT SHALL BE RIGID PVC SCHEDULE 80, AND SHALL EXTEND TO A MINIMUM DEPTH OF 18 INCHES.
5. ~~BOX EXTENSIONS SHALL NOT BE USED UNLESS APPROVED BY CITY OF RENO TRAFFIC ENGINEER.~~
6. CONDUIT ENDS SHALL NOT TERMINATE WITHIN A SWEEP SECTION.
7. ALL METAL COVERS, METAL Z-BAR FRAME, METAL RINGS OR ANY METALLIC COMPONENT OF A PULL BOX SHALL BE BONDED TO A #8 AWG OR LARGER COPPER EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS SHALL BE BRAIDED COPPER EQUIVALENT TO #8 AWG COPPER AND MINIMUM 36" IN LENGTH AND SHALL BE ATTACHED WITH EXOTHERMIC WELDING. PROCESS IS A MOLECULAR BONDING WITH HIGH COPPER CONTENT ALLOYS (IN EXCESS OF 90%), HIGH CORROSION RESISTANCE AND HIGH CONDUCTIVITY, AND APPROVED GROUNDING LUG.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
	APPROVED BY: JF | DATE: 1/2013

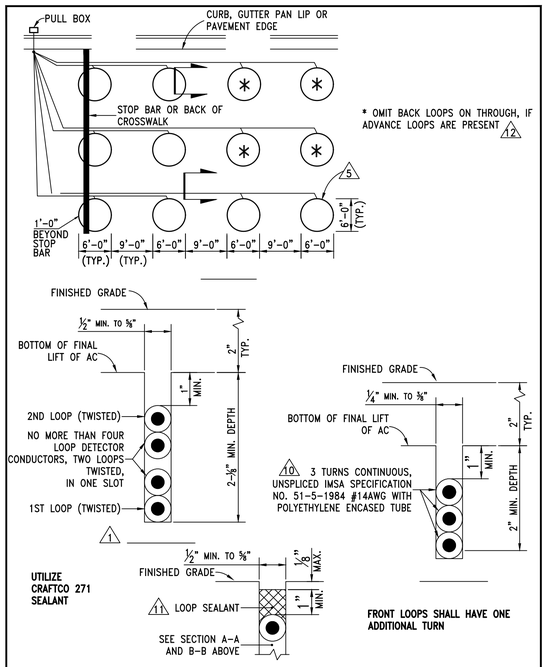
MODIFIED BY HEADWAY TRANSPORTATION



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), LATEST REVISION.
2. BEDDING MATERIAL SHALL CONFORM TO OWNING-UTILITY COMPANY REQUIREMENTS AS APPROVED BY THE CITY OF RENO. FOR CITY OWNED TRAFFIC AND LIGHTING UTILITIES, BEDDING MATERIAL SHALL BE CLASS A. COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200.
3. CEMENT SLURRY BEDDING/BACKFILL SHALL NOT BE USED.
4. INSTALL LOCATE WIRE AND MULE TAPE FOR ALL FUTURE, UNUSED, OR FIBER-OPTIC CONDUITS. LOCATE WIRE SHALL BE 12 GAGE WIRE TERMINATED AT BOX & POLYESTER PULLING TAPE SHALL BE MULE TAPE OR APPROVED EQUAL.
5. ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
	APPROVED BY: JF | DATE: 1/2013



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
	APPROVED BY: JF | DATE: 8/2014

MODIFIED BY HEADWAY TRANSPORTATION

NOTES:

1. WHERE NEW PAVEMENT SURFACES ARE PLACED, ALL TRAFFIC SIGNAL LOOP DETECTORS SHALL BE INSTALLED PRIOR TO THE PLACEMENT OF THE FINAL "TOP" LIFT OF THE PLANTMIX BITUMINOUS PAVEMENT MATERIAL. PLACEMENT OF SLURRY SEAL DOES NOT NEGATE THIS REQUIREMENT.
2. SLOTS SHALL BE WASHED, BLOWN OUT AND THOROUGHLY DRIED BEFORE INSTALLING LOOP CONDUCTORS.
3. THE ADDITIONAL LENGTH OF EACH CONDUCTOR FOR EACH LOOP SHALL BE TWISTED TOGETHER INTO A PAIR (AT LEAST TWO TURNS PER FOOT) BEFORE BEING PLACED IN THE SLOT AND CONDUIT TO TERMINATION PULL BOX.
4. LOOPS SHALL BE CENTERED IN LANES.
5. LEFT TURN LOOP FARTHEST FROM FROM STOP BAR SHALL BE ON DEDICATED CHANNEL.
6. WHERE LOOPS ARE TO BE OVERLAID WITH ASPHALT, THE LOOP SEALANT SHALL BE SAKRETE, OR APPROVED EQUAL, AND COMPACTED.
7. DISTANCE BETWEEN SIDE OF LOOP AND A LEAD-IN SAW CUT FROM ADJACENT DETECTORS SHALL BE TWO FEET MINIMUM. DISTANCE BETWEEN LEAD-IN SAW CUTS SHALL BE SIX INCHES MINIMUM. DISTANCE BETWEEN LEAD-IN SAW CUTS SHALL BE TWELVE INCHES FROM ANY CURB, GUTTER PAN LIP OR PAVEMENT EDGE.
8. ALL WIRES SHALL BE IDENTIFIED IN PULL BOXES, WITH LOOP WIRES AS FOLLOWS: BLUE TAPE INDICATES LEFT TURN LANE LOOPS WITH ONE BAND IDENTIFYING LOOP ONE, TWO BANDS LOOP TWO, ETC. WHITE TAPE INDICATES THROUGH LANE LOOPS AND RED TAPE INDICATES RIGHT TURN LANES. IF THERE ARE TWO LEFT TURN LANES, YELLOW TAPE INDICATES THE LANE CLOSEST TO THE CENTER LANE OF THE STREET.
9. ALL INDUCTIVE LOOPS ON A GIVEN CHANNEL SHALL BE CONNECTED IN SERIES. NO MORE THAN ONE LEAD IN CABLE SHALL BE CONNECTED TO A CABINET CHANNEL TERMINATION. NO MORE THAN SIX INDIVIDUAL LOOPS ARE TO BE CONNECTED TO ONE CHANNEL.
10. FOR LOOP LEAD IN CABLES GREATER THAN 500 FEET, LOOP IN LENGTH SHALL BE INSTALLED WITH FOUR (4) TURNS INSTEAD OF THREE (3).
11. LOOPS CUT INTO THE STREET SURFACE SHALL BE SEALED WITH "CRAFCO-271" LOOP SEALANT, OR AN APPROVED EQUAL. **UTILIZE DURANT STAT-A-FLEX SEALANT OR APPROVED EQUAL WHEN LOOPS ARE CUT IN EXISTING PCC PAVEMENT. USE PREFORMED LOOPS IN NEW PCC PAVEMENT.**
12. LISTED BELOW ARE THE MINIMUM DISTANCES FOR ADVANCE LOOP DETECTOR PLACEMENT AS A FUNCTION OF POSTED SPEED LIMITS, MEASURED FROM THE STOP BAR TO THE REAR OF THE LOOP. SEE TABLE BELOW.
13. **UTILIZE 6 FOOT DIAMETER ROUND LOOPS.**

12

SPEED LIMIT (MPH)	DISTANCE (FEET)
25	150
30	200
35	255
40	285
45	330
50	355
55	390

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
	APPROVED BY: JF | DATE: 8/2014

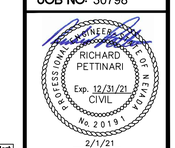
MODIFIED BY HEADWAY TRANSPORTATION

HEADWAY TRANSPORTATION

REV.	DATE	DESCRIPTION	BY	APP'D
1	9-28-20	UPDATED DUE TO SITE PLAN CHANGES	RP	LC

CIVIL IMPROVEMENT PLANS FOR
RED ROCK MEGA STORAGE
TRAFFIC LOOPS, TRENCH AND PULL BOXES DETAILS
RENO WASHOE COUNTY NEVADA

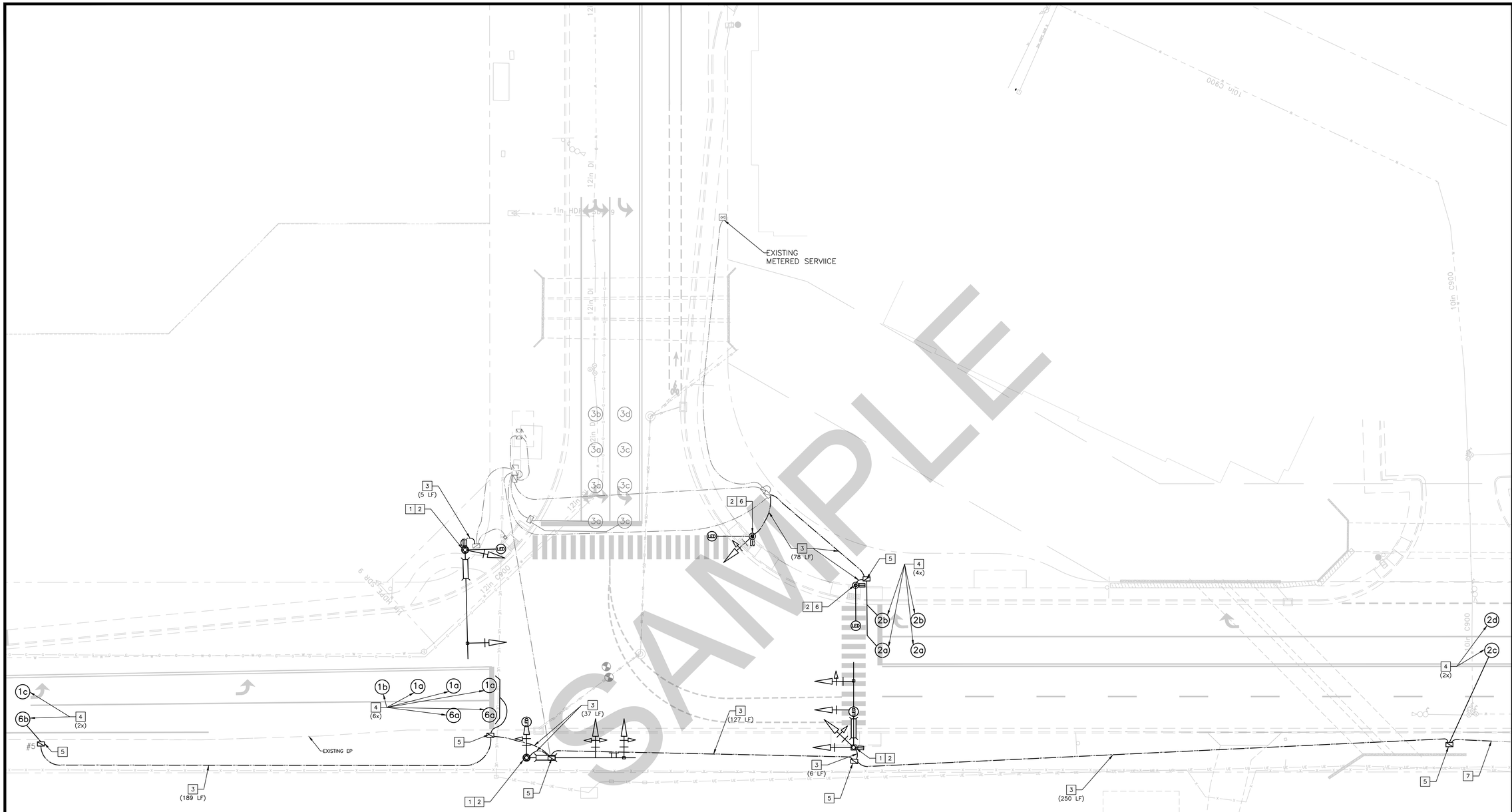
DESIGNED BY: RP
CHECKED BY: LC
SCALE
HORIZ:
VERT:
JOB NO: 30798



2/1/21
DATE

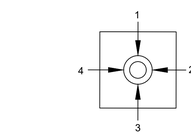
Underground Service Alert
Call: TOLL FREE
811/800
227-2600

SHEET TS-3 OF 39



DEMOLITION NOTES :

1. REMOVE SIGNAL POLE AND ALL EQUIPMENT. REMOVE SIGNAL POLE FOUNDATION TO 24" BELOW FINISHED GRADE. SALVAGE POLE, MAST ARM, AND ALL EQUIPMENT TO CITY OF RENO CORPORATE YARD.
2. REMOVE ALL CONDUCTOR CABLE(S) AND/OR EVP CABLE(S) FROM POLE TO CABINET. REMOVE LIGHTING CONDUCTORS TO A REMAINING PULL BOX. DISPOSE OF CABLES AND CONDUCTORS.
3. ABANDON CONDUIT AND REMOVE CONDUCTORS TO PULL BOXES TO REMAIN. DISTANCE SHOWN REPRESENTS DISTANCE BETWEEN TWO STRUCTURES, NOT ACTUAL CONDUIT LENGTH. Δ2
4. VEHICLE DETECTION LOOP TO BE RECUT. REFERENCE SHEET TS-5 FOR NEW LOOP LOCATIONS. REMOVE ENTIRE DLC(S) TO CABINET. DISPOSE OF DLC(S)
5. REMOVE PULL BOX.
6. REMOVE STREET LIGHT POLE AND ALL EQUIPMENT. REMOVE ENTIRE FOUNDATION. SALVAGE POLE, LUMINAIRE, AND ALL EQUIPMENT TO CITY OF RENO CORPORATE YARD.
7. EXPOSE CONDUIT TO ALLOW FOR A SMOOTH BEND TRANSITION TO NEW CONDUIT ALIGNMENT. PULL FIBER OPTIC CABLE FROM RED ROCK/MOYA CONTROLLER CABINET TO PULL BOX TO REMAIN. FIBER OPTICAL CABLE TO BE INSTALLED PER SCHEDULE ON SHEET TS-7.



QUADRANT

20 0 20 40
1" = 60' GRAPHIC SCALE

Underground Service Alert
Call: TOLL FREE
811/800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

LEADWAY TRANSPORTATION

REV.	DATE	DESCRIPTION	BY	APP'D
1	9-28-20	UPDATED DUE TO SITE PLAN CHANGES	RP	LC
2	11-3-20	PLAN CLARIFICATION UPDATE	RP	LC

CIVIL IMPROVEMENT PLANS FOR
RED ROCK MEGA STORAGE
TRAFFIC SIGNAL DEMOLITION PLAN
RENO WASHOE COUNTY NEVADA

DESIGNED BY: RP
CHECKED BY: LC
SCALE
HORIZ: 1"=20'
VERT:
JOB NO: 30798

PROFESSIONAL ENGINEER STATE OF NEVADA
RICHARD PETTINARI
Exp. 12/31/21
CIVIL
No. 20191

2/1/21
DATE

SHEET TS-4 OF 39

1 INSTALL SCHEDULE 40 PVC CONDUIT PER CONDUIT SCHEDULE ON SHEET TS-7 AND DETAIL ON SHEET TS-3. DISTANCE SHOWN ON PLAN REFLECTS DISTANCE BETWEEN STRUCTURES, NOT EXACT CONDUIT LENGTH.

2 INSTALL TRAFFIC RATED PULL BOX PER DETAIL ON SHEET TS-3.

3 CONSTRUCT VEHICLE DETECTION LOOPS PER DETAIL ON SHEET TS-3. INSTALL CONDUIT STUBS AS NEEDED. INSTALL NEW DLC FROM CABINET TO LOOPS AND MAKE ALL CONNECTIONS. CONFIRM PHASE DESIGNATIONS AND LABEL DLC ACCORDINGLY. REMOVE ANY ABANDONED DLC. FURNISH AND INSTALL LOOP AMPLIFIER CARDS IN CABINET AS NEEDED FOR FULL FUNCTIONALITY.

EXISTING METERED SERVIICE

EASEMENT

(9 LF)

(55 LF)

(DELAY)

TO STOP BAR 195'

(TYP.)

EXISTING R/W

(195 LF)

(35 LF)

EASEMENT/ FUTURE R/W

(8 LF)

ø4 RADAR DETECTION ZONE

(120 LF)

(229 LF)

EASEMENT/ FUTURE R/W

TO STOP BAR 255'

EXISTING DUAL 7'-WIDE BOX CULVERTS

(70 LF)

QUADRANT

1" = 60' GRAPHIC SCALE

Underground Service Alert Call: TOLL FREE 811/800 227-2600 TWO WORKING DAYS BEFORE YOU DIG

LEADWAY TRANSPORTATION

REV.	DATE	DESCRIPTION	BY	APP'D
1	9-28-20	UPDATED DUE TO SITE PLAN CHANGES	RP	LC

CIVIL IMPROVEMENT PLANS FOR RED ROCK MEGA STORAGE CONDUIT MODIFICATION PLAN

NEVADA

WASHOE COUNTY

RENO

DESIGNED BY: RP

CHECKED BY: LC

SCALE

HORIZ: 1"=20'

VERT:

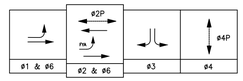
JOB NO: 30798

PROFESSIONAL ENGINEER STATE OF NEVADA RICHARD PETTINARI Exp. 12/31/21 CIVIL No. 20191

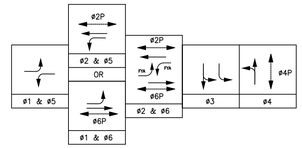
2/1/21 DATE

SHEET TS-5 OF 39

1. INSTALL NEW SIGNAL POLE AND FOUNDATION PER DETAILS ON SHEET TS-2. INSTALL EQUIPMENT PER POLE SCHEDULE ON SHEET TS-7.
2. REWIRE PER SCHEDULE ON SHEET TS-7. THIS WORK WILL REQUIRE A SIGNAL SHUT DOWN, AS EXISTING WIRING MUST BE REMOVED BEFORE NEW WIRING CAN BE INSTALLED.
3. REPROGRAM CONTROLLER AND MMU AS NEEDED.
4. INSTALL SIGN ON MAST ARM PER DETAIL ON SHEET TS-2.
5. INSTALL STOP BAR PRESENCE RADAR SENSOR ON POLE. INSTALL RADAR CABLE FROM SENSOR TO CABINET. INSTALL CABINET INTERFACE DEVICE IN CABINET AND MAKE ALL CONNECTIONS.
6. REMOVE EXISTING PUSH BUTTON STATION. FURNISH AND INSTALL NEW PUSH BUTTON STATION. SALVAGE EQUIPMENT TO CITY OF RENO.
7. REMOVE EXISTING PUSH BUTTON STATION CONTROLLER. FURNISH AND INSTALL NEW POLARA iCCU-S2 CONTROL UNIT. MAKE ALL CONNECTIONS. SALVAGE EQUIPMENT TO CITY OF RENO.



EXISTING PHASE DIAGRAM
FLASHING OPERATION: ALL RED



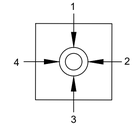
PROPOSED PHASE DIAGRAM
FLASHING OPERATION: ALL RED

EXISTING METERED SERVIICE

Q3: ø2P PPB RT
Q3: ø2P PPB LT
Q4: ø4P PPB RT
Q1: ø6P PPB LT
Q1: ø6P PPB RT
Q4: ø4P PPB LT

EVA
EVB
EVC
EVD
RADAR DECT.
R3-8 30"x30"

EASEMENT
EXISTING EP
EXISTING R/W
PROPOSED EP
EASEMENT FUTURE R/W
EASEMENT FUTURE R/W



QUADRANT

20 0 20 40
1" = 60' GRAPHIC SCALE

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TWO WORKING DAYS BEFORE YOU DIG

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2	11-3-20	PLAN CLARIFICATION UPDATE	RP	LC

CIVIL IMPROVEMENT PLANS FOR RED ROCK MEGA STORAGE
TRAFFIC SIGNAL EQUIPMENT MODIFICATION PLAN

RENO WASHOE COUNTY NEVADA

DESIGNED BY: RP
CHECKED BY: LC
SCALE
HORIZ: 1"=20'
VERT:
JOB NO: 30798

PROFESSIONAL ENGINEER STATE OF NEVADA
RICHARD PETTINARI
Exp. 12/31/21
CIVIL
No. 20191
2/1/21
DATE

SHEET TS-6 OF 39

CONDUIT AND CONDUCTOR SCHEDULE

RUN NO.	FROM	TO	CONDUIT SIZE	GROUND	SIGNAL CABLE			LUMINAIRE & IISNS		SERVICE	DETECTOR LEAD IN CABLE	RADAR CABLE	INTERCONNECT	EVP	COMMENTS
				8 AWG	25+N CON 14 AWG +10 AWG	10+N CON 14 AWG +14 AWG	3 CON 14 AWG	8 AWG	10 AWG	4 AWG			12-COUNT FOC + 14 AWG		
1	METERED SERVICE	NO. 5 PB	3"	1				2		3					
2	NO. 5 PB	NO. 7E PB FOR POLE D	3"	1					2						
3	NO. 5 PB	NO. 5 PB	3"	1				2	2	3					
4	CONTROLLER CABINET	NO. 5 PB	3"	1						3					
5	NO. 9E PB HOME RUN	NO. 5 PB	3"	1				2							
6	CONTROLLER CABINET	NO. 9E PB HOME RUN	(4)3"	1	**4**	**2**	1				4/**11**	**1**	1	**4**	
7	NO. 9E PB HOME RUN	NO. 7E PB FOR POLE A	(2)3"	1	1		1		2					**1**	
8	NO. 7E PB FOR POLE A	POLE B	1.5"	1			1								
9	NO. 7E PB FOR POLE A	**POLE A**	**(2)3"**	**1**	**1**				**2**					**1**	
10	NO. 9E PB HOME RUN	NO. 5 PB	3"								4				
11	NO. 9E PB HOME RUN	NO. 7E PB FOR POLE D	(3)3"	1	**1**	**1**					**4**			**1**	
12	NO. 7E PB FOR POLE D	**POLE C**	2" ⚠2	**1**		**1**									
13	NO. 7E PB FOR POLE D	**POLE D**	**(2)3"**	**1**	**1**				**2**					**1**	
14	NO. 7E FOR POLE D	**NO. 5 PB**	**3"**								**4**				
15	NO. 9E PB HOME RUN	**NO. 7E PB FOR POLE G**	(3)3"	**1**	**2**	**1**			**2**		**7**	**1**	1	**2**	EXTEND EXISTING (3) 3" CONDUITS TO PULL BOX
16	**NO. 7E PB FOR POLE G**	**POLE G**	**(2)3"**	**1**	**1**				**2**					**1**	
17	**NO. 7E PB FOR POLE G**	**NO. 7E PB**	**(2)3"**								**2**				SPARE CONDUIT FOR FIBER OPTIC CABLE
18	**NO. 7E PB FOR POLE G**	**NO. 7E PB FOR POLE E**	**(3)3"**	**1**	**1**	**1**			**2**		**2**	**1**	1	**1**	SPARE CONDUIT FOR FIBER OPTIC CABLE
19	**NO. 7E PB FOR POLE E**	**POLE E**	**(2)3"**	**1**	**1**				**2**			**1**		**1**	
20	**NO. 7E PB FOR POLE E**	**POLE F**	**3"**	**1**		**1**									
21	**NO. 7E PB FOR POLE E**	**NO. 7E PB**	**(2)3"**								**2**		1		SPARE CONDUIT FOR FIBER OPTIC CABLE
22	**NO. 7E PB**	NO. 3.5 PB	3"										1		EXTEND EXISTING 3" CONDUITS TO PULL BOX

NOTE: **DARK TEXT = NEW**
SHADED TEXT = EXISTING

POLE SCHEDULE

POLE NO.	POLE TYPE	SIGNAL ARM QUAD	SIGNAL ARM LENGTH	LUM. ARM QUAD	LUM. ARM LENGTH	SIGNALS – VEHICLE TYPE	SIGNALS – VEHICLE MOUNT	SIGNALS – VEHICLE QUAD	SIGNALS – PED. MOUNT	SIGNALS – PED. QUAD	PED BUTTON QUAD	PED BUTTON ARROW	COMMENTS
Ⓐ	**TYPE 35-A**	**3**	**60'**	**2**	**15'**	**1W4C(FYA)** **1W3C** **1W3C/1W3C**	**M-4** **M-2** **B-2a**	**MA** **MA** **1**	**WS-1**	**1**	**-**	**-**	**INSTALL IISNS ON MAST ARM** **INSTALL EVP ON TOP OF 4-SECTION HEAD**
Ⓑ	PPB POST	–	–	–	–	–	–	–	–	–	**3**	**RT**	
Ⓒ	**PPB POST**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3** **4**	**LT** **RT**	**INSTALL DUAL PUSH BUTTON EXTENSION ON QUADRANT 3.5. INSTALL PUSH BUTTON STATIONS ON EXTENSION.**
Ⓓ	**TYPE 35**	**4**	**40'**	**3** **4**	**15'** **15'**	**1W4C** **1W4C(FYA)/ 1W3C**	**M-4** **B-2a(S)**	**MA** **2**	**WS-2**	**2**	**-**	**-**	**INSTALL IISNS ON MAST ARM** **INSTALL EVP ON TOP OF 4-SECTION HEAD**
Ⓔ	**TYPE 35-A** ⚠2	**1**	**50'**	**1** **4**	**15'** **15**	**1W4C(FYA)** **1W3C** **1W3C** **1W3C/1W3C**	**M-4** **M-2** **M-2** **B-2a**	**MA** **MA** **MA** **3**	**WS-1**	**3**	**4**	**LT**	**INSTALL IISNS ON MAST ARM** **INSTALL EVP ON TOP OF 4-SECTION HEAD** **INSTALL RADAR DETECTOR ON SIGNAL POLE**
Ⓕ	**1-B**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**WT-1**	**TOP**	**1**	**RT**	
Ⓖ	**TYPE 35**	**2**	**45'**	**2**	**15'**	**1W3C** **1W4C** **1W4C(FYA)/ 1W3C**	**M-2** **M-4** **B-2a(S)**	**MA** **MA** **4**	**WS-1**	**4**	**1**	**LT**	**INSTALL IISNS ON MAST ARM** **INSTALL EVP ON TOP OF 3-SECTION HEAD** **INSTALL R3-8 SIGN ON MAST ARM**

NOTE: **DARK TEXT = NEW**
SHADED TEXT = EXISTING

METERED SERVICE EQUIPMENT SCHEDULE

SERVICE LOCATION	RED ROCK / MOYA
OWNERSHIP	CITY OF RENO
VOLTAGE	120V
MAIN BREAKER	100A, 120V, 2P
PHASE	SINGLE
SIGNAL BREAKER	30A, 120V, 1P
LIGHTING BREAKER	20A, 120V, 1P
SPARE BREAKER	30A, 120V, 1P
GFI RECEPTACLE	15A, 120V, 1P
LIGHTING PEU	15A, 120V, 1P
TEST SWITCH	15A, 1P, SWITCH
LIGHTING CONTACTOR	35A-2PNO MERC

NOTE: **DARK TEXT = NEW**
SHADED TEXT = EXISTING

IISNS SCHEDULE

POLE NO.	STREET NAME
A	**Moya Blvd.**
D	**Red Rock Rd.**
E	**Moya Blvd.**
G	**Red Rock Rd.**

NOTE: **DARK TEXT = NEW**
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HEADWAY TRANSPORTATION

REV.	DATE	DESCRIPTION	BY	APP'D
⚠1	9-28-20	UPDATED DUE TO SITE PLAN CHANGES	RP	LC
⚠2	11-3-20	PLAN CLARIFICATION UPDATE	RP	LC

CIVIL IMPROVEMENT PLANS FOR RED ROCK MEGA STORAGE TRAFFIC SIGNAL SCHEDULES

RENO — WASHOE COUNTY — NEVADA

DESIGNED BY: RP
CHECKED BY: LC
SCALE
HORIZ:
VERT:
JOB NO: 30798

PROFESSIONAL ENGINEER — STATE OF NEVADA
RICHARD PETTINARI
Exp. 12/31/21
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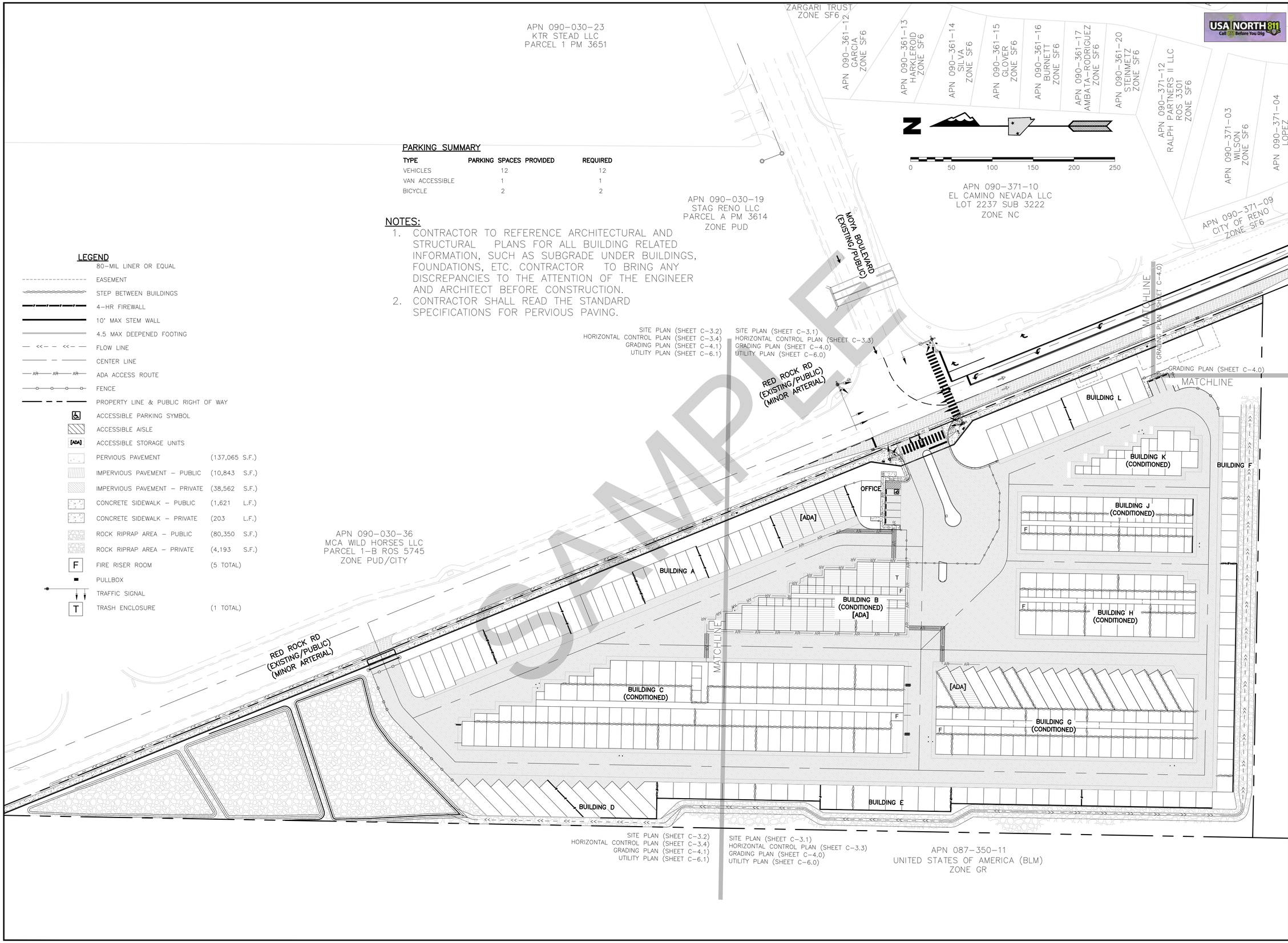
TWO WORKING DAYS BEFORE YOU DIG

SHEET TS-7 OF 39

ATTACHMENT B – SITE PLAN



PARKING SUMMARY

TYPE	PARKING SPACES PROVIDED	REQUIRED
VEHICLES	12	12
VAN ACCESSIBLE	1	1
BICYCLE	2	2

NOTES:

1. CONTRACTOR TO REFERENCE ARCHITECTURAL AND STRUCTURAL PLANS FOR ALL BUILDING RELATED INFORMATION, SUCH AS SUBGRADE UNDER BUILDINGS, FOUNDATIONS, ETC. CONTRACTOR TO BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER AND ARCHITECT BEFORE CONSTRUCTION.
2. CONTRACTOR SHALL READ THE STANDARD SPECIFICATIONS FOR PERVIOUS PAVING.

LEGEND

- 80-MIL LINER OR EQUAL
- EASEMENT
- STEP BETWEEN BUILDINGS
- 4-HR FIREWALL
- 10' MAX STEM WALL
- 4.5 MAX DEEPENED FOOTING
- FLOW LINE
- CENTER LINE
- ADA ACCESS ROUTE
- FENCE
- PROPERTY LINE & PUBLIC RIGHT OF WAY
- ACCESSIBLE PARKING SYMBOL
- ACCESSIBLE AISLE
- ACCESSIBLE STORAGE UNITS
- PERVIOUS PAVEMENT (137,065 S.F.)
- IMPERVIOUS PAVEMENT – PUBLIC (10,843 S.F.)
- IMPERVIOUS PAVEMENT – PRIVATE (38,562 S.F.)
- CONCRETE SIDEWALK – PUBLIC (1,621 L.F.)
- CONCRETE SIDEWALK – PRIVATE (203 L.F.)
- ROCK RIPRAP AREA – PUBLIC (80,350 S.F.)
- ROCK RIPRAP AREA – PRIVATE (4,193 S.F.)
- F FIRE RISER ROOM (5 TOTAL)
- PULLBOX
- TRAFFIC SIGNAL
- T TRASH ENCLOSURE (1 TOTAL)

SUMMIT ENGINEERING CORPORATION
5405 MAE ANNE AVENUE, RENO, NV. 89523 PHONE: (775) 747-8550 FAX: (775) 747-8559

REV.	DATE	DESCRIPTION	BY	APP'D
1	9/28/20	COMPREHENSIVE REVISION ON ENTIRE SHEET		
2	9/28/20	REVISION PER OWNER'S REQUEST		

CIVIL IMPROVEMENT PLANS FOR RED ROCK MEGA STORAGE

OVERALL SITE PLAN

RENO NEVADA

WASHOE COUNTY

JOB NO:	30995
DRAWN BY:	jbelen
DESIGNED BY:	JK
CHECKED BY:	RG
SCALE HORZ:	1"=50'
SCALE VERT:	

PROFESSIONAL ENGINEER - STATE OF NEVADA
ROBERT GELU
Exp. 6-30-21
CIVIL
NOT VALID UNLESS SIGNED

SHEET	TOTAL
C-3.0 OF	39

EXHIBIT "C"
(Offered Improvements Application/Submittals)

1 INSTALL SCHEDULE 40 PVC CONDUIT PER CONDUIT SCHEDULE ON SHEET TS-7 AND DETAIL ON SHEET TS-3. DISTANCE SHOWN ON PLAN REFLECTS DISTANCE BETWEEN STRUCTURES, NOT EXACT CONDUIT LENGTH.

2 INSTALL TRAFFIC RATED PULL BOX PER DETAIL ON SHEET TS-3.

3 CONSTRUCT VEHICLE DETECTION LOOPS PER DETAIL ON SHEET TS-3. INSTALL CONDUIT STUBS AS NEEDED. INSTALL NEW DLC FROM CABINET TO LOOPS AND MAKE ALL CONNECTIONS. CONFIRM PHASE DESIGNATIONS AND LABEL DLC ACCORDINGLY. REMOVE ANY ABANDONED DLC. FURNISH AND INSTALL LOOP AMPLIFIER CARDS IN CABINET AS NEEDED FOR FULL FUNCTIONALITY.

EXISTING METERED SERVIICE

EASEMENT

(9 LF)

(55 LF)

(DELAY)

TO STOP BAR
195'

TO STOP BAR
255'

(TYP.)

EXISTING R/W

(195 LF)

(35 LF)

(120 LF)

(8 LF)

(229 LF)

EASEMENT/
FUTURE R/W

EXISTING DUAL 7'-WIDE
BOX CULVERTS

(70 LF)

ø4
RADAR
DETECTION
ZONE

#7E

#9E

#5

12in DI

8in HDPE SDR 9

10in C900

SS, 8"

QUADRANT

1" = 60'

GRAPHIC SCALE

Underground Service Alert
Call: TOLL FREE
811/800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

REV.	DATE	DESCRIPTION	BY	APP'D
1	9-28-20	UPDATED DUE TO SITE PLAN CHANGES	RP	LC

HEADWAY TRANSPORTATION

CIVIL IMPROVEMENT PLANS FOR
RED ROCK MEGA STORAGE
CONDUIT MODIFICATION PLAN

NEVADA
WASHOE COUNTY
RENO

DESIGNED BY: RP
CHECKED BY: LC
SCALE
HORIZ: 1"=20'
VERT:
JOB NO: 30798

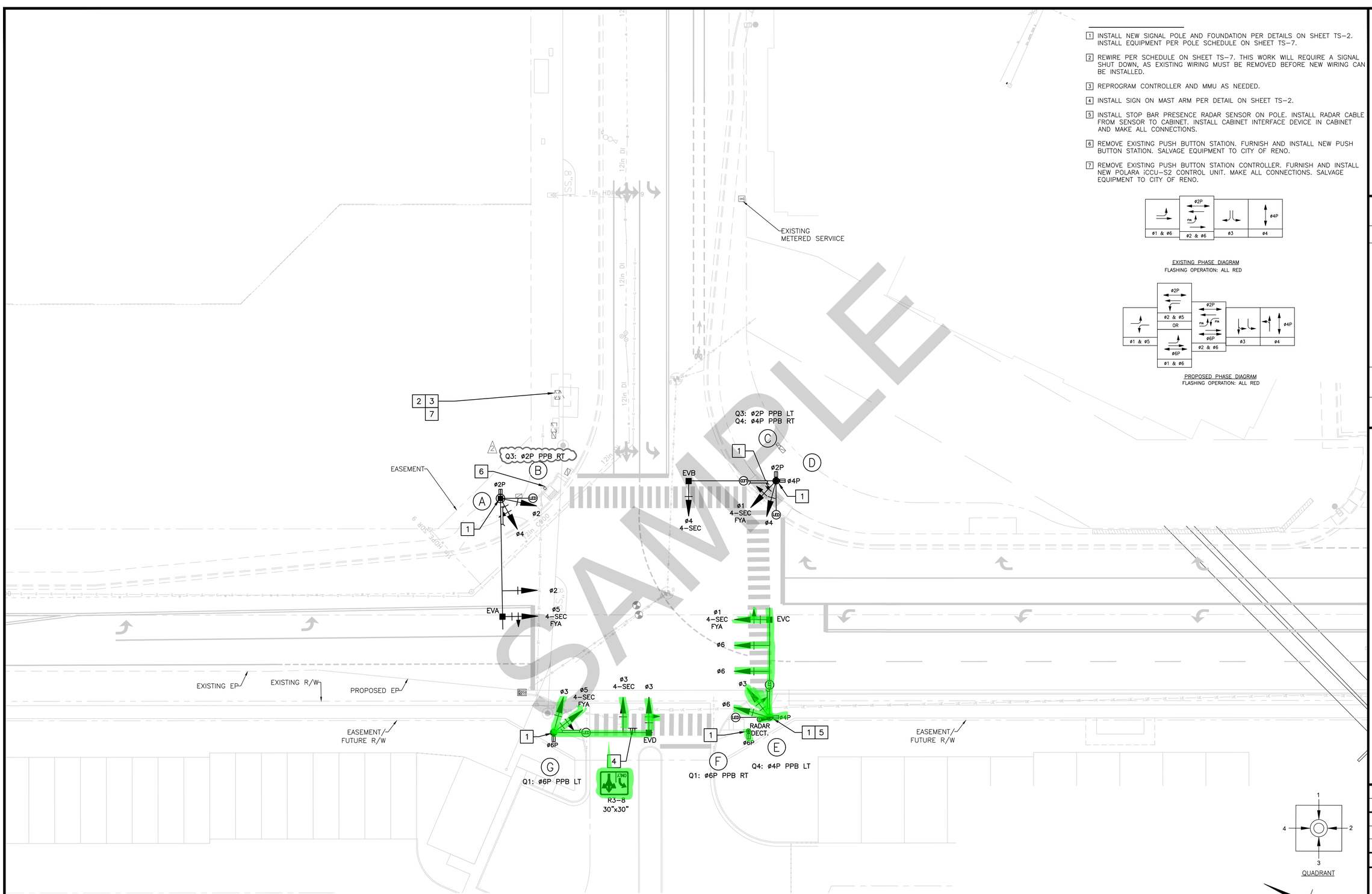
PROFESSIONAL ENGINEER
STATE OF NEVADA
RICHARD PETTINARI
Exp. 12/31/21
CIVIL
No. 20191
2/1/21
DATE

SHEET TS-5 OF 39

1. INSTALL NEW SIGNAL POLE AND FOUNDATION PER DETAILS ON SHEET TS-2. INSTALL EQUIPMENT PER POLE SCHEDULE ON SHEET TS-7.
2. REWIRE PER SCHEDULE ON SHEET TS-7. THIS WORK WILL REQUIRE A SIGNAL SHUT DOWN, AS EXISTING WIRING MUST BE REMOVED BEFORE NEW WIRING CAN BE INSTALLED.
3. REPROGRAM CONTROLLER AND MMU AS NEEDED.
4. INSTALL SIGN ON MAST ARM PER DETAIL ON SHEET TS-2.
5. INSTALL STOP BAR PRESENCE RADAR SENSOR ON POLE. INSTALL RADAR CABLE FROM SENSOR TO CABINET. INSTALL CABINET INTERFACE DEVICE IN CABINET AND MAKE ALL CONNECTIONS.
6. REMOVE EXISTING PUSH BUTTON STATION. FURNISH AND INSTALL NEW PUSH BUTTON STATION. SALVAGE EQUIPMENT TO CITY OF RENO.
7. REMOVE EXISTING PUSH BUTTON STATION CONTROLLER. FURNISH AND INSTALL NEW POLARA iCCU-S2 CONTROL UNIT. MAKE ALL CONNECTIONS. SALVAGE EQUIPMENT TO CITY OF RENO.

EXISTING PHASE DIAGRAM
FLASHING OPERATION: ALL RED

PROPOSED PHASE DIAGRAM
FLASHING OPERATION: ALL RED



QUADRANT

20 0 20 40
1" = 60' GRAPHIC SCALE

Underground Service Alert
Call: TOLL FREE 811/800 227-2600
TWO WORKING DAYS BEFORE YOU DIG

REV.	DATE	DESCRIPTION	BY	APP'D
1	9-28-20	UPDATED DUE TO SITE PLAN CHANGES	RP	LC
2	11-3-20	PLAN CLARIFICATION UPDATE	RP	LC

CIVIL IMPROVEMENT PLANS FOR RED ROCK MEGA STORAGE
TRAFFIC SIGNAL EQUIPMENT MODIFICATION PLAN

RENO — WASHOE COUNTY — NEVADA

DESIGNED BY: RP
CHECKED BY: LC
SCALE
HORIZ: 1"=20'
VERT:
JOB NO: 30798

PROFESSIONAL ENGINEER — STATE OF NEVADA
RICHARD PETTINARI
Exp. 12/31/21
CIVIL
No. 20191
2/1/21
DATE

SHEET TS-6 OF 39

CONDUIT AND CONDUCTOR SCHEDULE

RUN NO.	FROM	TO	CONDUIT SIZE	GROUND	SIGNAL CABLE			LUMINAIRE & IISNS		SERVICE	DETECTOR LEAD IN CABLE	RADAR CABLE	INTERCONNECT	EVP	COMMENTS
				8 AWG	25+N CON 14 AWG +10 AWG	10+N CON 14 AWG +14 AWG	3 CON 14 AWG	8 AWG	10 AWG	4 AWG			12-COUNT FOC + 14 AWG		
1	METERED SERVICE	NO. 5 PB	3"	1				2		3					
2	NO. 5 PB	NO. 7E PB FOR POLE D	3"	1					2						
3	NO. 5 PB	NO. 5 PB	3"	1				2	2	3					
4	CONTROLLER CABINET	NO. 5 PB	3"	1						3					
5	NO. 9E PB HOME RUN	NO. 5 PB	3"	1				2							
6	CONTROLLER CABINET	NO. 9E PB HOME RUN	(4)3"	1	**4**	**2**	1				4/**11**	**1**	1	**4**	
7	NO. 9E PB HOME RUN	NO. 7E PB FOR POLE A	(2)3"	1	1		1		2					**1**	
8	NO. 7E PB FOR POLE A	POLE B	1.5"	1			1								
9	NO. 7E PB FOR POLE A	**POLE A**	**(2)3"**	**1**	**1**				**2**					**1**	
10	NO. 9E PB HOME RUN	NO. 5 PB	3"								4				
11	NO. 9E PB HOME RUN	NO. 7E PB FOR POLE D	(3)3"	1	**1**	**1**					**4**			**1**	
12	NO. 7E PB FOR POLE D	**POLE C**	2" ⚠2	**1**		**1**									
13	NO. 7E PB FOR POLE D	**POLE D**	**(2)3"**	**1**	**1**				**2**					**1**	
14	NO. 7E FOR POLE D	**NO. 5 PB**	**3"**								**4**				
15	NO. 9E PB HOME RUN	**NO. 7E PB FOR POLE G**	(3)3"	**1**	**2**	**1**			**2**		**7**	**1**	1	**2**	EXTEND EXISTING (3) 3" CONDUITS TO PULL BOX
16	**NO. 7E PB FOR POLE G**	**POLE G**	**(2)3"**	**1**	**1**				**2**					**1**	
17	**NO. 7E PB FOR POLE G**	**NO. 7E PB**	**(2)3"**								**2**				SPARE CONDUIT FOR FIBER OPTIC CABLE
18	**NO. 7E PB FOR POLE G**	**NO. 7E PB FOR POLE E**	**(3)3"**	**1**	**1**	**1**			**2**		**2**	**1**	1	**1**	SPARE CONDUIT FOR FIBER OPTIC CABLE
19	**NO. 7E PB FOR POLE E**	**POLE E**	**(2)3"**	**1**	**1**				**2**			**1**		**1**	
20	**NO. 7E PB FOR POLE E**	**POLE F**	**3"**	**1**		**1**									
21	**NO. 7E PB FOR POLE E**	**NO. 7E PB**	**(2)3"**								**2**		1		SPARE CONDUIT FOR FIBER OPTIC CABLE
22	**NO. 7E PB**	NO. 3.5 PB	3"										1		EXTEND EXISTING 3" CONDUITS TO PULL BOX

NOTE: **DARK TEXT = NEW**
SHADED TEXT = EXISTING

POLE SCHEDULE

POLE NO.	POLE TYPE	SIGNAL ARM QUAD	SIGNAL ARM LENGTH	LUM. ARM QUAD	LUM. ARM LENGTH	SIGNALS – VEHICLE TYPE	SIGNALS – VEHICLE MOUNT	SIGNALS – VEHICLE QUAD	SIGNALS – PED. MOUNT	SIGNALS – PED. QUAD	PED BUTTON QUAD	PED BUTTON ARROW	COMMENTS
(A)	**TYPE 35-A**	**3**	**60'**	**2**	**15'**	**1W4C(FYA)** **1W3C** **1W3C/1W3C**	**M-4** **M-2** **B-2a**	**MA** **MA** **1**	**WS-1**	**1**	**-**	**-**	**INSTALL IISNS ON MAST ARM** **INSTALL EVP ON TOP OF 4-SECTION HEAD**
(B)	PPB POST	–	–	–	–	–	–	–	–	–	**3**	**RT**	
(C)	**PPB POST**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3** **4**	**LT** **RT**	**INSTALL DUAL PUSH BUTTON EXTENSION ON QUADRANT 3.5. INSTALL PUSH BUTTON STATIONS ON EXTENSION.**
(D)	**TYPE 35**	**4**	**40'**	**3** **4**	**15'** **15'**	**1W4C** **1W4C(FYA)/ 1W3C**	**M-4** **B-2a(S)**	**MA** **2**	**WS-2**	**2**	**-**	**-**	**INSTALL IISNS ON MAST ARM** **INSTALL EVP ON TOP OF 4-SECTION HEAD**
(E)	**TYPE 35-A** ⚠2	**1**	**50'**	**1** **4**	**15'** **15**	**1W4C(FYA)** **1W3C** **1W3C** **1W3C/1W3C**	**M-4** **M-2** **M-2** **B-2a**	**MA** **MA** **MA** **3**	**WS-1**	**3**	**4**	**LT**	**INSTALL IISNS ON MAST ARM** **INSTALL EVP ON TOP OF 4-SECTION HEAD** **INSTALL RADAR DETECTOR ON SIGNAL POLE**
(F)	**1-B**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**WT-1**	**TOP**	**1**	**RT**	
(G)	**TYPE 35**	**2**	**45'**	**2**	**15'**	**1W3C** **1W4C** **1W4C(FYA)/ 1W3C**	**M-2** **M-4** **B-2a(S)**	**MA** **MA** **4**	**WS-1**	**4**	**1**	**LT**	**INSTALL IISNS ON MAST ARM** **INSTALL EVP ON TOP OF 3-SECTION HEAD** **INSTALL R3-8 SIGN ON MAST ARM**

NOTE: **DARK TEXT = NEW**
SHADED TEXT = EXISTING

METERED SERVICE EQUIPMENT SCHEDULE

SERVICE LOCATION	RED ROCK / MOYA
OWNERSHIP	CITY OF RENO
VOLTAGE	120V
MAIN BREAKER	100A, 120V, 2P
PHASE	SINGLE
SIGNAL BREAKER	30A, 120V, 1P
LIGHTING BREAKER	20A, 120V, 1P
SPARE BREAKER	30A, 120V, 1P
GFI RECEPTACLE	15A, 120V, 1P
LIGHTING PEU	15A, 120V, 1P
TEST SWITCH	15A, 1P, SWITCH
LIGHTING CONTACTOR	35A-2PNO MERC

NOTE: **DARK TEXT = NEW**
SHADED TEXT = EXISTING

IISNS SCHEDULE

POLE NO.	STREET NAME
A	**Moya Blvd.**
D	**Red Rock Rd.**
E	**Moya Blvd.**
G	**Red Rock Rd.**

NOTE: **DARK TEXT = NEW**
SHADED TEXT = EXISTING

LEADWAY TRANSPORTATION

REV.	DATE	DESCRIPTION	BY	APP'D
⚠1	9-28-20	UPDATED DUE TO SITE PLAN CHANGES	RP	LC
⚠2	11-3-20	PLAN CLARIFICATION UPDATE	RP	LC

CIVIL IMPROVEMENT PLANS FOR RED ROCK MEGA STORAGE TRAFFIC SIGNAL SCHEDULES

RENO — WASHOE COUNTY — NEVADA

DESIGNED BY: RP
CHECKED BY: LC
SCALE
HORIZ:
VERT:
JOB NO: 30798

PROFESSIONAL ENGINEER — STATE OF NEVADA
RICHARD PETTINARI
Exp. 12/31/21
CIVIL
No. 20191
2/1/21
DATE

SHEET TS-7 OF 39

Underground Service Alert
Call: TOLL FREE 811/800 227-2600

EXHIBIT "D"
(Letter of Approval)

EXHIBIT "E"
(The Developer of Record QA/QC Program
And
RTC Special Technical Specifications
For
Regional Road Impact Fee Projects)

EXHIBIT E

INSPECTION, TESTING AND VERIFICATION AND QUALITY ASSURANCE PROGRAM

SECTION 1 - GENERAL

It is the intent of this program to set forth the requirements and responsibilities of those parties involved in the inspection, testing, verification, and acceptance of improvements offered as capital contributions under the Regional Road Impact Fee (RRIF) system so that consistent and satisfactory quality is achieved in the constructed products.

All new construction shall have an Engineer of Record (EOR), when required by the Regional Transportation Commission (RTC), retained by the owner and reporting to the RTC Administrator. The contractor shall not retain the EOR, unless he is also the owner. The EOR shall not be the contractor. The EOR shall be responsible for all inspection, testing and verification of the constructed improvements as to compliance with this chapter, the improvement plans of record and with local development codes. The EOR is not responsible for means, methods, techniques, sequences or procedures of construction nor safety of the construction site. Quality control shall be the responsibility of the Contractor.

In addition, all new construction requiring an EOR shall have a Testing Firm responsible to the EOR and reporting to the EOR.

SECTION 2 - RESPONSIBILITIES

1. DEVELOPER OF RECORD (DOR)

   a) Shall retain the services of an EOR. Shall provide a copy of this program to the EOR.

   b) Shall retain the services of a Testing Firm which shall be responsible to the EOR and report to the EOR. Shall provide a copy of this program to the Testing Firm.

   c) Shall make every reasonable effort to retain as the EOR, the services of the firms or persons responsible for the preparation of the approved soils report and the improvement plans of record.

   d) Shall retain the services of a contractor and notify said contractor of the requirements of this Chapter. Shall provide a copy of this program to the Contractor.

   e) Shall be responsible to the RTC for the adequacy of completed work covered

under this chapter. Any defective material, equipment, or workmanship, or any unsatisfactory work which may be discovered before final acceptance, or within 1 year thereafter, shall be corrected immediately on the requirement of the EOR or RTC Administrator, without extra charge, notwithstanding that it may have been overlooked in previous inspections. Failure to ensure adequate inspection of the work shall not relieve the owner from any obligation to perform sound and reliable work.

f) Shall designate a representative with authority to act on behalf of the owner for all work performed.

g) The owner acknowledges the need for continuing involvement of the firms or persons responsible for the preparation of the approved project soils report and the improvement plans of record during construction. In the event the EOR is different from the above-mentioned firms or persons, the owner agrees to be financially responsible for services provided by the said firms or persons as requested by the EOR.

2. ENGINEER OF RECORD (EOR)

a) Shall initiate a pre-construction conference for construction of improvements at least one week in advance of initial construction. Representatives of the owner, contractor, Local Government, RTC Administrator, EOR and testing firm shall attend.

b) Shall provide a written summary of the pre-construction conference to the owner, contractor, Local Government and the RTC Administrator, and will also notify the participants of any significant changes in writing at least 2 working days in advance of implementing the changes.

c) Shall notify the RTC Administrator and the Local Government of the date and hour that work on any of the following items is expected to begin. Notification shall be given not less than 24 hours in advance; and, if thereafter conditions develop to delay the start of work, the EOR shall notify the RTC Administrator and the Local Government of the delay, not less than 2 hours before the work was to begin:

1. Grading, excavation, and fill operations within public right-of-way.

2. Laying of sewer lines, drainage lines or appurtenances.
3. Backfilling of sewer lines, drainage lines or appurtenances.

4. Placing of reinforcing steel, forms and falsework for concrete structures.

5. Placing the concrete for curbs, gutters, sidewalks, alleys, valley gutters, headwalls, or structures.

6. Placing of any type of base course or courses.

7. Tacking bituminous or concrete surfaces.

8. Placing asphalt concrete or Portland cement concrete pavement.

9. Sealing asphalt concrete or Portland cement concrete pavement.

d) Shall submit for review, prior to initiation of the preconstruction conference, the qualifications of the testing firm and the field inspection and testing technician personnel for the project. Said qualifications shall meet the minimum specified in this chapter.

e) Shall make inspection of workmanship and materials in accordance with this chapter. No work nor materials will be accepted without such inspection. Shall also review catalog cuts and data sheets for material submittals. The EOR will make every reasonable effort to perform inspection and testing services in a manner which will accommodate the construction schedule.

f) Shall provide to the RTC Administrator and Local Government, on a bi-weekly basis, copies of the daily inspection/testing reports for the previous 2 weeks.

g) Shall immediately notify the RTC Administrator and Local Government of any proposed changes from the improvement drawings of record. Should the RTC Administrator determine that the proposed change is major in nature, such change shall require prior approval by the RTC Administrator. The Local Government will not be liable for any delays caused by the review and approval of such changes.

h) Shall arrange as part of his contract with the owner to confer and coordinate with the firms or persons responsible for the preparation of the approved project soils report and the improvement plans of record throughout the construction of the project to evaluate compliance with the requirements of this chapter. In the event that the firms or persons responsible for the preparation of the approved project soils report or improvement plans of

record are not available for consultation, the EOR shall notify the RTC Administrator and Local Government of such prior to commencement of construction. In this event, the EOR and the RTC Administrator and Local Government shall agree to an alternative arrangement for providing the necessary soils report and improvement plans of record interpretations prior to commencement of construction.

i) Shall notify in writing the DOR, Contractor, Local Government, and the RTC Administrator, if, during the course of construction, the EOR finds that defective materials or workmanship not meeting requirements have been constructed and not satisfactorily corrected by the contractor within one week of verbal notification to the contractor. The written notification shall be supported by field reports and/or test results.

j) Shall, upon completion of construction of improvements, provide the RTC with a letter of verification on the format provided by the RTC, verifying the adequacy of the improvements and providing verification of all final quantities and unit prices; and, that construction, inspection, and testing were performed in compliance with this chapter, improvement plans of record and RTC standards; and, provide sepia-mylars of any changes from the approved improvement plans of record or a statement that no changes were made; and, provide copies of inspection and test reports, if not already provided. The final completion and acceptance of all such improvements, including recommendations of release and return of any security, shall be subject to the approval of the RTC Administrator.

k) Shall sign and wet-stamp, or cause to be signed and wet-stamped by a Nevada registered Civil Engineer, all drawings, reports and test data, and forward such to the RTC, Local Government, DOR, and Contractor.

3. RTC Administrator

a) Shall assign a primary contact to the EOR who shall serve as the RTC's representative during construction of bonded improvements. This primary contact shall be known as the RTC Quality Assurance Inspector (QAI). The qualifications of the QAI, as a minimum, will meet the qualifications of a Public Works Construction Inspector.

b) Shall attend the preconstruction conference initiated by the EOR.

c) Shall check and evaluate that adequate inspection personnel are on-site during the construction of bonded improvements. Should the QAI determine

that adequate personnel are not available on-site for inspection, the QAI shall immediately advise the EOR of the situation and so record the incident in his daily report.

d) Shall keep a daily report of construction activities he observes, including pertinent conversations with the EOR.

e) Shall, on a bi-weekly basis, review the daily inspection/testing reports submitted by the EOR. Any unsatisfactory test results shall be called to the attention of the EOR.

f) Shall review the qualifications of the EOR to determine if they meet the minimum requirements of this chapter. If it is determined that the EOR does not meet said minimum requirements, the owner shall review the improvement agreement (Exhibit C) and retain an EOR meeting the qualifications of this chapter as determined by the RTC Administrator.

g) Shall review the qualifications of the EOR's field inspection personnel to determine if the qualifications meet the minimum requirements of this chapter. If it is determined that the EOR's field inspection personnel do not meet said requirements, substitute field personnel will be required.

h) Shall evaluate the performance of the EOR's field inspection personnel. The RTC Administrator shall have the authority to reject the selection of the testing firm, testing technicians or field inspection personnel for the project. The RTC Administrator shall also have the authority to reject the field inspection personnel or testing technician and direct substitute personnel in the event of unsatisfactory performance by said personnel in the opinion of the RTC Administrator.

4. CONTRACTOR

a) Shall be responsible for construction of improvements and quality control. This responsibility shall include the means, methods, techniques, sequence, and procedures of construction and safety of the construction site. All such construction shall conform to the requirements of both the most recently adopted version of the Standard Specifications for Public Works Construction (SSPWC), Standard Details for Public Works Construction (SDPWC), the Special Technical Specifications for Capital Contribution Front Ending Agreements (STS for CCFEAs), the approved plans, and the requirements of this chapter.

b) Shall attend the pre-construction conference initiated by the EOR. The contractor shall present a proposed construction schedule including construction milestones, and designate a representative who has the authority to resolve issues during construction.

c) Shall provide accessibility and exposure of all construction work subject to inspection until inspected by the EOR. Neither the RTC nor the EOR shall be liable for expenses entailed in the removal or replacement of any material required to allow inspection.

d) Shall notify the EOR two (2) working days in advance of initiating construction or resuming construction after any unscheduled interruptions.

SECTION 3 - INSPECTION REQUIREMENTS

1. GENERAL

For the purpose of implementing the requirements of this chapter, full-time inspection shall mean the EOR or his field inspector shall be present at all times to observe the operations of the contractor during the designated construction activity.

2. GRADING, EXCAVATION, AND FILLS

Full-time inspection of all materials, native or imported, to evaluate their compliance with the SSPWC and this chapter; that the subgrade is prepared according to the SSPWC; that all subgrade materials encountered are as expected according to the approved soils report, or if not, are appropriately addressed by over-excavation and stabilization with suitable material or as otherwise recommended in the approved soils report or by redesign of the pavement section.

3. STREET

Inspection to determine that alignment and grade of the street conforms to the improvement plans of record.

4. UNDERGROUND UTILITIES

a) Inspection of pipe materials and bedding prior to the placing of any pipe to evaluate conformance with the SSPWC. Collection of applicable manufacturer's certifications.

b) Inspection of installation of pipe laid to grade, mortar jointed or gasketed pipe prior to placing any material around or above pipe to evaluate conformance with the SSPWC.

c) Full-time inspection of each lift of backfill to evaluate conformance with the SSPWC.

d) Inspection for pipe installation, not including backfill, by utility company shall be the responsibility of the appropriate utility.

e) Inspection of construction and/or installation of manholes, catch basins, and drop inlets to evaluate compliance with the SSPWC.

f) Inspection of alignment and elevations to evaluate compliance with the improvement plans of record and specifications.

5. AGGREGATE BASE COURSES FOR STREETS, CURBS, GUTTERS, SIDEWALKS, AND ALLEYS

Inspection of all material brought to the site to evaluate uniformity with tested and approved samples; inspection of placement and compaction of aggregate base to evaluate compliance with the SSPWC and this chapter and to confirm that grades conform to those specified in the improvement plans of record.

6. REINFORCING STEEL, FORMS AND FALSEWORK

Inspection of reinforcing steel, forms, and falsework prior to placement of concrete to evaluate compliance with the improvement plans of record, specifications, shop drawings and the SSPWC.

7. PORTLAND CEMENT CONCRETE

Full-time inspection of all concrete pours including curb, gutter, sidewalks, driveway apron, alleys, valley gutters, structures, headwalls, slope paving and roadway pavement to evaluate compliance with the improvement plans of record, specifications, details, the SSPWC and this chapter.

8. ASPHALT CONCRETE

a) Full-time inspection to evaluate compliance with the improvement plans of record, details, specifications, the SSPWC, and this chapter.

b) Inspection at the plant may be required by the RTC Administrator or the EOR to monitor oil content, aggregate grading, mineral filler content and temperature.

9. PRIME COAT, TACK COAT, SEAL COAT AND SURFACE TREATMENT

Sufficient inspection to evaluate compliance with the SSPWC.

10. SEWER AND PRESSURE LINES

In addition to inspection required in Paragraph 4b above:

a) Sewer Lines: Ball and flushing operations shall be done in the presence of the EOR or his field inspector and the local governmental inspector.

b) Pressure Tests: To be accomplished in presence of the EOR or his field inspector to evaluate conformance with the SSPWC and this chapter.

11. LANDSCAPING WITHIN THE RTC RIGHT-OF-WAY OR WITHIN A PUBLIC IMPROVEMENT EASEMENT, COMMON AREA AMENITIES

Sufficient inspections to evaluate compliance with SSPWC, the improvement plans of record, and specifications.

SECTION 4 - TESTING REQUIREMENTS

Shall comply to the requirements set forth in the latest revision of the SSPWC and the STS for CCFEAs.

SECTION 5 - PERSONNEL QUALIFICATIONS

1. ENGINEER OF RECORD (EOR)

An Engineer of Record who is retained as a consultant by the owner is required to be legally authorized to practice civil engineering in the State of Nevada in accordance with Nevada Revised Statutes (NRS) Chapter 625.

A firm, a co-partnership, a corporation or joint-stock association may engage in the practice of Engineer of Record for the RTC, if the member or members of the firm, co-partnership, corporation or joint-stock association immediately responsible for engineering work performed in the RTC are Nevada registered professional civil or geological engineers in accordance with NRS Chapter 625.

EXHIBIT E

Every office or place of business of any firm, co-partnership, corporation or joint-stock association engaged as an Engineer of Record under these requirements shall have a registered professional civil engineer in residence and in direct responsible supervision of the work needed to satisfy the requirements of this chapter conducted in such office or place of business.

An Engineer of Record shall be familiar with the SSPWC, SDPWC, RTC and local government design standards, and all associated testing procedures.

2. FIELD INSPECTOR

a) General: The field inspector's qualifications shall include sufficient education and experience to assure understanding of the quality control principles and the ability to implement the procedures related to their assigned duties.

The education and experience requirements specified below shall not be treated as absolute when other factors provide reasonable assurance that a person can competently perform a particular ask. One factor may be "demonstrated capability" in a given job through previous performance.

b) Education and Experience: To be considered qualified as a RTC approved field inspector, a candidate must meet the general requirements as mentioned above and satisfy at least one of the following requirements:

1. High school graduate plus at least three years of construction quality control experience in equivalent testing, or inspection activities, or

2. Completion of college level work leading to an associates degree in a related discipline plus at least six months of construction control experience in equivalent testing, examination or inspection activities.

The field inspector shall be familiar with the SSPWC and this chapter, as well as all associated testing procedures.

3. TESTING TECHNICIAN

To be considered qualified as a RTC approved testing technician, a candidate must meet the general requirements mentioned in 2a) above and satisfy at least one of the following requirements:

a) One year of construction quality control experience in equivalent testing or inspection activities, or

b) High school graduate plus at least six months of construction quality control experience in equivalent testing or inspection activities, or

c) Completion of college level work leading to an associates degree in a related construction quality control discipline plus at least three months of experience in equivalent testing or inspection activities.

d) Completion of at least two years college level work towards a four-year degree in a related discipline plus at least three months of construction quality control experience in equivalent testing or inspection activities.

The testing technician shall be familiar with the testing procedures outlined in the SSPWC and this chapter.

4. TESTING FIRM

a) General: The testing services of the testing firm shall be under the direction of a registered civil or geological engineer in the State of Nevada who is a full-time employee of the firm and has at least 5 years engineering experience in the inspection and testing of soil, concrete, and asphalt.

b) Laboratory: The testing firm is responsible for laboratory testing of soil, concrete and asphalt and shall have suitable test equipment and laboratory facilities for storing, preparing and testing samples. The firm shall have the capability of performing all laboratory testing associated with its intended functions according to governing procedures and shall have the facilities and equipment required for all laboratory testing performed. If at any one time equipment or expertise in the performance of a specialized test is not available in-house, the services of a subconsultant or his equipment may be utilized.

As evidence of its competence to perform the required tests or inspections, the agency shall have its laboratory procedures and equipment inspected at intervals of not more than 3 years by a qualified authority in accordance with a recognized plan.

c) Quality of Testing Systems: The firm shall make available information (as applicable) describing its procedural systems (procedures which directly affect the quality of services offered). In addition, the firm shall maintain

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documentation which provides evidence of compliance with the requirements of its procedural systems. The agency's procedural systems shall include the following:

1. Equipment calibration programs.

2. Standardization of methods of test, measurement, and determination.

3. Data recording, processing, and reporting.

4. A current quality assurance manual.

SPECIAL TECHNICAL SPECIFICATIONS

1.01 INSPECTION AND TESTING

Quality Assurance testing and inspection will be provided by the Agency. Quality Control shall be the Contractor's responsibility. All samples shall be furnished by the Contractor without cost to the Regional Transportation Commission of Washoe County (hereinafter designated "RTC" and/or "Agency"). The Agency may waive sampling and testing if adequate information, properly certified, is available to indicate that materials comply with the terms of specifications. Any retests due to faulty workmanship or materials shall be paid for by the Contractor.

All materials furnished and work performed, shall be done in accordance with the "Standard Specifications for Public Works Construction" (hereinafter designated "Standard Specifications") sponsored and distributed by RTC, Churchill County, Carson City, the Cities of Reno and Sparks, the City of Yerington, and Washoe County, including addenda through February 29,2012, except as modified within the "Special Technical Specifications" for RED ROCK MEGA STORAGE (hereinafter designated "STS"); and in accordance with the "2012 Standard Details for Public Works Construction" (hereinafter designated "Standard Details"), including updates through March, 2019, except as modified by the

drawings for **RED ROCK MEGA ST**.

1.01A ASPHALT CEMENT

1. Sampling - During hot mix operations for all paving days, the Design Engineer's designated representative shall obtain samples of all asphalt cement binders used to produce the bituminous mixture(s). During the pre-construction meeting the contractor shall provide the contact information for the certified plant representative that will be responsible for taking the asphalt cement samples. The Design Engineer's designated representative shall contact the plant representative in advance of each paving day and coordinate the sampling in accordance with the plantmix production schedule. Asphalt cement samples shall be taken at the injection point for each "lot" (500 ton) of plantmix bituminous pavement. Plant personnel sampling bituminous material are required to be qualified in the WAQTC Asphalt Module or NAQTC Specialized Test AASHTO T40 (Sampling Bituminous Material). All sampling shall be witnessed by the Design Engineer's representative. The plant representative shall properly label each sample which shall then be signed by both representatives.

2. Testing – Unless otherwise directed by the RTC Project Manager, the Design Engineer shall procure the testing of one of the samples from each paving day for compliance with Section 201 – "Bituminous Material" of the Standard Specifications at a laboratory certified to perform all required testing components.

3. **The sample to be tested shall be properly handled and sent to the State of Nevada Department of Transportation Materials Testing Laboratory, 1263 South Stewart Street in Carson City, Nevada.** The test result shall represent the binder material contained in all plantmix bituminous paving lots for the corresponding paving day. The remaining daily samples shall be stored at the Design Engineer's designated laboratory throughout the duration of the Contractor's warranty period.

4. Acceptance – Asphalt binder not conforming to Table 201.02-IV (PG64-28NV) of the Standard Specifications, Section 201 – "Bituminous Material" shall be assessed demerits in accordance with the following table:

TEST	LIMIT WITH TOLERANCE	REJECTION LIMIT	DEMERITS
Tests on Original Asphalt Cement			
Rotational viscosity (Pa.s)	3.21 Max.	3.50 Max.	21
Flash point, (°C)	222 Min.	163 Min.	21
Ductility (cm)	50 Min.	29 Min.	21
Toughness (Inch-lbs)	110 Min.	57 Min.	21
Tenacity (Inch-lbs)	75 Min.	22 Min.	21
Sieve Test (%)	1	10	21
Dynamic Shear (kPA)	0.90 Min.	0.75 Min.	21

Tests on Residue from Rolling Thin Film Oven			
Ductility (cm)	25 Min.	4 Min.	21
Dynamic Shear (kPA)	1.98 Min.	1.65 Min.	21
Average Mass Change (%)	1.00 Max.	1.01 Max.	31
Tests on Residue from Pressure Aging Vessel			
Dynamic Shear (kPA)	5500 Max.	6250 Max.	21
Stiffness Modulus (MPA)	330 Max.	375 Max.	21
Slope, m-value	0.290 Min.	0.245 Min.	21

Notes:
1. Demerits, up to the amount shown, shall be assessed for each test result that exceeds the "Limit with Tolerance."
2. The number of demerits assessed for each test result shall be calculated based on prorating the total demerits over the range from "Limit with Tolerance" to the "Rejection Limit."
3. The demerit/increment shall be multiplied by the difference between the noncompliant test result and the "Limit with Tolerance."
4. Demerit values for each test result will be rounded down to the nearest whole number.

The parties of the contract agree that damage will be sustained by the Agency in the event that the asphalt binder does not conform to the requirements of the specifications. In addition it is agreed that it is extremely difficult to quantify the actual damage the agency will sustain. Demerits will be used to determine mitigation that may include any necessary measures up to, and including, the assessment of liquidated damages or removal and replacement of the deficient material. The assessment of liquidated damages and the corresponding deduct from monies owed the contractor shall be in accordance with the schedule and corresponding notes below.

Total Number of Demerits	**Liquidated Damage Dollar per Ton[1, 2]**
1 – 2	10
3 – 5	20
6 – 9	30
10 – 14	50
15 – 20	100
21 - 30[3]	75% of the cost of the asphalt binder
31 - 40[3]	100% of the cost of the asphalt binder
41 or more[3,4]	100% + additional damages to be determined

Notes:
1. Liquidated damages will be assessed against the quantity (Tonnage) of asphalt binder used in the plantmix bituminous pavement represented by the sample tested.
2. The tons of asphalt binder shall be determined by multiplying the average of asphalt contents (by dry weight of aggregate) from all affected lots by the total tons of bituminous mixture placed.
3. Remove and replace material shown to have 21 or more demerits. Material removed shall not be paid for and all costs associated with removal shall be at the contractor's expense. Testing and inspection of replaced materials shall be as directed by the RTC Project Manager and all associated costs shall be at the contractor's expense. At the RTC Project Manager's option, materials having 21 or more demerits may be left in place and liquidated damages assessed at

the percentage of asphalt binder cost shown. The cost of the asphalt binder used for assessing liquidated damages shall be $675 per ton.

4. Liquidated damages as determined by the RTC Project Manager may be in excess of the cost of the asphalt binder.

Additional samples may be tested at the Contractor's request and expense and following approval of the RTC Project Manager. Liquidated damages assessed due to deficient asphalt binder material may be in addition to any mitigation measures or penalties that may be determined by other sections of the specifications.

1.01B BITUMINOUS PLANTMIX

Subsection 336.03.04 - "Bituminous Mixtures" of the Standard Specifications, is herewith amended as follows:

1. On page 336.00-6, add the following to the fourth paragraph at the bottom half of the page regarding cores and cut samples:

   Measure single core or cut sample in accordance with ASTM D3549, latest version, to the nearest 0.05" and report to the nearest 0.05" per the following examples:

Individual Measurements		
Using Apparatus Capable of 2 Decimal Places	Using Apparatus Capable of 1/16 Inch	Reported Thickness After Rounding
2.23" to 2.27"	2-4/16" = 2.250"	2.25"
2.28: to 2.32"	2-5/16" = 2.313"	2.30"
2.33" to 2.37"	---	2.35"
2.38" to 2.42"	2-6/16" = 2.375"	2.40"
2.43" to 2.47"	2-7/16" = 2.438"	2.45"
2.48" to 2.52"	2-8/16" = 2.500"	2.50"

   For purpose of acceptance and mitigation, the average of the rounded thickness measurements of the 3 cores or cut samples for each lot shall be reported to the nearest 0.1". A number ending in 0.05" shall be rounded up. For example, both 2.35" and 2.40" are rounded to 2.4".

2. On page 336.00-7, delete the fourth paragraph and replace as follows:

   One fresh, hot sample of the bituminous mixture (HMA) for each "lot" shall be tested for conformance with the mix design test properties as required by STS 1.14A BITUMINOUS PLANTMIX, and in accordance with ASTM D2041, as qualified in the Standard Specifications.

   Fresh, hot samples are defined as the samples obtained during construction, transported to the laboratory, molded and compacted on the same day. Reheating

is allowed only for restoring heat lost, if any, during transport to the laboratory and sample preparation. Refer to Note under item 4 below (STS 1.01B BITUMINOUS PLANTMIX - Item 4, "Preparing Field Sample") regarding limitations on test results from reheated archived samples.

3. On page 336.00-7 under Subsection 336.03.04.01 - "Sampling" of the Standard Specifications, add the following sentence to the first paragraph:

   When samples are obtained by two testing laboratories, the samples shall be split from a single sample or taken at the same time and at locations immediately adjacent to each other.

4. On page 336.00-7 under Subsection 336.03.04.02 - "Preparing Field Sample", of the Standard Specifications, delete the second and third paragraphs and replace as follows:

   If the temperature of the HMA is below the approved mix design's compaction temperature, the temperature of the HMA shall be recorded and the sample shall be reheated to the approved mix design's compaction temperature. Heating samples should be done by placing the sample in a covered container in an oven for a maximum of one hour or placing the sample in a mixing bowl on top of a hot plate or propane stove, for a maximum of 10 minutes, and continuously mixed until compaction temperature has been reached. Samples shall be discarded if burned during reheating.

   Note: Samples well below the compaction temperature may require additional heating time. Reheating of samples beyond the maximums specified is not desirable. In such instances, new samples should be taken in the field, if possible. If this is not possible and samples must be reheated beyond the specified maximums, the test results from reheated archived samples shall not be used for direct comparison with results from tests on hot, fresh samples but only for relative comparisons.

1.02 REMOVAL OF EXISTING IMPROVEMENTS

This section covers the construction methods involved in removing existing improvements.

Existing Portland cement concrete (PCC) improvements shall be removed to neatly sawed edges with sawcuts made to a minimum depth of 1½ inches. No section to be replaced shall be smaller than 30 inches in length. Curb and gutter shall be sawed to depth of 1½ inches on a neat line at right angles to the curb face.

Removal of the curb and gutter shall include all existing composite material from back of curb to 12-inches in front of the lip of the gutter. The contractor shall be required to achieve a vertical, neat line in a location appropriate for the method of curb and gutter placement chosen. The Contractor shall match the existing top of curb and maintain the uniform flow line of the gutter. If a uniform flow line does not exist, the Contractor shall establish a uniform flow line as directed by the Design Engineer.

Bituminous pavement shall be removed to clean straight lines by sawcutting where the removal of existing improvements does not include the total amount of paving encountered. Where bituminous

pavement adjoins a trench, the edges adjacent to the trench shall be trimmed to neat straight lines at least 9 inches wider than the trench on each side before resurfacing to insure that all areas to be resurfaced are accessible to the rollers used to compact the subgrade or paving materials. Where new pavement is to adjoin existing bituminous or concrete pavements, the existing pavement shall be sawcut or bladecut straight.

It shall be the Contractor's responsibility to protect the integrity of the edge of pavement adjacent to the removal section.

The Contractor shall remove all existing improvements to the required depth by a method that does not damage the subgrade. Pneumatic wheel construction equipment, including, but not limited to, trucks, loaders, excavators and scrapers, will not be allowed on the exposed subgrade within the roadway section. Should the Contractor fail to utilize necessary caution to protect the subgrade or allow pneumatic wheel construction equipment on the subgrade within the roadway section after the existing surface has been removed; all overexcavation and deep stabilization shall be at the Contractor's expense.

The Contractor shall take all necessary precautions to protect existing landscaping, which may be disturbed during the execution of the work. All restoration work shall be in accordance with the applicable provisions of Section 333 – "Landscaping" of the Standard Specifications, or as specified herein.

Where lawn or landscape with topsoil has been disturbed, contaminated, or removed, the Contractor shall replace the topsoil with an imported, high quality garden topsoil to a minimum depth of 3 inches; with minimal compaction. Areas of concern may include, but are not limited to, landscaping adjacent to sidewalks, curbs and gutters, driveways, and alleys. The topsoil shall conform to Section 200.08 – "Topsoil" of the Standard Specifications.

Existing improvements; adjacent property; utilities and other facilities; and trees and plants that are not to be removed shall be protected from injury or damage resulting from the Contractor's operations.

The Contractor shall notify the U.S. Postal Service to coordinate all mailbox relocation.

Any existing improvements, including, but not limited to, retaining walls, adjacent property, utilities, sprinkler systems, signs, other facilities or appurtenances, trees and plants, which are damaged or displaced as a result of the Contractor's operation shall be replaced or restored to the original position and condition prevailing prior to start of operations at the Contractor's own expense unless otherwise directed by the RTC Project Manager or Design Engineer. In addition, removal of existing improvements shall be done in accordance with the provisions of Section 300.04 - "Protection of Utilities and Underground Facilities" of the Standard Specifications.

1.07 TRENCH EXCAVATION

Subsection 305.02 - "Maximum Length of Open Trench" of the Standard Specifications, is herewith amended as follows:

1. Add the following paragraph:

   Unless otherwise directed by the Design Engineer and approved by the Agency, there shall be no unprotected open trench remaining at the end of the working day. At the end of the working day, any open trench shall be protected by plating or other means approved by the Design Engineer and the Agency.

1.05 DRILLED SHAFT FOUNDATIONS

Drilled shaft foundations shall conform to the requirements of Section 329 – "Piling and Pile Driving" of the Standard Specifications.

If ground water is encountered, construction methods shall conform to Section 509.03.02 – "Construction Methods" of the 2014 Nevada Department of Transportation Standard Specifications for Road and Bridge Construction.

1.13 PORTLAND CEMENT CONCRETE

1.13A COMPOSITION OF MIXTURES

The Contractor shall submit in writing for approval a mix design conforming to the requirements of Subsection 337.01 - "General" of Section 337 – "Composition of Mixtures" of the Standard Specifications. All Portland Cement Concrete, unless otherwise indicated, shall have a coarse aggregate gradation conforming to Size No. 67 in Subsection 200.05.03 - "Coarse Aggregates" of the Standard Specifications. Cement shall be Type II.

If the Contractor submits a written request to use Size No. 57 in lieu of Size No. 67, and if the Agency approves this request, then air entrainment shall be adjusted to conform to ACI requirements for severe conditions.

1.13B SIDEWALK, CURB AND GUTTER

Concrete used for curbs, gutters, sidewalks, pedestrian ramps, and driveway aprons shall conform to the requirements of Subsection 337.10.01.01 – "Portland Cement Concrete Exposed to Freeze-Thaw Cycles" of the Standard Specifications and shall be reinforced with collated, fibrillated polypropylene fibers conforming to the requirements of Subsection 202.02.02.04 – "Polypropylene Fibers" of the Standard Specifications, at 1.5 pounds per cubic yard of concrete.

Subsection 312.10.02 - "Sidewalk Surface" of the Standard Specifications is herewith amended as follows:

1. Add the following paragraphs:

   a) When a 10-foot straightedge is placed on the sidewalk, curb, or gutter, the surface shall not vary more than ¼ inch from the edge of the straightedge, except at grade changes.

   b) Curbs at pedestrian ramps shall **not** be placed monolithically with pedestrian ramps.

1.13C THRUST BLOCKS

Portland Cement Concrete used for thrust blocks shall have a minimum compressive strength of 3000 psi when tested at 28 days and have a 1 to 4 inch slump.

Thrust blocks shall be installed such that they bear against the pipe fitting on one side and against the undisturbed earth on the other side. The Contractor shall provide anchor blocks and support

blocks on vertical bends.

Thrust block concrete shall not obstruct the removal of bolts from fittings. Concrete shall be prevented from adhering to the fittings. Either a liquid bond breaker shall be applied to the fitting, or an impervious membrane shall be used.

1.13D RETAINING WALLS

Concrete used for retaining walls shall conform to the requirements of Subsection 337.10.01.01 – "Portland Cement Concrete Exposed to Freeze-Thaw Cycles" of the Standard Specifications.

1.13E PAVING

1.13F UTILITY ADJUSTMENTS

Concrete used for utility adjustments shall conform to the requirements of Subsection 337.10.01.01 – "Portland Cement Concrete Exposed to Freeze-Thaw Cycles" of the Standard Specifications and shall be reinforced with collated, fibrillated polypropylene fibers conforming to the requirements of Subsection 202.02.02.04 – "Polypropylene Fibers" of the Standard Specifications, at 1.5 pounds per cubic yard of concrete.

The concrete used for utility adjustments shall be protected until a minimum compressive strength of 3,000 psi is attained. The RTC Project Manager shall approve the method of protection

1.14 DETECTABLE SURFACE WARNING TILES

1. The detectable surface warning tiles shall consist of precast tiles with a minimum size of 2' x 2', color dark red. Approved products include: CASTinTACT, TEKWAY DOME-TILES, ARMOR CAST WET SET TILES, and ARCIS WET SET TILES. Detectable surface warning tiles shall be constructed per manufacturer's installation guidelines and conform to ADAAG standards.

2. Proposed Substitution products are to be submitted for approval in accordance with provision 22 of the Instruction To Bidders, page ITB-4, within these documents. In order to be considered, submittal packages for alternate truncated concrete dome materials must be prepared and submitted in accordance with the requirements of STS 1.13 DETECTABLE SURFACE WARNING TILES.

3. The Contractor shall check the prefabricated panels upon delivery to verify that the proper material has been received. The panels shall be inspected by the Contractor to be free of flaws or damage occurring during manufacturing, shipping, or handling.

4. The prefabricated panels shall be installed in accordance with the Reno Standard Details and the manufacturer's recommendations.

6. Submittals shall include the following:

a) The product data sheet and certification from the Manufacturer that the prefabricated detectable surface warning tile panels supplied meets the requirements of STS 1.13 DETECTABLE SURFACE WARNING TILES; and

b) The manufacturer's installation instructions and general recommendations.

1.15 BITUMINOUS PLANTMIX

Bituminous Plantmix shall conform to the requirements of Section 320 - "Plantmix Bituminous Pavement" of the Standard Specifications, except as modified herein.

The Contractor shall submit in writing for approval a job mix formula conforming to Subsection 320.02 – "Composition of Mixtures" of the Standard Specifications. Type 2 aggregate conforming to Subsection 200.02.03 – "Plantmix and Roadmix Aggregate" shall be used unless otherwise specified. Preparation of the aggregates shall be in accordance with the Marination Method described in Subsection 401.03.08 – "Preparation of Aggregates", of the Nevada Department of Transportation Standard Specifications for Road and Bridge Construction.

Unless otherwise approved by the Agency, Asphalt Cement shall be PG64-28NV for the full depth for all paving on this project. Asphalt binders shall conform to the requirements of Section 201 - "Bituminous Material" of the Standard Specifications.

1.15A COMPOSITION OF MIXTURES

Subsection 320.02.01 - "Job Control Grading Band" of the Standard Specifications, is herewith amended as follows:

1. Amend the gradation and asphalt cement content table as follows:

	Maximum Tolerance
Aggregate passing No. 4 and larger sieves	±7 percent
Aggregate passing No. 8 to 100 sieves	±4 percent
Aggregate passing No. 200 sieve	±2 percent
Asphalt content	-0.2% to +0.7% of total weight of mix

2. Delete the third paragraph of Subsection 337.04.01 – "Composition of Mixtures" of the Standard Specifications and replace as follows:

The optimum asphalt cement content shall be determined to 0.1 percent, by total weight of mix and dry weight of aggregate, in accordance with the Asphalt Institute's Manual Series No. 2 (MS-2) with a target value of 3% Air Voids for light traffic conditions (design Equivalent Single Axle Load (ESAL) < 10^4) and 4% Air Voids for medium and heavy traffic conditions (design ESAL > 10^4). The Contractor shall use a 75-blow Marshall mix design for all streets on this project, except a 50-blow Marshall mix design for *medium/light traffic conditions shall be used on the following streets: *. The mix design and project control samples shall conform to MS-2 Table 5.2 - Marshall Mix Design Criteria as modified in STS Table 1.15A-1.

STS Table 1.15A-1: Modified MS-2 Table 5.2 - Marshall Mix Design Criteria

	Light Traffic[2] Surface & Base		**Medium Traffic[2] Surface & Base**		**Heavy Traffic[2] Surface & Base**	
Marshall Method Mix Criteria[1]						
Compaction, Number of Blows, Each End of Specimen	50*		50		75	
Stability (pounds)	1,200 Min.*		1,200 Min.		1,800 Min.	
Flow (0.01 inches)	8 Min.	16 Max.*	8 Min.	16 Max.(8)	8 Min.	14 Max.(8)
Air Voids (percent)	2 Min.*	4 Max.*	3 Min.	5 Max.	3 Min.	5 Max.
Voids in Mineral Aggregate (percent)	See STS Table 1.14A-2 : MS-2 Table 5.3					
Voids Filled With Asphalt (percent)	70	80	65	78	65	75

Notes:

1. All criteria, not just stability value alone, must be considered in designing an asphalt paving mix. Hot mix asphalt bases that do not meet these criteria when tested at 140 °F are satisfactory if they meet the criteria when tested at 100 °F and are placed 4 inches or more below the surface.
2. Traffic classifications
   Light Traffic conditions resulting in a Design ESAL < 10^4
   Medium Traffic conditions resulting in a Design ESAL between 10^4 and 10^6
   Heavy Traffic conditions resulting in a Design ESAL > 10^6
3. Laboratory compaction efforts should closely approach the maximum density obtained in the pavement under traffic.
4. The Flow value refers to the point where the load begins to decrease.
5. The portion of asphalt cement lost by absorption into the aggregate particles must be allowed for when calculating percent air voids.
6. Percent air voids are calculated at the target value.
7. Percent voids in the mineral aggregate are to be calculated on the basis of the ASTM bulk specific gravity for the aggregate.
8. Upon approval of Agency, flow may exceed the maximum value when polymer modified binders are used.

* Indicates modified value from MS-2 Table 5.2.

STS Table 1.15A-2: MS-2 Table 5.3 - Minimum Percent Voids in Mineral Aggregate (VMA)

	Voids Filled in Mineral Aggregate (percent), Min.		
Nominal Maximum Particle Size (inches)[1, 2]	Design Air Voids (percent)[3]		
	3.0	4.0	5.0
No. 16	21.5	22.5	23.5
No. 8	19.0	20.0	21.0
No. 4	16.0	17.0	18.0
3/8	14.0	15.0	16.0
1/2	13.0	14.0	15.0
3/4	12.0	13.0	14.0
1	11.0	12.0	13.0
1-1/2	10.0	11.0	12.0
2	9.5	10.5	11.5
2-1/2	9.0	10.0	11.0

Notes:

1. Standard Specifications for Wire Cloth Sieves for Testing Purposes.
2. The nominal maximum particle size is one size larger than the first sieve to retain more than 10 percent.
3. Interpolate minimum voids in the mineral aggregate (VMA) for design air void values between those listed.

1.15B PAVING

I SPREADING AND FINISHING

Subsections 320.03 - "Construction" and 320.05 - "Spreading and Finishing" of the Standard Specifications, are herewith amended as follows:

1. Add the following subsection:

320.03.03.01 Automatic Controls. Pavers placing the final lift of the plantmix bituminous pavement for any uniform roadway section shall be equipped with an automatic control system capable of operating in conjunction with either a ski type device of not less than 30 feet in length or a taut wire set to grade. Automatic controllers are required on each side of the paver for the final lift of the plantmix bituminous pavement.

Where a paver is matching longitudinal joints, a joint matcher ski running on automatic controls is required.

The Contractor shall furnish all equipment required and shall install all stakes and wire required for the wire system.

2. Add to the introductory paragraph of Subsection 320.05 - "Spreading and Finishing" of the Standard Specifications as follows:

   Refer to STS 1.15Bi SPREADING AND FINISHING - Item 1, designated as Subsection 320.03.03.01 - "Automatic Controls" of the Standard Specifications, for automatic controls requirement for bituminous pavers.

3. Add to the fourth paragraph of Subsection 320.05 - "Spreading and Finishing" of the Standard Specifications as follows:

   In other areas where mechanical spreading and finishing equipment is used, loose plantmix material shall not be broadcast across the mat to repair surface irregularities. Instead, the irregular surface material shall be removed and replaced with mix, which shall be placed gently on the surface and large aggregate raked off the surface and removed before rolling. At joints, bituminous material at the edges of pavement shall be pushed back off the adjoining pavement, and the edge "pinch" rolled to provide a tight, flush joint. Loose aggregate at the edges of the pavement mat shall not be pushed across the mat with the rake and rolled into the mat, but instead will be raked off the mat and removed before rolling.

4. Add the following paragraphs after the second paragraph in Subsection 320.05.02 - "Joints":

   *The Contractor shall minimize the number of transverse joints in the final lift of pavement in any particular roadway segment.

   "Hot" joints are joints where adjacent paving lifts are placed during the same work shift, when previously placed pavement is relatively "hot". Joints constructed otherwise are considered "Cold" joints.

   All TOP LIFT longitudinal joints shall be "Hot" joints unless otherwise approved or directed by the Agency or Design Engineer.

   All "Cold" longitudinal joints directly below the TOP LIFT (final course of bituminous dense-grade pavement) shall be sawcut back a minimum of six (6) inches horizontally and to full depth of the lift, but not to exceed the depth of the lift.

   For all sawcut joints, TOP LIFT or otherwise, a tack coat of asphaltic emulsion shall be applied to the contact surface prior to placement of the abutting lift.

   The RTC reserves the right to sample cores directly at pavement joints to determine if workmanship (good in-place densities and absence of excessive voids and segregation) is acceptable within the joints.

II ACCEPTANCE

Subsection 320.06 - "Acceptance" of the Standard Specifications, is herewith amended as follows:

1. Delete the introductory paragraph and replace as follows:

   Plantmix bituminous pavement shall be accepted on the basis of surface tolerance, density, thickness, surface texture, conformance with the tolerances of the job mix formula, and the Marshall properties required in this subsection and in accordance with the testing requirements of Section 336 - "Inspection and Testing" of the Standard Specifications and as modified in STS 1.01 INSPECTION AND TESTING.

2. Delete the second paragraph of Subsection 320.06.01 - "Surface Tolerances" of the Standard Specifications and replace as follows:

   Surface tolerances shall be evaluated, as specified in the Bid Item, by either method as described in STS 1.15BII ACCEPTANCE - Items 3 or 4, designated as Subsection 320.06.01.01 - "Profilograph Method" and Subsection 320.06.01.02 - "12-foot Straight Edge Method," respectively.

4. Add the following subsection:

320.06.01.02 12-foot Straight Edge Method.

a) A 12 feet long straight edge shall be used. When measured longitudinally (profile), the straight edge shall be laid on the finished surface and parallel with the centerline of the roadway. For transverse (cross section) measurements, the straight edge shall be laid in a direction transverse to the centerline and extending from edge to edge of a 12 foot traffic lane.

The RTC may use a profilograph to locate pavement surfaces which display unacceptable surface tolerance. Profilograph measurement shall be in accordance with STS 1.15BII ACCEPTANCE - Item 3 (a), designated as a portion of Subsection 320.06.01.01 - "Profilograph Method." Once identified, the conformance criterion will remain as specified below in Item 4 (b), designated as a portion of Subsection 320.06.01.02 - "12-foot Straight Edge Method," that is, not subject to the conformance criterion listed for the profilograph method.

b) The longitudinally (profile) surface shall not vary more than 1/8 inch from the lower edge of the straightedge. The transverse (cross section) slope of the finished surface shall be uniform to a degree such that no depressions greater than 1/4 inch are present. The finished grade of the asphalt surface shall vary no more than 5/8 inch from design finished grade in both profile and cross section.

Grinding shall be done in accordance with STS 1.15BIII MITIGATION -

Item 3, designated as Subsection 320.07.01.01 - "Grinding for Conformance of Surface Tolerances."

5. Delete Subsection 320.06.03 - "Thickness" of the Standard Specifications and replace as follows:

320.06.03 Thickness. Cut samples taken in accordance with Section 336.03.04 - "Asphalt Concrete" of the Standard Specifications and as modified in STS 1.01 INSPECTION AND TESTING shall be used to determine conformance with thickness specifications. The average thickness of cores shall be at least equal to the specified minimum thickness of the asphalt concrete pavement with no single core less than ½ inch thinner than the specified minimum thickness. Both average and single core thickness shall be compared to the specified thickness to the nearest 0.1 inch.

6. Add the following subsection:

320.06.04 Surface Texture. The finished texture of wearing course paving constructed using dense graded bituminous plantmix shall be dense and uniform in appearance, displaying a homogeneous distribution of fine and coarse aggregate with no apparent surface voids.

7. Add the following subsection:

320.06.05 Job Mix Formula and Marshall Properties. Bituminous plantmix will be tested for compliance with the job mix formula and Marshall properties on a "lot" basis. A lot is as defined in Subsection 320.06.02 - "Density"of the Standard Specifications. Each lot will be tested for job mix formula and Marshall properties compliance.

Each lot of compacted pavement will be accepted, with respect to job mix formula and Marshall properties, when test results on fresh, hot samples conform to the requirements set forth in Subsection 320.02 - "Composition of Materials" and as modified in STS 1.15 BITUMINOUS PLANTMIX, including but not limited to, Marshall air voids, stability, flow, asphalt content, and aggregate gradation. Testing shall be in accordance with Subsection 336.03.04 - "Asphalt Concrete" of the Standard Specifications and as modified in STS 1.01 INSPECTION AND TESTING.

III MITIGATION

Subsections 320.07 - "Mitigation of Unacceptable Asphalt Concrete Pavement" and 320.09 - "Basis of Payment" of the Standard Specifications, are herewith amended as follows:

1. Add an introductory paragraph and a second paragraph for Subsection 320.07 - "Mitigation of Unacceptable Asphalt Concrete Pavement" of the Standard Specifications as follows:

320.07 MITIGATION OF UNACCEPTABLE ASPHALT CONCRETE PAVEMENT. The objective of mitigation is to assure the final pavement will

meet the design service life of the roadway. Those portions of the constructed work which do not comply with contract specifications, as determined in accordance with Subsection 320.06 - "Acceptance" of the Standard Specifications and as modified in STS 1.15BII ACCEPTANCE, shall be mitigated in such a manner that the performance, service life, and maintainability expectations of the originally specified project will be achieved. Payment penalties in lieu of mitigation shall be considered as a last resort and utilized only in those cases where mitigation to achieve the expected performance, service life, and maintainability is deemed by the Agency to be not possible or practical. Most paving projects affected will exhibit a variety in the type and magnitude of deficiencies that will result in a variety of mitigation approaches which may include combinations of various physical mitigation measures and payment penalties. The Agency, at its option, will decide the appropriate mitigation measures with input from the Design Engineer, testing laboratory, and Contractor.

In the event pavement mitigation is necessary to correct deficiencies, the RTC may direct the Contractor to perform some or all pavement mitigation after normal business hours, at night, and/or on weekends, to minimize impacts sustained by the public, at the Contractor's own expense.

2. Amend Subsection 320.07.01 - "Unacceptable Surface Tolerance" of the Standard Specifications as follows:

320.07.01 Unacceptable Surface Tolerances. Unacceptable surface tolerance shall be corrected by either overlaying or grinding as directed by the Agency or Engineer. Grinding shall be done in accordance with STS 1.15BIII MITIGATION - Item 3, designated as Subsection 320.07.01.01 - "Grinding for Conformance of Surface Tolerances."

Apply fog or slurry seal to ground areas after the surface tolerance specifications have been met. The Agency shall determine the type of sealant to be used.

In areas to be corrected with an overlay, grinding, followed by tack coat, may be necessary to provide a minimum 1½ inch overlay and butt joints where matching existing pavements.

3. Add the following subsection:

320.07.01.01 Grinding for Conformance of Surface Tolerances. The grinding machine for correcting pavement surface tolerances shall be power driven, self-propelled and specifically designed to remove, profile, smooth, and texture hot mix asphalt. The Contractor shall use a grinding machine with a wheel base of not less than 12 feet, equipped with a rotating powered mandrel drum studded with diamond blades with a cutting head not less than 3 feet wide. The grinding machine shall be equipped with an effective means for controlling dust and other particulate matter.

Do not cause strain or damage to the underlying surface of the pavement with the grinding machine. Do not use grinding and texturing equipment that causes ravels, aggregate fractures, spalls, or disturbance of joints.

The Contractor shall perform grinding in a longitudinal direction. A satisfactorily grind will produce a uniform textured surface over the surface areas designated for grinding.

The surface of the ground pavement shall have parallel corduroy-type texture consisting of grooves between 1/12- inch and 1/8-inch wide. The peaks of the ridges shall be approximately 1/16-inch higher than the bottom of the grooves with approximately 52 to 58 evenly spaced grooves per foot.

The Contractor shall perform additional grinding as necessary to extend the ground area laterally to the nearest lane line or edge of pavement and longitudinally to lines normal to the pavement centerline.

The Contractor shall correct areas that cannot not be brought into specified surface tolerances by abrasive grinding by both removal and replacement, or by placing an overlay of hot mix asphalt. The Contractor shall obtain approval of the exact method of correction.

Fog or slurry seal shall be applied to ground areas after the surface tolerance specifications have been met. The Agency shall determine the type of sealant to be used.

4. Delete Subsections 320.07.02 - “Unacceptable Density” and Table 1 in Subsection 320.09 - “Basis of Payment” of the Standard Specifications and replace as follows:

320.07.02 Guideline for In-place Density/Air Voids. The RTC and the Design Engineer will consider STS Table 1.14BIII-1 or 1.14BIII-2 "Asphalt Deficiency Mitigation Matrix for In-place Density/Air Voids", as applicable for the design traffic conditions, input from the Contractor, and sound engineering analysis and judgment before requiring mitigation (i.e. removal and replacement, increased thickness, or surface treatment) and/or payment deduction (if mitigation is not practical or possible) for plantmix bituminous pavement which deviates from specification requirements. Since the matrix does not include all factors and site conditions which may affect the overall performance of the pavement, the RTC may, upon consideration of the specific circumstances, increase, reduce or waive mitigation and/or payment reduction, or combine portions of mitigation and payment reduction.

If the RTC makes a preliminary determination that mitigation, and/or payment deduction is necessary on the basis of In-place Density/Air Voids, the Contractor may submit a written request to RTC for retests. The retests shall be in accordance with Section 336 - “Inspection and Testing” of the Standard Specifications and as modified in STS 1.01 INSPECTION AND TESTING. The retests may be performed by the Agency's quality assurance laboratory or by any other approved, independent testing laboratory (the Contractor shall request the laboratory in writing for RTC approval).

Retests shall be undertaken at the Contractor's own expense. If the results of any retests are significantly different from initial testing, a "referee" test will be

performed by an independent testing lab, which is mutually acceptable to the RTC and the Contractor. The RTC may waive the "referee" test if after consulting with the Design Engineer it is determined that the "referee" test is unnecessary. Fifty percent of the cost of "referee" tests shall be paid by the RTC and 50 percent shall be paid by the Contractor. The RTC may elect to make full payment and deduct the Contractor's 50 percent from progress or final payment to Contractor. The RTC will make a final determination regarding mitigation and/or payment reduction based upon the preponderance of test results and other factors.

5. Delete subsection 320.07.03 Unacceptable Thickness and replace as follows:

320.07.03 Unacceptable Thickness. Insufficient thickness not meeting the requirements of subsection 320.06.03 – "Acceptance – Thickness" – shall be mitigated as follows:

Thickness	Mitigation
4" - 3.76"	20% pay deduct for top lift paving
3.75" – 3.51"	50% pay deduct for top lift paving
≤ 3.5"	Remove top lift & replace or add a 1.5" Type 3 overlay

For mitigation purposes in this subsection, the thickness will be the average of all cores taken, and the cost of the top lift paving is $0.60 per square foot per one inch of thickness.

The overlay mitigation option is allowable only at where there is no curb and gutter. Grinding may be necessary to eliminate the problems associated with raising of finish grade as determined by the governing Agency or Engineer, but in all cases, the perimeter of the corrective overlay shall be placed as a flush butt-joint formed by grinding of existing pavement abutting the overlay.

6. Add the following subsection:

320.07.04 Unacceptable Surface Texture. Unacceptable surface texture shall be mitigated as directed by the Agency. Required mitigation may include any necessary measures up to, and including, removal and replacement of the deficient material. If correction of surface texture results in a visually non-uniform pavement surface, the Contractor may be required to restore the pavement surface to a uniform visual appearance as directed by the Agency. Such measures shall be done at the Contractor's own expense.

7. Add the following subsection:

320.07.05 Guideline for Job Mix Formula and Marshall Properties. If the compacted pavement is not in compliance with the job mix formula and all Marshall properties, mitigation shall be as directed by the Agency. Due to the complexity of the deficiency matrix, it is impossible to have a mitigation table which covers all possible combinations of the deficiencies and all factors and site conditions which may affect the overall performance of the pavement; therefore,

the RTC shall evaluate the deficiency on a case by case basis and may require any necessary measures ranging from payment deductions to removal and replacement of the deficient materials, or any combination of the mitigation measures.

The RTC may consider test results from the Contractor's quality control laboratory if submitted, provided that the sampling and testing are performed, using split samples with the Agency's quality assurance laboratory, in accordance with Section 336 - "Inspection and Testing" of the Standard Specifications and as modified in STS 1.01 INSPECTION AND TESTING.

STS Table 1.15BIII-1
Asphalt Deficiency Mitigation Matrix for In-place Density/Air Voids
Light Traffic Conditions *(see Note 4)*

The objective of the mitigations listed on the table below is to assure the final pavement will meet the design service life of the roadway. Reductions in payment do not achieve that goal and should be considered only if mitigation is not possible or practical. The mitigation table is an attempt to provide uniformity and fairness to the evaluation process of substandard pavements. Most paving projects affected will exhibit a variety in the type and magnitude of deficiencies that will result in a variety of mitigation approaches. The appropriate mitigation requires sound engineering analysis and judgment. The Agency will, at its option, decide the appropriate mitigation measures with input from the Design Engineer, testing laboratory, and the Contractor.

	Marshall Compaction % (Note 5)	In Place Air Voids % (Rice) (Note 6)	Increase Thickness (Notes 7&8)		Surface Seal (Note 8)			Remove Replace	Payment (Note 8)		
			1"	1-1/2"	Sand Seal	Slurry Seal	Sand Blotter		100%	90%	50%
WEARING	≥ 96	<2					X (A)			X(A)	X
		≥2 & ≤ 7							X		
		>7 & ≤ 10			X	X				X	
		> 10		X	X(A)	X(B)		X			X(A, B)
	< 96 & ≥ 93	≥ 4 & ≤ 7								X	
		>7 & ≤ 10		X							X
		> 10		X(A)				X			X(A)
	< 93							X			
NON-WEARING	≥ 96	<2								X	X
		≥2 &≤ 7							X		
		>7 & ≤ 10								X	
		> 10	X								X
	<96 & ≥ 93	≥4 & ≤ 7								X	
		>7 & 10	X								X
		> 10		X				X			X(A)
	< 93							X			

Notes:

1. Each 'X' represents a recommended mitigation remedy. Several X's for a single deficiency indicate alternate methods of remediation unless noted otherwise. Individual judgment must be exercised by the RTC Project Manager on each specific project.
2. Each 'X' labeled either (A) or (B) represents a combination of mitigation remedies listed as group (A) or group (B).
3. See STS 1.15BIII MITIGATION - Item 6, designated as Subsection 320.07.05 - "Guideline for Job Mix Formula and Marshall Properties," for mitigation required when the compacted pavement is not in compliance with the job mix design and/or Marshall properties.
4. Traffic classifications:
   Light Traffic conditions resulting in a Design ESAL $<10^4$
   Medium Traffic conditions resulting in a Design ESAL between 10^4 and 10^6
   Heavy Traffic conditions resulting in a Design ESAL $>10^6$
   For light traffic conditions, see Asphalt Deficiency Mitigation Matrix for Light Traffic Conditions.
5. The average Marshall Compaction for the lot shall be rounded to the nearest 1 percent in accordance with the procedure described in Section 336 - "Inspection and Testing," of the Standard Specifications, Subsection 336.03.04 - "Asphalt Concrete".
6. Three significant figures shall be used throughout the calculations for in-place air voids. Individual results shall be reported to the nearest 0.1 percent. All rounding shall be in accordance with the procedure described in Section 336 - "Inspection and Testing" of the Standard Specifications, Subsection 336.03.04 - "Asphalt Concrete"
7. Increase total pavement thickness by the indicated amount using approved mix.
8. Mitigation may not be limited to the matrix shown on this table if the pavement is also deficient in other areas.

STS Table 1.15BIII-2
Asphalt Deficiency Mitigation Matrix for In-place Density/Air Voids
Medium & Heavy Traffic Conditions *(see Note 4)*

The objective of the mitigations listed on the table below is to assure the final pavement will meet the design service life of the roadway. Reductions in payment do not achieve that goal and should be considered only if mitigation is not possible or practical. The mitigation table is an attempt to provide uniformity and fairness to the evaluation process of substandard pavements. Most paving projects affected will exhibit a variety in the type and magnitude of deficiencies that will result in a variety of mitigation approaches. The appropriate mitigation requires sound engineering analysis and judgment. The Agency will, at its option, decide the appropriate mitigation measures with input from the Design Engineer, testing laboratory and the Contractor.

	Marshall Compaction % (Note 5)	In Place Air Voids % (Rice) (Note 6)	Increase Thickness (Notes 7&8)	Surface Seal (Note 8)			Remove Replace	Payment (Note 8)		
			+1½"	Sand Seal	Slurry Seal	Chip Seal		100%	90%	50%
WEARING	≥ 96	<3					X		X	X
		≥3 & ≤8						X		
		>8 & ≤11		X	X	X			X	
		> 11	X				X			
	< 96 & ≥ 93	≥ 4 & ≤8	X				X		X	
		>8 & ≤11	X(A)			X(B)	X		X(A)	X(B)
		> 11	X(A)				X			X(A)
	< 93						X			
NON-WEARING	≥ 96	<3					X		X	X
		≥3 & ≤8						X		
		>8 & ≤11							X	
		> 11	X				X			X
	<96 & ≥ 93	≥4 & ≤8							X	
		>8 & ≤11	X							X
		> 11	X(A)				X			X(A)
	< 93						X			

Notes:

1. Each 'X' represents a recommended mitigation remedy. Several X's for a single deficiency indicate alternate methods of remediation unless noted otherwise. Individual judgment must be exercised by the Engineer on each specific project.
2. Each 'X' labeled either (A) or (B) represents a combination of mitigation remedies listed as group (A) or group (B).
3. See STS 1.15BIII MITIGATION - Item 6, designated as Subsection 320.07.05 - "Guideline for Job Mix Formula and Marshall Properties," for mitigation required when the compacted pavement is not in compliance with the job mix design and/or Marshall properties.
5. Traffic classifications:
   - Light Traffic conditions resulting in a Design ESAL $<10^4$
   - Medium Traffic conditions resulting in a Design ESAL between 10^4 and 10^6
   - Heavy Traffic conditions resulting in a Design ESAL $>10^6$

   For light traffic conditions, see Asphalt Deficiency Mitigation Matrix for Light Traffic Conditions.
5. The average Marshall Compaction for the lot shall be rounded to the nearest 1 percent in accordance with the procedure described in Section 336 - "Inspection and Testing," of the Standard Specifications, Subsection 336.03.04 - "Asphalt Concrete".
6. Three significant figures shall be used throughout the calculations for in-place air voids. Individual results shall be reported to the nearest 0.1 percent. All rounding shall be in accordance with the procedure described in Section 336 - "Inspection and Testing" of the Standard Specifications, Subsection 336.03.04 - "Asphalt Concrete".
7. Increase total pavement thickness by the indicated amount using approved mix.
8. Mitigation may not be limited to the matrix shown on this table if the pavement is also deficient in other areas.

IV SPECIAL PAVING CONSIDERATIONS

The Contractor shall submit, at the time of traffic control submittal, a paving plan superimposed onto the striping plan to illustrate locations of paving joints in relation to striping. The paving joints in the final lift shall be located within 6" from lane stripes, unless otherwise authorized in writing by the Engineer.

Where directed by the Engineer, the Contractor shall spread blotter sand on the surface of final-lift pavement to reduce the driveway or intersection closure time and protect the pavement surface at high traffic or critical locations.

V TACK COAT

Subsection 316.03.04 - "Application of Bituminous Materials" of the Standard Specifications, is herewith amended as follows:

Unless otherwise directed by the Design Engineer, cleaning and the application of a tack coat shall be provided between all paving courses that are not constructed in the same shift. Tack coat shall consist of asphalt emulsion, Type SS-1h, conforming to the requirements of Section 201 – "Bituminous Materials" of the Standard Specifications to the cleaned, cured surface, unless otherwise directed by the Design Engineer. The tack coat shall be applied in sufficient quantity to provide a continuous membrane over the cement modified material. No more tack shall be applied than can be covered in the same shift. Place the covering course over tack that is clean, free of tracking and adequately set.

VI LONGITUDINAL JOINTS

This specification is developed in an effort to obtain longer pavement life by adding emphasis on longitudinal joint quality. This portion of the STS will apply for the sole purpose of assessing the bonus/penalty of this specification. The longitudinal joint result will not tie to the acceptance of the pavement. This portion of the STS, however, does not eliminate any requirement as listed in all other sections of the STS.

Bonus or Penalty for longitudinal joint applies only when the mat for the associated paving "lots" are acceptable according to STS 1.15BII Acceptance.

1. Testing and reporting will be performed by the quality assurance laboratory (i.e. RTC's consultant). Testing will be done on the TOP LIFT[1] only for both HOT & COLD longitudinal joints for each joint segment. Longitudinal joint segment is defined as every 1,000 feet of longitudinal joint and any remainder that is 800 feet or longer. Testing for the longitudinal joints include Thin Lift Nuclear Test and Core Test as described in the following paragraphs.

2. Thin Lift Nuclear Test (Nuclear Gauge Test) shall be performed as follows:

    a) Frequency & Location – Nuclear gauge readings shall be taken every 200 feet on BOTH sides of a longitudinal joint segment directly across from each other, beginning at a random location within the first 200 feet as determined by the Design Engineer.

[1] TOP LIFT is defined as the final course of bituminous dense-grade pavement.

b) Timing – To avoid additional traffic control needed for the testing operation, nuclear gauge readings shall be taken shortly following the completion of the longitudinal joint construction.

c) Equipment – Testing shall be performed using a gauge specifically designed for asphalt testing such as a Troxler 4640B or Troxler 3450, or approved equivalent. It is not necessary that the nuclear gauge be calibrated to the mix. However, the same nuclear gauge should be used for the same longitudinal joint segment.

d) Testing – One 1-minute test is to be performed at each test location. The nuclear density testing shall be performed with the long axis of the nuclear density gauge parallel to the joint and with the nearest edge of the nuclear gauge no closer than 3 inches from the joint and no further than 4.5 inches from the joint. The footprint of the gauge shall be marked with keel or other product that clearly defines the test locations. All testing shall be performed in the same direction (i.e. up or down station).

e) Re-Test – When the test result, t_n, differs more than 4 pounds per cubic foot (pcf) from the previous test, t_{n-1}, a re-test at the previous test location is required to assure that the previous test is not in error. Both test results shall be recorded. If the re-test is within 4 pcf of the original previous test result, use the original previous test result. Otherwise, keep record of the results t_n and t_{n-1} but do not use them for any further calculations. Instead, recalibrate the thin lift nuclear gauge, resume testing beginning at the t_{n-1} location, and use the new test results.

3. Core Test will be performed as follows:

a) Frequency & Location – In addition to the coring required for the mat, one core test shall be performed for every longitudinal joint segment, location of which shall be determined as below:

i. Mean Joint Density (MJD) is the average of the readings of the Nuclear Gauge Test on each side of a longitudinal joint segment. The core is to be taken on the side with the lower MJD. If the MJD on both sides are equal, core on the side which was paved first.

ii. The core shall also be at a location where a Nuclear Gauge Test was performed and reasonably close to a core location for the mat. The core shall be centered inside of the previously marked footprint of the Nuclear Gauge Test. In no case shall the near edge of the core be closer than 3 inches from the joint.

iii. If coring is to occur at a location with pavement markings made of 3M tape or thermoplastic tape, adjust the core location up or down station as appropriate up to a distance of 20 feet maximum. Otherwise, remove necessary portions of the pavement markings before coring.

b) Timing – Coring at the joint shall be at the same time of coring at the mat.

c) Equipment – Same equipment as the standard core test for the mat.

d) Testing – Test procedures will be the same as the standard core test (in-place density/air voids) for the mat in accordance with STS 1.01 INSPECTION AND TESTING. Use the hot sample properties from the corresponding lot, based on the core location (i.e. stationing and which side of the joint), for calculating core test results.

e) Re-Test – Re-testing will only be allowed at the sole discretion of the RTC. If allowed, re-testing shall be at the sole cost of the Contractor and performed by a qualified third party laboratory that meets RTC's criteria for testing. The location of the additional core(s) shall be in within 5 feet up or down station from the original core and the sampling shall be witness by the Design Engineer.

4. When applicable, the bonus and penalty is calculated as follows:

$$\text{Bonus/Penalty} = \frac{\sum F_i}{N} \times A \times T \times U$$

Where

F = Factor for individual longitudinal joint segment based on joint core results per STS Table 1.14BVI-1 or 1.14BVI-2 as applicable.
N = Total number of longitudinal joint segments.
A = Total pavement area of all longitudinal joint segments (SF).
T = Thickness of the TOP LIFT (inch).
U = Unit cost of the TOP LIFT ($/inch-SF).

For the purpose of determining Bonus/Penalty for this project, U shall be $*/in-SF.

STS Table 1.15BVI-1
Longitudinal Joint Segment Bonus/Penalty Factor
Light Traffic Conditions (see Note 1)

Joint Core Results In-Place Air Voids % (Rice) (see Note 2)	Factor F_i
< 2	0%
≥ 2 & ≤ 7	+5%
> 7 & ≤ 10	0%
> 10 & ≤ 14	-5%
> 14	-50%

STS Table 1.15BVI-2
Longitudinal Joint Segment Bonus/Penalty Factor
Medium & Heavy Traffic Conditions (see Note 1)

Joint Core Results In-Place Air Voids % (Rice) (see Note 2)	Factor F_i
< 3	0%
≥ 3 & ≤ 8	+5%
> 8 & ≤ 11	0%
> 11 & ≤ 14	-5%
> 14	-50%

Notes:
1. Traffic classifications
   Light Traffic conditions resulting in a Design ESAL < 10^4
   Medium Traffic conditions resulting in a design ESAL between 10^4 & 10^6

Heavy Traffic conditions resulting in a Design ESAL > 10^6

2. Three significant figures shall be used throughout the calculations for in-place air voids. Individual results shall be reported to the nearest 0.1 percent. All rounding shall be in accordance with the procedure described in Section 336 – "Inspection and Test" (Subsection 336.03.04 – "Asphalt Concrete").

5. Reporting – Field data associated with longitudinal joint testing shall be submitted to the RTC within a week of the testing. The report for the longitudinal joint testing shall be submitted to the RTC within two weeks upon completion of paving for the completed section tested. If top lift paving for the entire project are to be completed within two weeks, submit the report to the RTC within two weeks upon completion of paving for the entire project. The report shall include a Paving Plan and a Longitudinal Joint Summary Sheet as described below.

a) The Paving Plan shall be overlaid on the Striping Plans with stationing shown. It should include, for the top lift only, the longitudinal joint locations with identification number (ID), limits of each paving path, direction of paving, and the paving lot number at the core location. The paving plan can be of as small a scale as practical.

b) The template for the Longitudinal Joint Summary Sheet is available from the RTC website (www.rtcwashoe.com) under Streets & Highways, St & Hwy Resources. It shall be filled in with the following details:

i. The Longitudinal Joint Segment ID, joint type (hot lap, cold sawcut, etc.), station, side of joint (left/right in the up-station direction or north/south/west/east), individual density values measured, MJD (5 values for 1,000-foot joint segments and 4 for 800-foot joint segments) on each side of each joint segment, joint core test location, paving lot number at the core location, core Marshall Density, Rice Maximum Density, In-Place Air Voids, and the individual Longitudinal Joint Segment Bonus/Penalty Factors, F_i.

ii. The calculation for Longitudinal Joint Bonus/Penalty for the project shall be shown at the end of the sheet.

iii. For reference purpose, any re-test shall be noted to clearly identify the re-test, the unused test results, and the test result that was used in calculating the MJD.

1.14C PERMANENT PATCHING

Permanent patching material shall be Type 3 PG64-22 bituminous plantmix, utilizing a 50 blow per side Marshall mix design with target air voids of 3%, and shall conform to the Standard Specifications. Permanent bituminous plantmix patches shall be a minimum depth of 4 inches on 6 inches of aggregate base or match existing section with bituminous plantmix depth up to 12 inches.

If, at any time, during a period of 1 year dating from the date of final acceptance of the project, there is any settlement of the permanent patches requiring repairs to be made, the Owner may notify the Contractor to immediately make such repairs as may be deemed necessary at the Contractor's own expense.

1.16 SLURRY SEAL

Slurry seal shall conform to the requirements of Section 318 - "Slurry Seal" of the Standard Specifications, except as modified herein.

The Contractor shall submit in writing for approval a job mix formula conforming to the requirements of Subsection 318.02 – "Composition of Mixtures" of the Standard Specifications. Type * aggregate conforming to the requirements of Subsection 200.02.06 – "Slurry Seal and Micro Surfacing Aggregate" shall be used unless otherwise specified. Asphalt emulsions shall conform to the requirements of Section 201 - "Bituminous Material" of the Standard Specifications.

Subsection 318.02 – "Materials" of the Standard Specifications, is herewith amended as follows:

1. Add the following to Subsection 318.06.01 – "Limitations":

   a) The slurry seal shall not be applied when precipitation is imminent or occurring.

2. Delete Subsection 318.07.02 – "Tack Coat" in its entirety.

3. Add the following to Subsection 318.08.01 – "General":

   a) All workers shall have sufficient experience to perform properly the work assigned to them. The Contractor shall have an experienced crew on each spreader and any other equipment.

   b) At least 48 hours shall elapse between top lift paving and application of a bituminous seal coat.

   c) Immediately before commencing the slurry seal operations, all metal utility covers (including survey monuments) shall be protected by thoroughly covering the surface with an appropriate adhesive and oiled or plastic paper. No adhesive material shall be permitted to cover, seal or fill the joint between the frame and cover of the structure. Covers are to be uncovered and cleaned of slurry material by the end of the same day.

   d) Hand tools shall be available in order to remove spillage. Ridges or bumps in the finished surface shall not be permitted. The mixture shall be uniform and homogeneous after spreading on the surface and shall not show separation of the emulsion and aggregate after setting.

   e) Adequate means shall be provided to protect the slurry seal from damage from traffic until such time that the mixture has cured sufficiently so that the slurry seal will not adhere to, or be picked up by the tires of vehicles.

1.18 PAVEMENT MARKINGS

1.18A PAINTED PAVEMENT MARKINGS

Permanent painted (traffic paint or epoxy paint) pavement markings shall be in accordance with Section 632 of the latest edition of "Standard Specifications for Road and Bridge Construction" published by NDOT.

1.18A TRAFFIC PAINT

All application methods and products shall conform to Sections 632 – "Permanent Painted Pavement Markings" and 730 – "Traffic Beads", and Subsections 729.02.01 – "General", 729.02.02 – "Packaging", and 729.03.05 – "Rapid Dry Waterborne Paint Material" of the NDOT Standard Specifications for Road and Bridge Construction for Type II traffic paint, with the following exception:

1. Add the following:

   At least 48 hours shall elapse between application of a bituminous seal coat and permanent pavement marking.

   All traffic paint shall have a minimum of 2 coats (full width of stripe) per application of the designated material placed unless otherwise directed by the RTC Project Manager or the Design Engineer's representative.

1.18B PAVEMENT MARKING FILM

Permanent pavement marking film (pavement marking tape or thermoplastic) shall be in accordance with Section 634 – "Pavement Marking Film", of the NDOT Standard Specifications for Road and Bridge Construction.

1.18C RAISED MARKERS

1. Hydrant markers.

   A reflective, blue street marker shall be provided to identify all fire hydrant locations. The marker shall be omnidirectional type. The marker shall be visible on approach to the fire hydrant. The marker shall be placed in accordance with Reno Fire Department Policy Appendix UFC-AP904.3.1, page AP-6.

   Adhesives for raised markers shall conform to Subsection 633.02.04 - "Adhesives for Pavement Markers" of the NDOT Standard Specifications for Road and Bridge Construction.

   Installation of raised markers shall conform to Subsection 633.03.01 - "Pavement Marker Installation" of the NDOT Standard Specifications for Road and Bridge Construction.

1.22 TRAFFIC SIGNS

1.22A MATERIALS

Traffic signs shall be 3M Diamond Grade (DG) 3 or 3M high intensity sheeting with a clear transparent overlay 3M 1170 or approved equal.

Street name signs shall be 3M DG3, Series 4000 or approved equal with green transparent Scotchlite Electrocut Film #1177C or approved equal. White letter and border sheeting shall be retro reflective ASTM IX 3M Diamond Grade or approved equal.

1.23 TRAFFIC SIGNALS

1.23A LOOP DETECTORS

The Contractor shall lay-out traffic signal loop detectors in accordance with the City of Reno standards and details. After the loop lay-out is marked in the field, the Contractor shall call the Engineer at (775) 322-4300 for loop lay-out inspection and approval.

1.23B TEMPORARY TRAFFIC SIGNAL MODIFICATIONS DURING CONSTRUCTION

The Contractor shall coordinate with and secure approval from owning agency's Traffic Division, for any use of or changes to operation of existing traffic signal equipment during construction. The Contractor shall comply with all agency requirements without additional cost to the RTC and the developer of record. All proposals shall be routed through the Engineer.

1.24 UTILITY ADJUSTMENT

1.24A VERIFICATION OF DEPTH

Location of underground facilities shown on the plans are approximate and were not determined by field investigation. It shall be the responsibility of the Contractor to locate all existing utility structures, whether shown or not, and to notify all utility companies to verify in the field the location of their installations prior to construction. The Contractor shall protect all utility structures from damage. The expense of repair or replacement shall be borne by the Contractor (however, this in no way precludes the Contractor from recovering, from the utility company, costs to repair existing utilities which do not conform with standard specifications or details). The Contractor shall request field marking of existing utilities at least 48 hours in advance of beginning construction by calling Underground Service Alert at (800) 227-2600.

At existing underground traffic signal conduit crossings and at locations where new underground facilities cross existing facilities, the Contractor shall expose the existing facility and verify that sufficient horizontal and vertical clearance exists for the street improvements to be constructed in substantial compliance with the plans. At existing underground traffic signal conduit crossings, the Contractor shall field verify the depth of existing facilities before commencing any construction. At locations where new underground facilities are to be connected to existing facilities, the Contractor shall expose the existing facility and verify that the connection can be made as shown on the plans before commencing any construction. Any conflicts shall be brought to the Engineer's attention as soon as they are discovered.

1.24B UTILITY MANHOLE AND VAULT ADJUSTMENT

Add to Subsection 323.05 - "Utility Manholes and Vaults" of the Standard Specifications as follows:

1. "Before lowering manholes and vaults, the Contractor shall take inventory of the utilities to be adjusted. The Contractor shall record the exact location and type of utility by labeling the assembly with numbers at locations visible for verification. The labeling shall include utility site, collar, and lid to ensure proper match of hardware when utility adjustment is completed at the conclusion of the project."

   The Contractor shall submit the utility inventory list to the Engineer and utility companies upon completion of utility lowering activity. The Contractor shall also keep a copy of the utility location inventory list on the project work site at all times for emergency shutoff purposes. The Contractor may post the list on the backside of the RTC Project Information sign.

1.24C MANHOLE PROTECTION PLAN

The Contractor shall be responsible for the protection of all manholes and valves during all phases of construction, including but not limited to, lowering and raising covers, and grouting of them. The Contractor shall verify all manholes and valves are clear of debris at the beginning of the project and notify the utility companies if otherwise.

A "Manhole Protection Plan" shall be submitted and approved by the Engineer prior to any manhole adjustments. The plan shall clearly identify how the contractor will protect ANY debris from entering the system and a detail of how the Contractor is prepared for emergency overflows. To the minimum, the plan shall include the name, phone number, and contact of the company the contractor will use in case of an emergency. Prior to performing any adjustments or grouting, the Engineer shall observe and verify the Contractor is in compliance with the "Manhole Protection Plan".

1.25 SURVEY MONUMENTS

Survey monuments shall be removed prior to construction. Survey monuments shall be located and punched by a Nevada registered professional land surveyor and replaced after completion of improvements.

1.26 CERTIFICATES OF COMPLIANCE

The Certificate of Compliance shall be signed by the manufacturer of the material or the manufacturer of assembled materials and shall state that the materials involved conform in all respects with the requirements of the specifications for this project. A Certificate of Compliance shall be furnished with each lot of material delivered to the work and the lot so certified shall be clearly identified in the certificate.

Materials Requiring Certificate of Compliance

1. Asphalt Cement
4. Cement
5. Concrete Curing Compound
6. Signs
7. Pavement Markings
8. Personnel certification for installation of retroreflective preformed pavement markings

EXHIBIT "F"
(Standard Specifications for Public Works Construction
Section 117.00
"Material and Workmanship – Warranty of Corrections")

EXHIBIT F

MATERIAL AND WORKMANSHIP - WARRANTY OF CORRECTIONS

Corrections ordered in accordance with General Provision 117.00, "Material and Workmanship" for items discovered in the year following final acceptance of the project shall be warranted for a one (1) year period following acceptance by the RTC of the correction. Should the correction itself prove defective, the Contractor shall be obliged to make further correction. The warranty period on the correction shall continue to be extended for one (1) year following acceptance by the RTC of the initial or any subsequent corrective actions.

EXHIBIT "G"
RRIF RATES AS OF DATE OF OFFSET AGREEMENT

REGIONAL ROAD IMPACT FEE SCHEDULE

Land Use		North Service Area		South Service Area	
Residential	**Unit**	**VMT**	**Dollars ($328.34/VMT)**	**VMT**	**Dollars ($320.63/VMT)**
Single-Family	Dwelling	15.03	$4934.95	14.22	$4,559.36
Multi-Family	Dwelling	10.23	$3,358.92	9.68	$3,103.70
Industrial					
General Light Industrial	1,000 GFA	5.05	$1,658.12	4.78	$1,532.61
Manufacturing	1,000 GFA	4.00	$1,313.36	3.79	$1,215.19
Warehouse	1,000 GFA	1.77	$581.16	1.68	$538.66
Mini-Warehouse	1,000 GFA	1.54	$505.64	1.46	$468.12
Commercial/Retail					
Commercial/Retail	1,000 GFA	22.94	$7,532.12	21.71	$6,960.88
Eating/Drinking Places	1,000 GFA	22.94	$7,532.12	21.71	$6,960.88
Casino/Gaming	1,000 GFA	46.90	$15,399.15	44.37	$14,226.35
Office and Other Services					
Schools	1,000 GFA	13.12	$4,307.82	12.41	$3,979.02
Day Care	1,000 GFA	13.12	$4,307.82	12.41	$3,979.02
Lodging	Room	3.41	$1,119.64	3.23	$1,035.63
Hospital	1,000 GFA	10.92	$3,585.47	10.33	$3,312.11
Nursing Home	1,000 GFA	6.76	$2,219.58	6.40	$2,052.03
Medical Office	1,000 GFA	35.44	$11,636.37	33.53	$10,750.72
Office and Other Services	1,000 GFA	9.92	$3,257.13	9.39	$3,010.72
Regional Recreational Facility	Acre	2.32	$761.75	2.20	$705.39

Regional Road Impact Fee (RRIF)

6th Edition Year 1 Indexing

Effective 12/01/2020

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RTC

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REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.10**

From: Brian Stewart, Director of Engineering

RECOMMENDED ACTION

Approve a recommendation to commence with the sale of five (5) remnant parcels acquired in connection with the Moana Lane Widening Project (APN# 024-020-11; 024-02-08; 020-255-15; 020-255-16; 020-051-02) by sale to adjoining property owners, sealed bids, public auction, or direct sale as may be authorized by law.

BACKGROUND AND DISCUSSION

RTC acquired property for the Moana Lane Widening Project in 2010-2011 through or under the threat of eminent domain. The parcels shown on the maps attached as Attachment A are remnants of the larger parcels that were needed for the project. The remnant parcels are no longer needed for the project or for any other public use.

In 2019, the Nevada Legislature adopted AB 270 which was codified at NRS 277A.255. If this item is approved, RTC will attempt to sell the remnant parcels to adjoining property owners, by sealed bids, public auction or direct sale as authorized by NRS 277A.255. After RTC and the buyers agree on the terms and conditions of the sale, staff will present the material terms of the sale to the Board for approval pursuant to Management Policy P-63 (Real Property Disposition), along with any resolution or other action required by law.

Management Policy P-63 (Real Property Disposition) requires approval of this item before staff can commence with the sale.

FISCAL IMPACT

There is no fiscal impact associated with this action.

PREVIOUS BOARD ACTION

This action will supersede any previous action or direction from the Board with regard to the sale of the remnant parcels.

ADVISORY COMMITTEE(S) RECOMMENDATION

There are no advisory committee recommendations regarding this agenda item.

ATTACHMENT(S)

A. Remnant Parcel Maps

MOANA LANE WIDENING SURPLUS PARCELS

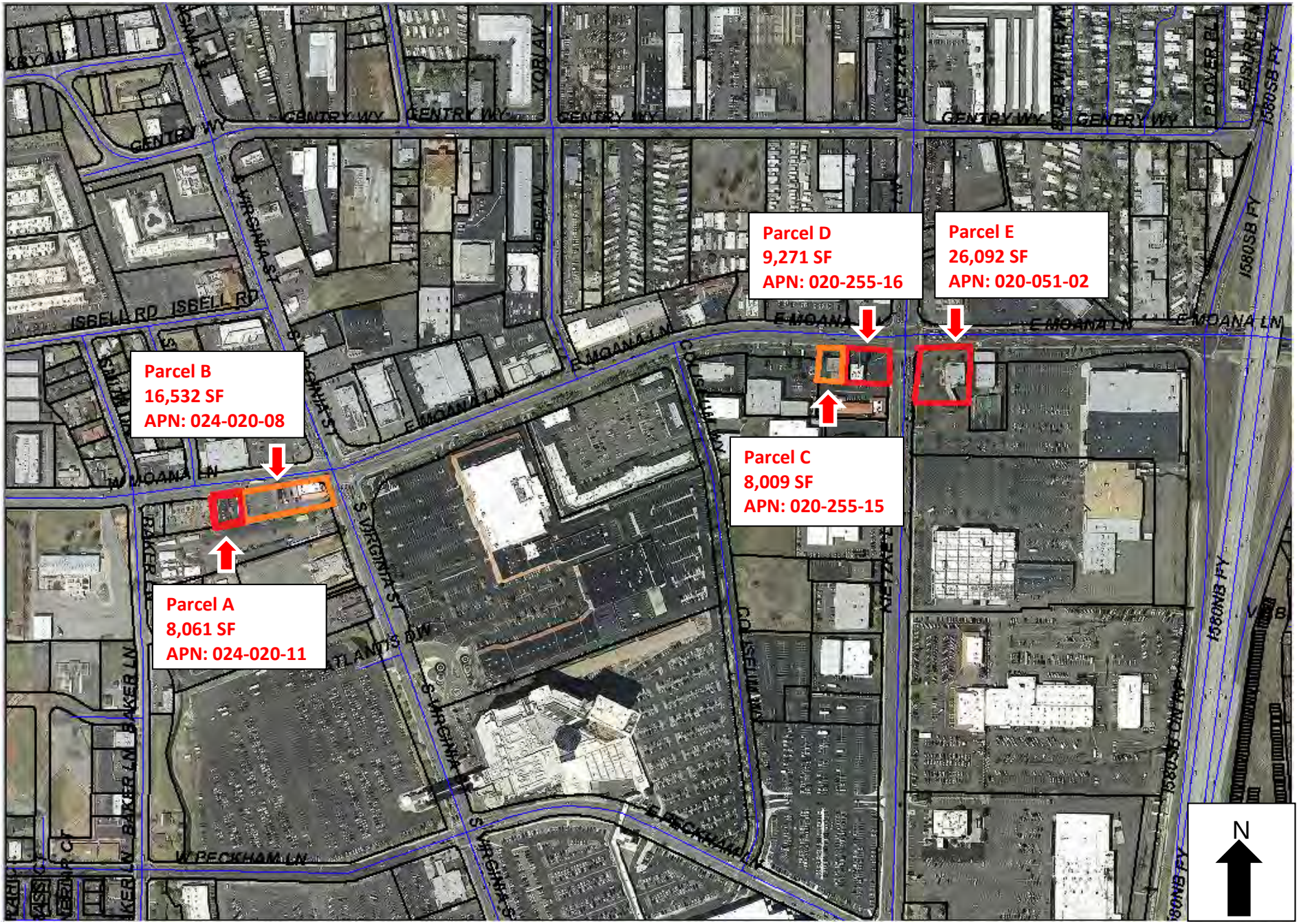
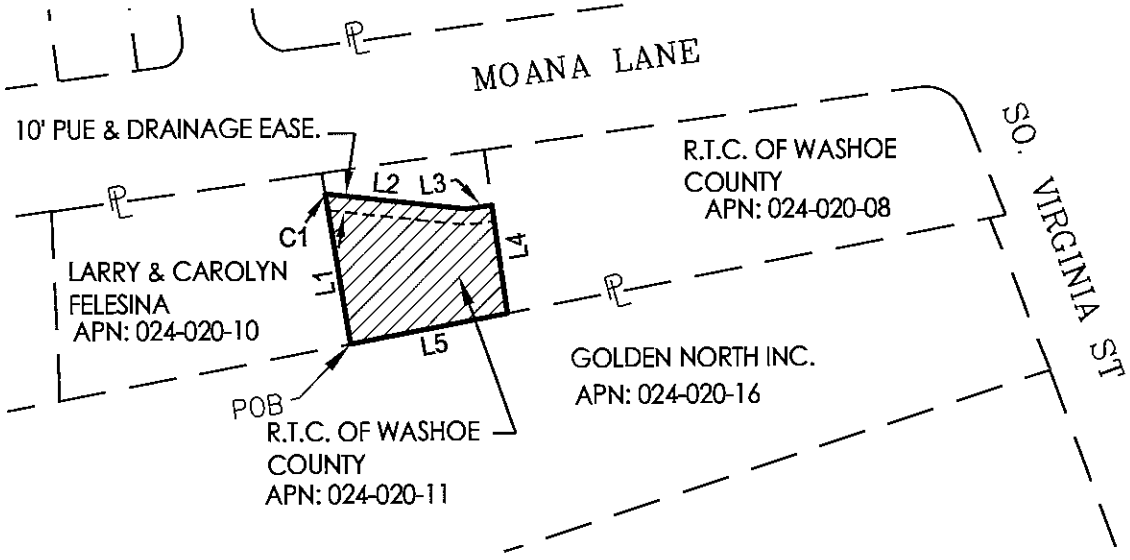


EXHIBIT A - Page 1 of 6

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD BEARING
C1	0.14'	908.50'	0°00'33"	0.07'	N 88°41'31" E



PARCEL A

LINE	BEARING	DISTANCE
L1	N 09°19'16" W	95.34'
L2	S 83°34'15" E	88.29'
L3	N 82°42'41" E	16.31'
L4	S 07°45'31" E	68.31'
L5	S 79°14'44" W	99.58'

LEGEND:
POC POINT OF COMMENCEMENT
POB POINT OF BEGINNING
PUE PUBLIC UTILITY EASEMENT
— — — PROPERTY LINE

AREA:
8,061 SQUARE FEET OF LAND, MORE OR LESS.

BASIS OF BEARINGS:
NAD 83 (94 HARN)NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE

REFERENCES:

1. DOC. NO. 2704657, RECORDED JUNE 27, 2002, WASHOE COUNTY, NEVADA.

AUGUST, 2014
180101299

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GRAPHIC SCALE
0 120' 180' 240'
1 inch = 120 ft.

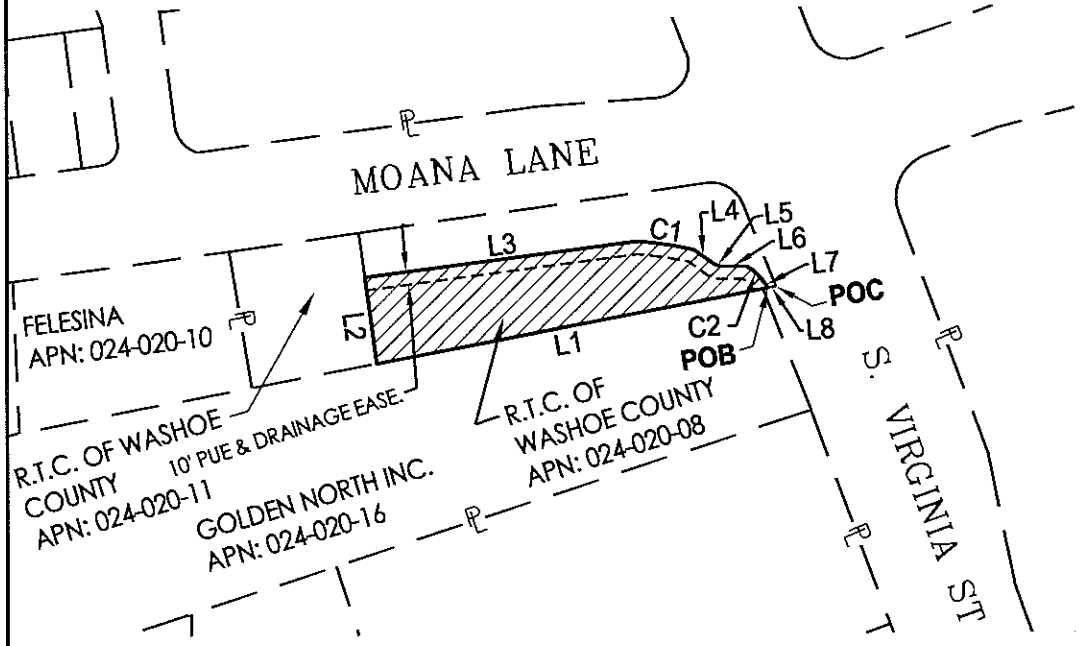
N

Client/Project
RTC/MOANA LANE
SE 1/4. SEC.24 & NE 1/4. SEC 25, T19N, R19E, MDM
RENO, NV, WASHOE COUNTY

Figure No.
1.0

Title
EXHIBIT "B"
APN 024-020-11

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD BEARING
C1	44.50'	266.50'	9°34'03"	22.30'	S 81°23'19" E
C2	16.07'	33.00'	27°53'43"	8.20'	S 49°57'19" E



LINE	BEARING	DISTANCE
L1	S 79°14'44" W	311.05'
L2	N 07°45'16" W	68.31'
L3	N 82°42'41" E	214.72'
L4	S 54°04'23" E	19.98'
L5	S 71°57'26" E	5.16'
L6	S 89°50'30" E	19.80'
L7	S 36°00'27" E	8.18'
L8	S 79°14'44" W	6.18'

PARCEL B

LEGEND:
POC POINT OF COMMENCEMENT
POB POINT OF BEGINNING
PUE PUBLIC UTILITY EASEMENT
— — — PROPERTY LINE

REFERENCES:
1. DOC. NO. 3488083, RECORDED JAN. 18, 2007, WASHOE COUNTY, NEVADA
2. DOC. NO. 259908, RECORDED SEPT. 28, 1972, WASHOE COUNTY, NEVADA.

GRAPHIC SCALE
0 150' 225' 300'
1 inch = 150 ft.

AUGUST, 2014
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AREA:
16,532 SQUARE FEET OF LAND, MORE OR LESS.

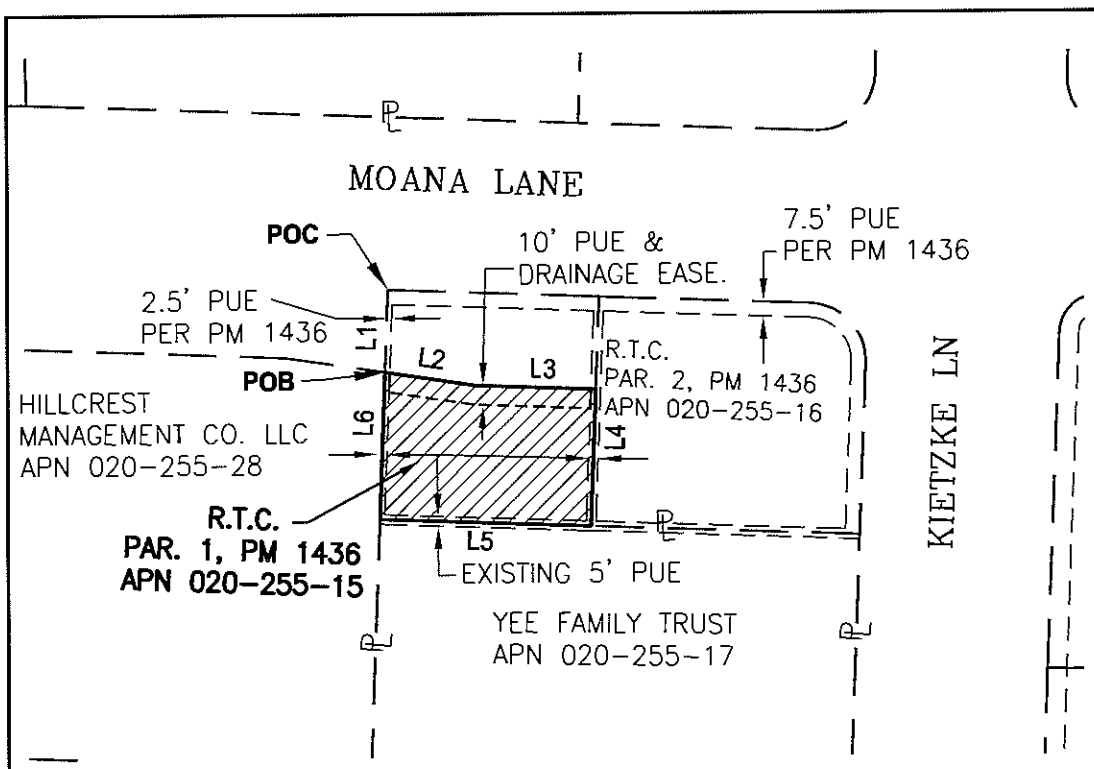
BASIS OF BEARINGS:
GRID NORTH, NAD 83 (94 HARN)
NEVADA STATE PLANE
COORDINATE SYSTEM, WEST ZONE

N

Client/Project
MOANA LANE
SE QTR. SEC.24, NE QTR. SEC 25, T19N, R19E, MDM
RENO, NV, WASHOE COUNTY

Figure No.
1.0

Title
EXHIBIT "B"
APN 024-020-08



LINE	BEARING	DISTANCE
L1	S 02°11'29" W	42.96'
L2	S 81°27'12" E	47.85'
L3	S 87°46'08" E	62.44'
L4	S 02°11'29" W	71.57'
L5	N 87°52'35" W	110.00'
L6	N 02°11'29" E	77.04'

PARCEL C

LEGEND:
POC POINT OF COMMENCEMENT
POB POINT OF BEGINNING
PUE PUBLIC UTILITY EASEMENT
— — — PROPERTY LINE
— — — — — EASEMENT LINE

REFERENCES:
1. PARCEL 1 OF PM NO. 1436, FILE 843177, RECORDED MARCH 14, 1983, WASHOE COUNTY, NEVADA.

GRAPHIC SCALE
0 100' 150' 200'
1 inch = 100 ft.

AUGUST, 2014
180101299

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AREA:
8009 SQUARE FEET OF LAND, MORE OR LESS.

BASIS OF BEARINGS:
GRID NORTH, NAD 83 (94 HARN)
NEVADA STATE PLANE
COORDINATE SYSTEM, WEST ZONE

N

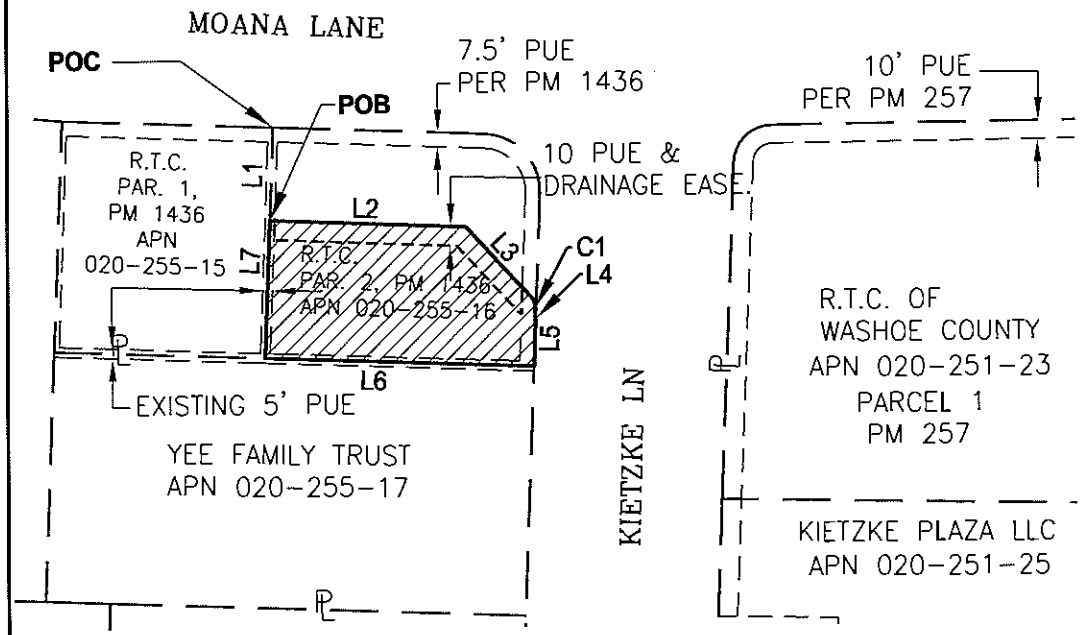
Client/Project
RTC/MOANA LANE
SEC.24, T19N, R19E, MDM
RENO, WASHOE COUNTY, NV

Figure No.
1.0

Title
EXHIBIT"B"
APN 020-255-15

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD BEARING
C1	9.84'	51.50'	10°56'48"	4.93'	S 02°53'56" E

LINE	BEARING	DISTANCE
L1	S 02°11'29" W	48.43'
L2	S 87°46'08" E	101.92'
L3	S 42°45'02" E	52.34'
L4	N 90°00'00" E	0.23'
L5	S 02°11'29" W	24.51'
L6	N 87°52'35" W	140.00'
L7	N 02°11'29" E	71.57'



PARCEL D

LEGEND:
POC POINT OF COMMENCEMENT
POB POINT OF BEGINNING
PUE PUBLIC UTILITY EASEMENT
PROPERTY LINE
EASEMENT LINE

REFERENCES:
1. PARCEL 2 OF PM NO. 1436, FILE 843177, RECORDED MARCH 14, 1983, WASHOE COUNTY, NEVADA.

GRAPHIC SCALE
0 100' 150' 200'
1 inch = 100 ft.

AUGUST, 2014
180101299

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AREA:
9,271 SQUARE FEET OF LAND,
MORE OR LESS.

BASIS OF BEARINGS:
GRID NORTH, NAD 83 (94 HARN) NEVADA
STATE PLANE COORDINATE SYSTEM, WEST ZONE

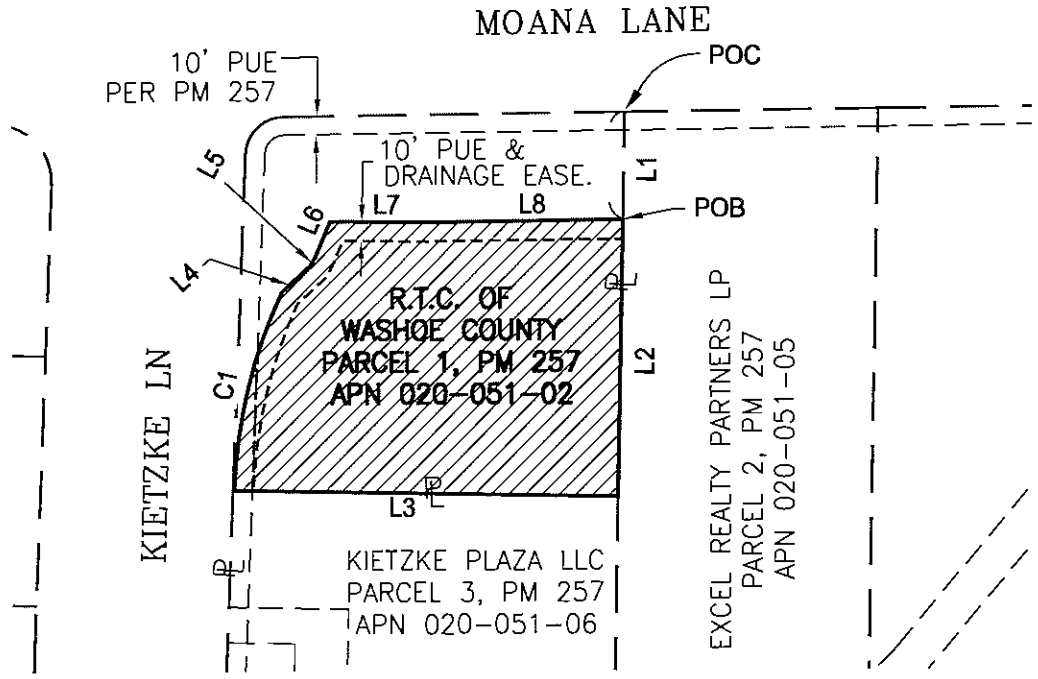
N

Client/Project
RTC/MOANA LANE
SEC.24, T19N, R19E, MDM
RENO, WASHOE COUNTY, NV

Figure No.
1.0

Title
EXHIBIT "B"
APN 020-255-16

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD BEARING
C1	107.02'	266.50'	23°00'27"	54.24'	N 13°34'00" E



LINE	BEARING	DISTANCE
L1	S 01°04'42" W	56.04'
L2	S 01°04'42" W	143.98'
L3	N 88°55'18" W	199.84'
L4	N 47°36'09" E	19.98'
L5	N 29°43'04" E	5.11'
L6	N 23°03'21" E	20.20'
L7	S 89°14'32" E	50.46'
L8	N 89°25'18" E	101.93'

PARCEL E

REFERENCES:
1. PARCEL 1 OF PM NO. 257, FILE 405860 RECORDED APRIL 27, 1976, WASHOE COUNTY, NEVADA.

LEGEND:
POC POINT OF COMMENCEMENT
POB POINT OF BEGINNING
PUE PUBLIC UTILITY EASEMENT
— — — PROPERTY LINE

AREA:
26,092 SQUARE FEET OF LAND, MORE OR LESS.

GRAPHIC SCALE

0 100' 150' 200'

1 inch = 100 ft.

AUGUST, 2014
180101299

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BASIS OF BEARINGS:
GRID NORTH, NAD 83 (94 HARN)
NEVADA STATE PLANE
COORDINATE SYSTEM, WEST ZONE

N

Client/Project
RTC/MOANA LANE
SEC.19, T19N, R20E, MDM
RENO, NV, WASHOE COUNTY

Figure No.
1.0

Title
EXHIBIT "B"
APN 020-051-02

REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.11**

From: Brian Stewart, Director of Engineering

RECOMMENDED ACTION

Approve a recommendation to commence with the sale of thirteen (13) remnant parcels acquired in connection with the Moana Lane Extension Project (Airway Drive) (APN# 020-291-33; 020-292-31; 020-292-33; 020-292-34; 020-292-35; 020-293-01; 020-321-49; 025-241-31; 025-263-14; 025-263-1; 025-263-16; 025-263-17; 025-263-18) by sale to adjoining property owners, sealed bids, public auction, or direct sale as may be authorized by law.

BACKGROUND AND DISCUSSION

RTC acquired property for the Moana Lane Extension Project (Airway Drive) in 2009-2010 through or under the threat of eminent domain. The parcels shown on the maps attached as Attachment A are remnants of the larger parcels that were needed for the project. The remnant parcels are no longer needed for the project or for any other public use.

In 2019, the Nevada Legislature adopted AB 270 which was codified at NRS 277A.255. If this item is approved, RTC will attempt to sell the remnant parcels to adjoining property owners, by sealed bids, public auction or direct sale as authorized by NRS 277A.255. After RTC and the buyers agree on the terms and conditions of the sale, staff will present the material terms of the sale to the Board for approval pursuant to Management Policy P-63 (Real Property Disposition), along with any resolution or other action required by law.

Management Policy P-63 (Real Property Disposition) requires approval of this item before staff can commence with the sale.

FISCAL IMPACT

There is no fiscal impact associated with this action.

PREVIOUS BOARD ACTION

This action will supersede any previous action or direction from the Board with regard to the sale of the remnant parcels.

ADVISORY COMMITTEE(S) RECOMMENDATION

There are no advisory committee recommendations regarding this agenda item.

ATTACHMENT(S)

A. Remnant Parcel Maps

MOANA LANE EXTENSION (AIRWAY DRIVE)

Parcel 1: APN 020-291-33: 12,878 Square Feet

Parcel 2: APN 020-292-31: 17,360 Square Feet

Parcel 3: APN 020-292-33: 12,754 Square Feet
Parcel 4: APN 020-292-34: 7,911 Square Feet
Parcel 5: APN 020-292-35: 2,721 Square Feet
Total: 23,386 Square Feet

Parcel 6: APN 020-293-01: 15,848 Square Feet

Parcel 7: APN 020-321-49: 14,513 Square Feet

Parcel 8: APN 025-241-31: 33,030 Square Feet

Parcel 9: APN 025-263-14: 1,079 Square Feet
Parcel 10: APN 025-263-15: 10,052 Square Feet
Parcel 11: APN 025-263-16: 14,061 Square Feet
Parcel 12: APN 025-263-17: 8,971 Square Feet
Parcel 13: APN 025-263-18: 3,297 Square Feet
Total: 37,460 Square Feet

REGIONAL TRANSPORTATION COMMISSION
Public Transportation • Streets and Highways • Planning

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.12**

From: Mark Maloney, Director of Public Transportation and Operations

---

RECOMMENDATION

Approve an interlocal agreement with the State of Nevada, Department of Health and Human Services (DHHS), Division of Health Care Financing and Policy (DHCFP/Medicaid) to reimburse RTC for completing paratransit eligibility evaluations for eligible Medicaid recipients as outlined in the ADA regulations of the Federal Transit Administration.

SUMMARY

The Department of Health and Human Services, Division of Health Care Financing and Policy (DHCFP/Medicaid) assures the availability of Non-Emergency Transportation (NET) services for their recipients traveling to and from medical appointments. DHCFP/Medicaid has been mandated to use the most cost-efficient transportation possible. Since April 2012, the RTC has received $243,105.45 from DHCFP/Medicaid as reimbursement for completing paratransit eligibility evaluations for eligible Medicaid recipients as outlined in the FTA ADA regulations.

FISCAL IMPACT

The Department of Health and Human Services, Division of Health Care Financing and Policy (DHCFP/Medicaid) will reimburse RTC approximately $130,968.00 for July 1, 2021, through June 30, 2025.

ATTACHMENT(S)

A. Interlocal Contract Agreement, CETS #23989

Attachment A

CETS #:	**23989**
Agency Reference #:	

INTERLOCAL CONTRACT BETWEEN PUBLIC AGENCIES

A Contract Between the State of Nevada
Acting by and through its

Public Entity #1:	**Department of Health and Human Services** **Division of Health Care Financing and Policy**
Address:	**1100 E. William St., Suite 101**
City, State, Zip Code:	**Carson City, NV 89701**
Contact:	**Lisa Tuttle, Contract Manager**
Phone:	**(775) 684-3676 (main)**
Fax:	
Email:	**dhcfppcu@dhcfp.nv.gov / ltuttle@dhcfp.nv.gov**

Public Entity #2:	**Regional Transportation Commission of Washoe County (RTC)**
Address:	**P.O. Box 30002**
City, State, Zip Code:	**Reno, Nevada 89520**
Contact:	**Mark Maloney**
Phone:	**(775) 332-2136**
Fax:	**(775) 348-3271**
Email:	**mmaloney@rtcwashoe.com**

WHEREAS, NRS 277.180 authorizes any one or more public agencies to contract with any one or more other public agencies to perform any governmental service, activity or undertaking which any of the public agencies entering into the contract is authorized by law to perform; and

WHEREAS, it is deemed that the services hereinafter set forth are both necessary and in the best interests of the State of Nevada.

NOW, THEREFORE, in consideration of the aforesaid premises, the parties mutually agree as follows:

1. **REQUIRED APPROVAL**. This Contract shall not become effective until and unless approved by appropriate official action of the governing body of each party.

2. **DEFINITIONS**

TERM	DEFINITION
State	The State of Nevada and any State agency identified herein, its officers, employees and immune contractors.
Contracting Entity	The public entities identified above.
Fiscal Year	The period beginning July 1st and ending June 30th of the following year.
Contract	Unless the context otherwise requires, 'Contract' means this document titled Interlocal Contract Between Public Agencies and all Attachments or Incorporated Documents.

CETS #:	**23989**
Agency Reference #:	

3. **CONTRACT TERM.** This Contract shall be effective as noted below, unless sooner terminated by either party as specified in ***Section 4, Termination***.

Effective From:	07/01/2021	To:	06/30/2025

4. **TERMINATION**. This Contract may be terminated by either party prior to the date set forth in ***Section 3, Contract Term***, provided that a termination shall not be effective until **30** days after a party has served written notice upon the other party. This Contract may be terminated by mutual consent of both parties or unilaterally by either party without cause. The parties expressly agree that this Contract shall be terminated immediately if for any reason State and/or federal funding ability to satisfy this Contract is withdrawn, limited, or impaired.

5. **NOTICE**. All communications, including notices, required or permitted to be given under this Contract shall be in writing and directed to the parties at the addresses stated above. Notices may be given: (a) by delivery in person; (b) by a nationally recognized next day courier service, return receipt requested; or (c) by certified mail, return receipt requested. If specifically requested by the party to be notified, valid notice may be given by facsimile transmission or email to the address(es) such party has specified in writing.

6. **INCORPORATED DOCUMENTS**. The parties agree that this Contract, inclusive of the following Attachments, specifically describes the Scope of Work. This Contract incorporates the following Attachments in descending order of constructive precedence:

ATTACHMENT A:	SCOPE OF WORK
ATTACHMENT B:	BUSINESS ASSOCIATE ADDENDUM

Any provision, term or condition of an Attachment that contradicts the terms of this Contract, or that would change the obligations of the State under this Contract, shall be void and unenforceable.

7. **CONSIDERATION**. The parties agree that the services specified in ***Section 6, Incorporated Documents*** at a cost as noted below:

Total Contract or installments payable at:	As invoiced per Attachment A and approved by State

Total Contract Not to Exceed:	$130,968.00

Any intervening end to a biennial appropriation period shall be deemed an automatic renewal (not changing the overall Contract term) or a termination as the result of legislative appropriation may require.

8. **ASSENT**. The parties agree that the terms and conditions listed in the incorporated Attachments of this Contract are also specifically a part of this Contract and are limited only by their respective order of precedence and any limitations expressly provided.

9. **INSPECTION & AUDIT**

A. Books and Records. Each party agrees to keep and maintain under general accepted accounting principles full, true and complete records, agreements, books, and document as are necessary to fully disclose to the State or United States Government, or their authorized representatives, upon audits or reviews, sufficient information to determine compliance with all State and federal regulations and statutes.

B. Inspection & Audit. Each party agrees that the relevant books, records (written, electronic, computer related or otherwise), including but not limited to relevant accounting procedures and practices of the party, financial statements and supporting documentation, and documentation related to the work product shall be subject, at any reasonable time, to inspection, examination, review, audit, and copying at any office or location where such records may be found, with or without notice by the State Auditor, Employment Security, the Department of Administration, Budget Division, the Nevada State Attorney General's Office or its Fraud Control Units, the State Legislative Auditor, and with regard to any federal funding, the relevant federal agency, the Comptroller General, the General Accounting Office, the Office of the Inspector General, or any of their authorized representatives.

C. Period of Retention. All books, records, reports, and statements relevant to this Contract must be retained a minimum three years and for five years if any federal funds are used in this Contract. The retention period runs from the date of termination of this Contract. Retention time shall be extended when an audit is scheduled or in progress for a period reasonably necessary to complete an audit and/or to complete any administrative and judicial litigation which may ensue.

10. **BREACH - REMEDIES**. Failure of either party to perform any obligation of this Contract shall be deemed a breach. Except as otherwise provided for by law or this Contract, the rights and remedies of the parties shall not be exclusive and are in addition to any other rights and remedies provided by law or equity, including but not limited to actual damages, and to a prevailing party reasonable attorneys' fees and costs. It is specifically agreed that reasonable attorneys' fees shall not exceed $150.00 per hour.

11. **LIMITED LIABILITY**. The parties will not waive and intend to assert available NRS Chapter 41 liability limitations in all cases. Contract liability of both parties shall not be subject to punitive damages. Actual damages for any State breach shall never exceed the amount of funds which have been appropriated for payment under this Contract, but not yet paid, for the fiscal year budget in existence at the time of the breach.

12. **FORCE MAJEURE**. Neither party shall be deemed to be in violation of this Contract if it is prevented from performing any of its obligations hereunder due to strikes, failure of public transportation, civil or military authority, acts of public enemy, acts of terrorism, accidents, fires, explosions, or acts of God, including, without limitation, earthquakes, floods, winds, or storms. In such an event the intervening cause must not be through the fault of the party asserting such an excuse, and the excused party is obligated to promptly perform in accordance with the terms of the Contract after the intervening cause ceases.

13. **INDEMNIFICATION**. Neither party waives any right or defense to indemnification that may exist in law or equity.

14. **INDEPENDENT PUBLIC AGENCIES**. The parties are associated with each other only for the purposes and to the extent set forth in this Contract, and in respect to performance of services pursuant to this Contract, each party is and shall be a public agency separate and distinct from the other party and, subject only to the terms of this Contract, shall have the sole right to supervise, manage, operate, control, and direct performance of the details incident to its duties under this Contract. Nothing contained in this Contract shall be deemed or constructed to create a partnership or joint venture, to create relationships of an employer-employee or principal-agent, or to otherwise create any liability for one agency whatsoever with respect to the indebtedness, liabilities, and obligations of the other agency or any other party.

15. **WAIVER OF BREACH**. Failure to declare a breach or the actual waiver of any particular breach of the Contract or its material or nonmaterial terms by either party shall not operate as a waiver by such party of any of its rights or remedies as to any other breach.

16. **SEVERABILITY**. If any provision contained in this Contract is held to be unenforceable by a court of law or equity, this Contract shall be construed as if such provision did not exist and the non-enforceability of such provision shall not be held to render any other provision or provisions of this Contract unenforceable.

17. **ASSIGNMENT**. Neither party shall assign, transfer or delegate any rights, obligations or duties under this Contract without the prior written consent of the other party.

18. **OWNERSHIP OF PROPRIETARY INFORMATION**. Unless otherwise provided by law any reports, histories, studies, tests, manuals, instructions, photographs, negatives, blue prints, plans, maps, data, system designs, computer code (which is intended to be consideration under this Contract), or any other documents or drawings, prepared or in the course of preparation by either party in performance of its obligations under this Contract shall be the joint property of both parties.

19. **PUBLIC RECORDS**. Pursuant to NRS 239.010, information or documents may be open to public inspection and copying. The parties will have the duty to disclose unless a particular record is made confidential by law or a common law balancing of interests.

20. **CONFIDENTIALITY**. Each party shall keep confidential all information, in whatever form, produced, prepared, observed or received by that party to the extent that such information is confidential by law or otherwise required by this Contract.

21. **FEDERAL FUNDING**. In the event, federal funds are used for payment of all or part of this Contract, the parties agree to comply with all applicable federal laws, regulations and executive orders, including, without limitation the following:

    A. The parties certify, by signing this Contract, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any federal department or agency. This certification is made pursuant to Executive Orders 12549 and 12689 and Federal Acquisition Regulation Subpart 9.4, and any relevant program-specific regulations. This provision shall be required of every subcontractor receiving any payment in whole or in part from federal funds.

    B. The parties and its subcontractors shall comply with all terms, conditions, and requirements of the Americans with Disabilities Act of 1990 (P.L. 101-136), 42 U.S.C. 12101, as amended, and regulations adopted thereunder, including 28 C.F.R. Section 35, inclusive, and any relevant program-specific regulations.

    C. The parties and its subcontractors shall comply with the requirements of the Civil Rights Act of 1964 (P.L. 88-352), as amended, the Rehabilitation Act of 1973 (P.L. 93-112), as amended, and any relevant program-specific regulations, and shall not discriminate against any employee or offeror for employment because of race, national origin, creed, color, sex, religion, age, disability or handicap condition (including AIDS and AIDS-related conditions.)

    D. Clean Air Act (42 U.S.C. 7401–7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251–1387), as amended. Contracts and subgrants of amounts in excess of $150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401–7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251–1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

22. **PROPER AUTHORITY**. The parties hereto represent and warrant that the person executing this Contract on behalf of each party has full power and authority to enter into this Contract and that the parties are authorized by law to perform the services set forth in ***Section 6, Incorporated Documents***.

23. **GOVERNING LAW – JURISDICTION**. This Contract and the rights and obligations of the parties hereto shall be governed by, and construed according to, the laws of the State of Nevada. The parties consent to the exclusive jurisdiction of and venue in the First Judicial District Court, Carson City, Nevada for enforcement of this Contract.

24. **ENTIRE AGREEMENT AND MODIFICATION**. This Contract and its integrated Attachment(s) constitute the entire agreement of the parties and as such are intended as a complete and exclusive statement of the promises, representations, negotiations, discussions, and other agreements that may have been made in connection with the subject matter hereof. Unless an integrated Attachment to this Contract specifically displays a mutual intent to amend a particular part of this Contract, general conflicts in language between any such Attachment and this Contract shall be construed consistent with the terms of this Contract. Unless otherwise expressly authorized by the terms of this Contract, no modification or amendment to this Contract shall be binding upon the parties unless the same is in writing and signed by the respective parties hereto, approved by the Office of the Attorney General.

CETS #:	**23989**
Agency Reference #:	

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be signed and intend to be legally bound thereby.

REGIONAL TRANSPORATION COMMISSION OF WASHOE COUNTY (RTC)

		Executive Director
Bill Thomas, AICP	Date	Title

DEPARTMENT OF HEALTH AND HUMAN SERVICES (DHHS)
DIVISION OF HEALTH CARE FINANCING AND POLICY (DHCFP)

		Administrator, DHCFP
Suzanne Bierman, JD, MPH	Date	Title
		Director, DHHS
Richard Whitley, MS	Date	Title

APPROVED BY BOARD OF EXAMINERS

Signature – Board of Examiners

On: _____
Date

Approved as to form by:

Deputy Attorney General for Attorney General

On: _____
Date

ATTACHMENT A
SCOPE OF WORK

ASSESSMENTS FOR PARATRANSIT SERVICES

The Regional Transportation Commission (RTC) agrees to the following:

1. Provide eligibility assessments for paratransit services for Medicaid recipients eligible for Non-Emergency Transportation (NET) services as described and limited to the conditions in the Nevada the Medicaid Services Manual 1900 and the contract between the Division of Health Care Financing and Policy (DHCFP) and RTC. Initial and Recertification Assessments conducted on behalf of Medicaid recipients eligible for NET services will only reimburse RTC for NET eligible recipients. Written documentation of those recipients will be provided to DHCFP and shall include the Medicaid recipient's name, Medicaid number, date and type of assessments performed, and the cost associated with providing the assessment for paratransit services.

2. Provide the DHCFP NET Broker with a list of clients who have requested an appointment for an RTC Paratransit service assessment. This list will contain the following information: RTC Paratransit ID number as applicable, first and last name of client, Medicaid number (if available), date of birth, phone number, address, and date of assessment. This list must be submitted via **secure** transmittal electronically by RTC to the NET Broker. RTC reserves the right to change this referral practice in the future but will send notification thirty (30) days in advance of such decision. Payment for assessments of Medicaid recipients will be contingent upon RTC's participation in the referral process to the DHCFP NET Broker.

3. RTC shall invoice DHCFP by the 15th business day of the month following the end of each quarter as shown below:
    - Quarter 1 – July 1 to September 30
    - Quarter 2 – October 1 to December 31
    - Quarter 3 – January 1 to March 30
    - Quarter 4 – April 1 to June 30

    Invoices must be submitted via **secure** transmittal to **transportation@dhcfp.nv.gov.** Invoices will contain the following: first and last name of client, Medicaid number, date of birth, and date of assessment and level of assessment. Invoices will be reconciled by DHCFP against DHCFP NET Broker recipient information. Corrected invoices must be submitted within 30 days from the request for correction by DHCFP. After second reconciliation, payment will be made within 30 days. Anything resubmitted after second reconciliation may delay payment. Invoice submissions must adhere to the time frames required by DHCFP stale claims criteria as referenced in Medicaid Services Manual Chapter 100.

4. In reference to Section 9, Subsections A, B, and C of Contract, the following supplemental guidance is provided specific to this Agreement regarding provisions relating to inspection and audit by DHCFP, such as health care provider credentials, procedures and practices of RTC or any subcontractor of RTC, and federal funding. In the event that an audit results in findings that federal funds were obtained or paid incorrectly for any services provided under this Agreement, and those findings require repayment of such funds, RTC shall make the repayment within 60 days of service of notice of these findings. The repayment by RTC may be obtained through offset of future payments due under this Agreement, by offset of other payments due to it from DHCFP, or by any other legal means.

5. To be exclusively responsible for data supplied by RTC upon which claims are submitted, eligibility is determined, or payment is received on its behalf.

DHCFP agrees to the following:

1. Through the DHCFP NET Broker, provide RTC with an updated list of NET eligible recipients identified in the RTC's daily list of clients sent to the DHCFP NET Broker. This information must be transmitted securely by RTC to DHCFP. This list will contain the following information: RTC paratransit ID number as applicable, first and last name of client, Medicaid number, date of birth, phone number, address, and date of assessment. The list must be submitted via **secure** transmittal by DHCFP to RTC. This would be provided on a monthly basis for the prior month. Additionally, DHCFP will provide any other data reports as requested/required by RTC.

2. Reimburse RTC per level and associated unit cost. RTC shall submit supporting documentation of the administrative costs to determine appropriate Medicaid costs per unit. The levels and costs per unit for the paratransit eligibility assessments are as follow:
    - Level One – First level interview/review/processing.
    - Level Two – Physical Functional Assessment.

Level	Cost Per Assessment
Level 1 – Interview	$64.20
Level 2 – Physical Assessment	$48.15

The total computable payments are estimated to be:

SFY22 (07/01/21 – 06/30/22)				
	Total Cost Per Level	Projected Assessments Monthly	Projected Assessments Annually	Projected Annual Cost
Level One	$64.20	29	348	$22,341.60
Level Two	$48.15	18	216	$10,400.40
			SFY22 Projected Cost:	$32,742.00

SFY23 (07/01/22 – 06/30/23)				
	Total Cost Per Level	Projected Assessments Monthly	Projected Assessments Annually	Projected Annual Cost
Level One	$64.20	29	348	$22,341.60
Level Two	$48.15	18	216	$10,400.40
			SFY23 Projected Cost:	$32,742.00

SFY24 (07/01/23 – 06/30/24)				
	Total Cost Per Level	Projected Assessments Monthly	Projected Assessments Annually	Projected Annual Cost
Level One	$64.20	29	348	$22,341.60
Level Two	$48.15	18	216	$10,400.40
			SFY24 Projected Cost:	$32,742.00

SFY25 (07/01/24 – 06/30/25)				
	Total Cost Per Level	Projected Assessments Monthly	Projected Assessments Annually	Projected Annual Cost
Level One	$64.20	29	348	$22,341.60
Level Two	$48.15	18	216	$10,400.40
			SFY25 Projected Cost:	$32,742.00

Total not to exceed cost for the term of the contract: $130,968.00

Both parties agree to the following:

1. In reference to Section 4 of Contract, the following supplemental guidance is provided specific to this Agreement regarding the following provisions: In the event that sufficient funding is no longer available under this Agreement, it is understood by DHCFP that RTC is federally mandated to provide paratransit as a complement to fixed route service under the Americans with Disabilities Act (ADA). Should there cease to be funding available, DHCFP will notify RTC within 30 days and the referral process from the NET vendor to RTC would cease. This provision is a condition precedent to DHCFP's obligation to make any payments under the Agreement. Nothing in the Agreement shall be construed to provide RTC with a right of payment over any other entity. If payments which are otherwise due to RTC under this Agreement are deferred because of the unavailability of sufficient funds, such payments will be made to RTC if sufficient funds later become available.

ATTACHMENT B

STATE OF NEVADA
DEPARTMENT OF HEALTH AND HUMAN SERVICES

BUSINESS ASSOCIATE ADDENDUM

BETWEEN

The Division of Health Care Financing and Policy
Herein after referred to as the "Covered Entity"

and

Regional Transportation Commission of Washoe County
Herein after referred to as the "Business Associate"

PURPOSE. In order to comply with the requirements of the Health Insurance Portability and Accountability Act (HIPAA) of 1996, Public Law 104-191, and the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009, Public Law 111-5 this Addendum is hereby added and made part of the Contract between the Covered Entity and the Business Associate. This Addendum establishes the obligations of the Business Associate and the Covered Entity as well as the permitted uses and disclosures by the Business Associate of protected health information it may possess by reason of the Contract. The Covered Entity and the Business Associate shall protect the privacy and provide for the security of protected health information disclosed to the Business Associate pursuant to the Contract and in compliance with HIPAA, the HITECH Act, and regulation promulgated there under by the U.S. Department of Health and Human Services ("HIPAA Regulations") and other applicable laws.

WHEREAS, the Business Associate will provide certain services to the Covered Entity, and, pursuant to such arrangement, the Business Associate is considered a business associate of the Covered Entity as defined in HIPAA Regulations; and

WHEREAS, the Business Associate may have access to and/or create, receive, maintain or transmit certain protected health information from or on behalf of the Covered Entity, in fulfilling its responsibilities under such arrangement; and

WHEREAS, HIPAA Regulations require the Covered Entity to enter into a Contract containing specific requirements of the Business Associate prior to the disclosure of protected health information; and

THEREFORE, in consideration of the mutual obligations below and the exchange of information pursuant to this Addendum and to protect the interests of both Parties, the Parties agree to all provisions of this Addendum.

I. DEFINITIONS. The following terms in this Addendum shall have the same meaning as those terms in the HIPAA Regulations: Breach, Data Aggregation, Designated Record Set, Disclosure, Electronic Health Record, Health Care Operations, Individual, Minimum Necessary, Notice of Privacy Practices, Protected Health Information, Required by Law, Secretary, Subcontractor, Unsecured Protected Health Information, and Use.

1. **Business Associate** shall mean the name of the organization or entity listed above and shall have the meaning given to the term under the Privacy and Security Rule and the HITECH Act. For full definition refer to 45 CFR 160.103.
2. **Contract** shall refer to this Addendum and that particular contract to which this Addendum is made a part.
3. **Covered Entity** shall mean the name of the Division listed above and shall have the meaning given to such term under the Privacy Rule and the Security Rule, including, but not limited to

45 CFR 160.103.

4. **Parties** shall mean the Business Associate and the Covered Entity.

II. OBLIGATIONS OF THE BUSINESS ASSOCIATE

1. **Access to Protected Health Information.** The Business Associate will provide, as directed by the Covered Entity or an individual, access to inspect or obtain a copy of protected health information about the individual that is maintained in a designated record set by the Business Associate or its agents or subcontractors, in order to meet the requirements of HIPAA Regulations. If the Business Associate maintains an electronic health record, the Business Associate, its agents or subcontractors shall provide such information in electronic format to enable the Covered Entity to fulfill its obligations under HIPAA Regulations.
2. **Access to Records.** The Business Associate shall make its internal practices, books and records relating to the use and disclosure of protected health information available to the Covered Entity and to the Secretary for purposes of determining Business Associate's compliance with HIPAA Regulations.
3. **Accounting of Disclosures.** Upon request, the Business Associate and its agents or subcontractors shall make available to the Covered Entity or the individual information required to provide an accounting of disclosures in accordance with HIPAA Regulations.
4. **Agents and Subcontractors.** The Business Associate must ensure all agents and subcontractors that create, receive, maintain, or transmit protected health information on behalf of the Business Associate agree in writing to the same restrictions and conditions that apply to the Business Associate with respect to such information. The Business Associate must implement and maintain sanctions against agents and subcontractors that violate such restrictions and conditions and shall mitigate the effects of any such violation as outlined under HIPAA Regulations.
5. **Amendment of Protected Health Information.** The Business Associate will make available protected health information for amendment and incorporate any amendments in the designated record set maintained by the Business Associate or its agents or subcontractors, as directed by the Covered Entity or an individual, in order to meet the requirements of HIPAA Regulations.
6. **Audits, Investigations, and Enforcement.** If the data provided or created through the execution of the Contract becomes the subject of an audit, compliance review, or complaint investigation by the Office of Civil Rights or any other federal or state oversight agency, the Business Associate shall notify the Covered Entity immediately and provide the Covered Entity with a copy of any protected health information that the Business Associate provides to the Secretary or other federal or state oversight agency concurrently, to the extent that it is permitted to do so by law. The Business Associate and individuals associated with the Business Associate are solely responsible for all civil and criminal penalties assessed as a result of an audit, breach or violation of HIPAA Regulations.
7. **Breach or Other Improper Access, Use or Disclosure Reporting.** The Business Associate must report to the Covered Entity, in writing, any access, use or disclosure of protected health information not permitted by the Contract, Addendum or HIPAA Regulations by Business Associate or its agents or subcontractors. The Covered Entity must be notified immediately upon discovery or the first day such breach or suspected breach is known to the Business Associate or by exercising reasonable diligence would have been known by the Business Associate in accordance with HIPAA Regulations. In the event of a breach or suspected breach of protected health information, the report to the Covered Entity must be in writing and include the following: a brief description of the incident; the date of the incident; the date the incident was discovered by the Business Associate; a thorough description of the unsecured protected health information that was involved in the incident; the number of individuals whose protected health information was involved in the incident; and the steps the Business Associate or its agent or subcontractor is taking to investigate the incident and to protect against further incidents. The Covered Entity will determine if a breach of unsecured protected health information has occurred and will notify the Business Associate of the determination. If a breach of unsecured protected health information is determined, the Business Associate must take prompt corrective action to cure any such deficiencies and mitigate any significant harm that may have occurred to individual(s) whose information was disclosed inappropriately.

8. **Breach Notification Requirements.** If the Covered Entity determines a breach of unsecured protected health information by the Business Associate, or its agents or subcontractors has occurred, the Business Associate will be responsible for notifying the individuals whose unsecured protected health information was breached in accordance with HIPAA Regulations. The Business Associate must provide evidence to the Covered Entity that appropriate notifications to individuals and/or media, when necessary, as specified in HIPAA Regulations has occurred. The Business Associate is responsible for all costs associated with notification to individuals, the media or others as well as costs associated with mitigating future breaches. The Business Associate must notify the Secretary of all breaches in accordance with HIPAA Regulations and must provide the Covered Entity with a copy of all notifications made to the Secretary.
9. **Data Ownership.** The Business Associate acknowledges that the Business Associate or its agents or subcontractors have no ownership rights with respect to the protected health information it creates, receives or maintains, or otherwise holds, transmits, uses or discloses.
10. **Litigation or Administrative Proceedings.** The Business Associate shall make itself, any subcontractors, employees, or agents assisting the Business Associate in the performance of its obligations under the Contract or Addendum, available to the Covered Entity, at no cost to the Covered Entity, to testify as witnesses, or otherwise, in the event litigation or administrative proceedings are commenced against the Covered Entity, its administrators or workforce members upon a claimed violation by Business Associate of HIPAA Regulations or other laws relating to security and privacy.
11. **Minimum Necessary.** The Business Associate and its agents and subcontractors shall request, use and disclose only the minimum amount of protected health information necessary to accomplish the purpose of the request, use or disclosure in accordance with HIPAA Regulations.
12. **Policies and Procedures.** The Business Associate must adopt written privacy and security policies and procedures and documentation standards to meet the requirements of HIPAA Regulations.
13. **Privacy and Security Officer(s).** The Business Associate must appoint Privacy and Security Officer(s) whose responsibilities shall include: monitoring the Privacy and Security compliance of the Business Associate; development and implementation of the Business Associate's HIPAA Privacy and Security policies and procedures; establishment of Privacy and Security training programs; and development and implementation of an incident risk assessment and response plan in the event the Business Associate sustains a breach or suspected breach of protected health information.
14. **Safeguards.** The Business Associate must implement safeguards as necessary to protect the confidentiality, integrity and availability of the protected health information the Business Associate creates, receives, maintains, or otherwise holds, transmits, uses or discloses on behalf of the Covered Entity. Safeguards must include administrative safeguards (e.g., risk analysis and designation of security official), physical safeguards (e.g., facility access controls and workstation security), and technical safeguards (e.g., access controls and audit controls) to the confidentiality, integrity and availability of the protected health information, in accordance with HIPAA Regulations. Technical safeguards must meet the standards set forth by the guidelines of the National Institute of Standards and Technology (NIST). The Business Associate agrees to only use or disclose protected health information as provided for by the Contract and Addendum and to mitigate, to the extent practicable, any harmful effect that is known to the Business Associate, of a use or disclosure, in violation of the requirements of this Addendum as outlined in HIPAA Regulations.
15. **Training.** The Business Associate must train all members of its workforce on the policies and procedures associated with safeguarding protected health information. This includes, at a minimum, training that covers the technical, physical and administrative safeguards needed to prevent inappropriate uses or disclosures of protected health information; training to prevent any intentional or unintentional use or disclosure that is a violation of HIPAA Regulations; and training that emphasizes the criminal and civil penalties related to HIPAA breaches or inappropriate uses or disclosures of protected health information. Workforce training of new employees must be completed within 30 days of the date of hire and all employees must be trained at least annually. The Business Associate must maintain written records for a period of six years. These records must document each employee that received

training and the date the training was provided or received.

16. **Use and Disclosure of Protected Health Information.** The Business Associate must not use or further disclose protected health information other than as permitted or required by the Contract or as required by law. The Business Associate must not use or further disclose protected health information in a manner that would violate the requirements of HIPAA Regulations.

III. PERMITTED AND PROHIBITED USES AND DISCLOSURES BY THE BUSINESS ASSOCIATE

The Business Associate agrees to these general use and disclosure provisions:

1. Permitted Uses and Disclosures:
   a. Except as otherwise limited in this Addendum, the Business Associate may use or disclose protected health information to perform functions, activities, or services for, or on behalf of, the Covered Entity as specified in the Contract, provided that such use or disclosure would not violate HIPAA Regulations, if done by the Covered Entity.
   b. Except as otherwise limited in this Addendum, the Business Associate may use or disclose protected health information received by the Business Associate in its capacity as a Business Associate of the Covered Entity, as necessary, for the proper management and administration of the Business Associate, to carry out the legal responsibilities of the Business Associate, as required by law or for data aggregation purposes in accordance with HIPAA Regulations.
   c. Except as otherwise limited by this Addendum, if the Business Associate discloses protected health information to a third party, the Business Associate must obtain, prior to making such disclosure, reasonable written assurances from the third party that such protected health information will be held confidential pursuant to this Addendum and only disclosed as required by law or for the purposes for which it was disclosed to the third party. The written agreement from the third party must include requirements to immediately notify the Business Associate of any breaches of confidentiality of protected health information to the extent it has obtained knowledge of such breach.
   d. The Business Associate may use or disclose protected health information to report violations of law to appropriate federal and state authorities, consistent with HIPAA Regulations.
2. Prohibited Uses and Disclosures:
   a. Except as otherwise limited in this Addendum, the Business Associate shall not disclose protected health information to a health plan for payment or health care operations purposes if the patient has required this special restriction and has paid out of pocket in full for the health care item or service to which the protected health information relates in accordance with HIPAA Regulations.
   b. The Business Associate shall not directly or indirectly receive remuneration in exchange for any protected health information, unless the Covered Entity obtained a valid authorization, in accordance with HIPAA Regulations that includes a specification that protected health information can be exchanged for remuneration.

IV. OBLIGATIONS OF THE COVERED ENTITY

1. The Covered Entity will inform the Business Associate of any limitations in the Covered Entity's Notice of Privacy Practices in accordance with HIPAA Regulations, to the extent that such limitation may affect the Business Associate's use or disclosure of protected health information.
2. The Covered Entity will inform the Business Associate of any changes in, or revocation of, permission by an individual to use or disclose protected health information, to the extent that such changes may affect the Business Associate's use or disclosure of protected health information.
3. The Covered Entity will inform the Business Associate of any restriction to the use or disclosure of protected health information that the Covered Entity has agreed to in

accordance with HIPAA Regulations, to the extent that such restriction may affect the Business Associate's use or disclosure of protected health information.

4. Except in the event of lawful data aggregation or management and administrative activities, the Covered Entity shall not request the Business Associate to use or disclose protected health information in any manner that would not be permissible under HIPAA Regulations, if done by the Covered Entity.

V. TERM AND TERMINATION

1. Effect of Termination:
   a. Except as provided in paragraph (b) of this section, upon termination of this Addendum, for any reason, the Business Associate will return or destroy all protected health information received from the Covered Entity or created, maintained, or received by the Business Associate on behalf of the Covered Entity that the Business Associate still maintains in any form and the Business Associate will retain no copies of such information.
   b. If the Business Associate determines that returning or destroying the protected health information is not feasible, the Business Associate will provide to the Covered Entity notification of the conditions that make return or destruction infeasible. Upon a mutual determination that return or destruction of protected health information is infeasible, the Business Associate shall extend the protections of this Addendum to such protected health information and limit further uses and disclosures of such protected health information to those purposes that make return or destruction infeasible, for so long as the Business Associate maintains such protected health information.
   c. These termination provisions will apply to protected health information that is in the possession of subcontractors, agents or employees of the Business Associate.
2. **Term**. The Term of this Addendum shall commence as of the effective date of this Addendum herein and shall extend beyond the termination of the contract and shall terminate when all the protected health information provided by the Covered Entity to the Business Associate, or accessed, maintained, created, retained, modified, recorded, stored or otherwise held, transmitted, used or disclosed by the Business Associate on behalf of the Covered Entity, is destroyed or returned to the Covered Entity, or if it is not feasible to return or destroy the protected health information, protections are extended to such information, in accordance with the termination.
3. **Termination for Breach of Contract.** The Business Associate agrees that the Covered Entity may immediately terminate the Contract if the Covered Entity determines that the Business Associate has violated a material part of this Addendum.

VI. MISCELLANEOUS

1. **Amendment.** The parties agree to take such action as is necessary to amend this Addendum from time to time for the Covered Entity to comply with all the requirements of HIPAA Regulations.
2. **Clarification.** This Addendum references the requirements of HIPAA Regulations, as well as amendments and/or provisions that are currently in place and any that may be forthcoming.
3. **Indemnification.** Each party will indemnify and hold harmless the other party to this Addendum from and against all claims, losses, liabilities, costs and other expenses incurred as a result of, or arising directly or indirectly out of or in conjunction with:
   a. Any misrepresentation, breach of warranty or non-fulfillment of any undertaking on the part of the party under this Addendum; and
   b. Any claims, demands, awards, judgments, actions, and proceedings made by any person or organization arising out of or in any way connected with the party's performance under this Addendum.
4. **Interpretation**. The provisions of this Addendum shall prevail over any provisions in the Contract that any conflict or appear inconsistent with any provision in this Addendum. This Addendum and the Contract shall be interpreted as broadly as necessary to

implement and comply with HIPAA Regulations. The parties agree that any ambiguity in this Addendum shall be resolved to permit the Covered Entity and the Business Associate to comply with HIPAA Regulations.

5. **Regulatory Reference.** A reference in this Addendum to HIPAA Regulations means the sections as in effect or as amended.
6. **Survival**. The respective rights and obligations of Business Associate under Effect of Termination of this Addendum shall survive the termination of this Addendum.

REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.13**

From: Mark Maloney, Director of Public Transportation and Operations

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RECOMMENDED ACTION

Approve Amendment No. 3 to the Transit Vehicle Purchase Agreement with Proterra, Inc., dated December 9, 2019, for the purchase of two (2) 125 kw shop chargers for a total price of $106,934.

BACKGROUND AND DISCUSSION

On December 9, 2019, RTC and Proterra, Inc. entered into an agreement for the purchase of two electric vehicles and two chargers for the Virginia Street BRT expansion project. The BRT extension and the complete street project in the Midtown area of Virginia Street to the University of Nevada, Reno will provide a high-capacity transit connection between UNR, Downtown Reno, the Midtown District, the Reno-Sparks Convention Center and other major employers and destinations. This new extended RAPID service on North Virginia Street began on March 6, 2021.

RTC and Proterra entered into a First Amendment to this Agreement on July 1, 2020, to revise the schedule for delivery of the two vehicles and two chargers due to a force majeure event, the COVID-19 virus pandemic. A second amendment was entered into for the installation of the original two shop chargers as it was determined it would be more efficient and in the best interests of the public to amend the agreement with Proterra to provide the installation of the new Proterra 125kW PCS charging equipment and related infrastructure.

These additional chargers will expand charging capabilities to Centennial Plaza in Sparks to support the existing electric bus routes and adding redundancy through geographically dispersed infrastructure.

FISCAL IMPACT

Funding for this project is included in the Board approved FY 2021 RTC budget.

PREVIOUS BOARD ACTION

July 17, 2020 — The Board approved Amendment #2 to the Transit Vehicle Purchase Agreement with Proterra, Inc., effected on December 9, 2019, to incorporate the installation of two (2) shop chargers originally procured under this contract for the total firm-fixed not-to-exceed amendment price of $309,341; authorize the RTC Executive Director to execute the amendment.

October 24, 2019 The Board approved an agreement with Proterra, Inc., to purchase two (2) electric fixed-route buses and two (2) bus chargers utilizing the State of Georgia Fleet Vehicles procurement contract number 99999-001-SPD0000138 in the amount of $1,969,648; and authorized the RTC Executive Director to execute the agreement.

ATTACHMENT(S)

A. Proterra Contract Amendment #3

CONTRACT AMENDMENT #3

This Contract Amendment (Third Amendment) is made and entered into as of the date signed by the Regional Transportation Commission of Washoe County (RTC) indicated below, by and between the RTC and Proterra, Inc. (Proterra), a corporation authorized to do business in the State of Nevada**.**

WHEREAS, on December 9, 2019, the RTC and Proterra (the Parties) entered into an Electric Vehicle Purchase Agreement (Purchase Agreement); for the purchase of two (2) forty foot (40') extended range Catalyst electric vehicles (Vehicles), two (2) shop chargers; and related materials;

WHEREAS, this purchase was pursuant to a State of Georgia procurement, as is expressly permitted by Section 3019 of the Fixing America's Surface Transportation Act;

WHEREAS, the Parties have entered into two amendments to the Purchase Agreement. The first of such amendments changed the schedule in the Purchase Agreement to address a Force Majeure Event premised on the significant impact of the COVID-19 epidemic on Proterra's workforce and supply chain disruptions;

WHEREAS, the second of such amendments provided for the installation of Proterra charging equipment and related infrastructure; and

WHEREAS, the RTC and Proterra are entering into this Third Amendment to provide for the purchase of two (2) additional shop chargers and cables pursuant to the State of Georgia procurement, and for the commissioning of the shop chargers after installation.

NOW, THEREFORE, the RTC and Proterra agree that:

1. Definition. The term "Shop Charger" as used in this Third Amendment shall have the same meaning as the definition set forth in Section 101(33) of the Purchase Agreement, specifically 125 Kw PCS chargers, manufactured by the Contractor in accordance with the Technical Specifications set forth in Appendix D to the Purchase Agreement.

2. Agreement to Purchase. Section 102 of the Purchase Agreement is amended to add a new subsection (c), as follows:

   (c) The RTC agrees to purchase from the Contractor and the Contractor agrees to sell and supply to the RTC, in accordance with the terms of this Agreement, as amended, two (2) Shop Chargers and cables, and commissioning and testing services for the Shop Chargers after installation. The individual pay items to be acquired under this subsection are set forth in Section 301(a)(3) of this Agreement, as amended.

3. Schedule for Delivery and Commissioning of Shop Chargers. Section 205(d) of the Purchase Agreement is amended by redesignating existing subsection (d)(2), added by the Second Amendment to the Purchase Agreement, as subsection (d)(3) and adding a new subsection (d)(2) to read as follows:

   (2) Delivery and Commissioning of Shop Chargers – Delivery of the two (2) additional Shop Chargers and cables purchased under the Third Amendment to this Agreement

shall be coordinated with the installation contractor but shall be delivered by the Contractor to the RTC no later than April 15, 2021. The Contractor shall commission and test the Shop Chargers upon completion of installation in accordance with Section 215(a)(1) of this Agreement.

4. Delivery of Shop Chargers. Section 214(a) of the Purchase Agreement is revised by inserting after the first sentence thereof the following: Delivery of the two (2) additional Shop Chargers and cables purchased under the Third Amendment to this Agreement shall be during regular business hours Monday through Friday, holidays excluded. The location for delivery is the RTC's Villanova Maintenance Facility at 2050 Villanova Drive, Reno, Nevada 89502.

5. Inspection and Testing of Shop Chargers. Section 215(a)(1) of the Purchase Agreement , as amended by the Second Amendment, is further amended to add the following after the third sentence thereof: The Shop Chargers shall be tested and demonstrated to work and to be in acceptable operating condition with all Proterra vehicles in the RTC's fleet and a full 100% charge shall be demonstrated on each type of Proterra vehicle in the fleet.

6. Warranty. The Parties acknowledge and confirm that the warranty provisions of the Purchase Agreement, specifically Sections 218 and 219, apply to the two (2) additional Shop Chargers and cables purchased under this Third Amendment.

7. Liquidated Damages. Section 227(b)(1) of the Purchase Agreement is amended to read as follows:

   (1) For the delay in the delivery of all Vehicles and Shop Chargers, in the amount of five hundred dollars ($500) per Vehicle and Shop Charger for each Day of delay, based on the applicable delivery date for all Vehicles and Shop Chargers specified in Section 205(c) and Section 205(d)(2) of this Agreement, as amended.

8. Contract Pay Items and Prices. Section 301(a) is amended to insert a new paragraph (3) to read as follows:

(3) Description	Quantity	Unit Price	Total Price
Shop Chargers	Two (2)	$50,716.80	$101,433.60
Shop Charger Cables	Two (2)	$1,250.00	$2,500.00
Commissioning		$2,750.00	$2,750.00
Total Price			$106,683.60

9. Payment. Section 302 of the Purchase Agreement is amended by adding a new paragraph (3) to subsection (a) as follows:

   (3) Schedule – The RTC shall make payment to the Contractor for the Contract Pay Items listed in Section 301(a)(3) of this Agreement, as amended by the Third Amendment, in accordance with the following schedule: one hundred percent (100%) of the Total Price indicated in Section 301(a)(3) will be paid after completion of successful

commissioning by the Contractor and Acceptance of the Shop Chargers and cables by the RTC. Payment shall be subject to retainage under subsection (b)(3) and applicable deductions under subsection (d).

10. Retainage and Payment Conditions – Section 302 of the Purchase Agreement is amended by adding a new paragraph (3) to subsection (b) as follows:

    (3) Retainage and Payment Conditions -- The RTC will deduct and retain five percent (5%) from the payment made after completion of successful commissioning by the Contractor and Acceptance of the Shop Chargers and cables by the RTC under subsection (a)(3) of this Section. The retainage will be held through the two-year warranty period for the Shop Chargers, as described in Section 304(c) hereof. The RTC has the discretion, if in its sole judgment circumstances so warrant, to release a portion of the five percent (5%) retention being held during the two (2) year warranty period.

11. Federal Requirements.

    (a) The Contractor shall complete the Buy America certification form for the Shop Chargers, attached as Exhibit A to this Third Amendment, and provide it to the RTC prior to the execution of this Third Amendment.

    (b) The Federal Requirements in Appendix H to the Purchase Agreement are amended to add a new Section 23 as follows:

    23. CENTERS FOR DISEASE CONTROL AND PREVENTION MASK ORDER

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

12. Agreement Terms and Conditions. Except as provided herein, all terms and conditions of the Purchase Agreement, as amended, remain in full force and effect.

IN WITNESS WHEREOF, the RTC and Proterra have entered into this Third Amendment as of the date set forth below.

REGIONAL TRANSPORTATION COMMISSION OF WASHOE COUNTY

By: _____
Bill Thomas, AICP
Executive Director

Date: _____

PROTERRA, INC.

By:_____

Exhibit A – Buy America Certification for Shop Chargers

EXHIBIT A

FEDERAL CERTIFICATIONS

BUY AMERICA CERTIFICATION

Certification requirement for procurement of steel, iron or manufactured products.

Certificate of Compliance with Buy America Requirements

The Contractor hereby certifies that it will comply with the requirements of 49 U.S.C. 5323(j)(1), and the applicable regulations in 49 CFR part 661.

Date _____

Signature _____

Company Name _____

Name _____

Title _____

Certificate of Non-Compliance with Buy America Requirements

The Contractor hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j), but it may qualify for an exception to the requirement pursuant to 49 U.S.C. 5323(j)(2), as amended, and the applicable regulations in 49 CFR 661.7.

Date _____

Signature _____

Company Name _____

Name _____

Title _____

REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.14**

From: Angela Reich, SPHR, SHRM-SCP, Director of Administrative Services

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RECOMMENDED ACTION

Approve revisions to Management Policy P-40, Information Technology Acceptable Use.

BACKGROUND AND DISCUSSION

The recommended revisions to Management Policy P-40 Information Technology Acceptable Use are to update the policies and align them with current laws and management practices. Revisions include adding instant messaging and the scope to include the Board.

FISCAL IMPACT

There is no additional cost in connection with this agenda item.

PREVIOUS BOARD ACTION

June 15, 2017 Prior updates approved

ATTACHMENT:

A. Sample Policy – Information Technology Acceptable Use
B. Current Policy – Information Technology Acceptable Use

ATTACHMENT A

RTC Management Policy P-40
Date Approved: 11/19/1999
Date Revised: 06/15/2017

MANAGEMENT POLICY

SUBJECT: INFORMATION TECHNOLOGY ACCEPTABLE USE

I. PURPOSE

It is the policy of the Regional Transportation Commission (RTC) to consider information technology (IT) resources to be the property of RTC, which are to be used for business purposes serving the interests of RTC and the public. These resources are the property of RTC and are to be used for business purposes serving the interests of RTC and the public.

II. SCOPE

Public
X Board Members
X RTC Officers
X RTC Employees
X Other: Interns, volunteers, students, and others who utilize the IT resources of RTC.

III. DEFINITIONS

A. IT Resources – Include, but not limited to, all computer, network and telecommunications equipment; software, operating systems, data arid storage media; and network accounts providing access to e-mail, instant messaging, internet/intranet, remote access and other services and systems funded by RTC or available through equipment owned, subsidized, paid for or leased by RTC.

B. Users – Any individual included in the scope of this policy.

IV. POLICY

A. RTC complies with all applicable federal, state, and local laws, including those that concern the employer/employee relationship and intellectual property. Nothing contained herein should be construed to violate any of the rights or responsibilities contained in such laws.

B. RTC requires employees to use information technology (computer systems, telecommunication and other devices, and electronic information/communication) responsibly and in a manner which is not detrimental to the mission and purpose of employer. To maintain a level of professionalism, any publication through any

means (electronic or otherwise) which is potentially adverse to the operation, morale, public perception, or efficiency of employer will be deemed a violation of this policy.

Employees are prohibited from engaging in any conduct which would violate employer policy or procedure. Use of personal or employer electronic devices to engage in such conduct can create liability for employer, and as such, obligates employer to undertake reasonable procedures to investigate such allegations, including but not limited to inspection of such equipment. In the event an employee becomes the subject of such an investigation and the allegations include potential violations of employer policies, whether on work or personal time, and whether using employer or personal devices, the employer will undertake such an investigation and inquiry by all means allowable under state and federal law.

C. Privacy

1. Employees should not expect privacy with respect to any of their activities when using RTC's computer or electronic and telecommunication property, systems, or services even when accessing from a personal device. Use of passwords or account numbers by employees does not create a reasonable expectation of privacy and confidentiality of information being maintained or transmitted. RTC reserves the right to review, retrieve, read, and disclose any files, messages, or communications that are created, sent, received, or stored in the RTC network, computer systems, or equipment. Authorized individuals within RTC may monitor equipment, systems, network data, communications, and traffic at any time.

2. Users should also be aware that electronic records may be subject to public disclosure as required by law.

3. In accordance with provisions of Nevada Revised Statutes, RTC will not request user names and passwords for personal social media accounts. This provision does not prevent an employer from requiring an employee to disclose their user name and password for access to RTC computers or information systems.

D. Use

1. The computers, electronic equipment, associated hardware and software, including, but not limited to electronic mail (email or instant messaging) and access to on-line services, as well as voice mail, pagers, smart phones, and faxes, even when accessed from a personal device, belong to the RTC and, as such, are provided for business use. Very limited or incidental use of RTC-owned equipment by employees for personal, non-business purposes is acceptable as long as it is:

a. Conducted on personal time(i.e., during designated breaks or meal periods);

b. Does not negatively impact system resources or storage capacity;

c. Does not involve any prohibited uses; OR

d. Does not reference RTC or themselves as an employee without prior approval. This includes, but is not limited to:

1) Text which identifies RTC;

2) Photos which display RTC logos, patches, badges, or other identifying symbols of RTC;

3) Information of events which occurs involving RTC; OR

4) Any other material, text, audio, video, photograph, or image which would identify RTC.

2. Employees loading, importing, or downloading programs from sources outside the RTC system, must check with the Administrative Services Department prior to downloading and installing on an RTC computer. Compliance to copyright or trademark laws prior to downloading files or software must be adhered to explicitly.

3. Employees may use information technology, including the internet and social media sites, during work hours on job-related matters to gather and disseminate information, maintain their currency in a field of knowledge, participate in professional associations, and communicate with colleagues in other organizations regarding business issues.

4. An employee's use of RTC computer systems, telecommunication equipment/systems, and other devices or the employee's use of personally-owned electronic devices to gain access to RTC files or other work-related materials maintained by RTC constitutes the employee's acceptance of this policy and its requirements.

E. Prohibited Use

1. Prohibited use includes, but is not limited to, the following:

a. Sending, receiving, or storing messages or images that a reasonable person would perceive as violations against RTC policies regarding workplace violence, harassment, discrimination, or other adopted policies and consider to be offensive, harassing, threatening,

derogatory, defamatory, pornographic, indicative of illegal or prohibited activity, or any that contain belittling comments, slurs, or images based on race, color, religion, age, gender, pregnancy, sexual orientation, national origin, ancestry, disability, veteran status, domestic partnership, genetic information, gender identity or expression, political affiliation, or membership in the Nevada National Guard;

b. Solicitation related to private business or personal interests, including contributions or fundraising;

c. Conducting outside employment in any manner;

d. Engaging in illegal, fraudulent, defamatory, or malicious conduct;

e. Writing or participating in blogs that injure, disparage, or defame RTC, its employees, or members of the public by name or implication;

f. Obtaining unauthorized access to 3rd party systems;

g. Using another person's password or account number without explicit authorization by RTC;

h. Improperly accessing, reading, copying, misappropriating, altering, misusing, or intentionally destroying the information/files of RTC and other users;

i. Loading unauthorized software or software not purchased or licensed by RTC;

j. Breaching or attempting to breach any security systems or otherwise maliciously tampering with any RTC electronic systems;

k. Using RTC's information technology for personal, non-business purposes in other than a limited or incidental way;

l. Using personal devices to connect to RTC's internal private network via wireless or wired connections; OR

m. Downloading, uploading, or otherwise transmitting without authorization:

1) Confidential or proprietary information or material;

2) Copyrighted material;

3) Illegal information or material; OR

4) Sexually explicit material.

F. Computer/Laptop/Tablet Operation

1. To maintain security and manageability of the PC/laptop/tablet environment the following limitations and responsibilities must be observed:

a. RTC computers or laptops must be approved, deployed, and serviced by the Administrative Services Department;

b. No user may download or install software on an RTC PC or laptop without first contacting IT for assistance;

c. No user-owned software or hardware will be installed on an RTC PC or laptop;

d. All important data should be saved to network drives where centralized backups can protect them, since data stored on the PC or laptop is not protected against loss; AND

e. Any theft or loss of an RTC-issued electronic device must be reported to IT immediately, as these devices can provide access to the RTC network and other IT resources.

G. Enforcement

1. Before access to any IT resource is granted, the user must sign the Information Technology Acceptable Use Policy Employee Acknowledgement signifying the user's understanding and acceptance of this policy.

2. Complaints about unacceptable use should be promptly reported to the assigned supervisor. Such reports shall be taken seriously by the supervisor and promptly reported to the Administrative Services Director who will promptly investigate the complaint.

3. Suspension of service to users may occur when deemed necessary to maintain the operation and integrity of the RTC network. Network user accounts and password access may be withdrawn without notice if a user is suspected of violating this policy.

4. All provisions of this policy are deemed rules of RTC and violation of any- may result in disciplinary action up to and including termination of

employment. Criminal or civil action against users may be initiated when laws are violated.

- END -

RTC Management Policy P-40
Date Approved: 11/19/1999
Date Revised: 06/15/2017

Approved: _____

MANAGEMENT POLICY

SUBJECT: INFORMATION TECHNOLOGY ACCEPTABLE USE

I. PURPOSE

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II. SCOPE

Public
Board Members
X RTC Officers
X RTC Employees
X Other: Interns, volunteers, students, and others who utilize the IT resources of RTC.

III. DEFINITIONS

A. IT Resources – Include, but not limited to, all computer, network and telecommunications equipment; software, operating systems, data arid storage media; and network accounts providing access to e-mail, Internet/Intranet, remote access and other services and systems funded by RTC or available through equipment owned, subsidized, paid for or leased by RTC.

B. Users – Any individual included in the scope of this policy.

IV. POLICY

A. RTC complies with all applicable federal, state, and local laws, including those that concern the employer/employee relationship and intellectual property. Nothing contained herein should be construed to violate any of the rights or responsibilities contained in such laws.

B. Privacy

1. Employees should not expect privacy with respect to any of their activities when using RTC's computer or electronic and telecommunication property, systems, or services even when accessing from a personal device. Use of passwords or account numbers by employees does not create a reasonable expectation of privacy and confidentiality of information being maintained or transmitted. RTC reserves the right to review, retrieve, read, and disclose any files, messages, or communications that are created, sent, received, or stored in the RTC network, computer systems, or equipment. Authorized individuals within RTC may monitor equipment, systems, network data, communications, and traffic at any time.

2. Users should also be aware that electronic records may be subject to public disclosure as required by law.

3. In accordance with provisions of Nevada Revised Statutes, RTC will not request user names and passwords for personal social media accounts. This provision does not prevent an employer from requiring an employee to disclose their user name and password for access to RTC computers or information systems.

C. Use

1. The computers, electronic equipment, hardware, software, and RTC data, even when accessed from a personal device, belong to RTC and, as such, are provided for business use. Very limited or incidental use of RTC-owned equipment by employees for personal, non-business purposes is acceptable as long as it is:

a. Conducted on personal time;

b. Does not negatively impact system resources or storage capacity;

c. Does not involve any prohibited uses; OR

d. Does not reference RTC or themselves as an employee without prior approval. This includes, but is not limited to:

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4) Any other material, text, audio, video, photograph, or image which would identify RTC.

2. Employees loading, importing, or downloading programs from sources outside the RTC system, must check with the Administrative Services Department prior to downloading and installing on an RTC computer. Compliance to copyright or trademark laws prior to downloading files or software must be adhered to explicitly.

3. Employees may use information technology, including the Internet and social media sites, during work hours on job-related matters to gather and disseminate information, maintain their currency in a field of knowledge, participate in professional associations, and communicate with colleagues in other organizations regarding business issues.

4. An employee's use of RTC computer systems, telecommunication equipment/systems, and other devices or the employee's use of personally-owned electronic devices to gain access to RTC files or other work-related materials maintained by RTC constitutes the employee's acceptance of this policy and its requirements.

D. Prohibited Use

1. Prohibited use includes, but is not limited to, the following:

a. Sending, receiving, or storing messages or images that a reasonable person would perceive as violations against RTC policies regarding workplace violence, harassment, discrimination, or other adopted policies and consider to be offensive, harassing, threatening, derogatory, defamatory, pornographic, indicative of illegal or prohibited activity, or any that contain belittling comments, slurs, or images based on race, color, religion, age, gender, pregnancy, sexual orientation, national origin, ancestry, disability, veteran status, domestic partnership, genetic information, gender identity or expression, political affiliation, or membership in the Nevada National Guard;

b. Solicitation related to private business or personal interests, including contributions or fundraising;

c. Conducting outside employment in any manner;

d. Engaging in illegal, fraudulent, defamatory, or malicious conduct;

e. Writing or participating in blogs that injure, disparage, or defame RTC, its employees, or members of the public by name or implication;

f. Obtaining unauthorized access to 3rd party systems;

g. Using another person's password or account number without explicit authorization by RTC;

h. Improperly accessing, reading, copying, misappropriating, altering, misusing, or intentionally destroying the information/files of RTC and other users;

i. Loading unauthorized software or software not purchased or licensed by RTC;

j. Breaching or attempting to breach any security systems or otherwise maliciously tampering with any RTC electronic systems;

k. Using RTC's information technology for personal, non-business purposes in other than a limited or incidental way;

l. Using personal devices to connect to RTC's internal private network via wireless or wired connections; OR

m. Downloading, uploading, or otherwise transmitting without authorization:

1) Confidential or proprietary information or material;

2) Copyrighted material;

3) Illegal information or material; OR

4) Sexually explicit material.

E. Computer/Laptop/Tablet Operation

1. To maintain security and manageability of the PC/laptop/tablet environment the following limitations and responsibilities must be observed:

a. RTC computers or laptops must be approved, deployed, and serviced by the Administrative Services Department;

b. No user may download or install software on an RTC PC or laptop without first contacting IT for assistance;

c. No user-owned software or hardware will be installed on an RTC PC or laptop;

d. All important data should be saved to network drives where centralized backups can protect them, since data stored on the PC or laptop is not protected against loss; AND

e. Any theft or loss of an RTC-issued electronic device must be reported to IT immediately, as these devices can provide access to the RTC network and other IT resources.

F. Enforcement

1. Before access to any IT resource is granted, the user must sign the Information Technology Acceptable Use Policy Employee Acknowledgement signifying the user's understanding and acceptance of this policy.

2. Complaints about unacceptable use should be promptly reported to the assigned supervisor. Such reports shall be taken seriously by the supervisor and promptly reported to the Administrative Services Director who will promptly investigate the complaint.

3. Suspension of service to users may occur when deemed necessary to maintain the operation and integrity of the RTC network. Network user accounts and password access may be withdrawn without notice if a user is suspected of violating this policy.

4. All provisions of this policy are deemed rules of RTC and violation of any- may result in disciplinary action up to and including termination of employment. Criminal or civil action against users may be initiated when laws are violated.

- END -

REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **AGENDA ITEM 4.15**

From: Bill Thomas, AICP, Executive Director

RECOMMENDED ACTION

Approve a new RTC Management Policy P-63, Real Property Disposition.

BACKGROUND AND DISCUSSION

This agenda item establishes a formal management policy to provide authorities and responsibilities for the disposition of RTC-owned real property. As defined in the policy, "disposition" means the sale, exchange, lease, conveyance, or other means of disposing of rights, interests or title to real property with certain exceptions.

The policy is intended to provide staff with uniform guidelines and procedures for real property disposition. RTC needs a formal policy to ensure property transactions comply with all applicable state and federal requirements, as well as ensure the proper use of RTC resources in providing good stewardship over public funds.

If the Board approves this policy, staff will implement procedures for the disposal of unneeded RTC-owned real property. The goals of any property disposition under this policy are to:

- Eliminate unnecessary operations and maintenance costs;
- Encourage the development and use of property;
- Strengthen the tax base by placing property on the tax rolls; AND
- Dispose of property using a predictable, timely and transparent process.

In line with current practices and this new policy, Board approval of the disposition will be required prior to the disposition.

FISCAL IMPACT

There is no additional cost in connection with this agenda item.

PREVIOUS BOARD ACTION

There has been no previous Board action or direction on this matter.

ATTACHMENT(S)

A. Draft Policy – Real Property Disposition

RTC Management Policy P-63
Date Approved: __/__/__

MANAGEMENT POLICY

SUBJECT: REAL PROPERTY DISPOSITION

I. PURPOSE

It is the policy of the Regional Transportation Commission (RTC) to provide authorities and responsibilities for the disposition of real property. In carrying out a disposition of real property, RTC will comply with all applicable state and federal requirements. In the event of a conflict between this policy and state or federal requirements, RTC will comply with the state and federal requirements. This policy does not apply to:

- Transfers of right-of-way to Washoe County, the City of Reno, the City of Sparks, or the State upon completion of an RTC project;
- Facility and property use agreements with governmental agencies for the temporary use of RTC property, excluding leases; OR
- Revocable licenses.

II. SCOPE

Public
X Board Members
X RTC Officers
X RTC Employees
Other: _____

III. DEFINITIONS

A. Disposition - The sale, exchange, lease, conveyance, or other means of disposing of rights, interests, or title to real property.

B. Real property - Land, buildings, structures, fixtures, and improvements on land.

IV. POLICY

A. Legal Framework

1. RTC will complete dispositions of real property in accordance with Nevada Revised Statutes (NRS) chapters 37, 241, 277, 277A, and Article I - Section 22 of the Nevada Constitution, as applicable, and any other applicable state laws and regulations. Dispositions of real property purchased in whole, or

in part, with federal funding must comply with applicable federal laws and regulations.

2. If no portion of a parcel acquired by eminent domain is used for the project or other public use for which it was acquired, RTC will offer the parcel back to the person from whom it was acquired if required by NRS 37.270 and Article I - Section 22 of the Nevada Constitution.

B. Real Property Dispositions

1. Objectives: RTC shall dispose of real property no longer needed to construct RTC projects, operate the transit system, or otherwise fulfill the statutorily authorized purposes of RTC. The goals are to:

   a. Eliminate unnecessary operations and maintenance costs;

   b. Encourage the development and use of property;

   c. Strengthen the tax base by placing property on the tax rolls; AND

   d. Dispose of property using a predictable, timely, and transparent process.

2. Eligible Costs: RTC may pay reasonable costs associated with the disposition of real property. In the case of real property acquired by eminent domain or under the threat of eminent domain, any conveyance must be quitclaim in nature, and RTC shall not warrant title, furnish title insurance or pay the tax on the transfer of real property. NRS 277A.255.

3. Procedures: The Executive Director shall develop procedures for the disposition options available under state and federal laws and regulations.

C. Disposition Approval: The Executive Director shall analyze the relevant characteristics of the real property and potential uses and develop a recommendation as to which disposition options are available and in the best interests of RTC. The Board must approve the recommendation before RTC commences with the disposition.

D. Routing and Review: Agreements for the disposition of real property must be developed and reviewed pursuant to procedures adopted by the Executive Director.

E. Agreement Approval: The Board must approve the material terms of the agreement prior to execution. In some cases, the Board may be required to adopt a resolution prior to execution. See e.g. NRS 277.050 and NRS 277A.255.

F. Execution: The agreement must be executed to be binding and effective. The Executive Director will execute such agreements.

G. Proceeds: Any proceeds from the disposition of real property shall be deposited into the governmental or proprietary fund or funds that were originally used to purchase the real property.

- END -

REFERENCES
NRS chapters 37, 241, 277, 277A
Article I - Section 22 of the Nevada Constitution

MEETING DATE: March 19, 2021 **AGENDA ITEM 5.1**

From: Amy Cummings, AICP/LEED AP, Director of Planning and Deputy Executive Director

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RECOMMENDED ACTION

Conduct a public hearing regarding approval of the 2050 Regional Transportation Plan (RTP); adopt a resolution approving the RTP.

BACKGROUND AND DISCUSSION

The 2050 Regional Transportation Plan (RTP) is the RTC's long-range transportation plan as required under Title 23, Part 450 of the Code of Federal Regulations (CFR). It contains major transportation projects and programs for all modes of travel. It functions as a tool for implementing long-range transportation planning.

RTC conducted an extensive community engagement effort for the RTP. This included a series of meetings and online surveys, including the following:

- Sparks Industrial Forum held on February 26, 2020;
- Community Visioning Workshop held on February 27, 2020, and online survey open through May 1, 2020;
- Economic Development Virtual Forum held on May 27, 2020;
- Alternatives Development Virtual Meeting and online survey open from June 22, 2020, through July 20, 2020;
- Downtown Reno Circulation Study virtual public meeting from November 12 through December 11, 2020;
- Alternatives Evaluation and Prioritization Virtual Meeting and online survey from December 17, 2020, through January 14, 2021;
- Coordinated Human Services Transportation Plan outreach activities were integrated with the RTP process.

Stakeholder meetings and presentations to the following entities were also instrumental in developing the RTP:

- Washoe County Commission
- City of Reno Council
- City of Sparks Council
- Planning Commission of each jurisdiction
- Regional Planning Governing Board
- Regional Planning Commission
- RTC Advisory Committees
- Agency Working Group
- Inter-County Working Group

This community-based plan was developed using rigorous analysis of safety, travel demand, and air quality data. The fiscally constrained plan balances the projected transportation revenues through 2050 with anticipated safety, capacity, transit, and other multimodal needs of the region.

As documented in Appendix C of the RTP, the region will be within the motor vehicle emission budget for carbon monoxide (CO) and particulates (PM10) and is compliance with the National Ambient Air Quality Standards (NAAQS) of the Clean Air Act, as amended. The Interagency Air Quality Conformity Consultation Team, including the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), US Environmental Protection Agency, and Nevada Department of Environmental Protection, concurred with the air quality analysis findings on February 23, 2021.

RTC must have a Regional Transportation Plan that has been determined by the US Department of Transportation to be in conformance with the Clean Air Act in order to expend federal transportation funds. The current conformity determination, developed in coordination with the 2040 RTP, expires on May 18, 2021. Upon adoption of the 2050 Regional Transportation Plan, RTC will submit the updated plan and air quality analysis to FHWA and FTA for a new conformity determination.

A 21-day public comment period preceded this public hearing (February 25 – March 18). The draft 2050 RTP was posted on the agency website and notice of a 21-day public comment period was published in the several newspapers and through social media outlets per the RTC Public Participation Plan. Printed copies were available to the public at 4TH STREET STATION and CENTENNIAL PLAZA.

FISCAL IMPACT

There is no additional cost in connection with this agenda item.

PREVIOUS BOARD ACTION

February 19, 2021	Received a report on the 2050 Regional Transportation Plan (RTP)
January 15, 2021	Received a report on the 2050 Regional Transportation Plan (RTP)
December 18, 2020	Received a report on the 2050 Regional Transportation Plan (RTP)
November 20, 2020	Received a report on the 2050 Regional Transportation Plan (RTP)
August 20, 2020	Received a report on the 2050 Regional Transportation Plan (RTP) Transportation call for projects and provided direction
June 19, 2020	Approved 2050 RTP Guiding Principles
December 20, 2019	Received report on the 2050 RTP visioning exercise
November 15, 2019	Received report regarding the 2050 RTP public and agency outreach process and schedule
August 17, 2018	Approved Amendment No. 1 to the 2040 RTP
May 21, 2017	Approved 2040 RTP

ADVISORY COMMITTEE(S) RECOMMENDATION

Both the Citizens Multimodal Advisory Committee (CMAC) and Technical Advisory Committee (TAC) recommended approval of the RTP at their March 3 and March 4, 2021 meetings, respectively.

ATTACHMENT(S)

A. Resolution 21-01
B. 2050 Regional Transportation Plan
C. Public Comment

RESOLUTION 21-01

RESOLUTION APPROVING THE 2050 REGIONAL TRANSPORTATION PLAN (RTP) FOR THE RENO-SPARKS URBANIZED AREA.

WHEREAS, Title 23 Code of Federal Regulations, Part 450, and Title 49 Code of Federal Regulations, Part 613, require the preparation and approval of a Regional Transportation Plan (RTP) by the Metropolitan Planning Organization (MPO); and

WHEREAS, the Regional Transportation Commission of Washoe County (RTC) has been designated as the Metropolitan Planning Organization (MPO) for the Reno-Sparks Urbanized Area of Washoe County; and

WHEREAS, the RTC, through the conduct of a continuing, comprehensive and coordinated transportation planning process and in conformance with all applicable federal requirements, has prepared the 2050 RTP; and

WHEREAS, the RTC finds that pursuant to Title 40 of the Code of Federal Regulations, Part 93, this 2050 RTP conforms with the intent of the State Air Quality Implementation Plan; and,

WHEREAS, the RTC finds that the 2050 RTP has been prepared through a process of community and agency coordination and participation in accordance with the RTC's adopted Public Participation Plan;

NOW, THEREFORE, BE IT RESOLVED that the RTC does hereby approve the 2050 RTP.

CERTIFICATE

The undersigned, duly qualified Chair of the Regional Transportation Commission, certifies that the foregoing is a true and correct copy of a resolution adopted at a legally convened meeting held on March 19, 2021.

_____
Neoma Jardon, Chair
Regional Transportation Commission

STATE OF NEVADA)
§
COUNTY OF WASHOE)

This instrument was acknowledged before me on _____, 2021, by Neoma Jardon, Chair of the Regional Transportation Commission.

_____
Notary Public

Attachment B

2050

REGIONAL TRANSPORTATION PLAN





















Red Rock Rd
Lemmon Dr
Military Rd
Stead Blvd
N Virginia St
395
445
Pyramid Way
Spanish Springs
Sun Valley
Vista Blvd
Sparks Blvd
N McCarran Blvd
659
Oddie Blvd
Sparks
W 7th St
E 4th St
E 2nd St
Reno
Verdi
Rock Blvd
W Plumb Ln
W Moana Ln
S McCarran Blvd
W Huffaker Ln
S Meadows Pkwy
Steamboat Pkwy
Rio Wrangler Pkwy
W Zolezzi Ln
Arrowcreek Pkwy
Geiger Grade Rd
341
Mt Rose Hwy
Eagle Canyon Dr

RTP TABLE OF CONTENTS

LETTER FROM THE EXECUTIVE DIRECTOR

The RTC is proud to present the 2050 Regional Transportation Plan (RTP) for our community. The overarching vision contained in this plan focuses on improving safety and using transportation as a catalyst for developing economic opportunities that sustain our valued quality of life.
range vision for connecting our community. It is a key component to improving our region's transportation systems, air quality, and quality of life.

I would like to thank the community, our regional partners, and the R
their commitment, participation and support to inspire, innovate and implement

the RTC Board of Commissioners for their leadership and vision in guiding the future of transportation investment in the Truckee Meadows.

Sincerely,
Bill Thomas, AICP
Executive Director

RTC BOARD

RTC CHAIR
Neoma Jardon
City of Reno

RTC VICE CHAIR
Ed Lawson
Mayor of Sparks

Commissioner
Bob Lucey
Washoe County

Councilmember
Oscar Delgado
City of Reno

Commissioner
Vaughn Hartung
Washoe County

Christina Swallow
NDOT Director

RTC Executive
Director
Bill Thomas

A SPECIAL THANK YOU

A special thank you to our agency partners and community members

contribution in developing the 2050 RTP.

THE RTC BOARD OF COMMISSIONERS

Neoma Jardon, RTC Chair, Reno Councilmember
Ed Lawson, RTC Vice Chair, Mayor of Sparks
Bob Lucey, Washoe County Commission Chair
Vaughn Hartung, Washoe County Commissioner
Oscar Delgado, Reno Councilmember
Kristina Swallow, NDOT Director

AGENCY WORKING GROUP

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Carson Area MPO
Dirk Goering
Lucia Maloney

City of Fernley
Jessica Dover
Tim Thompson

City of Reno
Angela Fuss
Arlo Stockham

John Flansberg
Kelly Mullin
Kerrie Koski
Kurt Dietrich
Suzanne Linfante

City of Sparks
Amber Sosa
Armando Ornelas
Ian Crittenden
Jim Rundle
Jon Ericson

Downtown Reno Partnership
Alex Stettinsk
Nathan Digang

My Ride to Work

Reno-Tahoe Airport Authority
Dean Schultz
Gary Probert

Vision Zero Truckee Meadows Task Force

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Sandy Freund

Washoe County School District Police
MJ Cloud

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Nevada Association of Counties
Dagny Stapleton

Placer County
John Clerici

Reno Housing Authority
Amy Jones

Tahoe Regional Planning Agency/Tahoe Metropolitan Planning Organization
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Michelle Glickert
Nick Haven

Tahoe Transportation District
Carl Hasty

Truckee Meadows Community College
Kyle Dalpe

Truckee Meadows Regional Planning Agency
Chohnny Sousa
Chris Tolley
Damien Kermin
Jeremy Smith
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University of Nevada, Reno
Heidi Gansert
Troy Miller

Washoe County Health District
Dan Inouye
Erin Dixon
Kelli Seals
Kevin Dick
Yann Ling-Barnes

State of Nevada

Nevada Department of Transportation
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Kevin Verre
Nick Johnson
Mark Costa
Mark Wooster
Mike Fuess
Sondra Rosenberg
Tara Smaltz

Nevada State Historic Preservation Office
Rebecca Palmer

State Historical Preservation Office
Rebecca Palmer

Native American Tribes

Reno-Sparks Indian Colony
Elaine Wiseman
Scott Nebesky

Federal Agencies

Bureau of Land Management
Brian Buttazoni

Federal Highway Administration
Del Abdalla
Enos Han
Susan Klekar

Federal Transit Administration
Alex Smith

Storey County
Austin Osborne

U.S. Environmental Protection Agency
Karina O'Connor

U.S. Fish and Wildlife Service
Marcy Haworth

U.S. Forest Service
Kevin Wilmot

Transit Operators

Keolis – **RTC RIDE**
Geo Jackson, MTM – **RTC ACCESS** & **RTC FlexRIDE**

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Gina Hammond
Mark Schlador
Heinz Schoner
Robert Boisvert
Wes Hall
Derek Campbell

EXECUTIVE SUMMARY

The 2050 RTP transportation investments that will be made in the urbanized area of Reno, Sparks, and Washoe County, Nevada, also known as the Truckee Meadows. The plan was founded on a people-based approach, which included extensive collaboration with the community and federal, state and local partner agencies. The RTP process was shaped by the guiding principle that RTC will strive to support:

- Safe and Healthy Communities
- Economic Vitality & Innovation
- Sustainability
- Travel Choices

The projects in this RTP (see Appendix A) support the vision that the Truckee Meadows is the best place to live, work, recreate, visit, and invest. The plan includes transportation projects, programs and services for walking, biking, driving, and riding transit. In addition, the plan provides for maintaining existing infrastructure in good condition and improving the operation of existing services.

The goals of the RTP, which are discussed further in each chapter of the plan, include the following:

- 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.
- .
- Enhance regional connectivity.
- Improve freight and goods movement.
- Invest strategically.
- Engage the public and encourage community involvement.

PROGRAMMATIC INVESTMENTS

In support of these guiding principles and goals, the RTP includes four programmatic investments that will be ongoing throughout the life of the plan.

- ***Spot improvement for bicycle, pedestrian and ADA needs*** — Ongoing implementation of the ADA Transition Plan and RTC Bicycle and Pedestrian Master Plan is a priority for the RTC. Annual funding will be programmed for spot improvements through-out the region to upgrade sidewalks, cross-walks, curb ramps, and improve bicycle network connectivity.

- ***Traffic Signals and Intelligent Transportation Systems (ITS) Operations*** – Technology and

  faster travel times on the existing roadway network. Investments in ITS have proven to be a cost-

  capacity.

  and associated communications technologies.

- ***Pavement Preservation*** – Maintaining roads and bridges in good condition and extending the useful life of pavement on regional roads is a proven way to minimize long-term costs. The RTP
  apply the appropriate pavement preservation treatment to regional roads and bridge decks, which can include surface seals, resurfacing, or reconstruction. RTC partners with the NDOT Highway Bridge Program to provide funding to replace or rehabilitate substandard bridges.

TRANSIT INVESTMENTS

Transit is recognized as an essential part of the local economy that helps thousands of Washoe County residents access essential jobs and services each day.
of transit are also well recognized: reducing the number of cars on the

air pollution.

With the aging of the population, the public is also concerned with mobility issues that will face many residents over the next 20 years. A clear message expressed during the community outreach process is the need to plan, build, and operate services such as accessible bus stops and sidewalks, transit lines, and roadways that support an aging population.

Transit helps shape development patterns and is an economic development tool that supports a higher-density, mixed-use urban form. The Virginia Street **RTC RAPID** project is an example where a transit investment is helping spur new and revitalized investments from Downtown to Midtown and Meadowood Mall. Similarly, the Lincoln Line connecting Downtown Reno and Downtown Sparks supports economic vitality in this important corridor.

The Short Range Transit Plan (SRTP) outlines a strategy for transit service
The short-

program includes existing service plus

that funding is available:

- Reallocation of service hours to
  .
- Increase service hours to high ridership corridors where feasible.
- Expand **FlexRIDE** Program.

- Increase subsidy and expand eligibility for taxi bucks/Washoe Senior Ride Program.
- Continuation of grant program for Human Services Transportation Plan (CTP).

In addition to providing transit service, RTC is currently undertaking the following passenger facility improvements:

- Expand RTC 4TH STREET STATION to construct four additional bus bays, electric bus chargers, and parking spaces.
- Installation of electric bus charging infrastructure at RTC CENTENNIAL PLAZA STATION.
- Upgrade the northbound Virginia Line station at Peppermill to provide full ADA accessibility, additional seating capacity, and full **RAPID** amenities.
- Bus stop accessibility improvements throughout the region, in support of the ADA Transition Plan.
- Park and ride facilities to support **RTC VANPOOL** passengers.

UNFUNDED VISION FOR TRANSIT

The RTP outreach process provided an opportunity to develop a vision for transit in the Truckee Meadows through 2050. This vision is not constrained by

community input, the vision includes the following elements:

Transit Service Vision

- ***Increased Frequency and Span of Service on Existing High-Productivity Routes in The Urban Core*** – Investments in existing routes will improve convenience and service levels in areas with well-established transit ridership that have the greatest potential for increased growth.
- ***Expand FlexRIDE Service Areas*** – **FlexRIDE** some outlying suburban areas, providing increased convenience

  Potential areas for future expansions include South Meadows and Incline Village.

- ***Extend Virginia Line RAPID to Mt. Rose Highway*** – Providing transit connectivity to employment, education, commercial, and residential centers in South Reno would improve access to opportunities, expand travel options, and encourage transit supportive development along South Virginia Street. The RAPID extension could be supported by a **FlexRIDE** zone to provide increased connectivity to surrounding neighborhoods.

- ***Extend Lincoln Line RAPID to Stoker Avenue*** – This extension along West 4th Street would support safety and other multimodal improvements planned for the corridor. It would also encourage transit supportive development that is anticipated in the West 4th Street corridor.

- ***Improved Transit Connectivity to the Lake Tahoe Region*** – Develop new transit solutions to better connect the existing transit systems in Reno/Sparks, Carson City, and Lake Tahoe. This would improve access to the treasured resources in the Lake Tahoe Basin and reduce the environmental impact of vehicle travel.

- ***Truckee to TRI Center Commuter Bus Service*** – Develop new transit solutions to better connect residential and employment centers along the I-80 corridor, extending from the Town of Truckee to Reno/Sparks, and Storey County.

Transit Facilities Vision

- ***Bus Maintenance Facility*** – Construct a larger maintenance facility for long-term expansion that can accommodate a diverse zero-

  hydrogen fuel cell operations.

- ***New Transfer Facility at Meadowood Mall*** – Relocate the Meadowood Mall transfer facility and explore opportunities for joint development.

- ***Mobility Hubs*** – The need for

  the Downtown Reno Circulation Study, Sparks Industrial Area analysis, and planning initiatives in Midtown District of Reno. They would include parking for automobiles, bikes, **RTC VANPOOL**

  public transit and private employer shuttles. Structured parking would be considered.

With this vision for transit, the RTC hopes to continue the conversation about the role of transit in the community and the need for sustainable funding for transit operations.

Complete Streets Investments

This RTP includes a package of roadway investments that promote livability and regional connectivity.

All of these projects incorporate a Complete Streets design concept, which addresses the needs of all roadway users in a way that is sensitive to the local land-use context and travel demand. The primary purpose of Complete Streets projects are to provide safe access and travel for pedestrians, bicyclists, motorists and transit users of all ages and abilities. Safety is an important aspect of all project planning, with high-crash locations being improved through many of the recommended projects. Complete Streets designs have reduced crashes up to 46% on regional roads in Washoe County.

Projects that focus on regional connectivity link major concentrations of employment and housing across the Truckee Meadows. Major capacity investments include the Spaghetti Bowl, US 395 North Widening, I-80 Widening, the Pyramid Highway/US 395 Connector, and other corridors to better connect the North Valleys and Spanish Springs.

CONCLUSION

This RTP was driven by the feedback from local residents, businesses, and partner agencies, as well as the recognition that transportation plays a critical role in the region' improve safety and sustain long-term opportunities.
path to improve the quality of life in the Truckee Meadows. Roadways are an important part of the local community and shape the daily experience of the people that travel them, whether on bus, bike, foot, or in a car. This plan supports the economic vitality of the region by promoting safety, providing accessible places to walk and bike, improving connectivity between where people live and work, and conserving resources through environmentally and

RESUMEN EJECUTIVO

El Plan de Transporte Regional 2050 (RTP, por sus siglas en inglés)

a largo plazo que se realizarán en el área urbana de Reno, Sparks y el Condado de Washoe, Nevada, también conocido como Truckee Meadows. El plan se basa en un enfoque basado en las personas, que incluye una amplia colaboración con la comunidad y agencias asociadas federales, estatales y locales. El proceso del plan RTP fue moldeado por el principio rector de que la empresa RTC se esfuerza por apoyar lo siguiente:

- Comunidades seguras y sanas
- Vitalidad e innovación económica
- Sustentabilidad
- Opciones de viaje

Los proyectos de este plan (ver Apéndice A) respaldan la visión de que Truckee Meadows es el mejor lugar para vivir, trabajar, divertirse, visitar e invertir. El plan incluye proyectos de transporte, programas y servicios para caminar, andar en bicicleta, conducir y usar transporte público. Además, el plan proporciona el mantenimiento de la infraestructura existente en buenas condiciones y mejoras en la operación de los servicios ya existentes.

Los objetivos del RTP, que se discuten más a fondo en cada capítulo del plan, incluyen lo siguiente:

- Mejorar y promover la seguridad
- Integrar todo tipo de transporte
- Promover comunidades sanas y sustentables
- Promover y fomentar la igualdad y la justicia ambiental
- Integrar el uso de la tierra y el desarrollo económico
- Manejar los sistemas existentes con
- Aumentar la conectividad regional
- Mejorar el movimiento de bienes y mercancías
- Invertir con estrategia
- Involucrar al público en general y fomentar la participación de la comunidad

INVERSIONES PROGRAMÁTICAS

En apoyo de estos principios y objetivos rectores, el plan RTP incluye cuatro inversiones programáticas que estarán en curso durante la vigencia del plan:

- ***Puntualiza las mejoras para las necesidades de ciclistas, peatones y ADA (Servicios para discapacitados)***

  La implementación continua del Plan de Transición ADA y el Plan Maestro para Ciclistas y Peatones RTC, es una prioridad para la empresa RTC. Se programarán fondos anuales para mejoras puntuales en toda la región para mejorar las aceras, los cruces peatonales, las rampas en las aceras y mejorar la conectividad de la red de ciclistas.

- ***Señales de Tráfico y Operaciones de Sistemas para el Transporte Inteligente (ITS)***

  La tecnología y las estrategias de

  tiempos de viaje más rápidos en la red vial existente. Las inversiones en ITS han demostrado ser una alternativa rentable para agregar a la capacidad

  comunicación asociadas.

- ***Preservación del pavimento***

  El mantenimiento de caminos y puentes en buen estado y la ampliación de vida útil del pavimento en carreteras regionales es una forma probada de minimizar los costos a largo plazo. El plan RTP

  para aplicar el tratamiento adecuado de conservación del pavimento a carreteras regionales y cubiertas de puentes, que puede incluir sellos

  reconstrucción. La empresa RTC se asocia con el Programa de Puentes de Carreteras NDOT para

  reemplazar o rehabilitar puentes

- ***Inversiones en el Transporte Público***

  El transporte público es reconocido como una parte esencial de la economía local que ayuda a miles de residentes en el área del Condado de Washoe para poder tener acceso a trabajos y servicios esenciales cada día.

transporte público también son bien reconocidos: la reducción del número de automóviles en las carreteras

contaminación del aire.

Con el avance en la edad de la población, el público también se preocupa por los problemas de movilidad que enfrentarán muchos residentes durante los próximos 20 años. Un mensaje claro expresado durante el proceso de comunicación con la comunidad es la necesidad de , construir y operar servicios, tales como paradas de autobuses y aceras accesibles, líneas de autobuses y caminos que apoyen a la población de edad avanzada.

El transporte público ayuda a dar forma a los patrones de desarrollo y es una herramienta de desarrollo económico que apoya una forma urbana de uso mixto y de mayor densidad. El proyecto Virginia Street **RTC RAPID** es un ejemplo en el que una inversión en el transporte público está ayudando a impulsar nuevas y revitalizadas inversiones desde el centro de la ciudad hasta el Meadowood Mall. De manera similar, la línea Lincoln que conecta el centro de Reno y el centro de Sparks respalda la vitalidad económica en este importante corredor.

El Plan de Transporte Público a Corto Plazo (SRTP) describe una estrategia para el servicio del transporte público para los próximos cinco años. El programa de transporte publico

incluye el servicio existente, además

la medida en que los fondos estén disponibles:

- Reubicación de horas de servicio
- Aumento de horas de servicio a los corredores con alto número de pasajeros, donde sea posible.
- Ampliación del Programa **FlexRIDE.**
- Aumento al subsidio y ampliación a la elegibilidad para taxi bucks/ Programa de Viajes para Adultos Mayores de Washoe.
- Continuación del programa de subvenciones para servicios de

  Transporte de Servicios Humanos Coordinados (CTP).

Además de proporcionar servicio de transporte público, la empresa RTC está llevando a cabo actualmente las siguientes mejoras para sus pasajeros:

- Ampliación de la ESTACION RTC DE LA CALLE 4ª para construir dos módulos adicionales para autobuses, cargadores de autobuses eléctricos y espacios de estacionamiento
- Instalación de la infraestructura para cargadores de autobuses eléctricos en la ESTACION RTC CENTENNIAL PLAZA

- Actualización de la estación hacia el norte de la Línea Virginia en el Peppermill para proporcionar acceso completo de ADA, capacidad adicional de asientos y amenidades completas en RAPID.
- Mejoras de accesibilidad a las paradas del autobús en toda la región, en apoyo al Plan de Transición ADA.
- Instalaciones para estacionamiento en apoyo a los pasajeros del **RTC VANPOOL.**

VISIÓN SIN FONDOS PARA EL TRANSPORTE PÚBLICO

El proceso de divulgación de RTP brindó la oportunidad de desarrollar una visión para el transporte público en el área de Truckee Meadows hasta el año 2050. Esta visión no está

disponibles. Según los comentarios de la comunidad, la visión incluye los siguientes elementos:

Visión para el Servicio de Transporte Público

- ***Mayor frecuencia y alcance del servicio en las rutas de alta productividad existentes en el núcleo urbano*** – Las inversiones en las rutas existentes mejorarán la comodidad y los niveles de servicio en áreas con un número de pasajeros de transporte bien establecido que tienen el mayor potencial para un mayor crecimiento.
- ***Ampliación de las áreas de servicio de FlexRIDE*** – **FlexRIDE** ofrece una herramienta para atender algunas áreas suburbanas periféricas, lo que brinda mayor comodidad a los clientes potenciales donde el transporte público de

  áreas potenciales para futuras expansiones incluyen South Meadows e Incline Village.
- ***Ampliación de la Línea Virginia RAPID hasta la Carretera Mt. Rose*** – Proporciona conectividad de transporte público a centros de empleo, educación, comerciales y residenciales en el sur de Reno que mejorará el acceso a oportunidades, ampliará las opciones de viaje y alentará el desarrollo de apoyo al transporte público a lo largo de la Calle South Virginia.

La extensión RAPID podrá ser compatible con una zona **FlexRIDE** para proporcionar una mayor conectividad a las áreas circundantes.

- ***Ampliación de la Línea Lincoln RAPID hasta Stoker Avenue*** – Esta extensión a lo largo de la Calle West 4th respaldará la seguridad y otras mejoras multimodales .

  También alentará el desarrollo de apoyo al transporte público que se anticipa en el corredor de la Calle West 4ª.

- ***Mejora de la conectividad del transporte público a la región de Lake Tahoe*** – Desarrolla nuevas soluciones de transporte público para conectar mejor los sistemas de transporte existentes en Reno/Sparks, Carson City y Lake Tahoe. Esto mejorará el acceso a los valiosos recursos en la cuenca de Lake Tahoe y reducirá el impacto ambiental de los viajes en vehículo.

- ***Servicio de Autobús de Truckee al TRI Center*** – Desarrolla nuevas soluciones de transporte público para mejorar la conexión entre zonas residenciales y centros de empleo a lo largo del corredor de la autopista I-80, desde Truckee hasta las ciudades de Reno/Sparks y el Condado de Storey.

Visión de las Instalaciones del Transporte Público

- ***Instalaciones para el mantenimiento de autobuses*** – Construcción de una instalación de mantenimiento más grande para una ampliación a largo plazo que

  de autobuses de cero emisiones, incluyendo las operaciones de pilas de combustible eléctricas y de hidrógeno.

- ***Nueva instalación de transferencia en Meadowood Mall*** – Reubicar las instalaciones de transferencia de Meadowood Mall y explorar oportunidades para el desarrollo conjunto.

- ***Módulos de Movilidad*** – La necesidad de los Módulos de

  del Estudio de Circulación en el Centro de Reno, el Análisis del Área Industrial de Sparks y las

  Distrito Midtown de Reno. Incluirán estacionamiento para automóviles, bicicletas, participantes de **RTC VANPOOL** y ofrecerán conectividad al transporte público y a los servicios de transporte privado de empleadores. Se considerará el estacionamiento estructurado.

Con esta visión para el transporte público, la empresa RTC espera continuar el diálogo sobre el papel del transporte en la comunidad y

sustentable para las operaciones del mismo.

INVERSIONES PARA CALLES COMPLETAS

Este plan RTP incluye un paquete de inversiones viales que promueven la habitabilidad y la conectividad regional. Todos estos proyectos incorporan un concepto de diseño de Calles Completas, que aborda las necesidades de todos los usuarios de las carreteras de una manera que es sensible al contexto de uso del suelo local y la demanda de viajes. El propósito principal de los proyectos de Calles Completas es proporcionar acceso y viajes seguros para peatones, ciclistas, automovilistas y usuarios del transporte público de todas las edades y habilidades. La seguridad es un

de todos los proyectos y las ubicaciones de alto impacto se mejoran mediante muchos de los proyectos recomendados. Los diseños de Calles Completas han reducido los choques hasta en un 46% en las carreteras regionales del Condado de Washoe.

Los proyectos que se centran en la conectividad regional vinculan las principales concentraciones de empleo y vivienda a través de Truckee Meadows.

Las principales inversiones en capacidad incluyen Spaghetti Bowl, US 395 North Widening, I-80 Widening, Pyramid Highway/US 395 Connector y otros corredores para conectar mejor los Valles del Norte y Spanish Springs.

CONCLUSIÓN

Este plan RTP fue impulsado por los comentarios de los residentes locales, empresas y agencias asociadas, así como con el reconocimiento de que el transporte juega un papel fundamental en los esfuerzos de la región para mejorar la seguridad y mantener oportunidades a largo plazo.

mejorar la calidad de vida en Truckee Meadows. Las carreteras son una parte importante de la comunidad local y dan forma a la experiencia diaria de la gente que las recorren, ya sea en autobús, bicicleta, a pie o en automóvil. Este plan apoya la vitalidad económica de la región promoviendo la seguridad, proporcionando lugares accesibles para caminar y andar en bicicleta, mejorando la conectividad entre el lugar donde la gente vive y trabaja y la conservación de los recursos a través

sostenibles.

CHAPTER 1 – INTRODUCTION

Transportation investments promote safety and a healthy community, create new opportunities for prosperity, expand regional connectivity, and enhance neighborhood livability. The RTP is the region's long-range, multimodal

s future transportation system and is the blueprint to improving the region's quality of life.

Guiding Principles of the RTC are to Promote

Safe and Healthy Communities

Economic Prosperity, Equity, and Innovation

Sustainability and Climate Action

Increased Travel Choices

1.1 – ABOUT THE RTC

The Regional Transportation Commission of Washoe County (RTC) serves three roles for the Washoe County urban area: it is the Metropolitan Planning Organization (MPO), the transit service provider, and builds the regional roadway network. As the MPO, RTC conducts a collaborative short- and long-range multimodal transportation planning program, consistent with Fixing America's Surface Transportation (FAST) Act requirements.

As the transit service provider, RTC operates **RTC RIDE** bus system, the demand-responsive **RTC FlexRIDE**, **RTC ACCESS** paratransit service, and **RTC VANPOOL**. **RTC RIDE** and **RAPID** transit service include 25 routes that provide about 7.6 million trips per year. RTC uses technology to enhance the customer experience, including WiFi on buses and NextBus arrival information and bus pass purchases available on mobile devices.

RTC RIDE — Local Fixed Route Service (2019)	
Description	Regular fixed route service
Ridership	6,078,028
Revenue Vehicle Hours	219,575
Productivity (Passengers per Service Hour)	27.7

RTC RIDE operates in the cities of Reno and Sparks, and areas of Washoe The service area is approximately 136 square miles.

RTC RAPID — Virginia Line and Lincoln Line (2019)	
Description	Bus rapid transit on Virginia Street & 4th/Prater
Ridership	1,533,929
Revenue Vehicle Hours	40,970
Productivity (Passengers per Service Hour)	37.4

Designed to be more like rail, **RTC RAPID** is a faster transit service. The **RAPID Virginia Line** and **Lincoln Line** serve the primary north-south and east-west corridors of the metro region. **RTC RAPID** includes level-boarding stations with more amenities served by electric buses. The service includes technology that

several seconds for the bus.

RTC REGIONAL CONNECTOR (RC) — RIDE Regional Service to Carson City (2019)	
Description	Peak hour commuter service between Reno and Carson City
Ridership	27,577
Revenue Vehicle Hours	3,371
Productivity (Passengers per Service Hour)	8.2

In partnership with the Carson Area Metropolitan Planning Organization (CAMPO), the RTC provides a connection between Reno and Nevada's state capital. This route is 33 miles each way. It is ideal for commuters and runs three trips in the morning and three trips in the afternoon.

RTC FlexRIDE (2019)	
Description	**On-demand curb-to-curb transit service within designated zones in Sparks (fall 2019), North Valleys (spring 2020), and Somersett/Verdi**

RTC FlexRIDE
selected zones. The initial **RTC FlexRIDE** pilot in Sparks started in November

months. Following this success, other **RTC FlexRIDE** zones were established in the North Valleys, Somersett/Verdi, and the Sparks zone was expanded to include Spanish Springs. During November and December of 2019, **RTC FlexRIDE** served an average of 4.7 passengers per revenue service hour.

RTC ACCESS (2019)	
Description	**Demand responsive ADA paratransit service**
Ridership	**223,640**
Revenue Vehicle Hours	**101,357**
Productivity (Passengers per Service Hour)	**2.2**

RTC ACCESS is the paratransit service that provides door-to-door, prescheduled transportation for people who meet the eligibility criteria of the Americans with Disabilities Act (ADA). **RTC ACCESS** passengers have disabilities which prevent them from riding **RTC RIDE** independently some or all of the time.

RTC VANPOOL (2019)	
Description	Commuter vans organized by volunteer participants
Ridership	443,830
Revenue Vehicle Hours	71,748
Productivity (Passengers per Service Hour)	6.2

RTC VANPOOL

their transportation costs. Participants lease vehicles from a national vanpool company that covers the van's maintenance and insurance. RTC subsidizes 40% of the cost of leasing the van as an incentive.

RTC is responsible for planning, designing, and constructing regional road projects. In addition to new capacity, the RTC emphasizes maximizing the life of existing roadway infrastructure by funding a preventive-maintenance program that keeps regional roads in good condition. The RTC's regional ITS

The RTC was formed in July 1979 by the Nevada State Legislature through the consolidation of the Regional Street and Highway Commission, the Regional Transit Commission, and the Washoe County Area Transportation Study Policy Committee. The agency is governed by the RTC Board of

voting members: two representatives from the Washoe County Board of County Commissioners, two representatives from the Reno City Council, and one representative from the Sparks City Council. The Nevada Department of Transportation (NDOT)

the RTC Board. The RTC has three standing advisory committees that provide recommendations to the RTC Board: the Technical Advisory

partner jurisdictions and agencies, the Citizens Multimodal Advisory Committee, and the Regional Road Impact Fee Technical Advisory Committee.

1.2 – TRANSPORTATION PLANNING FACTORS

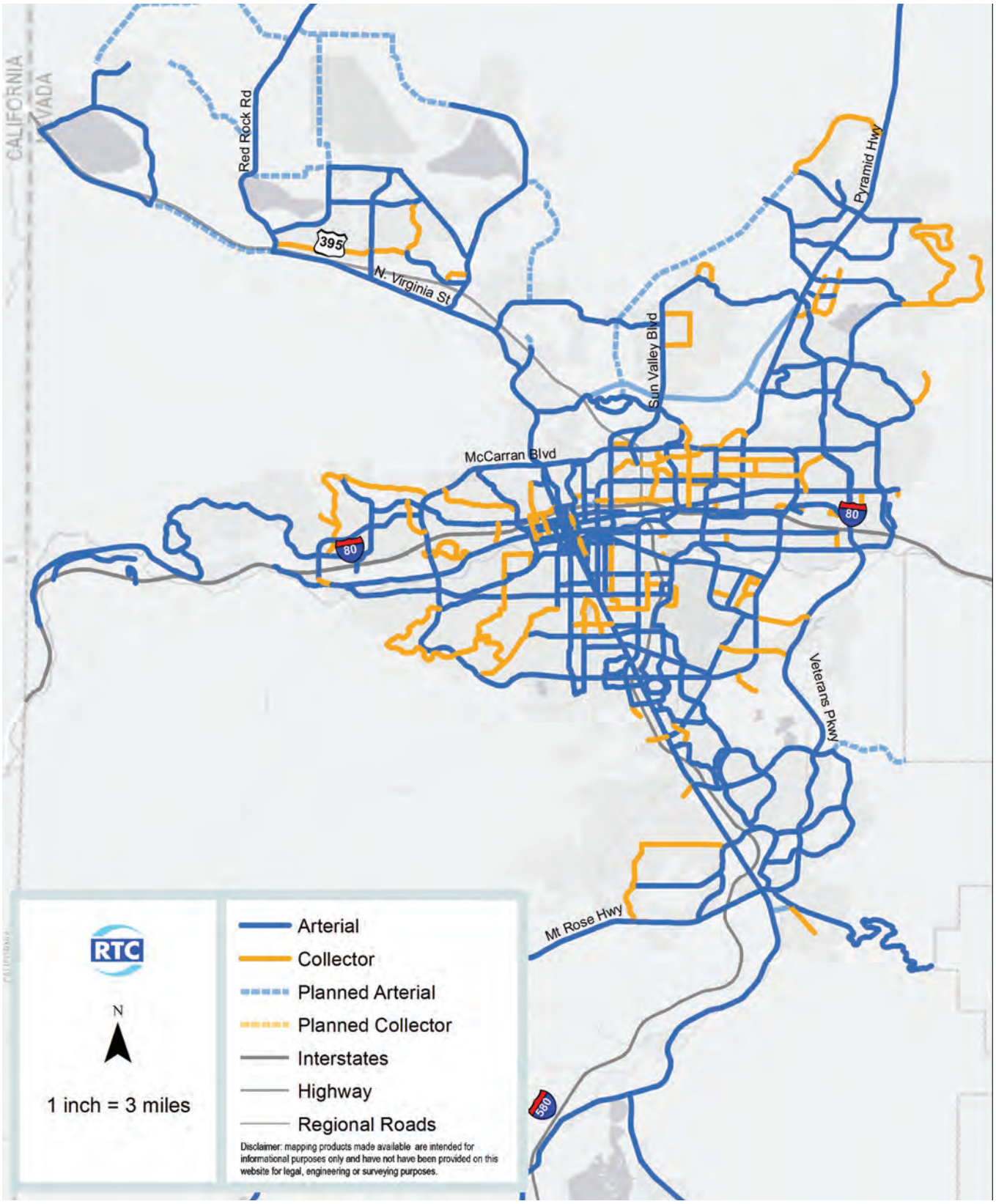
This RTP was developed through a continuous, cooperative, and comprehensive planning process. Federal regulations require that the metropolitan planning process include consideration of eight planning factors.

These factors, listed below, illustrate the need for transportation plans to recognize and address the inter-relationship of transportation, land-use and economic development planning. The factors are considered and integrated throughout the 2050 RTP.

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity .
- Increase the safety of the transportation system for motorized and non-motorized users.
- Increase the security of the transportation system for motorized and non-motorized users.
- Increase the accessibility and mobility of people and for freight.
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns.
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
- management and operation.

2050 FUNCTIONAL CLASSIFICATION OF ROADWAYS

MAP 1.1



- Emphasize the preservation of the existing transportation system.
- Improving transportation system resiliency and reliability.
- Reducing storm water impacts of surface transportation.
- Enhancing travel and tourism.
- Consideration of bus service between cities in the region.

Recognizing the special nature of transportation problems within major metropolitan areas with more than 200,000 residents, these areas – including the Reno-Sparks, NV-CA metropolitan area – have been designated as "Transportation Management Areas," or TMAs, within which MPOs are given

people, including motorists, transit customers, pedestrians, and bicyclists. The TMA
is smaller than the metropolitan planning-area boundary. The planning area boundary encompasses all of Washoe County, with the exception of Incline Village, which is in the Tahoe Regional Planning Agency boundary.

	2020	2050	Percent Change
Washoe County Population	461,858	591,294	28.0%
Washoe County Employment	290,100	389,688	34.3%
TRI Center Employment	16,050	40,749	153.9%

The Reno-Sparks metropolitan region is expecting to gain more than 129,000 new residents over the next 30 years, increasing from 461,858 residents to 591,294. The number of jobs in the region is expected to grow from 290,100 to 389,688 during the same period. The increase in population will result in growing travel demand. The regional travel demand model forecasts that daily vehicle miles of travel will increase from 10.3 million in 2020 to 14.8 million in 2050. The multimodal projects in this RTP are expected to reduce the future average daily
12,000 hours per day compared to a no-action alternative.

1.3 – GUIDING PRINCIPLES

The RTC worked closely with the community to develop guiding principles for the RTP at the beginning of plan development. The guiding principles are the overarching themes that recur throughout the RTP and on which the goals and selection of transportation investments are based. A description of the guiding principles is below.

- ***Safe and Healthy Communities***

  Community safety and health are closely tied to transportation infrastructure in many ways.

  RTC is part of the Vision Zero coalition that seeks to eliminate

  bicyclists and pedestrians can be enhanced by providing safe and accessible space for all roadway users.

  infrastructure for active transportation, such as walking and biking, provides the opportunity for many

  physical activity as part of a daily routine helps prevent some chronic diseases. Providing opportunities to walk, bike, and use transit also reduces the need for some auto trips, and subsequently vehicle emissions and air pollution. Cleaner air promotes respiratory health for all Washoe County residents.

- ***Economic Prosperity, Equity, and Innovation***

  Transportation infrastructure investments can position Washoe County for sustained economic prosperity for every Washoe County resident in several ways.

  Construction of roadway, transit, sidewalk, and other multimodal improvements creates immediate jobs for local residents. The increased access and mobility

  infrastructure systems and services allows for increased investment and job growth by local businesses. The quality of life improvements, like wider sidewalks, new bicycle

  create a unique sense of place making the region more attractive to residents, businesses, and visitors. The multimodal investments in this plan improve regional connections, further strengthening the Northern Nevada economy.

  By using a needs-based approach, RTC can identify and implement investments that will support prosperity in areas of the greatest need, including lower income communities. Transportation services and infrastructure improvements can increase access to essential services as well as education and employment opportunities.

RTC uses emerging technology

transportation system. transportation system also fosters mobility and innovation in the community.

Victorian Avenue in Sparks. The project included the addition of a cycle track, wider sidewalks, and improved bus stops.

- ***Sustainability and Climate Action***

  Transportation has an important role in environmental, economic, and social sustainability in Washoe County. RTC promotes sustainability

  riding transit, walking, and biking. By partnering with the local jurisdictions, land-use planning can be integrated with transportation to allow the creation of new opportunities and choices.

  Outcomes of these partnerships can include transit-supportive development, reduced auto emissions, complete streets, and increased mobility options.

- RTC also promotes sustainability through internal agency operations such as the Leadership in Energy and Environmental Design (LEED)

  TC

  4TH STREET STATION and RTC CENTENNIAL PLAZA, using hybrid biodiesel-electric buses and electric-only buses, recycling, using solar panels to generate power for administrative buildings, using recycled materials in construction, and using warm-mix asphalt in roadway resurfacing projects.

- These investments to reduce greenhouse gas emissions are more critical than ever as RTC joins with our regional and state partners in action to address the climate crisis.

***RTC RAPID** articulated bus: photographed by Vance Fox.*

- ***Travel Choices***

  Increasing travel choices means providing safe and convenient options for walking, biking, driving, and using transit. Providing local residents with a variety of mobility options increases the quality of life and daily convenience of getting to work, school, and recreational activities. Increased travel choices also promote equality in transportation because it provides options to all residents regardless of age or ability.

1.4 – GOALS

Goals were developed through the public participation process to support the RTP guiding principles. These goals highlight the areas where transportation

quality of life for the region and include the following:

- ***Improve and Promote Safety***

  RTC seeks to improve and promote safety for all modes of transportation and is a committed partner in the Vision Zero Truckee Meadows coalition. High-crash corridors and intersections are prioritized for infrastructure and operational investments in this RTP. RTC also participates in regional outreach and educational campaigns to promote

  .

- ***Integrate all Types of Transportation***

  RTC seeks to have an interconnected multimodal transportation system that gives residents more travel choices, including convenient alternatives for walking, biking, riding transit, or driving. The regional transportation system must provide mobility options that are appropriate to the land-use context and address the needs of neighborhoods, commercial districts, and goods movement.

- ***Promote Healthy Communities and Sustainability***

  Sustainable practices include preservation of existing facilities through initiatives such as the pavement preservation program, focusing on green technology to promote economic development, and utilizing renewable resources to reduce energy costs.

  A healthier community can be realized by providing access to nutritious foods to local residents regardless of demographics or location, encouraging active transportation by improving bicycle and pedestrian accessibility and lighting for a safer walking/biking environment, supporting the needs of freight and logistics industries, and reducing dependence on automobiles in order to improve air quality.

- ***Promote and Foster Equity and Environmental Justice***

  Work toward a more equitable and balanced transportation system that can be safely used by all regardless of age, race, economic status, or ability. It is a priority of RTC to ensure that transportation

  shared among residents of the region.

- ***Integrate Land-Use and Economic Development***

  RTC is partnering with local jurisdictions and economic development agencies to identify how transportation investments can support regional development goals. This can be achieved by providing connectivity between communities and economic centers, supporting access to local businesses in transit-supportive development districts and other areas, lowering transportation costs, and encouraging density and land-use that supports walking, bicycling, and transit.

- ***Manage Existing Systems Efficiently***

  It is imperative that RTC minimize the life-cycle costs of area roadways and maximize the utilization of existing infrastructure. By making the most of current transportation resources, RTC can stretch limited revenues farther.

  Examples of this include the RTC pavement preservation, annual

  maintenance programs.

Bike racks at RTC 4TH STREET STATION.

Bike repair station at RTC 4TH STREET STATION.

School crosswalk on Mayberry Drive.

- ***Enhance Regional Connectivity***

  Economic and transportation linkages tie Northern Nevada communities together, including Carson City, the Lake Tahoe region, Virginia City, Pyramid Lake, Storey County, and other nearby areas. The community desires regional connectivity for residents, businesses, and visitors alike to have multimodal travel options and freight mobility between these regions and into California.

- ***Improve Freight and Goods Movement***

  Freight and goods movement contribute to the economic success of this region and play a role in diversifying the employment base.

  Because of the strategic location of Reno and Sparks, the manufacturing, air cargo, freight rail, e-commerce, and trucking

  opportunities for economic growth.

- ***Invest Strategically***

  Funding is essential to provide a quality transportation system. RTC has limited state, local, and federal resources available and must maximize the positive impact of each transportation dollar. A top priority of investing strategically is to help the community realize that transportation is an investment in our future.

- ***Engage the Public and Encourage Community Involvement***

  A robust community engagement process is the foundation of all RTC initiatives. It is our commitment to go to the public early and often to seek input, and to consider and incorporate this input when feasible.

These guiding principles and goals are the cornerstone of planning for the future of the community. These goals were an important part of the project selection process.

1.5 – 2013-2017 ACCOMPLISHMENTS

The 2040 Regional Transportation Plan, adopted in 2017, guided transportation investments over the last four years. These transportation improvements have generated

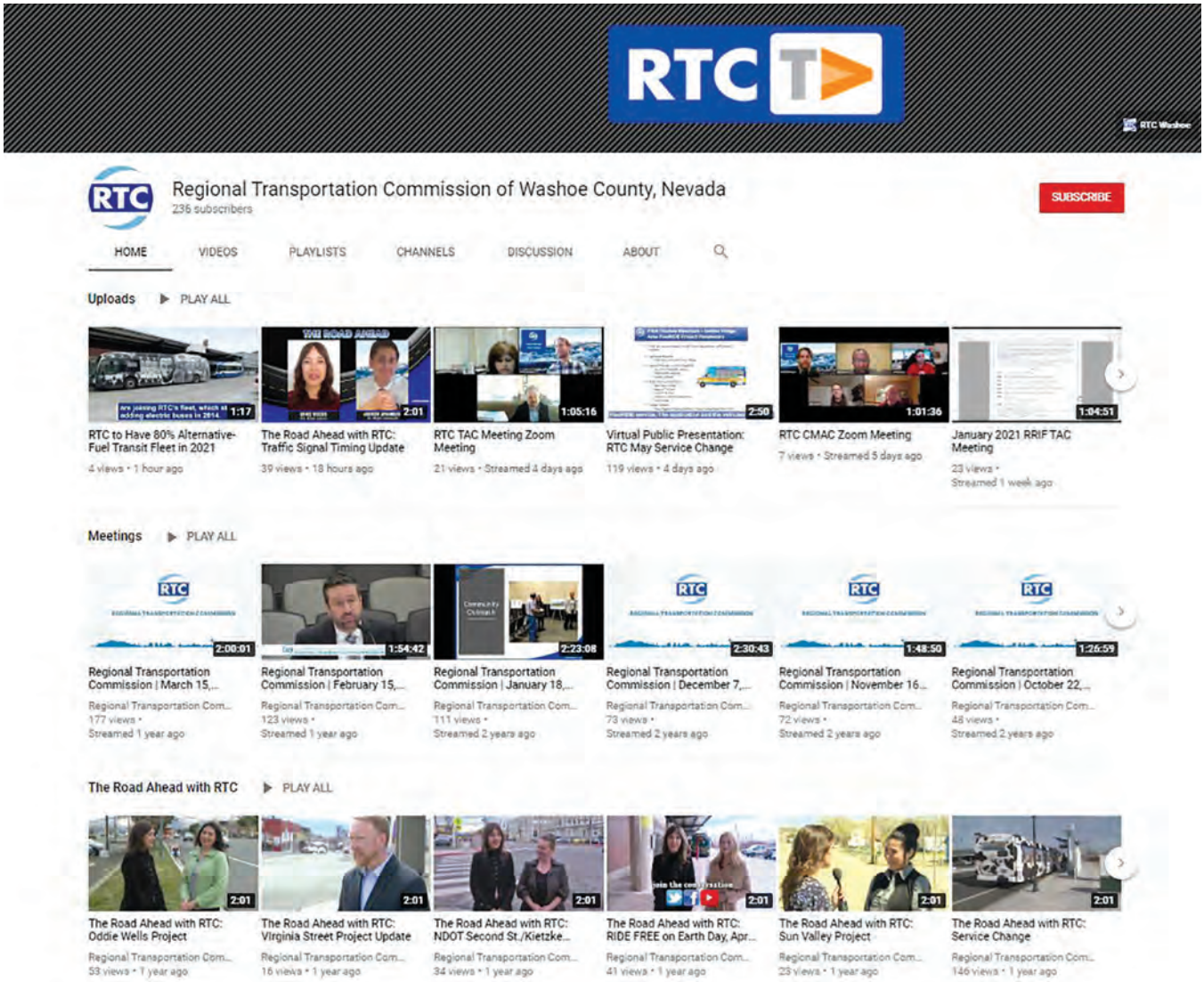
including the following:

- SouthEast Connector, now known as Veterans Parkway Extension – Completed a 5.5-mile six-lane arterial with adjacent multi-use path,

  water quality improvement features.

- 4th Street/Prater Way Bus RAPID Transit Project – Constructed new **RTC RAPID** Lincoln Line extension between downtown Reno and Sparks, including safety improvements, bike lanes, and construction of ADA compliant sidewalks.
- Virginia Street RAPID Extension Project – Extended RAPID from 4TH STREET STATION to the University of Nevada Reno, including the construction of eight new RAPID stations, sidewalk improvements, shared bus-bicycle lanes, and full reconstruction of Virginia Street in Midtown.
- Keystone Avenue & California Avenue Intersection – Safety, pedestrian, and bicycle improvements at the Keystone Avenue and California Avenue intersection.
- Pyramid Highway and McCarran Boulevard Intersection – Constructed safety, operational, and multimodal improvements at this major intersection.
- Jerry L. Hall Regional Transit Operations and Maintenance Center – Upgraded to increase charging and maintenance capacity for electric buses.
- Bike Lanes, Sidewalks, Multiuse Paths – Installed 30 miles of bike lanes, 10 miles of sidewalk, almost 12 miles of multiuse paths, and 445 ADA-compliant curb ramps.
- region wide.
- Implemented electric bus program.
- Improved bus stops region wide.

Keystone Avenue & California Avenue Intersection.



CHAPTER 2 – COMMUNITY-BASED PLANNING

The RTP is founded on a community outreach process designed to more fully understand the region's diverse and complex transportation needs with a people-

development groups, and area residents. Collaboration with the public encourages innovative ideas to emerge that address complex transportation issues.

Ensuring a broad base of participation

planning region-wide. It also allows RTC's priorities to interline with those of other groups and agencies who are working to enrich quality of life and create a more-livable community. Strong community support for the planning process will also greatly

projects and programs in the plan.

The 2050 RTP process was formed around the following outreach types:

- Participation of advisory groups that guided the planning process:
  - Agency Working Group
  - RTC Citizens Multimodal Advisory Committee
  - RTC Technical Advisory Committee
  - Inter-County Working Group
- Community planning workshops and virtual meetings held at strategic points during the plan-development process: identifying the vision and goals, developing alternatives, and evaluating/prioritizing alternatives.
- Use of online surveys.
- Forums that brought local residents

  topics important to the plan, including economic development, safety for school students, the Downtown Reno Circulation Study, and the Sparks Industrial Area Study.
- Integration with the Coordinated Human Services Transportation Plan outreach process.
- Presentations to the RTC Board.
- Involvement of other elected

  and community organizations.
- Digital and traditional media to reach a broad audience, including the RTC website, news releases, interviews, videos, the RTC YouTube channel, Facebook and Twitter, The Road Ahead with RTC (a television news segment on KOLO 8 News Now), and meeting announcements in English- and Spanish-language publications.

RTC held traditional public meetings in the early phases of plan development. The 2050 RTP process adapted to the unexpected onset of the COVID-19 pandemic in March of 2020, which restricted the ability to hold in-person meetings. The innovative use of technology allowed advisory committee meetings to transition to an online format. Virtual public meetings replaced in-person events.

Public comments were received using online surveys, phone calls, and emails. A robust community engagement continued to occur in a digital format.

2.1 – RTP AGENCY WORKING GROUPS

The Agency Working Group (AWG) helped to guide, inform, and provide technical expertise in all areas of the plan. The AWG collaborated with the RTC to ensure consistency with other planning strategies, initiatives, and policies in the region. This group has a more-expansive membership than the RTC Technical Advisory Committee.

- Coordinating regional
- Identifying the impacts of transportation on other agencies.
- Providing a forum to present innovative ideas at a regional level.

2.2 – RTC CITIZENS MULTIMODAL ADVISORY COMMITTEE

The Citizens Multimodal Advisory Committee (CMAC) is a standing committee that provides feedback TC Board of Commissioners.

The group meets monthly and is made up of residents from throughout the region with an interest in the transportation system. This diverse group represents community needs and concerns related to all modes of transportation. CMAC provided input regarding priorities for projects and services in the 2050 RTP.

2.3 – RTC TECHNICAL ADVISORY COMMITTEE

The Technical Advisory Committee (TAC) is a standing committee that TC Board of Commissioners. The group

members from partner agencies. This diverse group represents community needs and concerns related to all modes of transportation for local jurisdictions and agencies. CMAC provided input regarding priorities for projects and services in the 2050 RTP.

2.4 – INTER-COUNTY WORKING GROUP

It is important that the RTP is comprehensive and illustrates the vision for transportation planning

Nevada and the Lake Tahoe Region. Inter-regional collaboration with other nearby cities, counties, and MPOs ensures that RTC is able to build on transportation linkages and economic ties, as well as reduce the duplication

the same goal.

Public meeting about South Meadows.

Community discussion on the RTP.

Collaboration among regions allows for the development of greater ideas and partnerships that can have a positive impact on mobility options. The Inter-County Working Group included representatives from surrounding jurisdictions, including Carson City, Storey County, Tahoe Regional Planning Agency, Tahoe Transportation District, Lyon County, the City of Fernley, Placer County, Nevada Association of Counties, and NDOT.

2.5 – COMMUNITY PLANNING WORKSHOPS

Community planning workshops provided an opportunity for the public to actively participate in the planning process. The workshops took place at key decision points during the RTP including:

- Developing the vision, guiding principles, and goals.
- Identifying alternatives.
- Project evaluation and prioritization.

Community Planning Workshop #1:

Community Visioning Workshop

RTC held a public meeting to introduce the community to the 2050 RTP on February 27, 2020 from 5 - 7 p.m. at the Terry Lee Wells Discovery Museum.

The purpose of the workshop was to seek input on the community's long-term vision for transportation in the region. The guiding principles and goals of the RTP were discussed at the meeting.

The visioning survey was launched on February 25 and remained open until May 1, 2020. The RTC received more than 300 responses. The following is a summary of the responses:

- In terms of priorities, transportation safety has been ranked the most number of times, followed closely by bicycle infrastructure.
-

  connected sidewalks over those with amenities, investment in the core transit system over expansion, complete streets with lower speeds over roadway capacity

  less-expensive, on-street facilities, and investment in pavement preservation over new roadways.
- The majority (75%) of respondents indicated that their primary mode of transportation is driving alone in a personal vehicle.

Community Planning Workshop #2:

Alternatives Development

The Alternatives Development Workshop was launched in June 22, 2020 as a virtual public meeting and online survey. This included a video presentation and a survey that allowed people to identify any multimodal transportation concerns or ideas that they might have within the planning area. The survey was open through the end of July, 2020. All projects suggested during the call for projects were analyzed for consideration in the 2050 RTP.

Community Planning Workshop #3:

Alternatives Evaluation and Prioritization

The Alternatives Evaluation and Prioritization Workshop was available as a virtual public meeting and online survey from December 17, 2020 through January 14, 2021. This included a video presentation about the alternatives under consideration and an online survey that encouraged members of the public to identify their top-priority projects. Survey results were incorporated into the alternatives analysis and project-prioritization process.

2.6 – COMMUNITY FORUMS

Also critical to the development of the RTP was a series of community forums held on various topics including

the regional economy. A summary of these outreach events is provided below.

Washoe County School District

R
Leadership Council meeting to gather input about youth transportation safety and other concerns.

Sparks Industrial Forum

An in-person workshop with businesses and members of the public was held on February 26, 2020, to identify needs in the Sparks Industrial Area. The Sparks Industrial area is generally

and the Truckee River. Participants

and bicycle access to employment opportunities. This area includes strong transit ridership that remained high even during the COVID-19 shutdown. The high-pedestrian activity that accompanies transit ridership further supports the need for increased sidewalk connectivity to provide walking access to jobs.

Safety for all modes of transportation , with particular focus the unique needs

The land use in this area is transitioning from primarily industrial to including recreation and commercial uses. City land-use plans indicate a vision for making the Truckee River more accessible to the public and encouraging residential uses.

Economic Development Forum

The Economic Development Forum was held online on May 27, 2020. It included presentation by Mike Kazmierski of the Economic Development Authority of Western Nevada (EDAWN), Ann Silver of the Reno+Sparks Chamber, and Jennifer Cunningham of the Reno-Sparks Convention and Visitor Authority. These speakers provided insights into the ways transportation can support economic prosperity.

Employment Growth: The region is targeting advanced manufacturing, technology, ecommerce, and logistics as sectors for future economic expansion and job growth. Industrial development is occurring in Washoe County as well as the larger region, including TRI Center, Fernley, and Silver Springs. Priority corridors for freight movement and commuting to these emerging employment centers include:

- I-80 from Reno to Fernley.
- US 395 from Reno into the North Valleys.
- Pyramid Highway.
- Spaghetti Bowl.
- New corridor to connect the North Valleys, Spanish Springs, and USA Parkway.

Business-friendly transportation: Transportation investment that support the unique quality of life in W
business activity. Components of this include ease of commuting, reliable transportation, and mobility through various types of transportation such as walking, biking, and transit. A vibrant local economy will support the mobility needs of seniors, disabled residents, and youth, who may be less reliant on driving. Clean transportation infrastructure will also support the local economy, including zero-emission transit and an expansion of electric vehicle charging options for residents.

Supporting travel and tourism: Reno and Sparks attract visitors to resort casino destinations as well as outdoor recreation opportunities. Travel and tourism trends are shifting as a result of COVID-19, with a greater reliance on the drive-up market. Supporting highway infrastructure improvements will encourage visitors to drive to Washoe County from surrounding states. Expanding the transit system's connectivity to the Reno-Sparks Convention Center will also support the convention industry.

Of particular importance is the connection between the University, Downtown, Midtown, and the Convention Center. More than 4,000 hotel rooms are located in the Downtown Reno corridor and the Virginia Line RAPID transit service provides essential connectivity to the Convention Center.

Downtown Reno Circulation Virtual Workshop

The RTP process included a Downtown Reno Circulation Study to focus on

the City of Reno and RTC analyzed a series of transportation alternatives that were presented through this virtual workshop. The workshop included a video presentation and provided an option for individuals to submit comments about the alternatives as well as other suggestions or ideas. The virtual meeting was available from November 13 through December 11, 2020. A presentation of the concept was also made to the Downtown Reno Partnership.

2.7 – COORDINATED HUMAN SERVICES TRANSPORTATION PLAN (CTP)

The CTP was developed in coordination with the RTP. The CTP process included a series of virtual public meetings and stakeholder outreach.

Interviews with representatives of human services agencies and non- This included human service transportation providers, medical providers, veteran's services, and transportation network companies. A community transportation survey was conducted to identify issues to consider in the plan. The CTP was adopted by the RTC Board in December 2020.

2.8 – RTC BOARD OF COMMISSIONERS

The RTC provided regular reports to the RTC Board of Commissioners throughout the development process. The Board provided direction at strategic points, including adoption of the guiding principles and goals, the list of projects to be considered, the transit vision, and evaluation of alternatives.

2.9 – ELECTED OFFICIALS, BOARDS, & COMMISSIONS

The RTC also sought input about the 2050 RTP from local elected

commissions. Presentations were made to the following:

- Reno City Council
- Sparks City Council
- Washoe County Commission
- Regional Planning Governing Board

- Reno Planning Commission
- Sparks Planning Commission
- Washoe County Planning Commission
- Regional Planning Commission

3.0 – BROADCAST & DIGITAL MEDIA OUTREACH

RTC used a variety of tools to reach a broad spectrum of the community. In addition to workshops and other meetings, both traditional and electronic media were instrumental in sharing information and gathering feedback.

RTC Website

The RTC website was employed to encourage public participation, and as a method to store documents, presentations, and other materials related to the 2050 RTP.

Online Surveys

The RTC engaged the community with online surveys to help guide the RTP process.

Social Media

Public participation opportunities were promoted through social media outlets. These messages included links to the online surveys and information about participating in virtual public presentations and workshops.

Facebook, Twitter, and YouTube all featured content.

RTC eNews

Information about the 2050 RTP was included in the RTC's monthly electronic newsletter which is distributed to elected and government

leaders, and stakeholders.

MyRTC Email Updates

Members of the community who subscribe to MyRTC were also invited to participate. MyRTC enables internet users to sign up for updates on topics of interest to them.

Media Outreach

Another important component of the outreach program included news coverage, in newspapers, television, and radio. The RTC issued press releases to local media outlets and participated in media interview to inform the public about the RTP process, its topics, ways to get involved, and the importance of the RTP to the region. The RTC utilized its weekly broadcast segment, "The Road Ahead with RTC," which airs on KOLO 8 News Now, to further promote the RTP planning process including meetings and workshops (see schedule below).

- Advertisements for the community workshops were placed in local English and Spanish language newspapers.

The Road Ahead with RTC Segments

- February 25, 26, and 27, 2020: Regional Transportation Plan

- March 17, 18, and 19, 2020: Regional Transportation Plan MetroQuest Survey.

- June 30, July 1 and 2, 2020: Regional Transportation Plan Alternatives Analysis Virtual Public Meeting and Survey.

- December 1, 2, and 3: Regional Transportation Plan Process Continues.

- January 12, 13, and 14: Regional Transportation Plan Virtual Public Meeting and Survey to Prioritize Programs and Projects.

News Releases

- February 6, 2020: RTC invites Sparks Industrial Businesses to 2050 Regional Transportation Plan Community Meeting on February 26.

- February 20, 2020: RTC Launches 2050 Regional Transportation Plan with Community Meeting on February 27.

- April 20, 2020: RTC Encourages the Community to Take Two Quick Surveys.

- June 22, 2020: RTC Launches Community Survey for 2050 Regional Transportation Plan.

- November 12, 2020: RTC Launches Virtual Presentation for Downtown Reno Circulation Study.

- December 17, 2020: RTC Launches Virtual Presentation, Survey for Input on Future Projects.

CHAPTER 3 – IMPROVING SAFETY

Planning and building a safe multimodal transportation system is the most critical goal of the RTC. Safety is involved in all types of transportation: driving, walking, cycling, and riding transit. RTC engages in innovative planning and data analysis, public education, interdisciplinary collaboration, operations, and design, with the purposeful goal of reducing the number of crashes, injuries, and fatalities in Washoe County. In addition, RTC is a partner with local emergency

assistance and coordination during regional disasters.

Safety Priorities Include:

- Continue building stakeholder and multi-agency partnerships.
- Promote safety awareness and education through community outreach.
- Implement a Complete Streets approach.
- Enhance the accessibility and safety of transit stops.
- Implement ITS technologies.

3.1 – VISION ZERO TRUCKEE MEADOWS

In 2017, RTC led the creation of the Vision Zero Truckee Meadows task force. The task force was established to take equitable, data-driven, and transparent actions to improve safety throughout the community. By working together to make roads and sidewalks safer for pedestrians, the task force will make the roads safer for everyone. The task force has a goal of zero pedestrian fatalities by 2030. The only

our community is zero.

Through the shared regional commitment to safety, Vison Zero Truckee Meadows is committed to

deaths in the region.

The RTC recognizes the importance of pedestrian safety in addressing equity concerns in underserved parts of our community.

The Vision Zero Truckee Meadows task force members include:

- City of Reno
- City of Sparks
- Washoe County
- Regional Transportation Commission of Washoe County
- Washoe County Health District
- Federal Highway Administration
- Nevada Department of Transportation
- T
- Reno Bike Project
- Reno-Sparks Chamber of Commerce
- Renown Health
- Safe Kids, Washoe County
- University of Nevada, Las Vegas
- University of Nevada, Reno
- Washoe County School District
- Members of the community

The task force created an action plan

zero. Regional collaboration is vital to achieving this goal. The plan unites the region around a common goal to make the community a stronger and safer place for everyone.

Resolutions have been signed by the City of Reno, City of Sparks, Regional Transportation Commission, Washoe County Board of Health, and Washoe County to adopt the goal of zero pedestrian fatalities by 2030 as well as to support that action plan. Visit VisionZeroTruckeeMeadows.com to see the entire plan.

3.2 – SAFETY PLANNING

Nevada SHSP

The SHSP is produced by NDOT in cooperation with many agencies, including the RTC. The SHSP is a state-wide plan that covers six critical-emphasis areas and suggests many safety improvement strategies using the 5E approach, which focuses on education, enforcement, engineering, and emergency response. This plan is incorporated in the RTP and includes goals and objectives of the Vision Zero Truckee Meadows Task Force in the pedestrian goals of the plan.

Nevada's 2015 SHSP
seven Critical Emphasis Areas (CEA): impaired driving, intersections, lane departures, motorcycles, occupant protection, pedestrians, and teen drivers. NDOT has implemented strong public awareness campaigns regarding impaired driving and seat belt use. Because intersection crashes and incidents involving pedestrians and bicyclists are the most common on roads in the RTC planning areas, these CEAs receive the greatest focus in the RTP.

Complete Streets Master Plan

Adopted in 2016, the Complete

range strategy to improve safety for all users on regional roadways. The plan is based on extensive community

multimodal infrastructure investments will improve safety and connectivity.

Complete Streets can include a variety of elements and are designed to improve safety and accommodate local land-use characteristics. Potential components of Complete Streets can include sidewalks, bike lanes, shared-use paths, enhanced crosswalks, reduction in the number of travel lanes, and bus stops.

Because each Complete Streets design is customized to meet corridor needs, not all designs will include the same elements.

Data Analysis

The collection and analysis of crash data is important for continuous safety planning. RTC works closely with NDOT to analyze and publish information about safety trends over

impacts of particular projects. R serves on the SHSP data team and receives weekly updates about data available from NDOT and the Nevada

T

Corridor and Area Plans

Corridor planning is used to identify safety concerns and infrastructure solutions. The RTC has conducted plans for several regional corridors that have been incorporated into the investments shown in the RTP project listing. These plans incorporate safety analysis, needs for multimodal investments such as bicycle lanes and sidewalks, and other operational needs. Area plans have been completed for the North Valleys, South Meadows, and University Area.

Projects in several corridor and area plans have advanced to design and delivery, including Keystone Avenue and Sun Valley Boulevard.

severity of crashes and improve roadway safety, transportation and safety experts take part in NDOT's Road Safety Assessments (RSA) and Safety Management Plans (SMP) along with various corridors within the region. The assessments and plans are conducted in partnership with NDOT, RTC, local government agencies, emergency responders, and bicycle and pedestrian experts.

RSAs and SMPs are formal safety performance reviews of existing or future road or intersections by multidisciplinary teams which are performed to support corridor studies and identify short-, medium-, and long-term safety improvements.

3.3 – COMMUNITY AWARENESS & EDUCATION

Raising public awareness about safety concerns and providing educational materials is an important tool in improving safety. Of particular importance is awareness of pedestrian and bicycle safety best practices.

RTC attends various outreach events and provides the community with safety materials and information.

Motorist Tips to Help Keep Pedestrians Safe:

Look for and yield to pedestrians at intersections and in crosswalks.

Pay Attention – avoid distractions such as talking on your cell phone and texting while driving (it is against the law in Nevada).

Watch for vehicles slowing down around you. They could be yielding to a pedestrian.

Never pass a vehicle that is stopped at a crosswalk – it may be stopped for a pedestrian crossing the road.

When turning at intersections, always look for pedestrians on both the streets you are leaving and entering.

Slow Down – speeding greatly increases the likelihood and severity of a crash.

At 20 MPH, it can take a car 69 feet or more to stop and at 40 MPH, it can take 189 feet or more for a car to come to a stop – more than two and a half times the distance at 20 MPH.

Many factors (reaction time, pavement condition, vehicle size, tire age, driver experience, etc.) can also increase stopping distances greatly.

Pedestrians can also help prevent crashes by remembering the following tips:

Make eye contact with drivers before you step into the street.

Make sure they see you, plan on stopping and have time to stop.

Cross the street at crosswalks where motorists expect to see you.

Just because one car has stopped for you, others may not. Be cautious.

Keep looking. If not, walk on the left side of the street facing traffic.

Safety measures are often shared with the public through programs such as “The Road Ahead With RTC” segments on KOLO 8 as well as Safe Routes to School, Truckee Meadows Bicycle Alliance, SMART TRIPS, Healthy Communities, social media, and website outreach.

Safe Routes to School

RTC works closely with the Washoe County School District and NDOT to implement a successful Safe Routes to School Program (SRTS).

component geared toward students, The School District Police Department Safe Routes to School Coordinator conducts regular school-based events to teach K-8 grade students how to be more visible to motorists and how to follow safety precautions.

The SRTS Coordinator works with parents, school faculty

implement no idling zones in a way The SRTS Coordinator also provides input to RTC about capital investments that would improve safety on regional roads near schools.

Safe Routes to School event.

RTC SMART TRIPS

The **RTC SMART TRIPS** program assists businesses and citizens in using sustainable modes of transportation and adopting trip reduction strategies. The reduction in vehicle trips is a critical step toward maintaining and improving air quality in the Truckee Meadows and lessening

is linked to a reduction in crashes. Additionally, studies indicate that as the number of bicycle and walking trips increase there is a reduction in the crash risk for those travel modes.

sustainable transportation, the program helps educate the public on how to travel safely.

Safety messages for motorists, bicyclists, and pedestrians are distributed throughout the year at

fairs. Safety lights that can be worn on clothing or placed on bikes are also given to members of the public at these events. Safety brochures can be downloaded from the RTC website in the Public Transportation section on the Bicycling page (https://www.rtcwashoe.com/public-transportation/bicycling).

3.4 – OPERATIONS

Operations are another key component of the RTC safety program. Safety is a vital priority of the **RTC RIDE** and **RTC ACCESS** transit services. Safety operations include RTC's partnership in the Nevada T
Management (NV TIM) program as well as emergency management.

Safe Transit Operations

The Short-Range Transit Plan

secure transit service as a primary goal. The standard practices that address this goal include the following:

- The R
  programs to enhance the safety of public transportation and minimize the number of avoidable accidents involving transit vehicles.
- The RTC shall work with local, state, national, and private law enforcement agencies to eliminate security incidents in the RTC public transportation system.
- The RTC will inspect equipment and facilities biweekly based on industry-

  corrected immediately and before placing equipment and facilities into service.
- The RTC follows state requirements and national best practices to reduce the spread of COVID-19 on transit.
- Maintain visible level of system-wide security presence and surveillance coverage throughout the operating periods of the system.

RTC works with the local jurisdictions to improve pedestrian safety at bus stops by enhancing ADA accessibility, installing solar-powered lights where feasible, installing security cameras at **RTC RAPID** stations and at RTC 4TH STREET STATION and RTC CENTENNIAL PLAZA, and promoting general roadway safety.

Research by the Federal Transit Administration and the US DOT Federal Motor Carrier Safety Administration indicates that riding a bus is 26 times safer than driving an automobile.

Fatality rates per 100-million passenger miles are .93 for motor vehicles and .10 for bus travel.

NV TIM

The Nevada TIM program is a partnership of agencies and organizations working together toward a common objective: to reduce roadway and incident clearance times and to reduce secondary crashes.

It is a systematic, state-wide,

management of highway incidents (crashes), disabled or abandoned vehicles, debris in the roadway, work zones, adverse weather, and any other events and emergencies that impact the transportation system. A TIM is to restore roadways quickly and safely following an incident and to save lives.

NV TIM partners include:

- Law Enforcement
- Federal Highway, Homeland Security, and Federal Transit
- Fire and Rescue
- Emergency Medical Services
- Transportation Agencies
- Towing and Recovery Companies
- Emergency Managers
- Hazardous Materials Responders and Environmental Agencies (private and public)
- Media and Agency Public
- Medical Examiner and Coroner'
- University Systems

Emergency Management Plan

The RTC Emergency Management Plan (EMP) is the framework for emergency response and preparedness throughout Washoe County. The EMP is intended to support a comprehensive, all-hazards approach to emergency response management.

The plan will respond to a region-wide spectrum of emergencies as warranted by external professional emergency response organizations. The purpose of the plan is to protect life, minimize damage, and ensure continuity of operations so essential services may continue to be provided to the community.

The EMP applies to all emergencies that could impact Northern Nevada. Planned training, exercises, and drills are part of the EMP.

These planned events provide better coordination, response, and management of actual incidents or events. Planned events allow regional partners to test and exercise plans to improve the response and management of actual events.

Washoe County Regional Resiliency Study

The Washoe County Regional Resiliency Study was completed in 2014. The Resilience Study was prepared in response to potential climate variability related The last several decades have seen dramatic growth in the region, coupled with increased resource demands

region and may, in turn, impact the regions ability to provide essential services.

3.5 – SAFETY DESIGN IMPROVEMENTS

When building or reconstructing regional roads, RTC includes safety as a primary factor in project selection and design. The Complete Streets design approach has reduced crashes on many regional roads by between 31 and 46%.

The range of improvements, which are selected based on corridor land-use characteristics and transportation patterns, include the following:

- Installing or upgrading sidewalks and crosswalks.
- Adding bicycle lanes, shared

  or bike boulevards.
- Providing a center turn lane or median, or other access management treatments.
- Adding concrete bus pads that allow for passengers to safely load and unload.
- Providing intersection and
- Reducing the number of or width of travel lanes.
- Roundabouts to reduce speed and crash severity.
- Installation of Flashing Yellow
- Modifying signal timing to accommodate pedestrians and cyclists.
- Installing pedestrian crossing/ waiting areas in median islands.
- Road right of way, pedestrian walkways, and intersection lighting.
- Use of rumble strips on shoulders and centerlines along curves.
- and use of pavement safety edge.
- Street lighting.

Roundabouts along Eagle Canyon Drive and La Posada Drive.

Virginia Street before and after sidewalk improvements.

By installing design treatments that encourage cars to travel at speeds closer to the posted speed limit, RTC is able to reduce the number and severity of crashes.

Complete Streets design principles apply context-sensitive solutions to support all types of transportation. The primary purpose of Complete Street projects is to provide safe access and travel for all users, including pedestrians, bicyclists, motorists, and transit users of all ages and abilities.

These design treatments have been demonstrated to consistently reduce crashes on regional roads in the Reno-Sparks metropolitan region.

3.6 – RTP SAFETY PROJECTS

Safety was a key project prioritization factor in this RTP. While all projects are designed to improve safety, projects that address safety issues in high-crash

safety audits are listed below.

- Pyramid Highway/Sun Valley/ US 395 Connector.
- Oddie Boulevard/Wells Avenue multimodal improvements.
- Mill Street/Terminal Way multimodal improvements.
- Keystone Avenue multimodal improvements.
- Sparks Boulevard multimodal improvements.
- Sun Valley Boulevard multimodal improvements.
- Spaghetti Bowl improvements.
- Center Street cycle track.

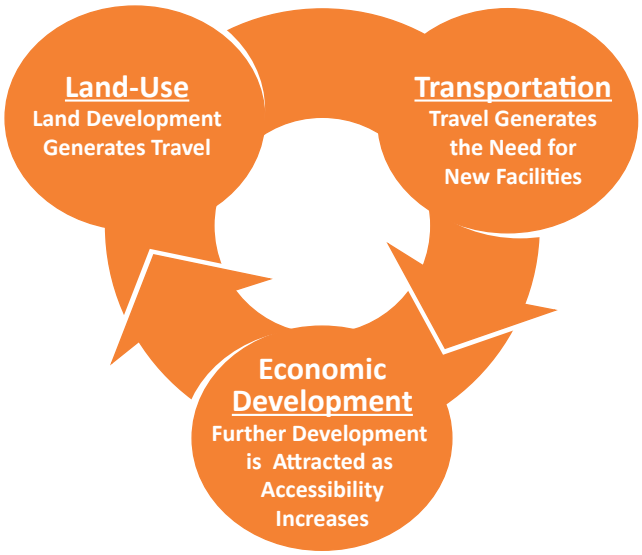
CHAPTER 4 – INTEGRATING LAND-USE & ECONOMIC PROSPERITY

Land-use, economic prosperity, and transportation are deeply connected. Transportation investments enhance access and mobility, improve the quality of the streetscape, and help create public spaces where people want to be. Transportation infrastructure is needed to serve existing neighborhoods and new growth that is occurring in the community. A network is also needed to support travel and tourism as well as industrial growth related to logistics, distribution, and advanced manufacturing.

Integration of Land Use, Transportation, and Economic Development

Figure 4.1

Integration of Land Use, Transportation, and Economic Development



Source: This graphic is based on a document produced by the US Department of Federal Highway Administration called An Overview: Land-use and Economic Development in Statewide Transportation Planning.

Transit-Supportive Development

One of the best ways to increase transit ridership is to encourage high-density housing and employment near transit stops. Providing convenient, enjoyable, and accessible pedestrian connections to bus stops is essential.

Land-use policies established by Reno, Sparks, and the Truckee Meadows Regional Planning Agency have incentivized this type of development in the Virginia Street, 4th Street/ Prater Way, and other key transit corridors. As an example, Midtown has emerged as a major shopping and dining destination with a growing

Victorian Square in downtown Sparks has also experienced a resurgence, as evidenced by the housing development near RTC CENTENNIAL PLAZA.
essential services are best suited to locations near transit lines to promote accessibility.

Multimodal infrastructure provides more options to get to work, school, recreational activities and provides access to necessary goods and services. High-capacity transit combined with Complete Streets design elements that provide pedestrian and bicycle access support a vibrant urban environment.

Transit supports regional tourism and economic development initiatives. It plays an important role in getting people to conventions, athletic venues, and other special events. As an example, **RTC RAPID** Virginia Line connects the Reno-Sparks Convention Center to downtown and major resorts supporting the tourism and convention industries. The **RAPID** extension to UNR will provide access to education and employment opportunities, as well as football, basketball, and other sporting events.

4.1 – REGIONAL PLANNING

The RTC collaborates with other

use, quality of life, and economic development. These organizations include the Reno-Tahoe Airport Authority, Truckee Meadows Regional Planning Agency, the Washoe County Health District, Washoe County School District, Washoe County Senior Services, the Truckee River Flood Management Authority, and the Reno Housing Authority.

A summary of planning policies that

are described below.

Reno Housing Authority

The Housing Authority of the City of Reno (Reno Housing Authority or RHA), was founded in 1943. RHA has been appointed as the Public Housing Authority for the City of Sparks and Washoe County as well. RHA owns and manages public housing in the City of Reno and Sparks under the Public Housing programs.

Through the use of the Neighborhood Stabilization Programs and other funding, RHA owns rental properties

households. RHA also provides housing subsidies to low-income families in Reno, Sparks, and Washoe County through Rental Assistance programs.

Reno-Tahoe International Airport

Owned and operated by the Reno-Tahoe Airport Authority, the Reno-Tahoe International Airport (RTIA) is located in the core of the Reno-Sparks metropolitan area and is essential to the economic growth of the region. The RTIA is an important asset to the region, generating a total annual economic impact of $3.1 billion. The airport functions like a small city with more than 2,400 employees working for a variety of companies. It serves 4.1 million passengers per year. In 2019, approximately 147 million pounds of cargo arrived/departed RTIA. The airport is crucial to the success of tourism and cargo-related industries in Northern Nevada.

The Reno-Tahoe Airport Authority also operates the Reno-Stead Airport. The Reno-Stead Airport is a 5,000 acre general aviation facility and is home to the National Championship Air Races and contains an FAA-designated Unmanned Autonomous Systems (UAS) test range.

Truckee Meadows Regional Planning Agency

The Truckee Meadows Regional Planning Agency (TMRPA) is responsible for the preparation and implementation of the Truckee Meadows Regional Plan (referred to as the Regional Plan). The TMRPA is comprised of the Regional Planning Governing Board (RPGB), the Regional

The Regional Plan was updated in 2019 and provides the framework for growth in the Truckee Meadows for the next 20 years. The Plan focuses on the coordination of master planning in Washoe County as it relates to population, regional form and land use patterns, public facilities and service provision, natural resources, and intergovernmental coordination.

regional units of government, the major service providers, and the citizens of the Truckee Meadows and is intended to represent a regional consensus reached through a process of public conversation and decision-making to provide a unifying framework for local and regional policies and services.

The Regional Plan established the Truckee Meadows Service Area

within which services and infrastructure are anticipated to be provided within a 20-year time frame. The 2019 Truckee

the TMSA
Regional Land Designations (RLDs or Tiers) to establish a priority hierarchy for managing regional growth and requires that local government and

plans, and other similar plans promote

growth and investment priority:

1. Mixed Use Core
2. Tier 1 Land
3. Tier 2 Land
4. Tier 3 Land
5. Rural Area

The Regional Land Designations are a mechanism designed to represent available or planned infrastructure and service provision.

The Facilities and Services standards table in the 2019 Regional Plan outlines the expected availability both within and outside of the TMSA. In

RTP recognizes this priority hierarchy and the RTC has utilized the hierarchy to inform the projects list and their time frames. The RTC also consistently coordinates with TMRPA and the local jurisdictions to ensure the priorities in the Regional Plan as well as the master TP.

Further, TMRPA works closely with the local jurisdictions to develop population and employment projections by T Analysis Zone (TAZ), which are assigned in the RTC travel demand forecast model. In accordance with RPGB policy, the Washoe County population and employment projections, called the Consensus Forecast, uses a number of leading forecasts, which has several advantages over using a single source for forecasting population. RTC and TMRPA collaborate closely on a wide range of data management and analytical issues. Through a Shared Work Program, the two agencies are able to access data on a common server and undertake joint technical analysis.

Washoe County Health District

The Washoe County Health District is a strong partner with RTC in promoting a healthy community.

The District's Air Quality Management Division (AQMD) and Chronic Disease Prevention Program actively support transportation investments that improve community health.

The W
a healthy community as "one that

accessible transportation systems, work for all who want to work, a healthy and safe environment with

access to health care services which focus on prevention and staying healthy."

The Health District sponsors several healthy community initiatives based on the concept that health is more than

broadly to include the full range of quality of life issues.

Air Quality Management Division (AQMD)

The AQMD implements clean air solutions that protect the quality of life for residents of Washoe County through community partnerships and programs such as air monitoring, permitting and enforcement, planning, and education. The Division monitors ambient air quality for the determination of compliance with National Ambient Air Quality Standards (NAAQS).

Additional information about air quality is provided in Section 5.2.

Chronic Disease Prevention Program

In addition to the link between auto emissions and respiratory health, RTC collaborates with the Washoe County Health District to promote active transportation and awareness of Active transportation includes walking, biking, and riding transit (which generally begins or ends with walking to or from a bus stop). Including physical activity as a part of daily activities helps to reduce obesity and the resulting chronic conditions such as heart disease and diabetes. However, this will occur only if safe and accessible sidewalks and bicycle facilities are readily available. GetHealthyWashoe.com is a website that includes information about active living and biking to work was sponsored by the Health District and in coordination with RTC.

Community Heath Improvement Plan

The Health District, in partnership with Truckee Meadows Healthy Communities, developed a Community Health Improvement Plan in 2016.

This plan developed priorities and action plans to improve health in the region with a focus on access to healthcare and social services, behavioral health, education, and food security.

The plan included a goal to expand public and private transportation options that support access to transportation for essential services, such as medical appointments and social services, and allow seniors to live independently.

Washoe County School District

RTC works closely with the Washoe County School District and the Nevada Department of Transportation on the SRTS.

The School District Police Department implements this program, which includes a combination of capital investments, organization of parent volunteers at school zones, development of operational plans, and student education. The School District's SRTS Coordinator participates in RTC plans and studies to identify important student safety and accessibility issues.

The program is funded by RTC through Surface Transportation Block Group grant funds.

RTC also works closely with the School District regarding school siting and associated transportation infra-structure needs.

The regional school population is

were four new schools that opened and two additional new schools opened in 2020. During the 2019-2020 school year, the walk zones were expanded in the community, which resulted in more youth walking and bicycling to school.

SRTS focuses on K-8 grades; therefore, RTC, NDOT, and local jurisdictions work together to evaluate school zone safety for the region's high schools.

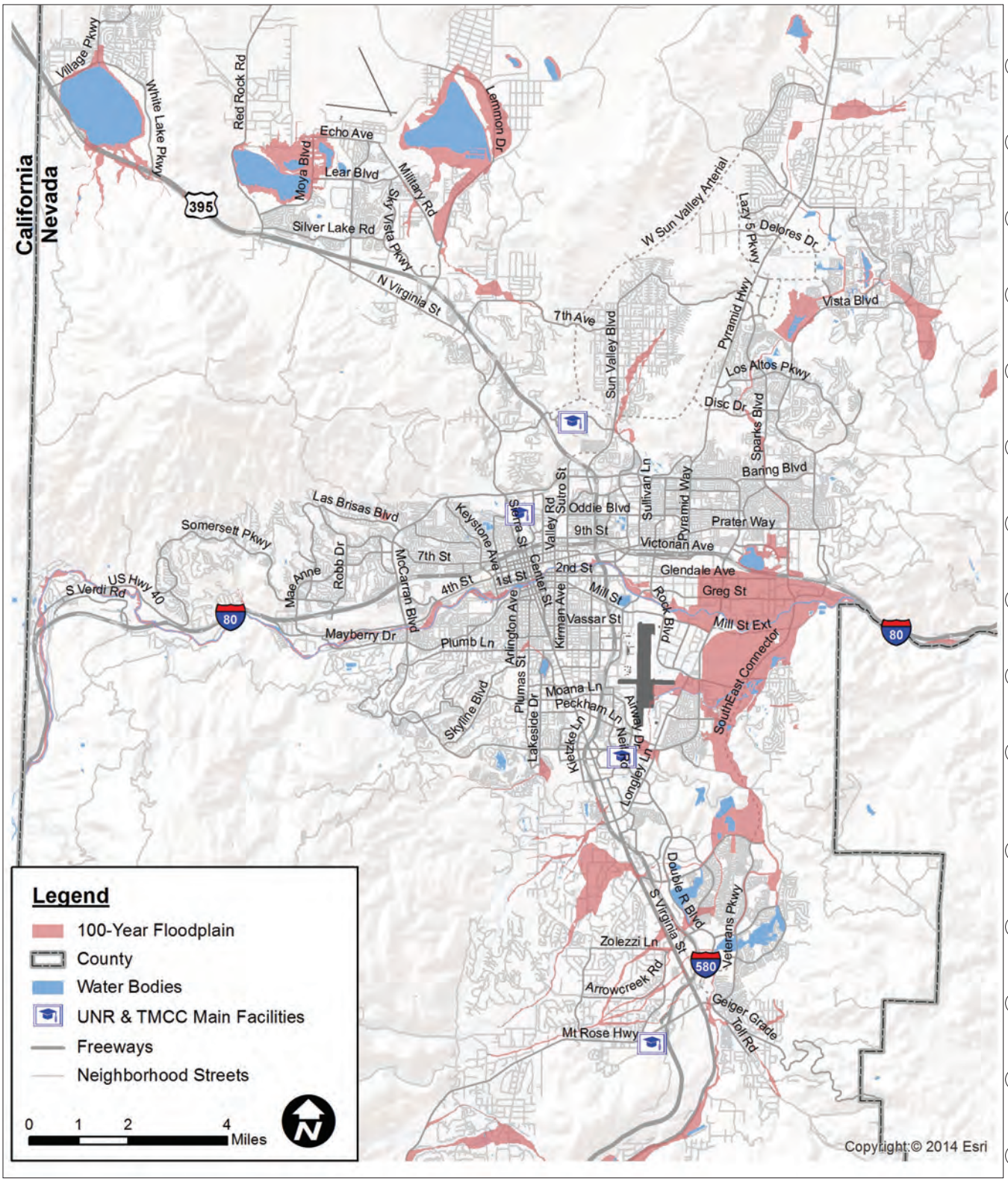
GIS map access is being constructed

get to school. In addition to the GIS mapping tool, additional electronic and media platforms are being utilized for expansion of home-based and remote learning.
with more families choosing in-home learning, the number of students walking and bicycling to school is reduced.

Safe Routes to School is a Vision Zero Truckee Meadows partner and is exploring the Vision Youth program moving forward. Vision Youth utilizes the same mindset that fatalities are not acceptable and sets the goal of zero fatalities for students walking and biking to and from school.

WATER RESOURCES AND FLOOD HAZARDS

MAP 4.1



Washoe County Senior Services

Washoe County Senior Services assists older adults in the community so they can maintain independence and quality in their lives. Washoe

nutrition program, legal services, social services, adult day care, and recreational activities at the Washoe County Senior Center and Sparks Senior Citizens Center. The Strategic Plan for Washoe County Senior

term issues facing the region's aging population, including mobility and accessibility.

The Strategic Plan highlights the importance of locating senior housing developments and other services near existing transit routes and improving the sidewalk network to promote active, healthy lifestyles. Senior Services is a partner with RTC in providing transportation information and other resources to local senior citizens.

Truckee River Flood Management Project

The mission of the Truckee River Flood Management Project is to reduce

Truckee Meadows, restore the Truckee River ecosystem, and improve recreational opportunities by managing the development and implementation of the Truckee River Flood Management Project.

The Truckee River Flood Project developed an action plan that provided a forum for residents, businesses, community leaders, regulatory

and evaluate possible solutions.

Floodplain Management

Washoe County has been a member of the National Flood Insurance Program (NFIP) since 1984 reviewing all new

areas (Flood Zones).

controlled by Washoe County Flood Hazard Ordinance 416, and Federal Emergency Management Agency (FEMA) regulations. In May 2009, W
of the FEMA Community Rating System (CRS). A
plains can be found in Map 4-1.

4.2 – LOCAL GOVERNMENT PLANNING

The City of Reno, City of Sparks, and Washoe County are responsible for local land-use planning in the region. A summary of key land-use policies as they relate to transportation for each entity is provided below.

In addition, RTC participates in the development review processes with each local government to provide input on access management, transit, pedestrian and bicycle facility improvements, and to ensure consistency with long range transportation plans. Additional coordination occurs at a local and regional level between all agencies

or activities.

City of Reno

The Reno City Council adopted their Master Plan, titled ReImagine Reno, on December 13, 2017.

This Master Plan is the result of the

Reno's history.
ideas, values, and desires of the community, aligning these with a range of plans, policies, and initiatives in place or underway in both Reno and the wider region.

level of policy guidance included in the Master Plan.

community's visions and values and articulates the type of place desired for Reno. Together, they address a range of topics, providing the framework for Master Plan goals and policies that will help to guide decision making across the City. Guiding Principle 5, a Well-Connected City and Region, is supported by the following goals:

- Continue to develop a safe, balanced, and well-connected transportation system that enhances mobility for all modes.
- Actively manage transportation systems and infrastructure to improve reliability , and safety.
- Facilitate the movement of goods and services throughout the region via truck, air, and rail.
- Encourage the use of transit, car or van pools, bicycling, walking, and other forms of alternative transportation.
- Anticipate and plan for the implications and opportunities associated with connected vehicles, autonomous vehicles (AVs), and the expected transition from personal car ownership to mobility-as-a-service.

City of Sparks

The City of Sparks completed its comprehensive plan, Ignite Sparks, In August 2016. The City is in the process of updating the plan to ensure compliance with the 2019 Regional Plan. Ignite Sparks addresses the relationship between land-use, economic development, and transportation.

Included within its Vision Statement is a desire for “integrated connectivity with a maintained road network which includes bike and pedestrian pathways.” This vision is supported by the following goals:

- transportation system that gives Sparks residents of all ages and visitors access to employment, housing, services, and recreation throughout urban Washoe County.
- Provide a transportation network that supports business formation and attraction and economic vitality.
- Facilitate non-motorized travel throughout the community.

Washoe County

The Washoe County Master Plan is divided into three volumes. It includes county-wide elements, area plans, and a number of more detailed plans. The Master Plan is used to determine the most desirable location of each type of development. The plan has

development suitability and conserve natural resources.

It also includes growth forecasts as

desires related to land-use and transportation. Finally, the Master Plan has standards and maps to guide provision of public services and facilities.

The primary focus of the Land-Use and Transportation Element (LUTE) of the Master Plan is to provide for future population and employment in Washoe County.

The purpose of the land-use and transportation section is to encourage sustainable growth practices while discouraging sprawled communities where the automobile is viewed as a necessity to obtain daily amenities.

transportation systems:

- Promote the connectivity of the neighborhoods within the larger community and region.
- Direct public transportation to the core of an area or to areas with more intense development.
- Establish a high-quality, pedestrian-oriented street environment that is visually interesting, comprehensive, and varied.

The RTC is currently coordinating with the County as they have begun to update their Master Plan.

4.3 – TRIBAL GOVERNMENTS

Pyramid Lake Paiute Tribe (PLPT)

The Pyramid Lake Indian Reservation is comprised of more than 475,000 acres in Northern Nevada and contains portions of Interstate 80 and several State highways including SR 445, SR 446, SR 447, and SR 427.

The approximate 2,200 members of the Tribe (of whom about 1,300 live on the reservation) are direct descendants of the Northern Paiute people who have occupied the vast areas of the Great Basin for thousands of years. Pyramid Lake is located 35 miles northeast of Reno and is the property of and managed by the PLPT and is visited annually by over 150,000 people from around the world.

The PLPT operates its own transit system which serves communities within the Reservation as well as to services in nearby Reno and Sparks.

The Long-Range Transportation Plan for the Pyramid Lake Paiute Reservation (updated in May 2018)

- , especially on state highways.
- Transportation improvements to serve economic development goals.
- Pedestrian safety improvements.
- Address condition of unpaved roads.
- Safety signage.
- Regular roadway maintenance.
- Safety improvements around schools and preschools.
- Maintenance and continued development of tourism infrastructure.

Reno-Sparks Indian Colony (RSIC)

The Reno-Sparks Indian Colony is a federally recognized Native American Tribe located within the Reno/Sparks metropolitan area. The Reno-Sparks Indian Colony was established in 1917 and was formally recognized in 1936 under the Indian Reorganization Act. Currently, the tribal membership consists of over 1,100 members from three Great Basin Tribes – the Paiute (Numu), the Shoshone (Newe), and the Washoe (Wa She Shu).

The reservation lands primarily consist of the original 28-acre residential Colony and another 15,263 acres in Hungry Valley, which is 19 miles north of the Colony nestled in scenic Eagle Canyon.

Over the past three decades the Colony has assembled various development sites in Reno, Sparks, and Washoe County, representing 83 acres of commercial property. The redevelopment of Reno's East Second Street neighborhood, where half the Colony's residents live, consists of the development of the Three Nations Plaza (Wal-Mart), relocation of the Northern Nevada Transitional Center and the RSIC Health Center.

The development of the 65,000 square foot outpatient Health Care facility was constructed from the proceeds of the Colony's economic development

members and more than 9,000 Native Americans residing in the region.

The Reno-Sparks Indian Colony

between the Reno and Hungry Valley communities. The transit system runs Monday through Saturday and includes nine stops to connect Tribal Members with Tribal Government services, the RSIC Health Center, residential neighborhoods, and Tribal Enterprises.

4.4 – OTHER REGIONAL PARTNERS

Nevada Governor's Office of Economic Development

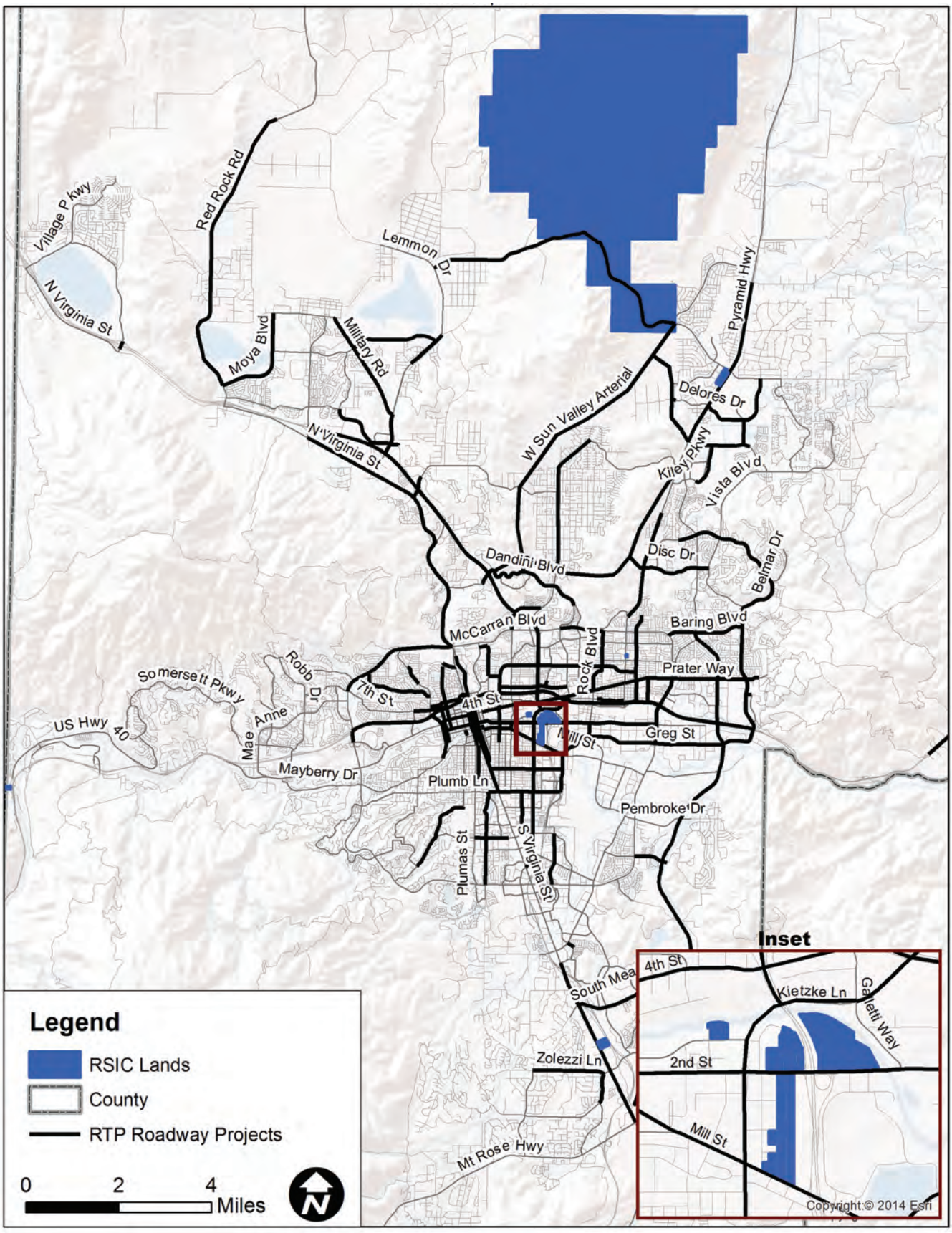
The Nevada Governor' Economic Development has a vision for a vibrant, innovative, and sustainable economy with high-paying jobs for

in the State Plan for Economic Development are:

- Increase opportunity through education and workforce development.
- Catalyze innovation in core and emerging industries.
- Advance targeted sectors and opportunities in the region.

RSIC PROPERTIES

MAP 4.2



- Expand global engagement.

Business IT ecosystems, such as E-commerce operations and headquarters, and logistics businesses such as warehousing and distribution, advanced logistics, air cargo, integrated manufacturing-distribution, and freight transport, are targeted industries for Northern Nevada. RTC is partnering with the State of Nevada to invest in infrastructure that supports these strategic economic development sectors.

Nevada Center for Advanced Mobility

The Nevada Center for Advanced Mobility (CAM) provides the contact point bringing together industry, government and academia to develop and deploy policy, standards and technology around advanced mobility including electric, connected, autonomous vehicles, and related infrastructure. RTC is a partner with the Nevada CAM in outreach activities.

In 2011, Google worked with Nevada

autonomous testing and consumer regulations. Nevada maintains leadership in regulation and policy development at the city, regional, and state levels, serving as a reference for other cities and states.

Nevada CAM works with partner agencies such as RTC, industry representatives, and other stakeholders to gather input and help shape the future.

University of Nevada, Reno (UNR)

UNR was established in Reno in 1891 and as of fall 2019 had more than 21,000 students. The University is one of the largest activity centers in the region. RTC often partners with UNR

related to engineering and planning projects.

UNR works closely with RTC to promote safe multimodal transportation for its students especially in the downtown and campus areas. The RAPID Virginia Line extension to UNR and the EdPass Program that allows students, faculty ride transit free with their university

need for cars on campus and greatly expand the traveling convenience for the student population. The partnership with UNR also extended to development of the University Area Multimodal Transportation Study, which

improvements in the campus area.

EDAWN

EDAWN is a private/public partnership committed to recruiting and expanding quality companies that have a positive economic impact on the quality of life in Greater Reno-Sparks-Tahoe.

In accordance with the Economic Development Strategic Plan, EDAWN works to support job growth in target industries including:

- Aerospace/Aviation/Defense
-
  (call centers)
- Clean Energy/Geothermal
- Distribution/Logistics
- Financial and Intangible Assets
-
- Headquarters for any type of industry
- Manufacturing

EDAWN is a supporter of RTC's initiatives to promote transportation investments such as bicycle, pedestrian, and transit amenities that attract people to the region.

These amenities lead to a better quality of life, a healthier community and contribute to the recreational opportunities that are an asset to the Truckee Meadows. In addition, strategic transportation investments in roadways facilitate goods movement in support of logistics, distribution, and advanced manufacturing.

4.5 – TRAVEL & TOURISM

The travel and tourism industry is central to the Northern Nevada economy. With more than 20,000 hotel rooms in the Reno-Sparks metro area, resorts and gaming have long been major economic drivers for the region. Reno is a gateway to the outdoor mountain destinations surrounding the Lake Tahoe area, including world-class ski resorts, and world-renowned hiking trails.

Climbers ascend one of the many rock surfaces on the Sierra Mountain range (above).

The growing arts community, including Reno's annual Artown festival and the many events associated with the Burning Man festival, are expanding the tourism base. Public art, including sculptures and murals, further integrate this vibrant creativity into the fabric of the community. This emerging arts tourism is further supported by the growing craft brewery and restaurant scenes in downtown Reno and Sparks.

The Reno-Sparks metropolitan area is uniquely suited to hosting large events due to the strength of the existing hospitality industry. Other strengths include the centrally located Reno-Tahoe International Airport and the successful **RTC RAPID** transit system.

The region's major resort hotels are connected to downtown Reno and Sparks as well as the Reno-Sparks Convention Center by the Virginia Line and Lincoln Line RAPID transit services.

Sporting events at various levels, ranging from professional events such as the Reno Aces to high school and senior tournaments, support the local tourism industry and wider economy.

network play a key role in facilitating the movement of tens of thousands of visitors during these events.

RTC partners with the Reno-Sparks Convention and Visitors Authority to support the travel and tourism industry.

Sports tourism has a major impact on the regional economy. The premier professional sporting venues in the region, including Greater Nevada Field, the Reno Events Center, and the National Bowling Stadium, are adjacent to the RTC 4TH STREET STATION. Sporting events supported by the regional transportation network that have a positive impact on Northern Nevada include:

- University of Nevada, Reno Division I Games – The Nevada Wolf Pack sports teams play at Mackay Stadium and Lawlor Events Center, which are located on North Virginia Street. These venues are currently served by **RTC RIDE** routes 7 and the Virginia Line.
- Reno-Tahoe Senior Winter Games – This event is sponsored by the City of Reno Senior Advisory Committee and Senior Care Plus.

The program is dedicated to

programs and activities for people 50 years and older.

- Reno Aces Baseball – The 2012 AAA National Championship team plays at Greater Nevada Field in downtown Reno, a block from RTC 4TH STREET STATION. The Reno

Major League Baseball (MLB) Arizona Diamondbacks.
United States Bowling Congress Tournaments – This national championship event is held at the National Bowling Stadium, which is located across the street from RTC 4TH STREET STATION.

- Reno-Tahoe Open – This golf tournament is held at Montreux Golf & Country Club, which is located on Mount Rose Highway in south Reno.
- National Freestyle Skiing Championships and US National Alpine Skiing Championships – These national ski competitions are hosted by venues in or near the Lake Tahoe Basin.

4.6 – RTP PROJECTS SUPPORTING LAND-USE PLANS

Consistency with local land-use plans was an evaluation factor in selecting projects for inclusion in this RTP. Several projects were developed with a specialized focus toward supporting land-use and economic development policies, as listed below.

- Oddie Boulevard/Wells Avenue multimodal improvements.
- Mill Street/Terminal Way multimodal improvements.
- Center Street cycle track.
- West 4th Street Multimodal Improvement.

One of the preliminary plans for Oddie Boulevard/Wells Avenue Project.

Transportation plays an important role in community health and environmental sustainability. This chapter describes initiatives to reduce greenhouse gas emissions, improve air quality, and provide opportunities for active transportation. This plan supports the RTC Sustainability Policy and the State of Nevada Climate Strategy.

5.1 – SUSTAINABILITY

The RTC is committed to providing Washoe County with sustainable multimodal transportation options. The Complete Streets program advanced through this RTP will continue to provide infrastructure that supports active transportation. As a part of this commitment, the RTC adopted a Sustainability Policy in September 2011. TC's initiatives to promote, continually improve upon, and implement sustainable practices within the agency.

RTC Sustainability Policy

The RTC shall provide a safe, effective, and efficient transportation system that addresses environmental, social, and economic sustainability issues. By providing sustainable transportation, the RTC can actively play a role in improving the health and economic competitiveness of the region as well as reduce costs by using resources more efficiently.

RTC Sustainability Plan

In 2017, RTC completed its Sustainability Plan, which serves as a guideline for conducting operations

sustainable practices and continuing to provide sustainable and reliable transportation options. The plan created a benchmark of the current sustainability initiatives in which the RTC engages. It also includes a comprehensive organizational vision of sustainability to guide the agency's

operations and maintenance, and internal activities.

RTC Facilities and Vehicles

The RTC incorporates sustainable practices at all of its facilities. Some

HVAC systems, installation of external LED lighting, reduction in water usage for landscaping, and solar lighting at several bus shelters. In addition, RTC purchases sustainable products for use in daily maintenance and operations.

The R

buses, including 100% electric (zero emission) and hybrid-electric buses, and is exploring hydrogen fuel cell technologies for consideration in future bus purchases. Additional information is available in Chapter 7.

APTA Sustainability Commitment

The RTC signed the American Public Transportation Association (APTA) Sustainability Commitment in October 2012. This requires signatories to enact core sustainability principles throughout their organizations and to develop sustainability action plans.

Nevada State Climate Strategy

Under Governor Sisolak's executive order on climate change, state agencies were directed to develop Nevada'
Strategy establishing a framework to advance Nevada-wide climate action for a healthy, sustainable, resilient future. The State Climate Strategy was developed using the best available science, combined with robust input from thousands of Nevadans through a series of listening sessions on a full range of climate topics, a climate survey, consultation with subject-matter experts, stakeholder meetings, webinars, and more.

Nevada climate strategies, as they relate to transportation, include the following:

- Adopt low- and zero-emissions vehicle standards.
- Implement clean truck program.
- Adopt low-carbon fuel standards.
- Implement state car allowance rebate system, such as a Cash for Clunkers Program.
- Close emissions inspection loopholes for classic cars license plates.

RTC fully supports addressing the climate crisis through strategic transportation investments. Reducing greenhouse gas emissions from the transportation sector improves air quality and community health. This RTP contains investments in public transportation, sidewalks, and bicycle facilities that give people a wide range of mobility options. The investments in sidewalk, crosswalks, and lighting in underserved communities will further promote transportation choices and support equity by addressing pedestrian safety. R
continue to work with the State on the many important aspects of climate action.

Nevada Climate Action

The overarching goals of the 2020 Climate Strategy are to:

1. Provide a framework for reducing Nevada's Greenhouse Gas (GHG) emissions across all economic sectors.
2. Lay the groundwork for climate adaptation and resilience.
3. Establish a structure for continued, ongoing climate action across the state.

The 2020 State Climate Strategy builds a foundation for future climate action under the State of Nevada Climate Initiative.

With the vision of ensuring a vibrant, climate-resilient future for Nevada, the State of Nevada Climate Initiative (NCI) was launched in the summer of 2020. As the home of Nevada-wide climate action, the NCI is committed to reducing Nevada's GHG emissions and dedicated to achieving resilient communities that are prepared to successfully adapt to a changing environment and climate.

The 2020 State Climate Strategy informs policymaking on how Nevada will achieve the ambitious targets established by SB 254 and provides an integrated framework for evaluating climate policies that make sense for Nevada. Given the complexities of climate change, it is imperative that policies to reduce GHG emissions be approached systematically so there is a

5.2 – AIR QUALITY

both cardiovascular and respiratory health and can help to conserve resources. Through the promotion of active transportation and use of alternative fuels, RTC is working to improve air quality. By increasing the number of passengers who utilize transit there will be fewer single-occupant vehicles on the road, leading to reduced air pollutants.

Complete Streets are roadways that accommodate multiple modes of transportation, which could include transit, bicycles, pedestrians, and automobiles. Data collected at recent RTC projects indicates that people are more likely to utilize alternate modes of travel if there are safe facilities such as bike amenities and wide sidewalks.

Climate Justice

Across the United States and in Nevada, low-income communities, people of color, and Indigenous populations have disproportionately borne the burden of climate change impacts. As temperatures continue to rise and climate-related challenges expand and intensify, particular attention must be paid to these vulnerable populations. Through climate action, there is the opportunity to reconcile the social justice challenges Nevadans face.

Nevada is committed to reducing GHG emissions, which contribute directly to climate change. With the passage of SB 254 in 2019, Nevada adopted aggressive GHG emissions-reduction targets: 28% by 2025, 45% by 2030, and net-zero (near-zero) by 2050.

RTC data demonstrates that the proportion of people walking in a corridor increases 10 times when sidewalks are provided and the proportion of people biking doubles when bike lanes are provided. Walking and bicycling not only promote improved air quality, but can lead to a healthier and more active community.

RTC works closely with the AQMD

quality. The Truckee Meadows is approximately 200 square miles in size and includes Hydrographic Area 87 (HA 87)
Division of Water Resources. This geographic area is subject to air quality monitoring. The U.S. Environmental Protection Agency (EPA) has set health and welfare based on NAAQS for the following pollutants:

- Ozone (O_3).
- Particulate Matter less than or equal to 2.5 microns ($PM_{2.5}$).
- Particulate Matter less than or equal to 10 microns (PM_{10}).
- Carbon Monoxide (CO).
- Nitrogen Dioxide (NO_2).
- Sulfur Dioxide (SO_2).
- Lead (Pb).

The mission of the AQMD Monitoring Program is to monitor and assure the accuracy of the ambient air quality data collected for the determination of compliance with the NAAQS.

In the 1980s and 90s, Washoe County failed to meet air quality standards for carbon monoxide and particulate matter (PM_{10}) and was designated "non-attainment" for those pollutants.

air quality over recent decades, the region now meets current standards and has plans in place to maintain or further improve air quality. The EPA redesignated HA 87 to "attainment" in 2008 for CO and 2016 for PM_{10}. Additional information about air quality measurements, state implementation plans, and maintenance plans are available at the Health District's website, OurCleanAir.com.

Transportation has a substantial impact on air quality in Washoe County, as outlined below.

- Motor vehicles, trucks, and buses on our roadways cause 57% of nitrogen oxides (NO_X) pollution, which are precursors to ozone, during the summer when ozone is usually at its highest levels.
- Motor vehicles cause 24% of volatile organic compound (VOC) pollution, another ozone precursor.
- They cause 6% of small particulate pollution ($PM_{2.5}$) during the wintertime $PM_{2.5}$ pollution season.
- They cause 2% of large particulate pollution (PM_{10}) during the wintertime particulate pollution season.
- Vehicles traveling on our roadways also create air pollution from the re-entrained road dust.
- In addition, air pollution is created from road construction activities and from non-road mobile equipment used for roadway construction, as well as from other transportation sources such as railroad locomotives and aircraft.

The EPA regularly reviews each air quality standard to ensure they are set at levels that protect public health. In 2015, EPA strengthened the eight-hour ozone standard from 0.075 to 0.070 ppm.

This revision was based on dozens of health-based studies showing that lower levels of ozone are harmful to the public. Monitoring data through 2019 indicates that the southern portion of Washoe County is at 0.070 ppm, or 100% of the NAAQS. The AQMD is participating in EPA's Ozone Advance program, which includes voluntary initiatives to improve ozone levels. The initiatives focus on three categories of strategies – technology, behavior, and the built environment. Resolutions supporting the Ozone Advance program have been adopted by the District Board of Health, Board of County Commissioners, City of Reno, City of Sparks, Regional Planning Governing Board, and the RTC. This program supports additional transportation options to reduce motor vehicle trips and Vehicle Miles Traveled

ashoe County.

A key, long-term Ozone Advance initiative is to incorporate smart-growth elements into the built environment to reduce our region's per capita trips and VMT. Providing transportation choices improves air quality and public health. To date the RTC has implemented or

the R
footprint and reduce pollution.

5.3 – ACTIVE LIVING & COMMUNITY DESIGN

to physical activity opportunities, healthy foods, jobs, schools, and other essential services. Many neighborhoods, shopping centers, and employment centers are designed to require a car to access services, thus leading to a lack of daily physical activity associated with mobility/ transportation. This lack of activity has contributed to an increase of chronic diseases. In Washoe County only 21% of high school and 32% of middle school students are getting the recommended amounts of physical activity and 57% of adults report being overweight or obese. More information is available at GetHealthyWashoe.com.

One way to encourage active living is to create a community with mixed land-uses that allow residents to walk to school, work, parks, and shopping. As demonstrated in the RTC Bicycle and Pedestrian Count Program, providing sidewalks and bike lanes correlates to an increase in the proportion of people walking and biking on regional roads.

2018-2020 Community Health Improvement Plan (CHP)

RTC participated in development of the CHIP in 2017, a process that was led by the Washoe County Health District. Three primary areas of focus for the plan included housing, behavioral health, and nutrition/physical activity. Nutrition and physical activity was selected as a focus area as it plays a critical role in preventing a wide array of chronic diseases. While diabetes, heart disease and stroke are diseases of concern, they are all diseases that can be decreased by improving nutrition and physical activity. Providing infrastructure for active transportation such as walking and biking can help improve community health.

Washoe County Senior Services

The Strategic Plan for Washoe

transportation as one of the most

that care for seniors. In a survey of care providers conducted for the strategic plan, transportation needs

obtaining necessary medication in importance. Public transportation and walkable neighborhoods are both top transportation priorities that contribute to the plan's mobility goals for seniors. This is especially true for seniors who

links to resource centers and other services.

The plan also includes a goal for healthy aging, or increasing the percentage of seniors living in the setting of their choice with support to remain as independent and healthy as possible.

Community design and infrastructure that provide access to services and a sidewalk network that promotes walking will support healthy aging and allow seniors to reside in their homes longer. To further support this goal, new senior housing developments and other services targeted to seniors should be located in areas with existing transit service.

Safe Routes to School

RTC has partnered with the Washoe County School District Safe Routes to School Program. The goal of the program is to improve the health of school age children and build life-long habits of walking and bicycling. The program provides encouragement for walking and biking as well as safety education and awareness training throughout the school year. Additional information is provided in Chapter 3.

Food Deserts and Transit Access

Access to fresh and nutritious foods is an important part of community health. The U.S. Department of Agriculture

convenient access to healthy food is

low-income census tracts where a substantial number of residents have low access to a supermarket or large grocery store.

Low access to a healthy food retail

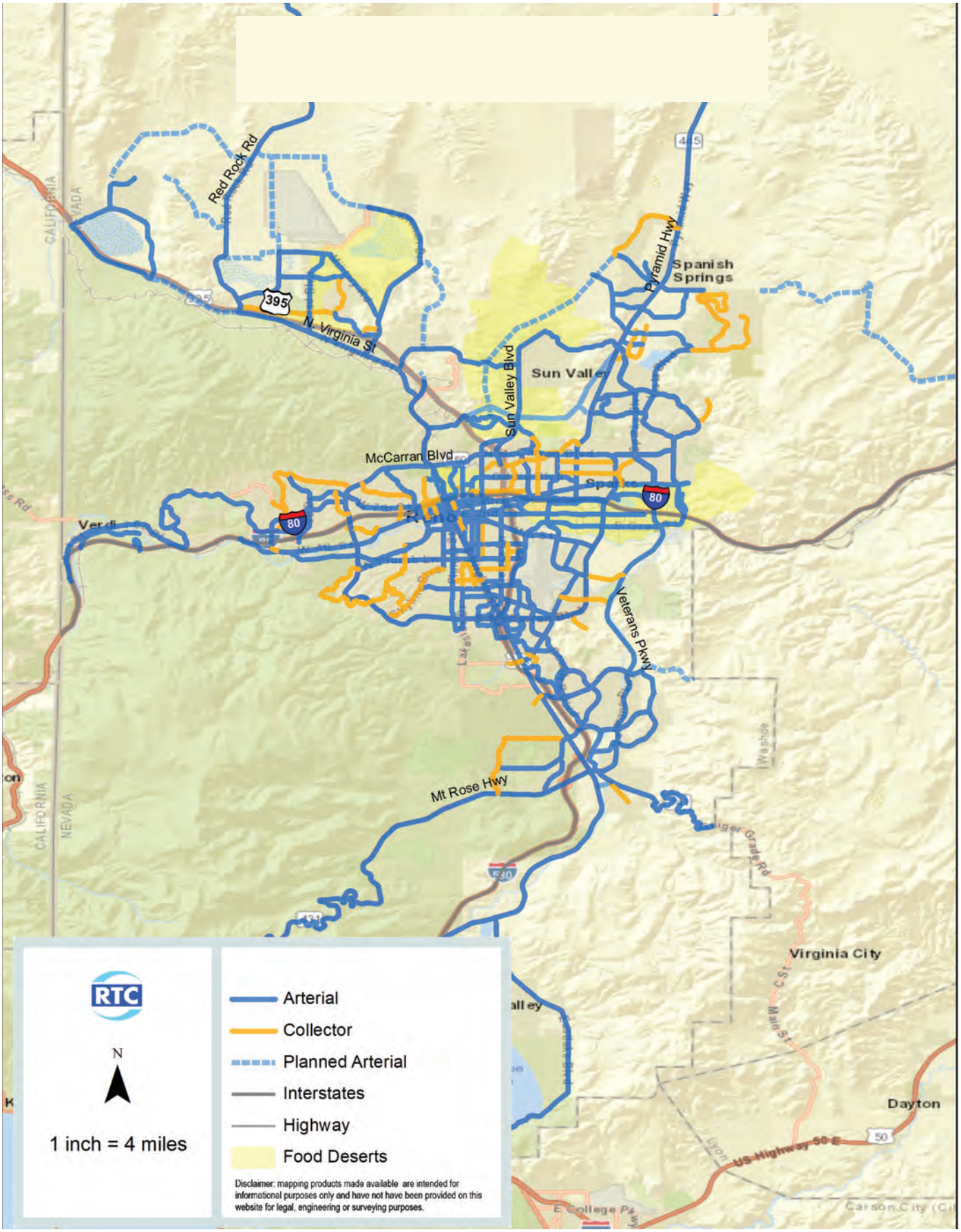
from a supermarket or large grocery store in urban areas and as more than 10 miles from a supermarket or large grocery store in rural areas.

RTC has studied transit access in food

the routes serving these areas, as shown below. The ridership on routes through these census tracts is strong, highlighting the need to provide regional mobility to areas with limited auto ownership. Transit provides a vital service to low income residents

areas with grocery stores.

FOOD DESERTS AND TRANSIT ROUTES



Chronic Disease Prevention

Three of the top 11 leading causes of death in Washoe County can be

air quality: heart disease, chronic respiratory disease, and diabetes. The Washoe County Chronic Disease Coalition brings together agencies that can have a positive impact on the health of our local community, including transportation, emergency response, medical, and regulatory sectors.

5.4 – NATURAL RESOURCES

Quality of life in Northern Nevada is greatly enhanced by the natural resources that are available all around the region. The community is well known for its trails with stunning views of the Sierra Nevada Mountains and the Truckee River. Many agencies and organizations contribute to the preservation and quality of these recreational opportunities, and the regional transportation network provides access to these resources.

Identifying natural resources is an important step toward avoiding, minimizing, or mitigating adverse environmental impacts on sensitive resources. RTC considers environmental resources as transportation projects are developed in the early planning stages.

Planning and Environmental Linkages

Planning and Environment Linkages (PEL) represents a collaborative and integrated approach to transportation decision-making that 1) considers environmental, community, and economic goals early in the transportation planning process, and 2) uses the information, analysis, and products developed during planning to inform the environmental review process. Linking the planning process with analysis and documentation under the National Environmental Policy Act (NEPA) will improve project design and expedite delivery. An integrated process will assist in gaining regional consensus, getting public support, and responding to community needs early in the project. NDOT has adopted PEL guidance, which RTC has incorporated into projects on NDOT facilities as well as RTC-led planning studies.

Washoe County Open Space and Natural Resource Plan

Open space is a critical component of the quality of life in Washoe County. This includes access to world-class

and peaks of the region, and a unique landscape of natural and human history. Open space also serves to

Ridges, hills, and open space areas shape each community's unique character. The geology of the region provides special places, including springs, geological structures, playas, and canyons. This region is also home to numerous wildlife and plant species that are found only in Washoe County, and these species depend on the natural functions of open space.

The 2008 Washoe County Open Space and Natural Resource Plan seeks to maintain, conserve, and restore the open spaces and natural resources of the region. The plan creates an inventory of unique geological features, areas of critical environmental concern, unique water resources, cultural resources, recreational opportunities, and urban open space.

Unique water resources in Washoe County include the Truckee River,

wetlands, and the network of irrigation ditches in the urban area. In addition, Washoe Lake, Pyramid Lake, and Lake T
environmental resources.

Bureau of Land Management Nevada

To ensure the best balance of uses and resource protections for America's public lands, the BLM undertakes extensive land-use planning through a collaborative approach with local, state and tribal governments, the public, and stakeholder groups. Based on this collaboration, the BLM establishes Resource Management Plans that provide the framework to guide decisions for every action and approved use on the National System of Public Lands. In Nevada, the BLM administers nearly 48 million acres of public lands. BLM public lands make up about 67% of Nevada's land base. BLM lands are adjacent to the Reno-Sparks urbanized area.

The BLM of Nevada provides public land statistics, manages the wild horse and burro program, administers permits to ranchers who raise livestock on public lands and plays a leading role in the goal for new energy such as production of solar, wind, geothermal, and biomass energy. The BLM also

Another responsibility of the BLM is to regulate outdoor recreational activities and oversee the 310,000-acre Black Rock Desert Wilderness. The Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area (NCA) is located approximately 100 miles northeast of Reno.

Southern Washoe County Urban Interface Plan

The objective of this plan is to improve management of public lands in the southern portion of Washoe County, where public lands are in proximity to urbanized areas. The plan

retained in public ownership under the administration of the BLM. These lands will be managed to protect open space, visual, recreation, watershed, and wildlife resources. Public lands are an important natural resource for open space for the people of the Reno-Sparks metropolitan area. The plan designated 4,390 acres for use by state and local governments for recreation purposes and 2,140 acres for potential disposal into private ownership.

US Forest Service

The US Forest Service manages the Humboldt-Toiyabe National Forest lands adjacent to the Reno-Sparks urbanized area. These National Forest lands in the Carson Ranger District include nearby attractions such as the Mount Rose Wilderness Area, Galena Creek area trails, and Tahoe Meadows trails. These resources are popular recreation places for residents of the metropolitan region as well as tourist destinations.

Lake Tahoe Basin Management Unit Land Resource Management Plan (LTBMU)

The LTBMU was established in 1973,

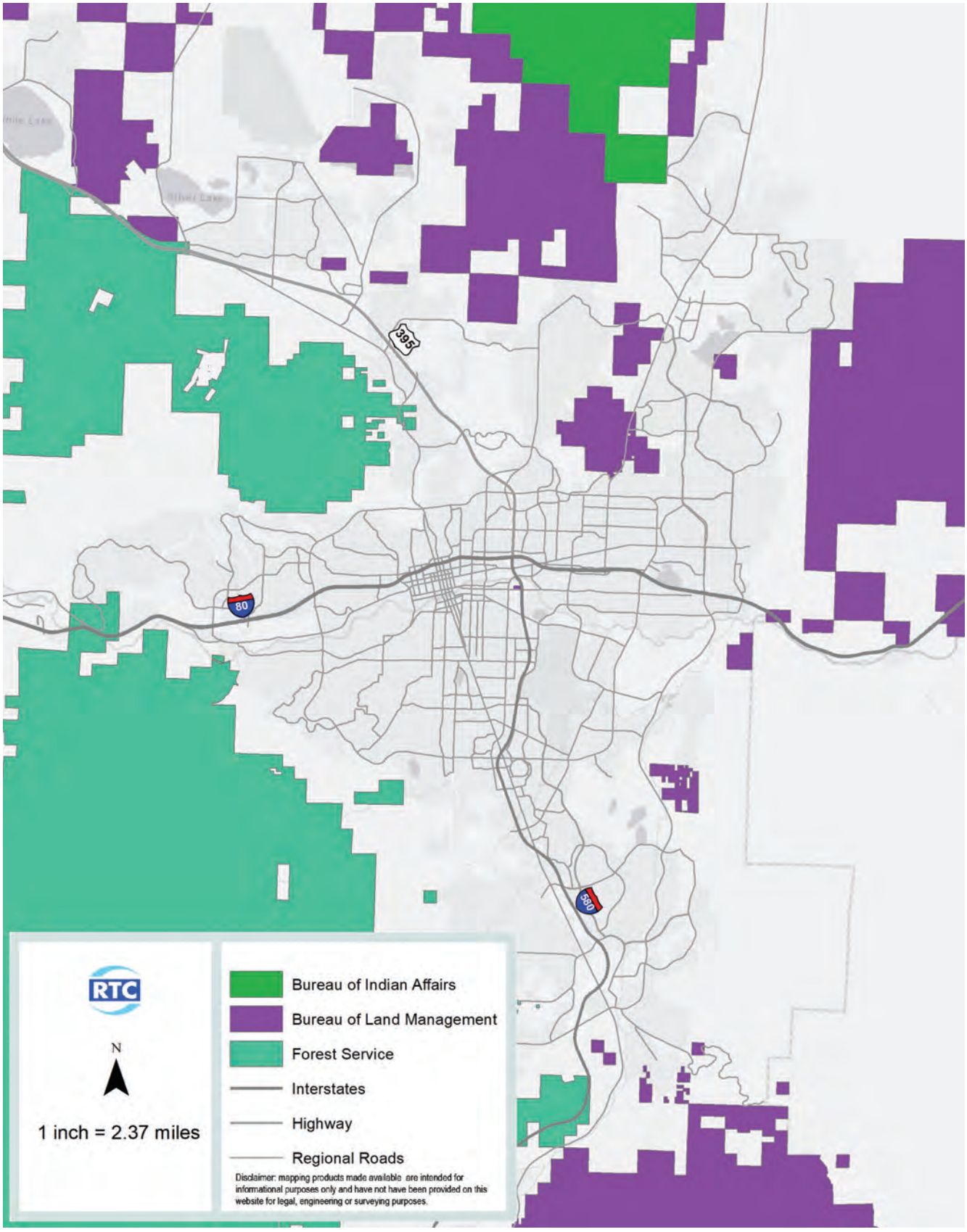
Forest Service lands within the Lake Tahoe Basin watershed. The LTBMU encompasses over 154,000 acres of Forest Service lands (78% of the land in the Lake Tahoe Basin), and ranges in altitude from approximately 6,225 feet at lake level to 10,881 feet. Projects and programs include habitat

urban forest parcel management.

Additionally, the LTBMU provides and maintains high quality recreational opportunities for millions of visitors and residents annually. Many common forest activities such as mining or grazing are either not a part of LTBMU management or play a very small role. The LTBMU manages Forest Services lands within a mix of forest and urban communities that surround Lake Tahoe. The work of the Forest Service supports (and is supported by) many partners.

The plan focuses on watershed health, forest health, sustainable recreation, and access to National Forests.

PUBLIC LANDS



It supports the use of alternative transportation options such as public transit, pedestrian, and bike trails to access Forest Service lands. Reducing automobile dependence for site access will alleviate pollution and crowding, thereby protecting sensitive environmental resources.

Humboldt-Toiyabe National Forest Climate Change Vulnerability Report

Climate change is expected to have

by the mid-21st century. Since about 1980, western U.S. winter temperatures have been consistently higher than long-term values and average winter snow packs have declined.

Since 1986, the length of the active

days and the average burn duration of

is nearly four times higher and the total

six and a half times its previous levels.

Department of Conservation and Natural Resources: Nevada State Parks

The Division of State Parks manages and maintains 24 parks in the State Parks system, including the Lake Tahoe Nevada State Park and Washoe Lake State Park in Washoe County.

The purpose of the Division is to plan, develop and maintain a system of parks and recreation areas for the use and enjoyment of residents and visitors. The Division also preserves

State of Nevada Division of Water Resources

The mission of the Nevada Division of Water Resources (NDWR) is to conserve, protect, manage, and enhance the State's water resources for Nevada's citizens through the appropriation and reallocation of the public waters.

In addition, the Division is responsible for quantifying existing water rights, monitoring water use, distributing water in accordance with court decrees, reviewing water availability for new subdivisions and condominiums, reviewing the construction and operation of dams. appropriating geothermal water, licensing and regulation of well drillers and water

projects, monitoring water resource data and records, and providing technical assistance to the public and governmental agencies.

Washoe County Protected Species

The U.S. Fish and Wildlife Service provides data about the threatened (T), endangered (E), proposed, and candidate species (C) in Washoe County, as listed in the following table.

Amphibian		
C Mountain yellow-legged frog (Sierra Nevada Distinct Population Segment)	Rana muscosa	-
Bird		
C Greater sage-grouse	Centrocercus	Urophasianus
Fishes		
E Cui-ui	Chasmistes cujus	
T Lahontan cutthroat trout	Oncorhynchus	Clarkii henshawi
T Warner sucker	Catostomus warnerensis	
Invertebrate		
E Carson wandering skipper	Pseudocopaeodes eunus obscurus	-
Plants		
E Steamboat buckwheat	Eriogonum ovalifolium var williamsiae	-
C Tahoe yellow cress	Rorippa subumbellata	
T Webber's ivesia	Ivesia webberi	
C Whitebark pine	Pinus albicaulis	

5.5 – RESILIENCY & STORMWATER MANAGEMENT

As described in the Washoe County Regional Resiliency Study (discussed further in Chapter 3), the Truckee

its history. Some of the earliest-

deep snow accumulations, followed by unprecedented heavy rain and

California during the 1860s (now labeled as atmospheric river events).

have periodically followed with notable

1997, and 2016. Economic impacts and

to area business and transportation features.

The Northern Nevada Region has evolved a proactive approach in

the 1997 event by developing a

precipitation gauges and the regional Truckee River Flood Warning Plan. Current plans involve the design, funding, and construction of the Truckee River Flood Control Project that would protect critical areas of the region to a 1% frequency (100 year)

The design of roadway infrastructure has an important role in minimizing the adverse impact of stormwater and protecting water quality. Protecting the safety and quality of our water resources is a key consideration during the entire process of a project from planning to construction. In order to minimize any potentially harmful impacts to our water resources during any stage of a project, the RTC prioritizes stormwater management from the beginning. During the construction of any roadway, each contractor is required to develop a Stormwater Pollution Prevention

any potentially harmful impacts to local water resources caused by the construction project and develops mitigation strategies to eliminate or mitigate those potential impacts.

In addition to managing impacts to water resources during construction. The engineering design of all roadway projects incorporates stormwater management techniques. Stormwater

harmful pollutants such as oil, grease, heavy metals, solids, and nutrients. Due to the impermeable nature of

roadways collects these pollutants and carries them to local rivers and other water bodies such as the Truckee River, Virginia Lake, or Pyramid Lake.

RTC incorporates permeable surfaces and other green infrastructure when appropriate throughout the design and construction of each roadway project.

Truckee River Flood Project

The Truckee River Flood Management

of Reno and Sparks, Washoe County, the US Army Corps of Engineers, and numerous other stakeholders to reduce

the Truckee Meadows. Its primary goal is to create a more resilient community

(117-year event).

Additionally, the Plan incorporates certain recreational and ecosystem-restoration features within the footprint

The Flood Project Plan is based on the “Living River Plan.” This plan emphasizes the community’s vision of incorporating environmentally friendly

infrastructure (“green” infrastructure) in order to reconnect the river to its

species, and enhance recreational opportunities along the river.

The SouthEast Connector is designed to store stormwater runoff and reduce flooding in nearby areas, as demonstrated during the 2017 flood events.

CHAPTER 6 – MANAGING EXISTING SYSTEMS EFFICIENTLY

The RTC strives to maximize the use of limited resources by maintaining existing systems in good repair and continuously seeking operational improvements. This is most apparent in the RTC'
systems (ITS), and pavement preservation programs. These programs provide

minimizing life-cycle costs, and in some cases reducing the need for costly capital investments.

6.1 – TRAFFIC OPERATIONS

T

. RTC partners with NDOT, the cities of Reno and Sparks, and W

This allows for the delivery of public. T

management process as shown in Appendix F.

Using ITS to Reduce Capital Costs

RTC installed ITS components on 4th St/Prater Way project, which allows buses to request a traffic signal priority request so buses can stay on schedule. The ITS project provides significant operational improvements between Evans Ave and 15th St and includes:

Fiber optic communication lines.

Connecting eleven traffic signals to the City of Reno and City of Sparks signal system.

Traffic flow cameras at strategic locations.

More reliable vehicle detection (LOOPS).

- ITS Pilot Project, ITS Phase 2A

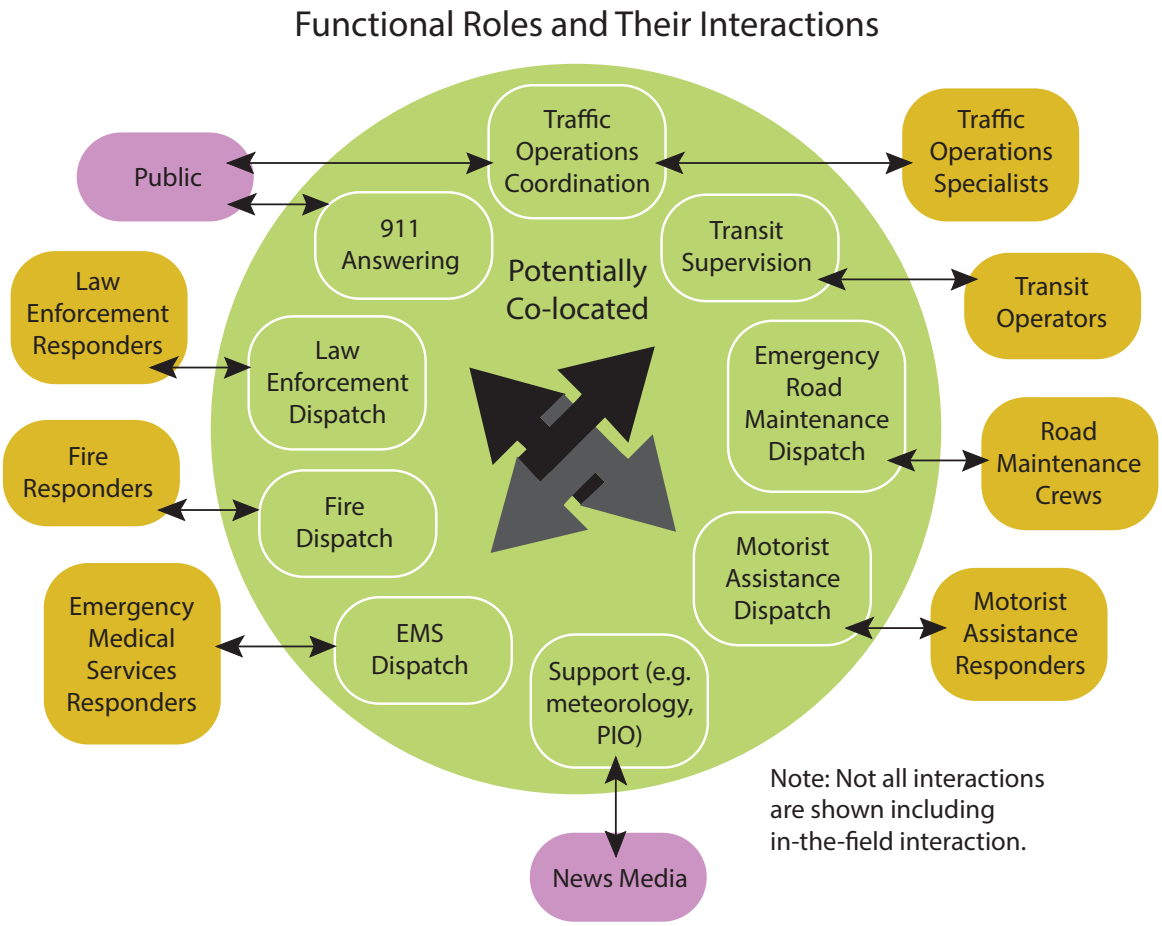


Figure 6-1

In addition, RTC partners with

departments, and law enforcement

program. The interconnected nature of these relationships is shown in the

region are owned and maintained by the local jurisdictions. NDOT brings

communication infrastructure, count detectors, changeable message signs, and weather stations. While RTC does not own any roadways or signals, the agency assists in facilitation of inter-jurisdictional coordination and hosts a monthly T
meeting to streamline communications.

Additionally, RTC hosts a quarterly T
local agencies to exchange ideas and promote regional consensus on
TC is also a partner in funding and installing ITS capital investments. In addition, RTC

hotline, (775) 335-ROAD.

Existing Regional ITS Resources – Table 6-1				
Device Type	NDOT	Reno	Sparks	Washoe County
Traffic Signals	0	273	114	19
Count/ Speed Detectors	12	0	0	0
CCTV Cameras	51	30	0	0
Change-able Signs	12	0	0	0
Advisory Radios	1	0	0	0
Weather Stations	4	0	0	0

ITS Projects allow for information sharing between agencies to improve incident response, establishment of

coordination across jurisdictional boundaries, sharing of resources to minimize operating costs, and enhanced training and learning for operations personnel.

Future ITS projects will include:

communication links, Road Weather Information System (RWIS) devices,

signals making information available to all agencies.

program include:

- Improved event (incident) response,

  accident, severe weather, road

  signal, an on-street parade, a major sporting event, or any other event

- Integrated and continuous

  across jurisdictional boundaries via interconnected signals. One objective is to enable each involved

  are operating as planned and that detector or other equipment failures

  .

- Access to more information by the traveling public, and more consistent and seamless information about current travel conditions regardless of the mixture of agencies responsible for portions of their planned journey.
- Sharing resources to enable agencies to perform their missions at a lower cost. Shared resources could include specialized equipment,

  maintenance contracts.
- Providing the data needed to assess region-wide transportation and incident management performance measures.

operation agencies for ITS device communication can be interconnected to provide communication links between agencies.

The highest priority infrastructure improvements needed to support

as follows:

- Communication links between ITS networks operated by
- signals on major surface streets that are currently not connected to a central system.
- Closed Caption Television (CCTV) cameras on major surface streets.
- CCTV cameras, vehicle detectors, and associated communication links on all urban area freeway segments.
- The R
  timing program in Washoe County. In partnership with the cities of Reno, Sparks and Washoe County, and the University of Nevada, Reno, the program aims to retime the

  region on a three year basis. Using the technology employed through the ITS Program, retiming and maintenance of all signal timing are

  .

1. The purpose of this program is to reassess the signal timing

   and volumes throughout the road network.
2. Improve travel times and fuel savings.
3. Reduce emissions and air pollution.
4. reducing frustration from drivers experiencing excessive delays.
5. Update various timing settings to current federal standards.

6.2 – PAVEMENT PRESERVATION

Whether trips are taken by automobiles, transit, bicycle, or

the streets are maintained in a safe and serviceable condition. The RTC in cooperation with the public works

ashoe County implements a comprehensive Pavement Preservation Program.

The purpose of the Pavement Preservation Program is to maintain regional roads in good condition and minimize long-term costs.

The goal is to apply the most cost-

pavements, at the right time to minimize pavement life cycle costs while maximizing serviceable pavement life. An Pavement Preservation Program saves money that can be used for other important transportation initiatives. Through a process of collaboration and coordination with the local governments, RTC funds tactical roadway preservation programs to accomplish goals for the Regional Road System. The regional road system includes:

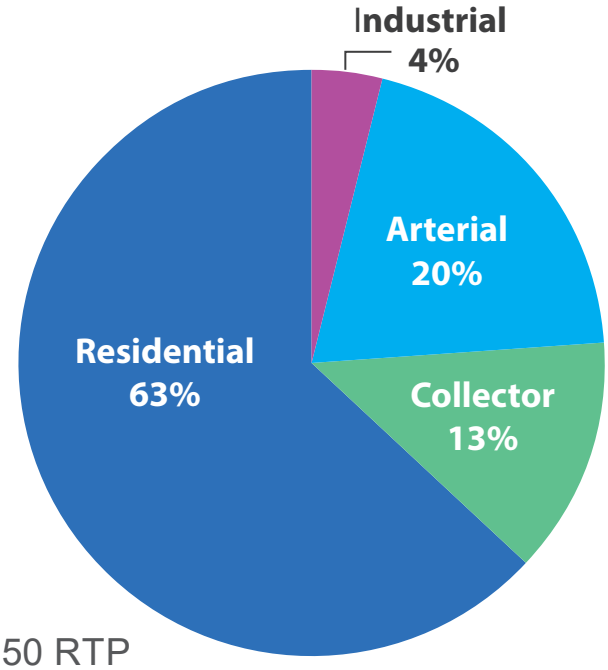
- Arterials that are direct connections between freeways and other arterials, provide continuity through the region, and generally accommodate longer trips within the region.
- Collectors that have an average

  (either currently or in the 2050

  barrier such as the Truckee River or freeway, or provide access to major existing or future regional facilities.
- Industrial roadways with freight movement.
- Roadways that include a transit route.

The local governments provide preservation services for non-regional road neighborhood roadways and day to day maintenance for all non-state maintained facilities. As part of the pavement preservation system, RTC maintains pavement condition index data for each regional road. Programs are developed for roadway preservation primarily through two processes.

Figure 6-2
Functional Classification of Roads, Percent of Pavements



First, the Regional Pavement Management System (PMS) is used by the RTC and local governments to create the Regional Pavement Preservation Program. The PMS provides a comprehensive regional assessment of roadway pavement assets and condition, and is a tool to prioritize preservation projects. The use of the Regional PMS gives RTC and the local governments the ability to provide the right treatments to the right pavements at the right time.

All Roads	RTP Roads	Local Roads
Good 73.7% Fair 18.3% Poor 7.5%	Good 83.0% Fair 14.5% Poor 2.5%	Good 69.7% Fair 20.6% Poor 9.7%

Roads in the Planning Area

RTC does not own or operate any area roadways.

Residential roadways serve neighborhoods and carry the fewest trips on the system, with few buses or trucks.

Collector roads serve as connections between residential and arterial roadways.

Industrial roads carry a relatively high number of trucks serving industry and warehousing.

Arterials carry the majority of trips on the roadway system and function as alternatives to highways to relieve traffic congestion.

Arterials, major collectors, and industrial roads carry 50% of VMT and are eligible for funding through the RTC Pavement Preservation Program.

Residential streets and minor collectors are maintained by the local jurisdictions (Reno, Sparks and Washoe County) and carry 8% of VMT.

I-80 and US 395 are maintained by NDOT and carry 42% of VMT.

This proactive maintenance strategy relies on preventive and corrective maintenance methods to maintain good pavements in good condition. In turn, this slows the rate of pavements falling into poor condition which would require costly major reconstruction. It is six to 10 times less expensive to properly maintain streets than to allow them to fail and pay for costly reconstruction treatments.

RTC's Pavement Preservation Program

conditions and reduced the region's backlog of pavement reconstruction needs. Since initiation of the program the average Pavement Condition Index (PCI) for regional roadways (excluding NDOT maintained roads) has been raised above the goal of 80 and is currently 83 which is optimal for minimizing costs and maximizing performance life. Two percent of the regional network are in poor condition (PCI below 50).

The NDOT PMS monitors state-maintained facilities in Washoe County. The NDOT
backlog of pavement repairs on the

project priorities. The NDOT PMS is used to identify NDOT's long-range funding needs to maintain the state highway network at a serviceable level. NDOT conducts a pavement condition survey annually.

The RTC's Pavement Preservation Program is central to implementation of Complete Streets strategies. Through the preventative maintenance slurry seal program and close coordination with the local jurisdictions, RTC is narrowing travel lanes, adding bicycle lanes, and in some cases eliminating travel lanes.
Complete Streets strategies are to slow

reduce vehicle crashes, and provide a safe space for other non-auto users. Crash reductions ranging from 25-45% have been documented on regional roads that have undergone these

The program is implemented in coordination with the Pavement Preservation Committee, which consists of public works and

and Washoe County. The committee

including pavement condition and

consider jurisdiction and prioritizes

network as a whole.

Despite the overall "good rating" of the region's pavements, challenges do exist in maintaining our existing

that use less fuel and electric cars are

and taxed.

The reduction in revenue will challenge RTC and local jurisdictions to maintain the “good rating” for the next few years.

The local jurisdictions’ and NDOT’s

maintenance program continues to be a challenge. For the non-regional and residential system of roads, the Cities of Sparks and Reno in particular have

However
of their available resources, the local agencies have reduced the amount of residential roads in poor condition from 12% to 10% since 2012. While these roads account for approximately two-thirds of the pavement network, they carry only 8% of the VMT in the region. Limited expansion of the RTC Pavement Preservation Program to include neighborhood collectors is under consideration and will be evaluated.

6.3 – TRANSIT OPERATIONS

Public transit is a valuable community asset that provides:

- Access to essential jobs and supports economic growth through improved mobility and access to opportunity.
- Access to important resources such as medical services, colleges and universities, and government services.
- air quality and active transportation options.

goals for the regional transit system. Because transit funding sources are limited, it is essential that cost

in transit planning. RTC publishes monthly reports about the system’s operational performance. RTC operates **RTC RIDE** RAPID bus rapid transit, **REGIONAL CONNECTOR** intercity, **ACCESS** paratransit, and **FlexRIDE** on-demand services.

The R
the Reno-Sparks metropolitan area as well as areas of unincorporated Washoe County. The system operates in a 90 square-mile service area.

the goal of maximizing the number of passengers per service hour. With two separate central business districts in Reno and Sparks, RTC operates a high-frequency connector between the two cities with less-frequent or on-demand feeder service increasing the coverage area.

Both downtown Reno and Sparks are serviced by transit transfer terminals: RTC 4TH STREET STATION and RTC CENTENNIAL PLAZA.

RTC RAPID Lincoln Line serves the 4th Street/Prater Way corridor between Reno's RTC 4TH STREET STATION and Sparks' RTC CENTENNIAL PLAZA.

RTC FlexRIDE provides flexibility to riders by allowing riders to schedule trips as needed. Riders can also track their ride in real time by using the TransLoc app.

RTC continuously monitors the performance of each transit route, coordinates with the local jurisdictions regarding land-use changes, and makes routing or scheduling adjustments as necessary up to three times each year to maximize the performance of the system.

RTC actively manages the transit

good repair. RTC invests in preventive maintenance as well as replacement of vehicles once they reach the end of their useful life.

R
new maintenance facility that can accommodate expansion of the RTC

as hydrogen fuel cell fueling and maintenance capabilities. This could potentially be accommodated with an expansion of the Sutro Street maintenance facility.

Short Range Transit Plan: Priorities Relating to Operations

Reallocation of service hours to achieve greater efficiency.

Increase service hours to high ridership corridors where feasible.

Expand FlexRIDE Program.

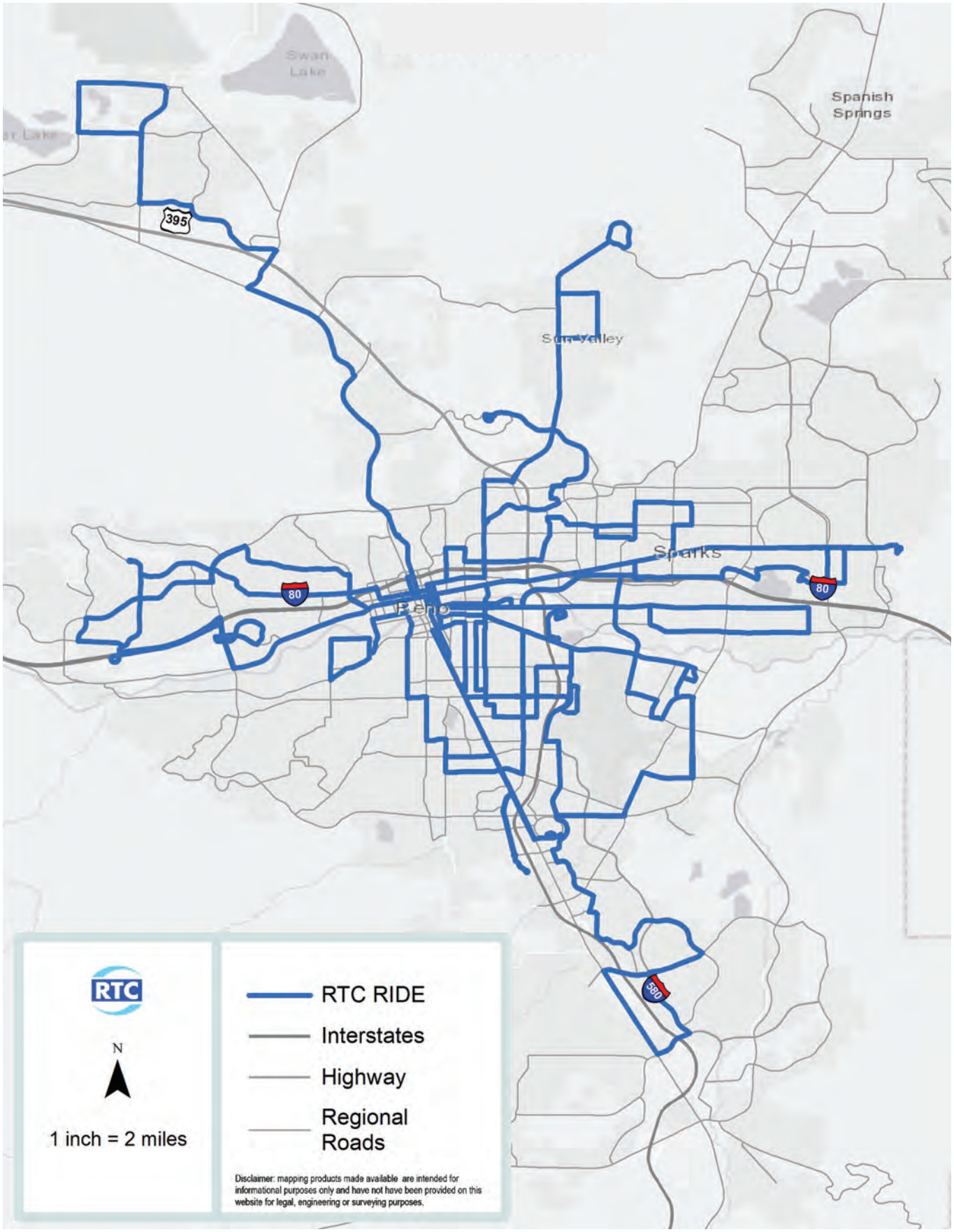
Increase subsidy and expand eligibility for taxi bucks/Washoe Senior Ride Program.

Continuation of grant program for not-for-profit transportation services, as identified in the CTP.

Additional information about RTC's transit programs, including **RTC RIDE**, **ACCESS**, **FlexRIDE**, **VANPOOL**, **SMART TRIPS** partnerships is provided in Chapter 7.

EXISTING TRANSIT SERVICE

MAP 6.1

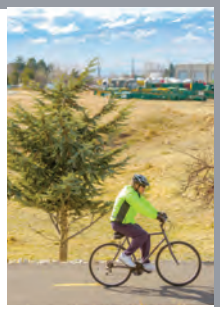











CHAPTER 7 – INTEGRATING ALL TYPES OF TRANSPORTATION

A goal of the RTP is to integrate all types of transportation. RTC seeks to have an interconnected multimodal transportation system that gives residents more travel choices. Local residents have expressed a desire to have transportation options, which include convenient alternatives for walking, biking, riding transit, or driving. An integrated regional transportation system must provide mobility options that are appropriate to the land-use context and address the needs of neighborhoods, commercial districts, and the movement of goods.

Complete Street designs have reduced crashes up to 46% on regional roads in Washoe County.

7.1 – COMPLETE STREETS

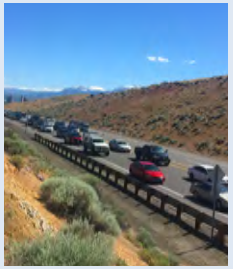
Complete Streets design principles apply context-sensitive solutions to support all types of transportation. The primary purpose of Complete Streets projects is to provide safe access and travel for all users, including pedestrians, bicyclists, motorists and transit users of all ages and abilities. These design treatments have been demonstrated to consistently reduce crashes on regional roads in the Reno-Sparks metropolitan region. The range of improvements, which are selected based on corridor land-use characteristics and transportation patterns, include the following:

- Roundabouts.
- Narrow (less than 12-foot) travel lanes.
- Reducing vehicle and pedestrian underutilized travel lanes.
- Adding center turn lanes.
- Adding bicycle lanes, multiuse sharrows.
- Installing or upgrading sidewalks and crosswalks.
- Installing pedestrian crossing/waiting areas in median islands.
- Installing or upgrading transit stops.

Complete Streets designs in many speed limit, which reduces the number and severity of crashes, making the roadway safer for all users. Roadway designs that encourage motorists to drive at posted speeds and provide designated space for walking and biking will improve safety.

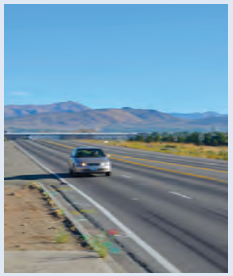
Bicyclists and joggers on Plumas Street after Complete Street project.

Major Projects



Pyramid Highway Project
Capacity and safety improvement from Queen Way to Golden View

Oddie Blvd/Wells Ave
Multimodal improvments from I-80 Street to Pyramid Way



Lemmon Drive
Multimodal and capacity improvements from US 395 to Ramsey Way

Sparks Boulevard
Multimodal & capacity improvements from Greg Street to Springland Drive

West 4th Street
Multimodal and safety improvements from Evans Avenue to Stoker Avenue

Complete Street Elements Key

- Safety
- Bike Facilities
- Pedestrian Facilities
- ITS
- Enhanced Transit Stops/Route
- Auto Capacity

The projects in this RTP support Complete Streets design objectives, including projects that focus on community livability as well as regional connectivity.

Multimodal projects address the safety and mobility needs of all corridor travelers, but generally do not add additional lane capacity for automobiles. These types of projects are closely linked with community land-use and economic development plan objectives. Additional information about

is available in the Complete Streets Master Plan, adopted in 2016.

Regional connectivity projects also incorporate Complete Streets design concepts. With the exception of freeway projects, all regional road widenings will include upgrades to the sidewalk network, as well as transit stops and bicycle lanes where it is consistent with applicable plans and policies. The need for these regional connections or road widenings are

demand model, land-use planning (see Appendix G), and community input.

7.2 – WALKING & BIKING

Vision Zero Truckee Meadows Task Force

fatalities occurred in Washoe County. Eighty-seven of these were pedestrian fatalities. Even one fatality is too many. The foundation of the Vision Zero Truckee Meadows (VZTM) task force, which was established in 2018,

to eliminate pedestrian fatalities in Washoe County.

The VZTM is working together to keep everyone safe on our roads. The regional task force, with the support of local leaders, has made a commitment to change our culture regarding safety in the Truckee Meadows. Vision Zero Truckee Meadows is working together to bring the number of fatalities on our roadways to zero; following the principle that if you make a road safer for a pedestrian, the most vulnerable road user, the road will be safer for everyone.

Vision Zero Truckee Meadows Task Force has evaluated crash trends in the region. Crash data for the region indicates that, between 2012-2017, 28% of the fatalities on our roadways were pedestrian fatalities. The highest year of pedestrian fatalities during this 5-year period was 2013 with 37% of the fatalities in Washoe County.

The commitment to be pedestrian-fatality free by 2030 has been made by the regional leaders and VZTM. The Vision Zero Truckee Meadows action plan is located at VisionZeroTruckeeMeadows.com.

The Bicycle Pedestrian Plan & ADA Transition Plan

The Reno-Sparks Bicycle Pedestrian Master Plan was adopted in June 2017 and ADA Transition Plan was completed in January 2020. The two plans establish a well-connected walking and bicycling network that provides residents and visitors a more livable and healthier community. It also created an opportunity to plan for safe access to transit stops throughout the region. The ADA Transition Plan Update included evaluation of RTC transit stops and assessable connectivity to transit. The Bicycle Pedestrian Master Plan was coordinated concurrently with the Complete Streets Master Plan in

bicycle and pedestrian infrastructure on regional roads, to increase connectivity, and provide the community with multimodal transportation options.

Bus Stop Improvement and Connectivity Program

The RTC Board made a commitment to accessibility and walkability in our community by increasing funding for ADA improvements at existing bus stops. This program, called the Bus Stop Improvement and Connectivity Program (Bus Stop ICP), also includes constructing sidewalks that provide improved connectivity to transit. Bus stop improvements have been prioritized based on the following factors: overall operational safety, boarding/alighting activity, (particularly among seniors and persons with disabilities), available right-of-way, and frequency of service. $2 million in fuel tax funding, are programmed for bus stop and pedestrian connectivity improvements for FY
of three phases of this project.

Spot Improvements

The RTC programs funds each year to implement spot improvements for ADA, other pedestrian and bicycle improvements. A prioritization framework was developed as part of the Bicycle and Pedestrian Master Plan, which includes safety, transit ridership, and proximity to schools, medical facilities, public services, and senior housing. A summary of recent bicycle and pedestrian improvements is provided in the following table.

Bicycle and Pedestrian Infrastructure Added 2016-2019							
Bike Lanes (miles)	Side-Walks (miles)	Cross-Walks	Pedestrian Ramps	Multi Use Path (miles)	Cross-Walk Warning Devices	New Cross-Walk Lighting	Cross-Walks Replaced
30.4	9.7	179	445	11.7	11	19	29

Bicycle Friendly America

The Bicycle Friendly America program administered by the League of American Bicyclists provides guidance and recognition for communities working toward the creation of a bicycling culture and environment. A Bicycle Friendly Community, Business, or University welcomes bicyclists by providing safe accommodations for bicycling and encouraging people to bike for transportation and recreation. A bicycle-friendly place makes bicycling safe, comfortable, and convenient for people of all ages and abilities. In 2015, the Reno, Sparks, and Washoe County region was re-designated a bronze level Bicycle Friendly Community by the League of American Bicyclists. The community received this designation

expand the bicycle network.

The League of American Bicyclists also

events such as the Bike Swap, Bike to Work Week and the work done through the Reno Sparks Kiwanis Bike Program, Reno Bike Project, and SRTS.

Also in 2015, University of Nevada,

state of Nevada to be awarded a Bicycle Friendly University.

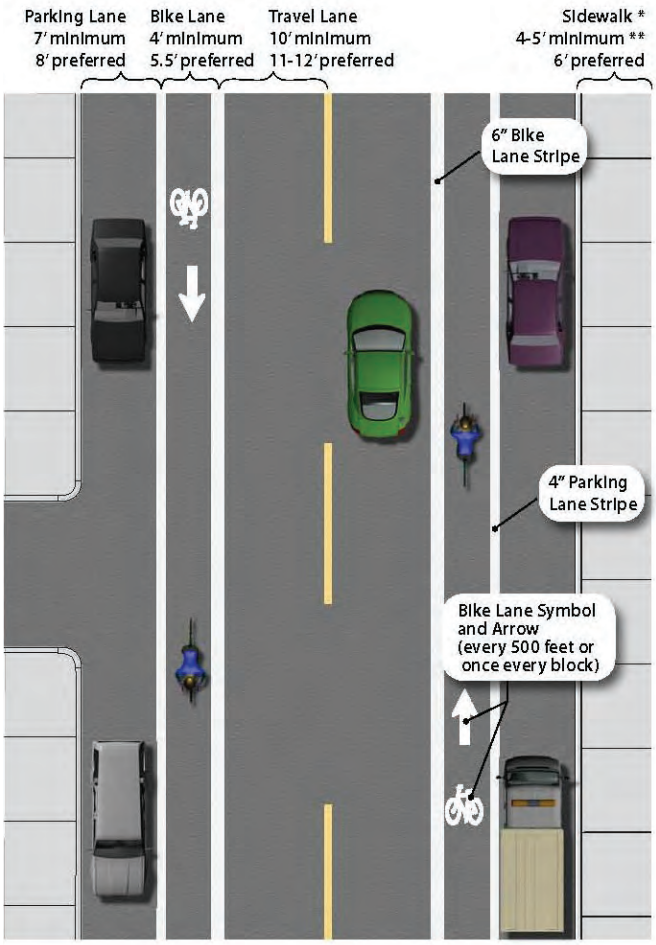
Bicycle Friendly Community Sign

In December 2016, the RTC was awarded a silver level Bicycle Friendly Business designation by the League of American Bicyclists. The Bicycle Friendly Business award recognizes local businesses and corporations for creating a bicycle friendly environment for customers and bicycle commuting employees.

RTC was recognized for encouraging employees and customers to bicycle through participation in Bike Month, SRTS, and in working with advocacy groups.

The League also recognized some of RTC'
the installation of a free bike repair area with tools and work stand for employees and customers who need to make adjustments to their bike at RTC 4TH STREET STATION, and having parking available in well-lit areas with security cameras. Other

bicyclists through the production and distribution of free bicycle maps and for providing safety and educational materials for both bicyclists and drivers.



Example of a possible road configuration to narrow travel lanes and include bicycle lanes.

7.3 – TRANSIT

Transit is an essential part of the local economy that helps thousands of Washoe County residents get to work each day. Transit supports vibrant development patterns and local zoning and land-use policies. In addition, transit provides a critical public service to residents and visitors.

service are also well recognized: reducing the number of cars on the

air pollution.

The SRTP

The SRTP outlines a strategy for transit
The

program includes existing service plus

- Reallocation of service hours to
.
- Increase service hours to high ridership corridors where feasible.
- Expand **RTC FlexRIDE** Program.
- Increase subsidy and expand eligibility for taxi bucks/Washoe Senior Ride Program.

- Continuation of grant program for

.

The SRTP will be updated in 2021-2022.

RTC RAPID Expansion

RAPID is RTC's premier bus rapid

service through the heart of Reno and Sparks on the Virginia Line and Lincoln Line. The successful **RTC RAPID** transit service that debuted on Virginia Street in 2009 was extended to the University of Nevada, Reno in 2021.

The Virginia Line extension included eight new RAPID stations, construction of wide sidewalks, extensive safety improvements, and bicycle facilities. The 4th Street/Prater Way RAPID corridor, known as the Lincoln Line, began operating in 2018. This **RTC RAPID**
emission, all electric buses and provides eight enhanced stations. This corridor links the Reno and Sparks downtowns and provide enhanced access to employment centers and opportunities for higher education. By constructing wide sidewalks and bike lanes, the Lincoln Line project provides for improved safety and multimodal access to transit stops.

These RAPID investments have

economic vitality of both corridors, supporting increased density and mixed-use development.

RTC to Have 80% Alternative-Fuel Transit Fleet in 2021

The RTC is a leader in the adoption of electric bus technology. The RTC

diesel fuel use. This improves air quality in the Truckee Meadows and reduces operating costs for the RTC transit system.

The RTC has added an additional 19 new hybrid and electric buses to its

buses are New Flyer Hybrid electric/ biodiesel buses and two buses are Proterra 100% electric buses. The new hybrid buses are already running on various RTC bus routes as part of RTC's transit system.

The two Proterra all-electric buses debuted on the RTC's extended RAPID Virginia Line during its launch in early March 2021. The hybrid buses are replacing aging, end-of-life vehicles. Now that the new buses have been deployed, 55 out of the 68 buses in RTC'
are hybrid or electric alternative-fuel vehicles. The RTC's goal is to have an

year 2035. The RTC used federal funds to purchase the buses.

Importance of Transit in the Community

Supporting the Economy – Getting people to work, including essential jobs and services.

Shaping Development – Economic revitalization.

Public Service – Mobility for people that do not drive.

Environmental Benefit – Reducing traffic congestion and air pollution.

Access to Essential Services – Providing service to healthcare, pharmacies, groceries, and other public services.

Maintenance Facility Infrastructure

Existing Infrastructure

RTC currently has two transit maintenance facilities:

- **Jerry L. Hall Regional Transit Operations and Maintenance Center**: Located at Villanova Drive under the I-580 viaduct, this facility is used to store and maintain the

  Major improvements were completed in 2018 to expand electric bus fueling and maintenance capabilities at this site.

  This 6.8 acre property has the capacity to store 78 buses and contains a bus wash, body repair bay, chassis inspection, vehicle inspection area, and RIDE dispatch.

- **Sutro Paratransit Maintenance Facility:** Located at Sutro Street and 6th Street near downtown Reno, this facility is used to store and maintain the **ACCESS** paratransit and **FlexRIDE** contains infrastructure to fuel the Compressed Natural Gas (CNG)

  house **ACCESS** dispatch. The Sutro

  TC

  in the event of an emergency that renders the Terminal Way building inaccessible.

Maintenance Facility Needs

RTC has established a goal of transitioning to a 100% alternative

buses purchased by RTC in 2014 have a range of about 30 miles per charge. The latest generation of Proterra Catalyst buses purchased in 2020 have a range of up to 150 miles, depending on conditions. RTC is currently exploring options to establish a hydrogen fuel cell bus program.

The 300 mile range of hydrogen fuel cell buses could allow RTC to transition

zero emissions with minimal impact to route scheduling and operations. However, the location of the Jerry L. Hall Regional Transit Operations and Maintenance Center under I-580 precludes the use of this facility for hydrogen fuel cell maintenance. Expansion of the Sutro Maintenance Facility would provide a suitable location to initiate a hydrogen fuel cell program. RTC would also pursue opportunities to transition the **ACCESS** and **FlexRIDE** cell technology when it becomes available for the paratransit vehicle type.

In addition, NDOT has adopted the Spaghetti Bowl Project, which is a plan for safety, operational, and capacity improvements on I-80 and I-580. Phase 4 of the Spaghetti Bowl Project, currently planned for the year 2035, would involve reconstruction of the Villanova/Plumb Lane interchanges at I-580 and would require relocation of RTC' . RTC is coordinating with NDOT on identifying a suitable relocation site.

To accommodate planned growth in the transit system as well as electric, hydrogen fuel cell, and diesel charging and maintenance needs, the facility would need to include:

- Approximately 10 acres.
- 30,000 square feet for maintenance bays.
- 45,000 square feet for covered outdoor storage.
- 40 bus parking spaces with capacity for 80 buses.
- 100 employee and 12 service vehicle parking spaces.
- 20 electric bus chargers with 4,000 amp service.
- Bus wash, body repair bay, chassis inspection and vehicle inspection pit.

Expansion of the Sutro Maintenance

an optimal location that could accommodate these infrastructure requirements and still provide a central location that meets transit operational needs.

Passenger Facility Needs

RTC is currently undertaking the following passenger facility improvements:

- Expand RTC 4TH STREET STATION to construct four additional bus bays, electric bus chargers, and parking spaces.
- Installation of electric bus charging infrastructure at RTC CENTENNIAL PLAZA STATION.
- Upgrade the northbound Virginia Line station at Peppermill to provide full ADA accessibility, additional seating capacity, and full RAPID amenities.
- Bus stop accessibility improvements throughout the region, in support of the ADA Transition Plan.
- Park and ride facilities to support **RTC VANPOOL** passengers.

RTC ACCESS

Paratransit service is a civil right required under the Americans with Disabilities Act (ADA).

This requirement is met through the provision of **RTC ACCESS** service, which provides mobility for people whose disability prevents them from

Rides are reserved one to three days in advance on demand though a call center.

RTC ACCESS passenger trips are made using a combination of full-size accessible cut-away buses, mini-vans, and taxis. The service operates 24 hours a day, seven days a week. In 2019, about 224,000 rides were provided, with an average of 2.2 rides per service hour. Approximately ADA paratransit eligible in Washoe County. The ADA requires paratransit service to be provided within 3/4 of a mile of The one-way fare is $3.

RTC FlexRIDE

RTC FlexRIDE is a curbside-to-curbside transit service available by requesting a ride through an app or by phone. Rides can be scheduled at your desired travel time and can be expected to arrive to the curbside closest to your location within 8 to 15 minutes. Fares are the same as the standard **RTC RIDE** fares.

R **FlexRIDE** pilot program in Sparks in 2019 and added additional **FlexRIDE** zones in the North Valleys, Spanish Springs, and Somersett/Verdi in 2020.

The convenience of this service has made it very popular with customers, and resulted in strong increases over

in those areas.

Supplemental Mobility Services

Because RTC does not have the

FlexRIDE, and paratransit service to all residences in Washoe County, the agency is pursuing innovative services and partnerships with not-for-

specialized transportation needs.

CTP

The CTP is required by the Federal Transit Administration (FTA) as a part of the Section 5310 grant funding program. To be funded, projects must be contained in the CTP and be intended to improve transportation options for senior citizens and persons with disabilities above and beyond the requirements of the Americans with Disabilities Act. The CTP was updated in 2020 and contains the following primary goals:

- Create a Local Coordinated Council to facilitate coordination and recommend Section 5310 funding activities.
- Continue to enhance mobility and accessible transportation options.
- Establish a One-Call/One-Click Center.

Not-for-Profit Partnerships

The Section 5310 Program, funded by the FTA, allows RTC to

organizations that provide enhanced mobility. Mobility services currently funded by this program include the following:

- Non-Emergency Medical Related Transportation through Access to Healthcare Network (AHN).
- Neighbor Network of Northern Nevada (N4) and the purchase of non-ADA Paratransit rides.
- Seniors in Service volunteer program to provide social support for seniors, including transportation to doctor appointments, grocery stores, pharmacy's etc.
- Senior Outreach Services volunteer program at the Sanford Center for Aging at UNR to provide transportation for frail, homebound, and below-poverty seniors.
- Washoe County Human Services Agency.

Washoe Senior Ride/Taxi Bucks

The Washoe Senior Ride/Taxi Bucks program provides a subsidy for eligible participants to hail a cab. This program extends a mobility option to people who do not live within the **RTC RIDE** and **ACCESS** service area. This program is currently available to veterans, residents 60 years of age or older, and **ACCESS** clients with annual incomes under $45,000. As part of the Short Range Transit Plan, RTC is considering options to expand eligibility and increase the subsidy for this program.

RTC SMART TRIPS

The RTC's trip reduction program, **RTC SMART TRIPS**, encourages the use of sustainable travel modes and trip-reduction strategies such as telecommuting, compressed work weeks, and trip chaining. Major components of the program include a bus pass subsidy program in which the RTC matches an employer's contribution to their employees' 31-day transit passes up to 20%; a subsidized vanpool program, **RTC VANPOOL**; and an online trip matching program that makes it quick, easy, and convenient to look for carpool partners and also bus, bike, and walking buddies for either recurring or one time trips. One of the most common deterrents to ridesharing is the fear of being "stranded." Consequently, people who either carpool or vanpool to work can sign up for the guaranteed ride home program and be reimbursed for a taxi ride home up to four times a year if an unexpected event prevents normal ridesharing arrangements from working.

Making trips on foot and by bicycle are promoted by the **RTC SMART TRIPS** program throughout the year in various manners such as participation on the Truckee Meadows Bicycle Alliance, which implements the Bike to Work Week campaign each spring, and maintaining the Street Smart website that educates the public about the

it safely.

RTC VANPOOL Program

RTC VANPOOL is the fastest-growing component of the trip-reduction program and now represents the RTC'
This program provides an opportunity to reduce auto trips and serve long- . The program grew to 227 vehicles in 2020 , with vans traveling to Carson City, the Tahoe-Reno Industrial Center, North Spanish Springs, Stead, Herlong, and Susanville. Participants share the costs of the vehicle lease and gas, with RTC providing a subsidy to encourage participation based on the distance traveled. The **RTC VANPOOL** program eliminated over 6,000 metric tons of CO_2 in 2019.

RTC REGIONAL CONNECTOR

RTC currently provides REGIONAL CONNECTOR transit between Reno and Carson City. This premium service carried over 27,000 passengers in 2019.

Privately Operated Intercity Bus Service

RTC supports private intercity bus transportation where feasible and appropriate. RTC leases bus bay access at RTC CENTENNIAL PLAZA to My Ride to Work, which provides privately operated transit access to employees at the Tahoe-Reno Industrial Center. An estimated 2,000 employees use this service every day. Greyhound, which provides intercity transit access with nation-wide connectivity, also leases bus bay access as well as a waiting room space at RTC CENTENNIAL PLAZA.

The North Lake T
service from the Reno airport to Truckee and North Lake Tahoe area. The South Tahoe Airporter provides service from Stateline to the Reno airport.

Token Transit – Smart Phone Fare Payment

RTC has partnered with Token Transit to provide riders the option of using their smart phone to purchase and board buses. Riders simply download the Token Transit app from the app store or text “TOKEN” to 41411 for a download link. The user can store or activate a ticket on their phone. To board, riders simply show the driver the animated ticket on their phone.

Joint Development Through the Federal Transit Administration Program

The Reno-Sparks region is facing a

. Public transportation is an important resource for area residents and provides access to essential services.
in close proximity to transit routes

and increases transit ridership. RTC conducted an

transit corridors.

R
at the Truckee Meadows Regional Planning Agency, City of Reno, City of Sparks, Washoe County, and Reno Housing Authority, as well as representatives of Truckee Meadows Healthy Communities initiative regarding ongoing analysis of regional housing needs.

FTA refers to a public transportation project that integrally relates to and often co-locates with commercial, residential, mixed-use or other non-transit development. The RTC study evaluated vacant parcels throughout

potential locations for more detailed analysis. The report includes a market analysis and conceptual site plans for consideration at these locations. There could be a potential opportunity for private or public sector partners

conjunction with future RTC transit facility improvements. The sites considered include the following:

- Clear Acre Lane Site – Owned by RTC, no longer needed for future roadway project.
- South Virginia Street Site – Construction of full-sized RAPID station planned for this site.
- Neil Road Site – Relocation of Meadowood Mall transit transfer station under study for this site.

Park and Ride Facilities

Park and rides are multimodal transfer points where people typically transfer from an individual mode of transportation, such as walking or driving alone, to a shared transportation mode, like public transportation or a carpool. Park and ride lots can be used for many trip types but are most typically oriented towards commuter trips.

Park and rides can either be exclusively owned and operated by a public agency or under contract with a private owner.

The latter type of park and ride facility is often called a shared facility because parking is shared between park and ride users and other users of the facility. Shared facilities are often located at large faith institutions, major retailers, or other locations that may have a surplus of weekday, daytime parking.

Publicly owned park and ride facilities in the region are currently operated by NDOT. These park and rides are primarily designed to serve long-distance commutes or recreation opportunities in the Lake Tahoe Basin.

Park and ride facilities are a critical element of the **RTC VANPOOL** program.

Due to the continued success of the **RTC VANPOOL** program, there is an increased demand for park and ride facilities. As a result, the RTC is currently evaluating options to expand the availability of these types of facilities within the region. These options include improving vacant properties that the RTC currently owns and working with major retailers and faith institutions to enter into agreements for shared use facilities. In addition, RTC has previously considered locations for park and rides as a component to other projects such as the planned Pyramid Highway-US 395 Connector.

Unfunded Vision for Transit

The RTP outreach process provided an opportunity to develop a vision for transit in the Truckee Meadows through 2050. This vision is not constrained by

community input, the vision includes the following elements:

Transit Service Vision

- Increased Frequency and Span of Service on Existing High-Productivity Routes in the Urban Core – Investments in existing routes will improve convenience and service levels in areas with well-established transit ridership that have the greatest potential for increased growth.
- Expand FlexRIDE Service Areas – **FlexRIDE** some outlying suburban areas, providing increased convenience

  Potential areas for future expansions include South Meadows and Incline Village.
- Extend Virginia Line **RAPID** to Mt. Rose Highway – Providing transit connectivity to employment, education, commercial, and residential centers in South Reno would improve access to opportunities, expand travel options, and encourage transit supportive development along South Virginia Street. The **RAPID** extension could be supported by a **FlexRIDE** zone to provide increased connectivity to surrounding neighborhoods.
- Extend Lincoln Line **RAPID** to Stoker Avenue – This extension along West 4th Street would support safety and other multimodal improvements planned for the corridor. It would also encourage transit supportive development that is anticipated in the West 4th Street corridor.
- Improved Transit Connectivity to the Lake Tahoe Region – Develop new transit solutions to better connect the existing transit systems in Reno/Sparks, Carson City, and Lake Tahoe.

This would improve access to the treasured resources in the Lake Tahoe Basin and reduce the environmental impact of vehicle travel.

- Truckee to TRI Center Commuter Bus Service – Develop new transit solutions to better connect residential and employment centers along the I-80 corridor, extending from the Town of Truckee to Reno/ Sparks, and Storey County.

Transit Facilities Vision

- Bus Maintenance Facility – Construct a larger maintenance facility for long-term expansion that can accommodate a diverse zero-

  hydrogen fuel cell operations.

- New Transfer Facility at Meadowood Mall – Relocate the Meadowood Mall transfer facility and explore opportunities for joint development.

- Mobility Hubs – The need for

  the Downtown Reno Circulation Study, Sparks Industrial Area analysis, and planning initiatives in Midtown District of Reno. They would include parking for automobiles, bikes, **RTC VANPOOL**

  public transit and private employer shuttles. Structured parking would be considered.

With this vision for transit, the RTC hopes to continue the conversation about the role of transit in the community and the need for sustainable funding for transit operations.

7.4 – ADVANCED MOBILITY & INNOVATION

Zero-Emission Vehicles & Charging Infrastructure

Increasing the proportion of zero-emission vehicles in use throughout the region, including both electric and hydrogen fuel cell vehicles, will have

greenhouse gas emissions. The growth of zero-emission vehicles will require the development of fueling/ charging infrastructure as well. RTC is developing an Advanced Mobility Study that includes the evaluation of existing electric vehicle charging resources

long-term development of alternative charging technologies. In addition to supporting the needs of local zero emission vehicle operators, charging infrastructure, along with the Nevada Electric Highway initiative, would encourage zero emission vehicle owners in other states to visit our region and support the tourism economy.

LiDAR Safety Analysis

The RTC received a grant from the U.S. Department of Transportation to develop a tool, called Automatic Road Feature Extraction from LiDAR (ARFEL), that automatically extracts highly accurate road geometric features from mobile light-detection-and-ranging (LiDAR) data collected on roads.

RTC will collaborate with NDOT, which collects and manages statewide mobile LiDAR data using their own data collection vehicle and will also be a user of the ARFEL tool. The development team includes researchers and programmers from UNR and Texas Tech University (TTU). RTC will use this tool to:

- Analyze relationships between crashes and road factors.
- Identify locations and characteristics of crashes using network screening.
- Select appropriate countermeasures and strategies.
- Evaluate safety improvement projects.

Other applications for LiDAR under

crosswalks that could be activated by LiDAR when pedestrians approach the intersection.

Connected & Autonomous Vehicles

The concept of fully autonomous (also called self-driving, driverless, or robotic) vehicles has gone from being a distant possibility to a near-term reality. Vehicles of all types are becoming more autonomous as this technology continues to improve at a rapid rate.

Nevada has been leading the way for autonomous cars and trucks by

nation to pass regulations regarding the safety requirements and licensing for autonomous vehicles. Nevada was

provide a license to an autonomous commercial truck.

RTC is collaborating with the University of Nevada, Reno on research into intelligent mobility. The University's Nevada Center for Applied Research integrates expertise in advanced autonomous systems, computer sciences, synchronized transportation, and robotics with community needs. The Center is creating a Living Lab to allow the texting of mobility technologies in urban environments. The Center and RTC are partnering to research autonomous bus technologies and applications using zero-emission electric vehicles.

Using the latest in LiDAR technology – a field worker makes adjustments.

In addition to individual vehicles becoming autonomous, some concepts have proposed a fully connected transportation system in which vehicles would communicate with each other and with the surrounding infrastructure in order to improve both safety and

.

A fully integrated transportation system may have other impacts as well, including reduced car ownership, demand response ride-sharing, and

This technology is expected to increase the need for expanded broadband and internet connectivity.

Autonomous aircraft are also beginning to emerge as a transportation option of the future. Drones are small aircraft which are piloted remotely and do not require a human to be seated within the aircraft itself. Nevada has been on the forefront of regulating and providing resources to this new technology. In 2015, UNR opened the Nevada Advanced Autonomous Systems Innovation Center as a catalyst for

systems.

Shared Mobility

Shared-use mobility describes transportation services that multiple users can access on demand, including public transit, taxis and limos, bikesharing, carsharing (round-trip, one-way, and personal vehicle sharing), ridesharing (carpooling, vanpooling), ridesourcing (Transportation Network Companies or TNCs), scooter sharing, shuttle services, and commercial

goods movement. Shared-use transportation is becoming increasingly common in urban areas and utilizes wireless technology to improve the options and ease of access for users.

The Shared-Use Mobility Center states that these new services represent innovative responses to the demand for

- Provide more mobility choices.
- mile solutions.
- and pollution.
- Reduce transportation costs.
- Reduce fossil fuel consumption.
- Reduce pressures on parking spaces.
- .

- Identify choices for those who maintain a vehicle.

By utilizing wireless technology to easily access shared-use mobility downloadable applications for cell phone and/or tablet users to create convenient shared-use transportation choices.

Ride Sourcing

Ridesourcing became available in the Truckee Meadows through Uber and Lyft in the fall of 2015.

RTC is exploring the viability of using public-private partnerships with ridesourcing services to expand mobility opportunities in outlying areas, similar to the Taxi Bucks program.

The impact of ridesourcing on mobility will require additional analysis as its use continues to increase. These services have the potential to increase customers away from traditional public transportation. Due to costs that are typically higher than transit fares, equity concerns should also be given consideration.

Bike Share

Early in 2016, RTC completed the Truckee Meadows Bike Share Feasibility Study. The study researched the possibility of launching a bike share program in the Reno and Sparks areas. The study revealed that a successful bike share would likely require a public-private partnership. The study recommended a hybrid system utilizing both smart bike systems and station-based systems. Smart bikes can be rented from any location and all of the necessary equipment to facilitate the rental is physically located on the bike.

A number of racks at a given location and the user must return the rented bike at one of these locations.

In April 2018 the City of Reno executed the Exclusive Agreement for a pilot dockless (smart bike) bike share program between the City of Reno and City of Sparks, Washoe County, University of Nevada, Reno, and The Reno-Sparks Indian Colony. This pilot included a tribal government. RTC had a support role in the dockless bike share pilot, which involved no public capital infrastructure investment. The pilot project ended and the local jurisdictions determined not to continue with dockless bike share.

While there may still be interest in bike share for the region, the local jurisdictions and other partner entities would need to revisit the type and structure of any future system. Lastly, the smart bike companies have incorporated electric scooters into their business models. The region would need to determine if electric scooters were appropriate and desired for the Truckee Meadows.

CHAPTER 8 – FOCUSING ON REGIONAL CONNECTIVITY

Regional connectivity has three primary contexts in this RTP: the larger mega-region that extends from San Francisco to Reno-Sparks, the Northern Nevada and Lake Tahoe Region, and the local communities within Reno and Sparks. Economic and transportation linkages tie Northern Nevada communities together including Carson City, the Lake Tahoe Region, Virginia City, Pyramid Lake, Storey County, Fernley, and other nearby areas. These economic connections continue into California, extending to Sacramento and the San Francisco Bay Area. A strong desire to improve regional connectivity for residents, businesses and visitors was expressed during the RTP outreach process. Local residents would like to see more multimodal travel options and freight mobility between these communities and into California.

Northern Nevada is directly impacted by the economic activity surrounding the San Francisco metropolitan region and the Port of Oakland. This

by Arthur Nelson and Robert Lang. Megapolitan Regions share a number of attributes including environmental systems, infrastructure systems, economic linkages, culture, and history. Reno and Sparks are part of the Sierra-

Francisco to Reno. The Megaregion is connected by the approximately 225-mile-long I-80 corridor, which is

mainline railroad. Intercity bus transit is provided between these metropolitan areas by Greyhound and other operators. Amtrak provides passenger rail service in the corridor on the California Zephyr route between San Francisco and Chicago.

Amtrak provides passenger rail service from San Jose to Auburn, California on the Capital Corridor route. RTC joins the Lake Tahoe Region and Town of Truckee in support of extending the Capital Corridor service to Reno/ Sparks and continuing to Storey County and Fernley.

This larger region is important because economic activity in one city has a direct impact on the economy in other cities within the region.

For example, if the number of ships increases in the Port of Oakland there

on I-80. More trucks and trains pass through Reno, where they unload cargo for redirection to all points throughout the Intermountain West. Reno, Sparks, and Washoe County have

warehouse, distribution, and advanced manufacturing hub in the megapolitan region. This impacts the transportation network and indicates there is a need to coordinate not only with entities in Washoe County, but also with other regional partners.

8.1 – CONNECTIVITY IN NORTHERN NEVADA

The transportation networks and economies of Northern Nevada and the Lake Tahoe Region are even more closely linked. The catchment area for the Reno-Tahoe International Airport, shown in Figure 8-1, encompasses a population of 1.3 million. Support has been expressed through the RTP process for increasing transit connectivity between the Reno, Sparks, Carson City and Lake Tahoe regions. Strengthening these transit linkages will support sustainable economic development in the region. The RTC collaborated with NDOT and the other Northern Nevada Metropolitan Planning Organizations (MPO's) in developing the 2050 RTP.

Tahoe Regional Planning Agency (TRPA) and the Tahoe Transportation District (TTD) were members of the 2050 RTP Inter-County Working Group. All of the MPO's and NDOT meet monthly to discuss regional issues.

Figure 8-1: Reno Tahoe International Airport Catchment Area

One Nevada Transportation Plan

NDOT adopted their long-range plan, One Nevada Transportation Plan, in November 2018 and most recently revised it in February 2020.

The One Nevada Transportation Plan equips NDOT and its partners with the strategic direction and essential actions to meet Nevada's current and future transportation needs. This plan provides a common foundation and shared policy framework for making more informed, transparent, and responsive transportation investment decisions. It is intended to be a living document and is a part of a continuous process of planning, implementation, operation, and preservation of Nevada's transportation system that

responsive to future changes in needs, resources, and priorities.

Carson City

Carson City, the capital of Nevada, is located about 25 miles south of the Reno-Sparks metropolitan area.

, commercial,

these two regions. The Carson City Regional Transportation Commission (CCRTC) is the governing agency for transportation improvements in Carson City, and operates Jump Around Carson (JAC), the city's public transit system.

CAMPO is responsible for transportation planning within the metropolitan planning area, which includes Carson City, as well as portions of Douglas and Lyon Counties.

CAMPO is the designated recipient and grantee of urbanized area public transportation funding received directly from the FTA. Carson City Public W
both CAMPO and the CCRTC. The RTC of Washoe County partners with CCRTC to provide the REGIONAL CONNECTOR transit service between Reno and Carson City.

Lake Tahoe Region

The Lake Tahoe Region and surrounding area are recognized for their unique beauty, environmental resources, and recreational amenities. Reno is a gateway for visitors traveling to Lake Tahoe, with many entering the region at the Reno-Tahoe International Airport. In addition, Lake Tahoe is a popular recreation destination for residents of the Reno-Sparks metropolitan region. Primary vehicle access is from I-80, Mount Rose Highway, and US 50 via I-580. Millions of visitors travel to Lake Tahoe each year. Commuting patterns between the urbanized area and towns such as Truckee, South Lake Tahoe, and Kings Beach are also substantial.

In 1969, California and Nevada legislators agreed to a unique Compact for protecting Lake Tahoe and sharing responsibility for that protection. The two states and the U.S. Congress amended the Compact in 1980, with public law 96-551, and at that time also established the TTD.

The TTD is responsible for facilitating and implementing safe, environmentally positive, multimodal projects for the Lake Tahoe Basin, including transit operations.

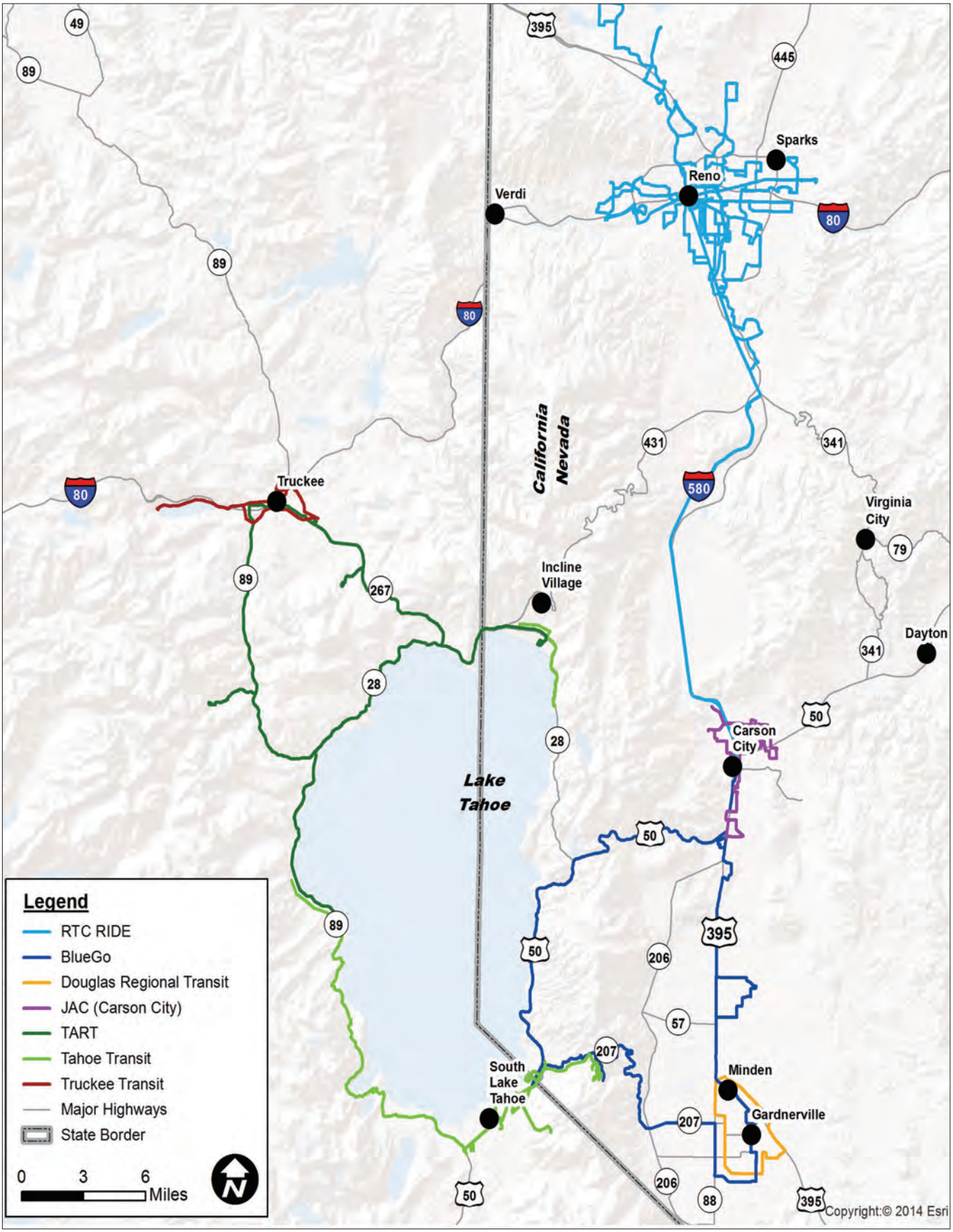
The TRPA is the federally designated Metropolitan Planning Organization (Tahoe MPO) for the Lake Tahoe Basin. In 2015, the FAST
Lake Tahoe Region as a
at TRPA work with TTD, the RTC, and other local implementing agencies to plan for and implement a transportation system that serves the transportation needs of residents, commuters, and visitors of Lake Tahoe while reducing the environmental impact of transportation in the region and enhancing quality of life.

The South Lake Tahoe area's coordinated transit system is operated by the
service through the South Shore as well as the East Shore Express, which includes transfer service to Tahoe Area Regional Transit (TART), providing access to the North Shore and the Town of Truckee.

TTD also operates commuter bus service to Carson City and Minden and Gardnerville in Douglas County (the Carson Valley). In addition, TTD provides ADA paratransit and on-demand service within the city of South Lake Tahoe, northern El Dorado County and western Douglas County.

REGIONAL MAP OF TRANSIT SYSTEMS IN CARSON, TAHOE AND RENO/SPARKS

MAP 8.1



RTC partners with TTD and Placer County to contribute to the TART service, and is currently in discussion with TTD to consider microtransit (**FlexRIDE**) service in Incline Village. Long range elements of the transit vision include:

- Improved Transit Connectivity to the Lake Tahoe Region – Develop new transit solutions to better connect the existing transit systems in Reno/Sparks, Carson City, and Lake Tahoe. This would improve access to the treasured resources in the Lake Tahoe Basin and reduce the environmental impact of vehicle travel.

- Truckee to Fernley Commuter Transit Service – Develop new transit solutions to better connect residential and employment centers along the I-80 corridor, extending from the Town of Truckee to Reno/Sparks, Storey County, and Fernley.

Storey County

Storey County is home to the Tahoe Reno Industrial (TRI) Center. The TRI Center is a 107,000 acre park, located in the community of McCarran. The center is the largest in the United States, occupying over half of the land mass in Storey County, and is home to more than a hundred companies and

centers. Many sites are served directly by rail.

Some of the larger companies at the TRI Center include the Tesla Gigafactory, Panasonic, Wal-Mart Distribution Center, and Zulily, Inc. The TRI Center is also home to major technology companies such as the Switch Datacenter, Google Datacenter, Blockchains, and many others.

With a county population of just over 4,100 residents, the majority of employees working at the TRI Center commute from Reno and Sparks and nearby Lyon County (including the City of Fernley) along the I-80 corridor. In addition, the USA Parkway was recently constructed (opened in 2017) between I-80 and U.S. Highway 50, and provides direct access to the TRI Center from the major highway to the south.

Storey County is also home to historic Virginia City. Nevada's most famous short rail line is the Virginia and Truckee Railroad, which connected Reno with Carson City, Virginia City, and Minden.

With a population of about 900, Virginia City is a National Historic landmark and popular tourist destination. Virginia City is accessed from Geiger Grade/SR 341 in south Reno.

improvements on three corridors that could improve connectivity between Washoe and Storey Counties:

- I-80 widening between Sparks and USA Parkway.
- Extension of La Posada Drive to USA Parkway, which would support additional industrial growth in Sparks.
- Extension of South Meadows Parkway to Storey County.

City of Fernley

Fernley is a growing city of over 20,000 residents. The population is expected to double over the next 20 years. It's location along the UPRR corridor and I-80 about 45 minutes to the east of Reno/Sparks has made it attractive for growth in the manufacturing, and distribution sectors. Fernley is planning for development of a major rail facility that would function as an inland port,

and US 395 corridors.

I-80 Corridor

The I-80 Corridor links the Reno-Sparks metropolitan region with San Francisco, Sacramento, and Salt Lake City.

RTC partnered with NDOT on development of the I-80 Corridor Study. This study used comprehensive and inclusive strategic dialog with stakeholders in the entire metropolitan region to generate a vision and plan for I-80.

I-80 Corridor Coalition is a group designed to improve the overall freight mobility and safety of this nationally

. Work will be performed to enhance communication between transportation system operators and commercial users of the I-80 corridor, particularly during winter weather-related closures.

The Coalition includes NDOT, Caltrans, Wyoming DOT, and Nebraska DOT. Data interfaces are already in place for Nevada and Utah and will require that additional elements from the I-80 corridor be integrated.

NDOT has also developed the Nevada State Freight Plan and is in the process of updating the Nevada State Rail Plan,

issues on the I-80 corridor. More information on those plans can be found in Chapter 10 of this RTP.

US 395 Coalition

The US 395 Coalition is a group created to raise awareness about safety and mobility needs on the highway between Hallelujah Junction and Susanville, California.

This corridor is used for commuting from the Reno/Sparks area to Herlong and Susanville and is also a heavily used truck freight corridor. This segment is currently one lane in each direction with no center median. The US 395 Coalition advocates for constructing additional lanes and safety improvements in the corridor. Short term improvements would include segments of passing lanes. Although located in California, RTC and NDOT are participating in this regionally important planning initiative.

I-11 Corridor

I-11 is envisioned as a continuous north-south high-capacity transportation corridor that has the potential to enhance movement of people and freight, and to facilitate regional connectivity, trade, communications, and technology. This Corridor could provide needed connectivity alternative routes for freight and passenger and improve reliability for better trade and commerce opportunities. Developing a north-south multimodal corridor through Nevada provides the foundation for a renewed, stronger .

Construction of the roughly 450-mile long future I-11 could be phased over future decades as environmental impact reviews are completed and funding is prioritized.

I-11 is currently being analyzed as a limited access four-lane divided highway designed to accommodate

8.2 – CONNECTIVITY IN THE URBANIZED AREA

Regional connections are also needed to tie together the neighborhoods and employment centers in the urbanized area of Reno, Sparks, and Washoe County. Topography and historic development patterns limit direct roadway connections in many areas.

While the historic core of the metropolitan region is centered on the axis of Virginia Street and 4th Street/ Prater Way, recent decades have seen large concentrations of both jobs and housing emerge in outlying areas such as South Meadows, Spanish Springs, and the North Valleys. These newer neighborhoods and employment districts are generally not connected by a grid network and cross-regional mobility is limited.

Spaghetti Bowl Project

NDOT completed the Reno-Sparks Freeway T
solutions to the safety and congestion concerns at the I-80/I-580/U.S. 395 system-to-system interchange, known to local residents as the Spaghetti Bowl.

This system-to-system interchange is the highest-crash interchange in Nevada. The project limits extend along the corridors from the Keystone Avenue interchange to the Pyramid Highway interchange on I-80 and from the McCarran Boulevard/Clear Acre Lane interchange to the Virginia Street/ Kietzke Lane interchange on U.S. 395/I-580.

NDOT received a Record of Decision (ROD) on Final Environmental Impact Statement (FEIS) in July 2019.

Through this process, NDOT
a preferred alternative and has since initiated construction on Phase 1 of the project, referred to as the Spaghetti Bowl Xpress (SBX). This early action project addresses the areas most critical for safety within the Spaghetti Bowl system-to-system interchange. SBX and other future phases of improvements to the Spaghetti Bowl are included in this plan.

US 395 North Valleys Project

US 395 from North McCarran Boulevard to Golden Valley experiences some of the most severe

resulting from rapid residential and industrial growth in the North Valleys. This project would improve safety and mobility by constructing additional travel lanes and interchange improvements.

Pyramid-US 395 Connector

The Pyramid-US 395 Connector will convert six miles of existing Pyramid Highway from an arterial to a high access controlled arterial and add one lane in each direction. A new four lane high access controlled arterial (connector) from US 395 to Pyramid Highway would be added. This project will reduce current and future congestion in Spanish Springs, serve future growth areas, provide additional east/west connectivity and create better overall mobility in the region.

Connecting Spanish Springs & the North Valleys

The high levels of existing and

roadways in the Spanish Springs and North Valleys areas indicate the need for increased connectivity across the northern portion of the urbanized area.

Multiple projects, including the extension of Eagle Canyon and the West Sun Valley Arterial, have the objective of developing a roadway network that will improve access, connectivity
options in these communities.

Extension of Lemmon Drive & Moya Boulevard

The combination of these roadway extensions would support connectivity in the North Valleys and improve access to the Reno-Stead Airport, providing alternate routes for freight movement.

RTC FlexRIDE

RTC FlexRIDE is RTC's on-demand, curbside-to-curbside transit service that provides connection within select zones as well as connections to the

pilot project was launched in Sparks in 2019 and more than doubled transit ridership in the area. During 2020, RTC initiated additional **RTC FlexRIDE** zones the North Valleys, Spanish Springs, and Verdi/Somersett.

This service provides convenient access to transit and improves mobility throughout the region by connecting

Expansion of RAPID Service on the RTC Lincoln Line & RTC Virginia Line

The high-frequency transit service on RAPID would continue to improve regional connectivity through future extensions along West 4th Street to Stoker Avenue and on South Virginia Street to Mt. Rose Highway. The projects would improve access to jobs and essential services. In addition, these extensions have the potential to shape the urban form of these corridors and encourage high-density, mixed-use development, in support of local land use policies and the Truckee Meadows Regional Plan.

CHAPTER 9 – PROMOTING EQUITY & ENVIRONMENTAL JUSTICE

Achieving equity and environmental justice in the provision of transportation projects and services is an important goal of the RTP. The RTC strives to serve the transportation needs of all residents and visitors 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,

  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 and services. This includes wheelchair accessible accommodations in the transit system.
- Executive Order on Environmental Justice – Executive Order 12898

  assessment of disproportionately high and adverse impacts on minority and low-income populations.

9.1 – TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

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.

measures are in place to comply with Title VI requirements:

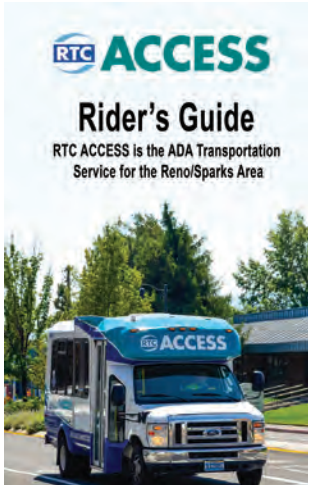
- Minority, low-income, and Limited

  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 Assurance report to the US Department of Transportation.

RTC engages low-income, disabled, minority, and LEP persons in a meaningful public participation process. The RTC works with senior centers, assisted living facilities and senior organizations within the **RTC RIDE** service area to reach out to seniors and those with disabilities. The program involves a presentation about **RTC RIDE** participants to experience riding the bus. The goal of the program is to make the participants more comfortable using public transportation as well as to solicit input from them about RTC services.

In addition to outreach to people with disabilities, RTC also ensures LEP persons understand the transit operations of **RTC RIDE** and **RTC ACCESS** by making the following information available in both English and Spanish:

- **RTC RIDE** bus route information.
- **RTC ACCESS** Rider's Guide book.



- Signs on buses (fare signs, information for **RTC RIDE** programs, etc.).
- Signage at the bus stops stating detour information or temporary route changes.
- Bus announcements explaining how to exit the bus.
- New **RTC ACCESS** voice recordings that reminds passengers of upcoming reservations.
- RTC Passenger Services has Spanish speaking passenger service representatives available to assist passengers.

COVID-19 informational flyers posted on RTC Buses (Figure 9-1)

RTC TITLE VI Policy

The RTC is committed to ensuring that no person is excluded from

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.

Equal Opportunity in Procurement

RTC procurement activities are conducted in accordance with RTC Board-adopted policies and the RTC Disadvantaged Business Enterprise (DBE) Program. Objectives of the RTC DBE Program are to ensure nondiscrimination, create a level

DBE participation, and assist in the

compete successfully in the market place. RTC has a race-neutral DBE goal of 1.0% and race-conscious goal of 0.9%.

RTC has also developed a Fostering Small Business Participation Program.

RTC conducts outreach to educate DBEs and small businesses about the procurement process and ways they can participate. RTC has provided information and resources to the Hispanic Chamber of Commerce, Veterans and at other community forums.
R

TC

is committed to: providing technical assistance, providing information and communication programs on

contracting opportunities, assisting DBEs and small businesses to develop their capability to utilize emerging technology, and unbundling larger contracts when feasible.

The purpose of the RTC Fostering Small Business Participation Program is to provide full and fair opportunities for equal participation by small businesses in federally-funded contracting and procurement opportunities. RTC procurement policies comply with all applicable civil rights and equal opportunity laws, to ensure that all individuals – regardless of race, gender, age, disability, and

funding programs.

ADA Transition Plan

The RTC adopted an updated ADA Transition Plan in 2020, which ADA needs at RTC facilities. The updated Plan complemented the 2011 ADA Transition Plan by incorporating its previous action items and expanding the scope of the plan. The ADA Transition Plan addresses physical obstacles in areas that are open to the public in the six RTC buildings and at 360 RTC transit stops. The ADA Transition Plan update also included the provision of a schedule for implementing the

responsible for implementing the ADA Transition Plan.

Bus Stop & Sidewalk Connectivity Program

RTC initiated a program that funds ADA improvements and sidewalk connectivity at high-priority bus stops in 2019. Upon completion of improvements at these initial stops, RTC will continue to upgrade bus stops

through the ADA Transition Plan. RTC also works with local governments to bring existing bus stops up to ADA standards as part of the development review process.

Accessibility Features of RTC Transit Fleet

R
following accessibility features:

- Wheelchair ramps/lifts.
-
- Audio announcements for timepoints.
- Exterior audio announcement for route names.
- Interior stop announcement signs.
- Overhand straps.
- Yellow stop request door tapes.
- Push activated rear door exits.

RTC ACCESS Paratransit Service

RTC ACCESS is the paratransit service that provides door-to-door, prescheduled transportation for people who meet the eligibility criteria of the ADA. **RTC ACCESS** passengers have disabilities that prevent them from riding **RTC RIDE** independently some or all of the time.

Trips are not prioritized by purpose and may be scheduled one to three days in advance.

service may request subscription service, which has limited availability.

Improving Accessibility of the Regional Road Network

The RTC Bicycle and Pedestrian

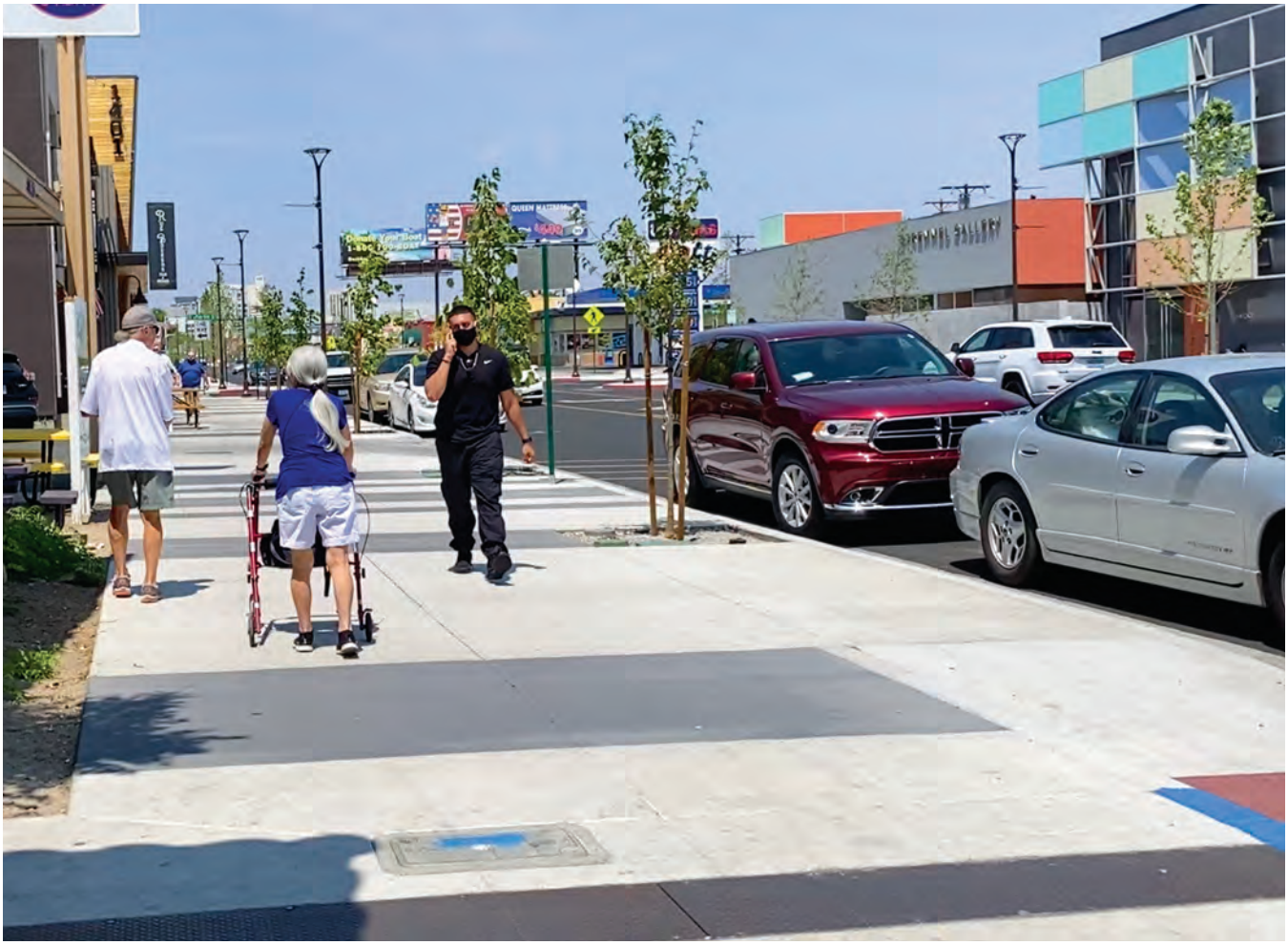
for the region related to improving the accessibility of sidewalks and crosswalks. The ADA requires that newly constructed or altered facilities be readily accessible to and usable by persons with disabilities.

When reconstruction of roadways occurs, upgrades must be provided to bring the roadway into compliance with ADA standards.

As RTC delivers major roadway improvements, the corridor sidewalks and crosswalks are brought to current ADA standards.

Examples of this include the recently completed Virginia Street Bus RAPID Transit Extension Project and 4th Street/Prater Way Bus RAPID Transit Project, both of which were designed to provide wider, accessible sidewalks.

Virginia Street under construction (above). Aerial view of Virginia Street (below).



Virginia Street: Safety improvements, like widened sidewalks, provide ample space for social distancing during the 2020 COVID-19 pandemic.

Passengers enjoy the afternoon sun at an RTC Lincoln Line RAPID station on 4th Street/Prater Way (left). Buses provide service on Route 11 on 4th Street/ Prater Way (right).

9.3 – EXECUTIVE ORDER ON ENVIRONMENTAL JUSTICE

A 1994 Presidential Executive Order directed every federal agency to

programs, policies, and activities on minority populations and low-income populations.

making depends upon understanding and properly addressing the unique

groups. RTC considers the potential adverse impacts of projects on environmental justice populations. This includes impacts to neighborhood cohesiveness, regional accessibility, neighborhood quality of life, and health impacts. RTC also implements outreach strategies targeted toward minority residents and households with LEP. These strategies include outreach in Spanish-language media, bilingual meeting and transit notices,

public meetings. These strategies are important considering the population of Washoe County consists of 35.5% minority and 4.6% of households with LEP .

When the RTC alters transit service,

high or adverse impacts on minority and low-income populations occur.

*Passengers on-board **RTC REGIONAL CONNECTOR**.*

When a service change is being

to receive input from passengers including many people who are part of minority and low-income populations. In addition, the RTC holds a formal public hearing for substantial changes

25% or more of a route's revenue vehicle miles), and analyzes how these changes will impact all passengers within the RTC service area. RTC transit activities are continually reviewed and results summarized once every three years in a Title VI Report, which is described in Section 9.1.

***RTC RIDE** serves passengers including many people who are a part of the minority and low-income populations.*

Demographic and Socioeconomic Summary			Table 9-1
	Washoe County Population and Demographics	Population Within ¼ Mile of Roadway Projects	Population Within ¼ Mile of Transit Routes
Population 2015 Estimate	435,019 (100%)	188,741 (100%)	187,512 (100%)
Persons 65 Years and Over, Percent, 2015	54,637 (12.6%)	21,970 (11.6%)	20,839 (11.1%)
Minority population, Percent, 2015	154,280 (35.5%)	84,582 (44.8%)	85,726 (45.7%)
Persons Below Poverty Level, Percent, 2015	65,248 (15.0%)	39,877 (21.1%)	43,001 (22.9%)
Households 2015 Estimate	166,345 (100%)	74,275 (100%)	74,734 (100%)
Limited English Proficiency, Households, 2015	7,634 (4.6%)	5,176 (7.0%)	5,433 (7.3%)

The projects and services in this plan provide enhanced mobility to all residents regardless of age, race, language, or income. Several of the projects that focus on pedestrian safety, bicycle accessibility, and quality of life are located in lower income communities, including the multimodal improvements on Oddie Boulevard/ Wells Avenue, Sun Valley Boulevard, and Mill Street/Terminal Way.

Many projects on regional roads in areas with low-income communities involve bringing them up to current ADA-accessibility standards and improving pavement condition. While construction may generate temporary negative impacts, the

As shown in the table of demographic information (above), approximately 45% of the residents living within 1/4 mile of the projects included in the RTP are minorities and 46% of the residents living within 1/4 mile of transit routes are minorities. Approximately 36% of Washoe County residents are minorities. This

throughout the community.

Similarly, 15% of the Washoe County population have incomes below the poverty level. About 21% of the residents near roadway projects and 23% of residents near transit routes have incomes below the poverty level. The proportion of seniors served by the projects and services in the RTP is lower than the county average; this is because of the high senior populations in lower density outlying areas such as Cold Springs and southwest Reno, which are not served by transit.

The RTC's outreach includes numerous

for economically disadvantaged populations. The RTC also provides bus passes to charitable organizations at discounted rates, or for free. For example, bus passes are provided to the Reno Works program, which transitions homeless individuals in Washoe County into jobs and housing.

The RTC participates in, and organizes, numerous events for seniors, disabled individuals, and students of all ages. These events help residents connect with transportation services that are often a lifeline for social activities, medical appointments, access to educational opportunities and the ability to earn an income. Notably, the RTC

drive, which collects needed donations of clothing and other essentials.

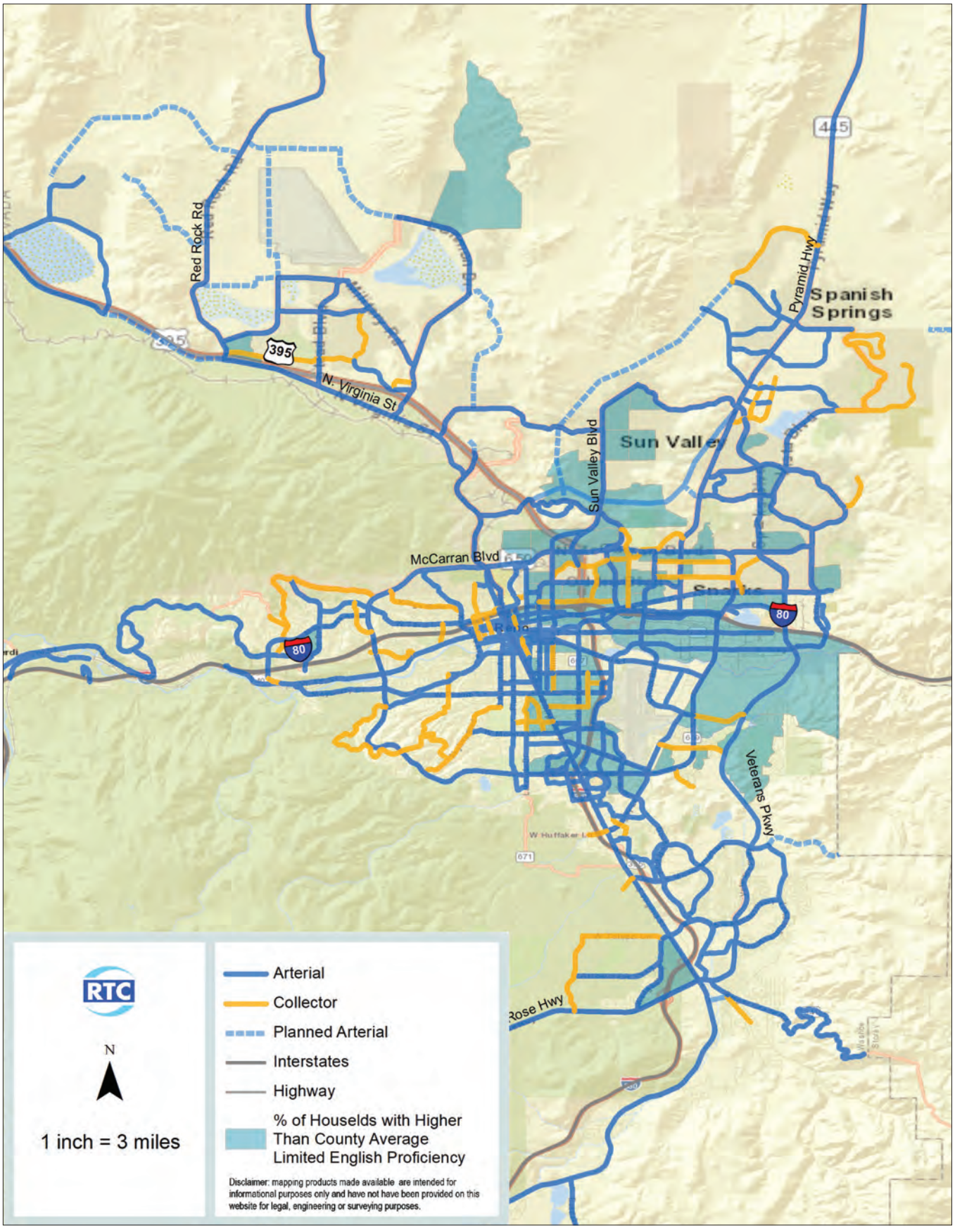
Thousands of seniors also interact with the RTC at the annual Senior Fest event. In addition to incorporating seniors and disabled individuals on standing committees, these populations

training.
and builds skills in using transit and navigating the community.

Seniors gather information at the RTC Senior Fest booth.

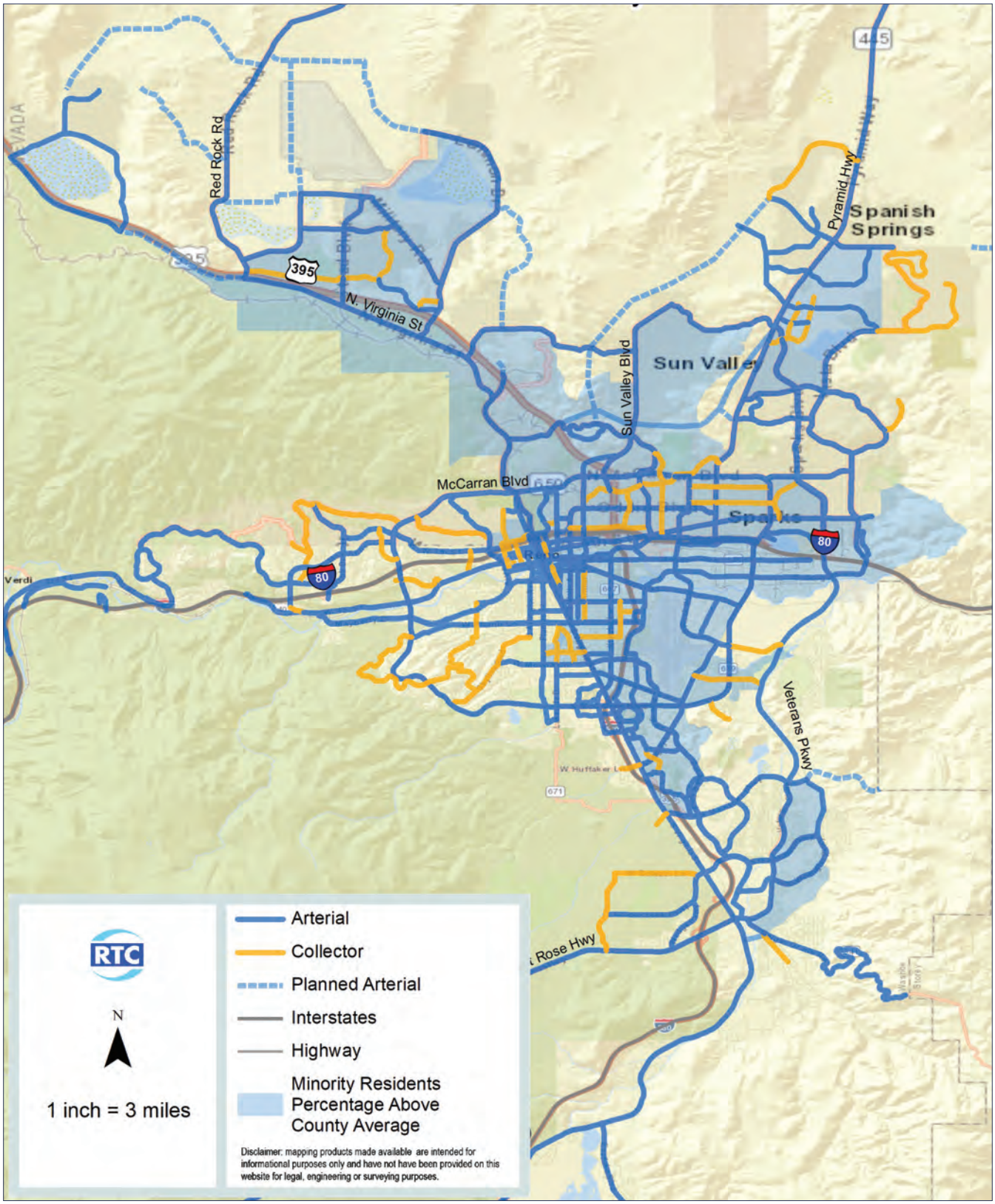
CENSUS TRACTS WITH HIGHER LIMITED ENGLISH PROFICIENCY POPULATIONS

MAP 9.1



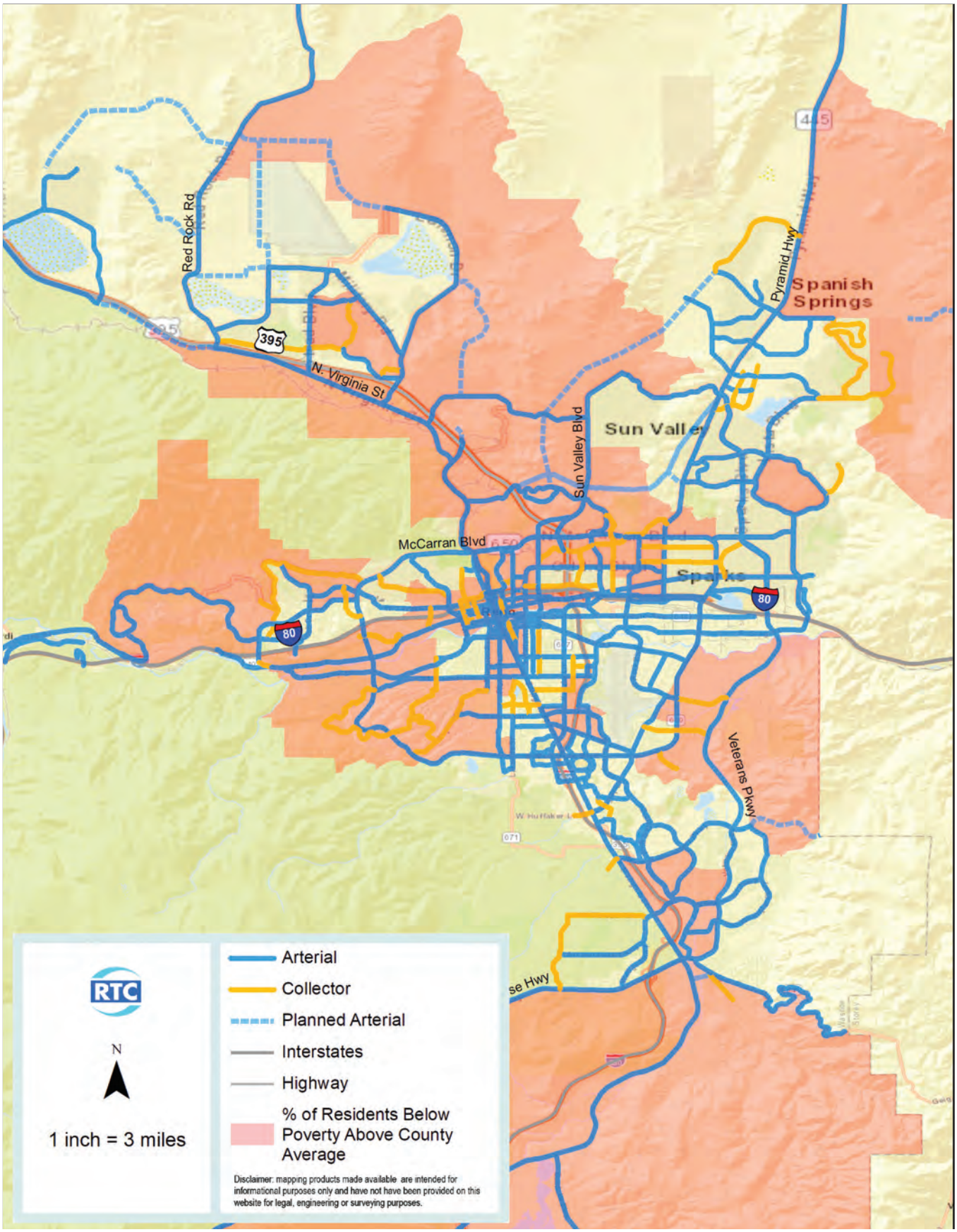
CENSUS TRACTS WITH MINORITY POPULATIONS

MAP 9.2



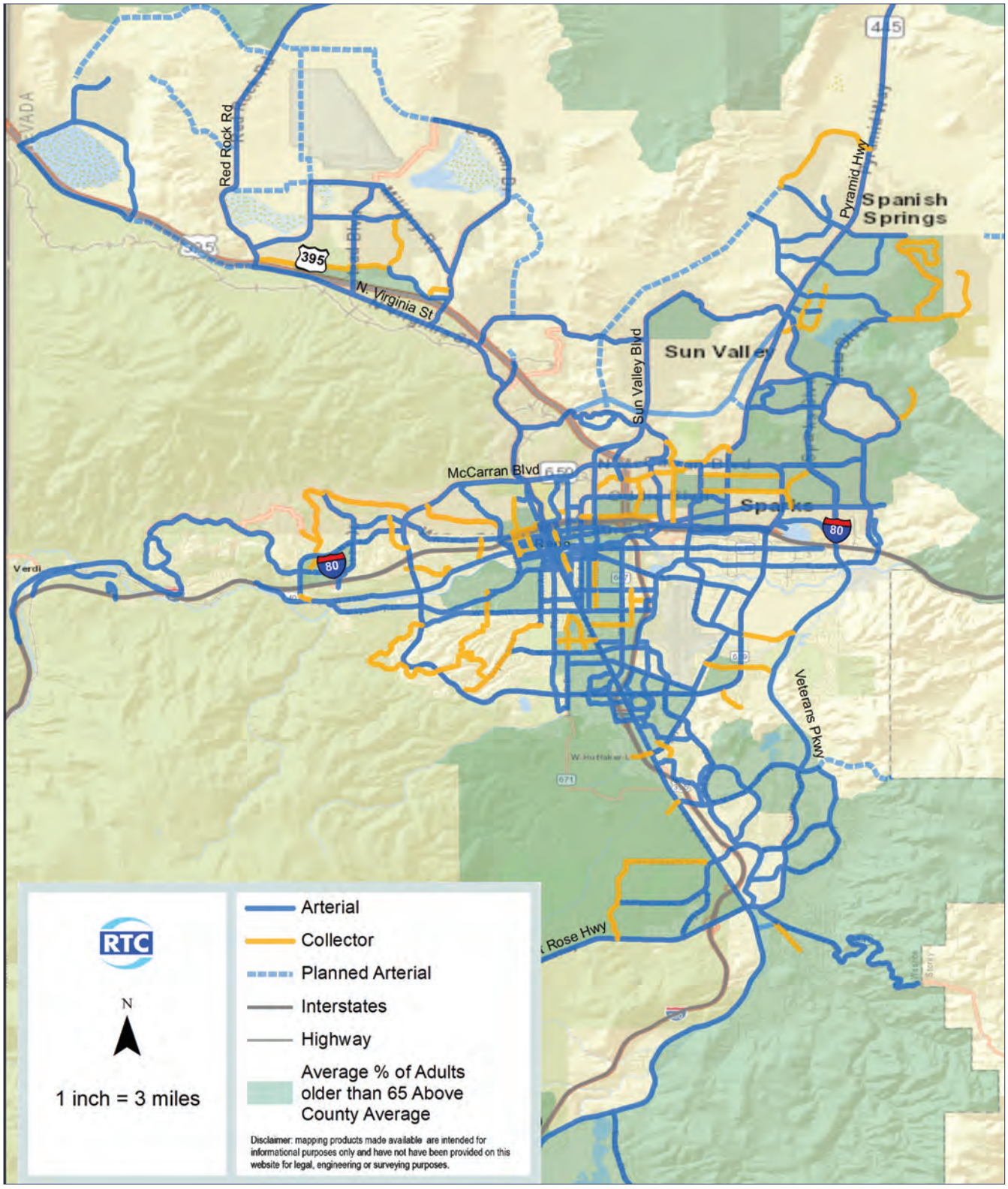
CENSUS TRACTS WITH LOWER INCOME

MAP 9.3



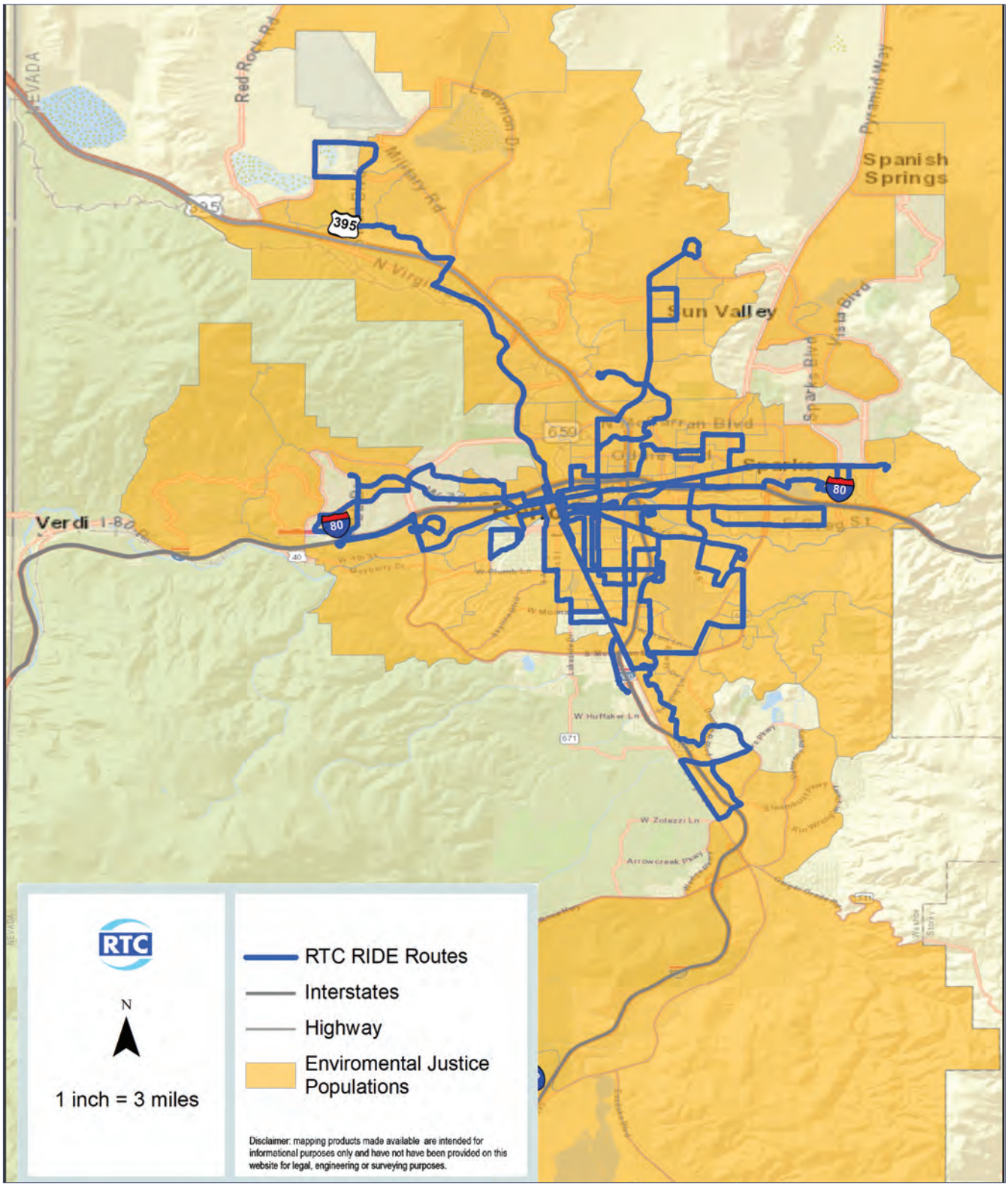
CENSUS TRACTS WITH HIGHER UNDER 18 AND OVER 65 POPULATIONS

MAP 9.4



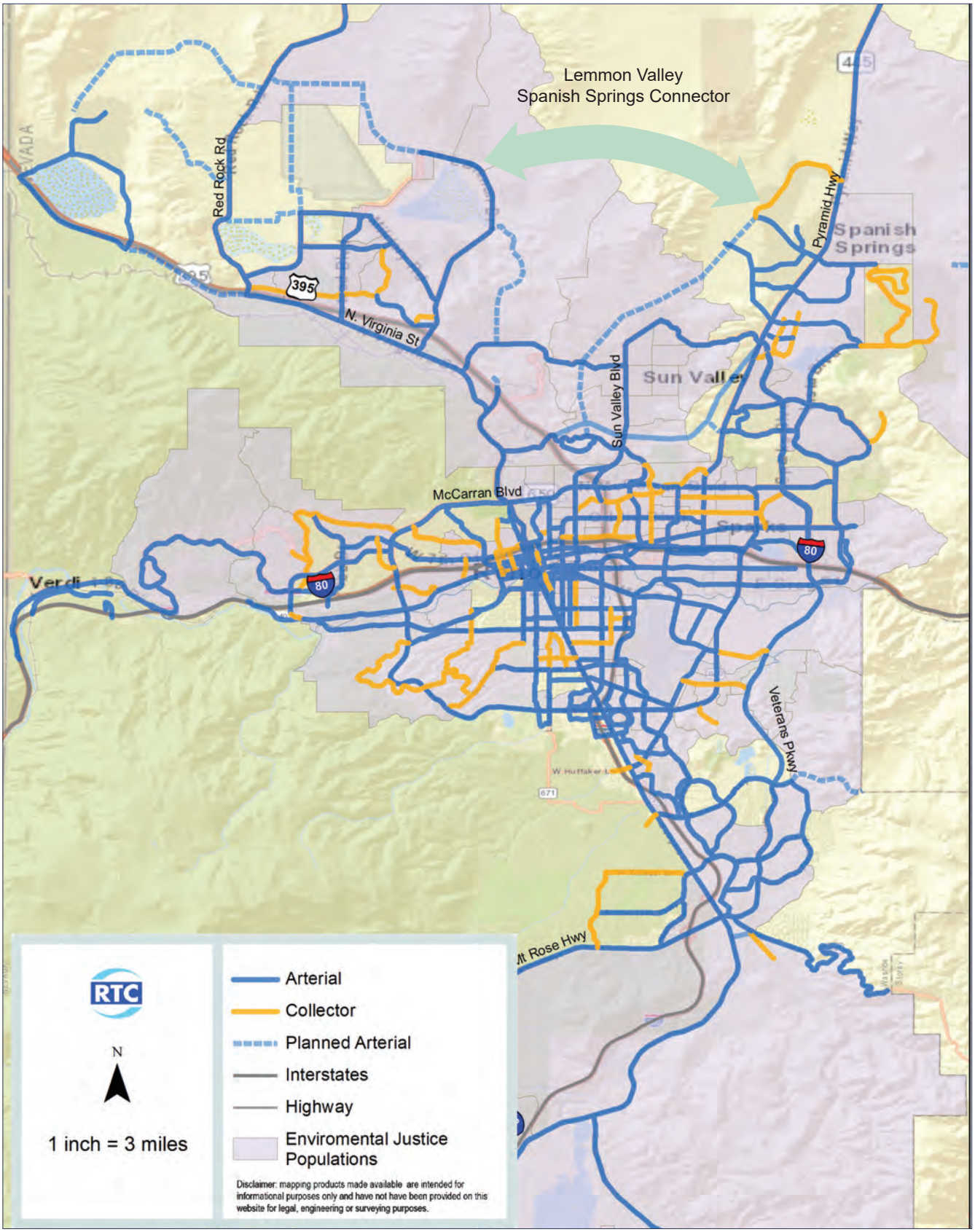
ENVIRONMENTAL JUSTICE POPULATIONS WITH TRANSIT

MAP 9.5



ENVIRONMENTAL JUSTICE POPULATIONS WITH RTP PROJECTS

MAP 9.6



CHAPTER 10 – IMPROVING FREIGHT & GOODS MOVEMENT

Freight transportation is closely tied to economic development, particularly in

to the economic competitiveness of Northern Nevada and to the overall health

advanced manufacturing have become increasingly important to the regional economy, with strong employment growth in these sectors over recent years.

corridor, I 580, the US 395 critical urban freight corridor
Railroad (UPRR), and the Reno-Tahoe International Airport and Reno-Stead Airport.

Centers of freight distribution activities include:

- Sparks industrial area and Sparks rail yard.
- North Valleys, including the Reno-Stead Airport and US 395 corridor.
- South Meadows industrial areas.
- Pyramid Highway industrial areas.
- Reno-Tahoe International Airport.

MAP-21 established a policy to improve the condition and performance of the national freight network. The purpose of the policy is to provide a foundation for the United States to compete in the global economy and achieve goals related to economic competitiveness , congestion, productivity, safety, security, and resilience of freight movement. This is particularly

freight movement occurs.

The passage of the current transportation bill, the FAST Act, further reinforces the importance of freight to the national economy. , the FAST Act established grant programs, such as INFRA, to fund critical transportation projects The FAST Act emphasizes the importance of coordination between local governments and freight transportation providers.

10.1 – NEVADA STATE FREIGHT PLAN

The 2050 RTP supports the vision and goals described in the Nevada State Freight Plan (NSFP), which was adopted in 2017. The following

NSFP with supporting objectives and performance measures:

- Economic Competitiveness
- Mobility and Reliability
- Safety
- Infrastructure Preservation
- Advanced Innovative Technology
- Environmental Sustainability and Livability
- Sustainable Funding
- Collaboration, Land-Use, and Community Values

These goals provide the context for the implementation of 18 strategies listed in the NSFP that will collectively address improvements to Nevada's freight network to achieve the desired vision.

HIGHWAY FREIGHT NETWORK AND PROJECTS RENO-SPARKS AREA

MAP 10.3

I-11 Corridor

The Nevada State Freight Plan promotes development of the proposed I-11 corridor. This continental corridor would link Nevada and other western states to Mexico and Canada.

state of creating a north-south freight corridor. This added connectivity would increase synergy between Nevada's major hubs and improve their access to western US markets, eventually to Canada, and Mexico.

Truck Parking

According to the Federal Highway Administration, truck parking shortages are a national safety concern. Washoe

250 truck parking spaces. The Nevada Truck Parking Implementation Plan was developed in 2019. This plan

improve existing facilities and integrate truck parking technology in response to rising demand, changing hours of service requirements and safety standards noted in Jason's Law, and rapid advancements in technology.

When implemented, these improvements will help truck drivers by providing adequate and safe public truck parking where it is most needed and enhanced by real-time truck parking availability information.

The RTC has been an active participant in developing and implementing the Nevada Truck Parking Implementation Plan.

10.2 – AIR CARGO

Reno's proximity to major West Coast ports provide next day capability for movement of cargo back and forth for import and export as well as domestic spoke and hub services via air, truck, or rail. Reno has customs facilities and personnel to handle import and export needs, while Reno-Tahoe International Airport (RNO) is capable of handling a variety of international and domestic

handled more than 66,621 tons or nearly 147 million pounds of cargo shipments.

Approximately 402,465 pounds of cargo arrives or departs the airport each day. Companies handling air cargo at RNO include DHL, FedEx, and UPS (Reno-Tahoe Airport Authority, 2019). RNO is within a designated foreign trade zone and is located within 2 miles of two major highway corridors, I-80 and US 395, and less than one

Sparks Intermodal Facility.

10.3 – RAIL

Nevada's geography and historic development patterns have resulted in two primary rail corridors, which generally run east-west across the state, along with a few supplemental branch and excursion lines.

Rail shipments accounted for 8% of the shipments to other states, 6% of

The UP Railroad operates two east-west corridors; Burlington Northern Santa Fe (BNSF) Railway has rights to operate on nearly three-quarters of the UP railways in Nevada. The northern corridors serve Reno and Sparks, as well as other Northern Nevada communities, and connect with Salt Lake City and Denver to the east and with Sacramento and the San Francisco area to the west.

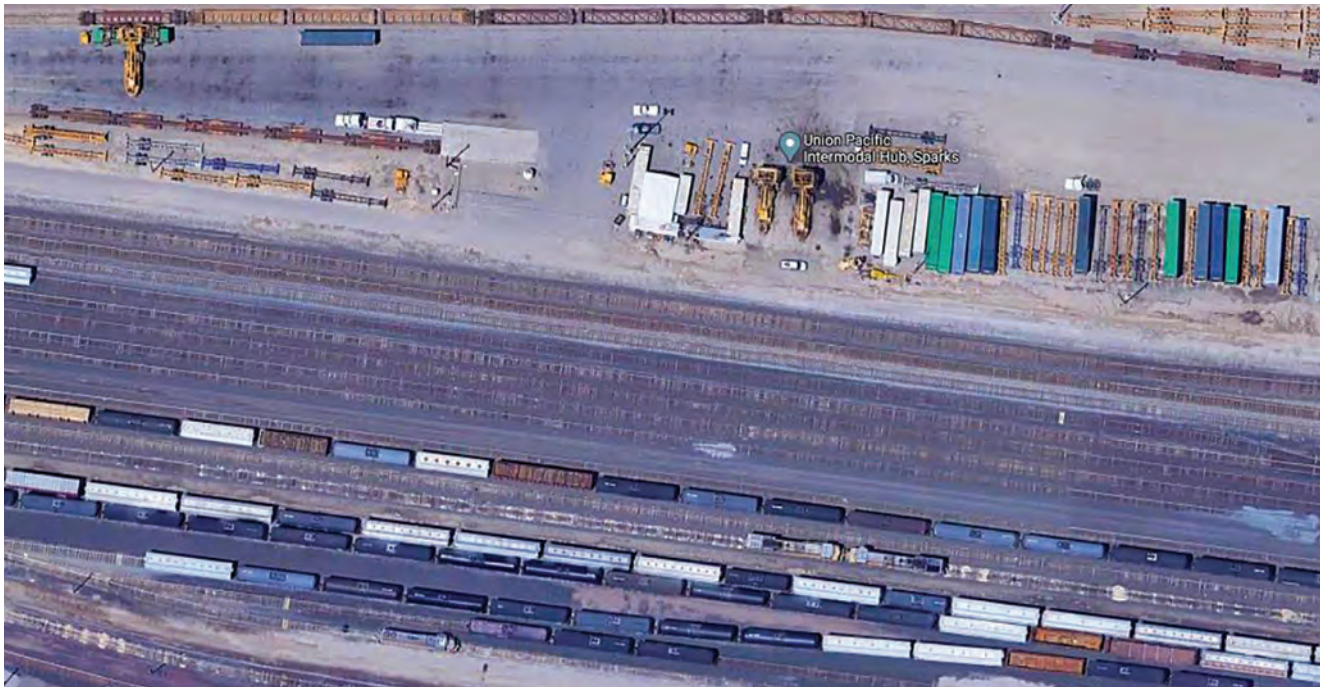
Amtrak operates once a day passenger rail service in each direction across this northern Nevada corridor; I-80 generally parallels the rail lines in this corridor. Total route miles of freight railroad Washoe County is 144 miles.

Nevada State Rail Plan

The 2012 Nevada State Rail Plan was developed by NDOT.

s leadership with public and private transport providers at the state, regional, and local levels, to expand and enhance passenger and freight rail, and better integrate rail into the larger transportation system. The 2012 Nevada State Rail Plan:

- Provides a plan for freight and passenger rail transportation in the state.



Sparks rail yard.

- Prioritizes projects and describes intended strategies to enhance rail

  the public.

- Serves as the basis for federal and state investments in Nevada.

- Currently, the RTC is working with NDOT and other stakeholders to update the existing Nevada State Rail Plan, and looks for opportunities to improve rail transportation in Washoe County.

rail yard in Sparks was built in 1904. From that point, Sparks was an important stop for trains serving Nevada businesses and residents.

Today, the UP railyard in Sparks is an integral part of the railroad's 32,000-mile operation.

Playing a major role in the application of distributed power, the Sparks yard has been a focal point for the safe and

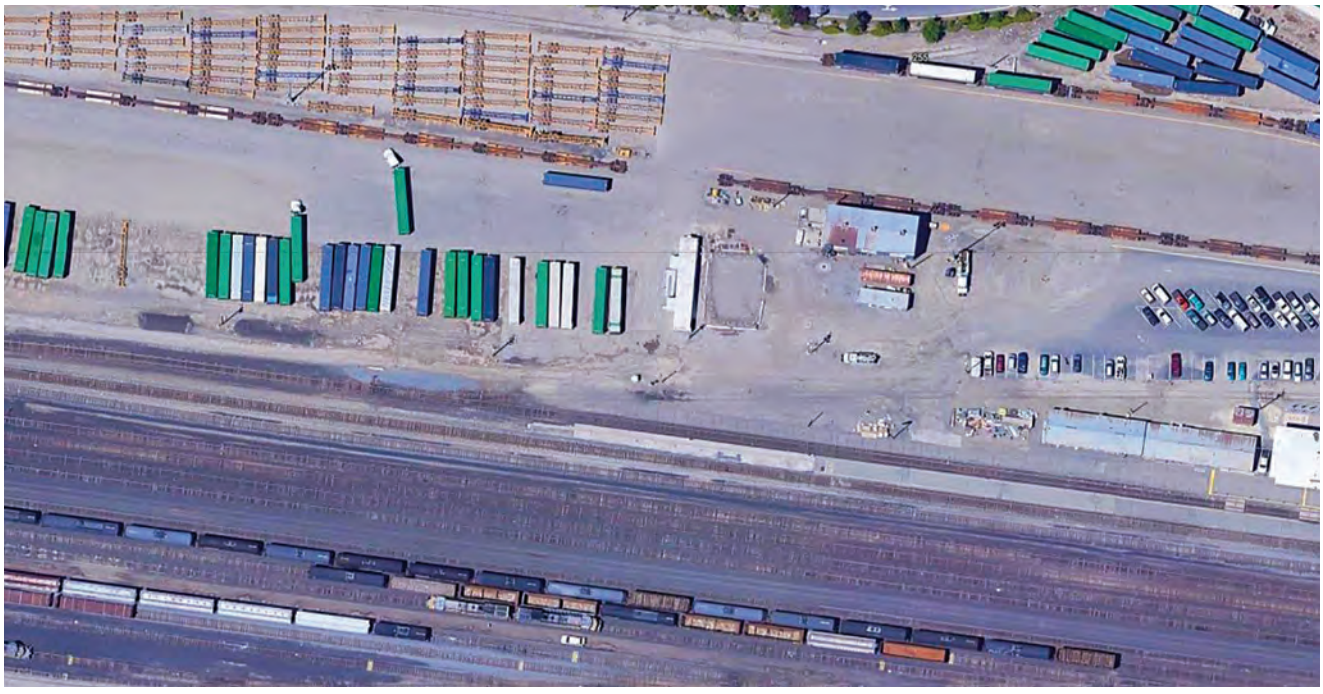
Donner Summit.

With nearly 1,200 miles of track and 600 employees in the state, the Sparks

movement of goods in and around Nevada.[2]

10.4 – ROADWAYS

Area roadways provide a critical link in both national and local goods movement. Regional roads connect manufacturers to intermodal transfer sites as well as the larger freeway network. This area includes local industrial roads, I-580/US 395, and I-80. The Pyramid Highway corridor has also experienced strong growth in industrial activities and is a designated Critical Urban Freight Corridor.



[2] *(http://www.uprr.com/newsinfo/releases/ community/2012/train-towns/0926_sparks.shtml)*

FREIGHT RAIL FACILITIES

MAP 10.5

Industrial roads accommodate

the Reno-Sparks metropolitan planning area.
generators, including industrial areas, inter-modal rail and air facilities, and the regional freeway network. The

connections for freight movement throughout the area and these roadways need to maintain the function of and capacity for truck movements. Industrial roads generally carry heavier loads and at least 6% trucks.

I-80

I-80, designated as a part of the nation's Primary Highway Freight System, is a heavily used goods movement corridor through the western states. States have implemented key strategies to mitigate the impacts of

providing a good route for trucks to travel for their commercial needs, even during winter months when truck holds at the Nevada/California state line can be frequent.

Along some sections of I-80 in Washoe County, trucks can reach as high as

the roadways.

I-580/US 395

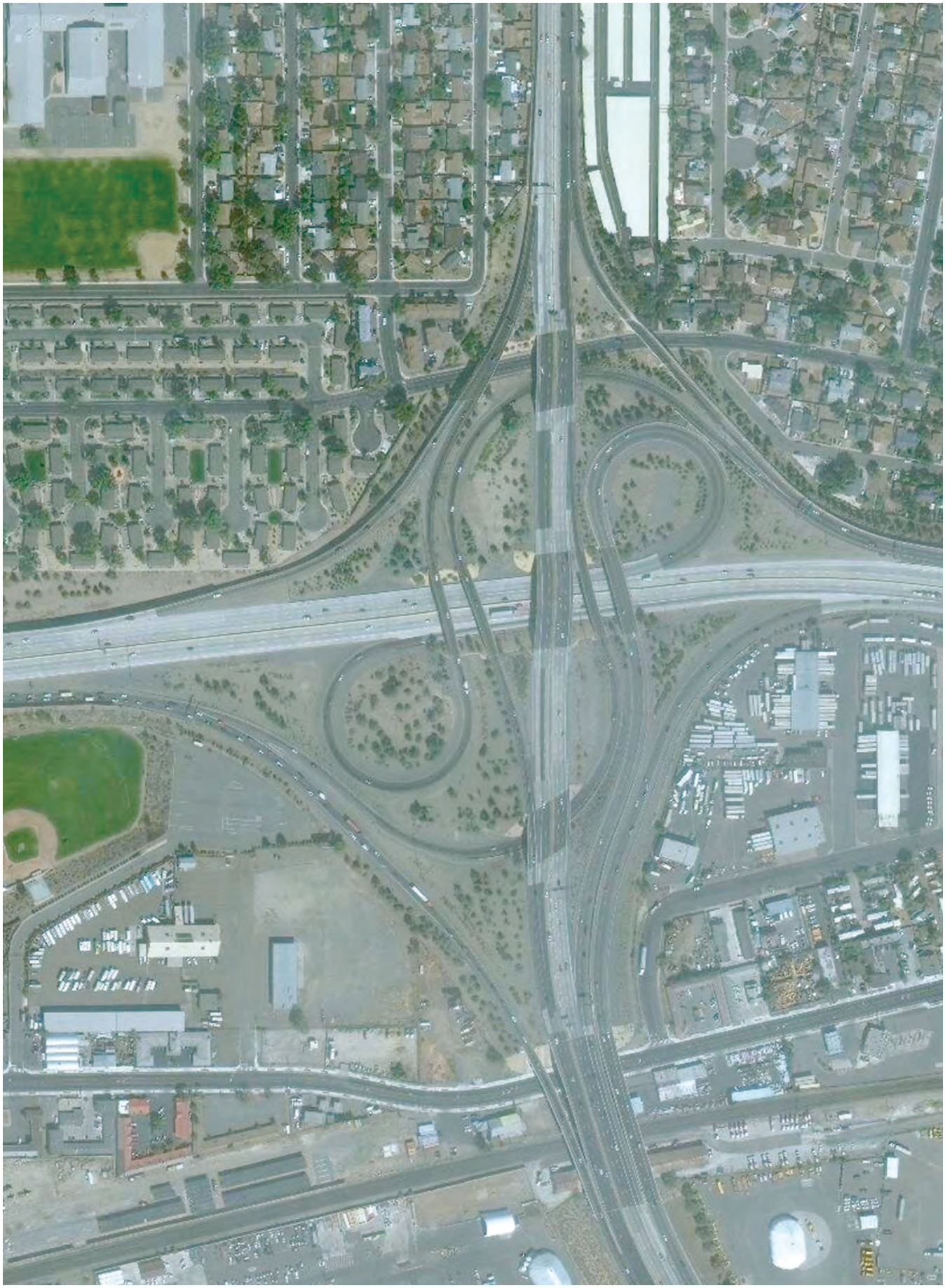
I-580 exists today from I-80 in Reno south to US 50 just south of Carson City. US 395 in Nevada is a major freeway from I-80 north to the state line and has been designated as a critical urban freight corridor. It serves

by the industrial and warehousing developments in the North Valleys area. These routes are absolutely vital to the state's freight network, serving as the state's primary truck routes connecting Nevada to the national freight network.

10.5 – OUTREACH & COORDINATION

The Freight Advisory Committee (FAC) is a group formed during the development of the Nevada State Freight Plan to coordinate and collect input from a range of public and private sector stakeholders. FAC meetings are held quarterly. RTC has been participating in the meetings and working closely with NDOT and other partners to develop and prioritize freight projects.

The RTC participated in the Northern Nevada Truck Parking Workshop.
On September 17, 2019, the Federal Highway Administration (FHWA), in cooperation with NDOT, hosted a 1-day roundtable, focused on truck parking in the Northern Nevada region.



I-80 and I-580/US 395 converge at the Spaghetti Bowl.

Truck parking challenges and potential

were discussed. This workshop provided the RTC an opportunity to engage with public and private sector partners on potential shared solutions. Topics included:

- Truck parking situation throughout the US and within Northern Nevada.
- Current truck parking assessments and needs.
- Best practices and possible solutions.
- Development of truck parking actions, strategies, and priorities.

10.6 – RTP PROJECTS SUPPORTING FREIGHT & GOODS MOVEMENT

Several projects in the RTP focus on improving freight and goods movement through Northern Nevada. A summary of these projects are listed below.

- System wide ITS improvements on I-80 and US 395/I-580.
- Pyramid Highway/US 395 Connector.
- Spaghetti Bowl Project and US 395 Widening.

CHAPTER 11 – INVESTING STRATEGICALLY

Federal transportation legislation (FAST Act) requires that the 2050 RTP be

can be paid for and implemented. The program of projects incorporates all modes of transportation improvements, including transit (both operations and maintenance), roadway capacity, new roadways, Intelligent Transportation Systems (ITS)/operations, pavement preservation, and bicycle and pedestrian facilities.

- Demonstrate how the adopted transportation plan can be implemented/funded.
- Identify resources from public and private sources that are reasonably expected to be made available to carry out the plan.
- Recommend any additional

projects and programs.

Year-of-Expenditure (YOE) dollars. Converting all costs and revenues to YOE dollars assumes a more accurate depiction

long-range transportation plans.

This chapter outlines the revenue projections with a brief discussion on the methods of developing the projections and then further discusses each funding source including federal, state, and local and regional sources. Additional data on the methods for developing the revenue projections are included in Appendix H. The plan addresses public transportation and roadway needs.

11.1 – REVENUE PROJECTIONS

state and federal agencies and the other MPO's in the state. Partners in

- Federal Highway Administration
- Federal Transit Administration
- Nevada Department of Transportation
- Nevada Department of Motor Vehicles
- Carson Area Metropolitan Planning Organization
- Tahoe Regional Planning Agency
- Regional Transportation Commission of Southern Nevada

RTC participated in a series of meetings with these partner agencies to develop consistent future revenue growth factors statewide to be used by all the MPOs in estimating federal and state revenues. Revenue forecast

process are outlined below:

- State revenues for vehicle registration fees, motor carrier fees, driver's license fees, and petroleum cleanup funds will increase by 2% annually.

- Federal revenues will increase by 2% annually.
- Each metropolitan region developed forecasts for local tax revenues, based on regional conditions.

While funding programs are subject to change over time, the RTC is tasked with using the best available data at the time the long-range plan is developed. In developing the projections, historical growth trends of current revenue sources attributable to the region were considered, as well as current

changes in population.

Using these indicators as a base, assumptions were made that there will be increases in all revenue sources over the life of the plan and that the projects included will not exceed the reasonably foreseeable future

constrained plan requirement. Many projects are included in the plan as unfunded needs due to the lack of resources.

The RTP is revisited at least every four years, which will allow for timely adjustments to be addressed as needed.

11.2 – FUNDING SOURCES

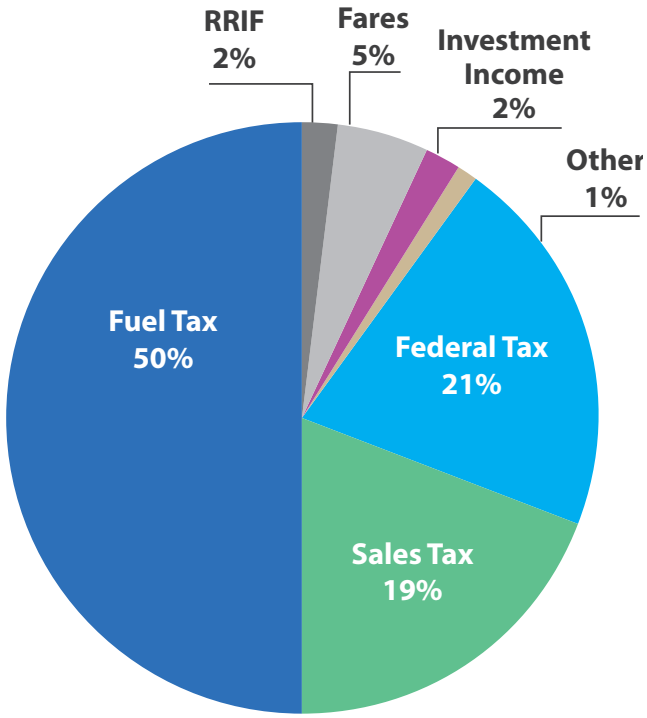
Current revenue sources include the federal government, state government, and RTC. Table 11-1 shows the types of funding sources available and the allowable use under that source – either for roads or transit. The allowable use for the various funding sources is limited by statute, regulation, or state constitutional provisions. As an example, the Nevada Constitution allows local fuel taxes to be spent only on roadway construction. State law precludes the use of fuel tax by RTC for routine roadway operation and maintenance. In addition, some federal funds are restricted to capital improvements and may not be used for operations or maintenance.

Funding Sources and Allowance Uses	Table 11-1
Types of Funds	Uses
National Highway Performance Program (NHPP)	Roads (primarily)
Surface Transportation Block Grant (STGB)	Roads & Transit
Congestion Mitigation Air Quality (CMAQ)	Roads & Transit
Transportation Alternatives (TA) Set-Aside Program	Roads & Transit
Highway Safety Improvement Program (HSIP)	Roads (primarily)

FTA Section 5307	Transit
Section 5309 Discretionary	Roads & Transit
FTA Section 5339	Transit
Gas and Special Fuel Tax	Roads
Driver's License, Vehicle Registration and Motor Carrier Fees	Roads
Regional Road Impact Fee (RRIF)	Roads (capacity)
Sales and Use Tax	Roads & Transit

Revenues in 2020 were approximately $186 million. Figure 11-1 shows the funding sources for that revenue. In 2020, 35% of revenues were used for transit and 65% were used for roadways.

Figure 11-1
2016 Revenues by Funding Source



11.3 – 2020 REVENUES BY FUNDING SOURCE

Federal Funding

Federal funds for transportation are collected nationally and allocated back to the states through a series of formulas and grants. A Continuing Resolution (CR) extends the expired federal surface transportation legislation, the FAST Act, passed in December 2015 by one year at FY 2020 authorization levels. The FAST

decade to provide long-term funding certainty for surface transportation infrastructure planning and investment. The FAST Act authorized $305 billion

for highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs.

The primary funding source provided by the federal government is the Highway Trust Fund (HTF) through the programs in the FAST Act. The HTF is comprised of the Highway Account (funds highway and intermodal programs) and the Mass Transit Account. Federal motor fuel taxes are the major source of income into the HTF.

These taxes have not been increased since 1992 and with fuel consumption declining primarily due to more fuel

about maintaining the current revenue streams. FAST Act programs generally available to the RTC include:

- NHPP – Funds are to support the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS and to ensure that investments of federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets to be established in the states asset management plan.
- Surface Transportation Block Grant Program (STBG) – Flexible funding that may be used for projects to preserve or improve conditions and performance on any federal-aid highway, bridge projects on any public road, facilities for nonmotorized transportation, transit capital projects and public bus terminals and facilities.
- CMAQ – Flexible funding for transportation projects and programs to help meet the requirements of the Clean Air Act; to reduce congestion and improve air quality for the region.
- Highway Safety Improvement Program (HSIP) – Funds are to improve highway safety on all public roads through a strategic approach that focuses on performance.
- Transportation Alternatives (TA) Set-Aside Program – Funds are for a variety of alternative transportation projects such as transportation safety, bicycle or pedestrian improvements, and safe routes to schools programs.
- Bus and Bus Facilities Program (FTA Section 5339) – Funds are to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities.
- Urbanized Area Formula Grant (FTA Section 5307) – Funds are to support public transportation.
- Discretionary Grant Programs – Funds are awarded on the basis of a competitive process for eligible transportation projects.

Generally, federal funding programs require a state or local contribution of funds toward the cost of a project, which is referred to as matching funds. The typical match for street and highway programs is 5% and for transit programs it is 20%.

The FAST Act also provides for competitive grants such as Better Utilizing Investments to Leverage Development (BUILD); Bus and Bus Facilities and Infrastructure for Rebuilding America (INFRA) that RTC competes for on a national level.

State Funding

State funding sources include gas tax, special fuel (diesel) tax, vehicle registration fees, motor carrier fees, driver's license fees, and petroleum cleanup funds. Fuel tax revenue projections take into account the

new electric, hybrid, and alternative fuel technologies emerge. The majority of state funding is applicable to street and highway projects. See Appendix H.

The Nevada State Legislature is exploring potential alternative transportation funding methods, including a road usage charge for electric and hybrid vehicles and a tax on vehicle miles of travel. The Nevada Department of Transportation is undertaking a more detailed analysis of various funding options to supplement the fuel tax. Only existing revenue

projections for this plan.

Regional Funding

Regional funding sources include fuel tax, sales and use tax, passenger fares and other revenue such as RRIF paid by private developers, the Truckee River Flood Project, bus advertising and lease income.

In 2008, Washoe County voters approved the indexing of fuel taxes to This allows RTC to implement major-capacity projects and the pavement preservation program. In 2002, voters approved a 1/8 cent sales tax that is eligible for both transit and roadway uses, and a 1982 ballot initiative approved the use of 1/4 cent sales tax to fund the transit program.

A summary of fuel tax rates is shown below in Table 11-2.

Summary of Fuel Tax Rates (2021)	Table 11-2
Source	Rate per Gallon
County Optional Plus Inflation Index	40.87¢
County Mandatory	12.22¢
Federal	18.40¢
State	18.45¢

Total Funding

A complete description of the methods for determining the future funding for each source is included in Appendix H. Table 11-3 outlines the revenue projections by

public transportation. This table indicates anticipated revenues in YOE dollars. No new funding sources were considered for the timeframe covered by this document.

Revenue Projections				Table 11-3
Fund Source	2021-2025	2026-2030	2031-2050	Total
Complete Street Funding				
Federal	$235,132,000	$338,840,000	$1,746,682,000	$2,320,654,000
State	$208,593,000	$294,349,000	$1,214,037,000	$1,716,980,000
Regional	$554,344,000	$646,338,000	$3,910,007,000	$5,110,689,000
Total	$998,070,000	$1,279,527,000	$6,870,726,000	$9,148,323,000
Public Transportation Funding				
Federal	$96,709,000	$118,119,000	$608,891,000	$823,719,000
State	$0	$0	$0	$0
Regional	$160,268,000	$174,362,000	$864,870,000	$1,199,501,000
Fares & Other Revenues	$27,412,000	$28,545,000	$137,860,000	$193,817,000
Total	$284,390,000	$321,026,000	$1,611,621,000	$2,217,037,000

11.4 – PLAN INVESTMENT NEEDS

The RTP contains the community's vision for the transportation system. The TP are necessary to make the long-range vision a reality. The needs assessment includes all jurisdictions (local, regional and state) and includes all activities, projects and programs on regional roads. A discussion of unfunded needs is also included.

The transportation needs for this plan have been divided into two major categories – public transportation and Complete Streets. The projects/programs Appendix A. Needs were placed into the following planning horizons and are shown in YOE dollars:

- 2021-2025
- 2026-2030
- 2031-2050

Public Transportation

A vision for the future of transit in the Truckee Meadows was developed through the RTP, as described in Chapter 7, and incorporates the adopted SRTP. Recommendations have been implemented as a result of the SRTP that have

addition, the RTC has implemented **FlexRIDE**, a microtransit service, in several sub-areas of the region, which provides an on-demand curb-to-curb service This service provides residents previously outside of the transit service area a direct connection to several destinations and established

Existing transit-eligible revenues are being utilized for current transit operations.

would include increased frequency and span of service on productive routes, as TP, and potential expansions of **FlexRIDE** service areas. The RAPID transit service provided on the Lincoln Line and Virginia Line is the core of the regional transit system. This plan includes expansions of these routes as part of the unfunded vision for transit. Also included in the unfunded vision are the creation of an inter-regional transit route between Truckee and the Tahoe Reno Industrial Center, development of a new bus transfer facility, a new or expanded bus maintenance facility
costs of these projects, they are listed as unfunded needs in the transit vision. Table 1
estimated costs.

Unfunded Transit Vision Table 11-4	Initial Capital Cost (2020 $)	Annual Operating Cost (2020 $)
Increased frequency and span of service on existing high-productivity routes	$2.4 million	$1.5 million per year
Expand FlexRIDE service areas	$500,000	$1 million per year (for 2 additional zones)
Extend Virginia Line RAPID to Mt. Rose Highway	$12.7 million	$2.7 million per year
Extend Lincoln Line RAPID to Stoker Avenue	$4.2 million	$620,000 per year
Improved Transit Connectivity to the Lake Tahoe Region	$1 million	$1.9 million per year
Truckee to TRI Center Commuter Bus Service	$5.9 million	$886,000 per year
Total Unfunded Operating Costs	$26.7 million	$8.6 million per year
Bus Maintenance Facility	$50 million	-
New Transfer Facility at Meadowood Mall	$16 million	-
Mobility Hubs	$50 million	-
Total Unfunded Facility Needs	$116 million	-

R
expanded in the future. RTC is federally required to provide paratransit service to eligible customers within 3/4 of a mile of routes. The average **RTC ACCESS** trip costs about $25 to provide, compared with about $2.50 for the average **RTC RIDE** trip. Demographic projections about the aging of the population for the Reno-Sparks metropolitan area are consistent with national trends. The number of residents within the metropolitan area that are age 75 or above is expected to continue to increase. Demand for **RTC ACCESS** service is expected to grow over the life of this plan.

to remain at existing service. The public transportation needs are summarized in Table 11-5 with costs shown in year of expenditure dollars. Other unfunded transit facility needs include a new transfer facility, maintenance facility, and park-and-ride facilities/Mobility Hubs. The transfer facility would accommodate expansion of an electric or hydrogen fuel cell **RTC RAPID** and **RTC RIDE**

Public Transportation Needs by Activity				Table 11-5
	2021-2025	2026-2030	2031-2050	Total
Operations	$255,078,757	$373,754,440	$2,253,464,504	$2,882,297,701
Vehicles	$32,440,449	$51,416,406	$100,843,923	$184,700,778
Facilities	$11,640,000	$700,000	$ -	$12,340,000
Total	$299,159,206	$425,870,847	$2,354,308,427	$3,079,338,479

Complete Streets

The Complete Streets program includes safety, pavement preservation, system , multimodal, and congestion relief projects for regional roads and highways. Pavement preservation includes the treatments used strategically to keep roads in good condition, extend the useful life of pavement, and minimize the life-cycle costs of regional roads. Preservation includes preventive maintenance, rehabilitation, and reconstruction of pavements and bridges, as described in Chapter 6. This plan includes annual funding for preventive maintenance on regional roads. Expansion of the program to fund pavement preservation on some collector roads is under consideration.

technology, and other Intelligent Transportation Systems (ITS) technologies that These are projects that

The RTP includes annual funding for spot improvements throughout the region that further implement the ADA Transition Plan and Reno-Sparks Bicycle Pedestrian Master Plan. Sidewalk projects that improve ADA accessibility to **RTC RIDE** bus stops have the potential to allow some **RTC ACCESS** customers

Multimodal projects include ADA-accessibility improvements, pedestrian/bicycle facility improvements, and roadway reconstruction projects that focus on safety, economic development, and quality of life rather than auto capacity.

Capacity improvement projects typically include the addition of new lanes for

travel demand model. Capacity projects also address safety and multimodal transportation needs.

The Complete Streets needs are summarized in Table 11-6 with costs shown in year of expenditure dollars.

Complete Street Needs by Activity				Table 11-6
	2021-2025	2026-2030	2031-2050	Total
Pavement Preservation	$112,500,000	$125,000,000	$600,000,000	$837,500,000
Traffic Signals/ITS/ Operations	$50,000,000	$57,500,000	$304,640,000	$412,140,000
Bicycle, Pedestrian & ADA Spot Improvements	$15,000,000	$17,500,000	$91,400,000	$123,900,000
Major Roadway Projects	$662,718,000	$947,388,000	$5,633,604,000	$7,243,710,000
Total*	$840,218,000	$1,147,388,000	$6,629,644,000	$8,617,250,000

** Total includes project costs anticipated to be funded by private developers*

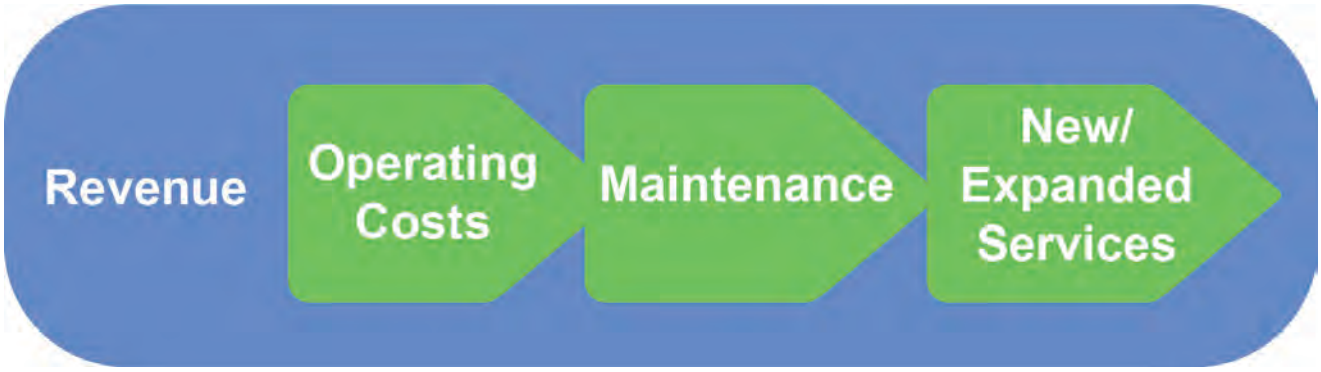
The program of projects in this RTP does not bring all regional roads up to level of service standards.
the prioritization of the most severely congested corridors and the bottleneck locations that have wide-ranging impacts on the regional network.

The unfunded needs listing includes projects for which no funding is available. These are projects that would be included in the RTP if additional funding resources were available. Including this listing of projects provides an opportunity to identify additional projects for future consideration in the event additional funding becomes available. The total unfunded needs is estimated at approximately $4,012,000,000 for roadway projects (see Appendix A).

11.4 – FINANCIAL SUMMARY

As revenues from the majority of funding sources are not keeping up with growing needs for the projects within the region, the R challenge in setting priorities for future spending. Looking at the revenues and needs for the RTP as a simple budget, once the funds for operating and maintaining the existing system are subtracted from the revenues, the remainder can be applied to new projects or expanded services. These could be new transit services, new roads, widened roads, bicycle facilities – all modes considered under the RTP.

RTC will continue to partner with local agencies and residents to implement transportation investments that improve the quality of life in the Truckee Meadows.



CHAPTER 12 – MONITORING IMPLEMENTATION & PERFORMANCE

The FAST Act continues the legislation authorized under MAP-21, which created a data-driven, performance-based multimodal program to address the many challenges facing the U.S. transportation system. Performance management will

transportation goals, increasing accountability and transparency, and improving decision making. This chapter describes the performance measures and targets to be used in assessing system performance. RTC will continue to develop annual reports to track progress toward achieving these targets as well as gather additional community input into the transportation planning process.

The U.S. Secretary of Transportation, in consultation with States and MPOs, established national performance measures for several areas: pavement conditions and performance for the Interstate System and NHS, bridge

congestion, on-road mobile source emissions, and freight movement on the Interstate System.

The performance measures were developed by the U.S. Department of Transportation, in consultation with State DOTs, MPOs, and other stakeholders. States, in coordination with MPOs, set performance targets in support of those measures, and state and metropolitan plans describe how program and project selection will help achieve the targets. The RTC has collaborated with the FHWA Nevada , and other stakeholder jurisdictions and agencies to develop performance measures. These performance measures and targets will be updated upon release of national and state performance measures. The national performance goals for federal highway programs initially established in MAP-21 include the following:

- Safety – T

  serious injuries on all public roads.

- Infrastructure Condition – To maintain the highway infrastructure asset system in a state of good repair.
- Congestion Reduction – To achieve

  on the NHS.
- System Reliability – To improve

  transportation system.
- Freight Movement and Economic Vitality – To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- Environmental Sustainability – To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- Reduced Project Delivery Delays – To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

National transit goals and performance measures are developed by the Federal Transit Administration.

These include state of good repair (SGR) standards for measuring the condition of transit capital assets:

- Equipment – Non-revenue support-service and maintenance vehicles.
- Rolling Stock – Revenue vehicles by mode.
- guideway, track signals and systems. RTC does not own or operate any assets in this category, therefore, this is not applicable to RTC.
- Facilities – Maintenance and administrative facilities; and passenger stations (buildings) and parking facilities.

The FAST Act and MAP-21 provide a framework for linking goals and performance targets with project selection and implementation. Performance plans will track the progress toward achieving these targets and will be used to facilitate a community conversation about the track record of the RTC's transportation program. RTC will develop the following performance plans:

- Metropolitan Transportation Plan, to be updated every four years, which will include a discussion of:
  - improvement program toward achieving the performance targets.
  - How investment priorities are linked to performance targets.
- Annual Metropolitan System and Transit Performance Report, which will include:
  - Evaluation of the condition and performance of the transportation system.
  - Progress achieved in meeting performance targets.
  - Evaluation of how transportation investments have improved conditions.
- Transit Asset Management (TAM) Plan.
- Public Transportation Safety Plan.

The performance measures build upon existing and planned data collection

performance measures are included in Table 12-1. Additional description of the performance measures is below.

12.1 – SAFETY PERFORMANCE MEASURES

The RTC's aspirational vision is that zero fatalities on our region's roadways is the only acceptable goal and RTC recognizes that reaching that goal will

all stakeholders.

The annual safety performance targets TP represent an important step in working toward the

related deaths and serious injuries. The safety performance targets are considered interim-performance levels that make progress toward the long-term goal of zero fatalities. This approach is consistent with guidance from the U.S. Department of Transportation as well as states and MPOs across the nation, including NDOT.

- Preventable Transit Accidents Per 100,000 Miles of Service – RTC tracks the number of preventable crashes (that is, the number of crashes in which the driver is at fault) that **RTC RIDE** and **RTC ACCESS** vehicles experience. While traveling on a bus is generally much safer than riding in other types of vehicles, RTC continuously strives to increase safety of transit travel. This data is currently reported to the RTC Board on a monthly basis.

- Number of Fatalities and Rate of Fatalities per 100 Million VMT – These performance measures address vehicles on all roadways within the metropolitan planning area and utilize data provided by the Fatality Analysis Reporting System (FARS). The aspirational goal of zero fatalities is consistent with the SHSP. After analysis of 2016 baseline data, the RTC has adopted a goal of an 8% annual reduction from the previous year trendline in the number of fatal crashes in the region.

- Number of Serious Injuries and Rate of Serious Injuries per 100 Million VMT – Serious injuries resulting from automobile crashes are also tracked by FARS. After analysis of 2016 baseline data, the RTC has adopted a goal of maintaining the existing decreasing trend in the number of serious-injury crashes.

- Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries – Similar to the goals for a reduction in the motorized fatalities and serious injuries, RTC has adopted a goal of an 8% annual reduction from the previous year trendline in the number of non-motorized fatalities and to maintain the existing decreasing trend in the number of non-motorized serious injuries.

- Miles of Bicycle Lanes Added and Percent of the Bicycle Pedestrian Master Plan Completed – Because providing designated space for bicyclists is an important element of multimodal safety, this performance measure tracks implementation of the master plan.

RTC tracks the number of bicycle lane miles added each year and will identify the percentage of projects in the plan that have been completed. Implementing between three and 7% of the plan each year will keep the region on track to complete the initial goal of implementation of the master plan by 2035. Currently, approximately 30% of the Bicycle Pedestrian Master Plan has been completed.

- Miles of Sidewalk Added or Enhanced and Percent of the ADA Transition Plan Completed – As described previously, making sidewalks more accessible will promote pedestrian safety. RTC will track the implementation of projects in the transition plan. Over the past few years, the RTC has been exceeding the annual goal for constructing new sidewalks.

12.2 – INFRASTRUCTURE CONDITIONS/ TRANSIT STATE OF GOOD REPAIR PERFORMANCE MEASURES

- Pavement Condition Index (PCI) for Regional Roads – RTC has an established management system to monitor pavement condition and determine resource allocation, as described in Chapter 6.

An average PCI rating of 80 will be maintained, and no more than 3% of Regional Roads as determined in Table E-3 will have a condition index rating of less than 50. The PCI for Regional Roads was reported as 83.3 in the 2019 Annual Report.

- One of the initial MAP-21 performance areas also addressed pavement and bridge performance. Six national performance measures were developed under this area, and include the percentage of pavements in good condition and percentage of pavements in poor condition on both the Interstate System and non-Interstate NHS, as well as the percentage of bridges in good condition and the percentage of bridges in poor condition.

The national performance measures for assessing pavement condition TC measures in that they won't apply to all Regional Roads and that the condition will

methodology. The FHWA requires

in the Highway Performance Monitoring System (HPMS), including: International Roughness Index (IRI), rutting for asphalt surfaced pavements, faulting for jointed concrete surface pavements, and cracking percent.

The method for assessing bridges is based upon elements in the National Bridge Inventory (NBI), which examines the condition of the bridge deck, superstructure, substructure, and culverts. The data to support these measures will be provided by NDOT, which assess pavement and bridge infrastructure on a periodic basis.

Targets have been determined in collaboration with NDOT, and are as follows as of October 1, 2020, Mid Performance Period (MPP) Progress Report.

Performance Measures	Baseline	2-Year Condition/ Performance	2-Year Target	4-Year Target	4-Year Adjustment
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 Poor Condition	4.7%	4.1%	5.7%	6.5%	-
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%	-

- Preventive Maintenance of Transit Rolling Stock and Facilities – The Short Range T
  an inspection and maintenance schedule for transit capital resources. This performance measure tracks the timeliness of implementation of inspections and corrective actions. As of the most recent annual report, 100% of preventative maintenance is being performed on time.

- Maintain Industry Standard Vehicle Life Cycle – RTC will maintain vehicles in good repair to the expected life cycle for transit rolling stock. The RTC follows FTA standards, which vary by type of vehicle. This measure, as well as related measures, will be further developed through the TAM Plan, which will address the applicable asset categories described previously.

12.3 – CONGESTION REDUCTION

- Level of Travel Time Reliability

  of the longer travel times (80th percentile) of a reporting segment to a "normal" travel time (50th percentile), using data from FHWA's National Performance Management Research Data Set (NPMRDS). Data are collected in 15-minute segments during all time periods between 6 a.m. and 8 p.m.

- The measures are the percent of person-miles traveled on the relevant Interstate System and Non-Interstate NHS that are reliable. Person-miles take into account the

  users can include bus, auto, and truck occupancy levels.

- Truck Travel Time Reliability (TTTR) Ratio – Determined by dividing the 95th percentile time by the normal time (50th percentile) for each segment. Then, the TTTR Index is generated by multiplying each segment's largest ratio from

  then dividing the sum of all length-weighted segments by the total length of the Interstate. In addition to the national measures, NDOT has

  through their State Freight Plan. Some of these measures address truck speeds on I-80, I-580, and US 395; fatal crashes involving trucks; and the registration of trucks in Nevada with an engine model year of 2010 or newer (for air quality purposes).

- Transit Passengers per Service Hour – T
  is a priority of the RTC. An **RTC RIDE** system-wide average of 30 passengers per service hour is the performance target. RTC currently tracks this data and provides regular reports to the RTC Board.

- VMT per Person – This performance measure uses the regional travel demand model to estimate the number of VMT per person. The performance target is that VMT will not exceed 27 VMT per person by 2040.

12.4 – SYSTEM RELIABILITY

- Peak Hour Excessive Delay – This measure applies to mainline highway segments on the NHS that cross any part of an urbanized area with a population of more than 200,000 and that is part of a nonattainment or maintenance area for any one of the criteria pollutants listed under the NAAQS. Excessive delay will be based on travel time at 20 miles per hour or 60% of the posted speed limit travel time, whichever is greater, during 15 minute intervals per vehicle. The RTC is required to begin reporting on this measure in 2022. As with other measures, NDOT will be responsible for reporting once

  collaboration.

- Percent Non-SOV Travel – Non-Single Occupancy Vehicle (SOV)

  mode other than driving alone in a motorized vehicle, including travel avoided by telecommuting.

The FHWA has provided three

measure, and the RTC has opted to use the American Community Survey (ACS) method (Method A). This method utilizes the most recent ACS 5-year estimates for "Percent; COMMUTING TO WORK - Workers 16 years and over." As with the Peak Hour Excessive Delay measure, the RTC is required to begin reporting in 2022, and will collaborate with NDOT.

- Transit System On-Time Performance – The goal of the **RTC RIDE** system is to have 90% of all transit departures occur on schedule. This data is currently collected and reported to the RTC Board.

12.5 – ENVIRONMENTAL SUSTAINABILITY

- CMAQ Program Performance Measures – These measures track reductions for each applicable criteria pollutant and precursor in areas designated as nonattainment or maintenance for NAAQS as it relates to the CMAQ Improvement Program. The RTC reports these measures directly to FHWA.

- Alternative Mode Share by Corridor – In 2013, the RTC initiated a systematic program to document bicycle and pedestrian activity in key transit-oriented development (TOD) corridors. Combined with vehicle counts and transit ridership data, this allows the comparison of mode share changes over time. The target for the Virginia Street and 4th Street/ Prater Way TOD corridors is 40% by 2040.

- Alternative Mode Share in the Transit Service Area – Similar to the mode share by corridor, the RTC also tracks mode share by transit service area, which requires use of regional data about pedestrian and bicycle activity as well as analysis of transit ridership and VMT. The performance target is 15% alternative mode use by 2040.

- Transit Fleet Mix – The long-term performance target is to have 100% electric by 2035. This will require development of an alternative fuel maintenance facility. The RTC continues to work toward this target by replacing diesel vehicles that have reached the end of their useful lives with new vehicles that run on alternative fuels. RTC is pursuing hydrogen fuel cell bus technology as well. In 2015, **RTC ACCESS** was

- Auto Emissions – RTC, in partnership with the Washoe County Health District Air Quality Management Division, monitors the emissions generated by on-road mobile sources. The performance target is that auto emissions remain under the emissions budget established in the State Implementation Program.

12.6 – OTHER TRANSIT MEASURES

The RTC reports on a variety of other performance measures related to transit operations for metrics such as ridership, farebox recovery rate, passengers per revenue vehicle hour and revenue vehicle miles, and several others. The RTC reports these performance measures on a monthly basis, as well as provides annual reports for a year-to-year comparison. These reports help RTC performance of individual routes to make informed decisions for future projects and demand for services.

Safety

	Perfomance Measures	Performance Target	2020 Performance Measures Status	2020 Performance Target Status
RTP Goal Improve Safety	Preventable transit crashes per 100,000 miles of service	0	RTC RIDE 1.36 per 100,000 miles RTC ACCESS 0.84 per 100,000 miles	Working towards goal
	Number of fatal crashes (5-year Average)	8% annual reduction from previous year trend line (41 for 2018)	42	Working towards aspirational goal of Zero Fatalities
	Number of fatal crashes per 100 million VMT (5-year Average)	1.11 for 2018 based on fatal crashes target	1.12	Working towards aspirational goal of Zero Fatalities
	Number of serious injury crashes (5-year Average)	Maintain existing decreasing trend (157 for 2018)	157	Met 2018 goal and working towards aspirational goal
	Number of serious injury crashes per 100 million VMT (5-year Average)	4.24 base on serious injury crashes target	4.13	Met 2018 goal and working towards aspirational goal
	Number of non-motorized fatalities (5-year Average)	8% annual reduction from previous year trend line - (14 for 2018)	14	Met 2018 goal and working towards aspirational goal of Zero Fatalities

Safety (continued...)

	Number of non-motorized serious injuries (5-year Average)	Maintain existing decreasing trend (30 for 2018)	31	Working towards aspirational goal
	Miles of bicycle lanes added & percent of Bicycle Pedestrian Master Plan completed	3-7% of plan implemented per year	3.88 miles of bike lanes added	Working towards goal Construction is underway for more than seven miles of sidewalk/ paths for 4th/ Prater and SouthEast Connector. Will report in FY 2018.
	Miles of sidewalks added of enhanced & percent of ADA Transition Plan completed	3-7% of plan implemented per year	3.7 miles of sidewalks added 22 crosswalks replaced 14 new crosswalks installed 7 crosswalk warning devices installed Crosswalk lighting installed at one location 90 pedestrian ramps	Working towards goal Construction is underway for more than seven miles of sidewalk/ paths for 4th/ Prater and SouthEast Connector. Will report in FY 2018.

Infrastructure Condition/Transit State of Good Repair

	Performance Measures	Performance Target	2019 Performance Measure Status	2019 Performance Target Status
RTP Goal Manage Existing Systems Efficiently	Pavement condition index for Regional Roads	80	83.3	Exceeded goal
	Preventive maintenance of transit rolling stock and facilities	100% of transit preventive maintenance performed on time	100% of preventive maintenance performed on time for RTC RIDE and RTC ACCESS	Met goal
	Maintain industry standard vehicle life cycle	Varies per vehicle	Vehicle life cycle: Access paratransit vehicles = 7 years RIDE fixed route vehicles = 12 years.	RTC ACCESS paratranist met, RIDE fixed route not met. 95% vehicles at less than 12 years useful life

Congestion Reduction

	Performance Measures	Performance Target	2020 Performance Measure Status	2020 Performance Target Status
Manage Existing Systems Efficiently	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
	Transit passengers per service hour	30 (ongoing)	28.9	Working towards goal
	Vehicle Miles Traveled (VMT) per person	Max of 27 VMT per person, per day	23	Met goal

System Reliability

Manage Existing Systems Efficiently	Performance Measures	Performance Target	2019 Performance Measure Status	2019 Performance Target Status
	Transit on-time performance	90% transit on-time performance	91.13%	Exceeded goal

Environmental Sustainability

RTP Goal	Perfomance Measures	Performance Target	2020 Performance Measures Status	2020 Performance Target Status
Promote Healthy Communities & Sustainability	Alternative mode share by corridor	40% on E 4th St/Prater Way, 40% on Virginia St by 2040	27.3% alternative mode share on 4th St/ Prater Way 21.6% mode share on Virginia St	Working towards goal
Integrate Land Use & Economic Development	Alternative mode share in the transit service area	15% by 2040	12.40%	Working towards goal

Environmental Sustainability (continued...)

Integrate all types of Transportation	Fleet mix - alternative fueling technologies	100% electric or CNG fleet by 2040	The RTC ACCESS fleet mix is 98% CNG The RTC fleet mix breaks down as follows: Diesel - 27 Electric Diesel Hybrid-16 Electric - 21	Working towards goal 17 electric buses received in 2018.
Integrate all types of Transportation	Auto emissions	In Hydrographic Area #87, the 2020 Motor Vehicle Emission Budget (MVEB) for carbon monoxide (CO) is 172,670 lbs./ day; the 2020 MVEB for PM_{10} is 6,088 lbs./day.	CO: 64,477 lbs./day . PM_{10}: 3,514 lbs./day .	Met Goal

APPENDIX A – COMPLETE STREETS PROJECT LISTING

The roadway projects in the 2050 RTP are presented in three time periods:

(2026-2030), and the remaining years of the plan (2031-2050). These projects include a combination of sidewalk accessibility, bicycle and other pedestrian facilities, operations and maintenance, pavement preservation, other multimodal investments to promote safety and livability, and capacity improvements and new roadway connection to address long term mobility needs. The projects for each time period are illustrated in a map and described in the following tables. The tables also include the estimated project cost in year of expenditure dollars and potential funding sources. All of the roadway projects incorporate Complete Street design principles. The safety needs of all roadway travelers, including pedestrians, cyclists, and transit customers, will be addressed in the design of these projects.

The delivery of some projects will occur over multiple years and may be shown in two or more time periods. For example, construction of Sparks Boulevard improvements would be initiated in the 2021-2025 time period but completed in 2026.
construction may occur in a subsequent time period.

A listing of unfunded roadway needs totaling approximately $4 billion is available at the end of this section.

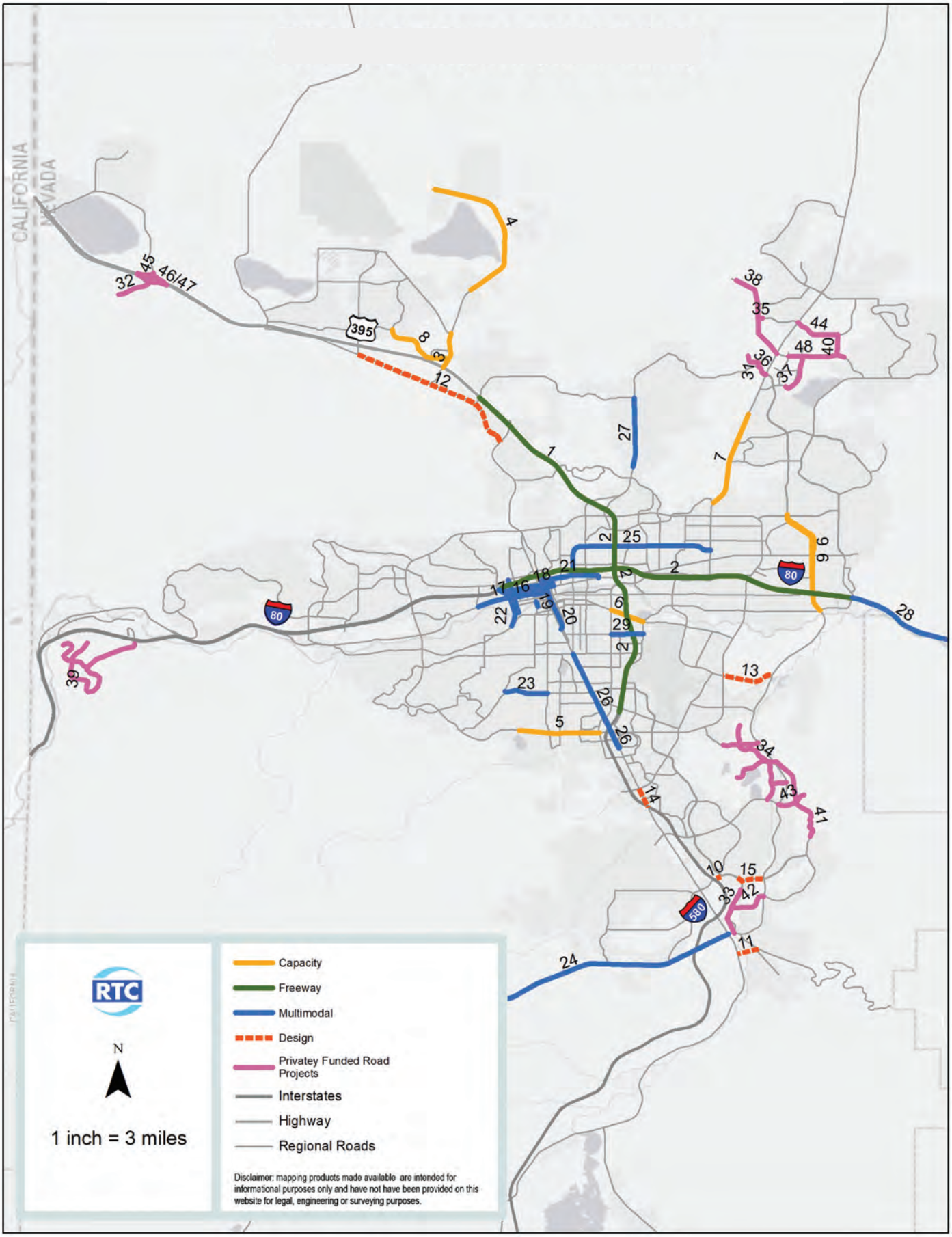
DRAFT 2021-2025				
	Program	Description	Annual Amount	5 Year Amount
A	Bicycle, Pedestrian & ADA	Bus stop ADA improvements, other bike/ped spot improvements	$3,000,000	$15,000,000
B	Traffic Signals, ITS Operations & Intersections	3-5 intersection improvements per year	$10,000,000	$50,000,000
C	Pavement Preservation	Preventive & corrective maintenance, reconstruction	$22,500,000	$112,500,000
D	Debt Service		$23,000,000	$115,000,000
	Projects	Limits	Cost	Potential Funding Sources
	Freeway			
1	US 395 Add SB Lane, Aux Lanes, NB & SB	N McCarran to Golden Valley	$94,750,000	Regional, State, Federal
2	Spaghetti Bowl Phase 2	Spaghetti Bowl	$130,000,000	Regional, State, Federal
	Capacity			
	- Construction			
3	Lemmon Dr Segment 1 Widen 4 to 6 Lanes	US 395 and Military Rd	$22,500,000	Regional, State
4	Lemmon Drive Segment 2 Traffic Improvements/ Reconstruct	Fleetwood to Ramsay	$39,000,000	Regional, Federal
5	McCarran Blvd Intersection & Operations	Kietzke to Greensboro	$10,000,000	Regional, State, Federal
6	Mill Street	Kietzke to Terminal	$60,000,000	Regional, State, Federal

7	Pyramid Hwy (Phase 1) - Widen & Safety Improvements	Queen Way to Golden View	$54,100,000	Regional, State, Federal
8	Sky Vista Pkwy - Widen 2 to 4 Lanes	Silver Lake Rd to Lemmon Dr	$15,800,000	Regional
9	Sparks Blvd	Greg Street to I-80 WB On Ramps	$17,500,000	Regional, State, Federal
	- Design			
10	Damonte Ranch Pkwy - Widen	Double R to I 580	$400,000	Regional
11	Geiger Grade New 4 Lane Rd	Virginia St to Toll Rd	$5,000,000	Regional, State, Federal
12	N Virginia St Widening	Panther to Stead Blvd	$5,000,000	Regional, State, Federal
13	Pembroke Dr - Widen	McCarran to Veterans	$2,000,000	Regional
14	S Virginia St- Add NB Lane	Longley Ln to I-580	$2,000,000	Regional, State, Federal
15	Steamboat Pkwy and Damonte Ranch Pkwy - Widen	Veterans Pkwy to Promenade Way	$400,000	Regional
	Multimodal			
16	3rd St Bike Facility	Vine St - Evans St	$7,500,000	Regional
17	4th St - Multimodal	Stoker Ave to Evans Ave	$25,900,000	Regional, State, Federal
18	5th St - Multimodal	Keystone to Evans	$1,676,000	Regional
19	Arlington Ave Replace Existing Bridges	At Truckee River	$25,500,000	Regional, State, Federal
20	Center St Widen Sidewalks & Add Bike Lanes	9th St to Moran	$10,000,000	Regional
21	E 6th Street Bicycle Facility & Safety Improvements	Virginia St to 4th St	$8,073,000	Regional

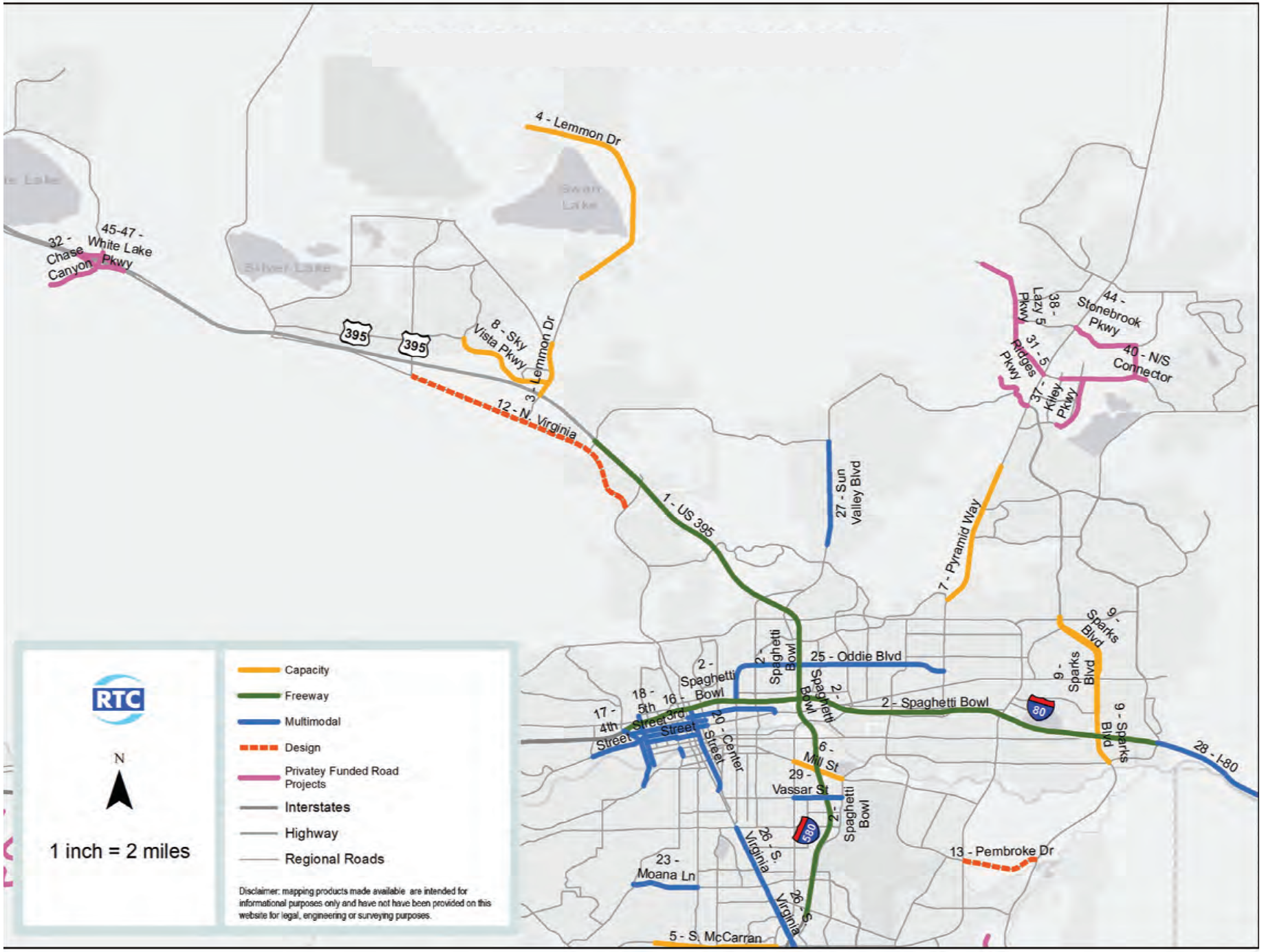
22	Keystone Ave Multimodal Improvements - Design	California to I-80 & Truckee Bridge replacement	$5,000,000	Regional, State, Federal
23	Moana - Multimodal	Skyline Blvd to Plumas	$5,600,000	Regional
24	Mt. Rose Highway Improvements	Geiger Grade to Joy Lake Rd	$10,000,000	Regional, State, Federal
25	Oddie Blvd/Wells Ave - Multimodal Improvements	I-80 to Pyramid Hwy	$36,000,000	Regional
26	S. Virginia Street Multimodal and ADA	Plumb Lane to Meadowood	$25,900,000	Regional, Federal
27	Sun Valley Blvd Multimodal Improvements	7th Ave to Scottsdale	$27,000,000	Regional, State
28	Tahoe-Pyramid Trail	Vista Blvd to Mustang	$3,600,000	Private, Federal
29	Vassar St Bike Facility	Kietzke Ln to Terminal Way	$1,219,000	Regional
30	Vine St Bike Facility	Riverside Drive to University Terrace	$11,300,000	Regional
	Privately Constructed Roads		Funding Source	
31	5 Ridges Pkwy	Highland Ranch Pkwy to 2nd roundabout	Private	
32	Chase Canyon Segments 1 and 2	New 4 lane road - US 395 to 2nd roundabout	Private	
33	Damonte Ranch Pkwy Extension	Veterans Pkwy to Rio Wrangler Pkwy	Private	
34	Daybreak Regional Road Network (South Meadows)	See map	Private	
35	Dolores Dr Extension	West to Lazy 5 Pkwy	Private	
36	Highland Ranch Pkwy Widening	Pyramid Highway to 5 Ridges entrance	Private	

37	Kiley Pkwy	Wingfield Hills Rd to Henry Orr Pkwy	Private	
38	Lazy 5 Pkwy	W Sun Valley Arterial to Pyramid Hwy	Private	
39	Meridian & Santerra Regional Road Network (Verdi)	See map	Private	
40	N/S Connector Rd	Stonebrook Pkwy to Wingfield Hills Rd	Private	
41	Rio Wrangler Pkwy Extension (North)	Bucephalus Pkwy to South Meadows Pkwy	Private	
42	Rio Wrangler Pkwy Extension (South)	Damonte Ranch Pkwy to Veterans Pkwy	Private	
43	South Meadows Extension	Mojave Sky Dr to Rio Wrangler Pkwy	Private	
44	Stonebrook Pkwy	N/S Connector Rd to Pyramid Hwy	Private	
45	Whitelake Pkwy Extension	US 395 to Stonegate Entrance	Private	
46	Whitelake Pkwy Interchange Upgrades (Phase 1)	Interchange Improvement at US 395	Private	
47	Whitelake Pkwy Interchange Upgrades (Phase 2)	Conversion to divergent diamond interchange (DDI)	Private	
48	Wingfield Hills Rd Extension	West to David Allen Pkwy	Private	

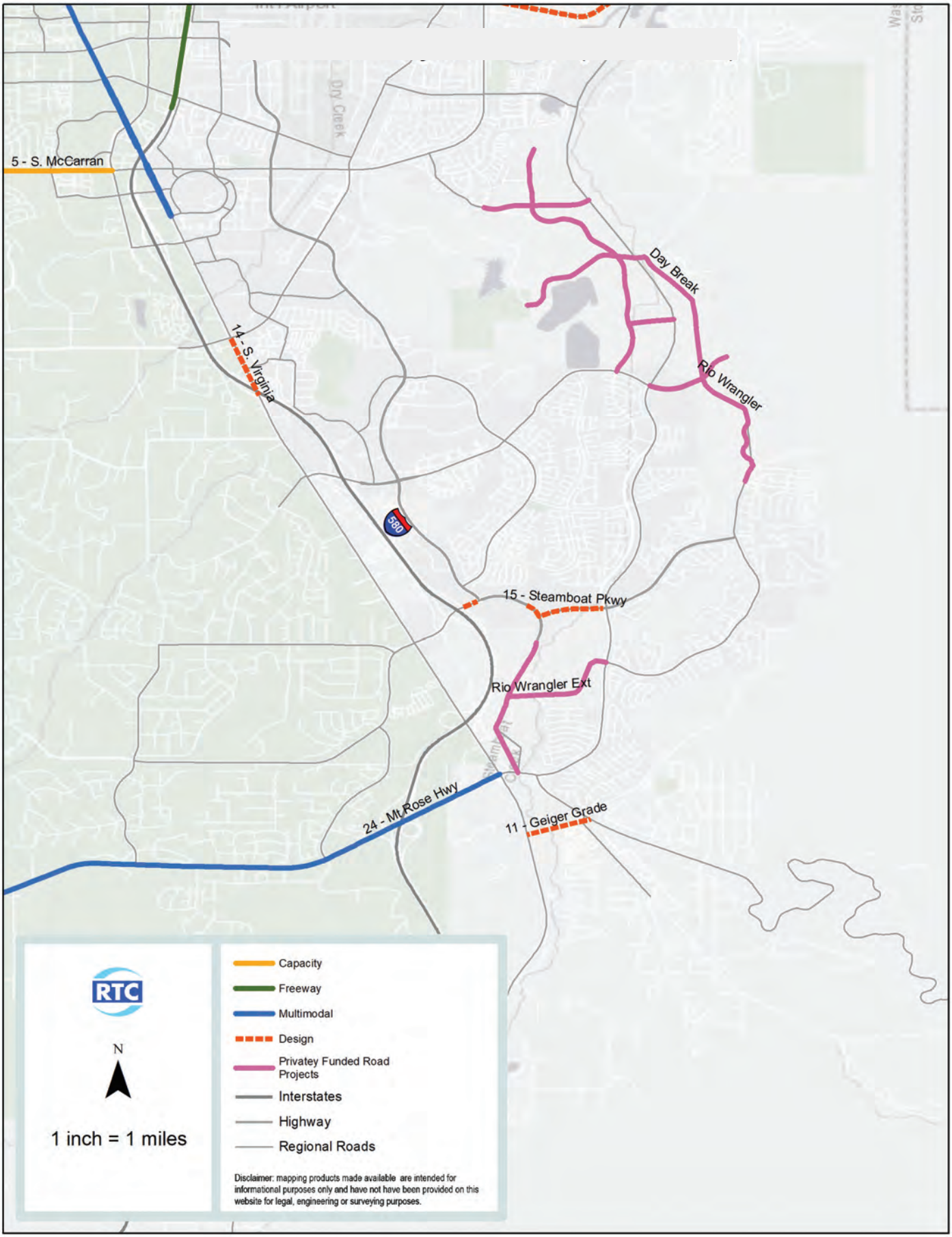
RTP 2050 PROJECTS (2021-2025)



RTP 2050 PROJECTS – NORTH (2021-2025)



RTP 2050 PROJECTS – SOUTH (2021-2025)



RTP 2050 PROJECTS (2021-2025)

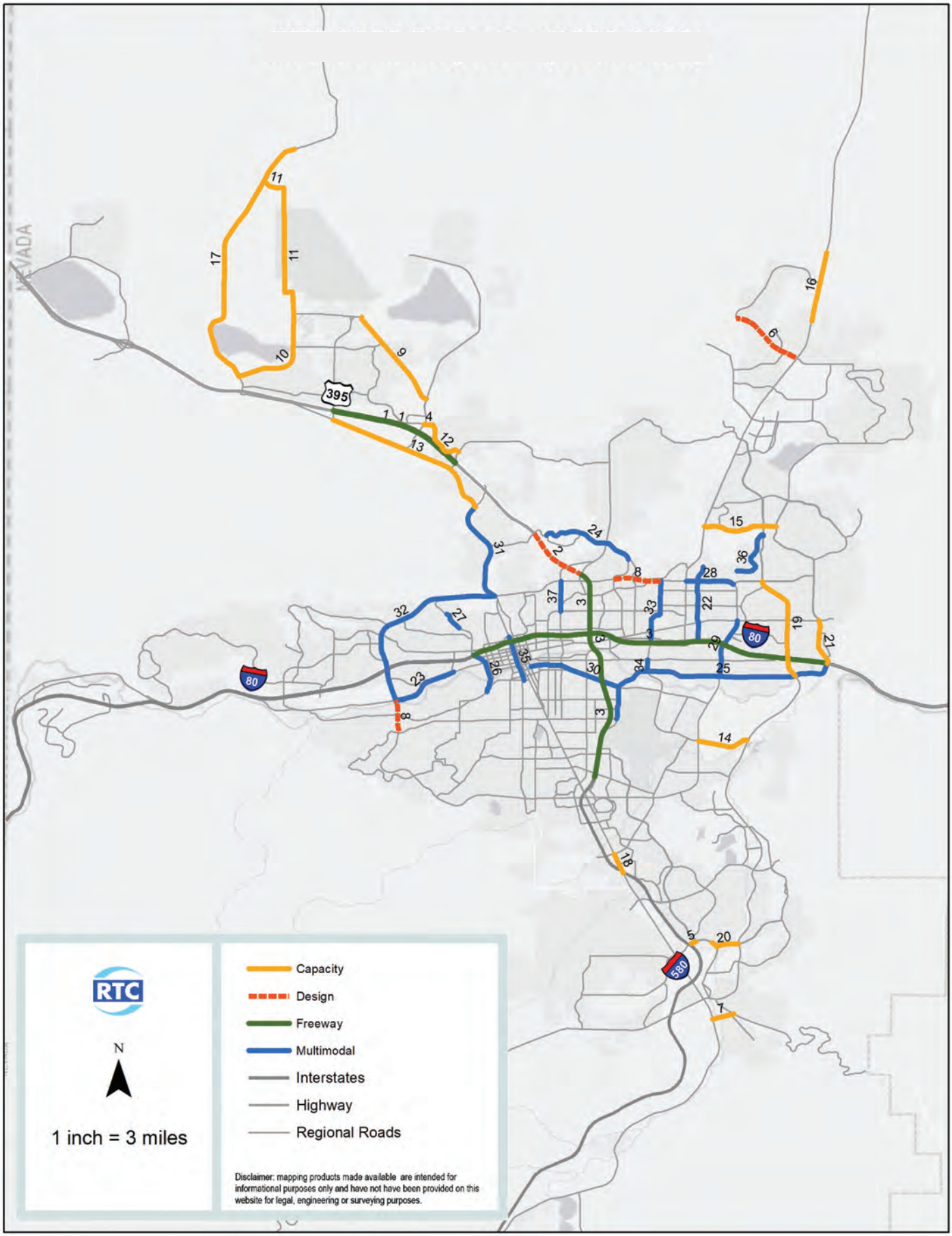
DRAFT 2026-2030 Listing				
	Program	Description	Annual Amount (est)	5 Year Amount
A	Bicycle, Pedestrian & ADA	Bus stop ADA improvements, other bike/ped spot improvements	$3,500,000	$17,500,000
B	Traffic Signals, ITS Operations & Intersections	3-5 intersection improvements per year	$11,500,000	$57,500,000
C	Pavement Preservation	Preventive & corrective maintenance, reconstruction	$25,000,000	$125,000,000
D	Debt Service		$23,000,000	$115,000,000
	Projects	Limits	YOE Cost Rounded	Potential Funding Sources
	Freeway			
1	US 395 Additional lane in each direction	Golden Valley to Stead Blvd	$79,177,000	Regional, State, Federal
2	US 395 Additional Northbound Lane - Design	Clear Acre to Parr	$19,115,000	Regional, State, Federal
3	Spaghetti Bowl Phase 2	Spaghetti Bowl	$103,088,000	Regional, State, Federal
	Capacity			
4	Buck Dr Widen 2 to 4 lanes	Lemmon Dr to N Hills Blvd	$1,912,000	Regional
5	Damonte Ranch Pkwy - Widen	Double R to I 580	$4,723,000	Regional, Private
6	Eagle Canyon - Widen 2 to 4 Lanes - Design	Pyramid Hwy to W Calle de la Plata	$2,000,000	Regional, State, Federal
7	Geiger Grade New 4 Lane Rd	Virginia St to Toll Rd	$84,445,000	Regional, State, Federal

8	McCarran Blvd Safety & Operational Improvements - Design	Plumb Ln to N Virginia St; El Rancho Dr to Rock Blvd	$15,000,000	Regional, State, Federal
9	Military Rd Widen 2 to 4 Lanes	Lemmon Dr to Echo Ave	$25,412,000	Regional
10	Moya Boulevard Widen 2 to 4 Lanes	Red Rock Rd to Echo Ave	$19,678,000	Regional, Federal, Private
11	Moya Boulevard Extension	Red Rock Dr to Echo Ave	$74,100,000	Regional
12	N. Hills Blvd	Golden Valley Rd to Buck Dr	$20,465,000	Regional
13	N Virginia St Widen 2-4 lanes & Multimodal	Panther Dr to Stead Blvd	$43,291,000	Regional, State, Federal
14	Pembroke Dr - Widen	McCarran to Veterans	$19,790,000	Regional
15	Pyramid Hwy/395 Connector Phase 2	Widen Disc Dr from Pyramid to Vista Blvd	$22,300,000	Regional, State, Federal
16	Pyramid Highway - Add Southbound Lane	Egyptian Dr to Ingenuity Ave	$15,000,000	Regional, State
17	Red Rock Rd Widen 2 to 4 Lanes	US 395 to Placerville Dr	$58,246,000	Regional, Private
18	S. Virginia Street - Add NB Lane	Longley Ln to I-580	$23,613,000	Regional, State, Federal
19	Sparks Blvd Multimodal Improvements and widen 4 to 6 Lanes	I-80 WB On Ramps to Baring Blvd	$48,351,000	Regional, State, Federal
20	Steamboat Pkwy and Damonte Ranch Pkwy - Widen	Veterans Pkwy to Promenade Way	$4,610,000	Regional, Private
21	Vista Boulevard Widen 4 to 6 Lanes	I-80 to Prater Way	$11,244,000	Regional, State, Federal

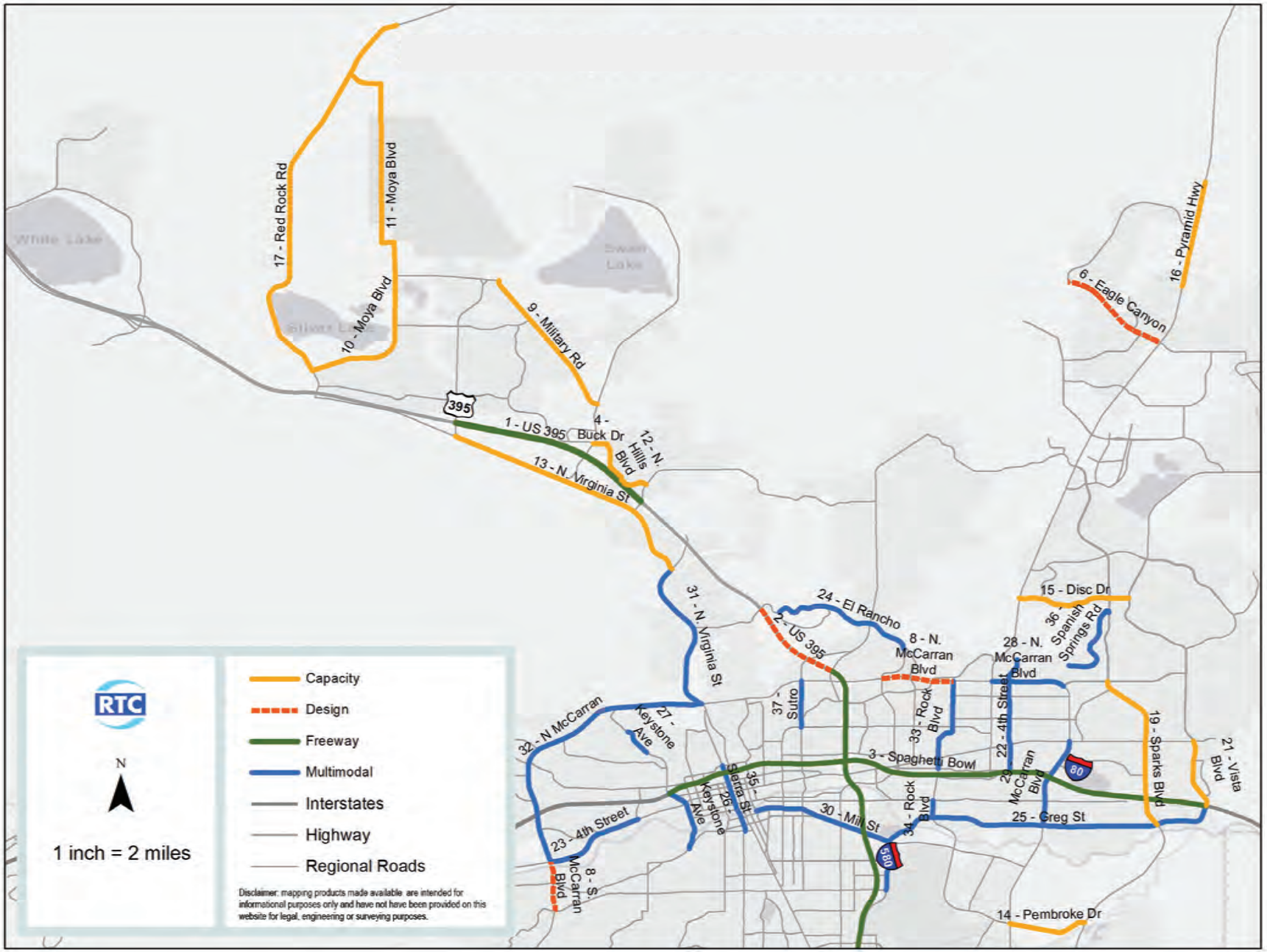
	Multimodal			
22	4th St Bike lanes (Sparks)	Victorian Ave to Queen Way	$6,747,000	Regional
23	4th St Pedestrian & Safety Improvements (Reno)	Stoker to McCarran	$20,240,000	Regional, State, Federal
24	El Rancho Dr / Dandini Blvd Sidewalks	Raggio Pkwy to Sullivan Ln	$20,690,000	Regional
25	Greg St Sidewalks and Bike lanes	Mill Street to Vista Blvd	$29,123,000	Regional, Federal, Private
26	Keystone Ave Multimodal Improvements	California to I-80 & Truckee Bridge replacement	$61,169,000	Regional, State, Federal
27	Keystone Ave Sidewalks and Bike Lanes	Coleman Dr to Peavine Rd	$1,012,000	Regional
28	McCarran - Pedestrian Improvements	Baring to Pyramid	$12,594,000	Regional, State, Federal
29	McCarran Blvd Multimodal & Safety Improvements	Greg to Prater	$10,682,000	Regional, State, Federal
30	Mill St/Terminal Way Multimodal Improvements	Airport to downtown Reno	$27,436,000	Regional, State, Federal
31	N Virginia St Sidewalks and buffered bike lanes	Panther Dr to McCarran Blvd	$17,878,000	Regional, State, Federal
32	NW McCarran Safety and Bike Lanes	4th Street to N Virginia	$10,570,000	Regional, State, Federal
33	Rock Blvd Enhanced Sidewalks and Bike Lanes	Victorian Ave to McCarran Blvd	$7,309,000	Regional, Federal

34	Rock Blvd to Multimodal & Safety Improvements	Greg St to Glendale Ave	$3,823,000	Regional, Federal
35	Sierra St Widen Sidewalks	California Ave to 9th St	$5,060,000	Regional
36	Spanish Springs Rd Safety & Multimodal Improvements	N Truckee Lane to Sparks Boulevard	$8,500,000	Local, Federal*
37	Sutro - Multimodal	N McCarran to Oddie Blvd	$8,995,000	Regional

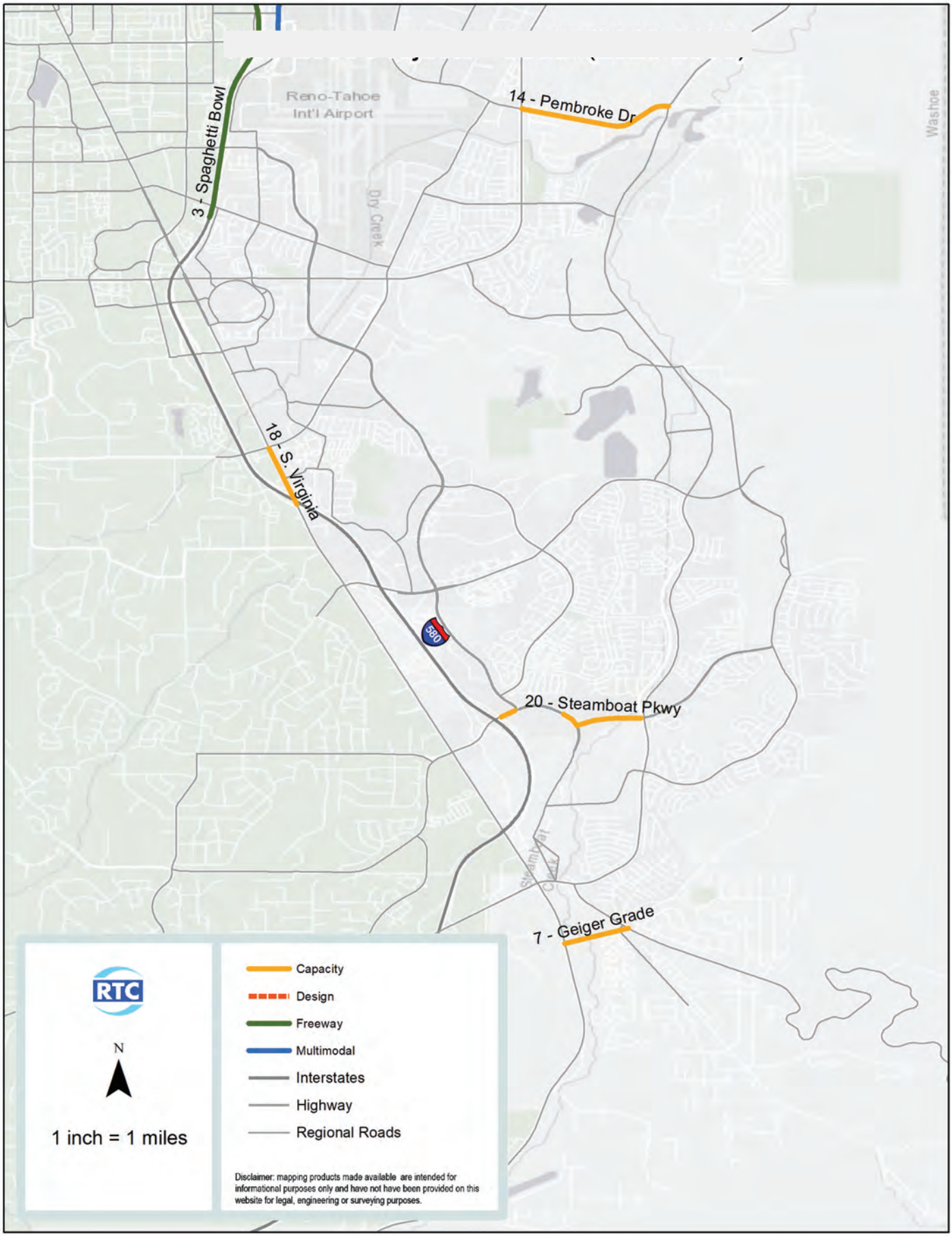
RTP 2050 PROJECTS (2026-2030)



RTP 2050 PROJECTS – NORTH (2026-2030)



RTP 2050 PROJECTS – SOUTH (2026-2030)



DRAFT 2031-2050				
	Program	Description	Annual Amount (est)	20 Year Amount
A	Bicycle, Pedestrian & ADA	Bus stop ADA improvements, other bike/ped spot improvements	$4,570,000	$91,400,000
B	Traffic Signals, ITS Operations & Intersections	3-5 intersection improvements per year	$15,232,000	$304,640,000
C	Pavement Preservation	Preventive & corrective maintenance, reconstruction	$30,000,000	$600,000,000
D	Debt Service		$23,000,000	$230,000,000
	Projects	Limits	YOE Cost Rounded	Potential Funding Sources
	Freeway			
1	Spaghetti Bowl Phases 3-5	Spaghetti Bowl	$1,500,000,000	Regional, State, Federal
2	US 395 Widen for Connector traffic - Add'l NB lane	Clear Acre to Parr Blvd	$248,282,000	Regional, State, Federal
3	US 395 Widening - Design & ROW	Stead to Red Rock Rd	$100,000,000	Regional, State, Federal
4	I-580 Widening	Neil Rd to S Virginia St/Kietzke Ln	$53,617,000	Regional, State, Federal
5	I-80 Widening	W McCarran Blvd to Keystone Ave	$60,471,000	Regional, State, Federal
6	I-80 Widening	Garson Rd to West 4th St	$193,295,000	Regional, State, Federal
7	I-80 Operations & Capacity	Vista Blvd to US Parkway	$338,532,000	Regional, State, Federal

	Capacity			
8	9th Street Extension	To N Wells Ave	$3,351,000	Regional, State, Federal
9	Arrowcreek Pkwy - Widen	Wedge Pkwy to Thomas Creek Rd	$35,948,000	Regional
10	Arrowcreek Pkwy Widen 2 to 4 Lanes	Wedge Pkwy to Zolezzi Ln	$12,643,000	Regional
11	Double R Blvd - Widen & Multimodal	South Meadows Pkwy to Longley Ln	$35,100,000	Regional
12	Eagle Canyon - Widen 2 to 4 Lanes	Pyramid Hwy to W Calle de la Plata	$14,500,000	Regional, State, Federal
13	Lemmon Valley -Spanish Springs Connector - New 4 Lane Road	Lemmon Valley to Spanish Springs	$213,249,000	Regional, State, Federal
14	Echo Ave - Extension	Red Rock Rd to Moya Blvd	$29,702,000	Regional
15	Estates Rd - Reconstruct	Lemmon Dr to Golden Valley Rd	$48,895,000	Regional, State, Federal
16	Golden Valley Road/7th Ave (O'Brien Pass)	N Hills to W 7th Ave	$111,042,000	Regional, State, Federal
17	Highland Ranch Parkway - Widen	Pyramid to Sun Valley Blvd	$45,239,000	Regional, State, Federal
18	Lemmon Dr - Extension	To Red Rock Rd	$161,460,000	Regional, State, Federal
19	McCarran Blvd	Plumb Ln to Mayberry Dr	$20,868,000	Regional, State, Federal
20	McCarran Blvd - Widen 4 to 6 Lanes	El Rancho Dr to Rock Blvd	$40,822,000	Regional, State, Federal
21	McCarran Boulevard - Widen 4 to 6 Lanes	Sky Mountain Dr to I-80	$12,033,000	Regional, State, Federal

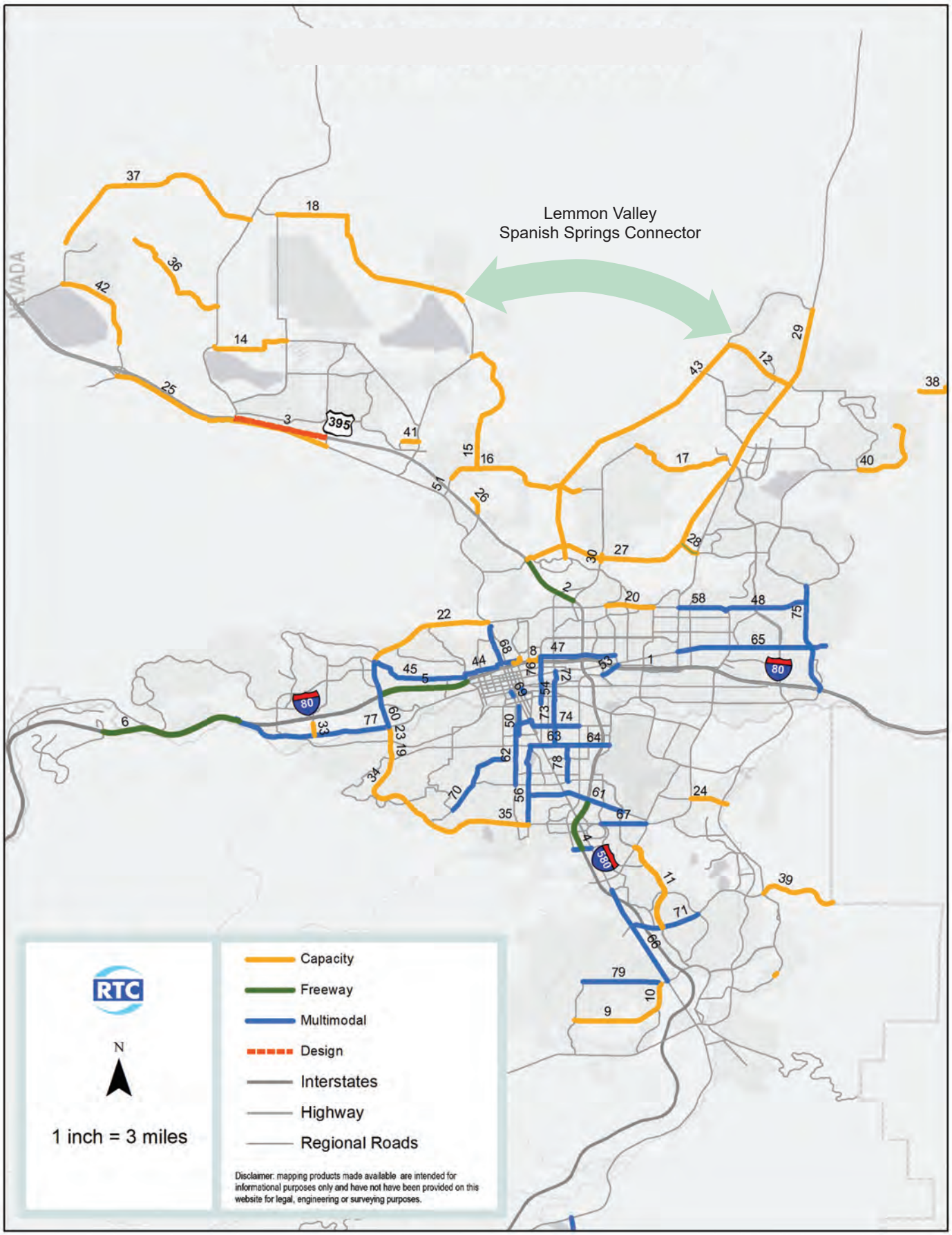
22	McCarran Boulevard Widen 4 to 6 Lanes	7th St to N Virginia St	$95,353,000	Regional, State, Federal
23	McCarran Widening	Mayberry to 4th St	$61,994,000	Regional, State, Federal
24	Mira Loma Drive - Widen 2 to 4 Lanes	McCarran to Veterans	$14,318,000	Regional
25	North Virginia - New Road	Stead to White Lake	$86,213,000	Regional, State, Federal
26	Panther Extension	N. Virginia to Panther toNorthHills Blvd	$12,947,000	Regional, Private
27	Pyramid/395 Connector Phase 3 Construct Connector	US 395 to Pyramid Hwy south of Sparks Blvd	$378,300,000	Regional, State, Federal
28	Pyramid/395 Connector Phase 4 System Ramps	System Ramps at US 395	$85,800,000	Regional, State, Federal
29	Pyramid Hwy Phase 5 - Widen 2 to 4 Lanes	Sparks Blvd to Calle de la Plata	$205,500,000	Regional, State, Federal
30	Pyramid/395 Phase 6 West Sun Valley Interchange	Interchange and local improvements	$60,200,000	Regional, State, Federal
31	Record St Realignment and Parking Garage Access	Evans Ave to 9th Street; Lake St to Evans Ave	$2,175,000	Regional, State, Federal
32	Rio Wrangler - Widen	Spring Flower Dr to Western Skies Dr	$3,503,000	Regional
33	Robb Dr Extension	4th St to I-80	$28,332,000	Regional, State, Federal
34	S McCarran - Widen	Manzanita to Plumb	$117,896,000	Regional, State, Federal
35	S McCarran - Widen	Lakeside to Manzanita	$43,564,000	Regional, State, Federal

36	Silver Knolls Blvd - New Road - Private Funding Required	Red Rock Rd to Silver Knolls Blvd	$74,485,000	Regional, Private
37	SS/ER Pkwy - New Road - Private Funding Required	Red Rock Rd to Mud Spring Dr	$144,400,000	Regional, Private
38	TRI Center Northern Connection - Private Funding Required	La Posada to TRI Center	$68,392,000	Regional, State, Federal, Private
39	TRI Center Southern Connection - Private Funding Required	Eastern Daybreak Boundary to Washoe County Line	$152,320,000	Regional, State, Federal, Private
40	Vista - Widening	Wingfield Pkwy to Hubble Dr	$40,060,000	Regional, State, Federal
41	Vista Knoll Pkwy Ext	To Lemmon Dr	$8,987,000	Regional, Private
42	White Lake Pkwy - Widen - Private Funding Required	Stonegate Entrance to Village Pkwy	$0	Regional, Private
43	West Sun Valley Arterial New 4 Lane Road	Dandini Blvd to Eagle Canyon	$112,260,000	Regional, State, Federal
	Multimodal			
44	7th St/University Terr Buffered Bike Lanes	Sierra St to Stoker Ave	$6,150,000	Regional
45	7th St - Bike Lanes	Stoker Ave to N McCarran	$18,431,000	Regional
46	9th St Buffered Bike Lanes	Evans Ave - Valley Rd	$1,800,000	Regional
47	9th St/G St Enhanced Sidewalks and Bike Lanes	Wells Avenue to El Rancho Dr	$8,530,000	Regional
48	Baring Boulevard Bike Lanes	McCarran Blvd to Vista Blvd	$11,424,000	Regional
49	Eastlake Blvd Bike Lanes or Multi-Use Path	Old US 395 to I-580 Interchange	$61,690,000	Regional

50	Forest St Bike Facility	California Ave to Mount Rose St	$914,000	Regional
51	Golden Valley Rd Bike Lanes	N Virginia St to N Hills Blvd	$6,702,000	Regional
52	Holcomb Ave Buffered Bike Lanes	Center St - Vassar St	TBD	Regional
53	Kietzke Ln Multimodal Improvements	Galletti Way to Virginia St	$13,252,000	Regional
54	Kirman Buffered Bike Lanes	Kuenzli St to Mill St; Ryland Ave to Casazza	$1,676,000	Regional
55	Lake St - Replace Existing Bridge	At Truckee River	$27,570,000	Regional
56	Lakeside Drive Bike Lanes	McCarran Blvd to Plumb Ln	$11,881,000	Regional
57	Mary St Bike Facility	Virginia St to Plumas St	$2,132,000	Regional
58	McCarran - Pedestrian Improvements	Baring to Pyramid	$17,060,000	Regional, State, Federal
59	Neil Rd - Bike Lane	Kietzke to S Virginia	$3,808,000	Regional
60	NW McCarran Safety and Bike Lanes	4th Street to N Virginia	$14,318,000	Regional, State, Federal
61	Peckham - Multimodal	Lakeside Dr to Airway Dr	$26,199,000	Regional
62	Plumas/Mary St - Multimodal	California to Moana Ln	$28,789,000	Regional
63	Plumb Lane Sidewalks and Bike Lanes	Lakeside Dr to Kietzke Ln	$8,530,000	Regional
64	Plumb Ln Bike Lanes and Sidewalks	Kietzke Ln to Terminal Way	$5,179,000	Regional
65	Prater Way Bike Lanes	Pyramid Hwy to Petes Way	$59,557,000	Regional
66	S Virginia St - Add Sidewalks, Bus/Bike (RAPID)	E Patriot Blvd to Arrowcreek	$35,186,000	Regional, State, Federal
67	SE McCarran Multiuse Path	Longley Ln to Neil Rd	$11,576,000	Regional, State, Federal

68	Sierra St - Multimodal	9th Street to N Virginia	$20,411,000	Regional
69	Sierra St Replace Existing Bridge	Truckee River	$29,093,000	Regional
70	Skyline Blvd Bike Lanes	Cashill Blvd to Arlington Ave	$17,974,000	Regional
71	South Meadows Pkwy Bike Lanes	I-580 NB Ramps to Double Diamond Pkwy	$10,205,000	Regional
72	Sutro St Buffered Bike Lanes	4th St to Kuenzli	$609,000	Regional
73	Sutro/Kirman - Sidewalks	Truckee River to Plumb Ln	$2,742,000	Regional
74	Vassar Street Bike Facility	Holcomb to Kietzke	$4,300,000	Regional
75	Vista Blvd Sidewalks and Bike Lanes	Greg St to S Los Altos Pkwy	$13,709,000	Regional
76	Wells Ave Bike Lanes, Bike/Ped Facilities Over Truckee River	Moran St to E 9th St	$12,338,000	Regional
77	West 4th Street - Multimodal	S McCarran to I-80	$43,411,000	Regional, State, Federal
78	Yori Ave Sidewalks and Bike Lanes	Moana Ln to Plumb Ln	$10,205,000	Regional
79	Zolezzi Lane Sidewalks	S Virginia Street to Thomas Creek Rd	$10,205,000	Regional

RTP 2050 PROJECTS (2031-2050)



RTP 2050 PROJECTS (2031-2050)

Unfunded Needs	Description	Cost
US 395 Widening	Stead to Red Rock Rd	$1,157,640,000
I-580 Widening	S Virginia St @ Mt Rose to South Meadows Pkwy	$163,744,000
I-580 Widening	South Meadows Pkwy to Neil Rd	$242,799,000
US 395 Widening	Stead to Red Rock Rd	$1,097,925,000
Spaghetti Bowl Phase 5 (partial)	Spaghetti Bowl	$685,442,000
I-80 Widening (partial)	Vista Blvd to USA Pkwy	$664,878,000

APPENDIX B – CONGESTION MANAGEMENT PROCESS

The purpose of the Congestion Management Process (CMP) is to identify how R This process was developed in coordination with the 2050 RTP Agency Working Group, Technical Advisory Committee, and Citizens Multimodal Advisory Committee. The process was used to select projects included in this RTP. The CMP is a systematic approach that is collaboratively developed for the region and provides

A, is the application of strategies to improve transportation system performance and reliability by reducing the adverse impacts of congestion on the movement of people and goods. A CMP is a regionally-accepted approach that provides information on performance and assesses strategies for congestion management. The

Transportation Conformity requirements regarding air quality, play an important role in the CMP. Flexibility in the development of the CMP allows the RTC to design their own process that will best serve the region. The CMP is an on-going process, adjusting over time as goals and objectives change, new congestion

and evaluated. The RTP
across all modes of transportation and outlines the implementation schedule and anticipated funding sources for a truly multimodal program.

1. CONGESTION MANAGEMENT OBJECTIVES

T , degrades air quality, and has an adverse impact on quality of life in the Truckee Meadows. T congestion on freeway facilities, particularly I-80, has an adverse impact on

This type of congestion is caused by crashes, work zones, weather, and special events. The objectives of this CMP
An important component to this process is the implementation of operations and management strategies that improve signal timing coordination and TC, NDOT, City of Reno, City of Sparks, and Washoe County.

NV TIM is another important program that addresses incident response. A guiding principle of the RTP is to improve safety on area roadways for all users, including pedestrians and cyclists. Selecting projects that reduce crashes on regional roads will also reduce congestion that results from incidents.

The CMP also provides an opportunity to address freight issues. RTC regularly participates in Freight Advisory Committee meetings facilitated by NDOT that involved regional partners in freight and logistics, economic development, and infrastructure development. RTC will continue to coordinate with regional stakeholders as freight needs evolve.

2. IDENTIFY AREA OF APPLICATION

The CMP applies to the Reno-Sparks urbanized area in Washoe County, Nevada. This is the planning area addressed in the 2050 RTP. It addresses project prioritization for roadway capacity, safety, and operations.

3. DEFINE SYSTEM OR NETWORK OF INTEREST

The CMP addresses congestion issues on regional roads and freeways in the Reno-Sparks metropolitan area. Regional roads generally include facilities with 5,000+ average daily

industrial roads are also included.

R
congestion hotspots using INRIX data provided by NDOT. The INRIX roadway network includes freeways and major roads in the region. The congestion analysis focuses on AM and PM peak hours when congestion is the most severe. Congestion is measured as observed speed as a percentage of
The INRIX data used for existing congestion analysis is from weekdays of January 2021 (Figure B-1 & 2). Note that this was during a “pause” in business openings as mandated by Governor Sisolak in response to the COVID-19 pandemic.

no-build scenario is provided in Figure B-3.

Figure B-1

EXISTING AM TRAFFIC CONGESTION (JANUARY 2021)

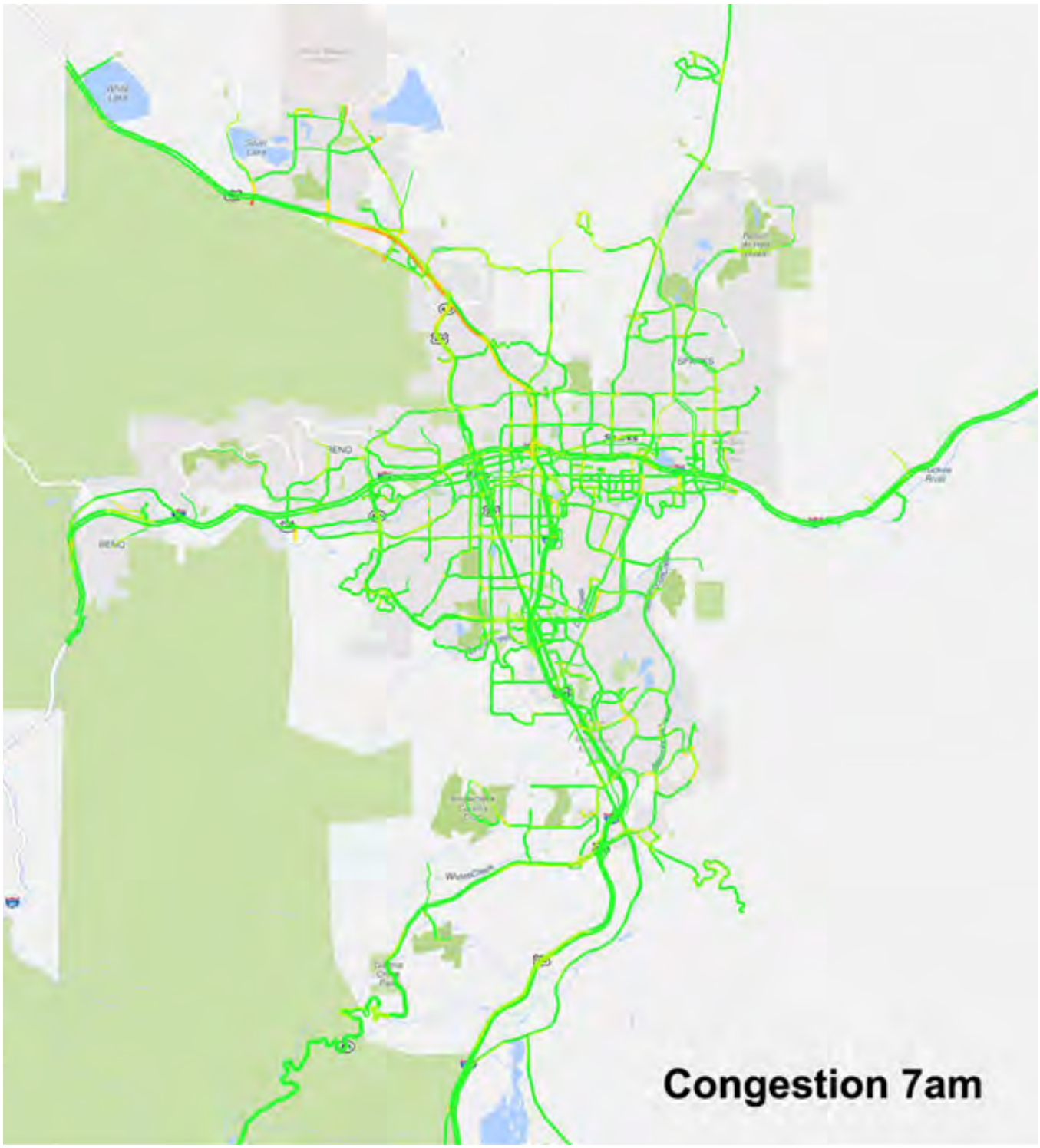


Figure B-2

EXISTING PM TRAFFIC CONGESTION (JANUARY 2021)

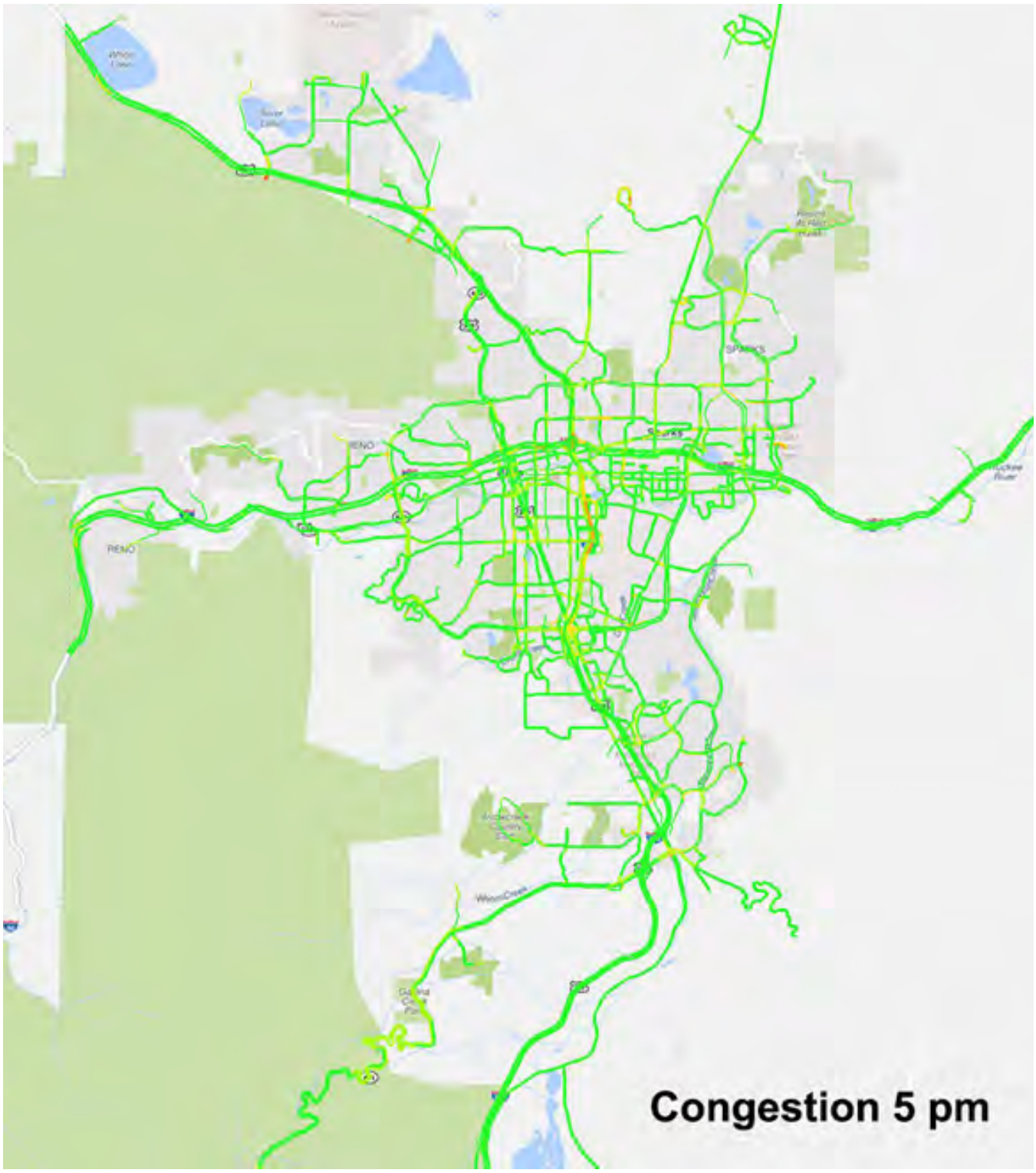


Figure B-3:
PROJECTED 2050 PEAK PERIOD LEVEL OF SERVICE

4. DEVELOP PERFORMANCE MEASURES

The FAST Act continues the legislation authorized under MAP-21, which created a data-driven, performance-based multimodal program to address the many challenges facing the U.S. transportation system. Performance

investment of transportation funds by focusing on national transportation goals, increasing accountability and transparency, and improving decision-making. This section describes the performance measures and targets to be used in assessing system performance. RTC will continue to develop annual reports to track progress toward achieving these targets and will continue to gather additional community input into the transportation planning process.

The U.S. Secretary of Transportation, in consultation with states, MPOs, and other stakeholders, established national performance measures for several areas: pavement conditions and performance for the Interstate and NHS, bridge conditions, injuries and

mobile source emissions, and freight movement on the Interstate System.

States, in coordination with MPOs, set performance targets in support of those measures, and state and metropolitan plans describe how program and project selection will help achieve the targets. The RTC has collaborated with the FHWA Nevada Division , and other stakeholder jurisdictions and agencies to develop performance measures.

The national performance goals for federal highway programs initially established in MAP-21 include the following:

- ***Safety*** – T

  serious injuries on all public roads.

- ***Infrastructure Condition*** – To maintain the highway infrastructure asset system in a state of good repair.

- ***Congestion Reduction*** – To

  congestion on the NHS.

- ***System Reliability*** – To improve

  transportation system.

- ***Freight Movement and Economic Vitality*** – To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.

- ***Environmental Sustainability*** – To enhance the performance of the transportation system while protecting and enhancing the natural environment.

- ***Reduced Project Delivery Delays*** – To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

The national transportation goals

contained in Chapter 12 – Monitoring Implementation and Performance. Also

link to the RTP goals and applicable performance measures. The zero fatalities goal and crash reduction goals are consistent with the Nevada Strategic Highway Safety Plan.

5. INSTITUTE SYSTEM PERFORMANCE MONITORING PLAN

MAP-21 also provided a framework for linking goals and performance targets with project selection and implementation. Performance plans will track the progress toward achieving these targets and will be used to facilitate a community conversation about the track record of the RTC's transportation program.

RTC develops the following performance plans:

- Metropolitan (Regional) Transportation Plan, to be updated every four years, which will include a discussion of:

  - improvement program toward achieving the performance targets.

  - How investment priorities are linked to performance targets.

- Annual Metropolitan System & Transit Performance Report, which will include:

  - Evaluation of the condition and performance of the transportation system.

  - Progress achieved in meeting performance targets.

  - Evaluation of how transportation investments have improved conditions.

- Transit Asset Management Plan.

- Public Transportation Safety Plan.

These performance plans will inform the congestion management process, which will be ongoing throughout the life of the RTP.

Transportation Improvement Plan (RTIP) are completed, the CMP framework and evaluation criteria will be used to select projects from the RTP for inclusion in future years of the RTIP and future updates of the RTP. The CMP evaluation criteria for safety, congestion, and multimodal integration are part of the RTP performance measures that will be reported in the Annual Metropolitan System Performance Report.

6. IDENTIFY & EVALUATE STRATEGIES

RTC gathered information about priorities for operational strategies and capacity improvements from stakeholders, the general public, and partner agencies. This included the 2050 RTP Agency Working Group, Inter-County Working Group, RTC Technical Advisory Committee, and RTC Citizens Multimodal Advisory Committee. Input was gathered at meetings of the committees listed above, as well as at RTC Board meetings. Survey were made available online and public feedback was obtained through a series of several outreach events. The evaluation criteria were developed based on the guiding principles and goals (see list below and Chapter 1 of the RTP for more details) for the RTP, which emerged from the public and agency participation process.

RTC also considered national performance measures and the availability of data in development of the evaluation criteria.

- RTP Guiding Principles are to promote:
  - Safe and Healthy Communities
  - Economic Vitality and Innovation
  - Sustainability
  - Increase Travel Choices
- RTP Goals:
  - 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.
  -
  - Enhance regional connectivity.
  - Improve freight and goods movement.
  - Invest strategically.
  - Engage the public and encourage community involvement.

7. IMPLEMENT SELECTED STRATEGIES & MANAGE TRANSPORTATION SYSTEM

The RTP project prioritization framework is a crucial element in the CMP.
2050 RTP were compiled from a variety of sources, including:

- The 2040 RTP (developed in 2017).
- Corridor plans and studies such as the South Meadows Multimodal Transportation Study, University Area Transportation Study, and other corridor plans.
- Road Safety Assessments and Safety Management Plans.
- Community workshops and other public comments.
- A series of online surveys.
- Input from local governing bodies.
- Input from the 2050 RTP Agency Working Group, RTC Citizens Multimodal Advisory Committee, RTC Technical Advisory Committee, and RTC Regional Road Impact Fee Advisory Committee.

After all project suggestions were reviewed for feasibility and any inconsistencies, each project was evaluated based on a series of criteria developed in support of the RTP Guiding Principles and CMP.

Projects were distributed into one of

to establish a basis for comparison amongst similar project types.

- Freeway projects.
- Capacity projects (widening or expansion of existing roadways, inclusive of multimodal amenities where feasible and appropriate).
- New roadways.
- Multimodal projects (transportation infrastructure improvements exclusive of new capacity).

The framework described in the following sections was developed to assist in the prioritization process for regional roadway projects. It provided input and data for the RTC Board to consider during the project evaluation and selection process. It is important to note that a mathematical formula did

project rankings and that professional judgement and community/agency

R
recommendations and decisions. Separate evaluation frameworks were applied to projects on existing roadways and construction of new roads. The factors for evaluating projects on existing roadways consists of the criteria below.

Evaluation Criteria for Projects on Existing Regional Roads

- Safety – Crash Frequency, Rate, Severity
- Congestion – Travel Demand Model Existing/Forecasted Level of Service (LOS)
- Bike/Pedestrian Score – Criteria in Bicycle & Pedestrian Master Plan
- Equity
- Project Readiness
- Regional Plan Land Use Priority – TMRPA Tier System
- Pavement Condition Index (PCI)/ Bridge Rating
- Flood Mitigation
- Private/Other Agency Funding
- Public Input
- Agency Working Group Input

methodology was developed because safety, congestion, pavement condition, and other data used to evaluate projects on existing roads would not be available for new construction.

RTC developed cost estimates for each

(ADT) that would use the road, and developed an estimate for cost per ADT.

Evaluation Criteria for New Road Construction

- Average Daily T
- Cost per ADT
- Project Readiness
- Regional Plan Land Use Priority – TMRPA Tier System
- Private/Other Agency Funding
- Flood Mitigation
- Emergency Response/Fire Evacuation
- Public Input
- Agency Working Group Input

Methodology

Safety

An analysis of all regional roads and freeways was conducted based on the three most recent years of crash data available from the Nevada Department of Transportation. Projects were scored based on a combination of crash frequency, rate, and severity.

Traffic Congestion

T

well as from the 2050 “no build” level of service obtained through the RTC Travel Demand Model.

Bicycle & Pedestrian Score

The bicycle and pedestrian score for each project was provided by the TC Bicycle and Pedestrian Master Plan when applicable.

Project Readiness

the analysis, community input, and vetting of projects that occurs through other stages of the planning process. It recognizes a commitment to completing a project that has progressed to the design phase, and the level of community support for projects that have been adopted into the Program of Projects (POP) or Regional Transportation Improvement Program (RTIP).

Equity

Higher priority is given to the extent to which a project improves transportation in an underserved community. Additional emphasis on equity in the 2050 RTP was requested during the RTC Citizens Multimodal Advisory Committee, and the following factors were considered in determining the level of equity a project has.

Is the project located in or in proximity to the following areas:

•

- Census track with higher than Washoe County average proportion of disabled residents.
- Census track with higher than Washoe County average proportion of low income households.
- Census track with higher than Washoe County average proportion of zero vehicle households.
- Census track with higher than Washoe County average proportion of minority residents.
- Census track with higher than Washoe County average proportion of residents age 65 and older.
- Within 1/4 mile of a school or hospital.

Regional Land Designations (i.e., Tiers)

The Regional Land Designations were established by the 2019 Truckee

the Truckee Meadows Service Area to prioritize growth and investment in the core of the region. For the 2050 RTP, this criteria is based on the tiered land TMRPA Regional Plan.

Pavement/Bridge Condition

investing in the state of good repair for regional roads and bridges. Projects with a lower pavement condition index (PCI) or bridge rating receive higher priority.

Flood Impact

Projects that address a critical need

priority. An example of this would be

waters for extended period. Other Truckee River Flood Projects are given medium priority.

Private or Other Agency Funding

The purpose of this criteria is to recognize that the opportunity to maximize RTC revenues through

participation of other agencies is a

Criteria for New Road Construction

For construction of roads on new locations, the following additional criteria were evaluated.

- Projected ADT.
- Cost per ADT.
- Emergency Response/Fire Evacuation – This need was

  public and the Truckee Meadows Fire Protection District. Proposed roadways that improve regional connectivity or provide a secondary route to isolated areas received higher priority. Projects that provide improved access within a neighborhood or community received medium priority.

-

  or Study – Similar to Project Readiness for projects on existing roads, this criteria is intended to

  input, and vetting of projects that occurs through other stages of the planning process. It recognizes a commitment to completing a

  a recommendation in an individual corridor or area study, apart from the RTP.

Following the project screening, R
constrained project listing for review by the RTC Agency Working Group, RTC advisory committees, and ultimately the RTC Board. The list was also provided

the RTP.

8. MONITOR STRATEGY EFFECTIVENESS

As described in the RTP, RTC monitors impacts of capacity projects on an on-going basis. In addition to the Annual Report, RTC also develops before and

currently address safety and operations impacts. The regional travel demand model, combined with updates from

be used to monitor impacts on regional An additional tool is the creation of annual progress reports to document implementation of the RTP.

The performance measures in the RTP, which will be tracked on an annual basis, are consistent with the CMP evaluation criteria. Monitoring crash and injury data, construction of multimodal elements such as sidewalks and bicycle facilities, and changes in travel delay will assist RTC in continuously evaluating the suitability of projects in the RTP and RTIP for

APPENDIX C – AIR QUALITY ANALYSIS & CONFORMITY DETERMINATION (2/24/2021)

The Clean Air Act Amendments (CAAA) of 1990 require that each state environmental agency develop a State Implementation Plan (SIP). The SIP shows how the state will implement measures designed to improve air quality to meet NAAQS for each criteria air pollutant, according to the schedules included in the CAAA.

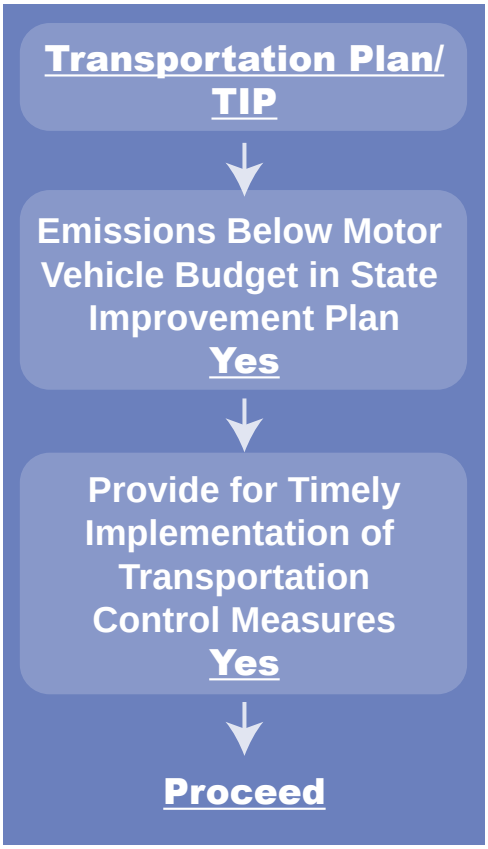
pollution, the CAAA
to programs and projects that will help achieve air quality goals including:

- Providing for greater integration of the transportation and air quality process.
- Ensuring that transportation plans, programs and projects conform with the SIP.
- Reduction in the growth in VMT and congestion in areas that have not attained the Environmental Protection Agency's (EPA) air quality standards.

Conformity for the RTP and the Transportation Improvement Program (TIP) are demonstrated when projected regional emissions generated by the plan and TIP do not exceed the region's motor vehicle emissions budgets as established by the SIP. While the MPO is ultimately responsible for making sure a conformity determination is made, the conformity process depends on federal, state and local transportation and air quality agencies working together to meet the transportation conformity requirements. The roles and responsibilities of the

Washoe County Transportation Conformity Plan. The plan was adopted by RTC and the Washoe County District Board of Health in January 2013.

Transportation Conformity



STATUS OF AIR QUALITY POLLUTANTS

Criteria pollutants are considered on a county-wide basis if actual pollutant levels are exceeded outside of the core area of the Truckee Meadows. The core area of the Truckee Meadows is designated as the Hydrographic Area #87 which is shown in Figure D-1. The current status of the various pollutants in Washoe County is listed below:

CO (8-hr): Attainment/Maintenance for Hydrographic Area #87.

of Washoe County.

PM_{10} (24-hr): Attainment/Maintenance for Hydrographic Area #87.

of Washoe County.

All other pollutants (all averaging times):
the entire county.

In 2015, EPA strengthened the 8-hour ozone standard from 0.075 to 0.070 ppm. EPA formally designated the entire county as Attainment/

In 2006, EPA strengthened the 24-hour $PM_{2.5}$ in aerodynamic diameter from 65 micrograms per cubic meter (µg/m3) to 35 µg/m3.

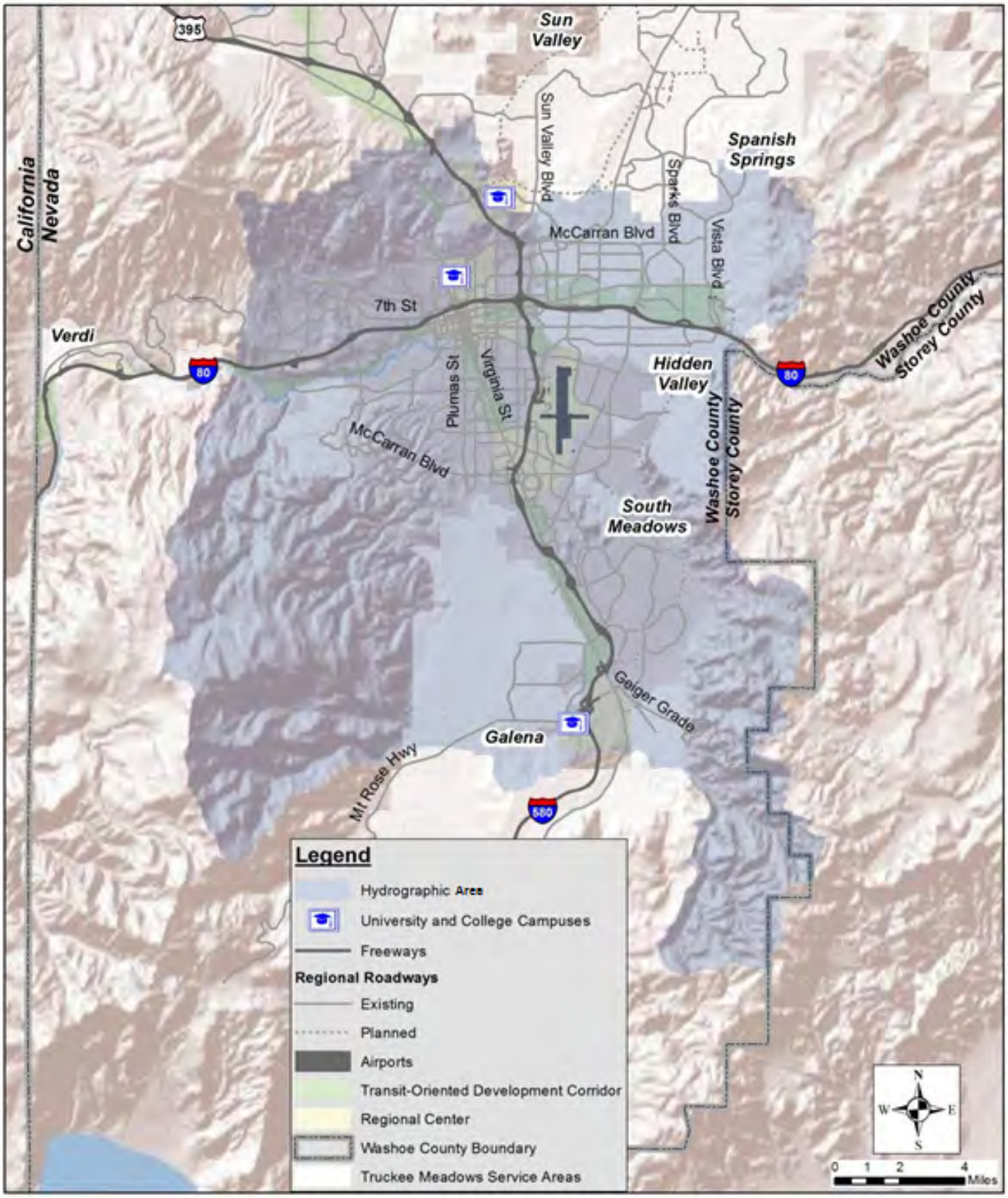
Washoe County was designated as

Regional emissions analyses were performed for CO and PM_{10} to demonstrate document conformity with Motor Vehicle Emissions Budgets in the CO and PM_{10} State Implementation Plans. The RTC, in collaboration with the local agencies, has also been implementing programs that reduce motor vehicle emissions in the region.

TRAVEL FORECASTING MODEL & MOVES EMISSION MODEL

The RTC's travel demand model was developed on the TransCAD platform. The model uses the 2020 Consensus Forecast population and employment provided by the Truckee Meadows Regional Planning Agency.

Figure D-1
RENO/SPARKS HYDROGRAPHIC AREA #87



EPA's MOtor Vehicle Emission Simulator (MOVES) is a state-of-the-science emission modeling system that estimates emissions for mobile sources at the national, county, and project level for criteria air pollutants, greenhouse gases, and air toxics. MOVES3 is now

The analysis uses MOVES3 to calculate emission data.

AIR QUALITY ANALYSIS PLAN REQUIREMENTS

necessary for incorporation into the RTP. Section 93, Title 40 of Code of Federal Regulations (CFR) dated

15, 1997), pertains to the criteria and procedures necessary to analyze the air quality impacts of the RTP. For the purposes of an air quality determination, the analysis years are 2020, 2025, 2030, 2040, and 2050. No air quality analysis is required for the

as unfunded needs. A summary of requirements is listed below:

A. The RTP must contribute to emission reductions in CO non attainment/maintenance areas.

B. Air quality analysis years must be no more than 10 years apart.

C. In CO and PM_{10} non-attainment/ maintenance areas, analysis must be performed for both pollutants.

D. The last year of the RTP (2050) shall also be an analysis year.

E. An analysis must be performed for each year contained in the motor vehicle emission budget (MVEB) for the Hydrographic Area #87 for both CO and PM_{10}, as budgets have been established for these pollutants.

F. For both CO and PM_{10}, the analysis of emissions for the required years cannot exceed the MVEB.

AIR QUALITY ANALYSIS CREDITING PROVISIONS

Federal regulations also allow for crediting procedures over the life of the RTP for the implementation of Transportation Control Measures (TCMs) in which emissions reductions These TCMs are critical to areas such as Washoe County that have and are expected to have continued growth in population and VMT TCM measures are in progress or planned in Washoe County that will have

These include:

A. T

B. Conversion of the Public Transit Fleet Cleaner Fuels

C. Implementation of Trip Reduction Programs

These TCMs have been the focus of

of each. The TCMs are described below. The RTC is not taking any credit for reduced emissions associated with these TCMs but may choose to take credit in the future, if conditions warrant.

TRAFFIC SIGNAL OPTIMIZATION/TIMING UPGRADE PROGRAM

T
improvements seek to achieve two

service and 2) mobile source emission reductions through decreased delay, fewer accelerations/decelerations and a decreased number of stops. The RTC has reviewed several studies and federally accepted models to quantify the reduction of mobile emissions from signal coordination programs. These include signal coordination studies conducted by several cities in southern California and the California Department of Transportation (CALTRANS). A comparison of before

and the improvements in all three peak periods were noted. Examples included a statewide average reduction of 14 seconds in stop delay and a 12% reduction in the number of stops per mile in the afternoon peak period. Several methodologies were used to take the results of studies to quantify the emission reductions from signal coordination programs.

The pollution reduction results (tons/ per day or percentage reduction) from each model vary as some models

while the others are more of an area-wide reduction projection. Pollutant reductions ranged from 11% along

regional level.

The RTC has initiated a region-

improvements program to enhance the capacity of the existing system and

This is an ongoing program that will allow nearly 400 intersections in the Truckee Meadows to be coordinated.

CONVERSION OF RTC ACCESS & RTC RIDE FLEETS TO ALTERNATIVE OR CLEANER BURNING FUELS

Almost 8 million annual passengers with 2.9 million miles are provided service by the **RTC RIDE** public transit and **RTC ACCESS** paratransit. While this is a small percentage of total daily travel, it is important in terms of air quality. All **RTC RIDE** buses are comprised of electric, hybrid diesel-electric and bio-diesel vehicles. **RTC ACCESS** cut-away vehicles are fueled by Compressed Natural Gas (CNG). These vehicles can reduce mobile emission totals.

Estimates by the California Air Resources Board between standard urban diesel and biodiesel or CNG determined that NOx emissions from vehicles with CNG or cleaner burning diesels were reduced approximately 60%.

RTC currently has 23 zero emission electric buses and will be adding 8 more to the Virginia Line RAPID corridor over the coming years. In addition, RTC is exploring hydrogen fuel cell technology for the next generation of zero emission vehicles.

TRIP REDUCTION PROGRAMS

The RTC's trip reduction program, **RTC SMART TRIPS**, encourages the use of sustainable travel modes and trip reductions strategies such as telecommuting, compressed work weeks, and trip chaining. Major components of the program include a bus pass subsidy program in which the RTC matches an employer's contribution to their employees' 31-day transit passes up to 20%; a subsidized vanpool program, **RTC VANPOOL**; and an on-line trip matching program, RTC TRIP MATCH, that makes it quick, easy, and convenient to look for carpool partners as well as bus, bike, and walking buddies for either recurring or one time trips. One of the most common deterrents to ridesharing is the fear of being "stranded." Consequently, people who either carpool or vanpool to work can sign up for the Guaranteed Ride Home program and be reimbursed for a taxi ride home up to four times a year if an unexpected event prevents normal ridesharing arrangements from working. Making trips safely on foot and by bicycle are also promoted by the **RTC SMART TRIPS** program throughout the year.

The goals of these programs are to promote trip reduction on a region-wide level, improve air quality, and

congestion. During the period from July through September 2020 the air

substantial, as shown in Table C-1. The data included the number of people in each vanpool and the average daily trip mileage. The air pollution calculation was obtained by multiplying the number of passenger trips for each vanpool per month by the average daily trip mileage for each vanpool per month and totaling those results to estimate the total VMT eliminated through the program due to the vanpool passengers not driving alone to work. The reduction in VMT was then multiplied by the pollutant factors per mile with those results outlined in the chart below. The emissions factors per mile for each pollutant were provided by WCHD-AQMD.

Table C-1
RTC VANPOOL Air Pollution Reductions (July-September 2020)

Volatile organic compounds (VOC)	12,617.3 lbs
Nitrogen Oxide (NOx)	7,088.4 lbs
Carbon Monoxide (CO)	93,920.2 lbs
PM_{10}	50.5 lbs
Particulate Matter ($PM_{2.5}$)	47.0 lbs
Carbon Dioxide (CO_2)	3,783,407.0 lbs

RTC SMART TRIPS program continues to grow and add more participants. RTC TRIP MATCH is a web-based carpool, bike, bus and walking buddy matching service that eliminates single occupant travel miles.

RTC TRAVEL DEMAND MODEL

2020, 2025, 2030, 2040 and 2050 networks were established for this RTP air quality analysis. The 2020 network consists of the current roadway network and the current transit network. Each of the remaining networks is comprised of the previous model year network with the capacity related projects and transit service changes included in the RTP.

AIR QUALITY ANALYSIS

An emission test on both CO and PM_{10} must be successfully completed . The area of analysis for these pollutants is the Hydrographic Area #87. As stated previously, the CO and PM_{10} emissions for the required analysis years cannot exceed the established motor vehicle emissions budget. Analysis is performed for, 2025, 2030, 2040 and 2050 for both pollutants.

To initiate the air quality conformity determination, the emission levels for the pollutants in each analysis year are generated. The VMT for each facility type is derived from the RTC's travel demand model. Many local roads are approximated as centroid connectors in the model network. Since centroid connectors are not actual roads, the VMT's for local roads are estimated as 11.67% (urban) and 6.57% (rural) of the total VMT's based on NDOT's 2019 Annual Vehicle Miles of Travel Report (August 2020). Average speed by facility type from RTC's travel demand model is provided as an input to the MOVES model. Total emissions for each facility type are then added to get a daily emission total for the roadway system in the analysis area. Emission totals are shown in pounds per day (lbs./day). The Interagency Air Quality Consultation Team recommended approval of the air quality analysis on February 23, 2021.

CO ANALYSIS

The MVEB for carbon monoxide (CO),

Table D-2, which also includes the CO emissions for all analysis years of the RTP. All RTP analysis years are within the MVEB. The tables supporting this analysis are contained at the end of this chapter.

Table C-2
CO Emissions Analysis (lbs. /day)

Analysis Year	MVEB	RTP Analysis
2020	172,670	64,477
2025	171,509	55,708
2030	169,959	47,347
2040	169,959	40,391
2050	169,959	44,143

PM_{10} ANALYSIS

The MVEB for PM_{10}
6, 2016, is shown in Table D-3, which also includes the PM_{10} emissions for all analysis years of the RTP. All RTP analysis years are within the MVEB. The tables supporting this analysis are contained at the end of this chapter.

Table C-3
PM_{10} Total Emissions (lbs/day)

Analysis Year	MVEB	RTP Analysis
2020	6,088	3,514
2025	6,473	3,554
2030	6,927	3,758
2040	6,927	4,030
2050	6,927	4,501

SUMMARY

A strong commitment to fund and implement feasible TCM measures must be made if acceptable air quality standards are to be sustained. The local jurisdictions and NDOT, through the RTP process, have made the commitment to fund TCMs such as

signal coordination, and conversion

burning fuels. The 2050 RTP includes

pedestrian infrastructure, consistent with the Complete Streets Master Plan adopted by RTC in 2016. Based on existing and planned commitments, the air quality analysis conducted in this chapter demonstrates that the required air quality conformity determination can be made and the RTP shown to be in conformance with federal air quality regulations.

Table C-4
Paved Road Fugitive Emission Factors (lb/VMT)

Facility Type	2020	2020-2050
Interstate	0.00013	0.00012
Other Fwys	0.00013	0.00012
Major Arterial	0.00013	0.00012
Minor Arterial	0.00034	0.00033
Collector	0.00083	0.00080
Local	0.00209	0.00201

Table C-5
VMT by Facility Type by Analysis Year (Hydrographic Area #87)

Facility Type	2020	2025	2030	2040	2050
Interstate	2,563,692	2,692,797	2,837,972	3,097,296	3,273,895
Other Fwys	498,488	562,971	590,273	690,736	817,509
Major Arterial	1,861,219	1,969,198	2,110,987	2,234,577	2,534,221
Minor Arterial	789,911	830,142	891,093	941,642	1,106,089
Collector	237,424	246,998	264,034	269,764	293,922
Local	777,981	823,918	875,200	945,753	1,049,247
Total	6,728,714	7,126,024	7,569,559	8,179,769	9,074,882

Table C-6
Emissions (lbs./day)

Analysis Year	CO	On-Road Vehicles PM_{10}	Diesel Idling PM_{10}	Paved Road Fugitive PM10	Unpaved Road Fugitives PM_{10}	Road Construc-tion PM_{10}	Total PM_{10} Emissions
2020	64,477	648	0.34	1,750	877	239	3,514
2025	55,708	642	0.16	1,767	892	253	3,554
2030	47,347	672	0.09	1,870	947	269	3,758
2040	40,391	706	0.04	2,015	1,024	285	4,030
2050	44,143	827	0.03	2,236	1,136	302	4,501

Table C-7
Capacity Projects on Model Network and Model Years

2021-2025 Projects	Limits	Model Year
US 395 Add SB Lane, Aux Lanes, NB & SB	N McCarran to Golden Valley	2025
Spaghetti Bowl Phase 1	Multiple locations	2025
Lemmon Drive Segment 1 Widen 4 to 6 Lanes	US 395 and Military Rd	2025
Lemmon Drive Segment 2 Widen 2 to 4 Lanes/Reconstruct	Fleetwood Dr to Ramsay	2025
McCarran Blvd Intersection & Operations	Kietzke to Greensboro	2025
Mill Street	Kietzke to Terminal	2025
Pyramid Hwy	Queen Way to Golden View	2025
Sky Vista Parkway Widen 2 to 4 Lanes	Silver Lake Rd to Lemmon Dr	2025
Sparks Boulevard	Greg Street to N side of Baring Blvd	2025
Damonte Ranch Pkwy Extension	Veterans Pkwy to Rio Wrangler Pkwy	2025
Daybreak Regional Road Network (South Meadows)	Multiple locations	2025
Dolores Drive Extension	West to Lazy 5 Pkwy	2025
Highland Ranch Pkwy Widening	Pyramid Highway to 5 Ridges entrance	2025

Kiley Pkwy	Wingfield Hills Rd to Henry Orr Pkwy	2025
Lazy 5 Pkwy	W Sun Valley Arterial to Pyramid Hwy	2025
Meridian & Santerra Regional Road Network (Verdi)	Multiple locations	2025
N/S Connector Rd	Stonebrook Pkwy to Wingfield Hills Rd	2025
Rio Wrangler Pkwy Extension (North)	Bucephalus Pkwy to South Meadows Pkwy	2025
Rio Wrangler Pkwy Extension (South)	Damonte Ranch Pkwy to Veterans Pkwy	2025
South Meadows Extension	Mojave Sky Dr to Rio Wrangler Pkwy	2025
Stonebrook Pkwy	N/S Connector Rd to Pyramid Hwy	2025
Wingfield Hills Rd Extension	West to David Allen Pkwy	2025
White Lake Pkwy – Widen	395 Interchange to North Town Center road	2025
5th Street – Multimodal	Keystone to Evans	2025
Center Street Widen Sidewalks & Add Bike Lanes	9th Street to Moran	2025
E 6th Street Bicycle Facility & Safety Improvements	Virginia St to 4th St	2025
Vassar Street Bike Facility	Kietzke Ln to Terminal Way	2025
Vine Street Bike Facility	Riverside Drive to University Terrace	2025
2026-2030 Projects	Limits	Model Year
US 395 Additional Lane in Each Direction	Golden Valley to Stead Blvd	2030
Spaghetti Bowl Phase 2	Multiple locations	2030
Buck Dr Widen 2 to 4 Lanes	Lemmon Dr to N Hills Blvd	2030
Damonte Ranch Pkwy – Widen	Double R to I 580	2030
Geiger Grade New 4 Lane Rd	Virginia St to Toll Rd	2030
Military Rd Widen 2 to 4 Lanes	Lemmon Dr to Echo Ave	2030
Moya Boulevard Widen 2 to 4 Lanes	Red Rock Rd to Echo Ave	2030
Moya Boulevard Extension	Red Rock Dr to Echo Ave	2030
N Hills Blvd	Golden Valley Rd to Buck Dr	2030

N Virginia Street Widen 2 to 4 lanes & Multimodal	Panther Dr to Stead Blvd	2030
Pembroke Dr – Widen	McCarran to Veterans	2030
Pyramid Hwy/395 Connector Phase 2	Widen Disc Dr from Pyramid to Vista Blvd	2030
Pyramid Hwy add southbound Lane	Ingenuity to Egyptian	2030
Red Rock Rd Widen 2 to 4 Lanes	US 395 to Placerville Dr	2030
S. Virginia Street – Add NB Lane	Longley Ln to I-580	2030
Sparks Blvd Multimodal Improvements and widen 4 to 6 Lanes	Greg St to Baring Blvd	2030
Steamboat Pkwy and Damonte Ranch Pkwy – Widen	Veterans Pkwy to Promenade Way	2030
Vista Boulevard Widen 4 to 6 Lanes	I-80 to Prater Way	2030
Sutro – Multimodal	N McCarran to Oddie Blvd	2030
2031-2050 Projects	**Limits**	**Model Year**
Spaghetti Bowl Phases 3-5	Multiple locations	2040
US 395 Widen for Connector Traffic – Additional NB Lane	Clear Acre to Parr Blvd	2040
I-580 Widening	Neil Rd to S Virginia St/ Kietzke Ln	2040
I-80 Widening	W McCarran Blvd to Keystone Ave	2040
I-80 Widening	Garson Rd to West 4th St	2040
9th Street Extension	To N Wells Ave	2040
Arrowcreek Pkwy – Widen	Wedge Pkwy to Thomas Creek Rd	2040
Arrowcreek Pkwy Widen 2 to 4 Lanes	Wedge Pkwy to Zolezzi Ln	2040
Golden Valley Road/7th Avenue (O'Brien Pass)	N Hills to W 7th Ave	2040
Highland Ranch Parkway – Widen	Pyramid to Sun Valley Blvd	2040
Lemmon Dr – Extension	To Red Rock Rd	2040
McCarran Blvd	Plumb Ln to Mayberry Dr	2040

McCarran Boulevard Widen 4 to 6 Lanes	El Rancho Dr to Rock Blvd	2040
McCarran Boulevard Widen 4 to 6 Lanes	Sky Mountain Dr to I80	2040
McCarran Boulevard Widen 4 to 6 Lanes	7th St to N Virginia St	2040
McCarran Widening	Mayberry to 4th Street	2040
Mira Loma Drive Widen 2 to 4 Lanes	McCarran to Veterans	2040
Panther Extension	N Virginia to Panther to N Hills Blvd	2040
Pyramid/395 Connector Phase 3 Construct Connector	US 395 to Pyramid Hwy south of Sparks Blvd, Disc Dr ext	2040
Record St Realignment and Parking Garage Access	Evans Ave to 9th Street; Lake St to Evans Ave	2040
Rio Wrangler – Widen	Spring Flower Dr to Western Skies Dr	2040
Robb Dr Ext	4th Street to I-80	2040
S. McCarran – Widen	Manzanita to Plumb Ln	2040
S. McCarran – Widen	Lakeside to Manzanita	2040
Vista – Widening	Wingfield Pkwy to Hubble Dr	2040
Vista Knoll Pkwy Ext	To Lemmon Dr	2040
West Sun Valley Arterial New 4 Lane Road	Dandini Blvd to Eagle Canyon	2040
Center St/Mary St Buffered Bike Lanes	Liberty St – Plumas St	2040
Sutro/Kirman – Sidewalks	Truckee River to Plumb Lane	2040
Vista Blvd Sidewalks and Bike Lanes	Greg St to S Los Altos Pkwy	2040
I-80 Operations & Capacity	Vista Blvd to US Parkway	2050
US 395 Widening	Stead to Red Rock Rd	2050
Eagle Canyon Extension Widen 2 to 4 Lanes	Pyramid Hwy to W Calle de la Plata	2050
Eagle Canyon Extension New 4 Lane Road	Lemmon Valley to Spanish Springs	2050
Echo Ave – Extension	Red Rock Rd to Moya Blvd	2050
Estates Dr – Reconstruct	Lemmon Dr to Golden Valley Rd	2050
Pyramid/395 Connector Phase 4 System Ramps	System Ramps at US 395	2050

Pyramid Hwy Phase 5 Widen	6 lanes from Sparks to La Posada, 4 lanes from Egyptian to Calle de la Plata	2050
Silver Knolls Blvd – New Road	Red Rock Rd to Silver Knolls Blvd	2050
SS/ER Parkway – New Road	Red Rock Rd to Mud Spring Dr	2050
TRI Center Northern Connection	La Posada to TRI Center	2050
TRI Center Southern Connection	Eastern Daybreak Boundary to Washoe County Line	2050
White Lake Pkwy – Widen	North Town Center road to Village Pkwy	2050
North Virginia – New Road	Stead to White Lake	2050

Notes:
This table includes only projects that impact network capacity for the air quality analysis. Other non-capacity related projects in the RTP projects are not listed here.

APPENDIX D – ACCESS MANAGEMENT

Access refers to the entry of vehicles to and from the traveled portion of a roadway. This access can be to/from homes or businesses adjacent to the road, from intersecting streets or from parking on the sides of the roadway. Access

Vehicles need to access the roadway
The greater the number of these interruptions, the more impact they have on
. Access management controls the amount of these interruptions and is a
. The
degree to which access is managed needs to be appropriate to the type of
.

Access management decisions will be made based on the latest edition of the NDOT Access Management System and Standards manual, Transportation Research Board Access Management Manual, or locally-adopted standards, as directed the local jurisdiction. Access management can include an analysis of the functional rea at signalized intersections.

Access management may typically involve exercising control over the number and location of driveways and turning movements. Related to this is the control of the type of movements allowed into or out of these driveways through such things as signage and medians. Access control may also involve control of parking adjacent to the travel lanes. The degree to which access of all types is controlled can have a substantial impact on the ability of a roadway to carry

highway versus a neighborhood street. The degree of access is an important consideration in sizing the street and highway system. All other things being equal, the greater the degree of access control, the greater number of vehicles that can be accommodated per lane. When the degree of actual access

problems can occur, inducing additional congestion.

Access controls also have a direct impact on safety as shown in Table D-1.

demonstrated to reduce crashes.

Table D-1
Effects of Access Management Techniques

Access Management Technique	
1. Add continuous two way left turn lane (TWLTL)	• 35% reduction in total crashes • 30% decrease in delay • 30% increase in capacity
2. Add nontraversable median	• 55% reduction in total crashes • 30% decrease in delay • 30% increase in capacity
3. Replace TWLTL with a nontraversable median	• 15%-57% reduction in crashes on 4-lane roads • 25%-50% reduction in crashes on 6-lane roads
4. Add a left-turn bay	• 25%-50% reduction in crashes on 4-lane roads • Up to 75% reduction in total crashes at unsignalized access • 25% increase in capacity
5. Type of left-turn improvement a. painted b. separator or raised divider	• 32% reduction in total crashes • 67% reduction total crashes
6. Add right-turn bay	• 20% reduction in total crashes • Limit right-turn interference with platooned flow, increased capacity
7. Increase driveway speed from 5 mph to 10 mph	• 50% reduction in delay per maneuver; less exposure time to following vehicles
8. Visual cue at driveways, driveway illumination	• 42% reduction in crashes
9. Prohibition of on-street parking	• 30% increase in traffic flow • 20%-40% reduction in crashes
10. Long signal spacing with limited access	• 42% reduction in total vehicle-hours of travel • 59% reduction in delay • 57,500 gallons fuel saved per mile per year

Source: TRB Access Management Manual

operational standards (agreed to by implementing jurisdictions) can help facilitate regional trip movements. Additional roadway design access elements that

- Number of through lanes.
- Minimum signal spacing.
- Left turn from a major street.
- Right deceleration lanes at driveways.
- Driveway spacing.
- Number of signalized intersections per mile.
- Design speed.
- Bicycle facilities.
- Left turn lanes.
- Left turn from minor street or driveway.
- Median type or existence of median.

The Access Management Standards shown Table D-2 (shown on the following page) will be used in the design of future improvements to regional roads and

Table D-2
Access Management Standards

Access Management Class	Posted Speeds	Signals Per Mile and Spacing[2]	Median Type	Left From Major Street? (Spacing from signal)	Left From Minor Street or Driveway?	Right Decel Lanes at Driveways	Driveway Spacing[3]
High Access Control	45-55 mph	2 or less Minimum spacing 2350	Raised w/ channelized turn pockets	Yes 750 ft. minimum	Only at signalized locations	Yes[4]	250 ft./500 ft
Moderate Access Control	40-45 mph	3 or less Minimum spacing 1590 feet	Raised or painted w/ turn pockets	Yes 500 ft. minimum	No, on 6- or 8- lane roadways w/o signal	Yes[5]	200 ft./300 ft
Low Access Control	35-40 mph	5 or less Minimum spacing 900 feet	Raised or painted w/turn pockets or undivided w/painted turn pockets or two-way, left-turn lane	Yes 350 ft. minimum	Yes	No	150 ft./200 ft.
Ultra-Low Access Control	30-35 mph	8 or less Minimum spacing 560 feet	Raised or painted w/turn pockets or undivided w/painted turn pockets or two-way left-turn lane	Yes 350 ft. minimum	Yes	No	150 ft./200 ft. 100 ft./100 ft.[6]

1. On-street parking shall not be allowed on any new arterials. Elimination of existing on-street parking shall be considered a priority for major and minor arterials operating at or below the policy level of service.

2. Minimum signal spacing is for planning purposes only; additional analysis must be made of proposed new signals in the context of existing conditions, planned signalized intersections, and other relevant factors impacting corridor level of service.

3. Minimum spacing from signalized intersection/spacing from other driveways.

4. If there are more than 30 inbound, right-turn movements during the peak-hour.

5. If there are more than 60 inbound, right-turn movements during the peak-hour.

6. Minimum spacing on collectors.

The regional road system shown in Table D-3 includes roadway limits, functional class and the access management class as described in Table D-2. The criteria for determining the regional road system includes:

- Arterials that are direct connections between freeways and other arterials, provide continuity throughout the region, and generally accommodate

  volume corridors.

- Collectors have an ADT level of 5,000 (either currently or in the 2050

  Truckee River or freeway, or provide access to major existing or future regional facilities.

- Industrial roadways with freight movement.

- A roadway including a transit route.

Table D-3
Regional and Transit

Road Name	From	To	Functional	Policy
15th St	Victorian Ave	C St	Transit	Route
1st St	Lake St	Keystone	Arterial	LAC
2nd St	Kuenzli St	Keystone Ave	Arterial	LAC
2nd St	Kietzkie Ln	Kuenzli St	Arterial	MAC
3rd St (Verdi)	Cabaela Dr	I-80	Arterial	MAC
4th St	Galletti Way	I-80	Arterial	MAC
4th St	York Way	Greenbrae Dr	Transit	Route
5th St	N Sierra St	Keystone Ave	Arterial	MAC
5th St	Evans Ave	N Sierra St	Arterial	ULAC
6th St	E 4th St	Evans Ave	Arterial	MAC
6th St	Evans Ave	Ralston St	Arterial	ULAC
7th St	Sun Valley Blvd	Chocolate Dr	Arterial	LAC
7th St	Vine St	Robb Dr	Arterial	MAC
9th St	Evans Ave	N Virginia St	Arterial	LAC
9th St	El Rancho Dr	N Wells Ave	Collector	LAC
Airway Dr	Longley Ln	Neil Rd	Arterial	MAC
Apple St	Wrondel Way	Kirman Ave	Transit	Route
Arlington Ave	Skyline Blvd	W 6th St	Arterial	MAC
Armstrong Ln	Susileen Dr	Yuma Ln	Collector	LAC
Arrowcreek Pkwy	S Virginia St	Thomas Creek Rd	Arterial	MAC
Avenida de Landa	Sharlands Ave	Las Brisas Blvd	Collector	LAC
Baring Blvd	Vista Blvd	N McCarran Blvd	Arterial	MAC
Battle Born Way	Galletti Way	Victorian Ave	Arterial	MAC
Beaumont Pkwy	Avenida de Landa	Clubhouse Dr	Collector	LAC
Belmar Dr	Earthstone Dr	Los Altos Pkwy	Collector	LAC
Bluestone Dr	Portman Ave	E Huffaker Ln	Collector	MAC
Boomtown Garson Rd	Cabela Dr	I-80	Arterial	MAC
Booth St	California Ave	Idlewild Dr	Transit	Route
Bridge St	S Verdi Rd	3rd St	Collector	LAC
Brinkby Ave	S Virginia St	Plumas St	Collector	LAC

Road Name	From	To	Functional	Policy
Business 395	N Virginia St	US395	Arterial	HAC
Cabela Dr	I-80	Boomtown Garson Rd	Arterial	MAC
California Ave	S Virginia St	Hunter Lake Dr	Arterial	LAC
Calle de La Plata Dr	Pyramid Hwy	Eagle Canyon Dr	Collector	LAC
Calle de Oro Pkwy	Wingfield Springs Rd	Cordoba Blvd	Collector	LAC
Campus Way	Sierra Center Pkwy	Neil Rd	Arterial	MAC
Capital Blvd	S McCarran Blvd	Rock Blvd	Transit	Route
Casazza Dr	Kirman Ave	Locust St	Transit	Route
Cashill Blvd	Skyline Blvd	S McCarran Blvd	Collector	LAC
Caughlin PKwy	S McCarran	S McCarran Blvd	Collector	LAC
Center St	S Virginia St	E 9th St	Arterial	MAC
Clear Acre Ln	Wedekind Rd	Dandini Blvd	Arterial	MAC
Colbert Dr	Longley Ln	Maestro Dr	Collector	LAC
Commerce St	N Rock Blvd	Merchant St	Transit	Route
Cordoba Blvd	Calle de Oro Pkwy	La Posada Dr	Collector	LAC
Corporate Blvd	Mill St	Capital Blvd	Transit	Route
Court St	S Virginia St	S Arlington Ave	Arterial	LAC
Damonte Ranch	Eastern Terminus	S Virginia St	Arterial	MAC
Damonte Ranch Pkwy (Planned)	Geiger Grade Rd	Steamboat Pkwy	Arterial	MAC
Dandini Blvd	Sun Valley Blvd	US395	Arterial	MAC
David Allen Pkwy (Planned)	Northern Terminus	Kiley Pkwy	Collector	LAC
Debussy Dr	Sun Valley Blvd	Sun Valley Blvd	Transit	Route
Del Webb Pkwy E	Somersett Ridge Pkwy	Somersett Pkwy	Arterial	MAC
Del Webb Pkwy W	Somersett Ridge Pkwy	Somersett Pkwy	Arterial	MAC
Delores Dr (Planned)	Stonebrook Pkwy	Western Terminus	Arterial	MAC
Disc Dr	Vista Blvd	Pyramid Hwy	Arterial	MAC
Donatello Dr	Highland Ranch Pkwy	Sun Valley Blvd	Transit	Route

Road Name	From	To	Functional	Policy
Double Diamond Pkwy	Double R Blvd	Double R Blvd	Arterial	MAC
Double R Blvd	Damonte Ranch Pkwy	Longley Ln	Arterial	MAC
E 5th Ave	Lupin Dr	Sun Valley Blvd	Transit	Route
E 8th Dr	Lupin Dr	Sun Valley Blvd	Transit	Route
E Huffaker Ln	Bluestone Dr	Longley Ln	Collector	LAC
E Lincoln Way	Lillard Dr	Sparks Blvd	Transit	Route
Eagle Canyon Dr	Pyramid Hwy	W Calle de La Plata	Arterial	MAC
Eastlake Blvd	Old US 395	Old US 395	Arterial	MAC
Echo Ave	Military Rd	Moya Blvd	Arterial	MAC
Edison Way	S Rock Rd	Mill St	Arterial	MAC
El Rancho Dr	Victorian Ave	Clear Acre Ln	Arterial	MAC
Energy Way	S Edison Way	S Rock Blvd	Transit	Route
Enterprise Rd	Valley Rd	Evans Ave	Arterial	MAC
Equity Ave	Financial Blvd	Corporate Blvd	Transit	Route
Evans Ave	E 2nd St	N McCarran Blvd	Arterial	LAC
Farr Ln	Pyramid Hwy	Wedekind Rd	Collector	LAC
Financial Blvd	Equity Ave	Mill St	Transit	Route
Foothill Rd	S Virginia St	Broken Hill Rd	Collector	LAC
Franklin Way	E Greg St	Kleppe Ln	Transit	Route
Galleria Pkwy Dr	Disc Dr	Los Altos Pkwy	Arterial	LAC
Galletti Way	Glendale Ave	Prater Way	Arterial	MAC
Gateway Dr	S Meadows Pkwy	Offenhauser Dr	Arterial	MAC
Geiger Grade	Lyon County Border	Old US395	Arterial	MAC
Gentry Way	Neil Rd	Terminal Way	Arterial	MAC
Gentry Way	Kietzke Ln	S Virginia St	Arterial	MAC
George Ferris Dr	E Lincoln Way	Legends Bay Dr	Transit	Route
Giroux St	E 2nd St	Kuenzli St	Transit	Route
Glendale AVe	Meredith Way	Kietzke Ln	Arterial	MAC
Golden Valley Rd	Dream Catcher Rd	N Virginia St	Arterial	MAC
Greenbrae Dr	Howard Dr	N Rock Blvd	Collector	LAC
Greenbrae Dr	El Rancho Dr	Orovada St	Transit	Route

Road Name	From	To	Functional	Policy
Greenbrae Dr	4th St	Pyramid Hwy	Transit	Route
Greenbrae Ln	N Rock Blvd	El Rancho Dr	Transit	Route
Greg St	I-80	Mill St	Arterial	MAC
Grove St	Harvard Way	S Virginia St	Collector	LAC
Harvard Way	E Grove St	Vassar St	Collector	LAC
Highland Ave	Valley Rd	Evans Ave	Collector	LAC
Highland Ranch Pkwy	Pyramid Hwy	Sun Valley Blvd	Arterial	MAC
Holcomb Ave	S Virginia St	Mill St	Arterial	LAC
Howard Dr	E Prater Way	Sparks Blvd	Collector	LAC
Howard Dr	Nichols Blvd	E Lincoln Way	Transit	Route
Hunter Lake Dr	Yuma Ln	California Ave	Collector	LAC
Hunter Lake Dr	Mayberry Dr	Idlewild Dr	Transit	Route
Idlewild Dr	Booth St	Hunter Lake Dr	Transit	Route
Industrial Way	Greg St	Glendale Ave	Transit	Route
Keystone Ave	Coleman Dr	N McCarran Blvd	Arterial	LAC
Keystone Ave	Coleman Dr	California Ave	Arterial	MAC
Kietzke Ln	Galletti Way	Neil Rd	Arterial	MAC
Kietzke Ln	Southern Terminus	Neil Rd	Transit	Route
Kiley Pkwy	Northern Terminus	Henry Orr Pkwy	Collector	LAC
Kiley Pkwy (Planned)	Henry Orr Pkwy	Pyramid Hwy	Collector	LAC
Kings Row	Keystone Ave	N McCarran Blvd	Collector	LAC
Kirman Ave	Mill St	Kuenzli St	Arterial	MAC
Kirman Ave	E Plumas Ln	Mill St	Collector	LAC
Kirman Ave	Apple St	E Plumb Ln	Transit	Route
Krondel Way	E Grove St	Apple St	Transit	Route
Kuenzli St	Kietzke Ln	E 2nd St	Arterial	MAC
Kumle Ln	Firecreek Crossing	US-395	Arterial	MAC
La Posada Dr	Cordoba Blvd	Pyramid Hwy	Arterial	MAC
Lake St	Mill St	E 6th St	Collector	LAC
Lakeside Dr	Ridgeview Dr	W Moana Ln	Arterial	MAC
Lakeside Dr	W Moana Ln	W Plumb Ln	Collector	LAC
Las Brisas Blvd	Silverado Creek Dr	N McCarran Blvd	Collector	LAC

Road Name	From	To	Functional	Policy
Lazy 5 Pkwy	David Allen Pkwy	Pyramid Hwy	Arterial	MAC
Lazy 5 Pkwy (Planned)	Winfield Hills Rd	David Allen Pkwy	Arterial	MAC
Lazy 5 Pkwy (Planned)	Western Terminus	Pyramid Hwy	Arterial	MAC
Lear Blvd	Military Rd	Moya Blvd	Arterial	MAC
Legends Bay Dr	George Ferris Dr	E Lincoln Way	Transit	Route
Lemmon Dr	Ramsey Way	N Virginia St	Arterial	MAC
Liberty St	Ryland St	S Arlington Ave	Arterial	LAC
Lillard Dr	E Lincoln Way	E Prater Way	Transit	Route
Lincoln Way	Sparks Blvd	N McCarran Blvd	Arterial	LAC
Locust St	Casazza Dr	Ryland St	Arterial	LAC
Longley Ln	S Virginia St	S Rock Blvd	Arterial	MAC
Loop Rd	Salomon Cir	Vista Blvd	Arterial	MAC
Los Altos Pkwy	Vista Blvd	Pyramid Hwy	Arterial	MAC
Lund Ln	Wedekind Rd	Northtowne Ln	Transit	Route
Lupin Dr	E 5th Ave	E 8th Ave	Transit	Route
Lymbery St	W Moana Ln	Lakeside Dr	Collector	MAC
Mae Anne Ave	N McCarran Blvd	Mesa Park Rd	Arterial	MAC
Maestro Dr	Double R Blvd	Colbert Dr	Arterial	MAC
Marthiam Ave	Cashill Blvd	Susileen Dr	Collector	LAC
Matley Ln	E Plumb Ln	Vilanova Dr	Arterial	MAC
Mayberry Dr	California Ave	W 4th St	Arterial	MAC
McCarran Blvd	Entire Loop	Entire Loop	Arterial	HAC
Meadowood Cir	Entire Loop	Entire Loop	Arterial	MAC
Meadowood Way	S Virginia St	Kietzke Ln	Arterial	LAC
Merchant St	Commerce St	Sullivan Ln	Transit	Route
Meredith Way	Kleppe Ln	E Glendale Ave	Transit	Route
Mesa Park	W 4th St	Mae Anne Ave	Collector	LAC
Military Rd	Lemmon Dr	Echo Ave	Arterial	MAC
Mill St	Kirman Ave	S Lake St	Arterial	LAC
Mill St	S McCarran Blvd	Kirman Ave	Arterial	MAC
Mira Loma Dr	Vetrans Pkwy	Longley Ln	Collector	LAC
Moana Ln	Plumas St	Skyline Blvd	Arterial	LAC
Moana Ln	Neil Rd	Plumas St	Arterial	MAC
Mount Rose St	S Virginia St	S Arlington Ave	Arterial	LAC

Road Name	From	To	Functional	Policy
Moya Rd	Echo Ave	Red Rock Rd	Arterial	LAC
Mt Rose Hwy	Bordeaux Dr	Old US 395	Arterial	HAC
Mt Rose Hwy	Tahoe Blvd	Bodeaux Dr	Arterial	MAC
N Virginia St	N McCarran Blvd	N Virginia St	Arterial	HAC
N Virginia St	Truckee River	N McCarran Blvd	Arterial	LAC
N Virginia St	Red Rock Rd	Stead Blvd	Arterial	MAC
N Virginia St	N Virginia St	Stead Blvd	Arterial	MAC
N Virginia St	White Lake Pkwy	Village Pkwy	Arterial	MAC
N Wingfield Springs Rd	Vista Blvd	Wingfield Springs Rd	Collector	LAC
Neighborhood Way	Eagle Canyon Dr	Treasure City Dr	Arterial	MAC
Neil Ln	Neil Rd	Meadowood Mall Cir	Arterial	MAC
Neil Rd	Kietzke Ln	Gentry Way	Arterial	LAC
Neil Way	Neil Rd	Meadowood Cir	Arterial	MAC
Nichols Blvd	Howard Dr	N McCarran Blvd	Arterial	MAC
Nichols Blvd	N McCarran Blvd	E Victorian Ave	Transit	Route
Northtowne Ln	Lund Ln	N McCarran Blvd	Transit	Route
Nugget Ave	S McCarran Blvd	S Rock Blvd	Arterial	MAC
Oddie Blvd	Pyramid Hwy	Sadleir Way	Arterial	MAC
Offenhauser Dr	Gateway Dr	Portman Ave	Arterial	MAC
Old US-395	Eastlake Blvd	Mt Rose Hwy	Arterial	MAC
Orovada St	Greenbrae Dr	Silverada Blvd	Transit	Route
Parr Blvd	US395	N Virginia St	Arterial	LAC
Patriot Blvd	Portman Ave	S Virginia St	Arterial	MAC
Peckham Ln	Longley Ln	Lakeside Dr	Arterial	MAC
Pembroke Dr	Veterans Pkwy	S McCarran Blvd	Collector	LAC
Plumas St	Ridgeview Dr	California Ave	Arterial	MAC
Plumb Ln	Terminal Way	S McCarran Blvd	Arterial	MAC
Portman Ave	Offenhauser Dr	E Patriot Blvd	Arterial	MAC
Prater Way	N McCarran Blvd	Galletti Way	Arterial	LAC
Prater Way	Petes Way	N McCarran Blvd	Arterial	MAC
Prototype Dr	Double R Blvd	Gateway Dr	Arterial	LAC
Putnam Dr	N Sierra St	Washington St	Arterial	LAC
Pyramid Hwy	Calle de La Plata	Nugget Ave	Arterial	HAC
Pyramid Hwy	Winnemucca Ranch Dr	Calle de La Plata	Arterial	MAC

Road Name	From	To	Functional	Policy
Raggio Pkwy	Dandini Blvd	Dandini Blvd	Arterial	MAC
Ralston St	W 2nd St	University Ter	Collector	LAC
Red Rock Rd	Northern Terminus	US-395N	Arterial	MAC
Redfield Pkwy	Kietzke Ln	Firecreek Crossing	Arterial	MAC
Regency Way	S Virginia St	S Wells Ave	Transit	Route
Richard Springs Blvd	Lazy 5 Pkwy	Eagle Canyon Dr	Arterial	MAC
Ridgeview Dr	Lakeside Dr	Plumas St	Arterial	MAC
Rio Poco Rd	Reggie Rd	S McCarran Blvd	Collector	LAC
Rio Wrangler Pkwy	Bucephalus Pkwy	Veterans Pkwy	Arterial	MAC
Rio Wrangler Pwy	S Meadows Pkwy	Bucephalus Pkwy	Arterial	MAC
Robb Dr	I-80	Las Brisas	Arterial	MAC
Rock Blvd	Prater Way	N McCarran Blvd	Arterial	LAC
Rock Blvd	S McCarran Blvd	Prater Way	Arterial	MAC
Ryland St	Mill St	Holcomb Ave	Arterial	LAC
S Virginia St	E Plumb Ln	Truckee River	Arterial	LAC
S Virginia St	Mt Rose Hwy	Plumb Ln	Arterial	MAC
Sadleir Way	N Wells Ave	Valley Rd	Arterial	MAC
Salomon Cir	Vista Blvd	Loop Rd	Arterial	MAC
Selmi Dr	Clear Acre Ln	Sutro St	Transit	Route
Sharlands Ave	Robb Dr	Mae Anne Ave	Arterial	MAC
Sierra Center Pkwy	Maestro Dr	S Virginia St	Arterial	MAC
Sierra Highlands Dr	N McCarran Blvd	W 7th St	Collector	LAC
Sierra Rose Dr	Kietzke Ln	Talbot Ln	Arterial	MAC
Sierra St	California Ave	N Virginia St	Arterial	LAC
Silver Lake Rd	Sky Vista Pkwy	Red Rock Rd	Collector	LAC
Silverada Blvd	E 9th St	Wedekind Rd	Collector	LAC
Sinclair St	Holcomb Ave	Mill St	Collector	LAC
Sky Mountain Dr	Mistyridge Ln	S McCarran Blvd	Transit	Route
Sky Valley Dr	Summit Ridge Dr	Mistyridge Ln	Transit	Route
Sky Vista Pkwy	Lemmon Dr	Silver Lake Rd	Arterial	MAC
Sky Vista Pkwy	Silver Lake Rd	Lear Blvd	Collector	LAC

Road Name	From	To	Functional	Policy
Skyline Blvd	S McCarran Blvd	S Arlington Ave	Collector	LAC
Smithridge Dr	Meadowood Mall Cir	E Peckham Ln	Arterial	MAC
Somersett Pkwy	Del Webb Pkwy	US-40(Verdi)	Arterial	MAC
South Meadow Pkwy	Eastern Terminus	S Virginia St	Arterial	MAC
South Meadows Pkwy	Desert Way	South Meadows Pkwy	Arterial	MAC
Sparks Blvd	E Greg St	Pyramid Hwy	Arterial	MAC
State St	Holcomb Ave	S Virginia St	Arterial	MAC
Stead Blvd	N Virginia St	Echo Ave	Arterial	MAC
Steamboat Plwy	Rio Wrangler Pkwy	Damonte Ranch Pkwy	Arterial	MAC
Stoker Ave	W 4th St	W 7th St	Collector	LAC
Stonebrook Pkwy	Delores Dr	La Posada Dr	Arterial	MAC
Sullinva Ln	Oddie Blvd	El Rancho Dr	Collector	LAC
Sullivan Ln	Prater Way	Oddie Blvd	Collector	LAC
Summit Ridge Exit/On Ramp	S McCarran Blvd	Summit Ridge Rd	Transit	Route
Summit Ridge Rd	W 4th St	Summit Ridge Ct	Collector	LAC
Sun Valley Blvd	Highland Ranch Pkwy	Dandini Blvd	Arterial	MAC
Susileen Dr	Marthiam Ave	Armstrong Ln	Collector	LAC
Sutro St	Kuenzli St	Sunvilla Blvd	Arterial	MAC
Sutro St Ext	Clear Acre Ln	Sunvilla Blvd	Arterial	MAC
Talbot Ln	Sierra Rose Dr	Redfield Pkwy	Arterial	MAC
Terminal Way	Gentry Way	Mill St	Arterial	MAC
Thomas Creek Rd	Mt Rose Hwy	W Zolezzi Ln	Collector	LAC
Toll Rd	Sylvester Rd	Geiger Grade Rd	Collector	LAC
University Terrace	N Sierra St	Vine St	Collector	LAC
US Hwy 40 (Verdi)	I-80	Bridge St	Artieral	MAC
Valley Rd	W 4th St	Enterprise Rd	Arterial	MAC

Road Name	From	To	Functional	Policy
Vassar St	Kietzke Ln	S Virginia St	Arterial	LAC
Vassar St	Terminal Way	Kietzke Ln	Arterial	MAC
Veterans Pkwy	S Meadows Pkwy	E Greg St	Arterial	HAC
Veterans Pkwy	Geiger Grade Rd	S Meadows Pkwy	Arterial	HAC
Victorian Ave	N McCarran Blvd	Prater Way	Arterial	LAC
Village Pkwy	Village Center Dr	US-395	Arterial	MAC
Villanova Dr	Terminal Way	Matley Ln	Arterial	LAC
Villanova Dr	Matley Ln	Harvard Way	Collector	LAC
Vine St	W 2nd St	University Ter	Collector	LAC
Vista Blvd	I-80	Wingfield Hill Rd	Arterial	MAC
Vista Blvd	Hubble Dr	Wingfield Hills Rd	Collector	LAC
Vista Knoll Pkwy	Lemmon Dr	Sky Vista Pkwy	Collector	LAC
W Huffacker Ln	S Virginia St	Meadow VIsta Dr	Collector	LAC
Washington St	W 2nd St	Putnam Dr	Collector	LAC
Wedekind Rd	Farr Ln	Sutro St	Collector	LAC
Wedge Pkwy	Mt Rose Hwy	Arrowcreek Pkwy	Arterial	MAC
Wells Ave	S Virginia St	Ryland St	Arterial	LAC
Wells Ave	Ryland St	Sadleir Way	Arterial	MAC
West St	W 4th St	W 6th St	Arterial	MAC
White Lake Pkwy	US395	Village Pkwy	Arterial	MAC
Windmill Farms Blvd	Kiley Pkwy	Western Terminus	Arterial	MAC
Wingfield Hills Rd	Vista Blvd	Rolling Meadows Dr	Arterial	MAC
Wingfield Hills Rd (Planned)	Lazy 5 Pkwy (Planned)	Rolling Meadows Dr	Arterial	MAC
Wingfield Springs Rd	N Wingfield Pkwy Trail	Calle de Oro Pkwy	Collector	LAC
York Way	N McCarran Blvd	N Rock Blvd	Collector	LAC
Yuma Ln	Hunter Lake Dr	Armstrong Ln	Collector	LAC
Zolezzi Ln	Arrowcreek Pkwy	Thomas Creek Rd	Collector	LAC
Wingfield Springs Rd	N Wingfield Pkwy Trail	Calle de Oro Pkwy	Collector	LAC
Wingfriield Hills Rd	Vista Blvd	Rolling Meadows Dr	Arterial	MAC

Road Name	From	To	Functional	Policy
Wingfield Hills Rd (Planned)	Lazy 5 Pkwy (Planned)	Rolling Meadows Dr	Arterial	MAC
Wrondel Way	E Grove St	Apple St	Transit	Route
York Way	N McCarran Blvd	N Rock Blvd	Collector	LAC
Yuma Ln	Hunter Lake Dr	Armstrong Ln	Collector	LAC
Zolezzi Ln	Arrowcreek Pkwy	Thomas Creek Rd	Collector	LAC

Industrial

Road Name	From	To
15th St	Hymer Ave	Glendale Ave
18th St	Glendale Ave	Crane Way
18th St	Glendale Ave	Hymer Ave
19th St	Pittman Ave	Pacific Ave
21th St	Greg St	Pacific Ave
5th St	Eastern Terminus	Ferrar St
5th St	Morrill Ave	Wells Ave
Aircenter Cir	Longley Ln	Longley Ln
Airmotive Way	Terminal Way	Villanova Dr
Alexander Lake Rd	Veterans Pkwy	Spring Dr
Ampere Dr	Eastern Terminus	Rock Blvd
Ampere Dr	Western Terminus	Edison Way
Asti Ln	Bennie Ln	Ferrari McLeod Blvd
Automotive Way	Market St	Kietzke Ln
Barron Way	Reno Corporate Dr	Louie Ln
Bennie Ln	Gardell Ave	Parr Blvd
Bergin Way	Kresge Ln	Northern Terminus
Bible Way	Mill St	Vassar St
Boxington Way	Lincoln Way	Lillard Dr
Bravo Ave	Mt Lola St	Ramsey Way
Bravo Ave	Mt Bismark St	Mt McClellan St
Brierley Way	Vista Blvd	Lillard Dr
Brookside Ct	Eastern Terminus	Rock Blvd
Capital Ct	Eastern Terminus	Capital Blvd
Catron Dr	Parr Cir	Parr Blvd
Centry Way	Western Terminus	Gentry Way
Circuit Ct	Southern Terminus	Isidor Ct

Road Name	From	To
Cleanwater Way	Eastern Terminus	McCarran Blvd
Cola Ct	Western Terminus	Vista Blvd
Coliseum Way	Peckham Ln	Moana Ln
Commerical Row	Lake St	Center St
Commerical Row	Virginia St	West St
Condor Way	Western Terminus	Airmotive Way
Coney Island Dr	Standford Way	Marietta Way
Corsair St	Aircenter Cir	Longley Ln
Crane Way	Eastern Terminus	18th St
Crummer Ln	Virginia St	US395
Delucchi Ln	Home Gardens Dr	S Virginia St
Deming Way	Northern Terminus	Spice Islands Dr
Deming Way	Southern Terminus	Glendale Ave
Depaoli St	5th St	Tacchino St
Dermody Way	Northern Terminus	Glendale Ave
Dickerson Rd	Western Terminus	Chisim St
Digital Ct	Southern Terminus	Ingenuity Ave
Distribution Dr	Calle de la Plata Dr	Isidor Ct
Double Eagle Ct	Western Terminus	Gateway Dr
Dunn Cir	Northern Terminus	Glendale Ave
Dunn Cir	Watson Way	Dunn Cir
E Commercial Row	Western Terminus	Sutro St
E Commerical Row	Center St	US395
E Nugget Ave	Southern Terminus	Nugget Ave
Echo Ct	Northern Terminus	Echo Ave
Equity Ave	McCarran Blvd	Financial Blvd
Ferrar McLeod Blvd	Gardella Ave	Parr Blvd
Ferrari St	4th St	4th St
Financial Blvd	Equity Ave	Capital Blvd
Franklin Way	Spice Islands Dr	Greg St
Frazer Ave	Rock Blvd	21st St
Freeport Blvd	Steneri Way	Rock Blvd
Freeport Blvd	Rock Blvd	21st St
Gentry Way	Virginia St	Brinkby Ave
Glen Carron Cir	Entire Loop	Entire Loop
Gould St	Mills St	2nd St
Green Acres Dr	Western Terminus	Virginia St
Greg Pkwy	Industrial Way	Greg St

Road Name	From	To
Greg Pkwy	Industrial Way	Greg St
Hammill Ln	Eastern Terminus	Kietzke Ln
Hawco Ct	Eastern Terminus	Ingenuity Ave
Huffaker Pl	Western Terminus	Virginia St
Hulda Ct	Hulda Way	Eastern Terminus
Hulda Way	Northern Terminus	Greg St
Hymer Ave	Eastern Terminus	21st St
Icehouse Ave	Western Terminus	Eastern Terminus
Industrial Way	Greg Pkwy	Gret St
Industry Cir	Echo Ave	Echo Ave
Ingenuity Ave	Western Terminus	Pyramid Hwy
Innovation Dr	Longley Ln	Double R Blvd
Internation Pl	Glendale Ave	Icehouse Ave
Inventors Pl	Western Terminus	Isidor Ct
Isidor Ct	Academy Way	Calle de la Plata Dr
Joule St	Edison Way	Rock Blvd
Kleppi Ln	Greg St	Greg St
Kresge Ln	Watson Way	McCarran Blvd
Kuenzli St	Sunshine Ln	Kietzke Ln
Larkin Cir	Eastern Terminus	Greg St
Lear Blvd	Eastern Terminus	Military Rd
Lewis St	Kietzke Ln	Maine St
Lewis St	Golden Ln	Kietzke Ln
Lillard Dr	Southern Terminus	Lincoln Dr
Linda Way	Coney Island Dr	Glendale Ave
Linden St	Harvard Way	Kietzke Ln
Louie Ln	Longley Ln	Airway Dr
Louise St	Mill St	Market St
Madison Ave	Larkin Cir	Larkin Cir
Manuel St	2nd St	Kuenzli St
Marietta Way	Sourthern Terminus	Greg St
Market St	Villanova Dr	Kietzke Ln
Matley Ln	Mill St	Vassar St
Montello St	Southern Terminus	6th St
Newport Ln	Newport Ln	Ranger Rd
Ohm Pl	Ampere Dr	Mill St
Ormand Ct	Eastern Terminus	Giroux St
Overmyer Rd	Bergin Way	Watson Way

Road Name	From	To
Pacifica Ave	19th St	21st St
Packer Way	Southern Terminus	Glendale Ave
Panther Dr	Business 395	Western Rd
Parr Cir	Parr Blvd	Parr Blvd
Pittman Ave	15th St	18th St
Plaza St	Lake St	Virginia St
Plumas St	Southern Terminus	Ridgeview Dr
Production Dr	Northern Terminus	Resource Dr
Prosperity St	Golden Ln	Kietzke Ln
Prototype Ct	Eastern Terminus	Gateway Dr
Purina Way	Greg St	Spice Islands Dr
Quail Manor	Southern Terminus	Airway Dr
Reactor Way	Northern Terminus	Rock Blvd
Reactor Way	Southern Terminus	Energy Way
Redwood Pl	Mill St	Market St
Reno Corporate Dr	Double R Blvd	Barron Way
Resource Dr	Production Dr	Moya Blvd
Sage Point Ct	Lear Blvd	Northern Terminus
Sandhill Rd	Double Diamond Pkwy	Double R Blvd
Security Cir	Virginia St	Virginia St
Shaber Ave	15th St	18th St
Snider Way	Standford Way	Steneri Way
Southern Way	Freeport Blvd	Greg St
Spice Islands Ct	Western Terminus	Spice Islands Dr
Spice Islands Dr	Greg St	Greg St
Spitfire Ct	Eastern Terminus	Turbo Cir
Stanford Way	Northern Terminus	McCarran Blvd
Stanford Way	Southern Terminus	Nugget Ave
Steen Dr	Harvard Way	Kietzke Ln
Steneri Way	Glendale Ave	Freeport Blvd
Sugar Pine Ct	Western Terminus	Woodland Ave
Sunshine Ln	Glendale Ave	Mill St
Sunshine Ln	Northern Terminus	2nd St
Tacchino St	4th St	Depaoli St
Tampa St	Northern Terminus	Timber Way
Technology Way	Double Diamond Pkwy	Double R Blvd
Telegraph St	Vassar St	Greg St
Terabyte Ct	Eastern Terminus	Double Diamond Pkwy

Road Name	From	To
Terabyte Dr	Double Diamond Pkwy	Terabyte Ct
Timber Way	Valley Rd	Sutro St
Trademwark Dr	Eastern Terminus	Double R Blvd
Turbo Cir	Aircenter Cir	Aircenter Cir
United Cir	Spice Islands Dr	Spice Islands Dr
Vassar St	Telegraph St	Terminal Way
Wall St	Financial Blvd	Corporate Blvd
Watson Way	Kresge Ln	Dunn Cir
White Flr	Eastern Terminus	River Front Dr
Wild Island Ct	Sourthern Terminus	Lincoln Way
Wolverine Way	Stanford Way	Glendale Ave
Woodland Ave	Sugar Pine Ct	4th St
Yale Way	Market St	Harvard Way
Yori Ave	Moana Ln	Gentry Way
Wolverine Way	Stanford Way	Glendale Ave
Woodland Ave	Sugar Pine Ct	4th St

APPENDIX E – TECHNICAL DOCUMENTATION FOR THE POPULATION/ EMPLOYMENT & TRAVEL DEMAND MODELS & LEVEL OF SERVICE STANDARDS

The regional travel demand model is an essential tool for long-range planning, engineering, and public transportation operations. The model projects future travel demand and conditions on regional roads, which is essential data for scenario studies and policy analysis. The RTC TransCAD activity-based travel demand model incorporates demographic data from the 2010 U.S. Census, 2015 American Community Survey, 2015 Washoe County Travel Characteristics Survey, and 2020 Washoe County Consensus Forecasts for population and employment developed by the TMRPA.

POPULATION & EMPLOYMENT MODEL

TMRPA developed the population and employment forecasts used in the regional travel demand model in partnership with RTC, NDOT, Washoe County, Reno, and Sparks. TMRPA developed an allocation -based model to visually display a variety of population growth scenarios. The Washoe County Consensus Forecasts were developed in 2020 and establish the long range total population projections for Reno, Sparks, and unincorporated Washoe County. Full documentation of the Consensus Forecasts is available on the TMRPA website at https://www -ConsensusForecastFINAL.pdf.

The geographic distribution of future population and employment growth was based on issues such as approved building permits, existing land use, zoning, topography, existing and planned infrastructure, and public services. Historical growth trends and the Regional Plan Land Use Tier policies that seek to direct future growth to the urban center were incorporated. Land use forecasts in the travel demand model were developed based on the Consensus Forecast distribution. Table E-1 shows the total numbers of households, population, and employment in the travel demand model.

Table E-1.
2020 Consensus Forecast Totals

Model Year	2020	2025	2030	2040	2050
Households	187,558	199,384	209,470	224,738	238,244
Population	473,721	504,914	528,136	565,931	599,684
Employment	291,431	307,510	325,913	360,562	392,228

TRAVEL DEMAND MODEL

The RTC travel demand model uses the tour-based or activity-based travel demand modeling (ABM) approach, which provides better model reliability. In contrast to the traditional, aggregated, and 4-step modeling procedures developed beginning in the 1950s Urban Transportation Planning Package, the ABM focuses primarily on trip behaviors and travel patterns of disaggregated individuals.

T ABM incorporates sub-procedures such as choice of travel time of day, destination and mode selection of travel, and choice of activity patterns. Those sub-procedures are based on individual travel characteristics. As a result, this modeling tool provides better

This travel demand model requires a wide variety of data inputs. The major data categories that fed the construction of the model are shown in Table E-2.

Table E-2.
Major Input Data Descriptions for the Travel Demand Model Conversion/Upgrade Project

Data No.	Input Data Description	Main Data Source/Provider
1	Household travel survey data for 2015	RTC Planning Department
2	Area road network coding data for 2015, 2020, 2025, 2030, 2040, and 2050	RTC Planning Department
3	Land use/socio-economic data for 2015, 2020, 2025, 2030, 2040, and 2050	TMRPA
4	2015 Washoe County transportation profiles	Census data
5	District/TAZ group information	RTC Planning Department
6	Transit network and operations statistics	RTC Public Transportation Department
7	Transit ridership data (numbers of passengers boarding/alighting per stop, bus stop locations)	RTC Public Transportation Department
8	Truck field count data	Nevada Department of Transportation
9	Traffic field count data, location list (2015)	Nevada Department of Transportation
10	Maps of Regional Plan land use tiers	TMRPA
11	Regional road information	RTC Engineering Department
12	Student, faculty, and employee information (origin-destination information) from UNR and TMCC	UNR, TMCC
13	Special events, Ball Park game day, time, and patron origin information	EDAWN, Aces Ball park
14	Air passenger future demands (Reno-Tahoe & Reno-Stead)	Reno-Tahoe Airport Authority
15	Area type base map for area type road classification	RTC Planning Department
16	School bus schedule	Washoe County School District
17	Truck road (industrial dedicated road) map & data	City of Reno, City of Sparks, Washoe County

For data item No. 1 in Table E-2, RTC provided the latest, comprehensive and area-wide transportation survey, which was conducted in 2015. The Washoe County Travel Characteristics Study consists of four sub-surveys: Household Travel Survey, Transit On-board Survey, Visitor Travel Survey, and External Station Study. The survey data was utilized as major input data for development of parameters and

estimations. In the model development process, the model was calibrated with the 2015 base year. The R

TP: 2020, 2025, 2030, 2040, and 2050.

TMRPA provided land use and socio-economic data. The agency developed a socio-economic and land use forecasting model to allocate the Consensus Forecast population and employment totals by jurisdiction to

shown below. TMRPA also provided future estimates for the socio-economic data. These socio-economic data include:

- Number of households within the T
- Number of people (not living in group quarters) within the TAZ
- Number of people living in group quarters within the TAZ during the
- Number of households by size in the TAZ for the model year.
- Numbers of people in age groups 0 to 19, 20 to 54, and 55 and older living within the TAZ during
- Number of students enrolled in elementary school and middle school within the TAZ during the
- Number of students enrolled in high school within the TAZ during
- Number of students enrolled in college (UNR and TMCC) within the T
- Numbers of households with income in the low range (less than or equal to $35,000), medium range ($35,000 to $75,000), and high range (greater than $75,000) within the TAZ
- Number of employees within the T , in categories of:

  - Agriculture, Mining, and Construction
  - Manufacturing, Transportation, Communications, Utilities, and Wholesale
  - Retail

-

- Gaming

- Other

RTC included a truck travel demand sub-model in the main model to better understand the freight movement in and out of the region. NDOT collected, processed and summarized daily truck data from the Highway Performance Measurement System. It was combined with truck-dedicated road networks from the City of Reno, City of Sparks, and Washoe County, yielding a well-performing truck travel sub-model.

TC, TMRPA, and NDOT validated the model outputs. The model output was utilized for the input data for Motor Vehicle Emission Simulator (MOVES), the air quality conformity analysis modeling tool developed by the U.S. Environmental Protection Agency and used by the Washoe County Health District - Air Quality Management District.

Level of Service

Level of service (LOS) is a term commonly used to measure the operational , generally in terms of speed and travel time, freedom to maneuver
by the letters A to F; with A The qualitative description of the conditions that correspond to each level of service is shown in Table E-3.

Table E-3.
Level of Service Definitions

LOS	
A	Free flow; individual users are virtually unaffected by the presence of others in the traffic stream
B	Reasonably free flow; the presence of other users in the traffic stream begins to be noticeable
C	Stable flow; each user is significantly affected by the presence of others
D	Approaching unstable flow; users experience poor level of comfort and convenience

E	Unstable flow; users experience decreasing speed and increasing traffic
F	Forced or breakdown flow; users experience frequent slowing and vehicles move in lockstep with the vehicle in front of it

The level of service standards used for assessing the need for street and highway improvements at a planning level are shown in Table E-4. These are the

will be based on more detailed operational analysis.

Table E-4.
Adopted Level of Service Standards

Regional Level of Service Standards	
LOS	
D	• All regional roadway facilities projected to carry less than 27,000 ADT at the latest RTP horizon
E	• All regional roadway facilities projected to carry 27,000 or more ADT at the latest RTP horizon
F	• 4th St/Prater Way – Evans Avenue to 15th St • Plumas St – Plumb Ln to California Ave • Rock Blvd – Glendale Ave to Victorian Ave • Virginia St – Kietzke Ln to S McCarran Blvd • Virginia St – Plumb Ln to Liberty St & 8th St to 17th St • Sun Valley Blvd – 2nd Ave to 5th Ave • Intersection of N Virginia St and Interstate 80 ramps
Except as noted above, all intersections shall be designed to provide a level of service consistent with maintaining the policy level of service of the intersecting corridors.	

TransCAD allows the R
on the region's roadways. The current method of establishing the level of service
e capacity of the
road (V/C). This methodology is widely accepted in the industry as a more accurate method of calculating level of service. Table E-5 shows LOS based on V/C.

Table E-5.
Level of Service by Volume to Capacity

LOS	V/C
A	0.00 to 0.60
B	0.61 to 0.70
C	0.71 to 0.80
D	0.81 to 0.90
E	0.91 to 1.00
F	Greater than 1.00

INRIX is a web-based data product that allows agencies to support operations, planning, analysis, research, and performance measures generation using probe data mixed with other agency transportation data. The suite consists of a collection of data visualization and retrieval tools. These web-based tools allow users to download reports, visualize data on maps or in other interactive graphics, and even download

poses. Among many other uses, INRIX can provide insight on:

- Real-Time Speed Data
- Travel Time Index
- Travel Time Reliability Metrics
- Queue Measurements
- Bottleneck Ranking
- with the public or decision-makers

INRIX is utilized to analyze congestions in the RTP process. Using the archive of reported speed readings, the average speed, 95th percentile speed, and total number of readings are aggregated for each road segment. These values are broken down per month, day of week, and hour of the day to calculate various performance measures.

APPENDIX F – REVENUE ASSUMPTIONS

As part of the development of the 2050 Regional Transportation Plan, federal

projects not exceed the total revenues reasonably expected to be available to the Washoe County Region over the life of the plan. This document outlines the assumptions used to project these revenues for the Washoe County Region through the year 2050.

Under rules and direction from FHWA and FT
RTP must be shown in YOE dollars. Converting all costs and revenues to YOE

associated with long-range transportation plans.

ASSUMPTIONS

This document describes the assumptions the Regional Transportation Commission of Washoe County adopted to meet the regulatory requirements as it concerns federal, state, regional and local funding sources and the distribution and use of revenue expected from these sources.

Once the assumptions were determined, an estimate of how much revenue was 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 was developed.

especially in this time of uncertainty; when developing these projections RTC examined and relied on historical growth trends of current revenue sources attributable to the Reno-Sparks urban area. RTC also considered current

decisions about what is expected to occur in this region over the next thirty years. Using these indicators as a base; it seems reasonable to assume that there will be increases in all revenue sources over this plan period and that the program of projects adopted will not exceed these reasonable foreseeable future revenues. Since these plans are reviewed every three to four years, timely adjustments can be addressed when and as needed.

These assumptions were developed with input and collaboration from many parties including the FHWA, the FTA, NDOT, and Nevada MPOs.

FUNDING SOURCES

The Reno-Sparks Regional Financial Plan includes multiple funding sources. The timing of this plan happens to coincide with the beginning of a new Presidential administration, and there is a degree of uncertainty regarding the types of transportation programs as well as associated funding that will continue under the current administration. There continues to be concern about maintaining the current revenue streams at the federal and state levels. Money that funds the Federal Highway trust fund (includes Highway Account and the Mass Transit Account) primarily comes from gas tax which has not been increased since 1993. Fuel consumption is declining

vehicles. In Washoe County, the fuel tax is dedicated by law for street and highway purposes. It was indexed

approval and the enactment of Senate Bill 201.Conversely, the primary source of revenue for transit is the local sales

the economy.

Initiatives having the biggest impact on the revenue assumptions are in three critical categories; a future surface transportation bill, fuel indexing, and the RRIF program.

The FAST Act

The FAST Act was set to expire in September 2020, but has been

year 2021 through a continuing resolution (CR) authorized by Congress. The FAST Act authorized

through 2020 for highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs. Talks of a comprehensive funding package has been on-going for the last few years. While a consensus

some short-term funding methods have been implemented beyond the FAST Act. It is expected that a long-term solution will be passed in 2021 to maintain current funding levels. Any changes in programs or funding levels provided in the next reauthorization legislation will be incorporated into

next major plan update in four years.

At the federal level, there is a

This coupled with recent changes, in the regulatory framework means that RTC must use local resources more sparingly.
the most current data available at the time these revenue assumptions were prepared.

Revenue projections for federal transportation programs were made based on the structure of federally

FAST Act. The base year for revenue projections in this document is FY 2020. The FAST Act provided for an annual increase of approximately 2% per year across the board for all

life of the bill; that same increase is assumed over the next 30 years.

Indexing

A strong revenue component of the plan is that local fuel tax rates have

Bill 201 (indexing of local, State and Federal fuel taxes) was approved by the Legislature in June 2009. The Street and Highway program received a substantial revenue boost from this initiative. The purpose is to recapture the lost purchasing power on the federal and state fuel taxes being paid in Washoe County by indexing the federal and state taxes on gas, alternative fuels and diesel. Collections of the producer price indexed (PPI) fuel taxes began on January 1, 2010. The R
in March 2010. It has also allowed

programming capital improvements and maintenance activities by easing

RRIF

Beginning in 1995, RRIFs have been levied on all new development to capture the costs of capacity consumed

Road System. Since the adoption of the previous plan, development has continued to steadily increase, and the RRIF program is anticipated to alleviate a portion of the cost of necessary transportation infrastructure improvements to support that development.

FINANCIAL ASSUMPTIONS – REVENUE SOURCES

Revenue sources relevant to this section are those received from the federal government; received from the State of Nevada; those generated by Regional and Local fuel and sales tax; and other revenue sources related to both the street and highway and the public transportation programs.

Street and Highway Revenue

Federal Funding Sources

As previously stated, through the recently expired FAST Act, core federal programs including the NHPP, STBG, HSIP, CMAQ and the Transportation Alternatives Set-Aside program are assumed to grow at a rate of 2% annually. The RTC of Washoe County is projected to receive a proportionate share of the amount allocated to Nevada based on taxable gallons of gasoline/gasohol fuel sold. Based on population, Washoe County's percentage is assumed at 15.2%.

State Highway Fund Revenue

Projections for future state contributions were based on historic data and forecast trends. R
NDOT
of this plan to review the assumptions included in this document. Based on this and earlier discussion with NDOT

diesel tax (see fuel tax section) all state revenue are also assumed to grow at a rate of 2% annually. The principal sources of state transportation funding are:

- Gas Taxes
- Special Fuel (Diesel) Taxes
- Vehicle Registration Fees
- Motor Carrier Fees
- Driver's License Fees
- SBS Petroleum Cleanup Funds

Fuel Tax (Local, State and Indexed)

Per NRS, this revenue source must be used exclusively for street and highway projects. The indexed portion of this revenue source was approved by Washoe County voters in November 2008. Key assumptions used to forecast local gas and state gas tax (including diesel) are as follows:

- Continued adjustments to gas tax to recapture buying power lost

  change in CPI of 3%.
- Gasoline use will increase proportionate to population growth based on Washoe County consensus forecast.
- Per Capita consumption of gas changes at a rate consistent with a combination of the SAFE Average Fuel Economy (SAFE) standard and the Corporate Average Fuel Economy (CAFÉ) standard over the 30 year period.

- Vehicle turnover rate is projected at .055. The rate used accounts for baby boomers retiring and downsizing of vehicles per household.

Sales and Use Tax

- 1/8% dedicated to either Roads or Transit as approved by voters in 2002. By policy, the RTC Board has authorized a proportional split between Roads and Transit based on program budget need.
- Based on historic trends, revenue is expected to grow at an annual rate of 3% for the base year of 2020.

Public Transportation Revenue

Federal Funding Sources

FTA Urbanized Area Formula Program (5307)

As previously mentioned, with the FAST Act extension, some short-term funding methods were implemented and it is expected that a long-term solution will be put in place to maintain current funding levels. Some program but the basic structure is expected to be maintained. The FTA provides these funds to urban areas to support public transportation planning, capital and operating projects. These funds are projected to grow at a rate of 2% annually. For this plan, it is assumed that 70% of these funds will be used for operating assistance and 30% for capital assistance.

FTA Bus and Bus Facilities Program (5339)

Under the FAST Act, these funds were put in place to replace, rehabilitate and purchase buses, vans and related equipment, and to construct bus-related facilities. Funding was provided through formula allocations and competitive grants. Under the FAST Act, two discretionary components were added to this program: A bus and bus facilities competitive program based on asset age and condition, and a low or no emissions bus deployment program. This program is assumed to continue as structured under the FAST Act. These funds are projected to grow at a rate of 2% annually.

CMAQ

CMAQ funds can only be used for projects that reduce, delay or make regional air quality. These funds can be used for both capital and operating assistance and for both street and highway and transit projects. These funds are projected to grow at a rate of 2% annually.

transit and road program based on the projects that support the purpose of this funding category requirement.

State Revenue

All current funding for public transportation is generated at the federal, regional and local levels with a very small amount from state resources.

Regional Revenue

Sales and Use Tax

- 1/4% dedicated to Public Transportation as approved by voters in 1982.
- 1/8% dedicated to either Roads or Transit as approved by voters in 2002. By policy, the RTC Board has authorized a proportional split between Roads and Transit program based on budget need.
- Based on historic trends, revenue is expected to grow at an annual rate of 3% for the base year of 2020.

Passenger Fares

- Fares will be continually evaluated based on current performance levels before implementing a new fare.
- This plan includes a slight increase in Fare Revenue annually based on a projected increase in ridership.

Other Revenue Sources

- Other revenue sources include bus advertising revenue; which is

  active coaches with a 2.1% annual growth rate.
- Other revenue sources also include rental income.

APPENDIX G – DOWNTOWN RENO CIRCULATION STUDY

Introduction

An evaluation of the Downtown Reno area was conducted in conjunction with the 2050 Regional Transportation Plan (RTP). The purpose of the Study is to:

- Address transportation safety, operations, and mobility needs in Downtown Reno.
- Support a vibrant Downtown through transportation investments.
- Connect surrounding neighborhoods and the University of Nevada, Reno, to Downtown.
- Identify potential projects to consider in the 2050 RTP.

The study area extends from Keystone Avenue in the west to Wells Avenue in the east and from Liberty Street in the south to University Terrace/9th Street in the north.

This analysis was conducted as part of the RTP at the request of the City of Reno.

COMMUNITY ENGAGEMENT

TC collaborated to analyze a series of transportation alternatives. These options were presented to the public and stakeholders through a virtual workshop. The workshop included a video presentation and provided an opportunity for individuals to submit comments about the alternatives as well as other suggestions or ideas. The virtual meeting was available from November 13 through December 11, 2020. Presentations of the concept were also made to the Downtown Reno Partnership. The concepts for Downtown were presented to the Reno City Council on January 27, 2021 as part of the larger 2050 RTP.

Downtown Reno Action Plan

The 2017 Downtown Circulation Study builds on the work completed previously by the City of Reno in the Downtown Reno Action Plan. The core values of this plan support a Downtown that is:

- Prosperous
- Safe & Clean
- Connected
- Vibrant
- Livable

For transportation, the Action Plan calls for improving walking, biking, and transit options to UNR, the Truckee River, close in neighborhoods,

transportation recommendations in the Action Plan are listed below.

- Bike lanes on Evans Street from 2nd Street to UNR (completed).
- Bike lanes on Arlington Avenue from W. 1st Street to the I-80 pedestrian bridge (completed).
- Bike lanes on Washington Street from Riverside Drive beyond I-80 up to San Rafael Park (the Downtown Circulation Study recommends Vine Street, due to the signalized intersection at 4th Street that improves crossing safety).
- Bike lanes on 4th Street (the Downtown Circulation Study recommends 3rd Street for a protected bike facility due to lower
- Bike lanes on 5th Street from Keystone Avenue to Evans Avenue (recommended in the Downtown Circulation Study).
- Bike lanes on Liberty Street from Arlington to Holcomb Avenue.
- A major consideration for Sierra Street in the long term is to reduce it from 3 lanes to 2 lanes with the remaining space dedicated to pedestrians and bicycles.

Planned Development

RTC collaborated with the City of Reno and Truckee Meadows Regional Planning Agency to identify potential new development in the Downtown area that could increase population and employment. This information was included in the RTC travel demand model to estimate a build-out scenario and ensure adequate transportation capacity is provided for long-term growth.

Safety

Using crash data provided by the Nevada Department of Transportation for the years 2015-2017, R
high crash corridors throughout the region.

The analysis considered crash rate, crash severity, and crash frequency. Several roads in the Downtown Reno

corridors:

- W 2nd Street
- W 4th Street
- W 5th Street
- E 6th Street
- Center Street
- Sierra Street
- Arlington Avenue
- Virginia Street
- Lake Street

The majority of these roadways

contributes to high travel speeds. The Downtown area also has high levels of pedestrian activity, with minimal separation from the roadway in many locations. High travel speeds are a leading cause of the crashes in Downtown. Speed increases the severity of crashes, particularly crashes that involve pedestrians and bicyclists. The lack of designated space for active transportation modes increases

Traffic Analysis

interconnected grid street network that provides multiple access points and travel options. The primary barriers to accessing downtown are I-80 and the Truckee River. Based on existing

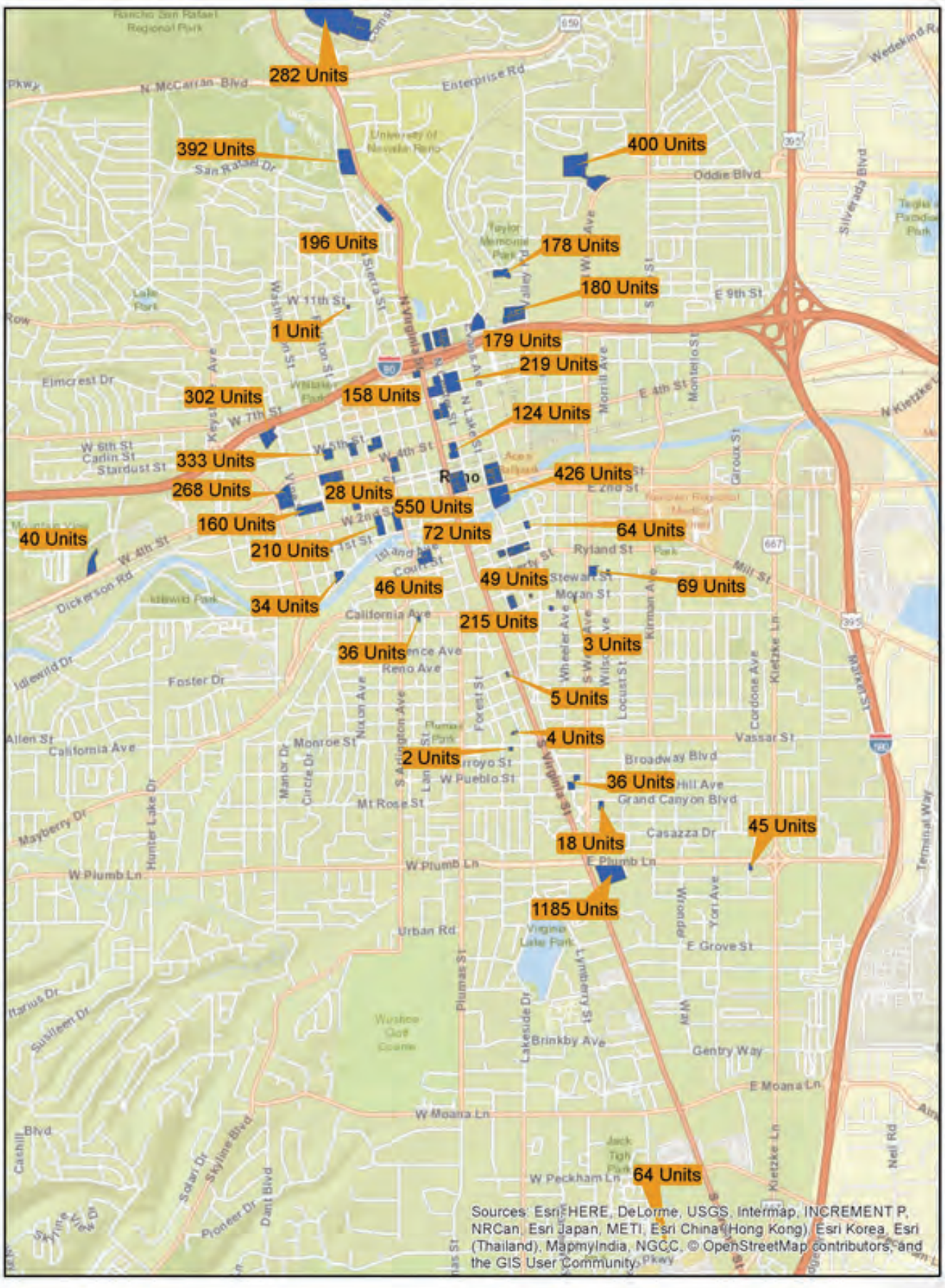
consultation with the City of Reno, the primary corridors for auto access

Street, and 2nd Street. Center Street and Liberty Street from Holcomb Avenue to Arlington Avenue are also important for vehicular movement to

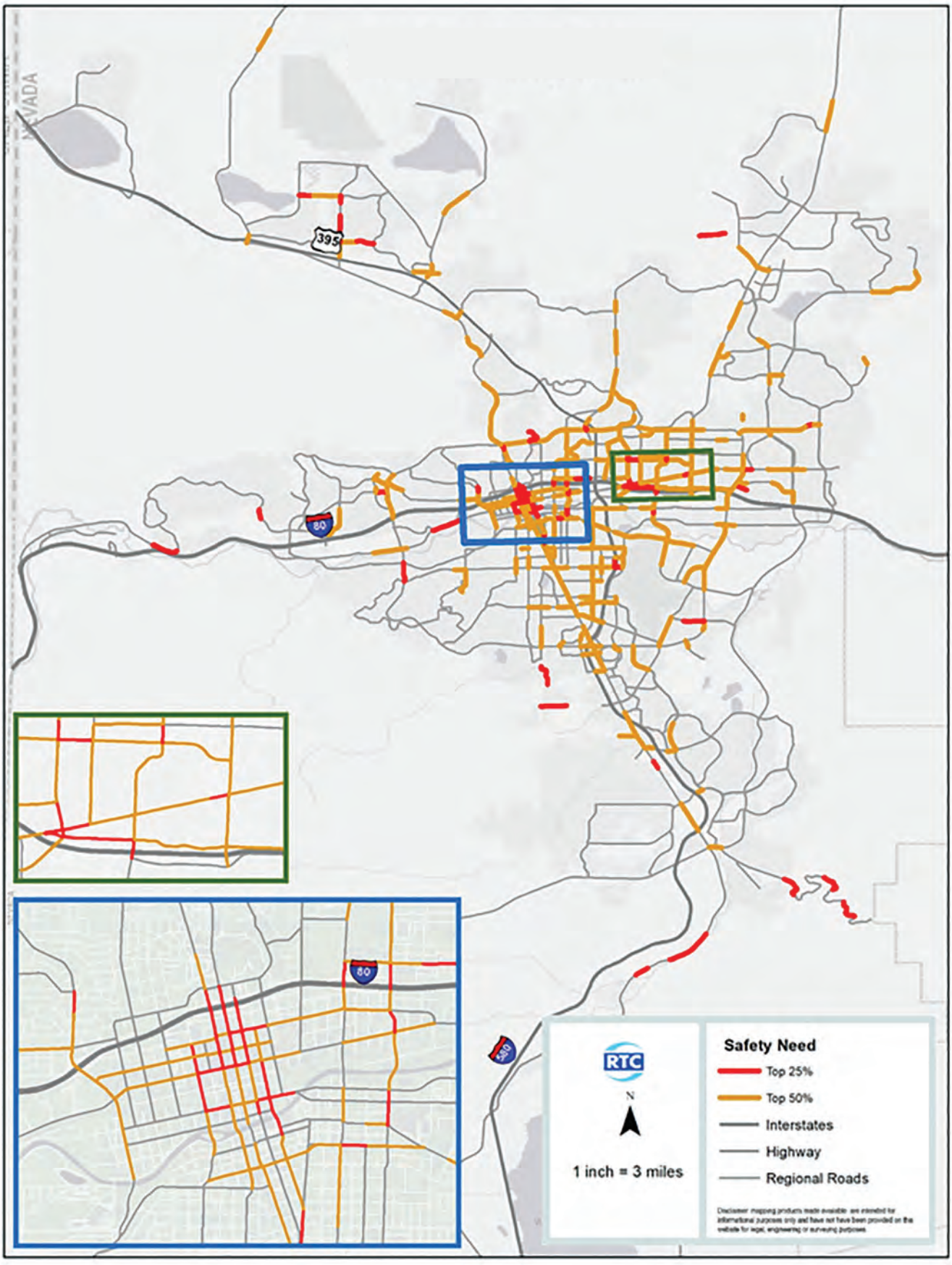
volumes on several corridors are very low, resulting in high travel speeds that contribute to pedestrian and bicycle-involved crashes. Even under build-out scenarios, the majority of downtown

are below the capacity of the roadways.

MAP OF ANTICIPATED FUTURE DEVELOPMENT



MAP OF REGIONAL SAFETY CONCERNS



The recommended scenario includes converting some streets with two lanes in each direction into streets with one lane in each direction with a center turn lane and bike lanes.

results in motorists travelling closer to the posted speed limit. The addition of bike lanes provides a separate space for cyclists and improves sight distance and intersections. A summary table is provided below:

Street	2019 ADT	Build-Out ADT with Recommended Alternative	Roadway Capacity (ADT)
W 4th Street	12,200	21,154	35,200
W 5th Street	5,600	6,983	13,400
E 6th Street	7,200	9,458	13,400
Vine Street	2,000	2,904	13,400
Sierra Street	10,200	10,187	20,900
Virginia Street	8,900	13,096	13,400
Center Street	9,750	12,188	13,400

Transit Improvements

R
Virginia Line and Lincoln Line bus rapid transit (BRT) corridors. Most routes connect at 4TH STREET STATION, the transfer terminal located at 4th Street and Evans Avenue. R

Route	Primary Downtown Street	Ridership (2020)	Passengers per Service Hour
3	W 4th St	14,757	26.7
4	W 5th St	11,037	19.8
5	E 4th St/Sutro St	22,504	19.9
6	W 4th St/ Arlington Ave	7,718	14.9
7	W 4th St/Sierra St	30,847	19.3
16	W 2nd St/4th St/ Sutro St	4,825	14.6
Lincoln Line/11	E. 4th St	58,576	25.6
Virginia Line/1	Virginia St	103,222	26.9

West 4th Street

RTC has initiated the design of multimodal improvements to the West 4th Street corridor from Evans Avenue to Stoker Avenue. This project will be designed to improve safety, particularly for pedestrian crossings and at intersections. It is anticipated that the four existing travel lanes will be maintained.

ADA-compliant sidewalk connectivity be provided around existing transit stops.

an improved aesthetic that would be compatible with the neon theme of West 4th Street.

RTC has included extension of the Lincoln Line Bus RAPID Transit (BRT) service along West 4th Street to Stoker Avenue in the 2050 unfunded transit vision. Extension of this premier transit service with 10-minute frequencies will support increased density and redevelopment along West 4th Street and surrounding corridors. The Lincoln Line Extension would further expand access to employment and higher education opportunities, as well as regional access to the many other Downtown destinations. It would include a roundabout at Stoker Avenue that would serve as the route terminus.

Sidewalk & Crosswalk Improvements

While sidewalks are present along most streets in Downtown, many are in a deteriorated condition or have ADA

This study recommends spot improvements to enhance crosswalks and accessibility throughout Downtown, in addition to major corridor reconstruction in the West 4th Street corridor. Potential improvements for crosswalks include sidewalk bulb-outs, center median pedestrian refuges, ADA accessible pedestrian crossing buttons, and lighting.

Roadway and Bicycle Infrastructure Improvements

Safe and convenient bicycle connectivity is an important component of linking Downtown to the University and surrounding neighborhoods. This

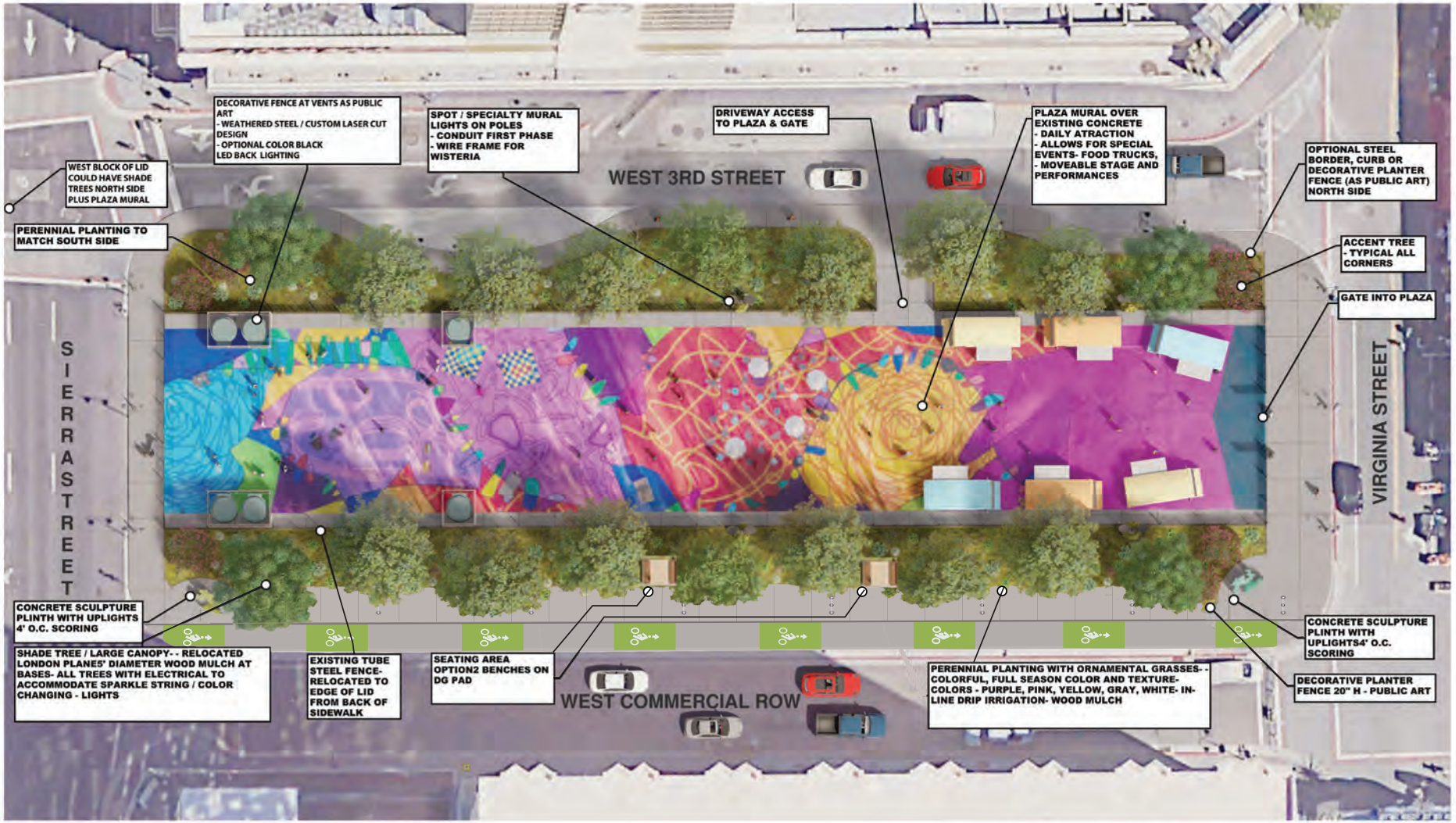
volumes that could be suitable for bicycle facilities and would encourage families and commuters surrounding downtown to bike into the center city. Corridors recommended for bicycle facility improvements include:

- Vine Street – Vine Street provides north-south connectivity on the west side of Downtown.
  volumes make this a good candidate for conversion to one travel lane in each direction, a center turn lane, parking on one side of the street and from 6th Street to 2nd Street. The segment between 2nd Street and Riverside Drive would be a bike boulevard with “sharrow” pavement markings and lower speed limit. It is recommended that the bridge over I-80 be converted to one-way
- Center Street – Multimodal improvements on Center Street are currently under design and include

  sidewalk improvements. This critical corridor connects the University

  improved north-south connectivity in central Downtown. The project would provide a safer connection over I-80 for bicyclists, including for residents of student housing being constructed on the south side of I-80 at Center Street. Additional analysis is currently being conducted regarding bicycle improvements on Center Street compared with opportunities on Virginia Street.
- West 3rd Street/Commercial Row –
  volumes and is recommended for a

  west connectivity across Downtown. It would begin at Vine Street and connect to Center Street, providing access to other premier bike facilities.



Stantec

ReTRAC PLAZA - Design Concept

Reno, Nevada
02.25.2020

In the blocks between Arlington Avenue and Virginia Street, this project would be coordinated and integrated with planned landscape and arts enhancements over the railroad tracks.

- West 5th Street – This corridor

  recommended for conversion to one travel lane in each direction, a center turn lane, on-street parking, and bike lanes. This design would

  this high crash corridor.

- East 6th Street – This high crash corridor on the east side of Downtown is being studied for safety and multimodal improvements. It currently experiences high travel

  volumes.

Virginia Street

Virginia Street is the heart of Downtown and home to many of the region's premier resort destinations and special events. RTC recommends participating with the City of Reno on a more in-depth study of opportunities to revitalize this important corridor.

RTC received comments during the outreach process about the need to bring more activity to Virginia Street, activate sidewalks, increase parking

enhance aesthetics, close the street to cars, and develop new public plaza spaces.

Because many of these items are under the authority of the City of Reno, it is recommended that the City lead TC having a supporting role.

In 2012 RTC invested $2.5 million to widen sidewalks on Virginia Street and install lighting and landscaping. The wide sidewalks provide space for pedestrian activity and outdoor dining or retail. The narrow roadway width, which is 32 feet in some locations,

facilities to Virginia Street without removing general-purpose travel lanes. RTC will provide the City with data

impacts of lane closures and participate in analysis about future bicycle facilities on Virginia Street

Truckee River Crossings

The Truckee River is an asset to the Downtown and a critical resource to the region, but also forms a barrier to transportation into Downtown. This study focuses on three primary river crossing locations:

- Arlington Bridges - RTC is currently designing replacement structures for the Arlington Avenue bridges over the Truckee River, which These structures have the lowest bridge rating of any Truckee River crossings in the region. The new bridges will include ample space for bicycle and pedestrian access.

- Booth Street Bridge – This bridge

  an important connection for access to Reno High School and Idlewild Park. The current structure is being studied by the Truckee River Flood Management Authority, which is considering options to remove or

  risks. If removed, consideration could be given to a new bicycle/ pedestrian bridge. If raised, consideration could be given to expanding facilities for walking and biking.

- Dickerson Road/Chism Street – The addition of a bicycle and pedestrian bridge over the Truckee River near the intersection of Dickerson Road/2nd Street and Chism Street is recommended to provide improved access to Idlewild Plark and into Downtown. This structure would need to be coordinated with the Truckee River Flood Management Authority.

- Keystone Bridge – Replacement of the Keystone Avenue bridge over the Truckee River has been

  RTP, with design for this project

  and functionally obsolete. This project is integrated with safety and access management improvements on Keystone Avenue between California Avenue and I-80.

- Sierra Street Bridge – This bridge

  replacement is included in both the RTP and plans of the Truckee River Flood Management Authority.

Parking

Community input into the Downtown

for additional structured parking to serve growing commercial, residential, and entertainment uses. Additional analysis regarding the location and size of a potential parking structure will be conducted by RTC. This follow-on study will also explore opportunities for a public-private partnership to build and operate a future parking facility.

NEXT STEPS

Following adoption of the 2050 RTP, RTC will identify strategies to advance the projects included in the Downtown Reno Circulation Study. The projects range in levels of complexity, from primarily signage and striping to larger scale reconstruction. Design and engineering will be required prior to construction.

APPENDIX H – SPARKS INDUSTRIAL STUDY

SPARKS INDUSTRIAL TRANSPORTATION STUDY

Introduction

A comprehensive evaluation of the Sparks Industrial area was completed in conjunction with the 2050 RTP. The goal of the Sparks Industrial Study is to address the safety, mobility
resulting from increased population and employment growth in the region. The study area included Rock Boulevard, Greg Street, and Glendale Avenue. RTC transit Route 18 serves this area and is heavily utilized by people commuting to work.

This analysis was conducted as part of the RTP at the request of the City of Sparks. The Sparks Industrial area is a major employment center, generally

.

Community Engagement

Area was held on February 26, 2020. Invitees included business owners and employees of industrial businesses. Participants were provided with the opportunity to share their vision for transportation improvements in the Sparks Industrial Area by sharing transportation needs on maps. The maps included existing conditions, serious and fatal crash locations, transit in the area,

transportation network and provided input on future needs. Concerns expressed at the meeting included the following:

- Lack of pedestrian facilities.
- Lack of bicycle connectivity into the industrial area.
- Safety concerns regarding large trucks.
- T
- Lack of connectivity between industrial area and Downtown Sparks across I-80 and railroad barriers.

R
identifying priorities to support the future vision for this important area.

Existing Conditions and Needs Assessment

This area has many unique characteristics. It is one of the earlier areas of industrialization in the region and home to almost 25,000 jobs.

Land Use Planning

Land Use as manufacturing and processing, small to medium scale wholesale warehousing and storage, distribution, outdoor storage, salvage, mineral extraction and operations, cogeneration facilities, commercial renewable energy production and recycling plant-outdoor operational storage. The Sparks plan is currently being updated.

The Sparks Industrial area is transitioning to other uses as new industrial development migrates to outlying areas with larger tracts of undeveloped land The City is exploring opportunities to improve access to and utilization of the Truckee River by encouraging residential redevelopment.

Public Transportation

Transit is an important resource that provides access to employment opportunities in the Sparks Industrial area. RTC Route 18, which serves Glendale Avenue and Greg Street, had the highest number of passengers per service hour of any RTC route for 2020. In addition, it experienced the smallest ridership impact of any route in the RTC system during the COVID-19 crisis.

Route	Primary Downtown Street	Ridership (2019)	Passengers per Service Hour
18	Glendale Ave & Greg St	23,641	28.6
21	Victorian Ave & Lincoln Way	11,340	17.9
54	Rock Blvd	6,589	13.2

Pedestrian access from employment centers to transit stops is an issue of concern for this area. While NDOT reconstructed Glendale Avenue recently and provided for ADA accessibility, Greg Street and other industrial roads This is discussed further under the Sidewalk Infrastructure section.

Traffic and Safety Analysis

Several major regional roadways provide access to and through the Sparks Industrial area, as described in the table below.
on Veterans Parkway and McCarran Boulevard.

Street	2020 ADT	2040 Traffic Volumes
Greg St	11,500	11,600
Glendale Ave	6,400	6,500
Rock Blvd	12,200	12,600
McCarran Blvd	14,000	15,300
Veterans Pkwy	21,000	26,000

Crashes on all regional roads were analyzed for the RTP, based on crash rate, frequency, and severity. As shown in the following map, Rock Boulevard and McCarran Boulevard contain segments of high-crash corridors.

McCarran Boulevard Safety Management Plan

The Nevada Department of Transportation completed a Safety Management Plan in 2017 for McCarran Boulevard from Greg Street to Probasco Way. Between 2011 and 2016, this segment of McCarran Boulevard has 689 total crashes, four pedestrian fatalities, and 279 crashes with injuries. The corridor contains three general purpose travel lanes in each direction between Greg Street and Prater Way. Sidewalks are intermittent on both sides of the street. A multi-use path on the east side of McCarran Boulevard is located south of Greg Street.

Recommendations in the plan are provided below.

Short-Term Improvements:

- .
- Replace non-ADA compliant pedestrian curb ramps to current NDOT standards.

Mid-Term Improvements:

- Access management improvement, including remove, consolidate, or convert driveways to right-in right-out.
- Construct dedicated right turn lane along southbound McCarran Boulevard at Glendale Avenue to improve intersection safety.

- Improve right turn lanes along southbound McCarran Boulevard at Greg Street to enhance sight distances and reduce turning vehicle speeds and accommodate semi-tractor trailer trucks.

Long-Term Improvements:

- Convert existing interchange at I-80 and McCarran Boulevard to Diverging Diamond Interchange.
- Construct dedicated right turn lane for westbound I-80 on-ramp, including new bridges over McCarran Boulevard for additional lane width.
- intersection at Glendale Avenue

  the intersection and synchronize with the signal cycle of the intersecting road.
- Construct multi-use path on west side of McCarran Boulevard from Glendale Avenue to Nugget Avenue to reduce bike and pedestrian
- Provide sidewalk along the east side of McCarran Boulevard from Greg Street to Glendale Avenue to provide pedestrian connectivity between intersections.

Recommendations

Regional Road Capital Improvements

Recommendations from the Industrial Study include major projects in the 2050 RTP such as Greg Street, McCarran Boulevard, and Rock Boulevard, as described below.

Bus Stop ADA and Connectivity Project

RTC is implementing a Bus Stop Improvement and Connectivity Program.
upgrading existing public transit stops to comply with state and federal requirements, including the Americans with Disabilities Act (ADA).
phase of bus stop improvements were located within public right-of-way (12 bus stops) and has been completed. The process of obtaining necessary easements for other locations is ongoing. The overarching goal of the Bus Stop Improvement and Connectivity Program is to provide the public with accessible transit stops and access to the nearest intersection or cross street. Bus stops on Greg Street are included in early phases of the bus stop improvement program.

Sidewalk Infrastructure

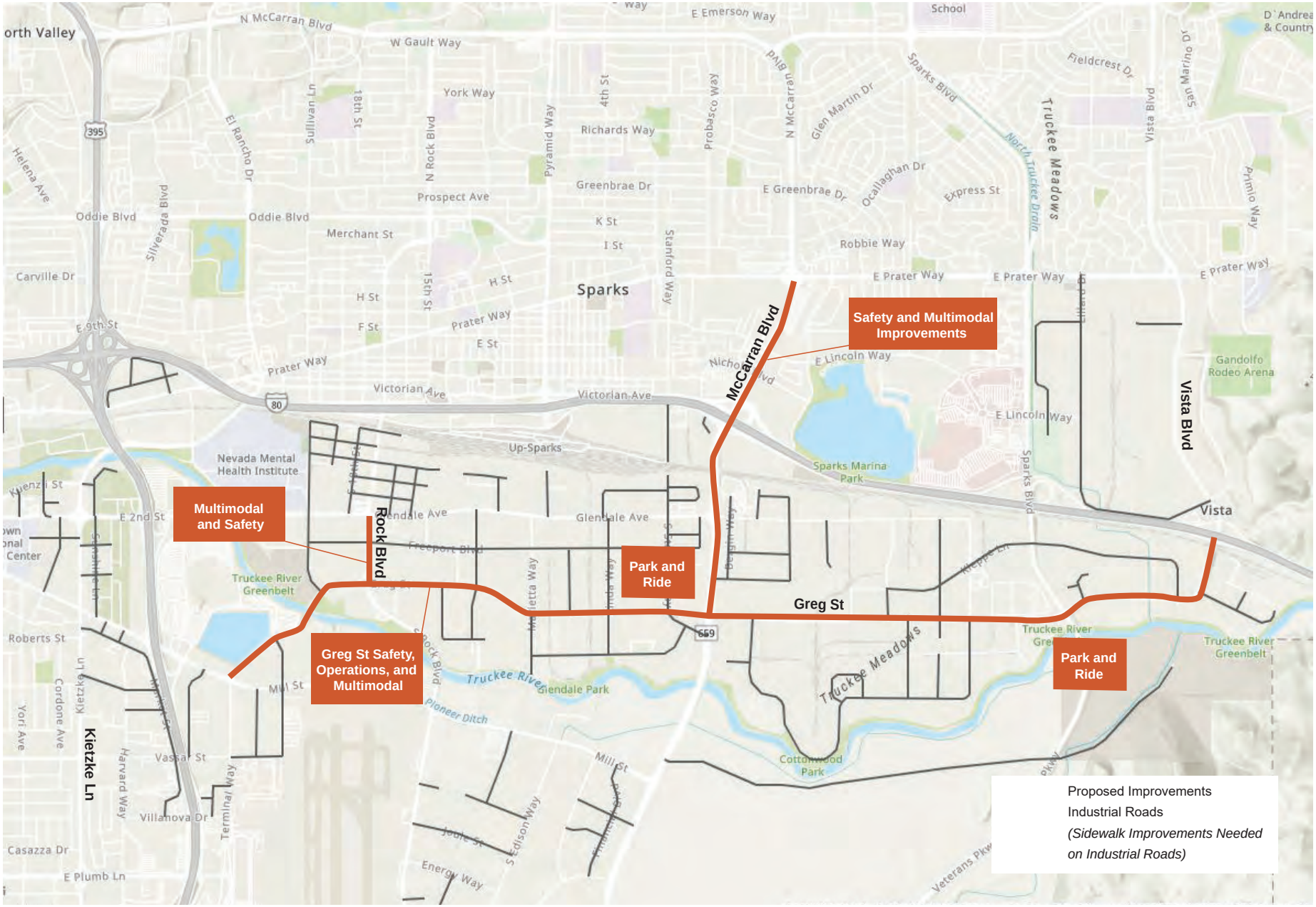
R
connectivity to transit stops and employment centers. The need for pedestrian access will continue to grow as the uses in the Sparks Industrial area continue to diversify. As described under Regional Road Capital Improvements, RTC plans multimodal projects on several major regional roads in the area.

Policy C4 of the Sparks Comprehensive Plan is a goal to require sidewalks for pedestrians on all street networks within the City.
Sparks and R There is an opportunity for private sector investment to improve sidewalk connectivity and safety in this area. A requirement by City of Sparks that sidewalk improvements be constructed

terms of pedestrian safety and connectivity, as well as boosting the overall quality of life.

The following map illustrates the recommended improvements in the Sparks Industrial area.

PLANNED IMPROVEMENTS IN THE SPARKS INDUSTRIAL AREA



APPENDIX I – COMMON TRANSPORTATION PLANNING ACRONYMS

ACRONYMS

AADT – Annual Average Daily T

AASHTO – American Association of Street and Highway Transportation

ACEC – Areas of Critical Environmental Concern

ADA – Americans with Disabilities Act of 1990

ADT – Average daily trips

APTA – American Public Transportation Association

AQMD – Air Quality Management Division

AWG – Agency Working Group

BCA –

BLM – Bureau of Land Management

BPMP – Bicycle-Pedestrian Master Plan

BRT – Bus rapid transit

CMAC – Citizens Multimodal Advisory Committee

CALTRANS – California Department of Transportation

CAMPO – Carson Area Metropolitan Planning Organization

CCRTC – Carson City Regional Transportation Commission

CEA – Critical Emphasis Areas

CFR – Code of Federal Regulations

CMAQ – Congestion Mitigation/ Air Quality

CMP – Congestion Management Process

CNG – Compressed Natural Gas

CO – Carbon monoxide

CPI – Consumer Price Index

CTP – Coordinated Human Services Transportation Plan

DOT – Department of Transportation

EDAWN – Economic Development Authority of Western Nevada

EMP – Emergency Access Management Plan

EPA – Environmental Protection Agency

ETR – Employer Trip Reduction

FAA – Federal Aviation Administration

FAST Act – Fixing America's Surface Transportation Act

FEIS – Final Environmental Impact Statement

FHWA – Federal Highway Administration

FRR – Farebox Recovery Ratio

FTA – Federal Transit Administration

GHG – Greenhouse Gas

HA #87 – Hydrographic Area #87

HOV – High Occupancy Vehicle

HSIP – Highway Safety Improvement Program

ITS – Intelligent Transportation System

JAC – Jump Around Carson

LEED – Leadership in Energy and Environmental Design

LOS – Level of Service

LTBMU – Lake Tahoe Basin Management Unit Land Resource Management Plan

MAP-21 – Moving Ahead for Progress in the 21st Century Act

MOVES – Motor Vehicle Emission Simulator (Air quality model)

MPO – Metropolitan Planning Organization

MUTCD – Manual of Uniform T Control Devices

MVEB – Motor Vehicle Emission Budget

NAAQS – National Ambient Air Quality Standards

NARC – National Association of Regional Councils

NCA – National Conservation Area

NDOT – Nevada Department of Transportation

NDWR – Nevada Division of Water Resources

NEPA – National Environmental Policy Act

Nevada CAM – Center for Advanced Mobility

NHPP – National Highway Performance Program

NHS – National Highway System

NO_x – Nitrogen Oxides

NRS – Nevada Revised Statutes

NV TIM – Nevada T Management

PCI – Pavement Condition Index

PD&E – Project Development and Environmental Activities

PSAP – Pedestrian Safety Action Plan

$PM_{2.5}$ – Particulate Matter of less than or equal to 2.5 microns

PM_{10} – Particulate Matter of less than or equal to 10 microns

PMS – Pavement Management System

POP – Program of Projects

PPP – Public Participation Plan

PTN – Primary Transit Network

ROD – Record of Decision

ROW – Right-of-Way

RPC – Regional Planning Commission

RPGB – Regional Planning Governing Board

RRIF – Regional Road Impact Fee

RRIF CIP – Regional Road Impact Fee Capital Improvement Plan

RRS – Regional Road System

RSA – Road Safety Assessment

RTAA – Reno-Tahoe Airport Authority

RTC – Regional Transportation Commission of Washoe County

RTIP – Regional Transportation Improvement Program

RTP – Regional Transportation Plan

SGR – State of Good Repair

SHSP – Strategic Highway Safety Plan

SIP – State Implementation Plan

SMP – Safety Management Plan

SOV – Single Occupancy Vehicle

SRTP – Short Range Transit Plan

SRTS – Safe Routes to School

STB – State Transportation Board

STIP – Statewide Transportation Improvement Program

STBG – Surface Transportation Block Grant

TA Set-Aside – Transportation Alternatives

TAC – RTC Technical Advisory Committee

TAMP – Transit Asset Management Plan

TART – Tahoe Area Regional Transit

TAZ – T Analysis Zone

TCM – Transportation Control Measure

TDM – Transportation Demand Management

TMA – Transportation Management Association

TMC – T ransportation Management Center

TMRP – Truckee Meadows Regional Plan

TMRPA – Truckee Meadows Regional Planning Agency

TMWA – Truckee Meadows Water Authority

TPAC – Transportation Planning Advisory Committee

TRI Center – Tahoe Reno Industrial Center

TRPA – Tahoe Regional Planning Agency

TSM – Transportation System Management

TSP – Transit Signal Priority

TTD – Tahoe Transportation District

UNR – University of Nevada, Reno

UPRR

UPWP ork Program

USDA – U.S. Department of Agriculture

USDOT – U.S. Department of Transportation

V/C Ratio – Volume to Capacity Ratio

VHD – Vehicle Hours of Delay

VHT – Vehicle Hours of Travel

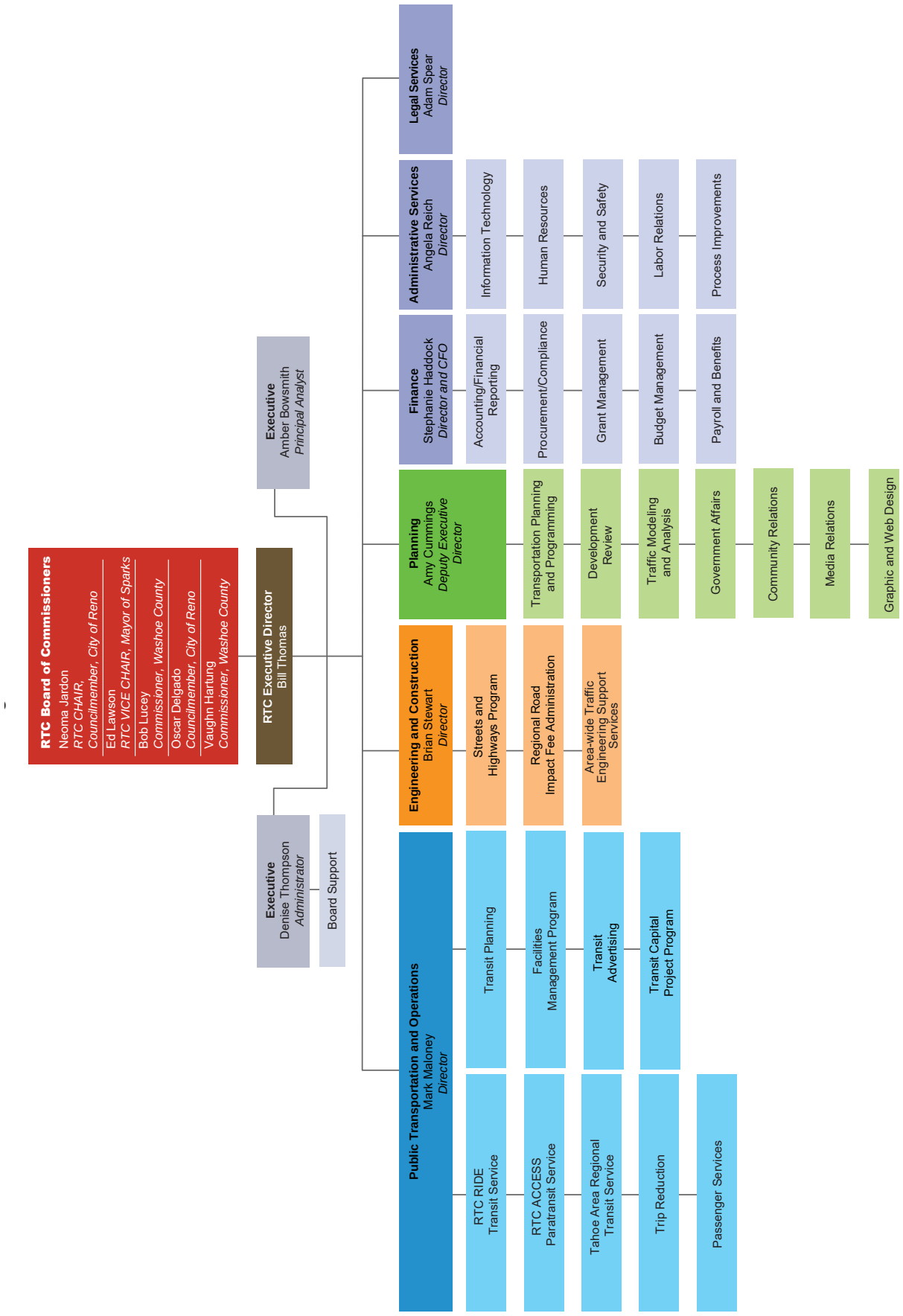
VMT – Vehicle Miles Traveled

VOC – Volatile Organic Compounds

WCHD-AQMD – Washoe County Health District-Air Quality Management Division

YOE – Year of Expenditure

APPENDIX J – RTC ORGANIZATIONAL CHART



APPENDIX K – COORDINATED HUMAN SERVICES PUBLIC TRANSPORTATION PLAN EXECUTIVE SUMMARY

To view the full document, go to http://bit.ly/RTC_CTPReport.

Washoe County Coordinated Human Services Public Transportation Plan Update

Executive Summary

INTRODUCTION

The Regional Transportation Commission of Washoe County (RTC) has contracted with LSC Transportation Consultants, Inc. (LSC) to revise and update its Coordinated Human Services Public Transportation Plan (CTP). This is an opportunity to identify unmet senior and disabled transportation needs, reduce duplication of services, and improve the coordinated transportation system for Washoe County, Nevada which includes the cities of Reno and Sparks. RTC's last Coordinated Human Services Public Transportation Plan was developed in 2015 and while the plan is due for an update every four years, this update is being completed in alignment with RTC's 2050 Regional Transportation Plan.

The study began by developing an understanding of the local community and the existing transportation services in Washoe County. Two Interim Reports were prepared as part of the planning process. The information from the two Interim Reports was then integrated into a Draft Report for review and approval.

STAKEHOLDER INPUT AND PUBLIC OUTREACH

Public input is an important part of developing a Coordinated Human Services Public Transportation Plan that meets the needs of the community. While in-person meetings and open houses would have been be the preferred method to obtain public feedback, due to Covid-19 restrictions telephone and virtual engagement platforms were used.

Stakeholder Questionnaire and Interviews

One of the first tasks of this study was to identify and contact stakeholders. Using the list of stakeholders from the previous CTP as a starting point, stakeholders who represent the broad composition of human services agencies, non-profits, human service transportation providers, medical providers, veteran's services, and

transportation network companies were contacted and asked to participate in the study. The stakeholder questionnaire asked participants to identify current and future unmet transportation needs, as well as existing coordination efforts and ideas for improving coordination.

Identified unmet transportation needs included:

- Lack of Affordable Transportation
- Need for Door-to-Door or Door-through-Door Service
- Limited Service Area
- Lack of Wheelchair Accessible Vehicles
- Advanced Reservation Requirements
- Limited service hours (need for 24/7 service)

Identified coordination issues included:

- Lack of information about services
- Difficulty matching resources with needs of the passenger
- Agencies are focused on their own clients and services

The 2015 Coordinated Transportation Plan identified a number of client services transportation gaps through discussions in public meetings and from other sources. Upon comparison, many of the issues raised by the public as part of the 2015 CTP still remain, including:

- Affordability of transportation
- Expanded service area boundaries and service hours
- Need for additional help to/from the vehicle
- Reservation requirements
- Need for a centralized information directory

Community Transportation Survey

As part of an effort to obtain input from Washoe County residents and stakeholders, an online community survey was created. The survey was publicized and distributed through a variety of means, and a total of 155 survey responses were received. Key findings from the survey included:

- Nearly 62 percent of respondents are not able to drive and do not possess a driver's license.
- Approximately 65 percent of those surveyed do not have a personal vehicle available for their use.
- Approximately 48 percent of respondents find themselves not having a reliable form of transportation when needed.
- About 36 percent of respondents indicated that they have a mobility limitation that limits their ability to walk to or board a vehicle without assistance.
- Respondents were given a list of current transportation options and asked to select all of the services that they currently use. Taxis, Uber, and Lyft services are used the most frequently (48 percent), followed by RTC ACCESS paratransit services (42 percent), and RTC RIDE fixed-route services (30 percent).

- Respondents were asked to indicate the primary purpose for travel when they are unable to find a ride. Approximately 59 percent of respondents stated that they most consistently find themselves without a ride to go shopping, followed by 58 percent who need a ride to and from medical appointments.
- Respondents were asked to indicate what deters them from using transportation services such as RTC, rideshareing, and other services. Approximately 42 percent of respondents answered that services are too expensive followed by 40 percent who mentioned that they cannot walk far enough to access services, 33 percent who said they are apprehensive or fearful of using the services, and 28 percent who answered that they have personal access to transportation through family.

POTENTIAL COORDINATION STRATEGIES

Building upon the positive coordination efforts recognized by stakeholders, specific strategies to enhance coordination and improve transportation services based identified unmet needs were developed. The following lists the advantages and challenges associated with each potential coordination strategy.

Local Coordinating Council

- **Advantages:**
  - Forum for setting service and coordination priorities
  - Key stakeholders develop recommendations to RTC for 5310 program funding
  - Resolve coordination issues
  - Identify and overcome barriers to coordination
- **Challenges:**
  - Requires an organization to be responsible for forming and administering the LCC
  - Requires participation by all funding agencies and transportation providers

Microtransit

- **Advantages:**
  - Smaller vehicles to serve lower passengers per hour
  - Lower operating cost than traditional transit
  - Effective when connecting to regional services
  - Serves everyone, not limited to elderly or individuals with disabilities
- **Challenges:**
  - Not effective in very low-density areas or longer trips
  - Many examples have low productivity and high cost per passenger-trip
  - May require alternate means of scheduling trips
  - Fare payment must allow for seamless transfers

Subsidized Transportation Network Companies

- **Advantages:**
  - May be cost-effective depending on density and trip lengths
- **Challenges:**
  - Cost-effective in areas with sufficient demand
  - May require additional paratransit service
  - May require alternate means of scheduling trips
  - Potential regulatory issues in contracts with private companies including drug and alcohol testing
  - Lack of accessible vehicles

Expand RTC's Washoe Senior Ride Program

- **Advantages:**
  - Expands service beyond the area served by RTC ACCESS
  - Opportunity to use lowest cost option
  - Provides flexibility for users
  - Taxis have a fleet of accessible vehicles
- **Challenges:**
  - Requires contracts with taxi companies and TNCs

Expand RTC SMART TRIPS Program

- **Advantages:**
  - Provides additional opportunities for people with disabilities
  - Provides access to employment
  - May be a lower cost option for commuters with a disability
- **Challenges:**
  - Limited to commute trips
  - May require new accessible vehicles
  - Depends on multiple people with similar commutes

Volunteer Drivers

- **Advantages:**
  - Low cost option for difficult to serve trips
  - Flexibility in scheduling rides
- **Challenges:**
  - Relies on having sufficient number of volunteers
  - Potential insurance issues
  - May need coordinator for scheduling rides

Nonprofit Transportation Providers

- **Advantages:**
  - Provides options to meet range of needs
  - Opportunity to schedule rides on most cost-effective provider
- **Challenges:**
  - Possible insurance issues for shared trips
  - Functions best with a one-call center
  - Nonprofit agencies must serve passengers for multiple programs

Vehicle Sharing

- **Advantages:**
  - Reduces total number of vehicles required
  - More efficient use of vehicles
  - May reduce costs
- **Challenges:**
  - Reduces total number of vehicles required
  - More efficient use of vehicles
  - May reduce costs

One-Call/One-Click Center

- **Advantages**:
  - Single point of contact for users
  - Could enhance opportunities for regional connections
  - Basic capability for operating a call center exists in the region
  - RTC is currently the primary operator of paratransit services and could continue to provide the 'core' of services
  - Other providers could serve individuals with higher level of needs
  - Improved operational efficiency
  - Cost savings could be used for enhanced services
- **Challenges**:
  - Technology must be implemented for all providers
  - Requires detailed cost analysis for each provider
  - Requires mixing of passengers on vehicles

Expand RTC ACCESS Service Area

- **Advantages**:
  - Uses existing service operated by RTC
  - RTC has existing call center capability for reservations and scheduling
- **Challenges**:
  - Would increase demand and costs for RTC ACCESS paratransit
  - Would reduce RTC ACCESS productivity and increase average cost per passenger-trip
  - Could require increased capacity with additional vehicles
  - Requires an in-person evaluation to confirm qualifications
  - Would not serve seniors without disabilities. Would only serve people eligible for RTC ACCESS service who have completed the certification process.

IMPLEMENTATION PLAN

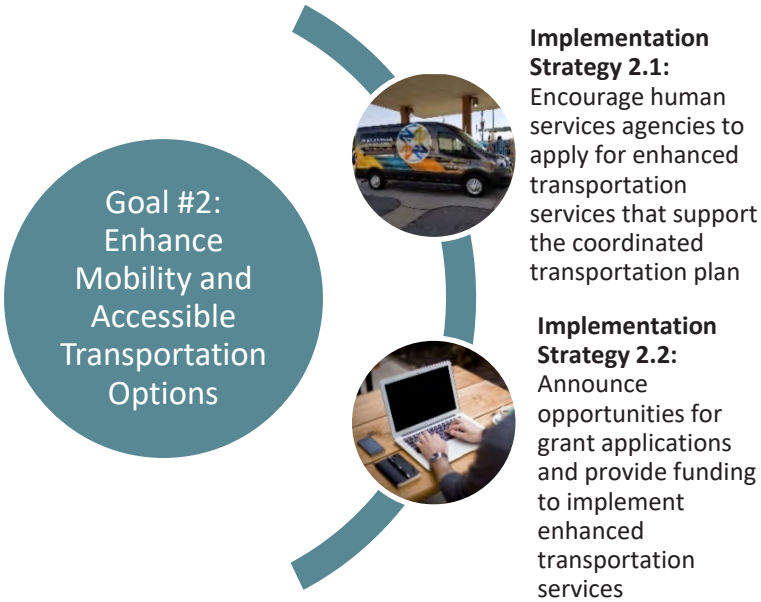
Chapter X of the report presents the implementation plan, which consists of three primary goals supported by the input provided by participants, including the general public, private and public entities, participating organizations, and local stakeholders.

Goal #1: Create a Local Coordinating Council

The first priority goal is to create a Local Coordinating Council (LCC). The LCC should have representation from RTC, each human services transportation provider, other human services agencies which serve people with transportation needs, local governments, and consumers. The LCC would have two primary functions. The first would be to facilitate coordination of transportation services, which may include identifying barriers to coordination and developing approaches to overcome the barrier, identifying opportunities to improve coordination, identifying service enhancements, and implementing the coordination strategies contained in this plan. The second role will be for the LCC to recommend program and funding activities to the RTC as part of the grant review processes.

Goal #2: Enhance Mobility and Accessible Transportation Options

Community input and the assessment of transportation needs identified ongoing issues and gaps in transportation service. These include the affordability of transportation for users, areas of Washoe County with limited transportation options, and the need for assistance for many users. Enhanced mobility options may include expansion of microtransit, extension of RTC RIDE service to new areas, and specialized transportation services. One of the roles for the LCC is to identify specific activities to enhance mobility and determine the priorities for funding enhanced services. RTC will continue to work with local transportation providers and human services agencies to identify opportunities to enhance service and provide funding to implement enhanced service options.



Goal #3: Establish a One-Call/One-Click Center

The primary recommendation in this plan is to form a one-call/one-click center. The center would provide a consolidated call reservation, scheduling, and dispatch function. It would also provide a central resource for customers' information about matching trip needs with available services so the customer can identify the best option for their trip. Implementation will require development of a user portal for online access to transportation services. All transportation services should be integrated into the one-call center. be made through the web portal or by telephone call to the one-call center. Depending on needs and eligibility, the individual would be scheduled on the most appropriate service. The scheduling/dispatch software should allow all vehicles operated by all transportation providers to be available for scheduling trips. By having access to all vehicles, there is a potential for gains in productivity and opportunities to enhance services.

Implementation Timeline and Potential Costs Summary

Table ES-1 outlines a potential implementation timeline for the goals and strategies. Of course, each step is dependent upon a number of factors including funding cycles and available local match to draw down Federal funds. Table ES-2 presents potential annual costs by year.

Table ES-1: Implementation Timeline

Goals and Objectives	Year 1	Year 2	Year 3	Year 4	Year 5
Goal #1: Establish a Local Coordinating Council					
1.1: Develop LCC Membership					
1.2: Establish the LCC Structure, Mission, and Mobility Goals					
1.3: Lead Coordinated Efforts to Address Mobility Goals					
Goal #2: Enhance Mobility and Accessible Transportation Options					
2.1: Encourage Enhanced Transportation Services					
2.2: Provide Funding for Enhanced Transportation Services					
Goal #3: Establish a One-Call/One-Click Center					
3.1: Identify the Functions to be Included in the Center					
3.2: Identify a Lead Agency					
3.3: Develop a User Portal for Online Access					
3.4: Integrate Transportation Services into the Center					

Table ES-2: Potential Costs by Year					
Goals and Objectives	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Goal #1: Establish a Local Coordinating Council					
	$8,000 to $20,000	$5,000	$5,000	$5,000	$5,000
Goal #2: Encourage Mobility and Accessible Transportation Options					
Enhanced Services	$500,000	$500,000	$500,000	$500,000	$500,000
Goal #3: Establish a One-Call/One-Click Center					
Initial Start-UP		$70,000 to $100,000			
Staffing (Annual Costs for 2 FTEs)			$60,000 to $100,000	$60,000 to $100,000	$60,000 to $100,000
Expanding to Include Online Access				$50,000 to $200,000	$10,000
Project Management					$50,000 to $100,000
Total Annual Cost:	**$508,000 to $520,000**	**$575,000 to $605,000**	**$565,000 to $605,000**	**$615,000 to $805,000**	**$625,000 to $715,000**

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2050 Regional Transportation Plan

Comments Received during the Public Comment Period

- Request to update the description of the Rock Boulevard Project to reflect "safety and multimodal" improvements, from City of Sparks. This was incorporated.
- Request to update location of park and ride potential location on Sparks Industrial Study, from City of Sparks. This was incorporated.
- Request to update to the description of the Truckee Meadows Regional Plan and land use tier descriptions, from the Truckee Meadows Regional Planning Agency. This was incorporated.
- Other minor updates to formatting, layout, and technical corrections were implemented.

Letters submitted during the RTP Process

- The Senate of the Associated Students of the University of Nevada provided a letter supporting protected bicycle paths. The draft RTP includes protected bicycle paths on Center Street, Vine Street, and 3rd Street/Commercial Row.
- Dermody Properties provided a letter supporting the Moya Boulevard extension, which is included in the draft RTP.
- The Economic Development Authority of Western Nevada (EDAWN) provided a letter supporting the Moya Boulevard extension, which is included in the draft RTP.
- The NAIOP Northern Nevada Chapter provided a letter supporting the following projects, which are included in the draft RTP:
    - Extension of Moya Boulevard
    - Wending of North Virginia Street from Panther to Stead Boulevard and extension from Stead to White Lake
    - Eagle Canyon Extension, referred to in the plan as the Lemmon Valley-Spanish Springs Connector
    - Pyramid Highway-US 395 Connector
    - La Posada connection to TRI Center roadway
    - Rio Wrangler to TRI Center roadway
- The Christy Corporation provided a letter supporting improvements in the North Valleys, particularly the Red Rock Road improvements, which are included in the draft RTP.
- The University of Nevada, Reno provided a letter supporting improvements on the Evans Avenue and the Lake/Evans connection identified in the University Area Transportation Study, which are included in the draft RTP. The University also

supports improvements in the Downtown Reno area and Virginia Street. The draft RTP includes projects from the Downtown Circulation Study and RTC has identified funding to further study of improvements on Virginia Street in the Downtown Reno area in partnership with the City of Reno.

- McDonald Carano, on behalf of the ROW Properties, provided a letter supporting improvements on Virginia Street in Downtown Reno. Specific needs identified in the letter include:
    - Revitalize and activate Virginia Street between the Truckee River and University, including streetscape, lighting, and landscape improvements
    - RAPID transit stops on Virginia Street across from the ROW properties
    - Bicycle connectivity on Virginia Street
    - More parking in the downtown
    - Creating a town square/public plaza space and reconsideration of street closures

  RTC has identified funding to further study improvements on Virginia Street in Downtown Reno in partnership with the City of Reno.

REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

December 18, 2020

RTC Response to City of Reno Requests for the 2050 RTP

The 2050 Regional Transportation Plan (RTP) is the RTC's long-range transportation plan as required under Title 23, Part 450 of the Code of Federal Regulations (CFR). It contains major transportation projects and programs for Washoe County for all modes of travel. It functions as the major tool for implementing long-range transportation planning.

The RTC issued a call for projects in an effort to seek agency and public input about projects to consider in the 2050 RTP. The RTC implemented an online survey to seek input from the public on potential new projects, which was open from June 22 through July 20, 2020.

The RTC is evaluating these suggestions, as well as projects in existing plans and studies, for consideration in the 2050 Regional Transportation Plan. A virtual public meeting and online survey are open from December 17 through January 14 to gather community feedback regarding the evaluation and prioritization of projects. A discussion with partner agency staff is also underway through the Technical Advisory Committee and RTP Agency Working Group. Evaluation of projects will be finalized upon completion of the community outreach process and adoption by the RTC Board.

The online survey is divided into four parts to allow for the ranking of comparable projects. These categories facilitate a more user-friendly survey format. The categories are freeway projects, multimodal projects with no new road capacity, capacity projects on existing regional roads, and construction of new regional roads.

On February 12, 2020, RTC made a presentation to the Council about the RTP. The following requests were provided to RTC for consideration in the plan. Many of the items are being addressed through the RTP, though some are most appropriately addressed through processes outside of the RTP.

City of Reno Recommendation	RTC Response
Review Regional Road Impact Fees (RRIF) in the Downtown and Urban Corridor, and pursue reduced impact feed tied to proximity to transit services, and potentially for affordable housing in certain locations.	The policies of the RRIF are adopted through the General Administrative Manual, consistent with NRS, and are not included in the RTP. RTC has initiated an analysis of the RRIF program and is including these items in the assessment.

City of Reno Recommendation	RTC Response
Prepare a Downtown Reno circulation study and plan for priority projects that may be identified in the study. The study should seek to increase roadway capacity and enhance multi-modal circulation.	RTC conducted a Downtown Reno Circulation Study in partnership with City of Reno staff. This resulted in the identification of improvements on several downtown corridors, as described in the attachment. A virtual public meeting was conducted from to November 12 through December 11.
Evaluate parking improvement for infill development areas such as Midtown, similar to the park and ride facilities in the suburbs. This would provide convenient parking in proximity to rapid transit services.	In addition to Midtown parking needs, the RTP process has identified the need for increased parking in Downtown Reno and Sparks. Detailed parking utilization study and alternative site analysis will be conducted through a future Unified Planning Work Program (UPWP) study.
Addition of Neighborhood Collector classification to the Regional Significant Roadway list for future inclusion in the RTC funding for preventative maintenance and rehabilitation.	The request to expand the pavement preservation program to include Neighborhood Collectors will be addressed through a separate RTC action. The RTP will not preclude the addition of roadway types. The funding level for the pavement preservation program is being evaluated in the RTP.
Include funding for traffic signal reconstruction in annual programming of preventative maintenance and rehabilitation.	The funding levels for the pavement preservation program and the TE Spot intersection improvement program are being evaluated in the RTP.
Inclusion of Reno bicycle/pedestrian path plan into regional bicycle/pedestrian plan once completed and approved by City Council.	RTC will update the RTC Bicycle and Pedestrian Master Plan following completion of the RTP, and will include the City of Reno plan.
Addition of projects to be considered for funding in future years to include:	
RTC University Area Transportation Study improvement projects	These are prioritized for inclusion in the RTP analysis.
South Meadows Multimodal Transportation Study improvement projects	These are prioritized for inclusion in the RTP analysis. Please note that short-term spot improvements are not included in the RTP.

City of Reno Recommendation	RTC Response
	As an example, the Veterans and Long Meadow traffic signal is under design and planned for construction in 2021, but not itemized in the RTP.
Old Virginia Street from northern terminus to Cold Springs	Construction of this road is included in the RTP analysis.
Reno Stead Airport Industrial Development roadway network	Extension of Moya Boulevard and Lemmon Drive are included in the RTP analysis.
Pembroke and Mira Loma capacity improvements between McCarran and Veterans Parkway	These are prioritized for inclusion in the RTP analysis.
Verdi area capacity improvement tied to planned development	A UPWP study for the Verdi area is planned for the upcoming fiscal year. Improvements can be amended in to the RTP, as appropriate. Please note that short term spot improvements are not included in the RTP.
South Meadows Parkway extension to Tahoe Regional Industrial Center.	Construction of this road is included in the RTP analysis.

9/9/2020

Dear Director Amy Cummings,

The Senate of the Associated Students represents over 18,000 undergraduate students at the University of Nevada. We advocate for our constituents on issues ranging from the university to the federal level.

Attached to this letter you will find a resolution passed by the 88th Senate Session. You have been sent a copy so that we may share student input on this matter with you, and ensure that student voices at the University of Nevada are being heard. Thank you for your consideration, and please feel free to contact me if you have any questions regarding this matter.

Sincerely,

Keegan Murphy
Speaker of the Senate
ASUN Center for Student Engagement
3rd Floor Joe Crowley Student Union | Mailstop 058
The University of Nevada, Reno
Reno, NV 89557
Speaker@ASUN.unr.edu
(775) 397-1134
http://www.nevadaasun.com

Senate of the Associated Students of the University of Nevada

88th Session, 2020-2021

A RESOLUTION IN SUPPORT OF IMPLEMENTING PROTECTED BICYCLE PATHS IN WASHOE COUNTY

Resolution Number: 37

Authored By: Senator Luers and Senator Torres

Sponsored By: The Committee on Safety, Sustainability, and Wellness

Whereas, the Regional transportation Commission of Washoe County Nevada (RTC) serves to "...provide leadership, vision, public policy development, and quality transportation systems through a commitment to excellence and pursuit of goals and objectives that meet the community's present and future needs;"[1]

Whereas, the RTC designs a Regional Transportation Plan (RTP) every ten years;

Whereas, the 2050 Regional Transportation Plan builds upon the 2040 RTP, and will address, "...the safety, mobility, connectivity and traffic-operating issues that are resulting from increased population and employment growth in the region;"[2]

Whereas, the RTC is seeking input from Washoe County in order to, "...inspire, innovate and implement an integrated, efficient regional transportation system in our community;"

Whereas, researchers at the University of New Mexico and the University of Colorado Denver discovered that cities that had protected and separated bike lanes had 44 percent fewer deaths than the average city;[3]

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[1] https://www.rtcwashoe.com/about/

[2] https://www.rtcwashoe.com/mpo-projects/rtp/

[3] https://usa.streetsblog.org/2019/05/29/protect-yourself-separated-bike-lanes-means-safer-streets-study-says/

Whereas, 2019 was one of the deadliest years for pedestrians in Washoe County, with rates up 100% from 2018;[4]

Whereas, the Reno-Sparks pedestrian fatality rate in 2019 was nearly twice the national average and 12 percent higher than Nevada's statewide average;[5]

Whereas, protected bicycle paths would reduce pedestrian risk and improve safety for Washoe County citizens;

Whereas, the University of Portland found that cities that implemented protected bicycle paths and/or lanes saw a ridership increase from as little as 20 percent to as large as 170 percent;[6]

Whereas, in 2014, the Reno Gazette Journal found that, "About 3.5 percent of Reno's workers walk to work while about 1 percent ride their bicycles to work, according to a recent U.S. Census Bureau report;"[7]

Whereas, the implementation of bicycle lanes and protected paths are less expensive than road projects and construction, with a 2014 analysis of the cost comparison going as follows the San Francisco budget study: "1 mile of basic protected bikeway was $445,000 compared to 1 mile of Central Subway: $1,000,000,000, 1 mile of Doyle Drive: $571,066,667 or 1 curb extension: $78,000;"[8]

Whereas, legislation from the 87th Session of the Associated Students of the University of Nevada, Reno, titled, "A Resolution Advocating for the Installation of Street Lights on Evans Street and Enterprise Road", written by Senator Murphy and Senator Doyle, highlights student and civilian safety as a priority issue;[9]

Whereas, the University aims to, "Create alternative transportation options for students to and from campus," in ASUN No Walls: 2025;[10]

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[4] https://mynews4.com/news/local/pedestrian-fatalities-on-the-rise-in-washoe-county-have-doubled-in-last-year
[5] https://www.rgj.com/story/news/2020/02/04/reno-sparks-pedestrian-farality-rate-wesd-students-hit-nevada-public-safety/4599682002/
[6] https://trec.pdx.edu/research/project/583
[7] https://www.rgj.com/story/news/2014/05/18/reno-average-biking-walking-work-still-improving/9248179/
[8] https://www.treehugger.com/bikes/1-mile-protected-bike-lane-100x-cheaper-1-mile-roadway-chart.html
[9] http://dc5u0yfu98nbk.cloudfront.net/wp-content/uploads/2019/09/19165024/9_25_2019-Senate.pdf
[10] https://s3-us-west-2.amazonaws.com/nevadaasun/2015/01/No-Walls-2025-AStudentVisOnForTheUniversityOfNevadaReno.pdf

Whereas, other universities have supported similar pedestrian safety measures, such as Clemson University, which earned its silver status in the League of American Bicyclists in their list of Bicycle Friendly Universities for expanding bicycle lanes on campus;[11]

Whereas, the University aims to, "Strengthen the social, economic, and environmental well-being of people by engaging Nevada citizens, communities, and governments," in the University's Strategic Plan;[12]

Whereas, the University of Nevada, Reno should support measures that promote the environmental well-being of both students and citizens of surrounding areas;

Whereas, the City of Reno has a Bicycle and Pedestrian Master Plan that references protected bicycle paths as "Cycle Tracks", prioritizes safety in the Plan's RTP Guiding Principles, and explicitly states the need for, "Physically separated bicycle lanes or wide curb lanes along arterials and collectors with unobstructed sidewalks," on page twenty-two of this master plan under the "COMMUTER AND STUDENT DESTINATIONS AND NEEDS" subsection;[13]

Whereas, the City of Reno Master Plan states that, "Reno should implement an attractive and safe bicycle system by expanding and improving the bikeway network and ensuring that new development provides attractive and functional facilities at commercial and public destinations;"[14]

Whereas, for the strategic plans of the University of Nevada, Reno and the City of Reno to come to fruition, it is important that measures are taken to protect pedestrian safety;

Be it resolved that, the Senate of the Associated Students of the University of Nevada support a proposition of implementing protected bicycle paths in the Regional Transportation Plan 2050;

Be it further resolved that, a copy of this resolution be sent to RTC Interim Executive Director Amy Cummings and RTC Interim Director of Planning Dan Doenges;

---

[11] https://newsstand.clemson.edu/mediarelations/clemson-moves-up-in-the-ranks-of-bicycle-friendly-universities/
[12] http://www.unr.edu/nevada-today/news/2014/strategic-plan
[13] http://renashoc.wpengine.com/wp-content/uploads/2017/06/2017_BPMP.pdf
[14] https://www.reno.gov/Home/ShowDocument?id=22364

Adopted in Senate on May 6th, 2020

Attest:

Bre Czerlanis, Legislative Clerk

Keegan Murphy, Speaker of the Senate

DERMODY PROPERTIES

Dermody.com

Tuesday, December 10, 2020

REGIONAL TRANSPORTATION COMMISSION OF WASHOE COUNTY (RTC)
Attn: Amy McAbee Cummings, AICP/LEED AP
Director of Planning
1105 Terminal Way ▪ Reno, NV 89502
Phone: (775) 335.1825
Cell: (775) 636.1152
Email: Amy Cummings; acummings@rtcwashoe.com
www.rtcwashoe.com

RE: Regional Transportation Improvement (RTIP) and Regional Transportation Plan (RTP)

Dear Ms. Cummings,

I hope all is well and that you and your family are safe in these difficult times.

Dermody Properties is the master developer for the Stead Airport in the North Valleys and we would like to request that the Moya Boulevard extension be included in the Regional Transportation Improvement Plan (RTIP) and the Regional Transportation Plan (RTP).

Specifically, Dermody Properties Phase 1 improvements scheduled for completion in 2022, will include buildings 'one' and 'two' which will require the initial Phase 1 of Moya Boulevard to be completed as shown on the Exhibit 1. (Page 2). We estimate the cost of this Phase 1 of Moya Boulevard to be $2.6 Million.

As future phases of our project progress, Moya Boulevard from Echo Boulevard to North Red Rock Road will be built out and we would also request that that portion be included in the Regional Transportation Plan (RTP).

We believe that the Moya Boulevard extension is an important addition to the North Valleys traffic circulation network as the North Valleys continues to provide an attractive live/work environment.

I hope his letter is sufficient to include this important roadway in your planning. Vince Griffith, with Reno Engineering, is familiar with the details and feel free to reach out to him directly.

We appreciate your time and consideration; we look forward to working with you.

Sincerely,

Michael Dermody
Chairman and CEO, Dermody Properties

Cc: Vincent J. Griffith P.E., Reno Engineering Corporation
Douglas C. Flowers, Partner, Holland & Hart LLP
Brad Mamer, GSD Nevada, LLC

MAIN (775) 858.8080 **TOLL FREE** (800) 775.7483
FAX (775) 856.0831 5500 Equity Avenue, Reno, NV 89502

DERMODY PROPERTIES

Reno Sparks Tahoe
Economic Development Authority of Western Nevada

January 6, 2021

Amy Cummings, Deputy Executive Director
Regional Transportation Commission of Washoe County
1105 Terminal Way, Suite 211
Reno, Nevada 89502

Re: Including an extension of Moya Boulevard ("**Moya**") in RTC's 2050 Regional Transportation Plan (the "**2050 RTP**")

Dear Ms. Cummings:

On behalf of the Economic Development Authority of Western Nevada (EDAWN), I would like to offer my support for including an extension of Moya in the 2050 RTP. An extension of Moya will open up development of the Reno-Stead Airport (site of much of Reno's remaining developable industrial land), create a logical north-south utility corridor in the region's north valleys, thereby bringing key infrastructure to a growing sub-community, and provide additional road capacity in an area that the Truckee Meadows Regional Planning Agency's Consensus Forecast identifies as facing the greatest potential traffic congestion over the next 30 years.

We understand that the long range plan is developed to address the projected transportation needs of the region. We believe that with the significant growth anticipated in the Reno-Stead Airport area and all of north Reno, this extension is extremely important in support of the growth and the development of the area.

On behalf of the economic development needs of this region and the state, I would ask for your support of the extension of Moya in the 2050 RTP. If you have any further questions or concerns, I can be reached at (775) 829-3711.

Sincerely,

Mike Kazmierski
President & CEO

NAIOP
COMMERCIAL REAL ESTATE DEVELOPMENT ASSOCIATION
NORTHERN NEVADA CHAPTER

January 14, 2021

Regional Transportation Commission
of Washoe County, Nevada ("**RTC**")
Attn: Amy Cummings,
Deputy Executive Director
1105 Terminal Way, Suite 211
Reno, Nevada 89502

Re: Critical Corridor Priorities for the 2050 Regional Transportation Plan

Dear Ms. Cummings:

On behalf of NAIOP Northern Nevada, our region's largest commercial real estate advocacy organization, I would like to thank you for your service to our community and for the RTC's commitment to ensuring that our transportation infrastructure keeps up with our dynamic and growing population.

Please accept this letter as our strong endorsement of including the following major corridor projects in your 2050 Regional Transportation Plan. We believe that these projects are critical to ensuring and enhancing our economic vitality and diversity well into the future and will be vital for job creation:

- The existing segment of Moya Boulevard should be widened and extended from Lemmon Drive to Echo Avenue. An extension of Moya will (i) open up development of the Reno-Stead Airport (situs of much of Reno's remaining developable industrial land), (ii) create a logical north-south utility corridor in the region's north valleys, thereby bringing key infrastructure to a growing sub-community, and (iii) provide additional road capacity in an area that the Truckee Meadows Regional Planning Agency's Consensus Forecast identifies as facing the greatest potential traffic congestion over the next 30 years. This project, coupled with those on Echo, Lemmon Drive, and Military Road will ensure that the North Valleys are well-prepared for the certain commercial and residential growth that will occur in the future.

- The entire North Virginia Street corridor is critical to future job creation in the area. The street should be widened from Panther to Stead Boulevard and extended from Stead to White Lake.

- The proposal for the Eagle Canyon extension would provide an important link between the North Valleys and Spanish Springs. Industrial and light manufacturing development in this area will bring more residential rooftops and this corridor will be necessary to handle that growth.

NAIOP
COMMERCIAL REAL ESTATE DEVELOPMENT ASSOCIATION
NORTHERN NEVADA CHAPTER

- Additionally, a new four-lane arterial road from Pyramid Highway to US 395 would contribute to enhanced mobility in the Truckee Meadows. This should be coupled with the expansion of Pyramid Way's current footprint.

- The La Posada connection to the TRI Center will allow residents of Sparks to access the largest industrial park in this hemisphere for their daily job commute and would relieve traffic from an increasingly dangerous and congested I-80 corridor.

- Finally, we support including the Rio Wrangler to TRI Center project in the 2050 Plan. This eastern route will help our community by opening up access to privately-owned lands that are available for many types of development but lack a major access roadway. This will also help to decrease congestion on the I-80 corridor by providing alternative access in south Reno.

We thank you for the opportunity to share our thoughts and input on the 2050 RTP, a critical document that will help to shape growth in Northern Nevada for decades to come. We hope that you, your staff, and all stakeholders will give serious consideration to including the priority projects listed above at the core of the 2050 RTP. They are truly among the keys to unlocking prosperity for our region in the years ahead.

Again, thank you for your service to our community. Please do not hesitate to reach out to us on this or any other matter of concern to you.

Sincerely,

Elizabeth Fielder

Elizabeth Fielder
Chair

CHRISTY
CORPORATION

January 14, 2021

Chairwoman Jardon and RTC Board Members
Regional Transportation Commission of Washoe County
1105 Terminal Way, Suite 217
Reno, Nevada 89502

Re: Support for Agenda Item 4.1

Dear Chairwoman Jardon and RTC Board Members:

On behalf of Lifestyle Homes TND, LLC, I am writing to express my support for Agenda Item 4.1 that will be heard at the Regional Transportation Commission Board Meeting on January 15, 2021.

The approval of Agenda Item 4.1 is also vital to the success of the North Valleys and approved projects in the area. Specifically, the allocation of funds for certain Red Rock Road improvements are a crucial and timely public investment into North Valleys.

We look forward to continuing working with the RTC during the planning and development of Lifestyle Homes' projects.

Sincerely,

Mike Railey
Planning Manager

cc: Bob and Peter Lissner

University of Nevada, Reno

January 14, 2021

Via Email bthomas@rtcwashoe.com
Bill Thomas, AICP
Executive Director
Regional Transportation Commission
1105 Terminal Way Reno,
NV 89502

Re: Downtown Reno Circulation Study

Dear Bill:

This letter is to follow up recent conversations with the Regional Transportation Commission on the development of a Downtown Reno Circulation Study. We are encouraged and supportive of the RTC's ongoing focus and commitment to providing essential improvements within the University and Downtown area.

As you know the RTC and University, with assistance from City of Reno, have successfully implemented the Mathewson University Gateway District and the Virginia Street Bus RAPID Transit Extension Project that contributes to both City of Reno's Downtown and the University's master plans. These projects will enhance student and community access to the University and Downtown for many years to come. The planned buildings at the south end of campus will facilitate advancement of the University's educational and research mission and The Mathewson University Gateway and the Virginia Street Bus RAPID Transit Extension will provide a cohesive sense of community, identity, and pride that will inspire the community. The University's Gateway parking garage, the first building soon to break ground will compliment this downtown circulation study along with the Evans reroute and Lake/Evans connection road plan that RTC and the University are currently working diligently to implement.

From recent conversations, the discussed future Downtown Reno Circulation Study seems to suggest carrying this momentum into Downtown with planned streetscape, landscape, sidewalks, bike lanes/paths, lighting and pedestrian improvements that would further improve the access, safety, and revitalization of Downtown Reno while complimenting a seamless, safe, and attractive transition between the University and Downtown. The University sees merit in the general concept for Virginia Street and looks forward to better understanding how circulation between these two areas will flow.

Office of the Vice President of Administration & Finance
1664 N. Virginia St.
University of Nevada, Reno/0003
Reno, NV 89557-0003
(775) 784-4031 office
(775) 784-1774 fax

Additionally, the University has been made aware of other stakeholder comments regarding optimizing Center and Virginia street flows south of the Interstate and would like to discuss further.

We look forward to future discussions and collaborations.

Sincerely,

Vic Redding
Vice President, Administration and Finance

CC: Brian Sandoval, President, University of Nevada, Reno
Troy Miller, Director of Real Estate, University of Nevada, Reno

McDONALD CARANO

Michael A.T. Pagni, Partner
mpagni@mcdonaldcarano.com

Reply to: Reno

November 30, 2020

Via Email bthomas@rtcwashoe.com
Bill Thomas
Executive Director
Regional Transportation Commission
1105 Terminal Way, Ste. 217
Reno, Nevada 89502

Re: Downtown Reno Circulation Study

Dear Bill:

This letter is provided on behalf of the ROW Properties in response to requests for stakeholder input on the Downtown Reno Circulation Study being developed as part of the 2050 Regional Transportation Plan. As recognized by the Downtown Action Plan, deteriorating conditions in downtown is prompting a demand for investments in streetscape and transportation improvements, special events, and cultural and entertainment amenities to revitalize the downtown core and improve connectivity to the University and River districts. The ROW believes the Downtown Circulation Transportation Study provides an important opportunity to continue to explore collaborative efforts to secure these investments and revitalize downtown.

The ROW requests that the Study include a focus on new transportation investments along the Virginia Street corridor to revitalize downtown and create a clean, safe and attractive destination. These investments should seek to create connectivity throughout downtown to the University and Truckee River; improve safety and access for pedestrians, bicyclists, transit users, and auto drivers; increase availability and convenience of public parking to support publicly owned entertainment and tourism facilities in the downtown core; facilitate alternatives to street closures for special events; and establish and enhance vibrant public spaces. Specifically, the ROW requests evaluation of the following concepts:

1. Revitalize and Activate Virginia Street between the Truckee River and University.

As recognized by the Downtown Action Plan, "to implement the vision for Downtown Reno, changes to the physical setting, the streets and streetscapes, and the building forms are necessary." Improvements are needed to make Downtown better connected, more welcoming, safer and active. We request the study evaluate streetscape and landscape improvements to

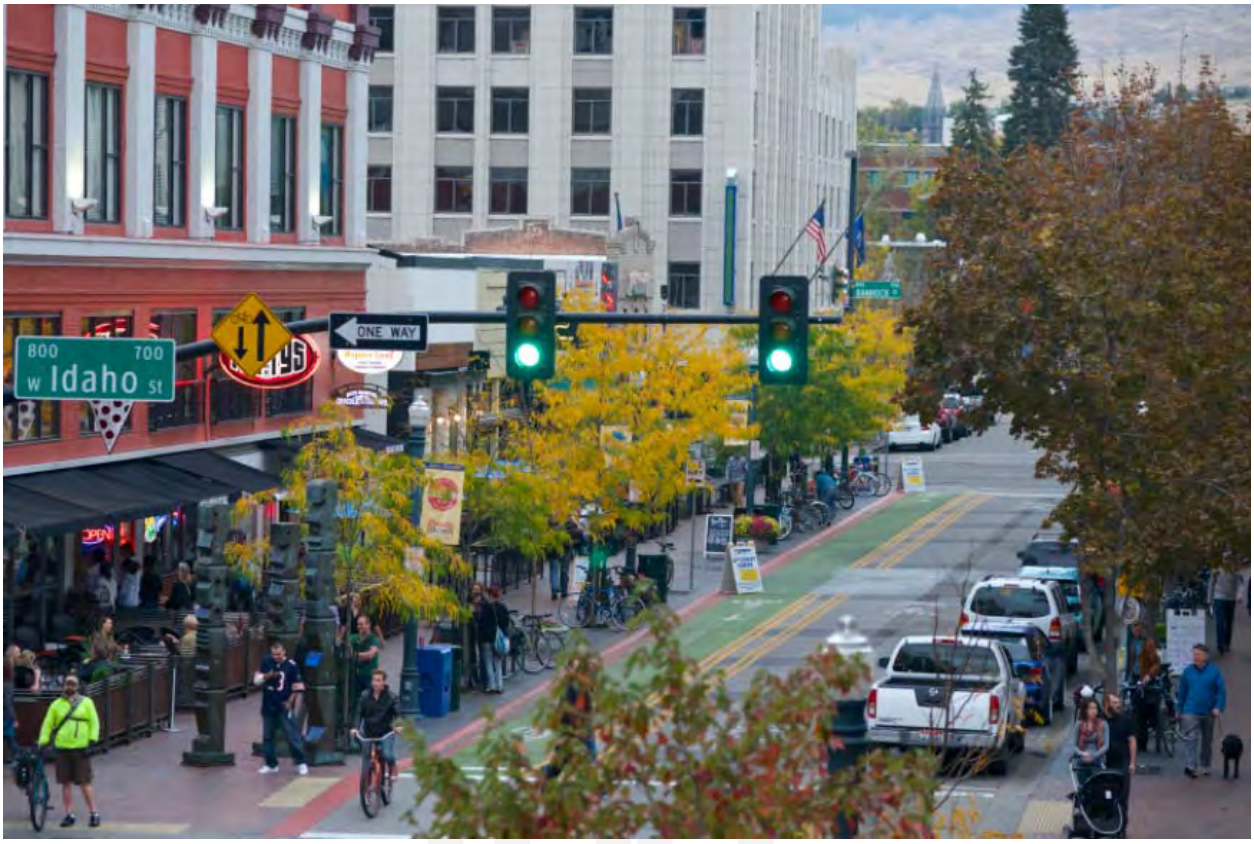
lighting, landscaping, and sidewalks on Virginia Street. RTC's recent project in Midtown demonstrates the transformative nature streetscape improvements can have on a neighborhood. Activating Virginia Street will also accelerate considerations by the ROW properties to open their buildings up to pedestrian activity on Virginia Street through sidewalk cafes, etc. Illustrations of conceptual examples are shown below:

2. Virginia Street Bus RAPID Transit Extension Project

We request the study evaluate locating the Bus RAPID Transit line connecting the University and Midtown along Virginia Street from the University to 4th Street. We note that locating a BUS Rapid Transit line on Virginia St. north of 4th Street will impact street closures for special events, but we are amenable to exploring options to mitigate those impacts through the creation of multi-purpose special events areas described below. We would also like to explore possibilities of closing 4th Street between Center and Virginia Street for special events, depending on availability of other special events areas described below. Options should be evaluated for BRT bus stops on Virginia Street across from the ROW Properties.

3. Bicycle Connectivity

We request the study evaluate locating the north/south bicycle lane on Virginia Street running from the University to Midtown as shown in the attached diagram. We understand initial studies have considered Center Street as a possible location; however, we believe Virginia Street is a more appropriate corridor. Virginia Street generally has fewer vehicles and slower traffic then Center Street. Additionally, traffic signals and traffic patterns on Virginia Street accommodate both north and south bound traffic, suggesting increased safety and decreased cost. Additionally, Virginia Street provides greater access to retail and other business uses which are likely to be frequented by bicyclists. Activating Virginia Street with bicycle connectivity is more aligned with current and future development plans.



4. Parking

More parking is needed downtown, especially to support publicly owned tourism and revitalization projects such as the Reno Events Center, Ballroom, and National Bowling Stadium, downtown special events, and entertainment and recreation destinations such as Greater Nevada Fields, the Truckee River and Tahoe Pyramid bikeway. We request the study evaluate on street parking along Virginia Street, surface parking on Virginia Street (across from the Silver Legacy as depicted on the attached illustration), and one or more parking structures along 4th Street, including an underground parking structure on the block to the west of the National Bowling Stadium (conceptually similar to Union Square in San Francisco). The parking areas could serve multi-purpose (special event) functions as well, as described in paragraph #5 below. Illustrations of conceptual examples are shown below:

5. Special Events

Urban planners are increasingly realizing that investment in public spaces, especially creating or revitalizing the "town square" or "public plaza" which have been neglected for decades, can provide a competitive edge in luring new businesses and residents to the urban core. Downtown lacks that type of space, which has forced special events -- a critical economic driver in the downtown core – to close down the streets to conduct these events. The absence of public space and street closures not only impedes traffic circulation, it creates impediments to conducting special events in the first instance. Recognizing that any revitalization of the Virginia Street transportation elements may require a reconsideration of street closures for these events, and consistent with the goals and recommendations of the Downtown Action Plan, we request the study consider and mitigate impacts to special events by establishing one or more special events plazas to facilitate the reduction in street closures and enhance pedestrian and vehicle traffic circulation during special events. These spaces could serve multiple public purposes, including surface or underground parking (similar to Union Square), urban green space and other arts and cultural purposes (e.g., ArTown events), civic purposes (e.g., outdoor ice rink and holiday festivities during winter) in addition to reducing street closures for special events. As shown in the attached, we ask that the half-block across from Silver Legacy and the block west of the National Bowling Stadium be evaluated for these multi-purpose parking/special event spaces. Conceptual examples are depicted below:

Union Square, San Francisco


SAKS FIFTH AVENUE

Centerway Square, Corning, NY

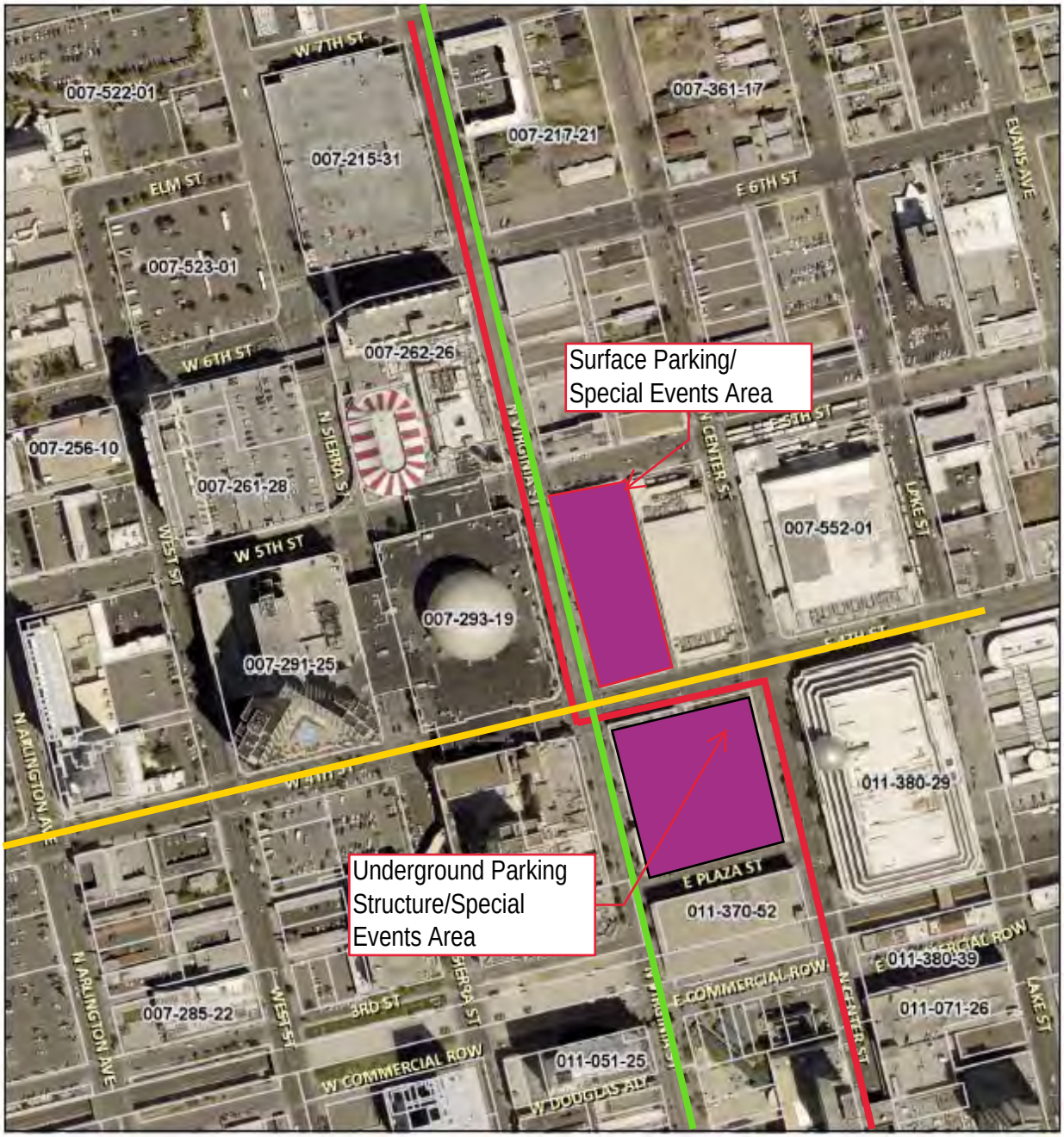
Cleveland, Ohio public square (conceptual)

We appreciate your consideration of this information and inclusion in the upcoming study. We welcome the opportunity to explore discuss these concepts in more detail.

Sincerely yours,

Michael A.T. Pagni, Esq.

C: Gary Carano
Anthony Carano
Glenn Carano
Stew Massie
Rick Murdock



Bus Rapid Transit (E/W)

Bus Rapid Transit (N/S)

Bicycle Lane/Cycle Track (N/S)

Office of the City Manager

MEMORANDUM

DATE: February 3, 2020

TO: Mayor and City Council

THRU: Sabra Newby, City Manager

FROM: John Flansberg, P.E., Director of Public Works
Arlo Stockham, AICP, Director of Community Development
Kerrie Koski, P.E., City Engineer

SUBJECT: **February 12, 2020 Council Agenda Item D.4: Presentation by the Regional Transportation Commission on the process for development of the 2050 Regional Transportation Plan with discussion and possible requests to be included in the plan.**

The Regional Transportation Commission is kicking off the update of the Regional Transportation Plan and will be presenting the public outreach efforts and process for developing the plan at your February 12, 2020 Council meeting. The purpose of this memorandum is to provide staff recommendations for your consideration as possible requests to be included in the 2050 Regional Transportation Plan. It is also to encourage you to think of other items that you may want considered as Reno continues to grow.

The Reno City Council will have other opportunities to provide input throughout the next several months and a draft plan is expected to be available for review in Fall 2020 with adoption of a final plan by May 2021.

Staff recommendations for your consideration:

- Review Regional Road Impact Fees in the Downtown and Urban Corridors, and pursue reduced impact fees tied to proximity to transit services, and potentially for affordable housing in certain locations.
- Prepare a Downtown Reno circulation study and plan for priority projects that may be identified in the study. The study should seek to increase roadway capacity and enhance multi-modal circulation.
- Evaluate parking improvements for infill development areas such as Midtown, similar to the park and ride facilities in the suburbs. This would provide convenient parking in proximity to rapid transit services.
- Addition of Neighborhood Collector classification to the Regional Significant Roadway list for future inclusion in RTC funding for preventative maintenance and rehabilitation.
- Include funding for traffic signal reconstruction in annual programming of preventative maintenance and rehabilitation.

- Inclusion of Reno bicycle / pedestrian path plan into regional bicycle / pedestrian plan once completed and approved by City Council.
- Addition of projects to be considered for funding in future years to include:
    - RTC University Area Transportation Study improvement projects
    - South Meadows Multimodal Transportation Study improvement projects
    - Old Virginia Street from northern terminus to Cold Springs
    - Reno Stead Airport Industrial Development roadway network
    - Pembroke and Mira Loma capacity improvements between McCarran and Veterans Parkway
    - Verdi area capacity improvements tied to planned development
    - South Meadows Parkway extension to Tahoe Regional Industrial Center

For your information, the current 2040 Regional Transportation Plan (RTP) was based on four guiding principles as condensed from community input which included:

- Safe and healthy communities
- Economic development and diversification
- Sustainability
- Increased travel choices

The goals of the 2040 RTP included:

- Improve safety
- Integrate land-use and economic development
- Promote healthy communities and sustainability
- Manage existing systems efficiently
- Integrate all types of transportation
- Focus on regional connectivity
- Promote equity and environmental justice
- Improve freight and goods movement
- Invest strategically

REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **AGENDA ITEM 5.2**

From: Amy Cummings, AICP/LEED AP, Director of Planning and Deputy Executive Director

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RECOMMENDED ACTION

Conduct a public hearing regarding approval of the Federal Fiscal Years (FFY) 2021-2025 Regional Transportation Improvement Program (RTIP); adopt a resolution approving the RTIP and approve a self-certification regarding the metropolitan transportation planning process.

BACKGROUND AND DISCUSSION

The RTIP provides documentation for multimodal transportation improvements and identifies funding sources over a five-year period. Projects in the RTIP are moved forward to implementation from the 2050 Regional Transportation Plan (RTP).

This RTIP will continue many of the projects that are currently underway as well as standing programs contained in the previous document, including previously approved Transportation Alternative Set-Aside projects; purchase of RIDE and ACCESS replacement vehicles; transit and paratransit operations; and the Safe Routes to School, trip reduction, traffic management, bicycle/pedestrian/ADA, and pavement preservation programs. New projects included in the FFY 2021-2025 RTIP are those identified through the 2050 RTP. An air quality analysis of the proposed capacity projects was performed and the draft RTIP meets federal Transportation Conformity requirements.

A 21-day public comment period preceded this public hearing (February 25 – March 18). The draft RTIP was posted on the agency website and notice of a 21-day public comment period was published in the several newspapers and through social media outlets per the RTC Public Participation Plan. Following approval by the Board, the document will be submitted to the Nevada Department of Transportation (NDOT) for inclusion into the Statewide Transportation Improvement Program (STIP).

Concurrent with the submittal of the RTIP as part of the STIP approval, RTC is required to certify that the metropolitan planning process is being carried out in accordance with all applicable federal requirements. RTC is required to prepare and submit the self-certification pursuant to 23 CFR §450.336.

FISCAL IMPACT

There is no additional cost in connection with this agenda item.

PREVIOUS BOARD ACTION

September 20, 2019 Approved a resolution adopting the FFY 2020-2024 RTIP

ADVISORY COMMITTEE(S) RECOMMENDATION

Both the Citizens Multimodal Advisory Committee (CMAC) and Technical Advisory Committee (TAC) recommended approval of the RTIP at their March 3 and March 4, 2021 meetings, respectively.

ATTACHMENT(S):

A. Resolution
B. FFY 2021-2025 RTIP
C. MPO self-certification

RESOLUTION 21-02

RESOLUTION APPROVING THE FFY 2021-2025 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM (RTIP) FOR THE RENO-SPARKS URBANIZED AREA.

WHEREAS, Title 23 Code of Federal Regulations, Part 450, and Title 49 Code of Federal Regulations, Part 613, require the preparation and approval of a Regional Transportation Improvement Program (RTIP) by the Metropolitan Planning Organization (MPO) at least every four years; and

WHEREAS, the Regional Transportation Commission of Washoe County (RTC) has been designated by the Governor of the State of Nevada as the MPO for Washoe County; and

WHEREAS, the RTC, through the conduct of a continuing, comprehensive and coordinated transportation planning process carried out in conjunction with the RTC member entities and the Nevada Department of Transportation and in conformance with all applicable federal requirements, prepared the FFY 2021-2025 RTIP which includes all federal and non-federal regionally significant transportation projects; and

WHEREAS, the RTC finds the FFY 2021-2025 RTIP in conformance with the 2050 Regional Transportation Plan (RTP) ; and

WHEREAS, the RTC finds that pursuant to Title 40 of the Code of Federal Regulations, Part 93, this FFY 2021-2025 RTIP conforms with the intent of the State Air Quality Implementation Plan; and,

WHEREAS, the RTC finds that current fiscal resources are adequate to develop, operate and maintain the transportation system, and finds that the FFY 2021-2025 RTIP is limited to projects for which funds are available or committed; and

WHEREAS, the FFY 2021-2025 RTIP has been prepared through a process of community and agency coordination and participation in accordance with the RTC's adopted Public Participation Plan and all applicable federal requirements;

NOW, THEREFORE, BE IT RESOLVED that the RTC does hereby approve the FFY 2021-2025 RTIP.

CERTIFICATE

The undersigned, duly qualified Chair of the Regional Transportation Commission, certifies that the foregoing is a true and correct copy of a resolution adopted at a legally convened meeting held on March 19, 2021.

_____
Neoma Jardon, Chair
Regional Transportation Commission

STATE OF NEVADA)
§
COUNTY OF WASHOE)

This instrument was acknowledged before me on _____, 2021, by _____, Chair of the Regional Transportation Commission.

_____
Notary Public

Federal Fiscal Year 2021 - 2025
REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM

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Chapter 1: Introduction

The State Legislature created the Regional Transportation Commission (RTC) in 1979, combining the previous statutory authority of the Regional Street and Highway Commission, the Regional Transit Commission and the Washoe County Area Transportation Study Policy Committee. The responsibilities of the RTC include design and construction of major streets and highways and administration of public transportation systems serving Washoe County.

The Regional Transportation Commission (RTC) of Washoe County was designated as the Metropolitan Planning Organization (MPO) for the Reno-Sparks urbanized area pursuant to federal law (23 USC 134). In this capacity, RTC is responsible under the Code of Federal Regulations (23 CFR Part 450) for carrying out a "continuing, cooperative, and comprehensive" transportation planning process that results in plans and programs consistent with the planned development of the urbanized area. The RTC prepares short- and long-range transportation plans for the region, programs multi-modal transportation and safety improvements through the RTIP process, and develops and administers the Unified Planning Work Program (UPWP).

Overview of the Regional Transportation Improvement Program Process

The Federal Fiscal Year (FFY) 2021-2025 Regional Transportation Improvement Program (RTIP) is a five-year plan of street and highway, transit, bicycle and pedestrian projects for Washoe County and is based on the federal fiscal year (October – September). The RTIP includes a summary of projects by federal fiscal year and shows the agency responsible for implementing the project, funding source and other related information. The RTIP represents a prioritized program directed at meeting Washoe County's growing transportation needs while improving the region's safety, air quality, transportation efficiency, and mobility. The RTIP is required by federal regulation and serves as a useful tool in planning and programming transportation system improvements.

The RTIP assists in implementing the Regional Transportation Plan (RTP) by advancing projects from the first five years of the long range plan. Projects in the RTIP further the RTC guiding principles of supporting:

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

The initial federal legislation that established overall transportation program direction and authorized funding levels to the RTC as the Metropolitan Planning Organization (MPO) for Washoe County was included in the 1990 Clean Air Act Amendment (CAAA) and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). There have been several surface transportation funding and authorization bills since ISTEA, including the Moving Ahead for

Progress in the 21st Century (MAP-21) Act in 2012 and the current Fixing America's Surface Transportation (FAST) Act, which was signed into law on December 4, 2015. The passage of MAP-21 established a streamlined, performance-based, and multimodal program to address the many challenges facing the U.S. transportation system. It signaled a transition to a performance and outcome-based program, and directed states and MPOs to invest resources in projects to achieve individual targets that collectively will make progress toward national goals. The FAST Act carries forward and expands the performance-based transportation planning framework established under MAP-21. The FAST Act was set to expire on September 30, 2020, but has been extended an additional year through September 30, 2021 through a Congressional continuing resolution (CR).

Conformity with the Clean Air Act Amendment of 1990

The commitment of Congress to promote and continue major reforms in the transportation planning process is shown with CAAA and all transportation legislation since ISTEA in 1991. The conformity provisions of the CAAA established important requirements that transportation plans, programs and projects conform to the purpose of the State Implementation Plan (SIP). The SIP establishes actions designed to improve air quality and meet National Ambient Air Quality Standards (NAAQS) for each criteria air pollutant, according to the schedules included in the CAAA, and is a formal submission of the region's air quality strategy to the federal government.

The emissions from motor vehicles make a significant contribution to air pollution, therefore, CAAA requires that transportation officials make a commitment to programs and projects that will help achieve air quality goals. Examples of these air quality goals include providing for greater integration of the transportation and air quality process; ensuring that transportation plans, programs and projects conform with the Statewide Implementation Plan (SIP) and contribute to attainment of national standards; and reducing growth in vehicle miles traveled (VMT) and congestion in areas that have not attained the U.S. Environmental Protection Agency (EPA) air quality standards. The federal standards require that certain pollutants do not exceed specified levels. Areas that violate this standard for specified pollutants are designated as non-attainment areas.

The core area of the Truckee Meadows is designated as Hydrographic Area #87 and is fully incorporated within the metropolitan planning area boundary. The hydrographic area is designated as in "attainment/maintenance" for both carbon monoxide (CO) and particulate matter of less than 10 microns (PM_{10}). A regional emissions analysis must be performed for each pollutant that the area is determined to be in maintenance status for. The results from this analysis are shown in Chapter 8.

Washoe County is currently designated as "attainment/unclassifiable" for the 2015 ozone NAAQS, however, the most recent certified ozone data indicates the Truckee Meadows is not meeting the standard. Non-compliance with the NAAQS could lead to EPA formally re-

designating the urban area to "non-attainment." In 2016, the RTC Board adopted a resolution supporting the goals identified in the Washoe County Health District, Air Quality Management Division's (AQMD) Ozone Advance Path Forward. Ozone Advance encourages voluntary actions to proactively reduce VMT, improve air quality, and avoid a "non-attainment" designation. Some of the projects included in this RTIP that yield improvements to the region's air quality include:

- Acquisition of Electric/Zero Emission or Alternative Fuel Transit Buses
- Implementation of Bicycle/Pedestrian Facilities
- Traffic Flow/Intersection Improvements
- Traffic Signal Operations Program
- Trip Reduction Program

Implementing the FAST Act and MAP-21

In 2014, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) sent a letter to the Executive Directors of the Metropolitan Planning Organizations (MPO) and the heads of the State Departments of Transportation (State DOT) encouraging them to give priority to the following emphasis areas: MAP-21 Implementation, Regional Models of Cooperation, and Ladders of Opportunity. These three priorities remain as strategic objectives for the Surface Transportation Program and have been integrated into the RTC planning work program and RTIP.

MAP-21 established the following national performance goals for Federal highway programs, which were continued under the FAST Act:

- Safety—To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- Infrastructure condition—To maintain the highway infrastructure asset system in a state of good repair.
- Congestion reduction—To achieve a significant reduction in congestion on the National Highway System (NHS).
- System reliability—To improve the efficiency of the surface transportation system.
- Freight movement and economic vitality—To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- Environmental sustainability—To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- Reduced project delivery delays—To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

In MAP-21, the transportation planning process was enhanced to incorporate performance goals, measures, and targets in identifying needed transportation improvements and project selection. The RTP describes the performance measures and targets used in assessing system performance and identifies progress made in achieving the performance targets. The RTIP must also be developed to make progress toward established performance targets, and the projects identified in the FFY 2021-2025 RTIP support multiple national performance goals by offering measurable contributions toward those targets.

Safety Performance Management

Safety Performance Management (Safety PM) is part of the overall Transportation Performance Management (TPM) program, which FHWA defines as a strategic approach that uses system information to make investment and policy decision to achieve national performance goals. The Safety PM Final Rule supports the Highway Safety Improvement Program (HSIP), as it establishes safety performance measure requirements for the purpose of carrying out the HSIP and to assess fatalities and serious injuries on all public roads.

The Safety PM Final Rule establishes five performance measures as five-year rolling averages to include:

1. Number of Fatalities
2. Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT)
3. Number of Serious Injuries
4. Rate of Serious Injuries per 100 million VMT
5. Number of Non-motorized Fatalities and Non-motorized Serious Injuries

The RTC's aspirational vision is that zero fatalities on our region's roadways is the only acceptable goal and RTC recognizes that reaching that goal will require time and significant effort by all stakeholders. The annual safety performance targets identified in this document represent an important step in working toward the ultimate goal of eliminating traffic-related deaths and serious injuries. The safety performance targets are considered interim-performance levels that make progress toward the long-term goal of zero fatalities. This approach is consistent with guidance from the U.S. Department of Transportation as well as states and metropolitan planning organizations (MPOs) across the nation, including the Nevada Department of Transportation (NDOT). The RTC is also an active stakeholder in the Vision Zero Truckee Meadows Task Force. Table 1-1 shows the current targets and status of national measures.

Table 1-1
National Safety (PM1) Performance Measures

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

Note: 2018 crash data is the most recent data available at the time of this publication.

Pavement and Bridge Condition and System/Freight/CMAQ Performance Management

As part of the TPM program, MAP-21 established measures for assessing pavement and bridge condition for the National Highway Performance Program (known as PM2). It also established measures for travel time reliability on the Interstate and non-Interstate NHS for all vehicles as well as for truck traffic specifically (Interstate only), and the assessment of the Congestion Mitigation and Air Quality (CMAQ) Improvement Program through measurement of total emissions reduction of on-road mobile source emissions. These measures are known as PM3.

The six national performance measures developed under PM2 include the percentage of pavements in good condition and percentage of pavements in poor condition on both the Interstate System and non-Interstate NHS, as well as the percentage of bridges in good condition and the percentage of bridges in poor condition. The national performance measures for assessing pavement condition do not apply to all Regional Roads and the FHWA requires measures that reflect data elements in the Highway Performance Monitoring System (HPMS), including: International Roughness Index (IRI), rutting for asphalt surfaced pavements, faulting for jointed concrete surface pavements, and cracking percent. The method for assessing

bridges is based upon elements in the National Bridge Inventory (NBI), which examines the condition of the bridge deck, superstructure, substructure, and culverts. The data to support these measures is provided by NDOT, which assess pavement and bridge infrastructure on a periodic basis. Targets have been determined in collaboration with NDOT, and are as follows as of October 1, 2020, Mid Performance Period (MPP) Progress Report. The RTC has adopted a local performance management target for the pavement condition of regional roads, which is expressed as an overall Pavement Condition Index (PCI) of 80. It should be noted that 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 1-2
National PM2 Performance Measures

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%

Previously, RTC adopted NDOT's performance targets for the reliability measures on the Interstate System. However, these targets were established at a statewide level, and it was determined that they were not realistic or reflective of reliability metrics in Washoe County. As such, RTC established performance targets specifically for the region, as shown in Table 1-3. Level of Travel Time Reliability (LOTTR) is defined as the ratio of the longer travel times (80^{th} percentile) to a "normal" travel time (50^{th} percentile), using data from FHWA's National Performance Management Research Data Set (NPMRDS) or equivalent. Data to reflect the users can include bus, auto, and truck occupancy levels. Table 1-4 shows the targets for the CMAQ measures for PM3. The RTC is on track for reaching the four-year targets for emissions reductions as shown in the table below. At the time of adoption of this RTIP, emissions data has been compiled for two years.

Table 1-3
National PM3 Performance Measures (System Performance/Freight)

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 1-4
National PM3 Performance Measures (CMAQ)

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

The Reno-Sparks and Las Vegas urbanized areas are the only two areas in the state that are in maintenance or non-attainment of National Ambient Air Quality Standards (NAAQS) for specific criteria air pollutants. The state targets for these performance measures are simply the sum of the total emissions reductions for both Reno-Sparks and Las Vegas.

FFY 2021-2025 Regional Transportation Improvement Program Summary

The following table is a summary of the highway, transit capital and operating, bikeway and other projects in the RTIP. The 5-year program has a total cost of approximately $913 million.

Table 1-5
FFY 2021-2025 RTIP Summary

Project by Mode/Program	Total Cost	% of Total Program
Capacity Improvements	$261,500,000	29%
Multimodal Corridor Improvements	$233,360,000	26%
Freeway System Improvements	$141,065,000	15%
Pavement Preservation	$112,500,000	12%
Transit Operating and Capital	$88,091,784	10%
Intelligent Transportation Systems (ITS)/Traffic Management	$66,874,000	7%
Other Projects/Programs*	$9,411,717	1%
TOTAL	$912,902,871	100%

* Includes Safe Routes to School, trip reduction, Park and Ride, bicycle/pedestrian safety education programs, and maintenance agreements.

The complete RTIP project listing is contained in Appendix A, and represents the status of projects at the time of the adoption of this document. The listing shows the project description, the project limits where applicable, the project phase (preliminary engineering/design, right-of-way, construction, or "other" – operations or equipment purchases), the year programmed, the project costs and the federal, state and/or local contributions to the project cost. Over the lifetime of the current RTIP, it is anticipated that there will be amendments or administrative modifications, as it is a living document. To ensure portrayal of the most current status of a given project, those interested are encouraged to search for projects in the electronic Statewide Transportation Improvement Program (eSTIP). The eSTIP can be accessed online at https://estip.nevadadot.com/default.asp, and contains a searchable/sortable database for projects within the entire State of Nevada.

The individual projects in the RTIP were developed through coordination between the RTC, the Nevada Department of Transportation (NDOT), Washoe County and the cities of Reno and Sparks and based on the Regional Transportation Plan (RTP), which was developed through extensive public outreach. The RTC Technical Advisory Committee (TAC) and Citizens Multimodal Advisory Committee (CMAC) also provided input.

Freeway System and Capacity Projects

The RTIP programs approximately $403 million in freeway system and capacity projects. This funding typically comes from federal FAST Act programs, RTC Fuel Tax and state gas tax. Approximately $141 million are programmed by NDOT for freeway projects, such as improvements to US 395 and I-80. Major capacity projects include design and construction of RTC improvements for Pyramid Highway, Sparks Boulevard, Lemmon Drive, and Mill Street.

Another $112.5 million is allocated to the ongoing RTC Pavement Preservation program to maximize the useful life of the regional road network.

Multimodal Corridor Projects

The RTIP contains roughly $233 million for multimodal corridor projects. Significant projects include multimodal improvements on West 4th Street, Arlington Avenue Bridges, Oddie Boulevard/Wells Avenue, South Virginia Street, and Sun Valley Boulevard, along with several shorter segments in downtown Reno.

Transit Programs

The RTIP programs approximately $88 million on public transportation projects during the five-year period. This includes the RTC RIDE fixed-route transit system (including RTC REGIONAL CONNECTOR) and the RTC ACCESS paratransit services system. Most capital outlays are federal funds from FTA Section 5307, Section 5339 and the Congestion Mitigation and Air Quality (CMAQ) program. The primary capital expenditures call for the replacement of RTC RIDE buses and RTC ACCESS vans, but also include expansion of existing facilities like 4TH STREET STATION. The RTC is systematically phasing out older diesel RIDE buses with new alternative-fueled buses. Currently, 55 out of the 68 buses in RTC's fleet, or more than 80%, are hybrid or electric vehicles. The RTC's goal is to have a 100% alternative-fuel fleet by 2035.

Transportation Systems Management (TSM), Transportation Demand Management (TDM)

Transportation system operations improvements maximize the capacity of existing roadways in a highly cost effective way. RTC conducts a traffic operations program cooperatively with Washoe County, the City of Reno and the City of Sparks. Over the next five years, roughly $67 million is to be used for the traffic management program, intelligent transportation systems (ITS), intersection geometric and capacity improvements, and traffic calming improvements. This amount also includes NDOT expenditures on similar projects.

Other RTIP Conformities and Certifications

Conformity with the Regional Transportation Plan (RTP)

The projects in the RTIP are developed from the project list and policies included in the Regional Transportation Plan (RTP), and therefore conform to the RTP. The RTIP is the principal mechanism for implementing the transportation projects and programs contained in the RTP.

Financial Capacity

With federal programs, the RTC is required to evaluate the financial capacity of the agency to conduct and carry forward the financial requirements related to public transportation operations. The financial capacity analysis is prepared annually by the RTC Finance Department with the budget process. The RTC has the financial capacity to continue the street and highway and the public transportation programs through the five-year operating and capital financial model.

Public Involvement Plan

Federal legislation requires that each MPO formally adopt a proactive public involvement process. The intent of the process is an early and continuing involvement of the public in developing transportation plans and programs. The RTC most recently updated its Public Participation Plan in November 2017, which is compliant with federal regulations and is a comprehensive plan outlining the public involvement and education process.

Conformity Determination

The air quality and regulatory conformity determination associated with the RTIP is included as part of this document. A finding of conformity by the Regional Transportation Commission (RTC) is required before approval of federal program funding for individual projects included in the RTIP. The RTIP will be reviewed and updated every two to four years, allowing consideration and revision of project priorities. The resolution adopting this RTIP incorporates the required findings of conformance. Chapter 8 provides specific detail on the air quality and regulatory conformity analysis and determination. RTC works closely with the Washoe County Air Quality Management Division and other partner agencies involved in air quality analysis through periodic interagency consultation meetings.

Chapter 2: Planning Process

The RTIP is developed with the assistance and cooperation of state and local governments, including public works and planning officials, who develop project proposals and review the project listing developed by RTC staff.

Regional Planning Process

As the MPO for the Reno-Sparks urbanized area, the RTC is responsible for carrying out a "continuing, cooperative, comprehensive" transportation planning process that results in plans and programs consistent with the planned development of the urbanized area. The RTC develops the RTP, RTIP, and other planning documents in close cooperation with several federal, state and local transportation and environmental agencies as described below.

Truckee Meadows Regional Planning Agency (TMRPA) The TMRPA, created by state legislation in 1989, is responsible for preparation and implementation of the Truckee Meadows Regional Plan (referred to as the Regional Plan). The TMRPA is comprised of the Regional Planning Governing Board (RPGB), the Regional Planning Commission (RPC), and staff. The Regional Plan addresses regional urban form, natural resource management, infrastructure, and service provision within Washoe County. The agency implements the Regional Plan by ensuring that master plans of local governments and affected entities conform to adopted policies. The RTC is considered an affected entity and as such the RTP must be in conformance with the Regional Plan.

Nevada Department of Transportation (NDOT) NDOT is responsible for planning, programming, construction, and maintenance activities involving federal aid and state gas tax funding. Planning and programming of these projects are coordinated with RTC through the RTIP and RTP processes. NDOT also provides funds to RTC for transportation planning and transit operations and provides technical data and analysis to support the regional transportation planning process.

Washoe County Health District (WCHD) The WCHD has statutory responsibility for developing and implementing air quality plans and programs in Washoe County. The District is a strong partner with RTC in promoting a healthy community. The Air Quality Management Division (AQMD) and Chronic Disease Prevention Program actively support transportation investments that improve community health.

Reno-Tahoe Airport Authority (RTAA) The RTAA, created in 1977 by the State Legislature, has responsibility for county-wide airport operations and planning. It is the owner and operator of the Reno-Tahoe International and Reno-Stead Airports.

RTC Planning Process

The RTC planning process is intended to provide decision makers with plans and projects that effectively meet community needs. The measure of any planning program is the extent to which planned projects are implemented and the extent to which the desired objectives are achieved. Transportation planning in Washoe County has been successful due in large part to the unique structure of RTC as both a planning and an implementing agency.

Regional Transportation Plan (RTP) The central component or foundation of the RTC planning process is the Regional Transportation Plan (RTP). The RTP includes transportation policies encompassing multimodal travel by vehicles, transit, bicycles, and pedestrians and also addresses transportation management strategies. The RTP identifies the facilities, services and programs necessary to meet increasing travel demands through a minimum of a 20-year planning horizon.

The RTP includes guiding principles that are the overarching themes that recur throughout the plan and provide the basis for the goals and selection of transportation investments. The principles are:

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

The goals that were developed to support the guiding principles include:

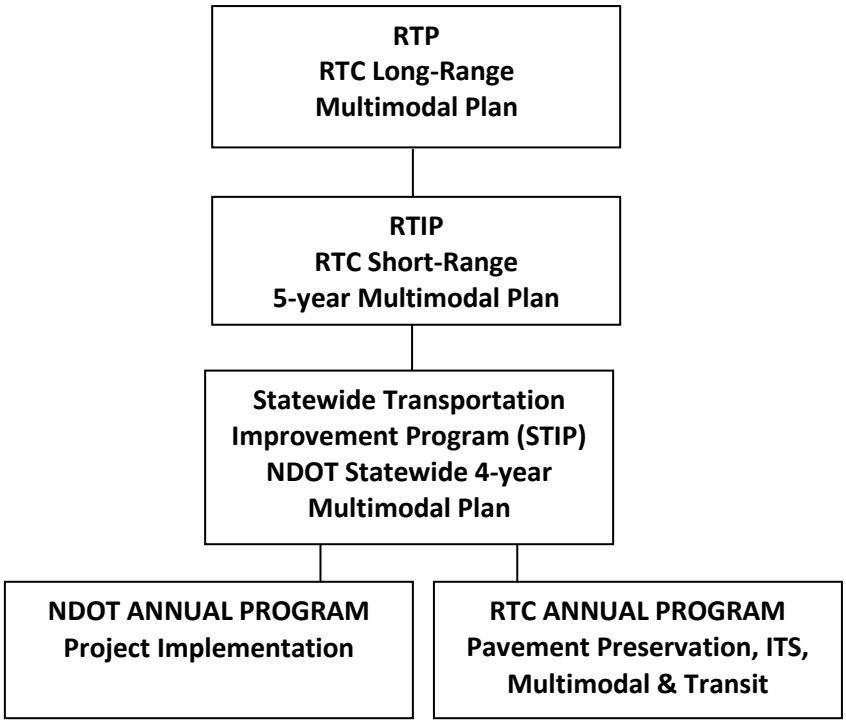
- Improve and Promote Safety
- Integrate All Types of Transportation
- Promote Healthy Communities and Sustainability
- Promote and Foster Equity and Environmental Justice
- Integrate Land Use and Economic Development
- Manage Existing Systems Efficiently
- Enhance Regional Connectivity
- Improve Freight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

The guiding principles and goals are discussed in detail in Chapter 1 of the Regional Transportation Plan.

Regional Transportation Improvement Program (RTIP) The RTIP is a five-year, multimodal transportation plan for implementation of projects in Washoe County. It includes transit, paratransit, major street and highway capital projects and transportation system and demand

management programs. The RTIP is the RTC's principal means of implementing long-term transportation planning objectives through annual programming of specific projects. Public transportation projects are incorporated into the RTIP. The implementation of the RTP guiding principles and goals occurs mainly through the RTIP, as shown in **Figure 2-1**.

Figure 2-1
Regional Transportation Commission
Planning Process



RTC Advisory Committees

RTC has established two standing advisory committees that participate actively in the transportation planning process. The Citizens Multimodal Advisory Committee (CMAC) is a self-governing committee that meets once a month and has responsibility for reviewing agency plans and projects, evaluating plan conclusions and recommendations and providing general public input into the planning process. The CMAC consists of citizens from various jurisdictions of Washoe County appointed by the RTC Board to provide public input to RTC staff in the conduct of transportation planning activities. CMAC membership is geographically diverse and maintains a balance of members with an interest in or experience with one of the following emphases: RTC RIDE (fixed route transit), RTC ACCESS (paratransit), bicycle/pedestrian, and general multimodal transportation; thus providing another forum for discussion of regional transportation issues.

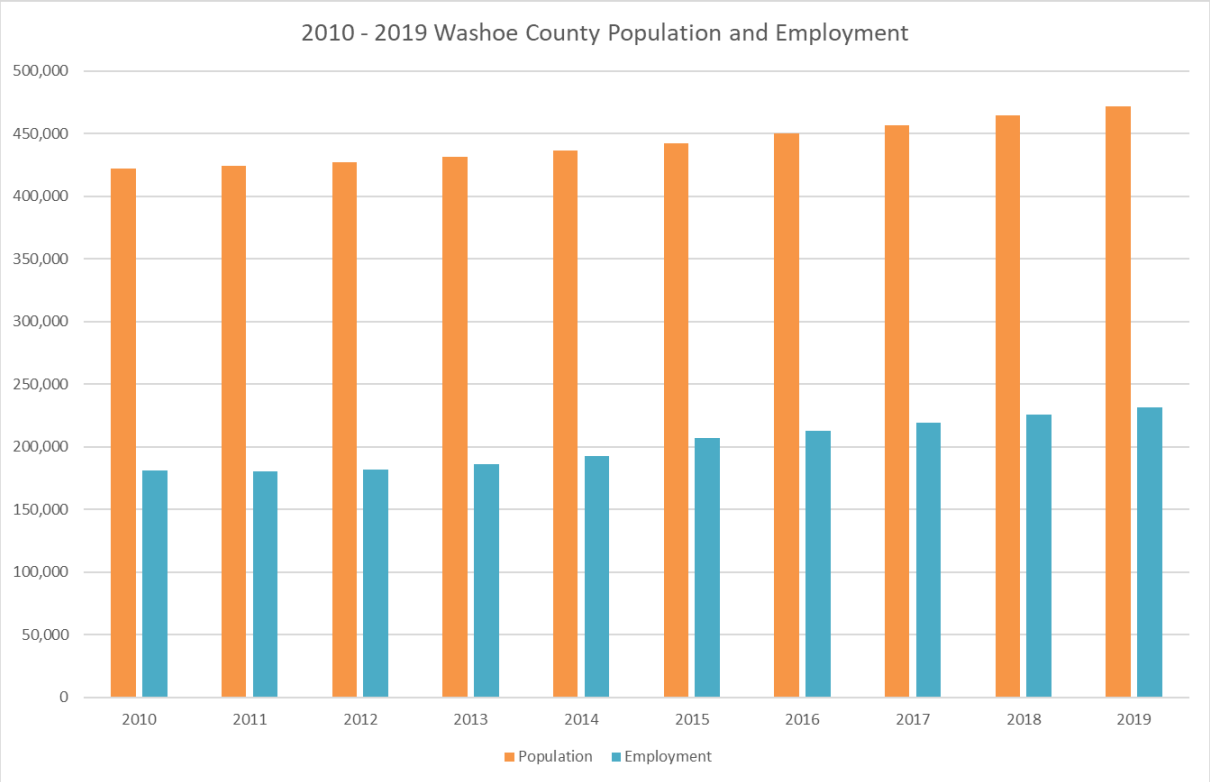
The Technical Advisory Committee (TAC) is composed of planning and public works personnel from each of the local governmental entities including the Cities of Reno and Sparks and Washoe County. In addition, representatives from the Nevada Department of Transportation (NDOT), Federal Highway Administration (FHWA), Truckee Meadows Regional Planning Agency (TMRPA), the Reno-Tahoe Airport Authority (RTAA), Washoe County Health District, Air Quality Management Division (WCHD—AQMD), Reno-Sparks Indian Colony (RSIC) and Washoe County School District (WCSD) provide input on transportation and air quality planning issues. It is the responsibility of this committee to review and comment on plans developed by RTC from a technical standpoint. It also advises and assists the RTC planning staff with methods and procedures and recommends technical standards.

Chapter 3: Current and Future Trends

Socioeconomic Trends

Between 2010 and 2019, the U.S. Census Bureau statistics showed the county population increased from 421,954 to 471,519. During this same time, employment increased from 180,901 to 231,583. Long term projections indicate a 2050 population of about 600,000. Other socioeconomic trends also affect the amount and type of travel in Washoe County, including the aging of the population.

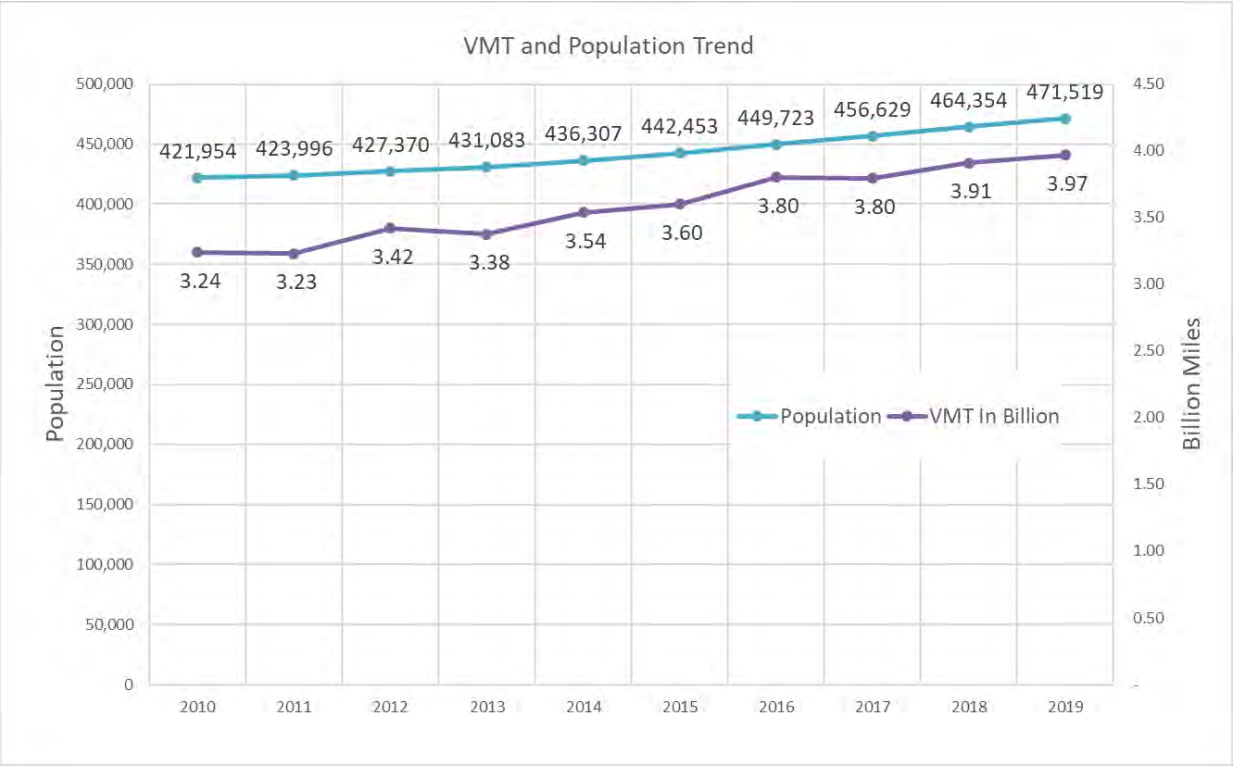
Figure 3-1



Travel Trends

Annually, NDOT has tracked the growth in motor vehicle travel in Washoe County as part of the Highway Performance Monitoring System (HPMS). While population increased from 421,954 in 2010 to 471,519 in 2019, the HPMS estimate of annual vehicle miles of travel (VMT) increased from about 3.24 billion in 2010 to more than 3.97 billion in 2019. While VMT declined during 2020 due to COVID-19, travel is expected to rebound as the economy fully reopens.

Figure 3-2



Population and Employment Forecasts

The Truckee Meadows Regional Planning Agency (TMRPA) develops the population and employment forecasts used in the regional travel demand model in partnership with RTC, NDOT, Washoe County, City of Reno, and City of Sparks. TMRPA uses an allocation based model to visually display a variety of population growth scenarios. As this RTIP is based on the 2050 RTP, the 2020 Washoe County Consensus Forecast was used to establish the long range total population projections for Reno, Sparks, and unincorporated Washoe County. Full documentation of the Consensus Forecasts is available on the TMRPA website. RTC works with TMRPA through a shared use program which includes support and collaboration in GIS analysis, data collection, online data access, and development of the Consensus Forecast.

Table 3-1
2020 Consensus Forecast Totals

Households, Population and Employment					
Model Year	**2020**	**2025**	**2030**	**2040**	**2050**
Households	187,558	199,384	209,470	224,738	238,244
Population	473,721	504,914	528,136	565,931	599,684
Employees	291,431	307,510	325,913	360,562	392,228

Chapter 4: Federal Transportation Programs

Introduction

The federal Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 established overall federal transportation program direction and, through the reauthorizations of the bill, a major portion of the FFY 2021-2025 Regional Transportation Improvement Program (RTIP) funding is provided. These programs were, for the most part, continued under TEA-21 and SAFETEA-LU transportation legislation. When MAP-21 was enacted, some of the core highway formula programs were restructured and carried through the FAST Act. A brief summary of each of the programs is provided below.

National Highway Performance Program (NHPP) The NHPP combined former SAFETEA-LU programs including the National Highway System and Interstate Maintenance and Bridge Programs. The NHPP provides support to the condition and performance of the National Highway System (NHS) for the construction of new facilities on the NHS and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets to be established in the states asset management plan.

Surface Transportation Block Grant Program (STBG) The STBG program provides flexible funding that may be used for projects to preserve or improve conditions and performance on any Federal-aid highway; bridge projects on any public road; facilities for non-motorized transportation; transit capital and public bus terminals and facilities. These funds provide NDOT and RTC with the opportunity to program funds for new construction, maintenance, transit, ridesharing/employer trip reduction (ETR), centralized traffic signal control systems and traffic management programs. The STBG program is divided into STBG-Statewide and STBG Washoe County Urbanized Area (STBG-Local) funding categories.

Congestion Mitigation and Air Quality Improvement Program (CMAQ) The CMAQ funding category is available to air quality non-attainment/maintenance areas and the majority of the Truckee Meadows is an air quality maintenance area for specific criteria pollutants identified under the CAAA. Funding from the CMAQ program can only be used for projects that will have substantial air quality benefits or the type of improvements identified in the State Implementation Plan (SIP). CMAQ cannot be used to fund projects that will result in the construction of new capacity available to single-occupancy vehicles (SOVs). Programs and projects that CMAQ can fund include programs to improve public transit, ETR programs, intersection improvements, traffic flow improvements that reduce emissions, bicycle/pedestrian facilities, park-and-ride facilities, and programs to restrict vehicle use in areas of emissions concentration.

Highway Safety Improvement Program (HSIP) The HSIP is a core Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including locally (non-state)-owned roads and roads on tribal land. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads with a focus on performance.

National Highway Freight Program (NHFP) The NHFP is a new funding program authorized through the FAST Act, which is focused on improving the efficient movement of freight on the National Highway Freight Network (NHFN). Funds are distributed to states by formula for eligible activities, such as construction, operational improvements, freight planning, and performance measurement. A state must have a State Freight Plan approved by FHWA in order to obligate NHFP funds. The Nevada State Freight Plan was approved in September 2016.

FAST Act Planning Provisions

The passage of the FAST Act made no significant regulatory changes pertaining to transportation planning. The most important planning requirements that are included in the RTC planning process are summarized below.

Long-Range Plan The MPO must prepare a long-range transportation plan that identifies transportation facilities for all modes necessary to serve a 20-year forecast period at a minimum. The long-range plan must include a financial plan that demonstrates how the long-range plan can be implemented, including all public and private revenue sources that are "reasonably expected to be made available to carry out the plan, and recommends any innovative financing techniques to finance needed projects and programs."

Transportation Management Area (TMA) Designation and Requirement for Congestion Management Process (CMP) The Secretary of the Department of Transportation is required to designate all urbanized areas with more than 200,000 population as TMAs. Within a TMA, it is necessary to develop a Congestion Management Process (CMP) that provides for effective management of new and existing transportation facilities eligible for federal funding. The RTC developed a CMP that was updated in the 2050 RTP.

MPO-State Coordination in RTIP Development Federal regulation states that all federally funded projects within the boundaries of a metropolitan planning area serving a TMA shall be selected for implementation from the approved RTIP by the MPO in consultation with the state. It specifies that the RTIP project selection is the responsibility of the MPO.

Project Prioritization and Financial Constraint Federal regulation also requires that the RTIP prioritize all projects and have a financial plan that demonstrates that funding is available for the projects listed. These requirements are discussed in Chapter 6—Project Prioritization and Chapter 7—Financial Plan of this document.

Functional Classification NDOT is required to develop a functional classification of roads and streets and the designation of routes on the Federal-aid highway system "in cooperation with local and regional officials." Functional classification identifies and groups roadways by the character of the service they provide. It was necessary to designate the National Highway System (NHS) segments within Nevada by 1993. The NHS in Washoe County was updated in 2016 through a cooperative effort with NDOT and the RTC.

Certification The Secretary of the Department of Transportation is required to certify that each MPO is carrying out its responsibilities under the law. The first certification deadline was September 30, 1993. Recertification must occur every four years. The most recent recertification for the RTC was received in 2020. Federal funding may be withheld if the MPO is not certified.

Chapter 5: Public Transportation Capital and Operating Plan

Introduction

The FFY 2021-2025 Public Transportation Capital and Operating Plan provides an overview of the current status of public transportation and, more importantly, is a plan for future service delivery. Public transportation is a valuable community asset that helps reduce traffic congestion, improve air quality, and provide essential mobility. This service allows local residents to access jobs, education, and commercial activities. By providing transit service along Urban Corridors, public transportation also helps promote the higher density, mixed use, and walkable communities envisioned in the *Truckee Meadows Regional Plan.*

RTC Public Transportation Services

The RTC provides the following public transportation services to the residents of Washoe County:

- RTC RIDE
- RTC RAPID
- RTC REGIONAL CONNECTOR
- RTC FlexRIDE
- RTC ACCESS
- Tahoe Area Regional Transit (TART) – RTC is a partner with Placer County, CA and the Tahoe Transportation District (TTD)

RTC RIDE – RTC RIDE began operating public transportation services on September 18, 1978 and is RTC's primary fixed-route public transportation system. RTC owns RTC RIDE facilities and equipment. RTC RIDE is operated by a private contractor under a turn-key contract.

RTC RIDE is a public fixed-route transit service owned by RTC. Passage of a 1/4% sales tax referendum by the voters of Washoe County on September 14, 1982, provided the financial resources necessary to expand fixed-route and paratransit service. As federal transit funding steadily declined over the past several years, the sales tax funding has been critical to continued improvement in public transportation. As part of a larger transportation funding package, transit funding was increased by the adoption of an additional 1/8% sales tax effective July 1, 2003, half of which has generally been used for transit and the other half for roadways.

The RTC RIDE system encompasses the Cities of Reno and Sparks and areas of Washoe County, using a fleet of approximately 70 buses on 26 fixed routes. The system operates in a 90 square-mile service area based on a ¾-mile distance from each fixed route (excluding RTC REGIONAL CONECTOR).

RTC RAPID – On October 11, 2009, RTC RAPID was introduced. RTC RAPID is a Bus Rapid Transit (BRT) express service, known as the Virginia Line, which serves the Virginia Street corridor from downtown Reno to Meadowood Mall. RTC RAPID includes level-boarding stations with more amenities. The service includes technology that allows the buses to communicate with the traffic signals to extend the green time several seconds for the bus. Design improvements help vehicles move around other traffic. The RAPID currently operates between 4th STREET STATION and Meadowood Mall and runs seven days a week. This service was recently extended further north on Virginia Street to provide a stronger connection between the University of Nevada – Reno (UNR), downtown Reno, and the Midtown neighborhood. In addition, a second RAPID route, called the Lincoln Line, went into operation December 2018 after the construction was completed to provide RTC RAPID service on the 4th Street/Prater Way corridor between CENTENIAL PLAZA STATION in Sparks and 4th STREET STATION in Reno for greater connectivity between downtown Reno and downtown Sparks.

RTC REGIONAL CONNECTOR – RTC REGIONAL CONNECTOR provides a commuter service between Reno and Carson City. The service operates Monday through Friday through a partnership between RTC and Carson City. This premium service carries over 36,000 passengers per year. This route is 33 miles each way and offers free WiFi. It runs three trips in the morning and three trips in the afternoon.

RTC FlexRIDE – RTC FlexRIDE is a curbside-to-curbside transit service available by requesting a ride through an app or by phone. Rides can be scheduled at your desired travel time and can be expected to arrive to the curbside closest to your location within 8 to 15 minutes. Fares are the same as the standard RTC RIDE fares. RTC initiated the first FlexRIDE pilot program in Sparks in 2019 and added additional FlexRIDE zones in the North Valleys, Spanish Springs, and Somersett/Verdi in 2020. The convenience of this service has made it very popular with customers, and resulted in strong increases over previously offered fixed route services in those areas.

Table 5-1

FY 2019* RTC RIDE System Performance Indicators	
Total Number of Rides in FY 2019	8.3 million
Average Number of Rides per Day	22,900
Total Service Hours (Revenue Vehicle Hours)	254,078
Average Passengers per Service Hour	32.6
Route w/Highest Passengers per Service Hour	RAPID Virginia (51.0)
Non-RAPID Route w/Highest Passengers per Service Hour	Route 12 (39.8)
Total RTC RAPID Ridership	1,463,372

* FY 2019 numbers were used due to FY 2020 being an anomaly as a result of the COVID-19 pandemic.

RTC ACCESS – In 1988, RTC established RTC ACCESS and assumed direct responsibility for providing door-to-door transportation for people with disabilities in the Reno/Sparks urbanized area. RTC ACCESS operates 24 hours a day, 7 days a week, in compliance with Americans with Disabilities Act (ADA) regulations. RTC ACCESS services include vans and night taxis. In FY 2017, 231,438 rides were provided, with an average of 2.7 rides per service hour.

Approximately 4,500 individuals are certified as ADA paratransit eligible in Washoe County. The RTC ACCESS van fleet uses compressed natural gas (CNG), a cleaner burning fuel, for better air quality and lower emissions.

RTC ACCESS also services some areas in the community beyond this geographic area (called the Non-ADA Zone). Funding assistance for trips in the Non-ADA Zone is provided by the Sierra Nevada Transportation Coalition (formerly CitiCare), a non-profit organization. Because RTC does not have the resources to provide fixed-route and paratransit service to all residences in Washoe County, the agency is pursuing partnerships with not-for-profit providers that can serve outlying areas and other specialized transportation needs. The Section 5310 Program, funded by the FTA, allows RTC to offer competitive grant funding to organizations that provide enhanced mobility for seniors and persons with disabilities.

Tahoe Area Regional Transit (TART) – Tahoe Area Regional Transit (TART) began operation in February 1975 and is operated by Placer County, California. In 1985, RTC signed an interlocal cooperative agreement (ICA) with Placer County to fund the extension of the TART system into the Incline Village/Crystal Bay area, which has since been amended to include participation with the Tahoe Transportation District (TTD). TART provides fixed-route service to people living in the communities of Tahoma, Homewood, Tahoe City, Kings Beach, Truckee and Incline Village with four fixed routes daily.

Prioritization of Public Transportation Improvements

Federal legislation requires prioritization of projects in the RTIP. This requirement is consistent with existing RTC practices to evaluate the overall benefit of any public transportation project. The following issues are considered before changes in transit service are made:

1. What is the intent of the project and why is it needed?

2. What are the anticipated benefits?
    a. What user groups or area of the community will benefit from the project?
    b. What existing services or facilities are available to that group or area?
    c. Will the project improve productivity?
    d. Is the project self-sustaining after the initial funding?

3. How will the project improve the availability of public transportation?
    a. Does the project enhance service level?

4. Does the project improve overall level of service performance standards?

5. Does the project provide air quality benefits?

6. What is the overall cost effectiveness of the project?

7. Does the project leverage other funding sources?

The analysis of new or expanded service addresses current and future demand as well as the cost effectiveness of each service. Capital improvements are prioritized by the RTC for inclusion in the RTIP.

Service and Capital Strategies

Transit is recognized as an essential part of the local economy that helps thousands of Washoe County residents get to work each day. Transit helps shape development patterns and is an economic development tool that supports local transit oriented development (TOD) zoning and land use policies. Transit also provides a critical public service to residents and visitors that do not drive or do not have an automobile. The environmental benefits of transit service are also well recognized – reducing the number of cars on the road reduces traffic congestion and air pollution.

Attracting new riders and encouraging current riders to take more trips on public transportation requires improving the customers' total transportation experience. It is important not only to expand service to new areas of the community and to make existing service more frequent where passenger loads warrant, but also to consider other factors including:

- How do passengers get to and from their bus stop?
- What is the waiting environment like?
- Do the buses run on-time?
- Are the vehicles and passenger amenities clean?
- Is sufficient information about bus stops, routes and schedules readily available to the public?
- How long does it take to travel from origin to destination?

RTC must formulate service and capital strategies based on these factors to attract new riders and encourage existing riders to take more trips while balancing financial projections for the system in the future. Because of this, the fiscally constrained transit program maintains the existing service with the following modifications planned for FFY 2021 through FFY 2025:

- Extension of RTC RAPID to the University of Nevada, Reno
- Reallocation of service hours to achieve greater efficiency
- Increase subsidy and expand eligibility for taxi bucks/Washoe Senior Ride Program
- Continuation of the FTA 5310 grant program to fund not-for profit transportation services.

The public transportation improvements for FFY 2021-2025 are contained in the project listing in Appendix A.

Chapter 6: RTIP Project Prioritization

The RTP project prioritization framework is a crucial element in the CMP. The projects identified in the 2050 RTP were compiled from a variety of sources, including:

- The 2040 RTP (developed in 2017)
- Corridor plans and studies such as the South Meadows Multimodal Transportation Study, University Area Transportation Study, and other corridor plans
- Road Safety Assessments and Safety Management Plans
- Community workshops and other public comments
- A series of online surveys
- Input from local governing bodies
- Input from the 2050 RTP Agency Working Group, RTC Citizens Multimodal Advisory Committee, RTC Technical Advisory Committee, and RTC Regional Road Impact Fee Advisory Committee.

After all project suggestions were reviewed for feasibility and any inconsistencies, each project was evaluated based on a series of criteria developed in support of the RTP Guiding Principles and CMP. Projects were distributed into one of the following four categories in an effort to establish a basis for comparison amongst similar project types.

- Freeway projects
- Capacity projects (widening or expansion of existing roadways, inclusive of multimodal amenities where feasible and appropriate)
- New roadways
- Multimodal projects (transportation infrastructure improvements exclusive of new capacity)

The framework described in the following sections was developed to assist in the prioritization process for regional roadway projects. It provided input and data for the RTC Board to consider during the project evaluation and selection process. It is important to note that a mathematical formula did not provide the final determination on project rankings and that professional judgement and community/agency staff input was considered by the RTC staff and Board in making final recommendations and decisions. Separate evaluation frameworks were applied to projects on existing roadways and construction of new roads. The factors for evaluating projects on existing roadways consists of the criteria below.

Evaluation Criteria for Projects on Existing Regional Roads

- Safety - crash frequency, rate, severity
- Congestion - travel demand model existing/forecasted level of service (LOS)
- Bike/Pedestrian Score - criteria in Bicycle & Pedestrian Master Plan
- Equity

- Project Readiness
- Regional Plan Land Use Priority - Truckee Meadows Regional Planning Agency (TMRPA) tier system
- Pavement Condition Index (PCI)/Bridge Rating
- Flood Mitigation
- Private/Other Agency Funding
- Public Input
- Agency Working Group Input

For analysis of new roads, a different methodology was developed because safety, congestion, pavement condition, and other data used to evaluate projects on existing roads would not be available for new construction. RTC developed cost estimates for each proposed new road project, identified the projected average daily traffic (ADT) that would use the road, and developed an estimate for cost per ADT.

Evaluation Criteria for New Road Construction

- Average Daily Traffic
- Cost per ADT
- Project Readiness
- Regional Plan Land Use Priority - TMRPA tier system
- Private/Other Agency Funding
- Flood Mitigation
- Emergency Response/Fire Evacuation
- Public Input
- Agency Working Group Input

Methodology

Safety

An analysis of all regional roads and freeways was conducted based on the three most recent years of crash data available from the Nevada Department of Transportation. Projects were scored based on a combination of crash frequency, rate, and severity.

Traffic Congestion

Traffic congestion is derived from 2020 (existing) traffic level of service as well as from the 2050 "no build" level of service obtained through the RTC Travel Demand Model.

Bicycle & Pedestrian Score

The bicycle and pedestrian score for each project was provided by the rating identified in the RTC Bicycle and Pedestrian Master Plan when applicable.

Project Readiness

This criteria is intended to reflect the analysis, community input, and vetting of projects that occurs through other stages of the planning process. It recognizes a commitment to completing a project that has progressed to the design phase, and the level of community support for projects that have been adopted into the Program of Projects (POP) or Regional Transportation Improvement Program (RTIP).

Equity

Higher priority is given to the extent to which a project improves transportation in an underserved community. Additional emphasis on equity in the 2050 RTP was requested during the RTC Citizens Multimodal Advisory Committee, and the following factors were considered in determining the level of equity a project has.

Is the project located in or in proximity to the following areas:

- Food desert as identified by the USDA
- Census track with higher than Washoe County average proportion of disabled residents
- Census track with higher than Washoe County average proportion of low income households
- Census track with higher than Washoe County average proportion of zero vehicle households
- Census track with higher than Washoe County average proportion of minority residents
- Census track with higher than Washoe County average proportion of residents age 65 and older
- Within ¼ mile of a school or hospital

Regional Land Use Tier

This criteria is based on the tiered land use system identified in the TMRPA Regional Plan. The policies in the Regional Plan support investment in the urban core.

Pavement/Bridge Condition

This criteria recognizes the benefit of investing in the state of good repair for regional roads and bridges. Projects with a lower pavement condition index (PCI) or bridge rating receive higher priority.

Flood Impact

Projects that address a critical need for flood mitigation are given a higher priority. An example of this would be road access that has cut off by flood waters for extended period. Other projects that are identified as Truckee River Flood Projects are given medium priority.

Private or Other Agency Funding

The purpose of this criteria is to recognize that the opportunity to maximize RTC revenues through public-private partnerships or financial participation of other agencies is a benefit to the region.

Criteria for New Road Construction
For construction of roads on new locations, the following additional criteria were evaluated.

- Projected ADT
- Cost per ADT
- Emergency Response/Fire Evacuation - This need was identified by both members of the public and the Truckee Meadows Fire Protection District. Proposed roadways that improve regional connectivity or provide a secondary route to isolated areas received higher priority. Projects that provide improved access within a neighborhood or community received medium priority.
- Projects Identified in a Plan or Study - Similar to Project Readiness for projects on existing roads, this criteria is intended to reflect the analysis, community input, and vetting of projects that occurs through other stages of the planning process. It recognizes a commitment to completing a project that has been identified as a recommendation in an individual corridor or area study, apart from the Regional Transportation Plan (RTP).

Following the project screening, RTC staff developed a draft fiscally constrained project listing for review by the RTC Agency Working Group, RTC advisory committees, and ultimately the RTC Board. The list was also provided for public comment prior to finalizing the RTP.

The Congestion Mitigation and Air Quality Improvement (CMAQ) program is a federal funding program that requires specific analysis related to project selection. Only projects for which air quality benefits are demonstrated are eligible. All of the RTIP projects considered for CMAQ funding are identified in the 2050 RTP for the first five-year planning horizon of the plan. The RTP also identifies transit projects as a priority for CMAQ funding. The conversion of diesel buses to electric or hybrid-electric vehicles generates a proven reduction in air pollutants. CMAQ will be a source for funding the conversion of the RTC bus fleet to cleaner fuels. In addition, the expansion of the RTC Bus RAPID Transit system, which contains the highest ridership of all the fixed route operations, is a high priority for CMAQ funding. The Trip Reduction Program, which helps fund a portion of the RTC VANPOOL program, is also eligible for CMAQ funding. The RTC VANPOOL program is the RTC's fastest growing public transportation program. In addition, the RTC has implemented a successful microtransit service (FlexRIDE) in a few areas (zones) in the region. The program offers mobility options for people who may live or work outside of the RTC fixed-route service area. Projects that increase capacity for single-occupant vehicles are not eligible for CMAQ.

Chapter 7: Financial Plan

FAST Act Requirements

Federal transportation legislation (FAST Act) requires that the RTIP include a financial plan that demonstrates how the RTIP can be implemented and indicates the different sources that are reasonably expected to be made available over the term of the document. Since 1991, fiscal constraint has been a key component of the statewide and metropolitan transportation planning processes. Fiscal constraint means that the RTP, RTIP, and STIP include sufficient financial information to demonstrate that the projects included in those documents can be implemented using committed, available, or reasonably available Federal, State, local, and private revenues, with the assurance that the federally supported transportation system is being adequately operated and maintained.

The eSTIP is structured in a manner that projects may only be included in the four or five years of the program if funds for those projects are "available" or "committed." Federal funding reflected in the eSTIP for projects is based on full apportionment by fund source as identified from the FHWA Financial Management Information System (FMIS) 10A report. All funding for projects is required to be identified by federal fund source, required matching source, and by phase by year. The cumulative total of all funds should not exceed the total of funds reasonably available to the RTC or NDOT. The outer years of fiscal constraint are inflated per the guidance in the FAST Act and are an estimate that is subject to change. Federal Funding amounts are updated at the beginning of each active fiscal year based on the FMIS 10A report.

The RTIP includes all modes of transportation, including transit (both operations and maintenance), street widenings, new streets, operations and maintenance of the street network, and bicycle and pedestrian facilities.

The RTP identifies financial assumptions that were developed in a coordinated effort with the local jurisdictions, state and federal agencies and the other Metropolitan Planning Organizations (MPOs) in the state. Partners in the effort included:

- Federal Highway Administration
- Federal Transit Administration
- Nevada Department of Transportation
- Nevada Department of Motor Vehicles
- City of Reno
- City of Sparks
- Washoe County
- Carson Area MPO
- Tahoe Regional Planning Agency
- Regional Transportation Commission of Southern Nevada

Financial Assumptions Summary

To comply with FAST Act requirements, RTC has prepared the following FFY 2021-2025 RTIP financial assumptions summary. This summary is intended to establish and document the levels of funding anticipated to be made available for the implementation of this improvement program with each fund source addressed separately.

Local Fund Sources

There were several initiatives that made additional local funding available to the RTC. In 1982, voters approved of a 1/4% sales tax dedicated to public transportation. In 2003 with the approval of Washoe County ballot question WC-2, an 1/8% sales tax was added to implement road and transit projects and fuel tax indexing was implemented based on the Consumer Price Index (CPI). The 1/8% sales tax was split evenly between road and transit projects. In 2008, with the approval of Washoe County ballot question RTC-5, the CPI indexing was discontinued for implementation of new indexing provisions calculated on the Producer Price Index (PPI).

Fuel Tax – Following passage of RTC-5, legislation was approved in 2009 to index fuel to PPI and additional bases were added including Federal, State, Diesel and alternative fuels. Eligible uses for fuel tax include overlays, reconstruction and new construction for regional streets included in the Regional Road System. RTC dedicates a portion of this funding source to preservation of the existing regional network.

Transit Sales Tax – The single most important funding source for transit in Washoe County continues to be the dedicated 5/16 cent sales tax (comprised of the 1/4% and half of the 1/8% sales tax provisions). The revenue generated by this tax provided more than half the funds necessary for RTC to operate RTC RIDE and RTC ACCESS and to contribute to the TART service. Based on historic trends, revenue is expected to grow at an annual rate of 5% for the base year of 2016. The amount of available sales tax revenue will greatly affect the level of public transit service RTC can provide.

Road Sales Tax – The other half of the 1/8% sales tax eligible for road projects. This funding source has been used for the pavement preservation program.

Regional Road Impact Fees (RRIF) – Impact fees are levied on new development to offset the cost of providing specific infrastructure improvements necessary to serve that new development. New development can be required to improve and add facilities necessary to maintain an established policy level of service (LOS). Impact fees are calculated and levied on the new development based on the degree that they contribute to the need for identified improvements. The Regional Road Impact Fee (RRIF) was implemented in October 1995 with the 6th Edition anticipated to be implemented late 2017/early 2020. With the current growth in

development that the Truckee Meadows is experiencing, the revenue generated by this program is anticipated to be more robust than in recent years**.**

State Funding Sources

State funding sources include gas tax, special fuel (diesel) tax, vehicle registration fees, motor carrier fees, driver's license fees and petroleum cleanup funds. For the purposes of this document, funding is generally from State Gas Tax and accounts for roughly $770,000 in funding for FFY 2021-2025.

Federal Fund Sources

Federal funds for transportation are collected nationally and allocated back to the states through a series of formulas and grants under the existing transportation legislation (FAST Act). The Fixing America's Surface Transportation Act, or "FAST Act," was signed into law on December 4, 2015. It is the first law enacted in over ten years that provides long-term funding certainty for surface transportation. Overall, the FAST Act largely maintains the program structures and funding shares between highways and transit that were introduced under MAP-21. Federal funding programs require a state or local contribution of funds toward the cost of a project which is referred to as matching funds. The typical match for street and highway programs is five percent and for transit programs it is 20 percent.

FAST Act programs generally available to the RTC and assumed in this document include:

National Highway Performance Program (NHPP) – funds are to support the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets to be established in the state asset management plan.

Within the Truckee Meadows, NDOT has directed NHPP funding to a variety of projects and programs in the I-80 and I-580/US Highway 395 corridors. For planning and programming purposes, the RTIP shows approximately $70.8 million in NHPP funding for these projects in the FFY 2021-2025 timeframe.

Surface Transportation Block Grant Program (STBG) – flexible funding that may be used for projects to preserve or improve conditions and performance on any Federal-aid highway, bridge projects on any public road, facilities for non-motorized transportation, transit capital and public bus terminals and facilities. These funds provide NDOT and RTC with the opportunity to program funds for new construction, maintenance, transit, ridesharing/employer trip reduction (ETR), centralized traffic signal control systems and traffic management programs. The RTIP includes STBG-Statewide and STBG Washoe County Urbanized Area (STBG-Local) funding categories. STBG-Local funds being allocated to the

region in the FFY 2021-2025 time period are approximately $27.3 million, while STBG-Statewide is around $30.8 million. There are additional funds being allocated within Washoe County in the form of HSIP (safety) of roughly $3.4 million.

Congestion Mitigation Air Quality Program (CMAQ) – flexible funding for transportation projects and programs to help meet the requirements of the Clean Air Act; to reduce congestion and improve air quality for the region. To support those requirements the following projects are being funded in the RTIP:

1. Traffic Management Program
2. Replacement of the public transit (RTC RIDE, RTC ACCESS) fleets
3. Intersection Improvement Program
4. Trip Reduction Programs

CMAQ funds can only be expended in areas identified by the U.S. Environmental Protection Agency (U.S. EPA) as in non-attainment of a national air quality standard or in maintenance areas, which subsequently receive an attainment designation from EPA. Within Nevada, these funds are divided between Clark County and Washoe County based upon an approved formula that considers population and the severity of the area's carbon monoxide and ozone air pollution problems. CMAQ funding cannot be used for projects that result in new capacity for single-occupant vehicles. For programming purposes, it has been assumed that CMAQ funding will be a little over $7 million per year.

Transportation Alternatives Set-Aside Program (TA Set-Aside) – funds are for a variety of alternative transportation projects such as bicycle or pedestrian improvements and safe routes to schools programs. This RTIP assumes between $350,000 and $400,000 per year for the local program.

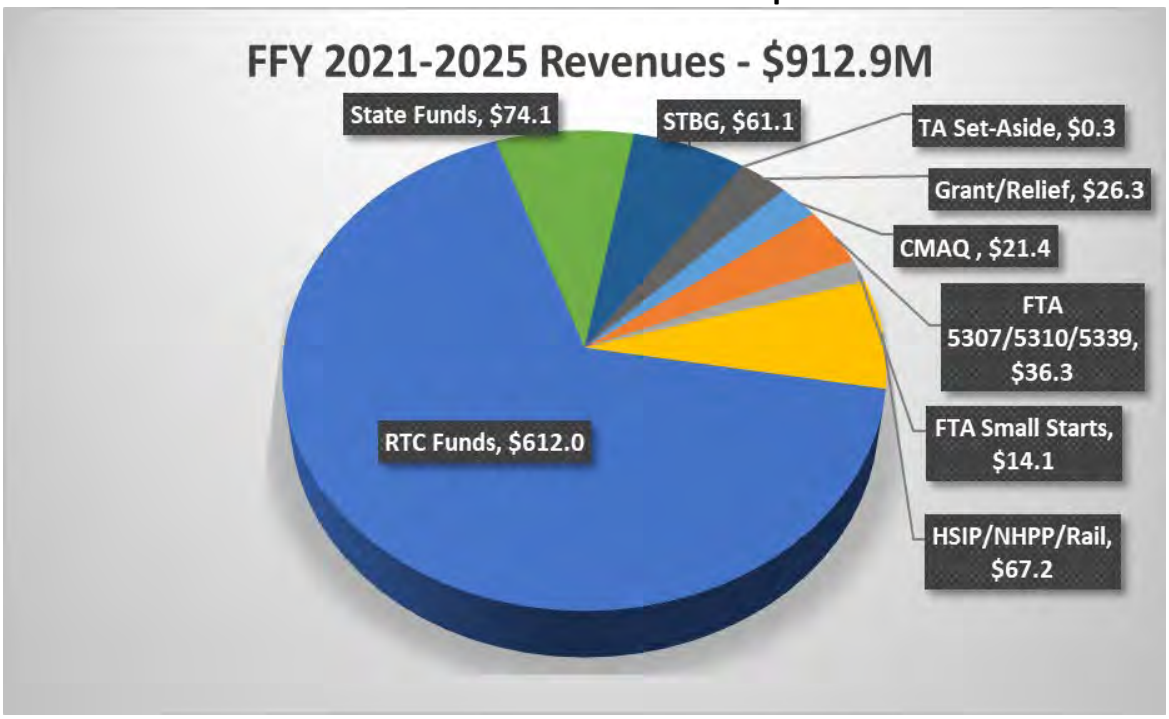
Federal Transit Administration (FTA) Section 5307 – provides grants to urbanized areas with a population of 50,000 or more to support public transportation. The program remained largely unchanged under the FAST Act. The funds projected to be available each year for urbanized areas with populations more than 200,000 are based on a formula that considers the population and density of the region as well as revenue vehicle miles of service. The federal contribution is up to 80% in capital expenditures with a required local match of at least 20%.

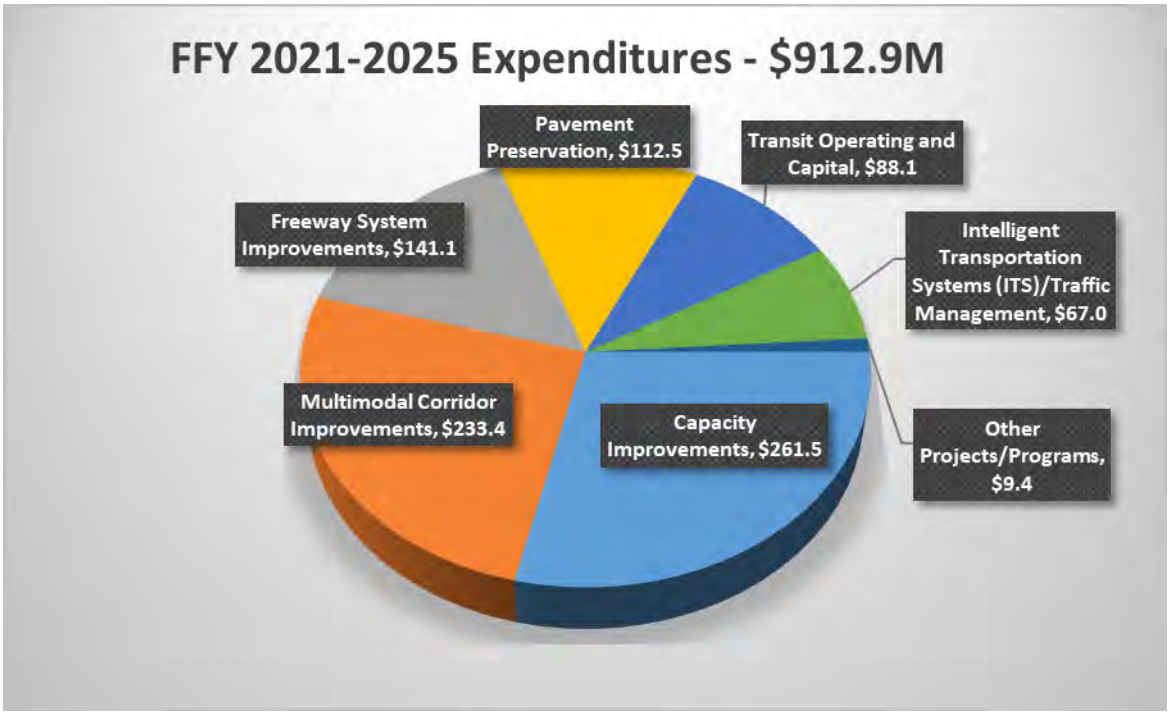
FTA Section 5339 – with the passage of MAP-21, Section 5339 was converted from a discretionary funded program to a formula-based program, and has remained formula-based under the FAST Act. Section 5339 provides funding to replace, rehabilitate and purchase buses and related equipment, and to construct bus-related facilities.

Financial Summary

Figure 7-1 represents a summary of revenues and expenditures for the FFY 2021-2025 RTIP. Expenditures are divided into the transportation mode or program in which the funds are to be expended. Revenues are categorized by the funding source including STBG (Statewide and Local), CMAQ, NHPP, HSIP, FTA (5307, 5310, 5339), TA Set-Aside funding, Discretionary Funds (FTA Small Starts/potential grants), RTC Funds, and State Funds.

Figure 7-1
FFY 2021-2025 RTIP Revenues and Expenditures





Chapter 8: Air Quality Analysis and Conformity Determination

Meeting Federal Requirements

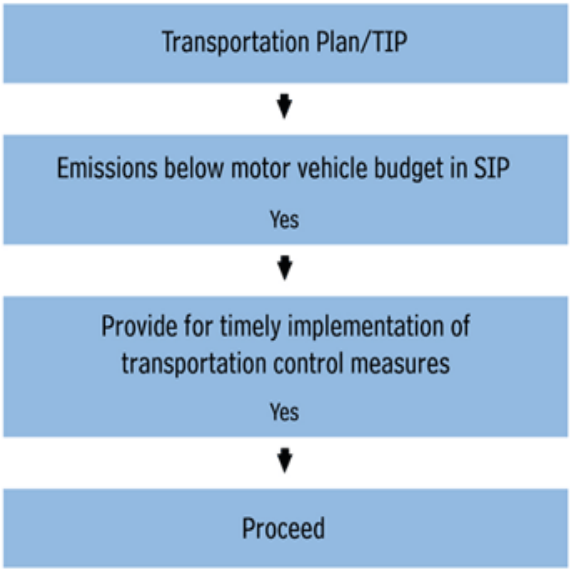
The Clean Air Act Amendments (CAAA) of 1990 require that each state environmental agency develop a State Implementation Plan (SIP). The SIP establishes actions designed to improve air quality and meet National Ambient Air Quality Standards (NAAQS) for each criteria air pollutant, according to the schedules included in the CAAA.

Since emissions from motor vehicles make a significant contribution to air pollution, the CAAA also requires that transportation officials make a commitment to programs and projects that will help achieve air quality goals including:

- Providing for greater integration of the transportation and air quality process
- Ensuring that transportation plans, programs and projects conform with the SIP
- Reduction in the growth in vehicle miles traveled (VMT) and congestion in areas that have not attained the Environmental Protection Agency's (EPA) air quality standards.

Conformity for the Regional Transportation Plan (RTP) and this RTIP is demonstrated when projected regional emissions generated by the plan and RTIP do not exceed the region's motor vehicle emissions budgets as established by the SIP. While the MPO is ultimately responsible for making sure a conformity determination is made, the conformity process depends on federal, state and local transportation and air quality agencies working together to meet the transportation conformity requirements. The roles and responsibilities of the partner agencies involved in the air quality conformity analysis are defined in the Washoe County Transportation Conformity Plan. The plan was adopted by RTC and the Washoe County District Board of Health in January 2013.

Transportation Conformity



Status of Air Quality Pollutants

Criteria pollutants are considered on a county-wide basis if actual pollutant levels are exceeded outside of the core area of the Truckee Meadows. The core area of the Truckee Meadows is designated as the Hydrographic Area #87 (HA87) as shown in Figure 8-1.

Figure 8-1
Reno/Sparks Hydrographic Area #87

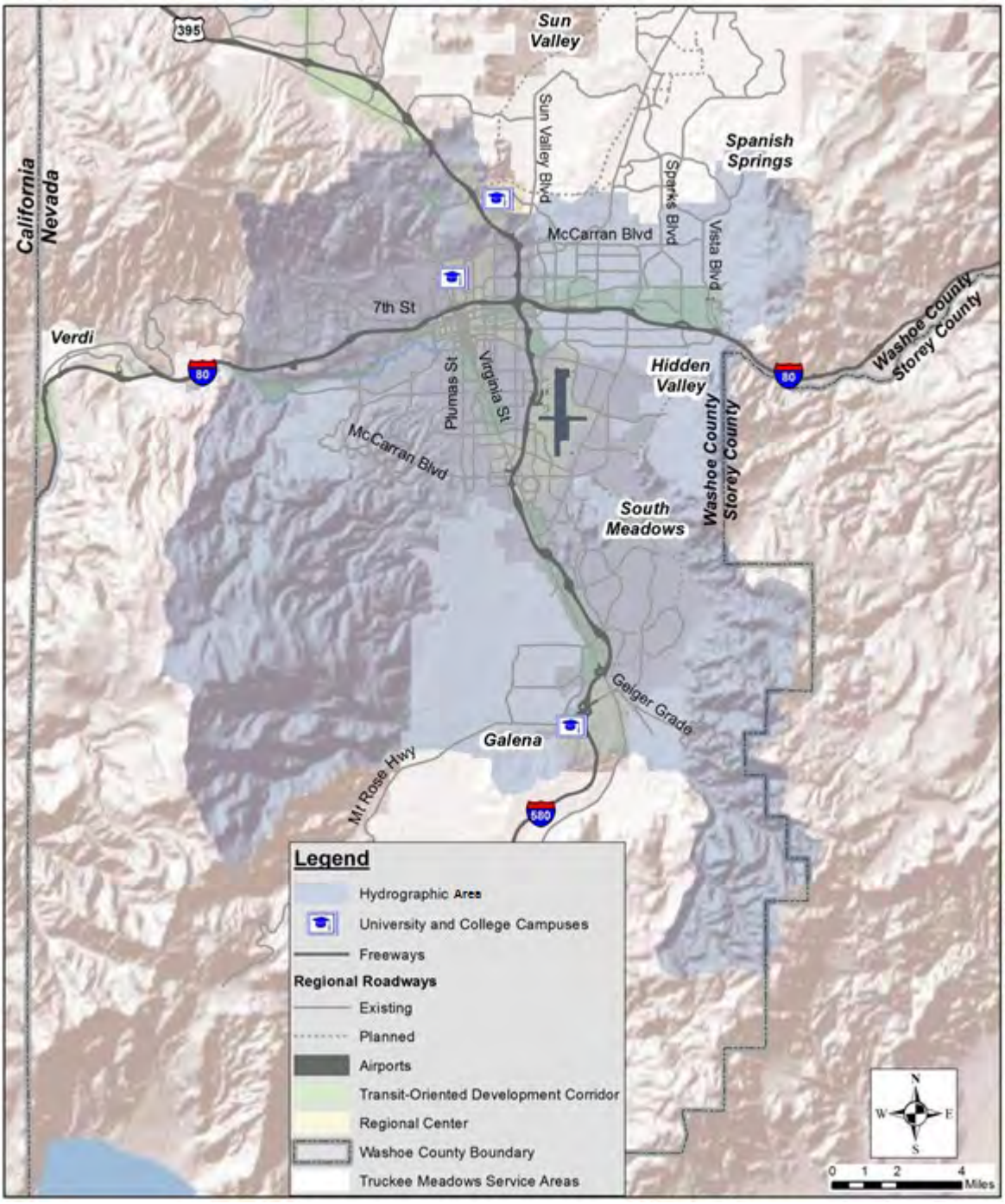


Table 8.1 summarizes Washoe County's current design values. Design values are the statistic used to compare ambient air monitoring data against the NAAQS to determine designations for each NAAQS.

Table 8-1
Design Values and Attainment Status (as of December 31, 2018)

NAAQS		Design Value	Designations	
Pollutant (Averaging Time)	Level		Unclassifiable/ Attainment, or Maintenance	Non-Attainment (classification)
O_3 (8-hour)	0.070 ppm	0.071 ppm	All HA's	---
$PM_{2.5}$ (24-hour)	35 µg/m³	25 µg/m³	All HA's	---
$PM_{2.5}$ (Annual)	12.0 µg/m³	7.6 µg/m³	All HA's	---
PM_{10} (24-hour)	150 µg/m³	0.0 Expected Exceedances	All HA's	---
CO (1-hour)	35 ppm	2.7 ppm	All HA's	---
CO (8-hour)	9 ppm	2.2 ppm	All HA's	---
NO_2 (1-hour)	100 ppb	48 ppb	All HA's	---
NO_2 (Annual Mean)	53 ppb	12 ppb	All HA's	---
SO_2 (1-hour)	75 ppb	5 ppb	All HA's	---
Pb (Rolling 3-month average)	0.15 µg/m³	n/a	All HA's	---

Source: 2009-18 Washoe County, Nevada Air Quality Trends Report

In 2015, EPA strengthened the 8-hour ozone standard from 75 to 70 ppb. The State of Nevada recommended that Washoe County be designated as attainment of the standard based on recent air monitoring data (2013-15) and EPA's exclusion of several wildfire-related ozone exceptional events.

Regional emissions analyses were performed for each pollutant to document conformity with the CAAA as part of the RTP. The Regional Transportation Commission, in collaboration with the local agencies, has also been implementing programs that reduce motor vehicle emissions in the region.

Travel Forecasting Model and MOVES Emission Model

The RTC's travel demand model was developed on the TransCAD platform. The model uses the 2020 Consensus Forecast population and employment provided by the Truckee Meadows Regional Planning Agency. EPA's MOtor Vehicle Emission Simulator (MOVES) is a state-of-the-science emission modeling system that estimates emissions for mobile sources at the national, county, and project level for criteria air pollutants, greenhouse gases, and air toxics. MOVES3 is now the latest official version of MOVES. The analysis uses MOVES3 to calculate emission data.

Air Quality Analysis – Plan Requirements

Federal regulations are specific in defining the level of air quality analysis necessary for incorporation into the RTP. Section 93, Title 40 of Code of Federal Regulations (CFR) dated August 15, 1997 (effective September 15, 1997), pertains to the criteria and procedures necessary to analyze the air quality impacts of the RTP. For the purposes of an air quality determination, the analysis years are 2015, 2020, 2025, 2030, 2035 and 2040. No air quality analysis is required for the street and highway projects identified as unfunded needs. A Federal regulations are specific in defining the level of air quality analysis necessary for incorporation into the RTP. Section 93, Title 40 of Code of Federal Regulations (CFR) dated August 15, 1997 (effective September 15, 1997), pertains to the criteria and procedures necessary to analyze the air quality impacts of the RTP. For the purposes of an air quality determination, the analysis years are 2020, 2025, 2030, 2040, and 2050. No air quality analysis is required for the street and highway projects identified as unfunded needs. A summary of requirements is listed below:

A. The RTP must contribute to emission reductions in CO non-attainment/maintenance areas.

B. Air quality analysis years must be no more than 10 years apart.

C. In CO and PM10 non-attainment/maintenance areas, analysis must be performed for both pollutants.

D. The last year of the RTP (2050) shall also be an analysis year.

E. An analysis must be performed for each year contained in the motor vehicle emission budget (MVEB) for the Hydrographic Area #87 for both CO and PM10, as budgets have been established for these pollutants.

F. For both CO and PM10, the analysis of emissions for the required years cannot exceed the MVEB.

Air Quality Analysis – Crediting Provisions

Federal regulations also allow for crediting procedures over the life of the RTP for the implementation of Transportation Control Measures (TCMs) in which emissions reductions can be quantified. These TCMs are critical to areas such as Washoe County that have experienced significant growth in population and VMT, and are expected to continue to do so. Several specific TCM measures are in progress or planned in Washoe County that will have quantifiable emissions reductions. These include:

A. Traffic signal optimization program.
B. Conversion of the public transit fleet cleaner fuels.
C. Implementation of trip reduction programs.

These TCMs have been the focus of studies to quantify the air quality benefit of each. The TCMs are described below. The RTC is not currently taking any credit for reduced emissions associated with these TCMs but may choose to take credit in the future, if conditions warrant.

A. Traffic Signal Optimization/Timing Upgrade Program

Traffic signal coordination and improvements seek to achieve two primary objectives: 1) improved traffic flow resulting in improved level of service and 2) mobile source emission reductions through decreased delay, fewer accelerations/decelerations and a decreased number of stops. The RTC has reviewed several studies and federally accepted models to quantify the reduction of mobile emissions from signal coordination programs. These include signal coordination studies conducted by several cities in Southern California and the California Department of Transportation (CALTRANS). A comparison of before and after field studies was conducted and the improvements in all three peak periods were noted. Examples included a statewide average reduction of 14 seconds in stop delay and a 12% reduction in the number of stops per mile in the afternoon peak period. Several methodologies were used to take the results of studies to quantify the emission reductions from signal coordination programs.

The pollution reduction results (tons/per day or percentage reduction) from each model vary as some models focus on corridor specific reductions while the others are more of an area-wide reduction projection. Pollutant reductions ranged from 11% along specific corridors to 3% to 4% on a regional level.

The RTC has initiated a region-wide traffic signal optimization and improvements program to enhance the capacity of the existing system and reduce traffic congestion in the region. This is an ongoing program that will allow nearly 400 intersections in the Truckee Meadows to be coordinated.

B. Conversion of RTC ACCESS and RTC RIDE Fleets to Alternative or Cleaner Burning Fuels

Almost 8 million annual passengers with 2.9 million miles are provided service by the RTC RIDE public transit and RTC ACCESS paratransit. While this is a small percentage of total daily travel, it is important in terms of air quality. All RTC RIDE buses are comprised of electric, hybrid diesel-electric and bio-diesel vehicles. RTC ACCESS cut-away vehicles are fueled by Compressed Natural Gas (CNG). These vehicles can reduce mobile emission totals. Estimates by the California Air Resources Board between standard urban diesel and biodiesel or CNG determined that NOX emissions from vehicles with CNG or cleaner burning diesels were reduced approximately 60%.

RTC currently has 23 zero emission electric buses and will be adding 8 more to the Virginia Line RAPID corridor over the coming years. In addition, RTC is exploring hydrogen fuel cell technology for the next generation of zero emission vehicles.

C. Trip Reduction Programs

The RTC's trip reduction program, RTC SMART TRIPS, encourages the use of sustainable travel modes and trip reductions strategies such as telecommuting, compressed work weeks, and trip chaining. Major components of the program include a bus pass subsidy program in which the RTC matches an employer's contribution to their employees' 31-day transit passes up to 20%; a subsidized vanpool program, RTC VANPOOL; and an on-line trip matching program, RTC TRIP MATCH, that makes it quick, easy, and convenient to look for carpool partners as well as bus, bike, and walking buddies for either recurring or one time trips. One of the most common deterrents to ridesharing is the fear of being "stranded." Consequently, people who either carpool or vanpool to work can sign up for the Guaranteed Ride Home program and be reimbursed for a taxi ride home up to four times a year if an unexpected event prevents normal ridesharing arrangements from working. Making trips safely on foot and by bicycle are also promoted by the RTC SMART TRIPS program throughout the year.

The goals of these programs are to promote trip reduction on a region-wide level, improve air quality, and reduce vehicle miles of travel and traffic congestion. During the period from July through September 2020 the air quality benefits of the program were substantial, as shown in Table 8-2. The data included the number of people in each vanpool and the average daily trip mileage. The air pollution calculation was obtained by multiplying the number of passenger trips for each vanpool per month by the average daily trip mileage for each vanpool per month and totaling those results to estimate the total VMT eliminated through the program due to the vanpool passengers not driving alone to work. The reduction in VMT was then multiplied by the pollutant factors per mile with those results outlined in the chart below. The emissions factors per mile for each pollutant were provided by WCHD-AQMD.

Table 8-2
RTC VANPOOL Air Pollution Reductions (July-September 2020)

RTC VANPOOL Air Pollution Reductions		
Volatile organic compounds (VOC)	12,617.3	lbs.
Nitrogen Oxide (NO_x)	7,088.4	lbs.
Carbon Monoxide (CO)	93,920.2	lbs.
Particulate Matter (PM_{10})	50.5	lbs.
Particulate Matter ($PM_{2.5}$)	47.0	lbs.
Carbon Dioxide (CO_2)	3,783,407.0	lbs.

RTC SMART TRIPS program continues to grow and add more participants. RTC TRIP MATCH is a web-based carpool, bike, bus and walking buddy matching service that eliminates single occupant travel miles.

RTC Travel Demand Model

2020, 2025, 2030, 2040 and 2050 networks were established for this RTP air quality analysis. The 2020 network consists of the current roadway network and the current transit network. Each of the remaining networks is comprised of the previous model year network with the capacity related projects and transit service changes included in the RTP.

Air Quality Analysis

An emission test on both CO and PM10 must be successfully completed to make a finding of conformity. The area of analysis for these pollutants is the Hydrographic Area #87. As stated previously, the CO and PM10 emissions for the required analysis years cannot exceed the established motor vehicle emissions budget. Analysis is performed for, 2025, 2030, 2040 and 2050 for both pollutants.

To initiate the air quality conformity determination, the emission levels for the pollutants in each analysis year are generated. The VMT for each facility type is derived from the RTC's travel demand model. Many local roads are approximated as centroid connectors in the model network. Since centroid connectors are not actual roads, the VMT's for local roads are estimated as 11.67% (urban) and 6.57% (rural) of the total VMT's based on NDOT's 2019 Annual Vehicle Miles of Travel Report (August 2020). Average speed by facility type from RTC's travel demand model is provided as an input to the MOVES model. Total emissions for each facility type are then added to get a daily emission total for the roadway system in the analysis area. Emission totals are shown in pounds per day (lbs. /day). The Interagency Air Quality Consultation Team recommended approval of the air quality analysis on February 23, 2021.

CO Analysis

The MVEB for carbon monoxide (CO), effective October 31, 2016, is shown in Table 8-3, which also includes the CO emissions for all analysis years of the RTP. All RTP analysis years are within the MVEB. The tables supporting this analysis are contained at the end of this chapter.

Table 8-3
CO Emissions Analysis
(lbs/day)

Analysis Year	MVEB	RTP Analysis
2020	172,670	64,477
2025	171,509	55,708
2030	169,959	47,347
2040	169,959	40,391
2050	169,959	44,143

PM_{10} Analysis

The MVEB for PM10, effective January 6, 2016, is shown in Table 8-4, which also includes the PM10 emissions for all analysis years of the RTP. All RTP analysis years are within the MVEB. The tables supporting this analysis are contained at the end of this chapter.

Table 8-4
PM_{10} Total Emissions
(lbs/day)

Analysis Year	MVEB	RTP Analysis
2020	6,088	3,514
2025	6,473	3,554
2030	6,927	3,758
2040	6,927	4,030
2050	6,927	4,501

Summary

A strong commitment to fund and implement feasible TCM measures must be made if acceptable air quality standards are to be sustained. The local jurisdictions and NDOT, through the RTP process, have made the commitment to fund TCMs such as ridesharing, traffic flow improvements, signal coordination, and conversion of public transit fleet to cleaner burning fuels. The 2050 RTP includes significant investments in bicycle and pedestrian infrastructure, consistent with the Complete Streets Master Plan adopted by RTC in 2016. Based on existing

and planned commitments, the air quality analysis conducted in this chapter demonstrates that the required air quality conformity determination can be made and the RTP shown to be in conformance with federal air quality regulations.

Air Quality Analysis Support Documentation

Table 8-5
Paved Road Fugitive Emission Factors (lb/VMT)

Facility Type	2020	2020-2050
Interstate	0.00013	0.00012
Other FWYs	0.00013	0.00012
Major Arterial	0.00013	0.00012
Minor Arterial	0.00034	0.00033
Collector	0.00083	0.00080
Local	0.00209	0.00201

NOTES:

- Emission factors for Paved Roads PM10 are calculated from an equation in EPA's AP42, Section 13.2.1, 1/11. The 2020 emission factors are calculated based on actual 2020 climatic data for Reno, whereas the 2025 to 2050 emission factors are calculated based on the 30-year Normal Climate data for Reno from 1981 to 2010.
- Emission factors for On-Road CO and PM10 are not available, they are calculated in MOVES3 and the output is generated as total emissions.

Table 8-6
VMT by Facility Type by Analysis Year (Hydrographic Area #87)

Facility Type	2020	2025	2030	2040	2050
Interstate	2,563,692	2,692,797	2,837,972	3,097,296	3,273,895
Other FWYs	498,488	562,971	590,273	690,736	817,509
Major Arterial	1,861,219	1,969,198	2,110,987	2,234,577	2,534,221
Minor Arterial	789,911	830,142	891,093	941,642	1,106,089
Collector	237,424	246,998	264,034	269,764	293,922
Local	777,981	823,918	875,200	945,753	1,049,247
Total	6,728,714	7,126,024	7,569,559	8,179,769	9,074,882

Table 8-7
Emissions (lbs./day)

Analysis Year	CO	On-Road Vehicles PM_{10}	Diesel Idling PM_{10}	Paved Road Fugitive PM_{10}	Unpaved Road Fugitives PM_{10}	Road Construction PM_{10}	Total PM_{10} Emissions
2020	**64,477**	648	0.34	1,750	877	239	**3,514**
2025	**55,708**	642	0.16	1,767	892	253	**3,554**
2030	**47,347**	672	0.09	1,870	947	269	**3,758**
2040	**40,391**	706	0.04	2,015	1,024	285	**4,030**
2050	**44,143**	827	0.03	2,236	1,136	302	**4,501**

Appendix A: FFY 2021-2025 Regional Transportation Improvement Program Project Listing

The FFY 2021-2025 Regional Transportation Improvement Program (RTIP) project listing is provided on the following pages. The list has been sorted by project type and shows the project description, the project limits (where applicable), and includes the funding source by project phase (engineering/design, right-of-way, construction, or "other" for capital acquisition), the federal fiscal year each phase has been programmed, and the total project cost as well as the federal, state or local contributions. Projects were identified through outreach and coordination with the public and agency stakeholders through the development of the RTP.

Project Cost Estimates

Project cost estimates were derived from the Regional Transportation Plan (RTP) and the FY 2022 RTC Street and Highway Program of Projects. Planning level estimates are developed for each project based on the type of improvement to be implemented. As a project progresses into the design phase, a more detailed cost estimate is prepared to ensure adequate funding is available to construct the project.

WA20190030 (Ver 4) 21-03 FEDERAL

Title: Purchase Multiuse Path Maintenance Equipment

Description: Purchase multiuse path maintenance equipment for each of the local jurisdictions (Washoe County and the Cities of Reno and Sparks) to remove debris and snow on multiuse/offstreet paths throughout the region.

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Other - Non construction related activities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fund	$0	$0	$0	$10,000	$10,000
2021	STBG WA	$0	$0	$0	$190,000	$190,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$200,000**	**$200,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$200,000**	**$200,000**

MPO **RTC Washoe** Lead Agency **City of Reno**

WA20190033 (Ver 4) 21-03 FEDERAL

Title: Traffic Calming Improvements

Description: Purchase speed radar signs and Rectangular Rapid Flashing Beacons (RRFBs).

Project Type: Rd Sign/Signal **AQ:** Exempt, Safety - Non signalization traffic control and operating. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Various Locations

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fund	$0	$0	$0	$1,790	$1,790
2021	TAP WA STBG	$0	$0	$0	$34,000	$34,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$35,790**	**$35,790**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$35,790**	**$35,790**

MPO **RTC Washoe** Lead Agency **City of Reno**

WA20200019 (Ver 3) 21-03 FEDERAL

Title: Purchase Multiuse Path Maintenance Equipment

Description: Purchase multiuse path maintenance equipment for each of the local jurisdictions (Washoe County and the Cities of Reno and Sparks) to remove debris and snow on multiuse/off-street paths throughout the region

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Other - Non construction related activities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fund	$0	$0	$0	$10,000	$10,000
2021	STBG WA	$0	$0	$0	$190,000	$190,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$200,000**	**$200,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$200,000**	**$200,000**

MPO **RTC Washoe** Lead Agency **City of Sparks**

WA20190034 (Ver 4) 21-03 FEDERAL

Title: Traffic Calming Improvements

Description: Install speed radar signs and Rectangular Rapid Flashing Beacons (RRFBs).

Project Type: Rd Sign/Signal **AQ:** Exempt, Safety - Non signalization traffic control and operating. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Various Locations

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fund	$0	$0	$1,790	$0	$1,790
2021	TAP WA STBG	$0	$0	$34,000	$0	$34,000
	2021-2025 TOTAL	**$0**	**$0**	**$35,790**	**$0**	**$35,790**
	ALL YEARS TOTAL	**$0**	**$0**	**$35,790**	**$0**	**$35,790**

MPO **RTC Washoe** Lead Agency **City of Sparks**

WA20210008 (Ver 1) 21-03 FEDERAL

Title: FRWA51, Enhanced Safety Improvements

Description: INSTALL NEW SIGNAGE, ADJUST CONCRETE BARRIER RAIL AND NEW STRIPING FOR ENHANCED SAFETY IMPROVEMENTS ,FROM VILLANOVA DR, I 580 EXIT 65A, TO PLUMB LANE; MP WA 0.00 TO MP WA 0.246

Project Type: Rd Improvement **AQ:** Exempt, Safety - Safety Improvement Program. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Villanova Drive to Plumb Lane of Distance (mile) 0.25 Milepost begins at 0 ends at .25

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	HSIP	$0	$0	$475,000	$0	$475,000
2021	State Gas Tax	$0	$5,000	$0	$0	$5,000
2021	State Match - Nv	$0	$0	$25,000	$0	$25,000
	2021-2025 TOTAL	**$0**	**$5,000**	**$500,000**	**$0**	**$505,000**
	ALL YEARS TOTAL	**$0**	**$5,000**	**$500,000**	**$0**	**$505,000**

MPO **RTC Washoe** Lead Agency **Nevada DOT**

WA20170131 (Ver 5) 21-03 FEDERAL

Title: Golden Valley Road Railroad Crossing

Description: Install crossing surface improvements

Project Type: Rail **AQ:** Exempt, Safety - Railroad/highway crossing. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Nearest Crossstreet: Golden Valley Road

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2025	Local Fund	$0	$0	$135,000	$0	$135,000
2025	RAIL	$0	$0	$139,750	$0	$139,750
2025	State Match - Nv	$0	$0	$250	$0	$250
<2021	Prior	$11,106	$0	$0	$0	$11,106
	2021-2025 TOTAL	**$0**	**$0**	**$275,000**	**$0**	**$275,000**
	ALL YEARS TOTAL	**$11,106**	**$0**	**$275,000**	**$0**	**$286,106**

MPO **RTC Washoe** Lead Agency **Nevada DOT**

WA20170130 (Ver 5) 21-03 FEDERAL

Title: Highland Avenue Railroad Crossing

Description: Install crossing surface improvements and adjustment to crossing signal arms

Project Type: Rail **AQ:** Exempt, Safety - Railroad/highway crossing. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Nearest Crossstreet: Highland Avenue

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2024	Local Fund	$0	$0	$150,000	$0	$150,000
2024	RAIL	$0	$0	$154,750	$0	$154,750
2024	State Match - Nv	$0	$0	$250	$0	$250
<2021	Prior	$28,950	$0	$0	$0	$28,950
	2021-2025 TOTAL	**$0**	**$0**	**$305,000**	**$0**	**$305,000**
	ALL YEARS TOTAL	**$28,950**	**$0**	**$305,000**	**$0**	**$333,950**

MPO **RTC Washoe** Lead Agency **Nevada DOT**

WA20160050 (Ver 9) 21-03 FEDERAL

Title: I 80 Wadsworth and Fernley Bridge Retrofits

Description: I 80, NEAR WADSWORTH AND FERNLEY, MP WA 43.80 TO MP LY 3.70
SEISMIC RETROFIT AND REHABILITATION OF I-700E/W, I-717E/W, I-740E/W, H-844E/W

Project Type: Bridge - New/replace **AQ:** Exempt, Safety - Non capacity widening or bridge reconstruction. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Bridge #: I-700 E/W

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2022	NHPP	$0	$0	$902,500	$0	$902,500
2022	State Match - Nv	$0	$0	$47,500	$0	$47,500
<2021	Prior	$50,000	$0	$0	$0	$50,000
	2021-2025 TOTAL	**$0**	**$0**	**$950,000**	**$0**	**$950,000**
	ALL YEARS TOTAL	**$50,000**	**$0**	**$950,000**	**$0**	**$1,000,000**

MPO **RTC Washoe** Lead Agency **Nevada DOT**

WA20200073 (Ver 1) 21-03 STATE

Title: SR 445, WASHOE COUNTY, COLDMILL AND PATCHING. UPGRADE EXISTING RAMPS, DRIVEWAYS AND SELECT SIDEWALK LOCATIONS TO MEE

Description: COLDMILL AND PATCHING. UPGRADE EXISTING RAMPS, DRIVEWAYS AND SELECT SIDEWALK LOCATIONS TO MEET ADA, PYRAMID WAY FROM NUGGET AVE TO YORK WAY; MP WA 0.00 TO MP WA 1.38

Project Type: Rd Recons/Rehab/Resur **AQ:** Exempt, Safety - Pavement resurfacing and/or rehabilitation. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Nugget Avenue to York Way of Distance (mile) 1.38 Milepost begins at 0 ends at 1.38

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	State Gas Tax	$330,000	$0	$0	$0	$330,000
2024	State Gas Tax	$0	$115,000	$7,700,000	$0	$7,815,000
	2021-2025 TOTAL	**$330,000**	**$115,000**	**$7,700,000**	**$0**	**$8,145,000**
	ALL YEARS TOTAL	**$330,000**	**$115,000**	**$7,700,000**	**$0**	**$8,145,000**

MPO **RTC Washoe** Lead Agency **Nevada DOT**

WA20170132 (Ver 5) 21-03 FEDERAL

Title: Silver Lake Drive Railroad Crossing

Description: Install crossing signal and crossing surface improvements

Project Type: Rail **AQ:** Exempt, Safety - Railroad/hwy crossing warning devices. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Nearest Crossstreet: Silver Lake Drive

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2024	Local Fund	$0	$0	$155,000	$0	$155,000
2024	RAIL	$0	$0	$254,750	$0	$254,750
2024	State Match - Nv	$0	$0	$250	$0	$250
<2021	Prior	$17,000	$0	$0	$0	$17,000
	2021-2025 TOTAL	**$0**	**$0**	**$410,000**	**$0**	**$410,000**
	ALL YEARS TOTAL	**$17,000**	**$0**	**$410,000**	**$0**	**$427,000**

MPO **RTC Washoe** Lead Agency **Nevada DOT**

WA20190025 (Ver 2) 21-03 STATE

Title: US 395

Description: Design

Project Type: Rd Improvement **AQ:** Exempt, Other - Engineering to assess social, economic, and environmental effects of the **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Lemon Drive to Stead Blvd of Distance (mile) 0 Milepost begins at 0 ends at 0

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2024	State Gas Tax	$0	$0	$35,000,000	$0	$35,000,000
	2021-2025 TOTAL	**$0**	**$0**	**$35,000,000**	**$0**	**$35,000,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$35,000,000**	**$0**	**$35,000,000**

MPO **RTC Washoe** Lead Agency **Nevada DOT**

WA20200072 (Ver 1) 21-03 STATE

Title: US 395, MILL AND OVERLAY

Description: COLDMILL AND OVERLAY, PLANTMIX BITUMINOUS SURFACE AND OPEN GRADED WEARING COURSE, FROM 0.2 MILES EAST OF THE COLD SPRINGS INTERCHANGE TO THE CA/NV STATE LINE. MP WA 38.37 TO MP WA 42.16.

Project Type: Rd Recons/Rehab/Resur **AQ:** Exempt, Safety - Pavement resurfacing and/or rehabilitation. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From 0.2 Miles East of Cold Springs Interchange to CA/NV Stateline of Distance (mile) 3.79 Milepost begins at 38.37 ends at 42.16

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	State Gas Tax	$320,000	$0	$0	$0	$320,000
2022	State Gas Tax	$0	$0	$10,900,000	$0	$10,900,000
	2021-2025 TOTAL	**$320,000**	**$0**	**$10,900,000**	**$0**	**$11,220,000**
	ALL YEARS TOTAL	**$320,000**	**$0**	**$10,900,000**	**$0**	**$11,220,000**

MPO **RTC Washoe** Lead Agency **Nevada DOT**

WA2012128 (Ver 8) 21-03 FEDERAL

Title: US 395 / I 580 / I 80 Freeway Service Patrol

Description: Freeway Service Patrol

Project Type: ITS/system Efficiency **AQ:** Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Various Locations

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2024	NHPP	$0	$0	$0	$364,800	$364,800
2024	State Match - Nv	$0	$0	$0	$19,200	$19,200
<2021	Prior	$0	$0	$0	$3,703,357	$3,703,357
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$384,000**	**$384,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$4,087,357**	**$4,087,357**

MPO **RTC Washoe** Lead Agency **Nevada DOT**

WA20170146 (Ver 8) 21-03 FEDERAL

Title: US 395 Construct Aux Lane, Travel Lane, and Ramp from McCarran Blvd to Golden Valley Structure

Description: US 395, NORTH OF RENO, FROM MCCARRAN TO GOLDEN VALLEY STRUCTURE, MP WA 27.064 TO WA 31.107. CONSTRUCT AUX LANE NB AND SB, CONSTRUCT TRAVEL LANE SB, CONSTRUCT NEW BRAIDED RAMP AT PANTHER VALLEY INTERCHANGE, AND REHAB EXISTING PAVEMENT

Project Type: Rd New Construction **AQ:** Non-Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From McCarran to Golden Valley Stucture of Distance (mile) 4.05 Milepost begins at 27.06 ends at 31.11

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2023	NHPP	$0	$0	$60,940,125	$0	$60,940,125
2023	STBG State-Wide	$0	$0	$27,780,375	$0	$27,780,375
2023	State Match - Nv	$0	$0	$4,669,500	$0	$4,669,500
<2021	Prior	$1,230,000	$130,000	$0	$0	$1,360,000
	2021-2025 TOTAL	**$0**	**$0**	**$93,390,000**	**$0**	**$93,390,000**
	ALL YEARS TOTAL	**$1,230,000**	**$130,000**	**$93,390,000**	**$0**	**$94,750,000**

MPO **RTC Washoe** Lead Agency **Nevada DOT**

WA20210009 (Ver 1) 21-03 LOCAL

Title: 3rd Street Bicycle Facility

Description: Construct bicycle facilities between Vine Street and Evans Street.

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Vine Street to Evans Street of Distance (mile) .85

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$750,000	$0	$0	$0	$750,000
2022	Local Fuel Tax - RTCWA	$0	$0	$6,750,000	$0	$6,750,000
	2021-2025 TOTAL	**$750,000**	**$0**	**$6,750,000**	**$0**	**$7,500,000**
	ALL YEARS TOTAL	**$750,000**	**$0**	**$6,750,000**	**$0**	**$7,500,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210010 (Ver 1) 21-03 LOCAL

Title: 5th Street Multimodal Improvements

Description: Multimodal improvements from Keystone Ave to Evans Ave.

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Keystone Ave to Evans Ave of Distance (mile) 1

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2022	Local Fuel Tax - RTCWA	$800,000	$0	$0	$0	$800,000
2023	Local Fuel Tax - RTCWA	$0	$0	$7,200,000	$0	$7,200,000
	2021-2025 TOTAL	**$800,000**	**$0**	**$7,200,000**	**$0**	**$8,000,000**
	ALL YEARS TOTAL	**$800,000**	**$0**	**$7,200,000**	**$0**	**$8,000,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20150006 (Ver 7) 21-03 FEDERAL

Title: ACCESS Capital - Facilities

Description: Annual Facilities (Operations and Maintenance) Program

Project Type: Transit-Maintenance **AQ:** Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$0	$40,000	$40,000
2021	Local Sales Tax - RTCWA	$0	$0	$0	$10,000	$10,000
2022	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$0	$40,000	$40,000
2022	Local Sales Tax - RTCWA	$0	$0	$0	$10,000	$10,000
2023	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$0	$40,000	$40,000
2023	Local Sales Tax - RTCWA	$0	$0	$0	$10,000	$10,000
2024	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$0	$40,000	$40,000
2024	Local Sales Tax - RTCWA	$0	$0	$0	$10,000	$10,000
2025	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$0	$40,000	$40,000
2025	Local Sales Tax - RTCWA	$0	$0	$0	$10,000	$10,000
<2021	Prior	$0	$0	$0	$200,000	$200,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$250,000**	**$250,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$450,000**	**$450,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

NV20110312 (Ver 8) 21-03 FEDERAL

Title: ACCESS Capital - Sutro

Description: Facilities (Operations & Maintenance)/Equipment - ACCESS Buildings at Sutro Street

Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Reconstruction or renovation of transit structures. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Nearest Crossstreet: 600 Sutro Street

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5307 Lrg Urb Capital	$0	$0	$0	$64,000	$64,000
2021	Local Sales Tax - RTCWA	$0	$0	$0	$16,000	$16,000
2022	FTA 5307 Lrg Urb Capital	$0	$0	$0	$64,000	$64,000
2022	Local Sales Tax - RTCWA	$0	$0	$0	$16,000	$16,000
2023	FTA 5307 Lrg Urb Capital	$0	$0	$0	$64,000	$64,000
2023	Local Sales Tax - RTCWA	$0	$0	$0	$16,000	$16,000
2024	FTA 5307 Lrg Urb Capital	$0	$0	$0	$64,000	$64,000
2024	Local Sales Tax - RTCWA	$0	$0	$0	$16,000	$16,000
2025	FTA 5307 Lrg Urb Capital	$0	$0	$0	$64,000	$64,000
2025	Local Sales Tax - RTCWA	$0	$0	$0	$16,000	$16,000
<2021	Prior	$0	$0	$0	$430,000	$430,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$400,000**	**$400,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$830,000**	**$830,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

NV20110311 (Ver 7) 21-03 FEDERAL

Title: ACCESS Operations - ADA

Description: ADA-related operating expenses

Project Type: Transit - Other **AQ:** Exempt, Mass Transit - Transit operating assistance. **TCM:** Yes **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5307 Lrg Urb Operating	$0	$0	$0	$700,000	$700,000
2021	Local Sales Tax - RTCWA	$0	$0	$0	$175,000	$175,000
2022	FTA 5307 Lrg Urb Operating	$0	$0	$0	$700,000	$700,000
2022	Local Sales Tax - RTCWA	$0	$0	$0	$175,000	$175,000
2023	FTA 5307 Lrg Urb Operating	$0	$0	$0	$700,000	$700,000
2023	Local Sales Tax - RTCWA	$0	$0	$0	$175,000	$175,000
2024	FTA 5307 Lrg Urb Operating	$0	$0	$0	$700,000	$700,000
2024	Local Sales Tax - RTCWA	$0	$0	$0	$175,000	$175,000
2025	FTA 5307 Lrg Urb Operating	$0	$0	$0	$700,000	$700,000
2025	Local Sales Tax - RTCWA	$0	$0	$0	$175,000	$175,000
<2021	Prior	$0	$0	$0	$3,950,600	$3,950,600
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$4,375,000**	**$4,375,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$8,325,600**	**$8,325,600**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20140046 (Ver 10) 21-03 FEDERAL

Title: ACCESS Replacement Vehicles

Description: Purchase ACCESS Replacement Vehicles - Ongoing Vehicle Replacement Schedule

Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Purchase new buses and rail cars to replace existing vehicles or r **TCM:** Yes **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$0	$900,000	$900,000
2021	Local Sales Tax - RTCWA	$0	$0	$0	$225,000	$225,000
2022	CMAQ - Washoe County	$0	$0	$0	$2,223,000	$2,223,000
2022	Local Sales Tax - RTCWA	$0	$0	$0	$117,000	$117,000
<2021	Prior	$0	$0	$0	$6,301,000	$6,301,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$3,465,000**	**$3,465,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$9,766,000**	**$9,766,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20150032 (Ver 8) 21-03 FEDERAL

Title: Access to Healthcare Network - Non-Emergency Medical Related Transportation Direct Services

Description: Provision of direct services for non-emergency medical related transportation services for low income seniors, individuals with disabilities and other low income underserved populations. Includes project administration costs to support a Dispatcher position to continue the Sierra Nevada Transportation Help Line operated by AHN.

Project Type: Transit - Other **AQ:** Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5310 Elderly/Disabled Lrg Urb Admin	$0	$0	$0	$7,034	$7,034
2021	FTA 5310 Elderly/Disabled Lrg Urb Capital	$0	$0	$0	$42,218	$42,218
2021	FTA 5310 Elderly/Disabled Lrg Urb Operating	$0	$0	$0	$44,185	$44,185
2021	Local Fund	$0	$0	$0	$54,740	$54,740
<2021	Prior	$0	$0	$0	$852,857	$852,857
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$148,177**	**$148,177**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$1,001,034**	**$1,001,034**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20170122 (Ver 6) 21-03 FEDERAL

Title: Arlington Avenue Bridges Replacement

Description: Replace the Arlington Avenue Bridges at the Truckee River

Project Type: Bridge - New/replace **AQ:** Exempt, Safety - Non capacity widening or bridge reconstruction. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Bridge #: B1531, B1532

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	HIGHWAY INFRA COVID WA	$3,300,944	$0	$0	$0	$3,300,944
2021	Local Fuel Tax - RTCWA	$84,953	$0	$0	$0	$84,953
2021	STBG WA	$1,614,103	$0	$0	$0	$1,614,103
2025	Local Fuel Tax - RTCWA	$0	$0	$10,000,000	$0	$10,000,000
2025	STBG WA	$0	$0	$10,000,000	$0	$10,000,000
	2021-2025 TOTAL	**$5,000,000**	**$0**	**$20,000,000**	**$0**	**$25,000,000**
	ALL YEARS TOTAL	**$5,000,000**	**$0**	**$20,000,000**	**$0**	**$25,000,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20110314 (Ver 9) 21-03 FEDERAL

Title: Bicycle, Pedestrian, and ADA Improvements

Description: Implementation of prioritized bus stop improvements, bicycle and pedestrian projects from the Bicycle-Pedestrian Master Plan and ADA improvement projects from the ADA Transition Plan - Annual Program

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** Yes **NDOT:** District 2

County: Washoe **Limits:** Various Locations

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$0	$0	$3,000,000	$0	$3,000,000
2022	Local Fuel Tax - RTCWA	$0	$0	$3,000,000	$0	$3,000,000
2023	Local Fuel Tax - RTCWA	$0	$0	$3,000,000	$0	$3,000,000
2024	Local Fuel Tax - RTCWA	$0	$0	$3,000,000	$0	$3,000,000
2025	Local Fuel Tax - RTCWA	$0	$0	$3,000,000	$0	$3,000,000
<2021	Prior	$400,000	$0	$7,600,000	$0	$8,000,000
	2021-2025 TOTAL	**$0**	**$0**	**$15,000,000**	**$0**	**$15,000,000**
	ALL YEARS TOTAL	**$400,000**	**$0**	**$22,600,000**	**$0**	**$23,000,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20170123 (Ver 6) 21-03 LOCAL

Title: Center Street Multimodal Improvements

Description: Construct two-way cycle track on the west side of Center Street and spot sidewalk improvements.

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** Yes **NDOT:** District 2

County: Washoe **Limits:** From S. Virginia Street to I-80 of Distance (mile) 1.4

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2022	Local Fuel Tax - RTCWA	$0	$0	$10,000,000	$0	$10,000,000
<2021	Prior	$1,080,000	$0	$0	$0	$1,080,000
	2021-2025 TOTAL	**$0**	**$0**	**$10,000,000**	**$0**	**$10,000,000**
	ALL YEARS TOTAL	**$1,080,000**	**$0**	**$10,000,000**	**$0**	**$11,080,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210002 (Ver 1) 21-03 LOCAL

Title: Damonte Ranch Parkway Widening

Description: Widen roadway from 2 to 4 lanes from Double R to I-580.

Project Type: Rd Expansion **AQ:** Non-Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Double R to I-580 of Distance (mile) 0.13

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2024	Local Fuel Tax - RTCWA	$400,000	$0	$0	$0	$400,000
	2021-2025 TOTAL	**$400,000**	**$0**	**$0**	**$0**	**$400,000**
	ALL YEARS TOTAL	**$400,000**	**$0**	**$0**	**$0**	**$400,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210012 (Ver 1) 21-03 LOCAL

Title: E 6th Street Bicycle Facility and Safety Improvements

Description: Construct bicycle facilities and safety improvements from Virginia Street to 4th Street

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Virginia Street to 4th Street of Distance (mile) 1.2

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2023	Local Fuel Tax - RTCWA	$600,000	$0	$0	$0	$600,000
2024	Local Fuel Tax - RTCWA	$0	$0	$5,400,000	$0	$5,400,000
	2021-2025 TOTAL	**$600,000**	**$0**	**$5,400,000**	**$0**	**$6,000,000**
	ALL YEARS TOTAL	**$600,000**	**$0**	**$5,400,000**	**$0**	**$6,000,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210017 (Ver 1) 21-03 FEDERAL

Title: FlexRIDE Replacement Vehicles

Description: Vehicle replacement program for the RTC FlexRIDE (microtransit) service.

Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Purchase new buses and rail cars to replace existing vehicles or r **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2022	CMAQ - Washoe County	$0	$0	$0	$494,000	$494,000
2022	Local Sales Tax - RTCWA	$0	$0	$0	$26,000	$26,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$520,000**	**$520,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$520,000**	**$520,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20200023 (Ver 3) 21-03 FEDERAL

Title: FlexRIDE Service

Description: New FlexRIDE (microtransit) service in the Spanish Springs and the Verdi/Somersett areas.

Project Type: Transit -Operating **AQ:** Exempt, Mass Transit - Transit operating assistance. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Various Locations

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	CMAQ Transfer to FTA	$0	$0	$0	$1,000,000	$1,000,000
2021	Local Sales Tax - RTCWA	$0	$0	$0	$52,632	$52,632
2022	CMAQ - Washoe County	$0	$0	$0	$950,000	$950,000
2022	Local Sales Tax - RTCWA	$0	$0	$0	$50,000	$50,000
2023	CMAQ - Washoe County	$0	$0	$0	$950,000	$950,000
2023	Local Sales Tax - RTCWA	$0	$0	$0	$50,000	$50,000
2024	CMAQ - Washoe County	$0	$0	$0	$950,000	$950,000
2024	Local Sales Tax - RTCWA	$0	$0	$0	$50,000	$50,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$4,052,632**	**$4,052,632**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$4,052,632**	**$4,052,632**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210003 (Ver 1) 21-03 LOCAL

Title: Geiger Grade Realignment

Description: Construct new roadway alignment on Geiger Grade from Virginia Street to Toll Road

Project Type: Rd New Construction **AQ:** Non-Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Virginia Street to Toll Road of Distance (mile) 0.4 Milepost begins at 0 ends at .4

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2022	Local Fuel Tax - RTCWA	$5,000,000	$0	$0	$0	$5,000,000
	2021-2025 TOTAL	**$5,000,000**	**$0**	**$0**	**$0**	**$5,000,000**
	ALL YEARS TOTAL	**$5,000,000**	**$0**	**$0**	**$0**	**$5,000,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20190044 (Ver 3) 21-03 LOCAL

Title: Keystone Avenue Improvements - Package 1 (NEPA)

Description: Multimodal improvements and Truckee River bridge replacement.

Project Type: Bridge - New/replace **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From I-80 to California Avenue of Distance (mile) 1

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2024	Local Fund	$5,000,000	$0	$0	$0	$5,000,000
	2021-2025 TOTAL	**$5,000,000**	**$0**	**$0**	**$0**	**$5,000,000**
	ALL YEARS TOTAL	**$5,000,000**	**$0**	**$0**	**$0**	**$5,000,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20200070 (Ver 2) 21-03 LOCAL

Title: Lemmon Drive Widening/Reconstruct Segment 2

Description: Widen from 2 to 4 lanes/reconstruct roadway and stormwater improvements.

Project Type: Rd Expansion **AQ:** Non-Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Fleetwood Drive to Ramsey Way of Distance (mile) 3.1

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2024	Local Fuel Tax - RTCWA	$4,000,000	$0	$0	$0	$4,000,000
2025	Local Fuel Tax - RTCWA	$0	$0	$35,000,000	$0	$35,000,000
	2021-2025 TOTAL	**$4,000,000**	**$0**	**$35,000,000**	**$0**	**$39,000,000**
	ALL YEARS TOTAL	**$4,000,000**	**$0**	**$35,000,000**	**$0**	**$39,000,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20190037 (Ver 4) 21-03 STATE

Title: Lemmon Drive Widening Segment 1

Description: Roadway widening from 4 to 6 lanes and interchange reconstruction.

Project Type: Rd Expansion **AQ:** Non-Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From US 395 to Military Road of Distance (mile) .9

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$2,000,000	$1,500,000	$0	$0	$3,500,000
2022	Local Fuel Tax - RTCWA	$0	$0	$9,000,000	$0	$9,000,000
2022	State Gas Tax	$0	$0	$10,000,000	$0	$10,000,000
	2021-2025 TOTAL	**$2,000,000**	**$1,500,000**	**$19,000,000**	**$0**	**$22,500,000**
	ALL YEARS TOTAL	**$2,000,000**	**$1,500,000**	**$19,000,000**	**$0**	**$22,500,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210004 (Ver 1) 21-03 LOCAL

Title: McCarran Blvd Intersection and Operations

Description: Intersection and operations improvements from Kietzke Lane to Greensboro Drive.

Project Type: Rd Interchange/ Intersec **AQ:** Exempt, All Projects - Intersection channelization projects. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Kietzke Lane to Greensboro Drive of Distance (mile) 0.8 Milepost begins at 0 ends at .8

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2025	Local Fuel Tax - RTCWA	$0	$0	$10,000,000	$0	$10,000,000
	2021-2025 TOTAL	**$0**	**$0**	**$10,000,000**	**$0**	**$10,000,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$10,000,000**	**$0**	**$10,000,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20190027 (Ver 3) 21-03 FEDERAL

Title: Meadowood Mall Transfer Station Relocation

Description: Reloctate the RTC RIDE Meadowood Mall Transfer Station within the Meadowood Mall property and implement potential FTA joint development with affordable housing and possible retail.

Project Type: Transit - Other **AQ:** Exempt, Mass Transit - Reconstruction or renovation of transit structures. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Nearest Crossstreet:

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2023	FTA 5339 Bus/Fac Lrg Urb Capital	$500,000	$0	$0	$0	$500,000
2023	Local Sales Tax - RTCWA	$125,000	$0	$0	$0	$125,000
2024	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$1,500,000	$0	$1,500,000
2024	Local Sales Tax - RTCWA	$0	$0	$375,000	$0	$375,000
	2021-2025 TOTAL	**$625,000**	**$0**	**$1,875,000**	**$0**	**$2,500,000**
	ALL YEARS TOTAL	**$625,000**	**$0**	**$1,875,000**	**$0**	**$2,500,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20190039 (Ver 3) 21-03 LOCAL

Title: Mill Street Bicycle and Pedestrian Improvements

Description: Sidewalk improvements and bike lanes.

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Terminal Way to McCarran Blvd of Distance (mile) 1.8

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$0	$300,000	$6,200,000	$0	$6,500,000
<2021	Prior	$250,000	$0	$0	$0	$250,000
	2021-2025 TOTAL	**$0**	**$300,000**	**$6,200,000**	**$0**	**$6,500,000**
	ALL YEARS TOTAL	**$250,000**	**$300,000**	**$6,200,000**	**$0**	**$6,750,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20190038 (Ver 3) 21-03 LOCAL

Title: Mill Street Capacity Improvements

Description: Multimodal, operational, and capacity improvements.

Project Type: Rd Expansion **AQ:** Non-Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Kietzke Lane to Terminal Way of Distance (mile) 1.5

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2022	Local Fuel Tax - RTCWA	$5,000,000	$0	$0	$0	$5,000,000
2023	Local Fuel Tax - RTCWA	$0	$15,000,000	$0	$0	$15,000,000
2024	Local Fuel Tax - RTCWA	$0	$0	$40,000,000	$0	$40,000,000
	2021-2025 TOTAL	**$5,000,000**	**$15,000,000**	**$40,000,000**	**$0**	**$60,000,000**
	ALL YEARS TOTAL	**$5,000,000**	**$15,000,000**	**$40,000,000**	**$0**	**$60,000,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210013 (Ver 1) 21-03 LOCAL

Title: Moana Lane Multimodal and ADA Improvements

Description: Construct multimodal and ADA improvements from Skyline Blvd to Plumas Street

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Skyline Blvd to Plumas Street of Distance (mile) .85

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2024	Local Fuel Tax - RTCWA	$560,000	$0	$0	$0	$560,000
2025	Local Fuel Tax - RTCWA	$0	$0	$5,040,000	$0	$5,040,000
	2021-2025 TOTAL	**$560,000**	**$0**	**$5,040,000**	**$0**	**$5,600,000**
	ALL YEARS TOTAL	**$560,000**	**$0**	**$5,040,000**	**$0**	**$5,600,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210005 (Ver 1) 21-03 LOCAL

Title: North Virginia Street Widening

Description: Panther Drive to Stead Blvd

Project Type: Rd Expansion **AQ:** Non-Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Panther Drive to Stead Blvd of Distance (mile) 3.75

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2025	Local Fuel Tax - RTCWA	$5,000,000	$0	$0	$0	$5,000,000
	2021-2025 TOTAL	**$5,000,000**	**$0**	**$0**	**$0**	**$5,000,000**
	ALL YEARS TOTAL	**$5,000,000**	**$0**	**$0**	**$0**	**$5,000,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20170135 (Ver 5) 21-03 LOCAL

Title: Oddie Blvd/Wells Ave Corridor Package 2

Description: Construct multimodal improvements to include separated pedestrian and bicycle facilities, streetscape amenities, transit improvements and intersection improvements.

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** Yes **NDOT:** District 2

County: Washoe **Limits:** From I-80 to Pyramid Highway of Distance (mile) 3.2

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$0	$0	$41,615,000	$0	$41,615,000
<2021	Prior	$3,000,000	$300,000	$0	$0	$3,300,000
	2021-2025 TOTAL	**$0**	**$0**	**$41,615,000**	**$0**	**$41,615,000**
	ALL YEARS TOTAL	**$3,000,000**	**$300,000**	**$41,615,000**	**$0**	**$44,915,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20150011 (Ver 7) 21-03 LOCAL

Title: Pavement Preservation Program

Description: Annual Pavement Preservation Program - Roadway Reconstruction and Preventive Maintenance

Project Type: Rd Recons/Rehab/Resur **AQ:** Exempt, Safety - Pavement resurfacing and/or rehabilitation. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Various Locations

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$0	$0	$22,500,000	$0	$22,500,000
2022	Local Fuel Tax - RTCWA	$0	$0	$22,500,000	$0	$22,500,000
2023	Local Fuel Tax - RTCWA	$0	$0	$22,500,000	$0	$22,500,000
2024	Local Fuel Tax - RTCWA	$0	$0	$22,500,000	$0	$22,500,000
2025	Local Fuel Tax - RTCWA	$0	$0	$22,500,000	$0	$22,500,000
<2021	Prior	$0	$0	$16,600,000	$0	$16,600,000
	2021-2025 TOTAL	**$0**	**$0**	**$112,500,000**	**$0**	**$112,500,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$129,100,000**	**$0**	**$129,100,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210006 (Ver 1) 21-03 LOCAL

Title: Pembroke Drive Widening

Description: Widen roadway from McCarran Blvd to Veterans Pkwy.

Project Type: Rd Expansion **AQ:** Non-Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From McCarran Blvd to Veterans Pkwy of Distance (mile) 1

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2023	Local Fuel Tax - RTCWA	$2,000,000	$0	$0	$0	$2,000,000
	2021-2025 TOTAL	**$2,000,000**	**$0**	**$0**	**$0**	**$2,000,000**
	ALL YEARS TOTAL	**$2,000,000**	**$0**	**$0**	**$0**	**$2,000,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20190040 (Ver 6) 21-03 FEDERAL

Title: Pyramid Highway US 395 Connector Phase 1

Description: Widen existing roadway from 4 lanes to 6 lanes (Queen Way to Los Altos Pkwy) and multimodal improvements (Los Altos Pkwy to Golden View Drive).

Project Type: Rd Expansion **AQ:** Non-Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Queen Way to Golden View Drive of Distance (mile) 2.5 Milepost begins at 2 ends at 4.5

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Hghwy Infra WA	$0	$3,965,885	$0	$0	$3,965,885
2021	Local Fund	$0	$2,034,115	$0	$0	$2,034,115
2021	STBG WA	$0	$0	$0	$0	$0
2022	FHWA Grant	$0	$0	$23,000,000	$0	$23,000,000
2022	Local Fund	$0	$0	$12,065,885	$0	$12,065,885
2022	STBG WA	$0	$0	$8,034,115	$0	$8,034,115
2022	State Match - Nv	$0	$0	$5,000,000	$0	$5,000,000
	2021-2025 TOTAL	**$0**	**$6,000,000**	**$48,100,000**	**$0**	**$54,100,000**
	ALL YEARS TOTAL	**$0**	**$6,000,000**	**$48,100,000**	**$0**	**$54,100,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

NV20110309 (Ver 10) 21-03 FEDERAL

Title: RIDE Capital - Bldg. Renovations

Description: Building Renovations and Upgrades - Annual Program

Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Reconstruction or renovation of transit structures. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5307 Lrg Urb Capital	$0	$0	$200,000	$0	$200,000
2021	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$345,000	$0	$345,000
2021	Local Sales Tax - RTCWA	$0	$0	$136,250	$0	$136,250
2022	FTA 5307 Lrg Urb Capital	$0	$0	$200,000	$0	$200,000
2022	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$200,000	$0	$200,000
2022	Local Sales Tax - RTCWA	$0	$0	$173,684	$0	$173,684
2022	STBG WA	$0	$0	$1,400,000	$0	$1,400,000
2023	FTA 5307 Lrg Urb Capital	$0	$0	$90,000	$0	$90,000
2023	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$90,000	$0	$90,000
2023	Local Sales Tax - RTCWA	$0	$0	$45,000	$0	$45,000
2024	FTA 5307 Lrg Urb Capital	$0	$0	$90,000	$0	$90,000
2024	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$90,000	$0	$90,000
2024	Local Sales Tax - RTCWA	$0	$0	$45,000	$0	$45,000
2025	FTA 5307 Lrg Urb Capital	$0	$0	$0	$90,000	$90,000
2025	Local Sales Tax - RTCWA	$0	$0	$0	$45,000	$45,000
<2021	Prior	$0	$0	$7,518,125	$0	$7,518,125
	2021-2025 TOTAL	**$0**	**$0**	**$3,104,934**	**$135,000**	**$3,239,934**
	ALL YEARS TOTAL	**$0**	**$0**	**$10,623,059**	**$135,000**	**$10,758,059**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

NV20110307 (Ver 7) 21-03 FEDERAL

Title: RIDE Capital - Communication/Computer Equipment

Description: Purchase Vehicle/Communication/Computer Equipment - Annual Program

Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Purchase of office, shop and operating equipment for existing faci **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5307 Lrg Urb Capital	$0	$0	$0	$430,000	$430,000
2021	Local Sales Tax - RTCWA	$0	$0	$0	$107,500	$107,500
2022	FTA 5307 Lrg Urb Capital	$0	$0	$0	$430,000	$430,000
2022	Local Sales Tax - RTCWA	$0	$0	$0	$107,500	$107,500
2023	FTA 5307 Lrg Urb Capital	$0	$0	$0	$430,000	$430,000
2023	Local Sales Tax - RTCWA	$0	$0	$0	$107,500	$107,500
2024	FTA 5307 Lrg Urb Capital	$0	$0	$0	$430,000	$430,000
2024	Local Sales Tax - RTCWA	$0	$0	$0	$107,500	$107,500
2025	FTA 5307 Lrg Urb Capital	$0	$0	$0	$430,000	$430,000
2025	Local Sales Tax - RTCWA	$0	$0	$0	$107,500	$107,500
<2021	Prior	$0	$0	$0	$1,176,000	$1,176,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$2,687,500**	**$2,687,500**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$3,863,500**	**$3,863,500**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

NV20110305 (Ver 8) 21-03 FEDERAL

Title: RIDE Capital - Equipment

Description: Purchase Shop Equipment/Other Equipment - Annual Program

Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Purchase of office, shop and operating equipment for existing faci **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5307 Lrg Urb Capital	$0	$0	$0	$200,000	$200,000
2021	FTA 5307 Lrg Urb Operating	$0	$0	$0	$50,000	$50,000
2021	Local Sales Tax - RTCWA	$0	$0	$0	$62,500	$62,500
2022	FTA 5307 Lrg Urb Capital	$0	$0	$0	$200,000	$200,000
2022	FTA 5307 Lrg Urb Operating	$0	$0	$0	$50,000	$50,000
2022	Local Sales Tax - RTCWA	$0	$0	$0	$62,500	$62,500
2023	FTA 5307 Lrg Urb Capital	$0	$0	$0	$200,000	$200,000
2023	FTA 5307 Lrg Urb Operating	$0	$0	$0	$50,000	$50,000
2023	Local Sales Tax - RTCWA	$0	$0	$0	$62,500	$62,500
2024	FTA 5307 Lrg Urb Capital	$0	$0	$0	$200,000	$200,000
2024	FTA 5307 Lrg Urb Operating	$0	$0	$0	$50,000	$50,000
2024	Local Sales Tax - RTCWA	$0	$0	$0	$62,500	$62,500
2025	FTA 5307 Lrg Urb Capital	$0	$0	$0	$200,000	$200,000
2025	FTA 5307 Lrg Urb Operating	$0	$0	$0	$50,000	$50,000
2025	Local Sales Tax - RTCWA	$0	$0	$0	$62,500	$62,500
<2021	Prior	$0	$0	$0	$1,382,500	$1,382,500
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$1,562,500**	**$1,562,500**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$2,945,000**	**$2,945,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

NV20110303 (Ver 8) 21-03 FEDERAL

Title: RIDE Capital - Shelters
Description: Transit Enhancements/Shelters
Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Reconstruction or renovation of transit structures. **TCM:** No **NDOT:** District 2
County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5307 Lrg Urb Capital	$0	$0	$0	$200,000	$200,000
2021	Local Sales Tax - RTCWA	$0	$0	$0	$50,000	$50,000
2022	FTA 5307 Lrg Urb Capital	$0	$0	$0	$200,000	$200,000
2022	Local Sales Tax - RTCWA	$0	$0	$0	$50,000	$50,000
2023	FTA 5307 Lrg Urb Capital	$0	$0	$0	$200,000	$200,000
2023	Local Sales Tax - RTCWA	$0	$0	$0	$50,000	$50,000
2024	FTA 5307 Lrg Urb Capital	$0	$0	$0	$200,000	$200,000
2024	Local Sales Tax - RTCWA	$0	$0	$0	$50,000	$50,000
2025	FTA 5307 Lrg Urb Capital	$0	$0	$0	$200,000	$200,000
2025	Local Sales Tax - RTCWA	$0	$0	$0	$50,000	$50,000
<2021	Prior	$0	$0	$0	$2,350,025	$2,350,025
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$1,250,000**	**$1,250,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$3,600,025**	**$3,600,025**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

NV20110304 (Ver 8) 21-03 FEDERAL

Title: RIDE Capital - Support Vehicles/Equipment

Description: Purchase Support Vehicles/Equipment (RTC Administration) - Annual Program

Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Purchase of support vehicles. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5307 Lrg Urb Capital	$0	$0	$0	$48,000	$48,000
2021	Local Sales Tax - RTCWA	$0	$0	$0	$12,000	$12,000
2024	FTA 5307 Lrg Urb Capital	$0	$0	$0	$60,000	$60,000
2024	Local Sales Tax - RTCWA	$0	$0	$0	$15,000	$15,000
2025	FTA 5307 Lrg Urb Capital	$0	$0	$0	$60,000	$60,000
2025	Local Sales Tax - RTCWA	$0	$0	$0	$15,000	$15,000
<2021	Prior	$0	$0	$0	$370,000	$370,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$210,000**	**$210,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$580,000**	**$580,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20130078 (Ver 12) 21-03 FEDERAL

Title: RIDE Replacement Vehicles

Description: Purchase RIDE replacement vehicles. Ongoing vehicle replacement schedule. FHWA funds to be transferred to FTA.

Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Purchase new buses and rail cars to replace existing vehicles or r **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	CMAQ - Washoe County	$0	$0	$0	$3,250,000	$3,250,000
2021	Local Sales Tax - RTCWA	$0	$0	$0	$210,526	$210,526
2023	CMAQ - Washoe County	$0	$0	$0	$3,515,000	$3,515,000
2023	Local Sales Tax - RTCWA	$0	$0	$0	$185,000	$185,000
2024	CMAQ - Washoe County	$0	$0	$0	$3,610,000	$3,610,000
2024	Local Sales Tax - RTCWA	$0	$0	$0	$190,000	$190,000
<2021	Prior	$0	$0	$0	$42,704,748	$42,704,748
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$10,960,526**	**$10,960,526**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$53,665,274**	**$53,665,274**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210015 (Ver 1) 21-03 FEDERAL

Title: RTC 4TH STREET STATION Expansion

Description: Expand footprint and structure of RTC 4TH STREET STATION

Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Reconstruction or renovation of transit structures. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Nearest Crossstreet:

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2022	FTA 5307 Lrg Urb Capital	$0	$0	$1,873,333	$0	$1,873,333
2022	Local Sales Tax - RTCWA	$0	$0	$468,333	$0	$468,333
2023	FTA 5307 Lrg Urb Capital	$0	$0	$1,873,333	$0	$1,873,333
2023	Local Sales Tax - RTCWA	$0	$0	$468,334	$0	$468,334
2024	FTA 5307 Lrg Urb Capital	$0	$0	$1,873,333	$0	$1,873,333
2024	Local Sales Tax - RTCWA	$0	$0	$468,334	$0	$468,334
	2021-2025 TOTAL	**$0**	**$0**	**$7,025,000**	**$0**	**$7,025,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$7,025,000**	**$0**	**$7,025,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210016 (Ver 1) 21-03 FEDERAL

Title: RTC Park and Ride Program

Description: On-going program to establish strategic park and ride lots throughout the region.

Project Type: TDM **AQ:** Exempt, Air Quality - Ride-sharing and van-pooling program. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Various Locations

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2022	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$100,000	$0	$100,000
2022	Local Sales Tax - RTCWA	$0	$0	$25,000	$0	$25,000
2023	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$120,000	$0	$120,000
2023	RTC Sales Tax	$0	$0	$30,000	$0	$30,000
2024	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$130,000	$0	$130,000
2024	RTC Sales Tax	$0	$0	$32,500	$0	$32,500
2025	FTA 5339 Bus/Fac Lrg Urb Capital	$0	$0	$140,000	$0	$140,000
2025	Local Sales Tax - RTCWA	$0	$0	$35,000	$0	$35,000
	2021-2025 TOTAL	**$0**	**$0**	**$612,500**	**$0**	**$612,500**
	ALL YEARS TOTAL	**$0**	**$0**	**$612,500**	**$0**	**$612,500**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

NV20110301 (Ver 7) 21-03 FEDERAL

Title: RTC RIDE and ACCESS - PM

Description: Preventive Maintenance - Mechanical

Project Type: Transit-Maintenance **AQ:** Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5307 Lrg Urb Capital	$0	$0	$0	$2,800,000	$2,800,000
2021	Local Sales Tax - RTCWA	$0	$0	$0	$700,000	$700,000
2022	FTA 5307 Lrg Urb Capital	$0	$0	$0	$2,800,000	$2,800,000
2022	Local Sales Tax - RTCWA	$0	$0	$0	$700,000	$700,000
2023	FTA 5307 Lrg Urb Capital	$0	$0	$0	$2,800,000	$2,800,000
2023	Local Sales Tax - RTCWA	$0	$0	$0	$700,000	$700,000
2024	FTA 5307 Lrg Urb Capital	$0	$0	$0	$2,800,000	$2,800,000
2024	Local Sales Tax - RTCWA	$0	$0	$0	$700,000	$700,000
2025	FTA 5307 Lrg Urb Capital	$0	$0	$0	$2,800,000	$2,800,000
2025	Local Sales Tax - RTCWA	$0	$0	$0	$700,000	$700,000
<2021	Prior	$0	$0	$0	$20,000,000	$20,000,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$17,500,000**	**$17,500,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$37,500,000**	**$37,500,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20180047 (Ver 4) 21-03 FEDERAL

Title: Reno Bike Project - Major Taylor Program

Description: Cycling physical education and safety program.

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fund	$0	$0	$0	$4,396	$4,396
2021	TAP WA STBG	$0	$0	$0	$83,519	$83,519
<2021	Prior	$0	$0	$0	$61,983	$61,983
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$87,915**	**$87,915**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$149,898**	**$149,898**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20140044 (Ver 10) 21-03 FEDERAL

Title: Safe Routes to School

Description: County wide safe routes to school program

Project Type: Other Misc. **AQ:** Exempt, Other - Transportation enhancement activities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fund	$0	$0	$0	$12,800	$12,800
2021	STBG WA	$0	$0	$0	$243,200	$243,200
2022	Local Fund	$0	$0	$0	$12,800	$12,800
2022	STBG WA	$0	$0	$0	$243,200	$243,200
2023	Local Fund	$0	$0	$0	$12,800	$12,800
2023	STBG WA	$0	$0	$0	$243,200	$243,200
2024	Local Fund	$0	$0	$0	$12,800	$12,800
2024	STBG WA	$0	$0	$0	$243,200	$243,200
2025	Local Fund	$0	$0	$0	$12,800	$12,800
2025	STBG WA	$0	$0	$0	$243,200	$243,200
<2021	Prior	$0	$0	$0	$755,000	$755,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$1,280,000**	**$1,280,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$2,035,000**	**$2,035,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20150053 (Ver 8) 21-03 FEDERAL

Title: Sanford Center for Aging - Senior Outreach Services

Description: Participant support for direct service volunteer outreach program.

Project Type: Transit - Other **AQ:** Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5310 Elderly/Disabled Lrg Urb Admin	$0	$0	$0	$7,035	$7,035
2021	FTA 5310 Elderly/Disabled Lrg Urb Operating	$0	$0	$0	$25,000	$25,000
2021	Local Fund	$0	$0	$0	$25,000	$25,000
<2021	Prior	$0	$0	$0	$189,846	$189,846
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$57,035**	**$57,035**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$246,881**	**$246,881**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20150027 (Ver 8) 21-03 FEDERAL

Title: Seniors in Service - Senior Companion Program

Description: Provision of transportation support for senior community living outside the RTC ADA area

Project Type: Transit - Other **AQ:** Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5310 Elderly/Disabled Lrg Urb Admin	$0	$0	$0	$7,034	$7,034
2021	FTA 5310 Elderly/Disabled Lrg Urb Operating	$0	$0	$0	$43,980	$43,980
2021	Local Fund	$0	$0	$0	$43,980	$43,980
<2021	Prior	$0	$0	$0	$248,641	$248,641
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$94,994**	**$94,994**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$343,635**	**$343,635**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20180051 (Ver 4) 21-03 FEDERAL

Title: Sierra Nevada Transportation Coalition - SNTC Bucks Program/N4 Accessible Rides Program

Description: Capital to purchase a wheelchair accessible vehicle to serve seniors and people with disabilities; user-side subsidy program to provide vouchers (800 in Year 1, 875 in Year 2) to disabled individuals applied directly to a participant's Lyft or Uber account. This project will provide an estimated 4,160 trips, annually.

Project Type: Transit - Other **AQ:** Exempt, Mass Transit - Transit operating assistance. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5310 Elderly/Disabled Lrg Urb Admin	$0	$0	$0	$7,034	$7,034
2021	FTA 5310 Elderly/Disabled Lrg Urb Capital	$0	$0	$0	$123,549	$123,549
2021	Local Fund	$0	$0	$0	$30,887	$30,887
<2021	Prior	$0	$0	$0	$118,443	$118,443
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$161,470**	**$161,470**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$279,913**	**$279,913**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20190043 (Ver 5) 21-03 LOCAL

Title: Sky Vista Parkway Widening

Description: Widen roadway from 2 to 4 lanes.

Project Type: Rd Expansion **AQ:** Non-Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Lemmon Drive to Silver Lake Road of Distance (mile) 1.5

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$1,800,000	$0	$0	$0	$1,800,000
2022	Local Fuel Tax - RTCWA	$0	$0	$4,000,000	$0	$4,000,000
2022	RRIF (Regional Road Impact Fees) - RTCWA	$0	$0	$10,000,000	$0	$10,000,000
	2021-2025 TOTAL	**$1,800,000**	**$0**	**$14,000,000**	**$0**	**$15,800,000**
	ALL YEARS TOTAL	**$1,800,000**	**$0**	**$14,000,000**	**$0**	**$15,800,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20150067 (Ver 6) 21-03 LOCAL

Title: SouthEast Connector - Wetlands

Description: Annual Maintenance Program for Wetlands within the SouthEast Connector Corridor

Project Type: Other Misc. **AQ:** Exempt, Other - Non construction related activities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fund	$0	$0	$0	$500,000	$500,000
2022	Local Fund	$0	$0	$0	$50,000	$50,000
<2021	Prior	$0	$0	$0	$250,000	$250,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$550,000**	**$550,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$800,000**	**$800,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210014 (Ver 1) 21-03 FEDERAL

Title: South Virginia Street Multimodal and ADA Improvements

Description: Construct multimodal and ADA improvements from Plumb Lane to Meadowood Mall Circle

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Plumb Lane to Meadowood Mall Circle of Distance (mile) 2.54

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2022	FTA 5309 Small Starts	$1,295,000	$0	$0	$0	$1,295,000
2022	Local Fuel Tax - RTCWA	$1,295,000	$0	$0	$0	$1,295,000
2024	FTA 5309 Small Starts	$0	$0	$11,655,000	$0	$11,655,000
2024	Local Fuel Tax - RTCWA	$0	$0	$11,655,000	$0	$11,655,000
	2021-2025 TOTAL	**$2,590,000**	**$0**	**$23,310,000**	**$0**	**$25,900,000**
	ALL YEARS TOTAL	**$2,590,000**	**$0**	**$23,310,000**	**$0**	**$25,900,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210007 (Ver 1) 21-03 LOCAL

Title: South Virginia Street Widening

Description: Addition of northbound lane between I-580 off ramp and Longley Lane.

Project Type: Rd Expansion **AQ:** Non-Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From I-580 off ramp to Longley Lane of Distance (mile) .35

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2022	Local Fuel Tax - RTCWA	$2,000,000	$0	$0	$0	$2,000,000
	2021-2025 TOTAL	**$2,000,000**	**$0**	**$0**	**$0**	**$2,000,000**
	ALL YEARS TOTAL	**$2,000,000**	**$0**	**$0**	**$0**	**$2,000,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20190041 (Ver 4) 21-03 FEDERAL

Title: Sparks Boulevard Corridor - Phase 2

Description: Widen roadway from 4 to 6 lanes and construct multimodal improvements.

Project Type: Rd Expansion **AQ:** Non-Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From I-80 WB Ramps to Baring Boulevard of Distance (mile) 1.7

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$6,000,000	$0	$0	$0	$6,000,000
2024	Local Fuel Tax - RTCWA	$0	$3,000,000	$0	$0	$3,000,000
2025	Local Fuel Tax - RTCWA	$0	$0	$35,300,000	$0	$35,300,000
2025	STBG WA	$0	$0	$5,000,000	$0	$5,000,000
	2021-2025 TOTAL	**$6,000,000**	**$3,000,000**	**$40,300,000**	**$0**	**$49,300,000**
	ALL YEARS TOTAL	**$6,000,000**	**$3,000,000**	**$40,300,000**	**$0**	**$49,300,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20150065 (Ver 6) 21-03 LOCAL

Title: Sparks Boulevard Corridor Phase 1

Description: Restripe to 3 lanes in each direction with pavement rehabilitation.

Project Type: Rd Expansion **AQ:** Exempt, Other - Engineering studies. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Greg Street to I-80 WB Ramps of Distance (mile) 0.5

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2022	Local Fuel Tax - RTCWA	$0	$0	$6,000,000	$0	$6,000,000
<2021	Prior	$2,500,000	$0	$0	$0	$2,500,000
	2021-2025 TOTAL	**$0**	**$0**	**$6,000,000**	**$0**	**$6,000,000**
	ALL YEARS TOTAL	**$2,500,000**	**$0**	**$6,000,000**	**$0**	**$8,500,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210011 (Ver 1) 21-03 LOCAL

Title: Steamboat Pkwy and Damonte Ranch Pkwy Widening

Description: Widen Steamboat Pkwy and Damonte Ranch Pkwy at various roadway sections from Veterans Pkwy to Promenade Way.

Project Type: Rd Expansion **AQ:** Non-Exempt **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Veterans Pkwy to Damonte Ranch Pkwy of Distance (mile) .45

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2025	Local Fuel Tax - RTCWA	$400,000	$0	$0	$0	$400,000
	2021-2025 TOTAL	**$400,000**	**$0**	**$0**	**$0**	**$400,000**
	ALL YEARS TOTAL	**$400,000**	**$0**	**$0**	**$0**	**$400,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20190042 (Ver 3) 21-03 LOCAL

Title: Sun Valley Boulevard Corridor Improvements - Phase 2

Description: Multimodal improvements along the Sun Valley Boulevard corridor.

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Scottsdale Road to 7th Avenue of Distance (mile) 2.6 Milepost begins at 1 ends at 3.6

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$2,000,000	$0	$0	$0	$2,000,000
2023	Local Fuel Tax - RTCWA	$0	$500,000	$0	$0	$500,000
2025	Local Fuel Tax - RTCWA	$0	$0	$24,500,000	$0	$24,500,000
	2021-2025 TOTAL	**$2,000,000**	**$500,000**	**$24,500,000**	**$0**	**$27,000,000**
	ALL YEARS TOTAL	**$2,000,000**	**$500,000**	**$24,500,000**	**$0**	**$27,000,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20200026 (Ver 3) 21-03 LOCAL

Title: TE Spot Improvement 10

Description: Intersection and traffic signal improvements at various intersections.

Project Type: Rd Interchange/ Intersec **AQ:** Exempt, All Projects - Intersection signalization projects at individual intersections. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Various Locations

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$190,000	$0	$0	$0	$190,000
2021	RRIF (Regional Road Impact Fees) - RTCWA	$360,000	$0	$0	$0	$360,000
2022	Local Fuel Tax - RTCWA	$0	$0	$1,710,000	$0	$1,710,000
2022	RRIF (Regional Road Impact Fees) - RTCWA	$0	$0	$3,240,000	$0	$3,240,000
	2021-2025 TOTAL	**$550,000**	**$0**	**$4,950,000**	**$0**	**$5,500,000**
	ALL YEARS TOTAL	**$550,000**	**$0**	**$4,950,000**	**$0**	**$5,500,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20110215 (Ver 11) 21-03 FEDERAL

Title: Traffic Management Program - Annual Traffic Signal, ITS Operations, & Intersection Improvements

Description: Ongoing cycle of retiming of 1/3 of the regional traffic signals - approximately 150 per year, traffic engineering spot/intersection improvements, Intelligent Transportation Systems (ITS) operations.

Project Type: ITS/system Efficiency **AQ:** Exempt, Other - Traffic signal synchronization projects. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$0	$0	$0	$10,000,000	$10,000,000
2022	Local Fuel Tax - RTCWA	$0	$0	$0	$10,000,000	$10,000,000
2023	Local Fuel Tax - RTCWA	$0	$0	$0	$10,000,000	$10,000,000
2024	Local Fuel Tax - RTCWA	$0	$0	$0	$10,000,000	$10,000,000
2025	Local Fuel Tax - RTCWA	$0	$0	$0	$10,000,000	$10,000,000
<2021	Prior	$0	$0	$0	$2,500,000	$2,500,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$50,000,000**	**$50,000,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$52,500,000**	**$52,500,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA2012101 (Ver 12) 21-03 FEDERAL

Title: Trip Reduction Program

Description: Administrative Activities and Vanpool Program

Project Type: TDM **AQ:** Exempt, Air Quality - Ride-sharing and van-pooling program. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	CMAQ - Washoe County	$0	$0	$0	$190,000	$190,000
2021	Local Fund	$0	$0	$0	$60,526	$60,526
2021	STBG WA	$0	$0	$0	$960,000	$960,000
2022	CMAQ - Washoe County	$0	$0	$0	$190,000	$190,000
2022	Local Fund	$0	$0	$0	$65,790	$65,790
2022	STBG WA	$0	$0	$0	$1,060,000	$1,060,000
2023	CMAQ - Washoe County	$0	$0	$0	$190,000	$190,000
2023	Local Fund	$0	$0	$0	$71,053	$71,053
2023	STBG WA	$0	$0	$0	$1,160,000	$1,160,000
2024	CMAQ - Washoe County	$0	$0	$0	$190,000	$190,000
2024	Local Fund	$0	$0	$0	$71,053	$71,053
2024	STBG WA	$0	$0	$0	$1,160,000	$1,160,000
2025	CMAQ - Washoe County	$0	$0	$0	$190,000	$190,000
2025	Local Fund	$0	$0	$0	$71,053	$71,053
2025	STBG WA	$0	$0	$0	$1,160,000	$1,160,000
<2021	Prior	$0	$0	$0	$4,700,000	$4,700,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$6,789,475**	**$6,789,475**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$11,489,475**	**$11,489,475**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20190002 (Ver 5) 21-03 FEDERAL

Title: U-Pass (Ed-Pass) Start-up Program

Description: Seed money to establish a Universal Access Transit Pass (U-Pass) program with the University of Nevada, Reno (UNR) and Truckee Meadows Community College (TMCC) to provide unlimited access to RTC RIDE transit routes.

Project Type: Transit - Other **AQ:** Exempt, Mass Transit - Transit operating assistance. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	CMAQ - Washoe County	$0	$0	$0	$76,000	$76,000
2021	Local Sales Tax - RTCWA	$0	$0	$0	$4,000	$4,000
2022	CMAQ - Washoe County	$0	$0	$0	$38,000	$38,000
2022	Local Sales Tax - RTCWA	$0	$0	$0	$2,000	$2,000
<2021	Prior	$0	$0	$0	$80,000	$80,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$120,000**	**$120,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$200,000**	**$200,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20170126 (Ver 5) 21-03 LOCAL

Title: Vassar Street Bike Lanes

Description: Stripe bike lanes.

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** Yes **NDOT:** District 2

County: Washoe **Limits:** From Kietzke Lane to Terminal Way of Distance (mile) .45

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$860,000	$0	$0	$0	$860,000
2022	Local Fuel Tax - RTCWA	$0	$0	$3,440,000	$0	$3,440,000
	2021-2025 TOTAL	**$860,000**	**$0**	**$3,440,000**	**$0**	**$4,300,000**
	ALL YEARS TOTAL	**$860,000**	**$0**	**$3,440,000**	**$0**	**$4,300,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20170128 (Ver 5) 21-03 LOCAL

Title: Vine Street Bike Facility

Description: Roadway reconfiguration and bicycle facilities.

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** Yes **NDOT:** District 2

County: Washoe **Limits:** From Riverside Drive to University Terrace of Distance (mile) 0.85

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$1,130,000	$0	$0	$0	$1,130,000
2022	Local Fuel Tax - RTCWA	$0	$0	$10,170,000	$0	$10,170,000
	2021-2025 TOTAL	**$1,130,000**	**$0**	**$10,170,000**	**$0**	**$11,300,000**
	ALL YEARS TOTAL	**$1,130,000**	**$0**	**$10,170,000**	**$0**	**$11,300,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20150060 (Ver 10) 21-03 FEDERAL

Title: Virginia Street, Bus RAPID Transit Extension

Description: Bus RAPID transit extension from the RTC 4th STREET STATION in downtown Reno to the University of Nevada, Reno; improves safety, traffic/bus operations, constructs 3 RAPID stations, adds bus-only lane segment, widens/constructs sidewalks and corrects ADA sidewalk deficiencies in the corridor from Plumb Lane to Liberty Street (within the total project corridor of Plumb Lane to 15th Street). FHWA funding will to be transferred to FTA. A request to enter project development under the FTA Small Starts Program has been submitted and accepted. Funding programmed in the "other" phase is for the acquisition of transit capital such as buses, bus shelters, etc.

Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Construction of small passenger shelters and information kiosks. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Plumb Lane to 15th Street of Distance (mile) 2.9

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	CMAQ Transfer to FTA	$0	$0	$0	$2,000,000	$2,000,000
2021	FTA 5309 Small Starts	$0	$0	$0	$1,145,500	$1,145,500
2021	Local Fund	$0	$0	$0	$18,461,951	$18,461,951
<2021	Prior	$10,542,142	$20,670,629	$62,057,445	$0	$93,270,216
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$21,607,451**	**$21,607,451**
	ALL YEARS TOTAL	**$10,542,142**	**$20,670,629**	**$62,057,445**	**$21,607,451**	**$114,877,667**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20190029 (Ver 3) 21-03 FEDERAL

Title: Virginia Street @ ParkLane Northbound BRT station

Description: Construct a northbound RTC RIDE (Virginia Line) full Bus Rapid Transit (BRT) station on Virgina Street at ParkLane.

Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Reconstruction or renovation of transit structures. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Nearest Crossstreet: Virgina Street

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2022	FTA 5307 Lrg Urb Capital	$0	$0	$500,000	$0	$500,000
2022	Local Sales Tax - RTCWA	$0	$0	$125,000	$0	$125,000
	2021-2025 TOTAL	**$0**	**$0**	**$625,000**	**$0**	**$625,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$625,000**	**$0**	**$625,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20210018 (Ver 1) 21-03 LOCAL

Title: Virginia Street @ Peppermill Northbound BRT Land Acquisition

Description: Purchase land for construction of northbound RTC RIDE (Virginia Line) full Bus Rapid Transit (BRT) station across from the Peppermill Resort & Casino and extend BRT travel lane. Includes off-street bicycle and pedestrian connectivity to station.

Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Construction of small passenger shelters and information kiosks. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Nearest Crossstreet: Virginia Street

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Sales Tax - RTCWA	$0	$600,000	$0	$0	$600,000
	2021-2025 TOTAL	**$0**	**$600,000**	**$0**	**$0**	**$600,000**
	ALL YEARS TOTAL	**$0**	**$600,000**	**$0**	**$0**	**$600,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20190028 (Ver 4) 21-03 FEDERAL

Title: Virginia Street @ Peppermill Northbound BRT Station

Description: Construct northbound RTC RIDE (Virginia Line) full Bus Rapid Transit (BRT) station across from the Peppermill Resort & Casino and extend BRT travel lane. Includes off-street bicycle and pedestrian connectivity to station.

Project Type: Transit-Capital & Rehab **AQ:** Exempt, Mass Transit - Reconstruction or renovation of transit structures. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Nearest Crossstreet: Virginia Street

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5307 Lrg Urb Capital	$0	$1,600,000	$0	$0	$1,600,000
2021	Local Sales Tax - RTCWA	$0	$325,000	$0	$75,000	$400,000
2022	FTA 5307 Lrg Urb Capital	$90,000	$0	$810,000	$0	$900,000
2022	Local Sales Tax - RTCWA	$22,500	$0	$202,500	$0	$225,000
	2021-2025 TOTAL	**$112,500**	**$1,925,000**	**$1,012,500**	**$75,000**	**$3,125,000**
	ALL YEARS TOTAL	**$112,500**	**$1,925,000**	**$1,012,500**	**$75,000**	**$3,125,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20200025 (Ver 3) 21-03 FEDERAL

Title: Virginia Street Bus RAPID Transit Extension Operation

Description: Bus RAPID transit extension from the RTC 4th STREET STATION in downtown Reno to the University of Nevada, Reno; improves safety, traffic/bus operations, constructs 3 RAPID stations, adds bus only lane segment.

Project Type: Transit -Operating **AQ:** Exempt, Mass Transit - Transit operating assistance. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Plumb Lane to 15th Street of Distance (mile) 2.9

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	CMAQ - Washoe County	$0	$0	$0	$350,000	$350,000
2021	Local Sales Tax - RTCWA	$0	$0	$0	$18,421	$18,421
2022	CMAQ - Washoe County	$0	$0	$0	$368,421	$368,421
2022	Local Sales Tax - RTCWA	$0	$0	$0	$19,391	$19,391
2023	CMAQ - Washoe County	$0	$0	$0	$700,000	$700,000
2023	Local Sales Tax - RTCWA	$0	$0	$0	$36,842	$36,842
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$1,493,075**	**$1,493,075**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$1,493,075**	**$1,493,075**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20180050 (Ver 4) 21-03 FEDERAL

Title: Washoe County Human Services Agency - Enhanced Mobility Services for the Elderly & Disabled

Description: Capital to purchase 3 wheelchair accessible vehicles plus operating funds to provide 6,300 trip annually.

Project Type: Transit - Other **AQ:** Exempt, Mass Transit - Transit operating assistance. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	FTA 5310 Elderly/Disabled Lrg Urb Admin	$0	$0	$0	$7,034	$7,034
2021	FTA 5310 Elderly/Disabled Lrg Urb Capital	$0	$0	$0	$27,672	$27,672
2021	FTA 5310 Elderly/Disabled Lrg Urb Operating	$0	$0	$0	$9,933	$9,933
2021	Local Fund	$0	$0	$0	$16,851	$16,851
<2021	Prior	$0	$0	$0	$94,061	$94,061
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$61,490**	**$61,490**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$155,551**	**$155,551**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20180059 (Ver 5) 21-03 LOCAL

Title: West 4th Street (Reno) Improvements

Description: Construct enhanced sidewalks, bus/bike lanes, and intersection improvements.

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** From Stoker Ave to Evans Ave of Distance (mile) 1.6

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fuel Tax - RTCWA	$3,500,000	$0	$0	$0	$3,500,000
2023	Local Fuel Tax - RTCWA	$0	$0	$22,400,000	$0	$22,400,000
	2021-2025 TOTAL	**$3,500,000**	**$0**	**$22,400,000**	**$0**	**$25,900,000**
	ALL YEARS TOTAL	**$3,500,000**	**$0**	**$22,400,000**	**$0**	**$25,900,000**

MPO **RTC Washoe** Lead Agency **RTC Washoe**

WA20200020 (Ver 3) 21-03 FEDERAL

Title: Purchase Multiuse Path Maintenance Equipment

Description: Purchase multiuse path maintenance equipment for each of the local jurisdictions (Washoe County and the Cities of Reno and Sparks) to remove debris and snow on multiuse/off-street paths throughout the region

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Other - Non construction related activities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fund	$0	$0	$0	$10,000	$10,000
2021	STBG WA	$0	$0	$0	$190,000	$190,000
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$200,000**	**$200,000**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$200,000**	**$200,000**

MPO **RTC Washoe** Lead Agency **Washoe County**

WA20190035 (Ver 3) 21-03 FEDERAL

Title: Traffic Calming Improvements

Description: Install speed radar signs and Rectangular Rapid Flashing Beacons (RRFBs).

Project Type: Rd Sign/Signal **AQ:** Exempt, Safety - Non signalization traffic control and operating. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Various Locations

FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fund	$0	$0	$1,440	$0	$1,440
2021	TAP WA STBG	$0	$0	$27,350	$0	$27,350
<2021	Prior	$7,000	$0	$0	$0	$7,000
	2021-2025 TOTAL	**$0**	**$0**	**$28,790**	**$0**	**$28,790**
	ALL YEARS TOTAL	**$7,000**	**$0**	**$28,790**	**$0**	**$35,790**

MPO **RTC Washoe** Lead Agency **Washoe County**

WA20180048 (Ver 6) 21-03 FEDERAL

Title: Washoe County Safe Routes to School Non-Infrastructure Program

Description: Bicycle education program for elementary and middle schools (K-8), pedestrian education programs including the production of safety/education videos, supporting school safety patrols that includes the distribution of school safety items and incentives, providing guest speakers for school assemblies, and providing school champion stipends to schools who demonstrate a need to institute a specialized SRTS program in their own schools.

Project Type: Bicycle & Pedestrian **AQ:** Exempt, Air Quality - Bicycle and pedestrian facilities. **TCM:** No **NDOT:** District 2

County: Washoe **Limits:** Not Location Specific

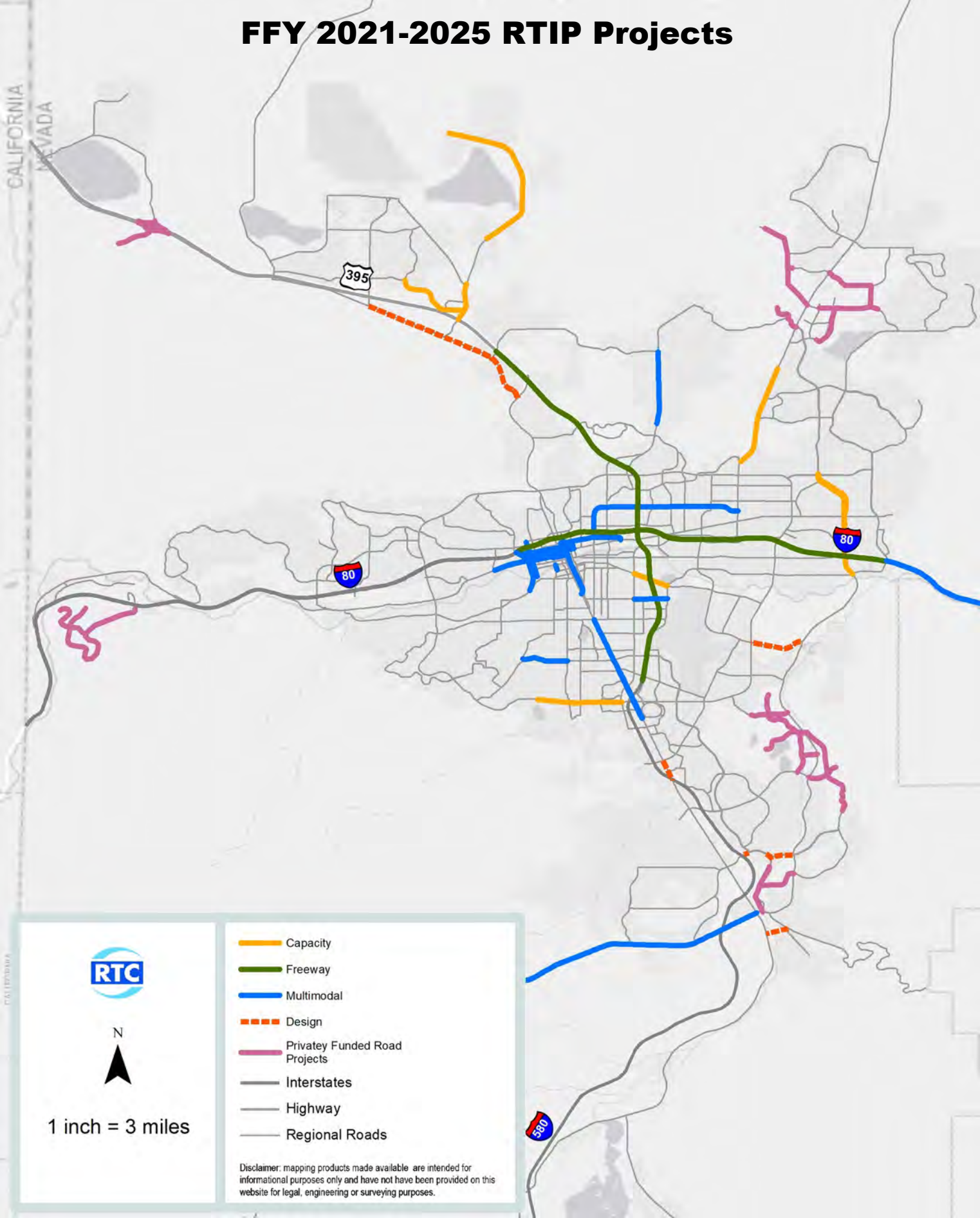
FED FY	Revenue Source	PE	ROW	CON	OTHER	TOTAL
2021	Local Fund	$0	$0	$0	$4,583	$4,583
2021	TAP WA STBG	$0	$0	$0	$87,244	$87,244
	2021-2025 TOTAL	**$0**	**$0**	**$0**	**$91,827**	**$91,827**
	ALL YEARS TOTAL	**$0**	**$0**	**$0**	**$91,827**	**$91,827**

MPO **RTC Washoe** Lead Agency **Washoe County School District**

Appendix B: FFY 2021-2025 Regional Transportation Improvement Program Project Location Map

A project location map for the FFY 2021-2025 Regional Transportation Improvement Program (RTIP) is provided on the following page. It should be noted that many of the projects in the RTIP are not able to be mapped, such as the purchase of vehicles or equipment and the administration of programs or operation of services. However, detailed information, including a map for location-based projects, can be found online for any of the projects through the electronic Statewide Transportation Improvement Program (eSTIP) at https://estip.nevadadot.com.

FFY 2021-2025 RTIP Projects



Appendix C: RTIP Amendments/Administrative Modifications

The RTIP is required to be updated at least every four years. There are changes that occur during the course of the document such as adjustments in project schedules, funding amounts/sources or project descriptions. These changes require either an amendment or an administrative modification. Any changes in the RTIP must be included in the RTP.

Amendments

Amendments are major or substantive changes to the RTIP and must follow the requirements contained in the RTC's Public Participation Plan and the Washoe County Transportation Conformity Plan (for air quality analysis if necessary). Amendments are applicable when:

- There is a significant change in the design or scope of an existing project
- A project is added or deleted
- There is a significant change in a funding category that alters the overall financial reasonableness of the RTIP
- When there is an increase in the estimated cost of a project by more than $5 million and greater than 40% of the total estimated project cost

Administrative Modifications

Administrative Modifications are non-substantive changes to the RTIP and include the following:

- Moving a project in the document to an earlier or later year
- Increasing the estimated cost of a project by less than $5 million or by more than $5 million if the amount is less than 40% of the total estimated project cost

Administrative modifications are typically processed through letter or email between the Nevada Department of Transportation and RTC.

Appendix D: Acronyms

AADT—Annual Average Daily Traffic

ADA—Americans with Disabilities Act of 1990

ADT—Average daily trips

BLM—Bureau of Land Management

BRT—Bus rapid transit

CMAC—Citizens Multimodal Advisory Committee

CALTRANS—California Department of Transportation

CAMPO—Carson Area Metropolitan Planning Organization

CCRTC—Carson City Regional Transportation Commission

CEA— Critical Emphasis Areas

CFR—Code of Federal Regulations

CMAQ—Congestion Mitigation/Air Quality

CMP—Congestion Management Process

CNG—Compressed natural gas

CO—Carbon monoxide

CPI—Consumer Price Index

EPA—Environmental Protection Agency

ETR—Employer Trip Reduction

FAA—Federal Aviation Administration

FAST Act—Fixing America's Surface Transportation Act

FHWA—Federal Highway Administration

FMIS—Financial Management Information System

FRR—Farebox Recovery Ratio

FTA—Federal Transit Administration

GHG—Greenhouse gas

HA87—Hydrographic Area #87

HOV—High occupancy vehicle

HSIP—Highway Safety Improvement Program

ITS—Intelligent Transportation Systems

LOS—Level of service

MAP-21—Moving Ahead for Progress in the 21st Century Act

MOVES—Air quality model

MPO—Metropolitan Planning Organization

MUTCD—Manual of Uniform Traffic Control Devices

MVEB—Motor vehicle emission budget

NAAQS—National Ambient Air Quality Standards

NDOT—Nevada Department of Transportation

NEPA—National Environmental Policy Act

NHPP—National Highway Performance Program

NHS—National Highway System

NO_X—Nitrogen oxides

NRS—Nevada Revised Statutes

PCI—Pavement condition index

PD&E—Project development and environmental activities

PSAP— Pedestrian Safety Action Plan

$PM_{2.5}$—Particulate matter of less than 2.5 microns

PM_{10}—Particulate matter of less than 10 microns

PMS—Pavement management system

POP—Program of projects

PPP—Public Participation Plan

ROW—Right-of-way

RRIF—Regional Road Impact Fee

RRIF CIP—Regional Road Impact Fee Capital Improvements Plan

RRS—Regional Road System

RSA—Road Safety Assessment

RTAA—Reno-Tahoe Airport Authority

RTC—Regional Transportation Commission of Washoe County

RTIP—Regional Transportation Improvement Program

RTP—Regional Transportation Plan

SEC—SouthEast Connector

SGR—State of Good Repair

SHSP—Strategic Highway Safety Plan

SIP—State Implementation Plan

SOV—Single occupancy vehicle

SRTP—Short Range Transit Plan

SRTS—Safe Routes to School

STB—State Transportation Board

STIP—State Transportation Improvement Program

STBG—Surface Transportation Block Grant Program

TAC—RTC Technical Advisory Committee

TA Set-Aside —Transportation Alternatives Set-Aside Program

TART—Tahoe Area Regional Transit

TAZ—Traffic Analysis Zone

TCM—Transportation Control Measure

TDM—Transportation Demand Management

TMA—Transportation Management Association

TMC—Traffic/transportation management center

TMRP—Truckee Meadows Regional Plan

TMRPA—Truckee Meadows Regional Planning Agency

TMWA—Truckee Meadows Water Authority

TOD—Transit-oriented development

TRI-Center—Tahoe Reno Industrial Center

TRPA—Tahoe Regional Planning Agency

TSM—Transportation System Management

TSP—Transit signal priority

TTD—Tahoe Transportation District

UNR—University of Nevada, Reno

UPRR—Union Pacific Railroad

UPWP—Unified Planning Work Program

USDA—U.S. Department of Agriculture

USDOT—U.S. Department of Transportation

V/C Ratio—Volume to Capacity Ratio

VHD—Vehicle hours of delay

VHT—Vehicle hours of travel

VMT—Vehicle Miles Traveled

VOC—Volatile organic compounds

WCHD-AQMD—Washoe County Health District—Air Quality Management Division

YOE—Year of Expenditure

Regional Transportation Commission of Washoe County
MPO Self-Certifications and Federal Certifications

The Regional Transportation Commission of Washoe County (RTC) certifies that the metropolitan planning process is being carried out in accordance with all applicable requirements including:

1. 23 U.S.C. 134, 49 U.S.C. 5303, and 23 CFR Part 450;
2. Sections 174, 176(c) and 176(d) of the Clean Air Act as amended (42 U.S.C. 7504, 7506(c), 7506(d)), and 40 CFR Part 93;
3. Title VI of the Civil Rights Act of 1964 as amended (42 U.S.C. 2000d-l) and 49 CFR Part 21;
4. 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
5. Section 1101(b) of the FAST Act (Pub. L. 112-141) and 49 CFR Part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
6. 23 CFR Part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts;
7. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) and 49 CFR parts 27, 37, and 38;
8. The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
9. Section 324 of Title 23 U.S.C. regarding the prohibition of discrimination based on gender;
10. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR Part 27 regarding discrimination against individuals with disabilities; and
11. Public notice of public involvement activities and time established for public review and comment on the Regional Transportation Improvement Program will satisfy the Program of Projects requirements of the Section 5307 Program.

CERTIFICATE

The undersigned, duly qualified Chair of the Regional Transportation Commission, certifies that the foregoing is a true and correct copy of a certification approved at a legally convened meeting held on March 19, 2021.

_____
Neoma Jardon, Chair
Regional Transportation Commission

ACEC
American Council of Engineering Companies
of Nevada

October 19, 2020

Jim French, President
NV Association of Counties
304 South Minnesota Street
Carson City, NV 89703

Mayor Daniel Corona, President
NV League of Cities & Municipalities
520 South Currey Street
Carson City, NV 89703

Re: Nevada Constitution, Article 9, Section 5

Dear Mr. French & Mr. Corona:

On behalf of the Nevada design and engineering industry represented by the Nevada Chapter of the American Council of Engineering Companies (ACEC-NV), we wish to share our industry's opposition to legislation proposing to amend Article 9, Section 5 of the Nevada Constitution in any manner that weakens its current restriction on the use of revenue from fuel taxes strictly for the construction, maintenance and repair of the public highways of this state.

Recently, the interim Legislative Committee on Energy approved a BDR (Bill Draft Request) to amend this provision of the Nevada Constitution by greatly expanding the use of fuel tax revenues to include "transit and transportation infrastructure" as well as "operations" associated with state, regional and local governmental entities connected to the construction, maintenance and repair of Nevada's roads. This proposal would further weaken an already underfunded and stressed highway funding system in Nevada.

As leaders of our local governments you are well aware that the Nevada State Highway Fund and local budgets for roads and other public infrastructure are stretched thin across the state. In many rural areas of our great state the revenue is insufficient to adequately support basic road maintenance needs while our urban communities struggle to keep pace with infrastructure demands. The Governmental Service Tax (GST), a tax on vehicle valuation that is intended for distribution to the State Highway Fund and to counties for transportation projects, was swept during the recent special session of the Nevada Legislature to address state budget shortfalls as a result of the pandemic. What was once the exception, the deference of GST revenues away from state and local road projects has become the rule, having been deferred at varying levels every year since 2013. Weakening the one and only provision in the Nevada Constitution protecting fuel tax revenue from being diverted to uses other than construction and maintenance of Nevada's roads is a dangerous path that exposes these critical resources to economic fluctuations and the political demands that result. Our predecessors in founding the state's Constitution understood the importance of the state's highway infrastructure both to economic commerce and to personal liberties and rightly protected these revenues from biennial machinations of our legislative process.

Every dollar invested in infrastructure development delivers $4 in economic growth.[1] The investment in the state's transportation network delivers thousands of jobs for Nevadans that support solid, livable wages. These investments also foster the growth of critical STEM-related industries, such as engineering, that benefit the growth and development of the state by providing the technical expertise to support the development of other major projects that further advance the state's economy. One need only

[1] https://www.businessroundtable.org/delivering-for-america-full-report.

ACEC
American Council of Engineering Companies
of Nevada

look to the incredible projects built within Las Vegas' resort corridor, from mega-resorts to state-of-the-art entertainment venues to world-class stadiums, that wouldn't be possible without a strong, Nevada-based engineering community to advance such significant economic endeavors. Meanwhile, the public investment in state and local roads provides the foundation for economic commerce upon which our entire business community and workforce relies. Moreover, the proper funding of public projects will help to stabilize Nevada's economy as we pull ourselves out from the current pandemic-induced recession.

ACEC, along with contractors, labor and Nevada's business community, have worked for decades to maintain fuel tax revenues by seeking approval from their voters to index the rate to inflation in both Washoe and Clark counties. These difficult yet successful efforts have enabled local governments to keep their roads at pace with the growth of their communities. More importantly, voters approved these ballot measures with the understanding that the funds would be used solely and exclusively for the construction and maintenance of your roads, not for administrative or other transportation-related demands.

Maintaining the constitutional protection of fuel tax revenues from the demands of other public needs is the correct approach. Even other well-intended and necessary transportation needs, such as public transit, should be supported through other revenue sources that more closely align with the purpose and benefits of those services. Draining the limited resource that supports construction and maintenance of Nevada's roads and highways exacerbates a funding system that is already under siege by rising emission standards, inflation, the introduction of alternative vehicles and most recently reduced vehicle miles traveled by Nevada drivers due to the pandemic that has significantly impacted anticipated fuel tax revenues.

Nevada's design and engineering community strongly encourages you and your member entities to maintain the constitutional protection of fuel tax revenues for the construction and maintenance of Nevada's streets and highways as it currently exists within in Article 9, Section 5 of the Nevada Constitution. Thank you for your valued service to our communities across Nevada and for your time and attention to this matter.

Sincerely,

Mark Casey, PE
President

cc: NACO Board
Clark County Commission
Washoe County Commission
Dagny Stapleton, Executive Director, NACO
NLCM Board
Las Vegas City Council
North Las Vegas City Council
Henderson City Council
Reno City Council
Sparks City Council
Wesley Harper, Executive Director

ACEC
American Council of Engineering Companies
of Nevada

October 5, 2020

Governor Steve Sisolak
101 N. Carson Street
Carson City, NV 89701

Re: Capital Improvement Projects & GST

Dear Governor Sisolak:

On behalf of the Nevada design and engineering industry represented by the Nevada Chapter of the American Council of Engineering Companies (ACEC-NV), we are grateful for your leadership and dedication to the state of Nevada during these difficult times of COVID-19. Implementing policies to control the spread of the virus is the quickest path to restoring a fully functioning and sustainable economy upon which both the private sector and our state and local governments rely. We also recognize the incredibly difficult decisions you and the Nevada Legislature had to make in order to balance the state's budget for the remainder of the fiscal year, including the sweep of remaining GST (Governmental Services Tax) revenues. As you develop the state budget for the next biennium, we ask that you consider the importance of maintaining the GST allocation to our State Highway Fund as a significant economic priority for Nevada.

The continuation of public projects will help to stabilize Nevada's economy while maintaining construction-related jobs and wages. As you know, every dollar invested in infrastructure development delivers $4 in economic growth.[1] ACEC-NV stands with you in the effort to sustain the state's economy. Our national organization in Washington, D.C., is the leading advocate for investment in our nation's transportation and public infrastructure. Meanwhile, your state chapter of ACEC has continued face-to-face (virtual) meetings with each member of the Nevada Delegation urging support for the CARES Act and other COVID-related stimulus investments, including the passage of immediate stimulus investments to state and local governments via the HEROES Act. We are also encouraging our local officials north and south to maintain reasonable levels of funding for public projects to ensure economic viability.

Being the first step in the development process design professionals recognize impending declines in construction prior to any other development-related industry. We are the veritable "canary in the coal mine". With the conclusion of the Allegiant Stadium project and the LVCVA expansion in its final phase in southern Nevada, coupled with the delay of projects in northern Nevada such as the widening of US-395, we are concerned that a significant drop in public projects will occur statewide should state and local funding be fully diverted for the FY21-23 biennium. The FY19-20 budget reductions will result in the loss of nine NDOT projects in the current fiscal year, in addition to several projects that will not be advertised for bid and thereby may not be developed in the next biennium. With the withdrawal of public dollars from projects across the state at the local government level as well, the overall impact to the state's economy for the next biennium will be significant.

[1] https://www.businessroundtable.org/delivering-for-america-full-report.

ACEC
AMERICAN COUNCIL OF ENGINEERING COMPANIES
of Nevada

As you finalize the FY21-23 state budget, we encourage your consideration of the critical role of public projects in the state's near-term economic recovery and its long-term growth. Funding public infrastructure, including reverting GST revenues to the State Highway Fund, will be critical steps toward sustaining and revitalizing economic activity for Nevada. ACEC-NV offers our design professional community as a resource to your office on these and other infrastructure-related issues. We look forward to working with you and your team for the betterment of all Nevadans.

Sincerely,

Mark Casey, PE
President

cc: Nicole Cannizzaro, Senate Majority Leader
Jason Frierson, Speaker of the Assembly

REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **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.*

REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **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 RTC of Washoe County
Prepared by Cardinal Infrastructure and Thompson Coburn
March 19, 2021 Board Meeting
Prepared March 11, 2021

Congressional COVID Relief

Congress passed and the President has signed the American Rescue Plan Act into law, the latest in COVID-19 relief. The legislation provides $30.5 billion in supplemental funding to public transit. This funding is to remain available until September 30, 2024. The funding is available for operating expenses including payroll, to cover lost revenue, and the purchase of personal protective equipment, at 100% federal share. This funding is "not subject to any prior restriction on the total amount of funds available for implementation or execution of programs authorized under sections 5307, 5310, or 5311." The breakdown of the $30.5 billion is as follows:

- $26.09 billion for grants to recipients and subrecipients under the section 5307 Urbanized Area Formula up to a cumulative total of 132% of an urbanized area's 2018 operating costs.
- An additional $2.2 billion for recipients that need additional assistance to maintain operations to be allocated by the Secretary based on need.
- $1.675 billion for certain New Starts and Core Capacity Capital Investment Grant (CIG) projects.
- $250 million for certain Small Starts CIG projects that have received an allocation or are in project development.
- $50 million for 5310 Enhanced Mobility of Seniors & People with Disabilities program.
- $317 million for 5311 Formula Grants for Rural Areas.

Appropriation Earmarks

House Appropriations Committee Chairwoman DeLauro announced the Committee's process for "community project funding" (aka earmarks). The Committee reforms include:

- For-profit entities are prohibited from directly receiving funding.
- Community Project Funding is limited to 1% of discretionary spending.
- Each Member may request up to 10 community projects.
- Evidence of community support must be provided in the request.
- Requests must be posted online.
- Members must not have a financial interest in the project.

The Senate has yet to release its earmark process, but it could mirror the House reforms.

Reauthorization Earmarks

House Transportation and Infrastructure Committee Chairman DeFazio announced his intention to include earmarks in the FAST Act reauthorization bill. The Committee released an initial outline of the process Members should consider in reviewing and selecting projects that might qualify for project funding. The Committee will provide additional details (including a database where Members can enter their formal requests) in the coming weeks.

The Committee requests recommendations and related surface transportation policy priorities be submitted via letter to the Committee no later than April 14, 2021. The Committee asks for feedback to focus on "direct modifications or additions to the programs and policies set forth in H.R. 2" (which was last year's House passed INVEST bill.

The Committee correspondence asks that the following information on specific project requests be provided:

- Documentation that the project is on the State, Tribal, or territorial transportation improvement program (STIP); and on the metropolitan transportation improvement program (TIP), if applicable
- Sources of funding for the full share of the cost of the project beyond the amount requested
- Letter(s) of support from the State department of transportation, or local government, transit agency, or other non-Federal sponsor
- A description of the process that has been or will be followed to provide an opportunity for public comment on the project
- Project phase (e.g. Planning, Final Design, Construction)
- NEPA category of action (e.g. Categorical Exclusion, Environmental Assessment, Environmental Impact Statement)
- Status of environmental review
- Whether the project has received Federal funding previously, and if so, the source and amount
- Certification that the Member, their spouse, and other immediate family members do not have a financial interest in the project

Low-No Grant Funding
FTA announced the availability of $180 million in competitive grant funds for the Low or No Emission (Low-No) Grant Program. Applications are due by April 12, 2021. There are significant differences in this notice of funding opportunity (NOFO) compared to the one issued under the previous Administration.

The FY 2021 NOFO encourages projects to include environmental justice goals, workforce development activities, and additional climate benefits. As secondary review criteria, the FTA Administrator will consider Departmental objectives, including applications that:

- Provide other air quality benefits as part of the application review;
- Advance the Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis;
- Prioritize benefits to environmental justice communities; and
- Include "workforce development activities that improve the technical expertise of America's transit workers."

The NOFO no longer includes preferences for projects located in an Opportunity Zone, or projects that include a higher local financial commitment. Furthermore, while last year's notice made no mention of autonomous vehicles, the FY 2021 NOFO discusses applications that include "autonomous vehicles or other innovative motor vehicle technology."

Senate Appropriations
The Democratic Majority of the Senate Appropriations Committee released updated information on the makeup of its subcommittees. For the Subcommittee on Transportation, Housing and Urban Development, and Related Agencies, Senator Schatz (D-HI) will serve as its new Chairman. Senator Schatz as Chairman of the Subcommittee is expected to focus on and direct funding to strong investments in a zero-emission future. The Senator is one of the strongest advocates for addressing the climate crisis, serving as chair of the Senate Democrats' Special Committee on the Climate Crisis. He is also a member of the Senate Commerce Committee and Senate Banking Committee (which has jurisdiction over the transit program).

REGIONAL TRANSPORTATION COMMISSION
Metropolitan Planning • Public Transportation & Operations • Engineering & Construction
Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: March 19, 2021 **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.*