REGIONAL TRANSPORTATION COMMISSION
TECHNICAL ADVISORY COMMITTEE
MEETING AGENDA

Thursday, February 4, 2021 at 9:00 am
Regional Transportation Commission
1st Floor Conference Room
1105 Terminal Way, Reno NV 89502

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

PUBLIC NOTICE

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. The meeting will be streamed live via the RTC YouTube channel and can be watched by following this link: bit.ly/RTCWashoeYouTube

II. The Technical Advisory Committee (TAC) has a standing item for accepting public input on topics relevant to the jurisdiction of the RTC. Because specific items may be taken out of order to accommodate the public and/or the TAC, public input on all items will be received under Item 2. Individuals providing public input will be limited to three minutes. Members of the public may provide public comment and also comment on Agenda Items without being physically present at the meeting by submitting their comments via online Public Comment Form (https://www.rtcwashoe.com/about/contact/contact-form/), or by emailing their comments to: rtcpubliccomments@rtcwashoe.com. Public commenters may also leave a voicemail at (775) 335-0018. Comments received prior to 4:00 p.m. on February 3, 2021, will be entered into the record.

III. The TAC 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. Requests for supporting documents and all other requests should be directed to RTC Metropolitan Planning at 775-348-0480. Supporting documents may also be found on the RTC website: www.rtcwashoe.com.

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

ITEM 1 Approval of Agenda *(For Possible Action)*

ITEM 2 Public Comment - *pursuant to paragraph II under Public Notice near the top of this page*

ITEM 3 Approval of the January 7, 2021 Meeting Minutes *(For Possible Action)*

ITEM 4 Acknowledge Receipt of a Report on the Status of Projects Administered by the RTC Engineering Department *(For Possible Action)*

ITEM 5 Discussion and Recommendation of Tasks for the Fiscal Years 2022-2023 Unified Planning Work Program (UPWP) *(For Possible Action)*

ITEM 6 Acknowledge Receipt of a Report on the 2050 Regional Transportation Plan (RTP) *(For Possible Action)*

ITEM 7 Acknowledge Receipt of Report on the Proposed May 2021 RTC RIDE Service Change and Provide Feedback *(For Possible Action)*

ITEM 8 Development Updates *(Informational Only)*

ITEM 9 Member Items

a) City of Reno
b) Reno-Tahoe Airport Authority
c) City of Sparks
d) FHWA
e) Washoe County
f) Air Quality Management Div. (AQMD)
g) NDOT
h) TMRPA
i) WCSD
j) Reno-Sparks Indian Colony (RSIC)

ITEM 10 Agenda Items for Future TAC Meetings *(For Possible Action)*

ITEM 11 RTC Staff Items *(Informational Only)*

ITEM 12 Public Comment - *pursuant to paragraph II under Public Notice near the top of this page*

ITEM 13 Adjournment *(For Possible Action)*

*The Committee **may** take action on any item noted for possible action*

Posting locations: **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 been suspended. Current postings locations are:** RTC website: www.rtcwashoe.com, State website: https://notice.nv.gov/

REGIONAL TRANSPORTATION COMMISSION
TECHNICAL ADVISORY COMMITTEE
Meeting Minutes
Thursday, January 7, 2021
Meeting via teleconference only pursuant to NRS 241.023 and Emergency Directive 006

TAC Members Present

Dan Inouye	Washoe County Health District-Air Quality Management Division
Chris Tolley	Truckee Meadows Regional Planning Agency
Tara Smaltz	Nevada Department of Transportation
Sandy Freund	Washoe County School District
Christopher Cobb	Reno-Tahoe Airport Authority
Kurt Dietrich	City of Reno Public Works
Ian Crittenden	City of Sparks Community Services
Chair, Jeff Borchardt	City of Reno Community Development
Vice Chair Julee Olander	Washoe County Community Services
Kevin Verre	Nevada Department of Transportation
Enos Han	Federal Highway Administration
Amber Sosa	City of Sparks Engineering Services

RTC Staff

Amy Cummings	Dan Doenges
Jim Gee	Doug Maloy
Stephanie Haddock	Rebecca Kapuler
Bill Thomas	Xuan Wang
Mark Maloney	James Weston
Jacqueline Maldonado	

TAC Guest

Kelly Mullin, Jeremy Smith, TMRPA

The Technical Advisory Committee meeting was conducted as a Virtual Meeting. The meeting was called to order at 9:04 a.m. by the Chair, Jeff Borchardt.

ITEM 1. APPROVAL OF AGENDA

The agenda was approved as submitted.

ITEM 2. PUBLIC COMMENT

There were no public comments.

ITEM 3. APPROVAL OF THE DECEMBER 3, 2020 MEETING MINUTES

The TAC December 3, 2020 meeting minutes were approved as submitted.

ITEM 4. ACKNOWLEDGE RECEIPT OF A PRESENTATION ON AN OVERVIEW OF THE REGIONAL TRAVEL DEMAND MODEL AND CONSENSUS FORECAST

Xuan Wang, RTC Technical Senior Planner gave a presentation on the Regional Travel Demand Model and Consensus Forecast. A copy of the PowerPoint presentation is on file at the RTC Metropolitan Planning Department. Jeremy Smith, TMRPA also briefed the committee on the Consensus Forecast.

Mitchell Fink, entered the meeting at 9:12 a.m.

Amber Sosa asked about the adjusted employment and population for COVID. Xuan Wang stated no changes from the 2015 Travel Characteristics study which, is done every 10 years and the drop in employment was used.

Tara Smaltz requested the Fernley model updates. Xuan Wang stated a February proposal for a timeline of April to June will be forthcoming.

Dan Inouye made a motion to acknowledge receipt of a presentation on an overview of the Regional Travel Demand Model and Consensus.

Chris Tolley seconded.

The motion carried unanimously.

ITEM 5. ACKNOWLEDGE RECEIPT OF A REPORT ON THE 2050 REGIONAL TRANSPORTATION PLAN (RTP)

Amy Cummings, RTC Deputy Executive Director/Director of Planning briefed the committee on the proposed draft 2021-2025 projects and also the proposed draft 2026-2030 projects for the RTP. She stated the 2050 RTP online survey is available through January 14, 2020 and 120 responses have been entered. She encourages everyone to take the survey for input to the 2050 RTP.

Vice Chair, Julie Olander made a motion to acknowledge receipt of a report on the 2050 Regional Transportation Plan (RTP).

Chris Tolley seconded.

The motion carried unanimously.

ITEM 6. DEVELOPMENT UPDATES

Chair, Jeff Borchardt, City of Reno gave development updates for Prado Ranch go to the city council for a final decision on the project. Daybreak 3 villages came forward and 2 are in appeal as well. A Large project in Verdi was appealed and will be also discussed in March.

Vice Chair, Julee Olander, Washoe County gave development updates on 111 units approved in the Cold Springs.

ITEM 7. MEMBER ITEMS

Kurt Dietrich, City of Reno gave traffic engineering signal timing projects on the Virginia Corridor and an upcoming Plumb Lane Corridor project.

Amber Sosa, City of Sparks gave a member item on construction LPA project on pedestrian paths and is in coordination with NDOT and an upcoming traffic calming request.

ITEM 8. AGENDA ITEMS FOR FUTURE TAC MEETINGS

There were no items given.

ITEM 9. RTC STAFF ITEMS

Bill Thomas, RTC Executive Director commented on the fuel tax trends and the RRIF TAC meeting for the updating of the RIFF Program.

ITEM 10. PUBLIC COMMENT

There were no public comments given.

ITEM 11. ADJOURNMENT

The meeting adjourned at 10:11 a.m.

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

MEETING DATE: February 4, 2020 **AGENDA ITEM 4**

To: Technical Advisory Committee

From: Doug Maloy, P.E.
Engineering Manager

RECOMMENDED ACTION

Acknowledge receipt of a report on the status of projects administered by the RTC Engineering Department.

BACKGROUND AND DISCUSSION

Staff will provide an update on the status of several Engineering projects currently under development and anticipated to be under construction in 2021. Projects that will be discussed include Pavement Preservation, Multimodal, and Traffic Engineering projects.

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

MEETING DATE: February 4, 2020 **AGENDA ITEM 5**

To: Technical Advisory Committee

From: Dan Doenges, PTP, RSP
Planning Manager

RECOMMENDED ACTION

Discussion and recommendation of tasks for the Fiscal Years 2022-2023 Unified Planning Work Program (UPWP).

BACKGROUND AND DISCUSSION

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

The RTC is beginning development of the Fiscal Years (FY) 2022-2023 UPWP and the purpose of this item is to solicit potential tasks for the program. The draft document will be brought to the committee for discussion and recommendation at a subsequent meeting.

Significant tasks to be carried forward into the FY 2022-2023 document include the Regional Transportation Plan (RTP) Activities task, which will include completion of the Electric Vehicle and Alternative Fuel Infrastructure and Advanced Mobility Plan as well as an update to the RTC Bicycle and Pedestrian Master Plan (BPMP). Proposed new studies under the Corridor and Area Planning task include a Verdi Area Transportation Study, a Midtown traffic circulation analysis, and a Downtown Reno/Midtown/Downtown Sparks parking assessment. The RTC will also continue the Data Collection and Analysis Program to monitor active transportation in the region and guide future investment in multimodal projects. In addition, the RTC Transit Optimization Plan Strategies (TOPS), formerly the Short Range Transit Plan, will be updated as well.

MEETING DATE: February 4, 2020 **AGENDA ITEM 6**

To: Technical Advisory Committee

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

RECOMMENDED ACTION

Acknowledge receipt of a report on the 2050 Regional Transportation Plan (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 Washoe County for all modes of travel. It functions as the major tool for implementing long-range transportation planning.

A virtual public meeting and online survey was open through January 14 to gather community feedback regarding the evaluation and prioritization of projects. The online survey was divided into four parts to allow for the ranking of comparable projects, including freeway projects, multimodal projects with no new road capacity, capacity projects on existing regional roads, and construction of new regional roads. RTC staff has compiled the results of the survey and incorporated them into the project prioritization framework. In addition, a draft project list was presented to the RTC Board with a proposed implementation schedule to ensure a fiscally constrained plan.

The RTC travel demand model is being used for air quality conformity analysis, as required prior to approval of the 2050 RTP. Once this process has been completed, a draft plan will be presented to the public for review and comment.

Top 5 Freeway Projects - Public

1	US395/I-580/I80 Capacity Expansion at Spaghetti Bowl (Spaghetti Bowl)
2	US 395 Additional lane in each direction (Golden Valley to Stead Blvd)
3	I-580 Widening (S Virginia St at Mt Rose to South Meadows Pkwy)
4	I-80 Widening (W McCarran Blvd to Keystone Ave)
5	I-580 Widening (South Meadows Pkwy to Neil Rd)

Top 5 Freeway Projects - AWG

1	US395/I-580/I80 Capacity Expansion at Spaghetti Bowl (Spaghetti Bowl)
2	I-580 Widening (Neil Rd to S Virginia St/Kietzke Ln)
3	I-80 Widening (Patrick to US Pkwy)
4	I-580 Widening (S Virginia St at Mt Rose to South Meadows Pkwy)
5	US 395 Additional lane in each direction (Golden Valley to Stead Blvd)

Top 5 Multimodal Projects - Public

1	West Reno Bike Path - Truckee River Connections (S McCarran to Idelwild Park)
2	Arlington Avenue Replace existing bridges (At Truckee River)
3	Vista Blvd Sidewalks and Bike Lanes (Greg St to S Los Altos Pkwy)
4	S. Virginia Street Multimodal and ADA (Plumb Lane to Meadowood)
5	W 2nd Street Enhanced Sidewalks, landscaping, bike lanes (Keystone Ave to Galletti Way)

Top 5 Multimodal Projects - AWG

1	4th Street Enhanced Sidewalks and bus/bike lanes, intersection (Keystone Ave to Evans Ave)
2	4th Street Pedestrian & Safety Improvements (Virginia to McCarran - Cost Keystone to McCarran)
3	Arlington Avenue Replace existing bridges (At Truckee River)
4	El Rancho Dr / Dandini Blvd Sidewalks (Raggio Pkwy to Sullivan Ln)
5	Center Street Widen sidewalks & add bike lanes (S Virginia to I-80 9th Street to Moran)

Top 5 New Roads - Public

1	Pyramid/395 Connector Construct Connector (US 395 to Pyramid Hwy south of Sparks Blvd)
2	Eagle Canyon Extension New 4 lane road (Lemmon Valley to Spanish Springs)
3	Pyramid/395 Connector New 4 lane arterial (Extend Disc Dr from Connector to Pyramid)
4	TRI Center Northern Connection (La Posada to TRI Center)
5	TRI Center Southern Connection (Rio Wrangler to TRI Center)

Top 5 New Roads - AWG

1	Pyramid/395 Connector Construct Connector (US 395 to Pyramid Hwy south of Sparks Blvd)
2	9th Street Extension (To N Wells Ave)
3	Eagle Canyon Extension New 4 lane road (Lemmon Valley to Spanish Springs)
4	TRI Center Southern Connection (Rio Wrangler to TRI Center)
5	North Virginia - New Road (Stead to White Lake)

Top 5 Capacity Projects - Public

1	Sparks Blvd - Multimodal Improvements and widen 4 to 6 lanes (Greg St to Baring Blvd)
2	Pyramid Hwy (Queen Way to Golden View)
3	Pyramid Hwy/Sun Valley/US 395 Connector Phase 3 (Widen Disc Dr from Pyramid to Vista Blvd)
4	N Virginia Street - Widen 2-4 lanes & Multimodal (Panther Dr to Stead Blvd)
5	Pyramid Way - Widen 4 to 6 lanes (Lazy 5 to La Posada Dr)

Top 5 Capacity Projects - AWG

1	N Virginia Street - Widen 2-4 lanes & Multimodal (Panther Dr to Stead Blvd)
2	S. Virginia Street - Add NB lane (Longley Ln to I-580)
3	Double R - Widening & Multimodal (South Meadows to Longley)
4	McCarran Boulevard - Widen 4 to 6 lanes (7th St to N Virginia St)
5	McCarran Boulevard - Widen 4 to 6 lanes (El Rancho Dr to Rock Blvd)

ATTACHMENT

DRAFT 2026-2030 Listing

Program	Description	Annual Amount (est)	5 Year Amount
Bicycle, Pedestrain & ADA	Bus stop ADA improvements, other bike/ped spot improvements	$3,500,000	$17,500,000
Traffic Signals, ITS Operations & Intersections	3-5 intersection improvements per year	$11,500,000	$57,500,000
Pavement Preservation	Preventive & corrective maintenance, reconstruction	$25,000,000	$125,000,000
Debt Service		$23,000,000	$115,000,000
Projects	**Limits**	**YOE Cost Rounded**	
Freeway			
US 395 Additional lane in each direction	Golden Valley to Stead Blvd	$79,177,000	
US 395 Additional Northbound Lane - Design	Clear Acre to Parr	$19,115,000	
Spaghetti Bowl Phase 2	Spaghetti Bowl	$73,088,000	
Capacity			
Buck Dr Widen 2 to 4 lanes	Lemmon Dr to N Hills Blvd	$1,912,000	
Damonte Ranch Pkwy - Widen	Double R to I 580	$4,723,000	
Eagle Canyon Extension Widen 2 to 4 lanes - Design	Pyramid Hwy to W Calle de la Plata	$2,000,000	
Geiger Grade New 4 Lane Rd	Virginia St to Toll Rd	$84,445,000	
McCarran Blvd Safety & Operational Improvements - Design	Plumb Ln to N Virginia St; El Rancho Dr to Rock Blvd	$15,000,000	
Military Rd Widen 2 to 4 lanes	Lemmon Dr to Echo Ave	$25,412,000	
Moya Boulevard Widen 2 to 4 lanes	Red Rock Rd to Echo Ave	$19,678,000	
Moya Boulevard Extension	Red Rock Dr to Echo Ave	$74,100,000	
N. Hills Blvd	Golden Valley Rd to Buck Dr	$20,465,000	
N Virginia Street Widen 2-4 lanes & Multimodal	Panther Dr to Stead Blvd	$43,291,000	
Pembroke Dr - Widen	McCarran to Veterans	$19,790,000	
Pyramid Hwy/395 Connector Phase 2	Widen Disc Dr from Pyramid to Vista Blvd	$22,300,000	
Pyramid/395 Connector Phase 3 (Connector) - Design	US 395 to Pyramid Hwy south of Sparks Blvd	$50,000,000	
Red Rock Rd Widen 2 to 4 lanes	US 395 to Placerville Dr	$58,246,000	
S. Virginia Street - Add NB lane	Longley Ln to I-580	$23,613,000	
Sparks Blvd Multimodal Improvements and widen 4 to 6 lanes	Greg St to Baring Blvd	$44,977,000	
Steamboat Pkwy and Damonte Ranch Pkwy - Widen	Veterans Pkwy to Promenade Wy	$4,610,000	
Vista Boulevard Widen 4 to 6 lanes	I-80 to Prater Way	$11,244,000	
Multimodal			
4th Street Bike lanes (Sparks)	Victorian Ave to Queen Way	$6,747,000	
4th Street Pedestrian & Safety Improvements (Reno)	Stoker to McCarran	$20,240,000	
El Rancho Dr / Dandini Blvd Sidewalks	Raggio Pkwy to Sullivan Ln	$20,690,000	
Greg St Sidewalks and Bike lanes	Mill Street to Vista Blvd	$29,123,000	
Keystone Ave Multimodal Improvements	California to I-80 & Truckee Bridge replacement	$61,169,000	
Keystone Ave Sidewalks and Bike Lanes	Coleman Dr to Peavine Rd	$1,012,000	
McCarran - Pedestrian Improvements	Baring to Pyramid	$12,594,000	
McCarran Blvd Multimodal & Safety Improvements	Greg to Prater	$10,682,000	
Mill St/Terminal Way Multimodal Improvements	Airport to downtown Reno	$27,436,000	
N Virginia St Sidewalks and buffered bike lanes	Panther Dr to McCarran Blvd	$17,878,000	
NW McCarran Safety and Bike Lanes	4th Street to N Virginia	$10,570,000	
Rock Blvd Enhanced Sidewalks and Bike Lanes	Victorian Ave to McCarran Blvd	$7,309,000	
Rock Blvd Sidewalks and bike lanes	Greg St to Glendale Ave	$3,823,000	
Sierra St Widen Sidewalks	California Ave to 9th St	$5,060,000	
Sutro - MultiModal	N McCarran to Oddie Blvd	$8,995,000	

ATTACHMENT

DRAFT 2031-2050

Program	Description	Annual Amount (est)	20 Year Amount
Bicycle, Pedestrain & ADA	Bus stop ADA improvements, other bike/ped spot improvements	$4,570,000	$91,400,000
Traffic Signals, ITS Operations & Intersections	3-5 intersection improvements per year	$15,232,000	$304,640,000
Pavement Preservation	Preventive & corrective maintenance, reconstruction	$30,000,000	$600,000,000
Debt Service		$23,000,000	$230,000,000
Projects	**Limits**	**YOE Cost Rounded**	
Freeway			
Spaghetti Bowl Phases 3-5	Spaghetti Bowl	$761,602,000	
US 395 Widen for Connector traffic - add'l NB lane	Clear Acre to Parr Blvd	$248,282,000	
US 395 Widening - Design	Stead to Red Rock Rd	$53,617,000	
I-580 Widening	Neil Rd to S Virginia St/Kietzke Ln	$53,617,000	
I-80 Widening	W McCarran Blvd to Keystone Ave	$60,471,000	
I-80 Widening	Garson Rd to West 4th St	$193,295,000	
I-80 Operations & Capacity	Vista Blvd to US Parkway	$338,532,000	
Capacity			
9th Street Extension	To N Wells Ave	$3,351,000	
Arrowcreek Pkwy - Widen	Wedge Pkwy to Thomas Creek Rd	$35,948,000	
Arrowcreek Pkwy Widen 2 to 4 lanes	Wedge Pkwy to Zolezzi Ln	$12,643,000	
Eagle Canyon Extension Widen 2 to 4 lanes	Pyramid Hwy to W Calle de la Plata	$14,500,000	
Eagle Canyon Extension New 4 lane road	Lemmon Valley to Spanish Springs	$213,249,000	
Echo Ave - Extension	Red Rock Rd to Moya Blvd	$29,702,000	
Estates Dr - Reconstruct	Lemmon Dr to Golden Valley Rd	$48,895,000	
Golden Valley Road/7th Avenue (O'Brien Pass)	N Hills to W 7th Ave	$111,042,000	
Highland Ranch Parkway - Widen	Pyramid to Sun Valley Blvd	$45,239,000	
Lemmon Dr - Extension	To Red Rock Rd	$161,460,000	
McCarran Blvd	Plumb Ln to Mayberry Dr	$20,868,000	
McCarran Boulevard Widen 4 to 6 lanes	El Rancho Dr to Rock Blvd	$40,822,000	
McCarran Boulevard Widen 4 to 6 lanes	Sky Mountain Dr to I80	$12,033,000	
McCarran Boulevard Widen 4 to 6 lanes	7th St to N Virginia St	$95,353,000	
McCarran Widening	Mayberry to 4th Street	$61,994,000	
Mira Loma Drive Widen 2 to 4 lanes	McCarran to Veterans	$14,318,000	
North Virginia - New Road	Stead to White Lake	$86,213,000	
Panther Extension	N. Virginia to Panther to N. Hills Blvd	$12,947,000	
Pyramid/395 Connector Phase 3 Construct Connector	US 395 to Pyramid Hwy south of Sparks Blvd	$378,300,000	
Pyramid/395 Connector Phase 4 System Ramps	System Ramps at US 395	$85,800,000	
Pyramid Way Phase 5 Widen 2 to 4 lanes	Sparks Blvd to Calle de la Plata	$205,500,000	
Pyramid/395 Phase 6 West Sun Valley Interchange	Interchange and local improvements	$60,200,000	
Record St realignment and parking garage access	Evans Ave to 9th Street; Lake St to Evans Ave	$2,175,000	
Rio Wrangler - Widen	Spring Flower Dr to Western Skies Dr	$3,503,000	
Robb Dr Ext	4th Street to I-80	$28,332,000	
S. McCarran - Widen	Manzanita to Plumb	$117,896,000	
S. McCarran - Widen	Lakeside to Manzanita	$43,564,000	
Silver Knolls Blvd - New Road - Private funding required	Red Rock Rd to Silver Knolls Blvd	$74,485,000	
SS/ER Parkway - New Road - Private funding required	Red Rock Rd to Mud Spring Dr	$144,400,000	
TRI Center Northern Connection - Private funding required	La Posada to TRI Center	$68,392,000	

TRI Center Southern Connection - Private funding required	Eastern Daybreak Boundary to Washoe County Line	$152,320,000
Vista - Widening	Wingfield Pkwy to Hubble Dr	$40,060,000
Vista Knoll Pkwy Ext	To Lemmon Dr	$8,987,000
White Lake Pkwy - Widen - Private funding required	US 395 to Village Pkwy	$0
West Sun Valley Arterial New 4 lane road	Dandini Blvd to Eagle Canyon	$112,260,000
Multimodal		
7th St/University Terr Buffered Bike Lanes	Sierra St to McCarran Blvd	TBD
7th Street - Bike Lanes	Stoker Ave to N McCarran	$18,431,000
9th St Buffered Bike Lanes	Evans Ave - Valley Rd	TBD
9th St/G St Enhanced sidewalks and bike lanes	Wells Avenue to El Rancho Drive	$8,530,000
Baring Boulevard Bike Lanes	McCarran Blvd to Vista Blvd	$11,424,000
Casazza Dr/Kirman/Wrondel Way Buffered Bike Lanes	Locust St - Grove St	TBD
Center St/Mary St Buffered Bike Lanes	Liberty St - Plumas St	TBD
Eastlake Blvd Bike Lanes or Multi-Use Path	Old US 395 to I-580 Interchange	$61,690,000
Forest St Bike Facility	California Ave to Mount Rose St	$7,159,000
Golden Valley Rd Bike Lanes	N Virginia St to North Hills Blvd	$6,702,000
Holcomb Ave Buffered Bike Lanes	Center St - Vassar St	TBD
Kietzke Ln Multimodal Improvements	Galletti Way to Virginia St	$13,252,000
Kirman Buffered Bike Lanes	Casazza Dr - Kuenzli St	TBD
Lake Street - Replace existing Bridge	At Truckee River	$27,570,000
Lakeside Drive Bike Lanes	McCarran Blvd to Plumb Ln	$11,881,000
McCarran - Pedestrian Improvements	Baring to Pyramid	$17,060,000
Neil Rd - Bike Lane	Kietzke to S Virginia	$3,808,000
NW McCarran Safety and Bike Lanes	4th Street to N Virginia	$14,318,000
Peckham - Multimodal	Lakeside Dr to Airway Dr	$26,199,000
Plumas St Buffered Bike Lanes	Mary St - Moana Ln	TBD
Plumas/Mary Street - Multimodal	California to Moana Ln	$28,789,000
Plumb Lane Sidewalks and Bike Lanes	Lakeside Dr to Kietzke Lane	$8,530,000
Plumb Ln Bike lanes and Sidewalks	Kietzke Lane to Terminal Way	$5,179,000
Prater Way Bike Lanes	Pyramid Way to Petes Way	$59,557,000
S Virginia Street - Add sidewalks, bus/bike (RAPID)	E Patriot Blvd to Arrowcreek	$35,186,000
SE McCarran MultiUse Path	Longley Lane to Neil Road	$11,576,000
Sierra St - Multimodal	9th Street to N. Virginia	$20,411,000
Sierra Street Replace existing bridge	Truckee River	$29,093,000
Skyline Blvd Bike Lanes	Cashill Blvd to Arlington Ave	$17,974,000
South Meadows Pkwy Bike lanes	I-580 NB Ramps to Double Diamond Pkwy	$10,205,000
Sutro St Buffered Bike Lanes	McCarran - Kuenzli	TBD
Sutro/Kirman - Sidewalks	Truckee River to Plumb Lane	TBD
Vassar Street Bike Facility	Holcomb to Kietzke	$4,300,000
Vista Blvd Sidewalks and Bike Lanes	Greg St to S Los Altos Pkwy	$13,709,000
Wells Ave Bike Lanes, bike/ped facilities over Truckee River	Moran St to E 9th St	$12,338,000
West 4th Street -Multimodal	S McCarran to I-80	$43,411,000
West Reno Bike Path - Truckee River Connections	S McCarran to Idelwild Park	TBD
Yori Ave Sidewalks and bike lanes	Moana Ln to Plumb Ln	$10,205,000
Zolezzi Lane Sidewalks	S Virginia Street to Thomas Creek Rd	$10,205,000

ATTACHMENT

DRAFT 2021-2025

Program	Description	Annual Amount	5 Year Amount
Bicycle, Pedestrain & ADA	Bus stop ADA improvements, other bike/ped spot improvements	$3,000,000	$15,000,000
Traffic Signals, ITS Operations & Intersections	3-5 intersection improvements per year	$10,000,000	$50,000,000
Pavement Preservation	Preventive & corrective maintenance, reconstruction	$22,500,000	$112,500,000
Debt Service		$23,000,000	$115,000,000

Projects	Limits	Cost
Freeway		
US 395 Add SB Lane, Aux Lanes, NB & SB	N. McCarran to Golden Valley	$94,750,000
Spaghetti Bowl Phase 2	Spaghetti Bowl	$125,000,000
Capacity		
- Construction		
Lemmon Drive Segment 1 Widen 4 to 6 lanes	US 395 and Military Rd	$22,500,000
Lemmon Drive Segment 2 Widen 2 to 4 lanes/Reconstruct	Fleetwood Dr to Ramsay	$39,000,000
McCarran Blvd Intersection & Operations	Keitzke to Greensboro	$10,000,000
Mill Street	Keitzke to Terminal	$60,000,000
Pyramid Hwy	Queen Way to Golden View	$54,100,000
Sky Vista Parkway Widen 2 to 4 lanes	Silver Lake Rd to Lemmon Dr	$15,800,000
Sparks Boulevard	Greg Street to N side of Baring Blvd	$40,000,000
- Design		
Damonte Ranch Pkwy - Widen	Double R to I 580	$400,000
Geiger Grade New 4 Lane Rd	Virginia St to Toll Rd	$5,000,000
North Virginia Street widening	Panther to Stead Blvd	$5,000,000
Pembroke Dr - Widen	McCarran to Veterans	$2,000,000
S. Virginia Street - Add NB lane	Longley Ln to I-580	$2,000,000
Steamboat Pkwy and Damonte Ranch Pkwy - Widen	Veterans Pkwy to Promenade Wy	$400,000
Multimodal		
3rd St Bike Facility	Vine st - Evans St	$7,500,000
4th Street - Multimodal	Stoker Ave to Evans Ave	$35,000,000
5th Street - Multimodal	Keystone to Evans	$8,000,000
Arlington Avenue Replace existing bridges	At Truckee River	$25,500,000
Center Street Widen sidewalks & add bike lanes	9th Street to Moran	$10,000,000
E 6th Street Bicycle Facility & Safety Improvements	Virginia St to 4th St	$6,000,000
Keystone Ave Multimodal Improvements	California to I-80 & Truckee Bridge replacement	$5,000,000
Moana - Multimodal	Skyline Blvd to Plumas	$5,600,000
Mt. Rose Highway Improvements	Geiger Grade to Joy Lake Rd	$10,000,000
Oddie Blvd/Wells Ave Multimodal Improvements	Kuenzli Ln to Pyramid Way	$36,000,000
S. Virginia Street Multimodal and ADA	Plumb Lane to Meadowood	$25,900,000
Sun Valley Blvd Multimodal Improvements	7th Ave to Scottsdale	$36,000,000
Tahoe-Pyramid Bikeway	Vista Blvd to USA Pkwy	$3,600,000
Vassar Street Bike Facility	Kietzke Ln to Terminal Way	$4,300,000
Vine Street Bike Facility	Riverside Drive to University Terrace	$11,300,000
Privately Constructed Roads		
Damonte Ranch Pkwy Extension	Veterans Pkw to Rio Wrangler Pkway	
Daybreak Regional Road Network (South Meadows)	See map	
Dolores Drive Extension	West to Lazy 5 Pkwy	
Highland Ranch Pkwy Widening	Pyramid Highway to 5 Ridges entrance	
Kiley Pkwy	Wingfield Hills Rd to Henry Orr Pkwy	
Lazy 5 Pkwy	W Sun Valley Arterial to Pyramid Hwy	
Meridian & Santerra Regional Road Network (Verdi)	See map	
N/S Connector Rd	Sonebrook Pkwy to Wingield Hills Rd	
Rio Wrangler Pkwy Extension (North)	Bucephalus Pkwy to South Meadows Pkwy	
Rio Wrangler Pkwy Extension (South)	Damonte Ranch Pkwy to Vetrans Pkwy	
South Meadows Extension	Mojave Sky Dr to Rio Wrangler Pkwy	
Stonebrook Pkwy	N/S Connector Rd to Pyramid Hwy	
Whitelake Pkwy Extension	US 395 to Town Center North Rd	
Whitelake Pkwy Interchange	Interchange Improvement at US 395	
Wingield Hills Rd Extension	West to David Allen Pkwy	

2050

REGIONAL TRANSPORTATION PLAN

DRAFT

RTP Table of Contents

EXECUTIVE SUMMARY

CHAPTER 1 – INTRODUCTION

Transportation investments promote safety and a healthier community, create new opportunities for prosperity, expand regional connectivity, and enhance neighborhood livability. The RTP is the region's long-range, multimodal transportation plan. It defines the policies and priorities for the community'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 and Innovation**
- **Sustainability**
- **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** regional fixed route bus system, the demand-responsive **RTC FlexRIDE**, **RTC ACCESS** paratransit service, and **RTC VANPOOL**. The **RTC RIDE** fixed route bus service includes 25 routes that provide about 7.6 million trips per year. RTC uses technology to enhance the customer experience, including WiFi on buses and next-bus 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 County using a fleet of 72 buses on 26 routes. The service area is approximately 136 square miles. All RIDE buses offer free WiFi.

RTC RAPID — Virginia Line and Lincoln Line	
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 allows the buses to communicate with the traffic signals to extend the green time several seconds for the bus.

RTC REGIONAL CONNECTOR (RC) — RIDE Regional Service to Carson City	
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 City 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	
Description	**On-demand curb-to-curb transit service within designated zones in Sparks (fall 2019) & North Valleys (spring 2020)**

RTC FlexRIDE offers the convenience of on-demand, curb-to-curb service in selected zones. The initial **RTC FlexRIDE** pilot in Sparks started in November 2019 and tripled the ridership of the fixed route it replaced within just a few 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	
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	
Description	Commuter vans organized by volunteer participants
Ridership	443,830
Revenue Vehicle Hours	71,748
Productivity (Passengers per Service Hour)	6.2

Vanpools offer people with long commutes a great way to reduce 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 Intelligent Transportation System (ITS) program maximizes the operational efficiency of the existing roadway network by coordinating traffic signals and other communications technology.

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 Commissioners, which consists of five 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) Director is an ex-officio member of the RTC Board. The RTC has three standing advisory committees that provide recommendations to the RTC Board: the Technical Advisory Committee, which consists of staff from partner jurisdictions and agencies, the Citizens Multimodal Advisory Committee, and the Regional Road Impact Fee Technical Advisory Committee.

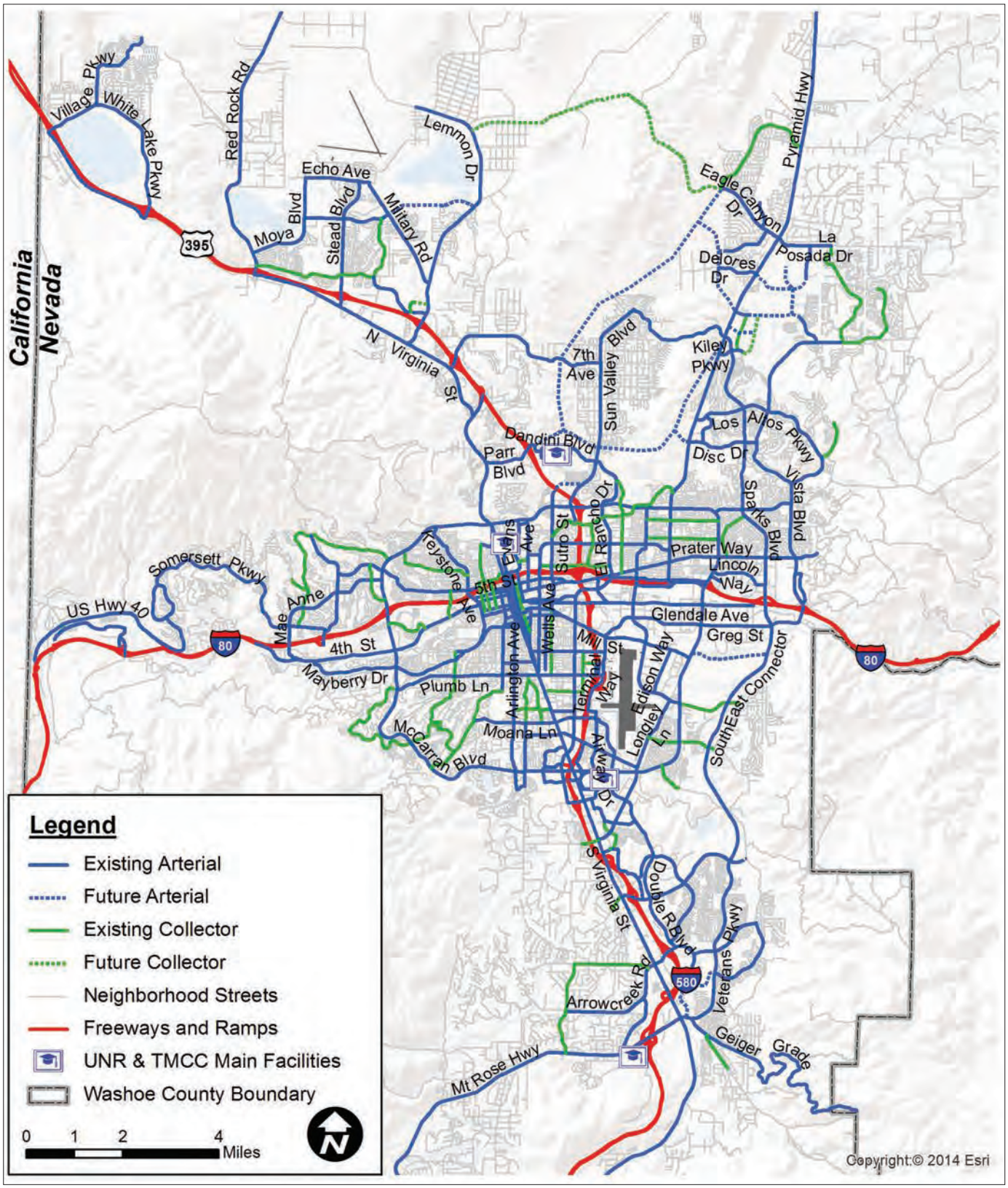
1.2 – TRANSPORTATION PLANNING FACTORS

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, and efficiency.
- 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.
- Promote efficient system management and operation.

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 intercity bus service.

Recognizing the special nature of transportation problems within major metropolitan areas over 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 expanded responsibilities in planning for the safe and efficient movement of people, including motorists, transit customers, pedestrians, and bicyclists. The TMA is located in the urbanized area as defined by the U.S. Census, and 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 traffic delay by about 112,000 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 traffic-related fatalities. Safety for bicyclists and pedestrians can be enhanced by providing safe and accessible space for all roadway users.

  Offering safe and convenient infrastructure for active transportation, such as walking and biking, provides the opportunity for many other health benefits. Including 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 Vitality and Innovation**

  Transportation infrastructure investments can position Washoe County for sustained economic prosperity in several ways.

  Construction of roadway, transit, sidewalk, and other multimodal improvements creates immediate jobs for local residents. The increased access and mobility provided by efficient transportation infrastructure systems and services allows for increased investment and job growth by local businesses. The quality of life improvements, like wider sidewalks, new bicycle lanes, and corridor beautification, create a unique sense of place and this makes the region more attractive to residents, businesses, and visitors. The multimodal investments in this plan improve regional connections, further strengthening the Northern Nevada economy.

  RTC uses emerging technology to improve the efficiency of the transportation system. An effective 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**

  Transportation has an important role in environmental, economic, and social sustainability in Washoe County. RTC promotes sustainability by offering alternatives to driving: 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) certified transit centers at RTC 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.

RTC RAPID articulated bus.

- **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 investments can significantly impact 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 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 traffic safety.

- **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 and mobility benefits are equitably 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-oriented 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 traffic signal retiming, ITS, and bus 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 contributes to the economic success of this region and plays 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 industries bring significant 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 significant benefits for the region, including the following:

- SouthEast Connector, now known as Veterans Parkway Extension – Completed a 5.5 mile six lane arterial with adjacent multi-use path, which included flood mitigation and water quality improvement features.

- 4th Street/Prater Way Bus RAPID Transit Project – Constructed new RAPID 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, 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.
- Upgraded the Jerry L. Hall Regional Transit Operations and Maintenance Center to increase charging and maintenance capacity for electric buses.
- Installed 30 miles of bike lanes, 10 miles of sidewalk, almost 12 miles of multiuse paths, and 445 ADA-compliant curb ramps.
- Upgraded traffic signals region wide.
- Implemented electric bus program.
- Improved bus stops region wide.

Keystone Avenue & California Avenue Intersection.

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 response teams and law enforcement agencies, in an effort to provide evacuation assistance and coordination during regional disasters.

Safety priorities include 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 acceptable number of traffic deaths in our community is zero.

Through the shared regional commitment to safety, Vison Zero Truckee Meadows is committed to changing the rising trend of traffic 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
- Office of Traffic Safety
- Reno Bike Project
- The Chamber
- 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 to bring the number of traffic fatalities to 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 www.visionzerotruckeemeadows.com to see the entire plan.

3.2 – SAFETY PLANNING

Nevada Strategic Highway Safety Plan (SHSP)

Nevada's Strategic Highway Safety Plan (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 4E 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 identifies 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 Streets Master Plan identifies a long range strategy to improve safety for all users on regional roadways. The plan is based on extensive community outreach and identifies corridors where 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 of these elements will be present in each Complete Streets design.

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 time as well as the specific safety impacts of particular projects. RTC staff serves on the SHSP data team and receives weekly updates about data available from NDOT and the Nevada Office of Traffic Safety (OTS).

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.

In a continued effort to reduce the 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 AND 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 ir nire fir 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, other may not. Be cautious.

Keep looking. If not, walk on the left side of the street facing traffic.

Wear light or bright colors, reflective material, or vests and flashing lights to increase your visibility to drivers.

Use caution and be aware of the hazards of impaired walking: nationally, 1/3 of pedestrian fatalities involve a pedestrian under the influence of alcohol.

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).

This includes a significant educational component geared toward students, parents, and school staff. 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, and staff to reconfigure school zone areas, kids and drop zones and to implement no idling zones in a way that minimizes potential conflicts. 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 traffic congestion. Lower congestion 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.

In addition to promoting the benefits of 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 public events and employee benefit 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 Traffic Incident Management (NV TIM) program as well as emergency management.

Safe Transit Operations

The Short Range Transit Plan identifies the provision of safe and secure transit service as a primary goal. The policies to implement this goal are provided below:

- The RTC shall pursue specific 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-defined condition performance standards. Deficiencies shall be 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.

Nevada Traffic Incident Management (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, multi-agency effort to improve the 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. TIM is in line with a unified goal for traffic incident management 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 Information Officers
- Medical Examiner and Coroner's Office
- University Systems

Emergency Management Plan

The RTC Emergency Management Plan (EMP) is the frame-work 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 (Resiliency Study) was completed in 2014. The Resilience Study was prepared in response to potential climate variability related impacts specific to the Northern Nevada Region. The last several decades have seen dramatic growth in the region, coupled with increased resource demands that have forced local governments to consider how these impacts will affect the 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 percent.

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 paths, buffered bike lanes, 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 traffic signal upgrades.
- Reducing the number of or width of travel lanes.
- Roundabouts to reduce speed and crash severity.
- Installation of Flashing Yellow Arrows and retroreflective backplates at traffic signals.
- 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.

Roundabouts along Eagle Canyon Drive and La Posada Drive.

- Use of rumble strips on shoulders and centerlines along curves.
- Shoulder widening, slope flattening, and use of pavement safety edge.
- Street lighting.

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.

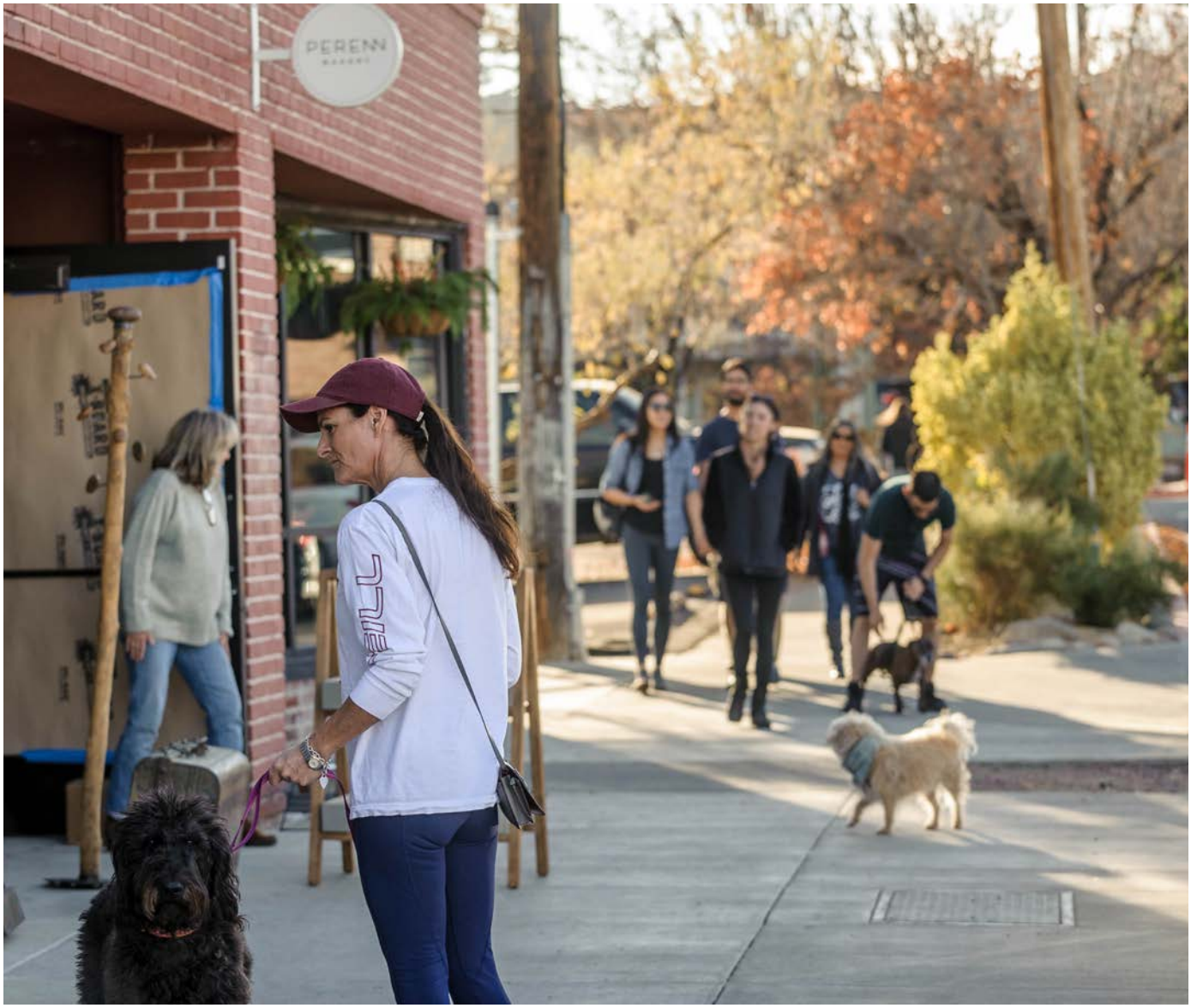
These design treatments have been demonstrated to consistently reduce crashes on regional roads in the Reno-Sparks metropolitan region.

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 locations or issues identified in road safety audits are listed in 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

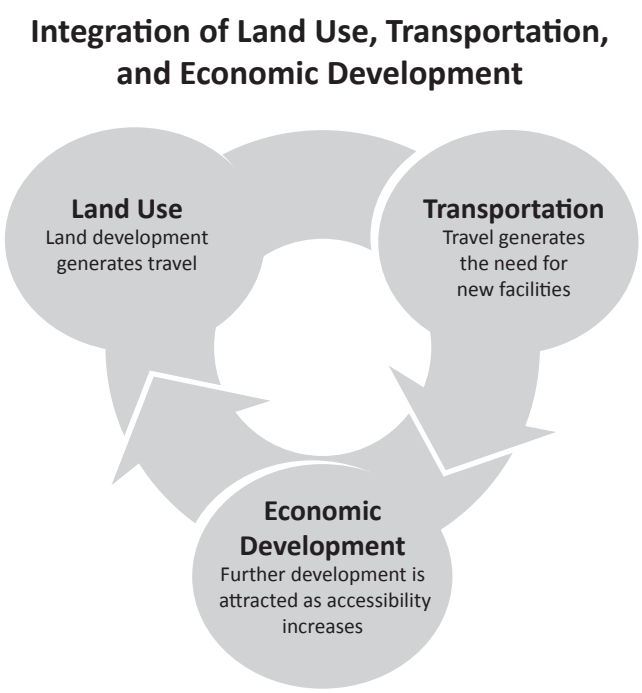


CHAPTER 4 – INTEGRATING LAND-USE AND ECONOMIC PROSPERITY

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 safe and efficient regional road 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 Economical Development

Figure 4.1



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 residential and office component. Victorian Square in downtown Sparks has also experienced a resurgence, as evidenced by the housing development near RTC CENTENNIAL PLAZA. Affordable housing and 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 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 regional agencies that influence land-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 influence transportation investments 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. 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 specifically targeted for low-income 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 over 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 Planning Commission (RPC), and staff.

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.

It is a cooperative effort of the local and 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 dialog and decision-making to provide a unifying framework for local and regional policies and services.

TMRPA works closely with the local jurisdictions to develop population and employment projections by Traffic 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 World Health Organization defines a healthy community as “one that is safe with affordable housing and accessible transportation systems, work for all who want to work, a healthy and safe environment with a sustainable ecosystem, and offers 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 the absence of disease, and is defined 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 works with the Washoe County Health District to promote active transportation and awareness of its associated health benefits. 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 Safe Routes to School Program (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 issues important to student safety and accessibility.

The program is funded by RTC through Surface Transportation Block Group grant funds.

RTC also works closely with School District regarding school siting and associated transportation infra-structure needs.

The regional school population is growing so much that in 2019 there 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 to 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 regions high schools.

GIS map access is being constructed to provide tools for guardians and students use to find safe infrastructure and routes for students to use to get to and from school. In addition to the GIS mapping tool, additional electronic and media platforms are being utilized for expansion of home-based and remote learning. This is significant because 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.

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 County Senior Services offers a 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 Citizens identifies the short and long term issues facing the region's aging population, including mobility and accessibility.

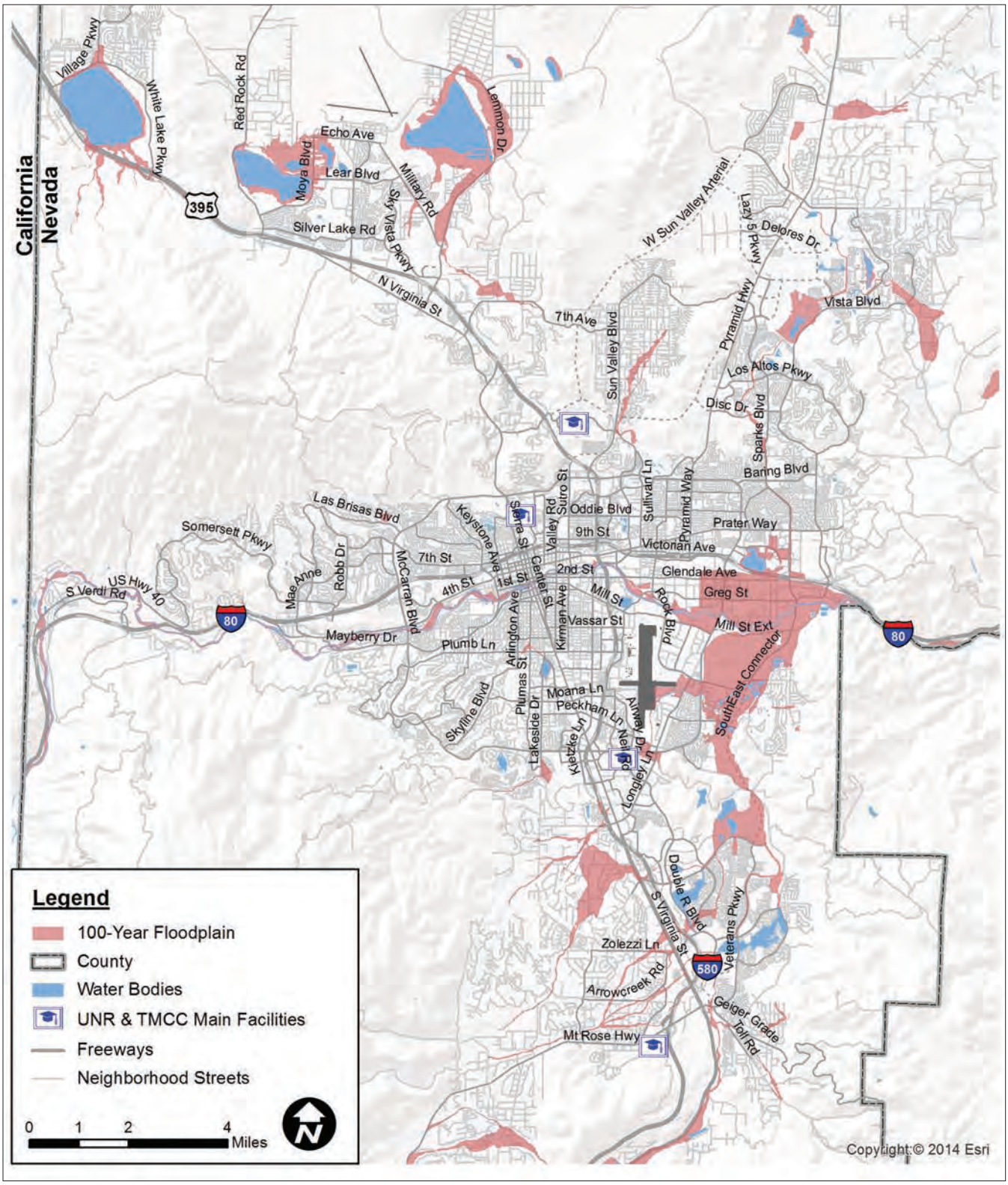
The Strategic Plan highlights the importance of locating senior housing developments and other services near existing transit routes and improving the sidewalk network to promote active, healthy lifestyles. Senior Services is a partner with RTC in providing transportation information and other resources to local senior citizens.

Truckee River Flood Management Project

The mission of the Truckee River Flood Management Project is to reduce the impact of flooding in the Truckee Meadows, restore the Truckee River ecosystem, and improve recreational opportunities by managing the development and implementation of the Truckee River Flood Management Project.

WATER RESOURCES AND FLOOD HAZARDS

MAP 4.1



The Truckee River Flood Project developed an action plan that provided a forum for residents, businesses, community leaders, regulatory agencies and government officials to conduct an analysis of flooding issues and evaluate possible solutions.

Floodplain Management

Washoe County has been a member of the National Flood Insurance Program (NFIP) since 1984 reviewing all new development in special flood hazard areas (Flood Zones).

All development in the flood zones are controlled by Washoe County Flood Hazard Ordinance 416, and Federal Emergency Management Agency (FEMA) regulations. In May 2009, Washoe County qualified to be part of the FEMA Community Rating System (CRS). A map of the flood plains can be found in Map 4-1 (page 63).

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 consistency with long range transportation plans. Additional coordination occurs at a local and regional level between all agencies when needed for specific projects 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 widest public engagement effort in Reno's history. The Plan reflects the 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.

The guiding principles are the first level of policy guidance included in the Master Plan.

Each reflects one aspect of the 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, efficiency, 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:

- Develop a complete, efficient 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 policies and maps designated to define development suitability and conserve natural resources.

It also includes growth forecasts as well as policies and maps reflecting desires related to land-uses 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.

The following transportation-specific policies identified in the plan support the goal of seamless and efficient 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 over 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 which 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 and 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) identified the following needs:

- Road and traffic safety, 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 out-patient Health Care facility was constructed from the proceeds of the Colony's economic development projects for the benefit of its community members and more than 9,000 Native Americans residing in the region.

The Reno-Sparks Indian Colony operates a fixed-route transit system 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's Office of Economic Development has a vision for a vibrant, innovative, and sustainable economy with high-paying jobs for Nevadans. Objectives, as identified 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.
- 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.

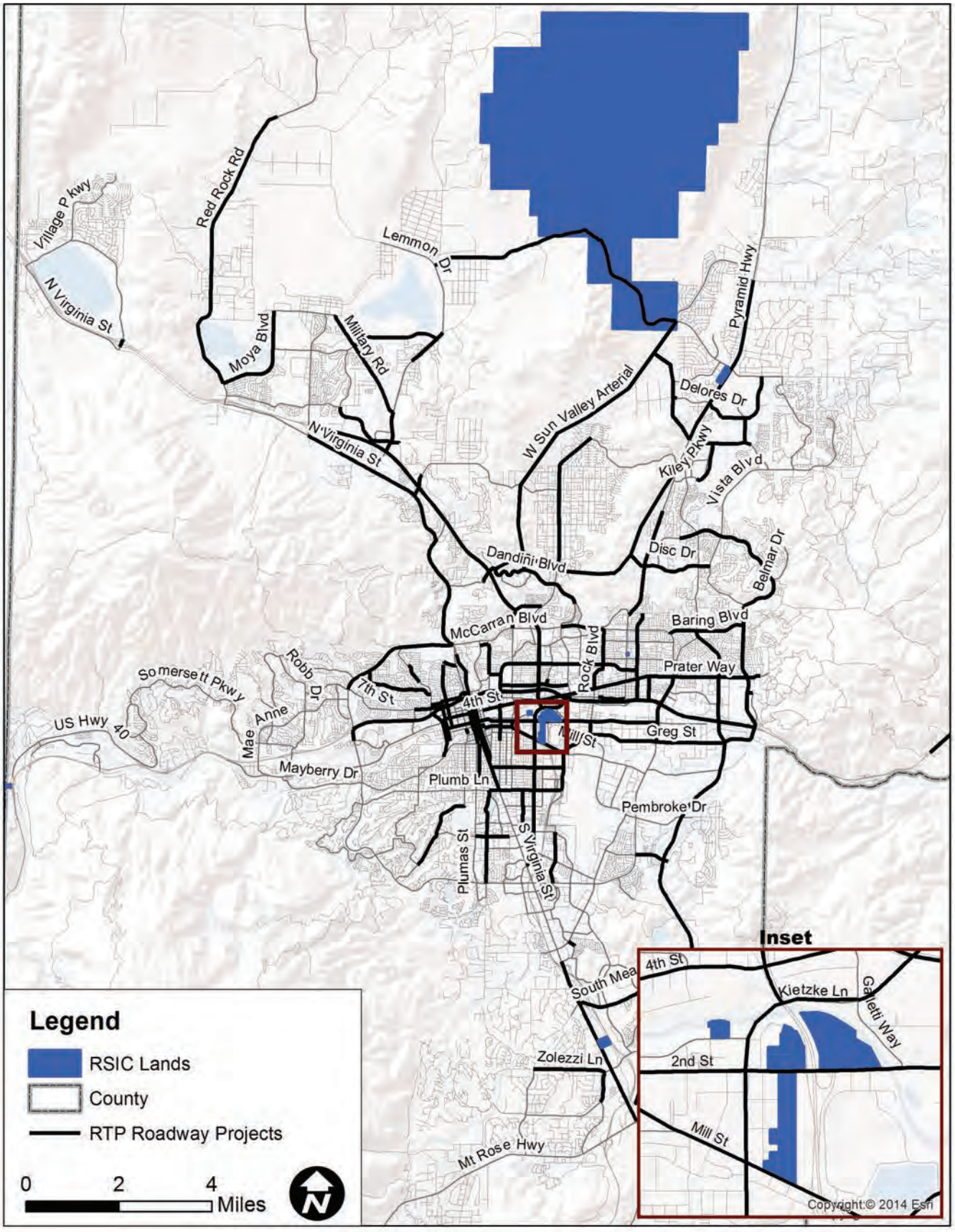
Nevada Center for Advanced Mobility

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 DMV to pass the first ever autonomous vehicle law and create the first 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.

RSIC PROPERTIES

MAP



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

The University of Nevada, Reno (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 staff and students to conduct research 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 U-Pass Program that allow students and staff to ride transit free with their student identification card will reduce the need for cars on campus and greatly expand the travelling convenience for the student population. The partnership with UNR also extended to development of the University Area Multimodal Transportation Study, which identifies planned safety and mobility improvements in the campus area.

Economic Development Authority of Western Nevada (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.
- Back Office/Business Support (call centers).
- Clean Energy/Geothermal.
- Distribution/Logistics.
- Financial and Intangible Assets.
- eCommerce Fulfillment.
- 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 AND 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-renown hiking trails.

Climbers ascend one of the many rock surfaces on the Sierra Mountain range (above).

The growing arts community, including Reno's annual Art Town 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. Public transit and the efficiency of traffic operations on the regional road 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 promoting and implementing fitness 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 Aces are a team affiliate of the Major League Baseball (MLB) Arizona Diamondbacks.

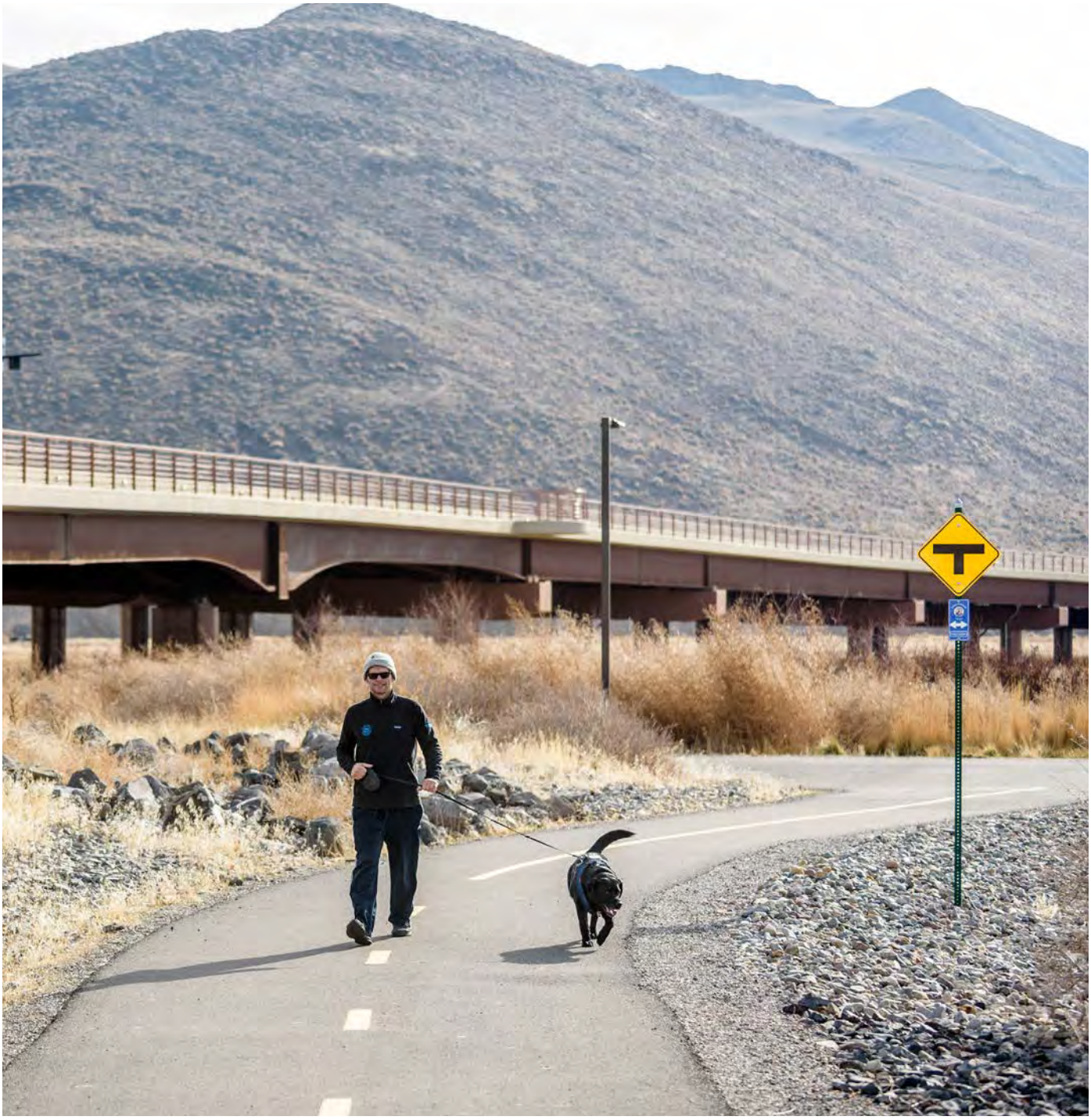
- United States Bowling Congress Tournaments – This national championship event is held at the National Bowling Stadium, which is located across the street from RTC 4TH STREET STATION.
- Reno-Tahoe Open – This golf tournament is held at Montreux Golf & Country Club, which is located on Mount Rose Highway 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.



CHAPTER 5 – HEALTHY COMMUNITIES AND SUSTAINABILITY

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. This policy affirms RTC'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 more efficiently by implementing 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 future planning and construction efforts, operations and maintenance, and internal activities.

RTC Facilities and Vehicles

The RTC incorporates sustainable practices at all of its facilities. Some examples of these efforts include upgrades to improve the efficiency of 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 RTC operates a mixed fleet of alternatively fueled fixed route 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's first-ever State Climate 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 it relates 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 ("cash for clunkers")
- 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. RTC staff will 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, and
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.

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.

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 clear understanding of the benefits and tradeoffs.

5.2 – AIR QUALITY

Initiatives to improve air quality benefit 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.

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 Washoe County Health District Air Quality Management Division (AQMD) to promote efforts that improve air quality. The Truckee Meadows is approximately 200 square miles in size and includes Hydrographic Area 87 (HA 87) as defined by the State of Nevada 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 National Ambient Air Quality Standard (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)
- Nitrogren 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. The AQMD has established a monitoring network to collect ambient air quality data from around the metropolitan portion of Washoe County and Incline Village. There are two distinct pollution seasons in Washoe County — wintertime $PM^{2.5}$ and summertime ozone.

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. Due to successful efforts to improve 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 time 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 percent 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 (VMT) and a clean and efficient motor vehicle fleet mix in Washoe 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 achieved 40 different strategies to help the RTC significantly reduce its carbon footprint and reduce pollution.

5.3 – ACTIVE LIVING AND COMMUNITY DESIGN

Community design influences access 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 County Senior Citizens identifies transportation as one of the most significant challenges for people that care for seniors. In a survey of care providers conducted for the strategic plan, transportation needs follow finding medical/dental care and 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 live in isolation and would benefit from 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.

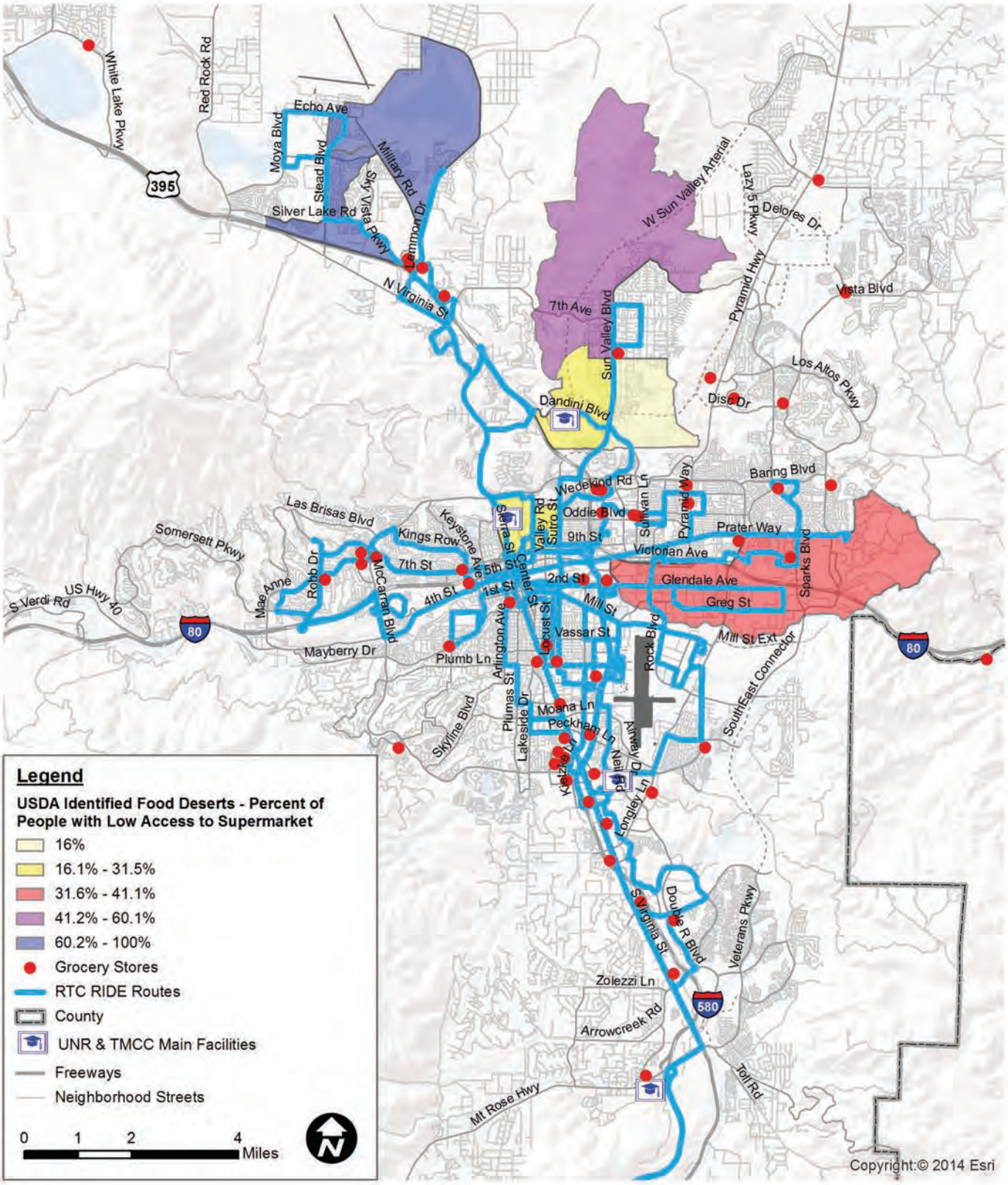
Food Deserts and Transit Access

Access to fresh and nutritious foods is an important part of community health. The U.S. Department of Agriculture (USDA) had identified areas where convenient access to healthy food is limited. Food deserts are defined as 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 outlet is defined as more than one mile 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 desert census tracts and identified 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 in these areas, offering connectivity to 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 influenced by physical activity and 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. The Nevada Department of Transportation (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 recreation, defining views of the ridges and peaks of the region, and a unique landscape of natural and human history. Open space also serves to define the many local communities.

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, Steamboat Creek, floodplains, wetlands, and the network of irrigation ditches in the urban area. In addition, Washoe Lake, Pyramid Lake, and Lake Tahoe are identified as valuable 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 percent 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 assists wild land fire management efforts. 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 identifies 160,020 acres that will be retained in public ownership under the administration of the BLM. These lands will be managed to protect open space, visual, recreation, watershed, and wild-life 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)

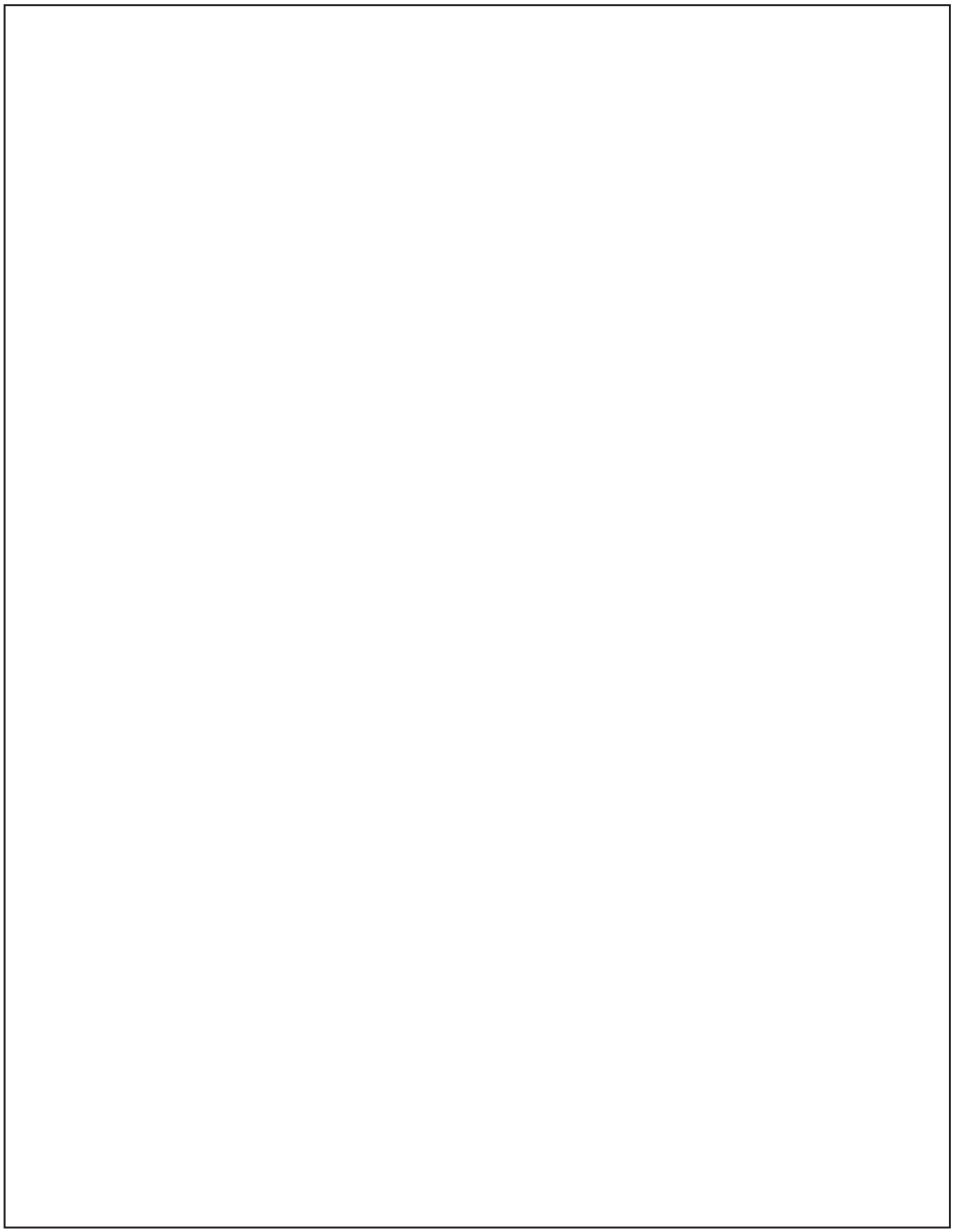
The LTBMU was established in 1973, to facilitate unified management of Forest Service lands within the Lake Tahoe Basin watershed. The LTBMU encompasses over 154,000 acres of Forest Service lands (78% of the land in the Lake Tahoe Basin), and ranges in altitude from approximately 6,225 feet at lake level to 10,881 feet. Projects and programs include habitat management, fire management, and 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

MAP



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 significant impacts on the Great Basin 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 wildfire season has increased by 78 days and the average burn duration of large fires has increased from 7.5 days to 37.1 days. Forest wildfire frequency is nearly four times higher and the total area burned by these fires is more than 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 areas of scenic, historic and scientific significance in Nevada.

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 well drillers and water rights surveyors; reviewing flood control 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 AND STORMWATER MANAGEMENT

As described in the Washoe County Regional Resiliency Study (discussed further in Chapter 3), the Truckee Meadows area has endured significant flood events over the course of its history. Some of the earliest-documented floods coincided with deep snow accumulations, followed by unprecedented heavy rain and flood events that were occurring in California during the 1860s (now labeled as atmospheric river events). Regionally destructive flood events have periodically followed with notable floods occurring in 1907, 1955, 1963, 1997 and 2016. Economic impacts and infrastructure damage was significant to area business and transportation features.

The Northern Nevada Region has evolved a proactive approach in determining flooding potential since the 1997 event by developing a flood warning system of river and 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) flood event upon completion.

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 Plan (SWPPP), which identifies 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 run-off from roadways often contains harmful pollutants such as oil, grease, heavy metals, solids, and nutrients. Due to the impermeable nature of roadways, stormwater run-off from 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 Project is a joint effort among the cities of Reno and Sparks, Washoe County, the US Army Corps of Engineers, and numerous other stakeholders to reduce the devastating impacts of flooding in the Truckee Meadows. Its primary goal is to create a more resilient community by reducing flood damages and deaths resulting from a 1997-type flood event (117-year event). Additionally, the Plan incorporates certain recreational and ecosystem-restoration features within the footprint of the flood protection infrastructure.

The Flood Project Plan is based on the "Living River Plan." This plan emphasizes the community's vision of incorporating environmentally friendly elements into the flood protection infrastructure ("green" infrastructure) in order to reconnect the river to its floodplain, restore habitat for native 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's transit, traffic operations, intelligent transportation systems (ITS), and pavement preservation programs. These programs provide a framework for obtaining the best and most efficient use of existing resources, minimizing life-cycle costs, and in some cases reducing the need for costly capital investments.

6.1 – TRAFFIC OPERATIONS

Traffic operations management includes a wide range of programs that maximize the efficient use of existing roadway capacity. RTC partners with NDOT, the cities of Reno and Sparks, and Washoe County to deploy ITS tools such as fiber optic cable, flow cameras, and smart phone apps. This allows for the delivery of improved traffic signal timing and coordinated incident response for the traveling public. Traffic operations management is an important part of the congestion management process as shown in Appendix F.

Using ITS to Reduce Capital Costs

RTC installed ITS components on 4th Street/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 Avenue and 15th Street 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 &2B installed fiber optic communication, traffic cameras and partnered with NDOT to utilize a portion of existing fiber optic systems to reduce costs in a collaborative effort.

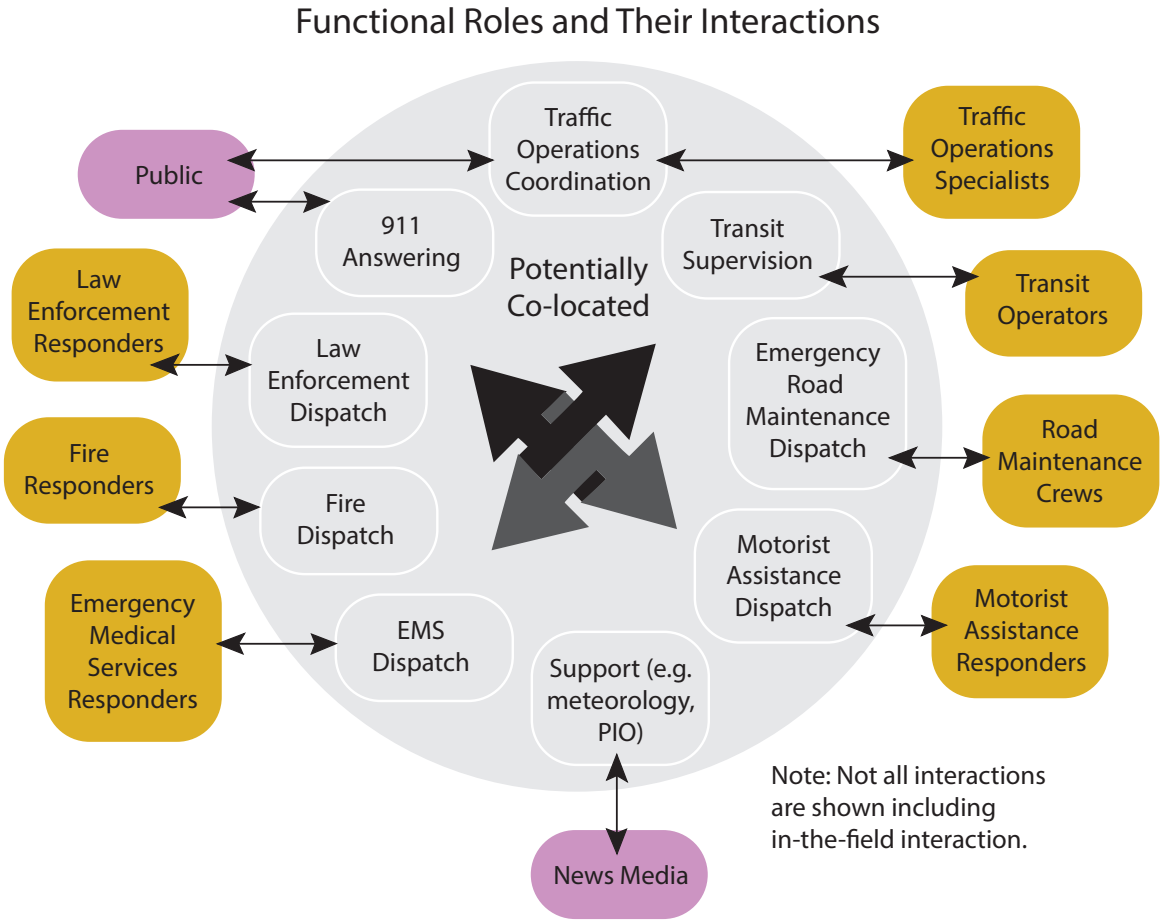


Figure 6-1

In addition, RTC partners with emergency medical providers, fire departments, and law enforcement as part of the traffic operations program. The interconnected nature of these relationships is shown in the figure above. All traffic signals in the region are owned and maintained by the local jurisdictions. NDOT brings additional resources in fiber optic communication infrastructure, count detectors, changeable message signs, and weather stations. While RTC does not own any road- ways or signals, the agency assists in facilitation of inter-jurisdictional coordination and hosts a monthly Traffic Operations Committee meeting to streamline communications.

Additionally, RTC hosts a quarterly Traffic Roundtable meeting with the local agencies to exchange ideas and promote regional consensus on traffic related standards. RTC is also a partner in funding and installing ITS capital investments. In addition, RTC operates a traffic signal comment 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 integrated and continuous traffic signal coordination across jurisdictional boundaries, sharing of resources to minimize operating costs, and enhanced training and learning for operations personnel.

Future ITS projects will include: installation of additional fiber optic communication links, Road Weather Information System (RWIS) devices, traffic management devices on surface streets, communication links to traffic signals making information available to all agencies.

Specific objectives of the program include:

- Improved event (incident) response, which could include a traffic accident, severe weather, road construction, failure of a traffic signal, an on-street parade, a major sporting event, or any other event that may impede traffic flow or cause an unusual surge in traffic volume.
- Integrated and continuous coordination of traffic signals across jurisdictional boundaries via interconnected signals. One objective is to enable each involved agency to confirm that both their traffic signals and their neighbors are operating as planned and that detector or other equipment failures are identified and corrected quickly.

- 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, fiber optic communication or joint maintenance contracts.
- Providing the data needed to assess region-wide transportation and incident management performance measures.

Fiber optic cables used by traffic operation agencies for ITS device communication can be interconnected to provide communication links between agencies.

The highest priority infrastructure improvements needed to support improved traffic operations are as follows:

- Communication links between ITS networks operated by different agencies.
- Communication links to traffic 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 RTC leads the traffic signal 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 more than 400 traffic signals in the region on a three year basis. Using the technology employed through the ITS Program, retiming and maintenance of all signal timing are done efficiently.

  1. The purpose of this program is to reassess the signal timing due to changes in traffic patterns and volumes throughout the road network.
  2. Improve travel times and fuel savings
  3. Reduce emissions and air pollution
  4. Improve traffic safety by 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 walking, everyone benefits when the streets are maintained in a safe and serviceable condition. The RTC in cooperation with the public works officials of Reno, Sparks, and Washoe 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 effective treatment to the right pavements, at the right time to minimize pavement life cycle costs while maximizing serviceable pavement life. An effective 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 daily traffic of 5,000 or greater (either currently or in the 2050 forecast), cross a significant travel barrier such as the Truckee River or freeway, or provide access to major existing or future regional facilities,
- Industrial roadways; and
- 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.

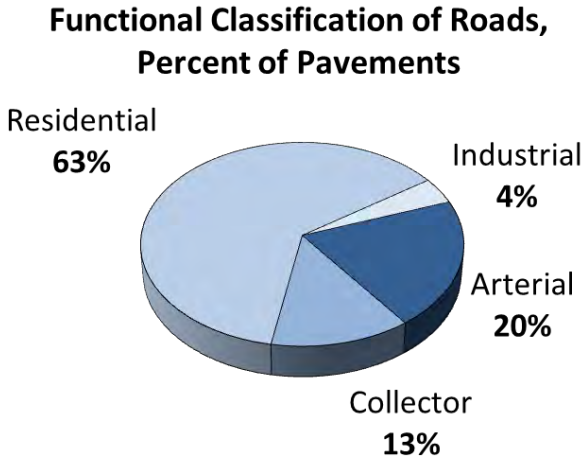


Figure 6-2

First, the Regional Pavement

Management Systems (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.

Roads in the Planning Area
RTC does not own or operate any area roadways .
Residential roadways serve neighborhoods and carry the least 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 vehicle miles travelled (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 has significantly improved driving 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 PMS also quantifies the backlog of pavement repairs on the state highway system and identifies 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. The effects of these Complete Streets strategies are to slow traffic to the designated posted speed, reduce vehicle crashes, and provide a safe space for other non-auto users. Crash reductions ranging from 25-45 percent have been documented on regional roads that have undergone these reconfigurations.

The program is implemented in coordination with the Pavement Preservation Committee, which consists of public works and maintenance staff of Reno, Sparks, and Washoe County. The committee identifies projects based on need, including pavement condition and average daily traffic levels. It does not consider jurisdiction and prioritizes projects to maximize benefits to the network as a whole.

Despite the overall "good rating" of the region's pavements, challenges do exist in maintaining our existing roadway system. More efficient cars that use less fuel and electric cars are affecting the amount of fuel sold and taxed.

The reduction in revenue will challenge RTC and local jurisdictions to maintain the "good rating" of the next few years.

The local jurisdictions' and NDOT's ability to fund and operate an effective 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 a significant reconstruction backlog. However, through the effective use 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,
- Provides access to important resources such as medical services, colleges and universities, and government services, and
- Provides health benefits through improved air quality and active transportation options.

Operational efficiency is one of the goals for the regional transit system. Because transit funding sources are limited, it is essential that cost effectiveness be a consideration in transit planning. RTC publishes monthly reports about the system's operational performance. RTC operates RTC RIDE fixed route, RAPID bus rapid transit, REGIONAL CONNECTOR intercity, ACCESS paratransit, and FlexRIDE on-demand services.

The RTC operates 23 fixed routes in the Reno-Sparks metropolitan area as well as areas of unincorporated Washoe County. The system operates in a 90 square-mile service area. Existing service offers the greatest frequency in the urban core, reflecting 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 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 fleet and facilities to ensure a state of good repair. RTC invests in preventive maintenance as well as replacement of vehicles once they reach the end of their useful life.

RTC has identified the need for a new maintenance facility that can accommodate expansion of the RTC bus fleet in the long-term as well 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 Coordinated Human Services Transportation Plan (CTP).

Additional information about RTC's transit programs, including RTC RIDE, ACCESS, FlexRIDE, VANPOOL, SMART TRIPS, and not-for-profit partnerships is provided in Chapter 7.

[EXISTING TRANSIT SERVICE MAP 6.2]

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.

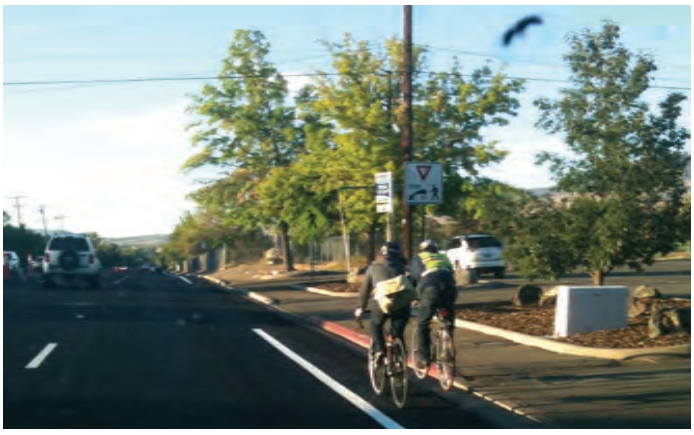
Complete Street designs have reduced crashes up to 46% on regional roads in Washoe County

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 conflict points by reducing underutilized travel lanes
- Adding center turn lanes
- Adding bicycle lanes, multiuse paths, buffered bike lanes, or 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 instances can slow traffic to about the 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 for all pedestrians.



Bicyclists and joggers on Plumas Street after Complete Street project

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 specific projects and design objectives 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 identified by the regional transportation demand model, land-use planning (see Appendix G), and community input.

7.2 – WALKING AND BIKING

Vision Zero Truckee Meadows Task Force

Between 2008 and 2018, 327 traffic 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, is to explore a different approach 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 www.visionzerotruckeemeadows.com.

The Bicycle Pedestrian Plan and 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 focused included evaluation of RTC transit stops and assessable connectivity to trasit. The Bicycle Pedestrian Master Plan was coordinated concurrently with the Complete Streets Master Plan in an effort to update the project lists for 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 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 2020 for the first 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 based on local efforts to improve and expand the bicycle network.

The League of American Bicyclists also highlighted the benefit of local bicycle 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 Safe Routes to School (SRTS).

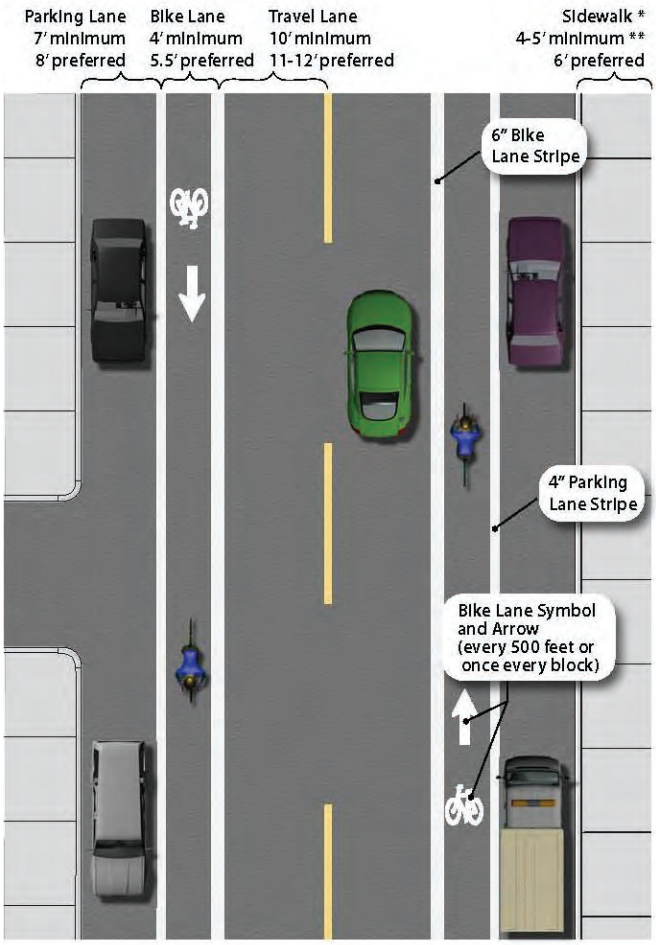
Also in 2015, University of Nevada, Reno was the first University in the state of Nevada to be awarded a Bicycle Friendly University.

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's engineering efforts such as 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 efforts acknowledged include educating 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.

The environmental benefits of transit service are also well recognized: reducing the number of cars on the road reduces traffic congestion and air pollution.

Short Range Transit Plan

The Short Range Transit Plan (SRTP) outlines a strategy for transit service over the next five years. The short-term fiscally constrained transit program includes existing service plus the following modifications:

- 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 Coordinated Human Services Transportation Plan (CTP).

The SRTP will be updated in 2021-2022.

RTC RAPID Expansion

RAPID is RTC's premier bus rapid transit service. It offers high frequency 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 service operates five zero-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 made significant contributions to the economic vitality of both corridors, supporting increased density and mixed use development.

Electric Bus Program

The RTC is a leader in the adoption of electric bus technology. The RTC electric buses significantly reduce diesel fuel use. This improves air quality in the Truckee Meadows and reduces operating costs for the RTC transit system.

Because fuel costs are a significant part of transit operating expenses, transitioning to a fleet that uses alternative fuels could generate substantial cost savings. RTC currently operates 23 electric buses, which make up about 30% of the RTC fixed route fleet.

Electric buses are used on the Virginia Line, Lincoln Line, and RTC REGIONAL CONNECTOR, as well as other local routes throughout the system. RTC has a goal to transition the entire fleet to alternative fuels by 2040.

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 fixed route transit fleet. 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 fleet. It contains infrastructure to fuel the compressed natural gas (CNG) fleet and administrative offices house ACCESS dispatch. The Sutro facility has also been identified as a back-up office location for RTC administrative staff for operations 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 fuels transit fleet. The first four electric 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 the rest of the fixed route fleet to 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 fleet to hydrogen fuel 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's fixed route transit facility. 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 Facility has been identified as 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 using fixed-route transit service. 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 3,700 individuals are certified as ADA paratransit eligible in Washoe County. The ADA requires paratransit service to be provided within ¾ of a mile of fixed-route transit service. The one-way fare is $3.

RTC FlexRIDE

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.

Supplemental Mobility Services

Because RTC does not have the resources to provide fixed-route, FlexRIDE, and paratransit service to all residences in Washoe County, the agency is pursuing innovative services and partnerships with not-for-profit providers that can serve other specialized transportation needs.

Coordinated Human Service Transportation Plan

The Coordinated Human Service Transportation Plan (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 offer competitive grant funding 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, 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 benefits of walking and how to do it safely.

RTC VANPOOL Program

RTC VANPOOL is the fastest-growing component of the trip reduction program and now represents the RTC's largest transit vehicle fleet. This program provides an opportunity to reduce auto trips and serve long commute distances effectively. 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 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 Tahoe Express offers 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 your animated ticket on your phone.

Joint Development through the Federal Transit Administration Program

The Reno-Sparks region is facing a significant challenge relating to housing affordability. Public transportation is an important resource for area residents and provides access to essential services. Affordable housing in close proximity to transit routes offers improved access to services and increases transit ridership. RTC conducted an Affordable Housing Study that identified opportunities for the development of affordable housing in transit corridors.

RTC coordinated the study with staff 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.

Joint Development as defined by the 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 the region and then identified 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 to develop affordable housing in 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 the Nevada Department of Transportation (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 available financial resources. Based on 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 offers a tool to serve some outlying suburban areas, providing increased convenience to potential customers where fixed-route transit would not be effective. 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-emission fleet, including electric and 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 Mobility Hubs was identified through 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 participants, and offer connectivity to public transit and private employer shuttles. Structured parking would be considered.

With this vision for transit, the RTC hopes to continue the dialog 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 benefits to air quality and reduce 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 and identification of strategies for 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 the University of Nevada, Reno (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 development include flashing lights at crosswalks that could be activated by LiDAR when pedestrians approach the intersection.

Connected and 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 becoming one of the first states in the nation to pass regulations regarding the safety requirements and licensing for autonomous vehicles. Nevada was also the first state in the nation to 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.

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 operational efficiency.

A fully integrated transportation system may have other impacts as well, including reduced car ownership, demand response ride-sharing, and modified land-use needs.

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, the University of Nevada, Reno (UNR) opened the Nevada Advanced Autonomous Systems Innovation Center as a catalyst for innovation in the field of autonomous 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 delivery vehicles providing flexible 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 new options and offer an opportunity to:

- Provide more mobility choices
- Address last mile and first mile solutions
- Reduce traffic congestion and pollution
- Reduce transportation costs
- Reduce fossil fuel consumption
- Reduce pressures on parking spaces
- Improve efficiency

- Identify choices for those who cannot afford to purchase and maintain a vehicle

By utilizing wireless technology to easily access shared-use mobility options, companies are offering 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.

Technology allows for Lyft customers to request a ride through an app, and they are provided with a photo of the driver and license plate information as well as tracking information once the ride has been requested. 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 traffic congestion and may draw 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 station-based system utilizes a fixed 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 project was the first in the country that included a tribal government. RTC had a support role in the dockless bike share pilot, which involved no public capital infrastructure investment. The pilot projected 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 relationship is reflected in the concept of Megapolitan Regions, as defined 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-Pacific region, which extends from San Francisco to Reno. The Megaregion is connected by the approximately 225-mile- long I-80 corridor, which is generally parallel to a Union Pacific 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 is a subsequent increase in traffic 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 become an increasingly significant 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 the Nevada Department of Transportation (NDOT) and the other Northern Nevada Metropolitan Planning Organizations (MPO's) in developing the 2050 RTP.

Staff from the Carson Area Metropolitan Planning Organization (CAMPO), 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.
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Figure 8-1: Reno Tahoe International Airport Catchment Area

One Nevada Transportation Plan

The Nevada Department of Transportation (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 will evolve over time to reflect and be 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. Significant commuter, commercial, and recreational traffic occurs between 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.

The Carson Area Metropolitan Planning Organization (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 Federal Transit Administration (FTA). Carson City Public Works provides staffing for 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 travelling 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.

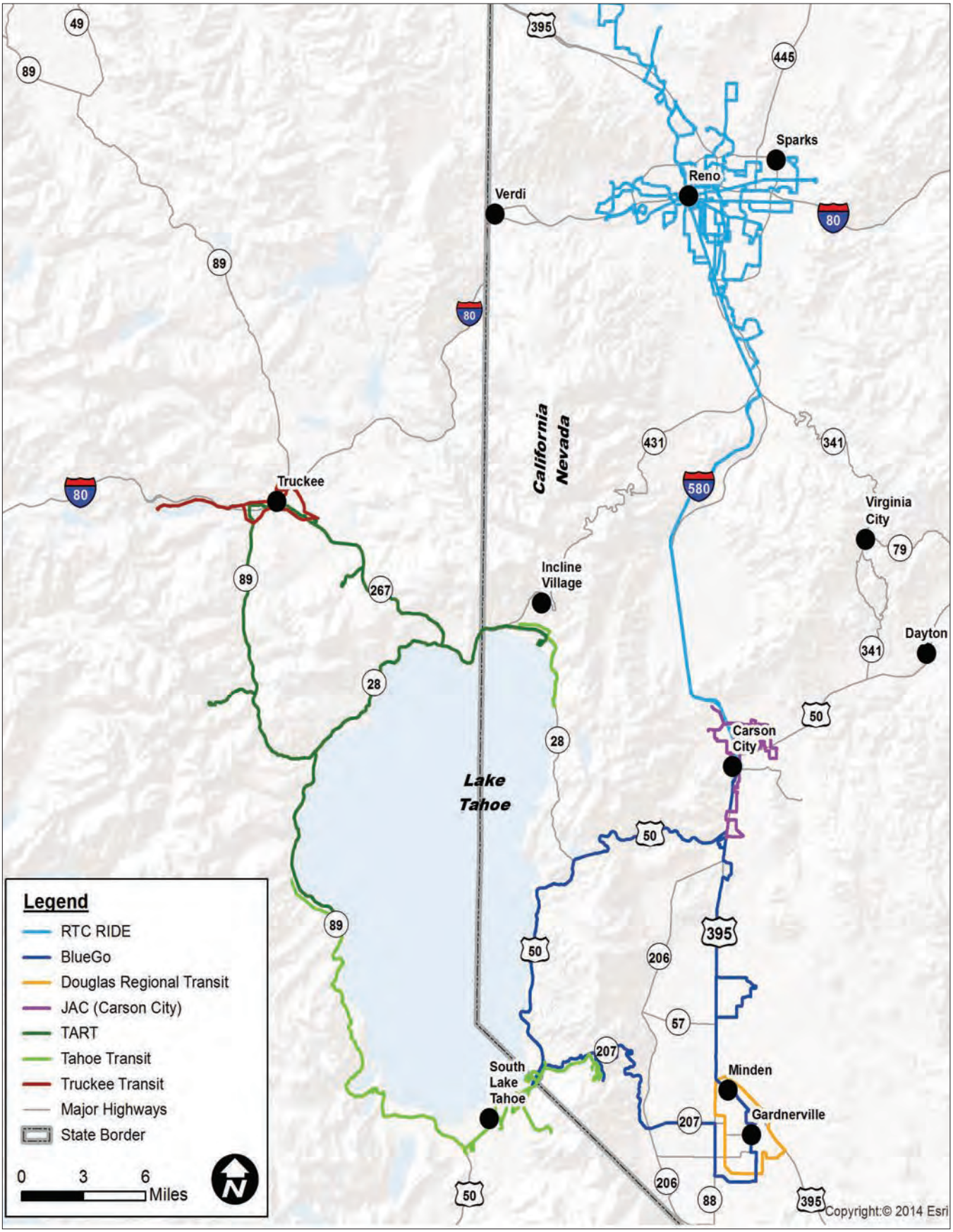
In 1969, California and Nevada legislators agreed to a unique Compact for protecting Lake Tahoe and sharing responsibility for that protection. The two states and the U.S. Congress amended the Compact in 1980, with public law 96-551, and at that time also established the Tahoe Transportation District (TTD). The TTD is responsible for facilitating and implementing safe, environmentally positive, multimodal projects for the Lake Tahoe Basin, including transit operations.

The Tahoe Regional Planning Agency (TRPA) is the federally designated Metropolitan Planning Organization (Tahoe MPO) for the Lake Tahoe Basin. In 2015, the FAST Act identified the Lake Tahoe Region as a Transportation Management Area (TMA). Staff 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 TTD and provides fixed-route 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.

REGIONAL MAP OF TRANSIT SYSTEMS IN CARSON, TAHOE AND RENO/SPARKS

MAP 8.1



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.

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 their warehouse logistics and fulfillment 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.

This plan identifies potential 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, ecommerce, and distribution sectors. Fernley is planning for development of a major rail facility that would function as an inland port, potentially generating a significant increase in truck traffic along the I-80 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 dialogue 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 significant freight corridor. 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, both which address freight-specific 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, offer alternative routes for freight and passenger traffic, and improve reliability for better trade and commerce opportunities. Developing a north-south multimodal corridor through Nevada provides the foundation for a renewed, stronger, diversified economy.

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 future traffic.

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 Traffic Study, which identifies 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 identified 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 Stead Boulevard experiences some of the most severe traffic congestion in the region, 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 and the North Valleys

The high levels of existing and projected traffic congestion on 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, and fire evacuation options in these communities.

Extension of Lemmon Drive and 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

FlexRIDE is RTC's on-demand, curbside-to-curbside transit service that provides connection within select zones as well as connections to the fixed route transit network. The first pilot project was launched in Sparks in 2019 and more than doubled transit ridership in the area. During 2020, RTC initiated additional 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 to the fixed route system.

Expansion of RAPID Service on the RTC Lincoln Line and 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 AND 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, denied benefits of, or subjected to discrimination under any program receiving federal funding. RTC is required to take steps to ensure that no discrimination on the basis of race occurs.

Title VI requires reporting about how transit services are implemented and what measures the RTC is taking to provide equal access to public transportation.

- Americans with Disabilities Act (ADA) of 1990: Requires that disabled persons have equal access to transportation facilities and services. This includes wheelchair accessible accommodations in the transit system.
- Executive Order on Environmental Justice: Executive Order 12898 requires the identification and assessment of disproportionately high and 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.

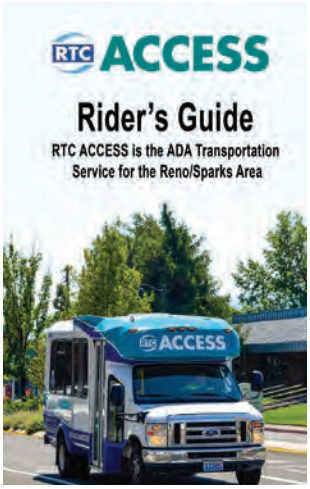
As identified in the report, the following measures are in place to comply with Title VI requirements:

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

RTC engages low-income, disabled, minority, and Limited English Proficiency (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 and a field trip allowing the 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 participation in, or denied the benefits of, its services on the basis of race, color, or national origin as protected by Title VI of the Civil Rights Act of 1964, as amended.

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

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 playing field, remove barriers to DBE participation, and assist in the development of DBE firms that can compete successfully in the market place. RTC has a race-neutral DBE goal of 1.0 percent 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 Affairs, and at other community forums. RTC participates in Nevada Unified Certification Program for DBEs. RTC is committed to: providing technical assistance, providing information and communication programs on contracting procedures and specific 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 national origin – benefit from federal funding programs.

ADA Transition Plan

The RTC adopted an updated ADA Transition Plan in 2020, which identifies and prioritizes 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 access modifications, and identification of a position and official who is 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 in accordance with the needs identified 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 RTD fixed-route vehicles contain the following accessibility features:

- Wheelchair ramps/lifts.
- Low floor buses.
- 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. Passengers requiring fixed-schedule service may request subscription service, which has limited availability.

Improving Accessibility of the Regional Road Network

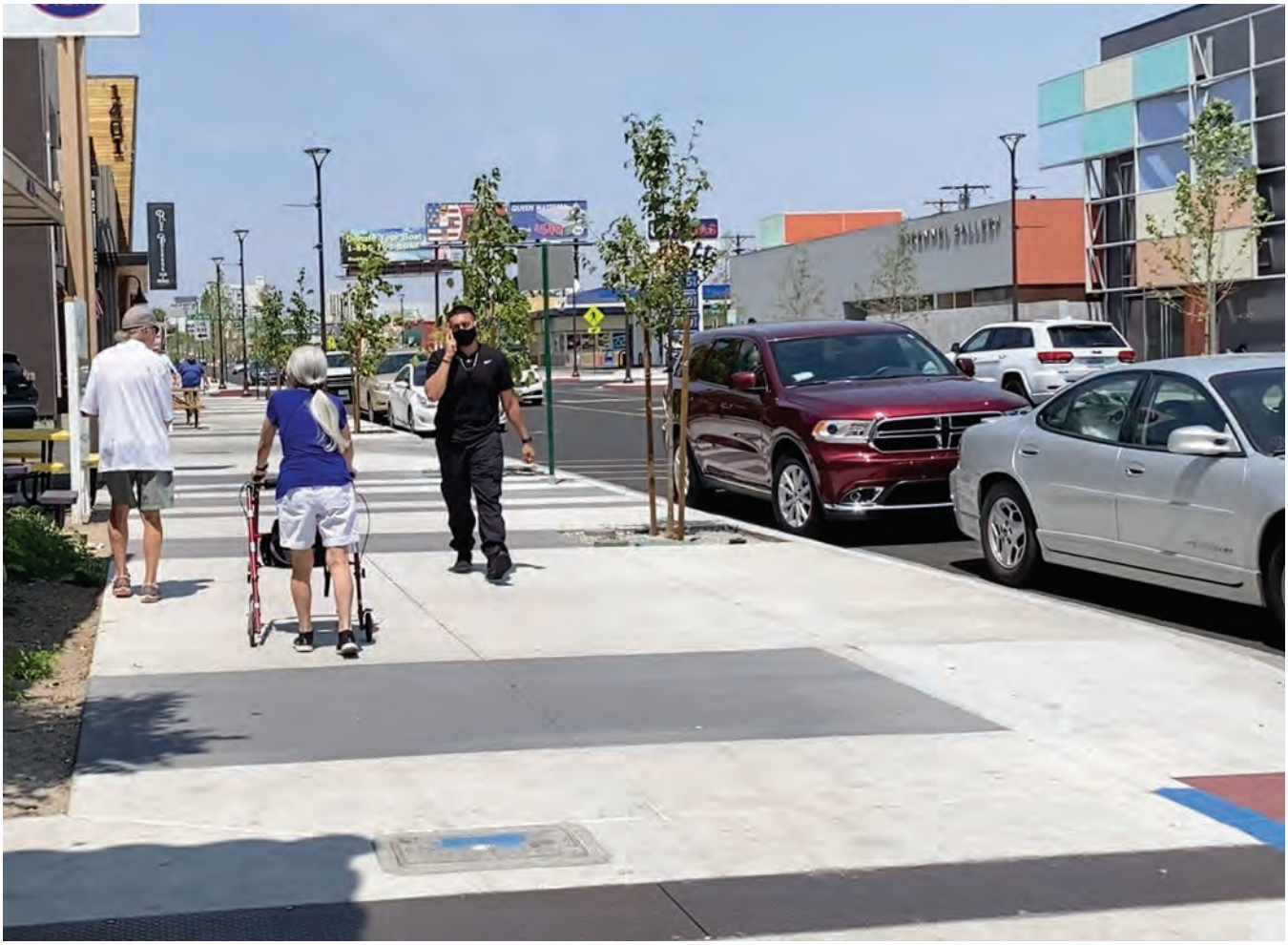
The RTC Bicycle and Pedestrian Master Plan has identified priorities for the region related to improving the accessibility of sidewalks and crosswalks. The ADA requires that newly constructed or altered facilities be readily accessible to and usable by persons with disabilities.

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 identify and address the effects of all programs, policies, and activities on minority populations and low-income populations.

Effective transportation decision making depends upon understanding and properly addressing the unique needs of different socioeconomic 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 limited English proficiency (LEP). These strategies include outreach in Spanish-language media, bilingual meeting and transit notices, and the availability of bilingual staff at public meetings. These strategies are important considering the population of Washoe County which includes a 35.5% minority population and 4.6% of households with LEP .

When the RTC alters transit service, staff ensures that no disproportionately high or adverse impacts on minority and low-income populations occur.

Passengers on-board RTC REGIONAL CONNECTOR.

When a service change is being considered, staff holds open houses 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 to service (any changes that affect 25 percent 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.

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 (100%-65.5%)	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 long-term mobility benefits of these projects will be significant.

As shown in the table of demographic information (above), approximately 45 percent of the residents living within ¼ mile of the projects included in the RTP are minorities and 46 percent of the residents living within ¼ mile of transit routes are minorities. Approximately 36 percent of Washoe County residents are minorities. This indicates that transportation investments and benefits are shared equitably throughout the community.

Similarly, 15 percent of the Washoe County population have incomes below the poverty level. About 21 percent of the residents near roadway projects and 23 percent 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 efforts to support transportation 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.

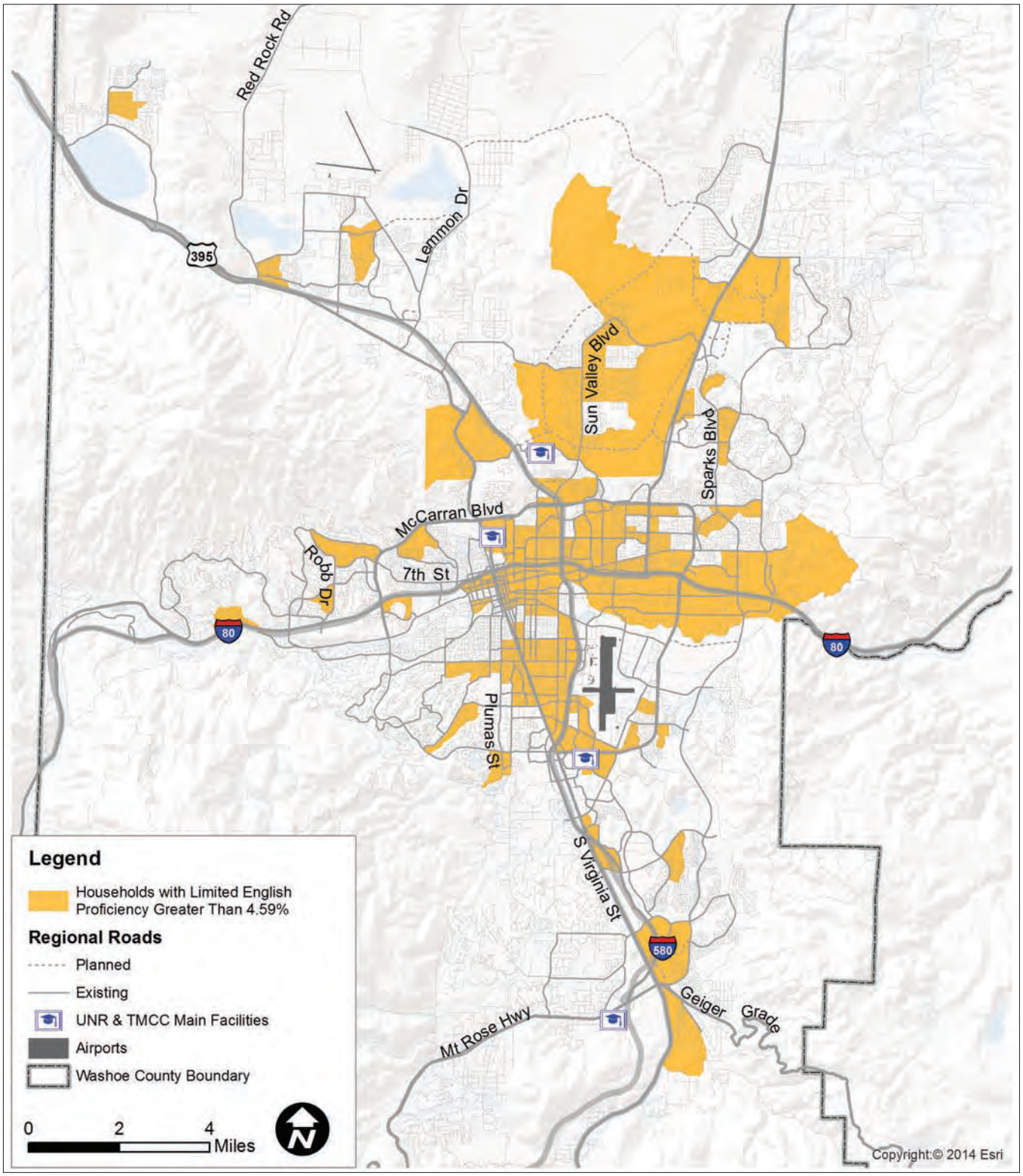
The RTC participates in, and organizes, numerous events for seniors, disabled individuals, and students of all ages. These events help residents connect with transportation services that are often a lifeline for social activities, medical appointments, access to educational opportunities and the ability to earn an income. Notably, the RTC organizes the Stuff-A-Bus for Seniors 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 are also offered free mobility travel training. This training instills confidence and builds skills in using transit and navigating the community.

Seniors gather information at the RTC Senior Fest booth.

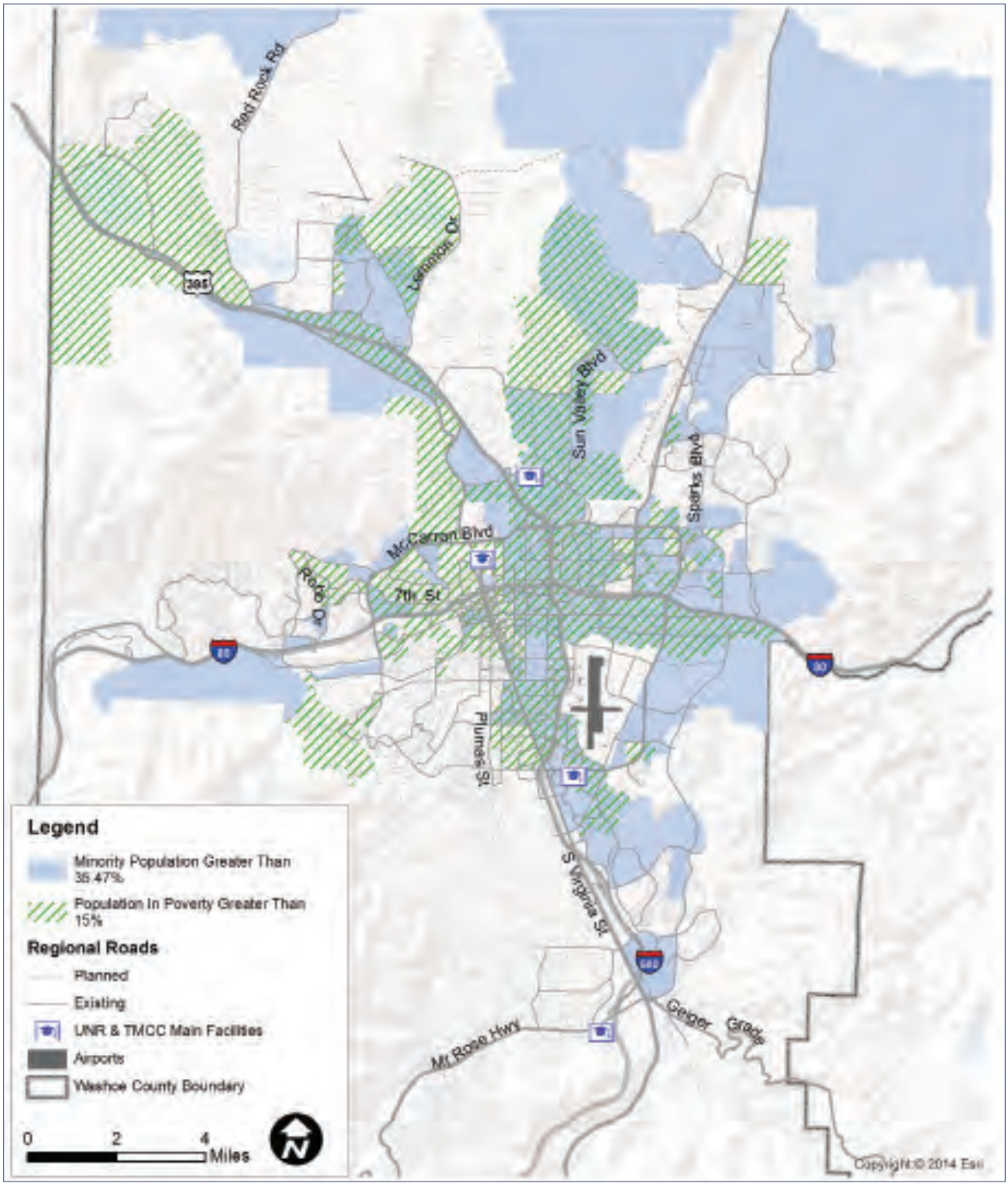
CENSUS TRACTS WITH HIGHER LIMITED ENGLISH PROFICIENCY POPULATIONS

MAP 9.1



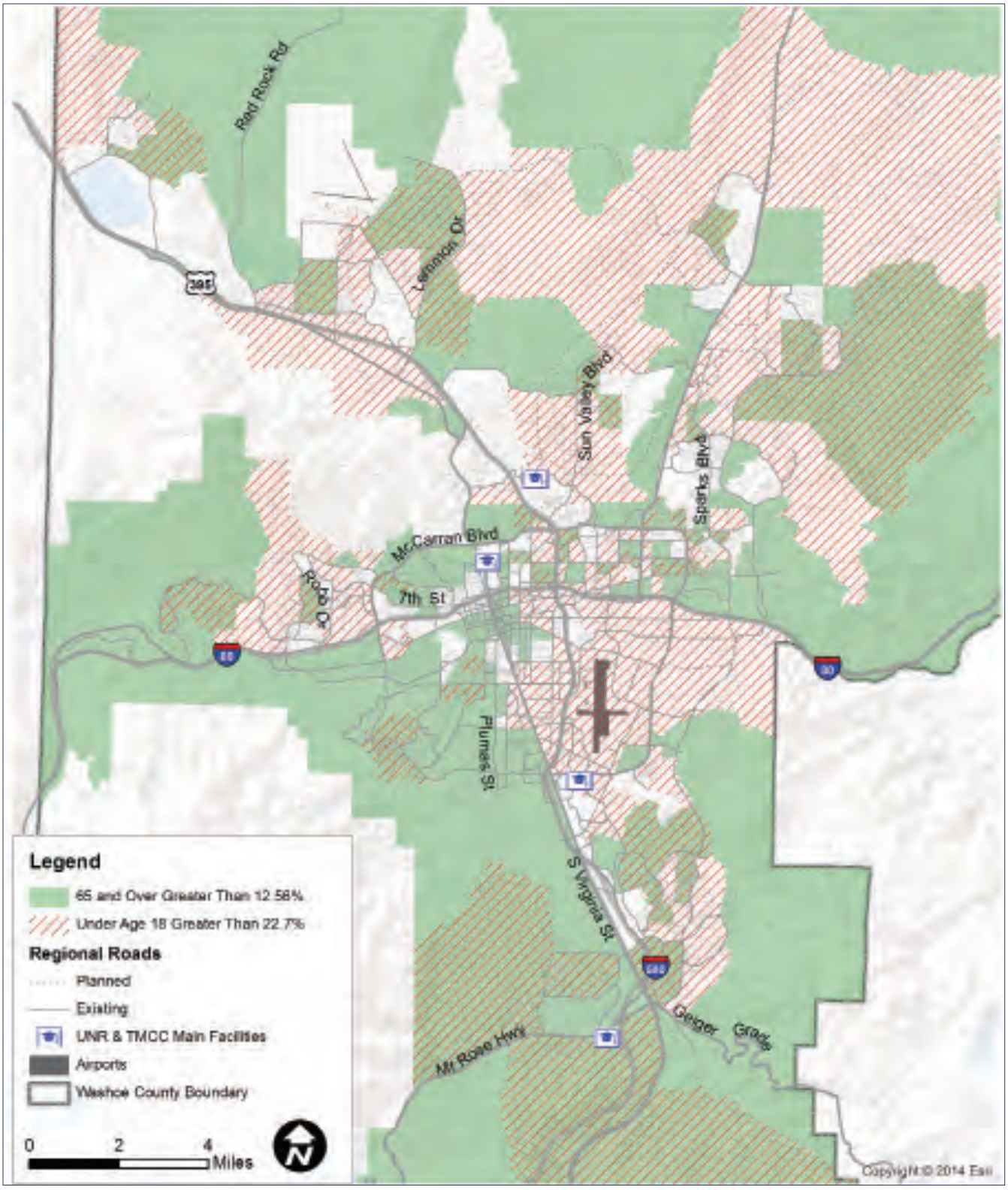
CENSUS TRACTS WITH HIGHER LOW INCOME AND MINORITY POPULATIONS

MAP 9.2



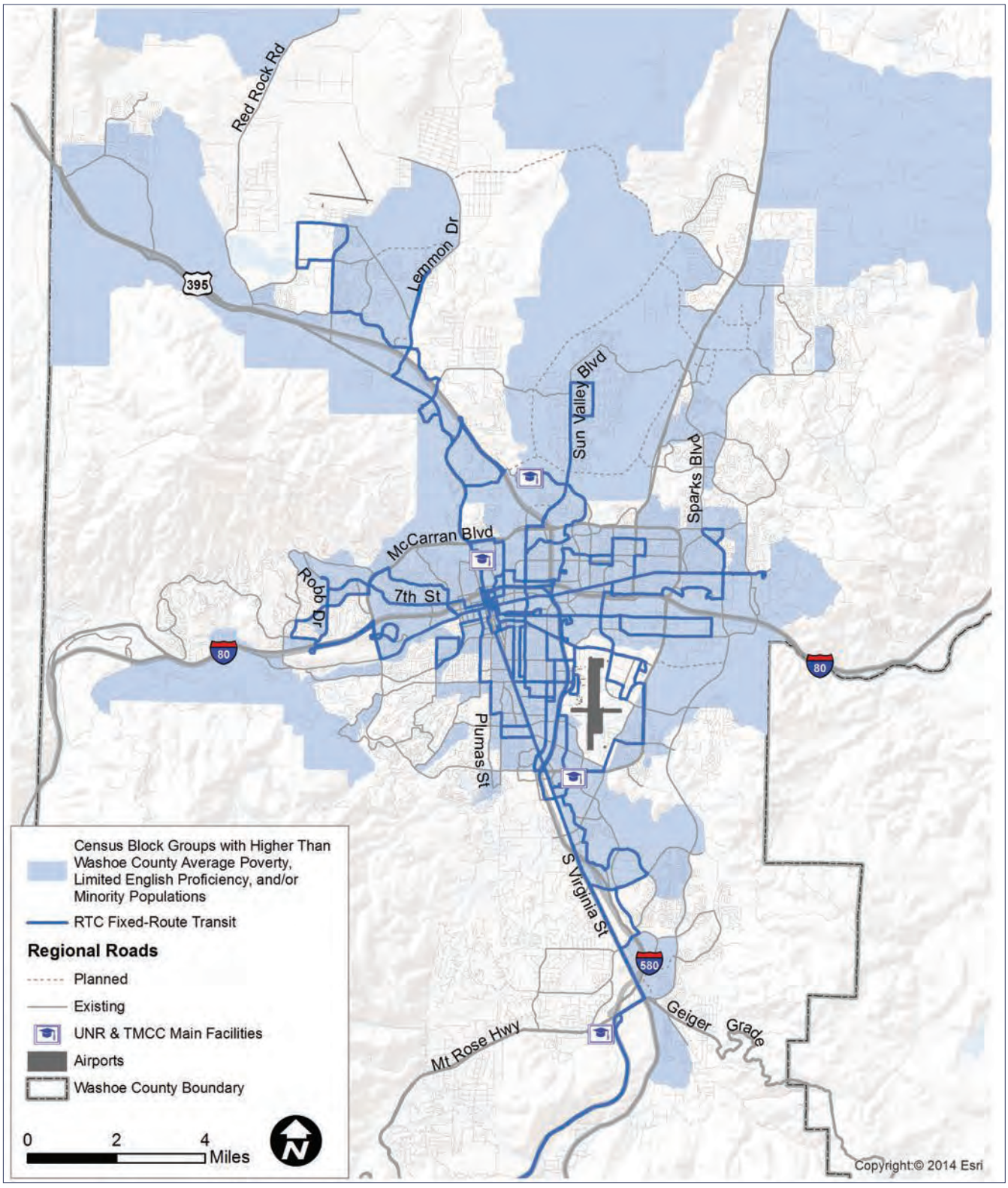
CENSUS TRACTS WITH HIGHER UNDER 18 AND OVER 65 POPULATIONS

MAP 9.3



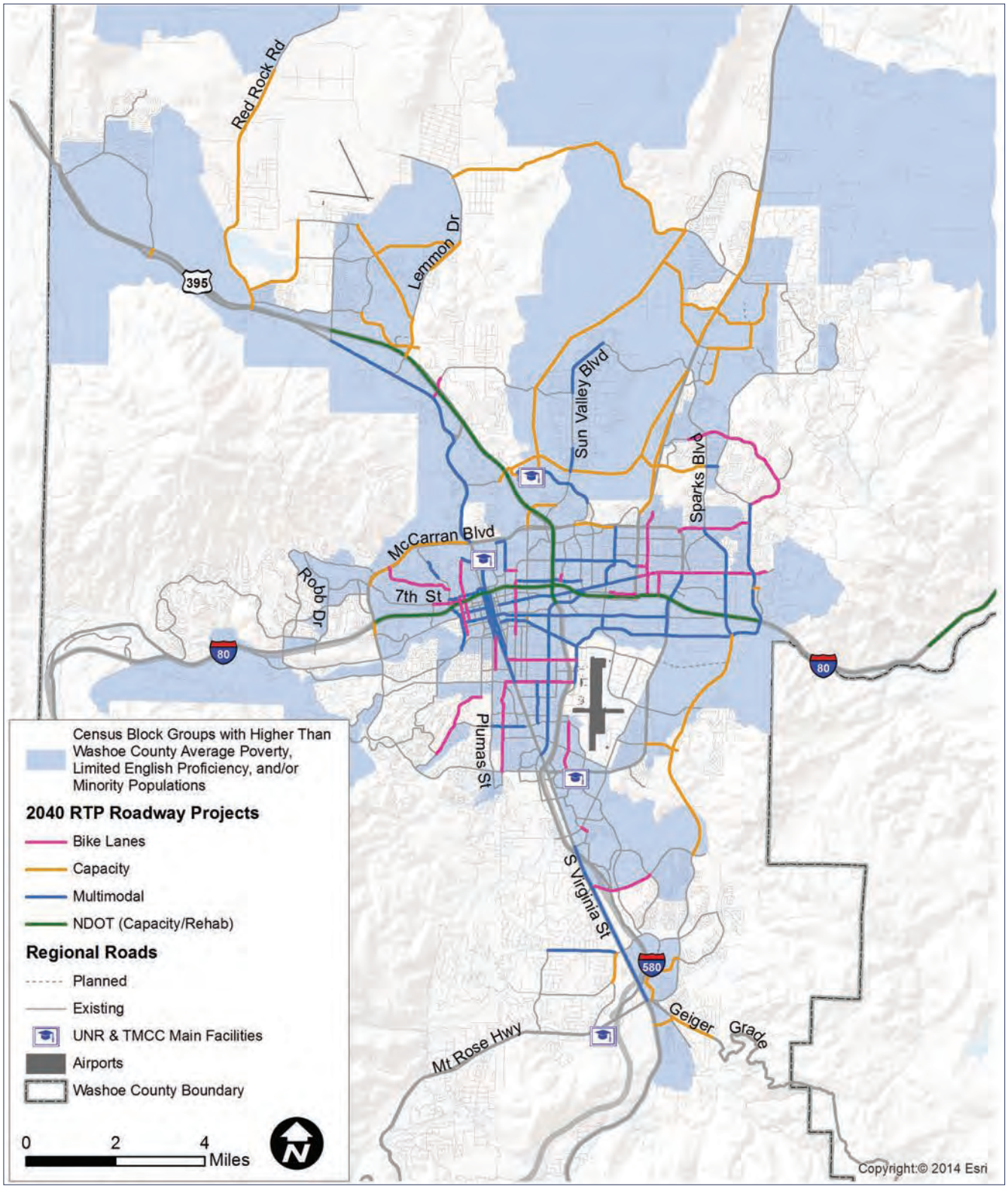
ENVIRONMENTAL JUSTICE POPULATIONS WITH TRANSIT

MAP 9.4



ENVIRONMENTAL JUSTICE POPULATIONS WITH RTP PROJECTS

MAP 9.5



CHAPTER 10 – IMPROVING FREIGHT AND GOOD MOVEMENT

Freight transportation is closely tied to economic development, particularly in the Reno-Sparks metropolitan region. Effective freight movement is important to the economic competitiveness of Northern Nevada and to the overall health and efficiency of the transportation system. Freight distribution, logistics, and advanced manufacturing have become increasingly important to the regional economy, with strong employment growth in these sectors over recent years. This growth and diversification is supported by the nationally significant I-80 corridor, I 580, the US 395 critical urban freight corridor, the Union Pacific 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 and efficiency, congestion, productivity, safety, security, and resilience of freight movement. This is particularly significant in Northern Nevada, through which a significant amount of national freight movement occurs.

The passage of the current transportation bill, Fixing America's Surface Transportation (FAST) Act, further reinforces the importance of freight to the national economy. Specifically, the FAST Act established grant programs to fund critical transportation projects that benefit freight movements. 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 strategic goals were identified in the 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.

The plan highlights the benefits to the 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 County has a deficit of approximately 250 truck parking spaces. Nevada Truck Parking Implementation Plan was developed in 2019. This plan identifies opportunities to expand and 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 services and flights. In 2019, RNO 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 mile from the Union Pacific (UP) 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 eight percent of the shipments to other states, six percent of the total traffic to Nevada, and less than one percent of in state traffic in 2015. 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 is Washoe County is 144 miles.

Nevada State Rail Plan

The 2012 Nevada State Rail Plan was developed by the Nevada Department of Transportation (NDOT).

The plan reflects Nevada'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 service in the state to benefit 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.

The first UP 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 efficient operation of freight trains over Donner Summit.

With nearly 1,200 miles of track and 600 employees in the state, the Sparks yard plays a critical role in the efficient 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 significant freight movement through the Reno-Sparks metropolitan planning area. They connect major freight traffic generators, including industrial areas, inter-modal rail and air facilities, and the regional freeway network. The industrial road network defines critical 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 percent 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 truck traffic on the roadways while still 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 30% of the total volume of traffic on 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 significant freight traffic generated 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 AND 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 the meetings and working closely with NDOT and other partners to develop and prioritize fright projects.

The RTC participated 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.

Truck parking challenges and potential solutions specific to Northern Nevada 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.
- Develop truck parking actions, strategies, and priorities.

10.6 – RTP PROJECTS SUPPORTING FREIGHT AND 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.

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

MEETING DATE: February 4, 2020 **AGENDA ITEM 7**

To: Technical Advisory Committee

From: Michael Dulude
Senior Technical Transit Operations Planner

RECOMMENDED ACTION

Acknowledge receipt of report on the proposed May 2021 RTC RIDE Service change and provide feedback.

BACKGROUND AND DISCUSSION

RTC RIDE continually looks to provide the best service by improving on-time performance, shortening passenger's travel times, and offering innovative services. The next service change is scheduled for May 1, 2021 and is proposed to contain the following items:

Truckee Meadows – Incline Village / Sand Harbor FlexRIDE Pilot Service

In partnership with the Tahoe Regional Planning Agency (TRPA), Tahoe Truckee Area Regional Transit (TART), and the Tahoe Transportation District (TTD). RTC is developing a Truckee Meadows – Incline Village area pilot service using the FlexRIDE model the RTC began operating in November 2019 with current service operating in the Sparks-Spanish Springs, Somersett, and North Valleys communities.

This pilot project will allow people in the Reno/Sparks and nearby Washoe County (Truckee Meadows) area and Incline Village area to book a public transit trip on an RTC FlexRIDE vehicle 24 hours prior to their trip by calling a customer service phone number.

For this pilot project, the current end-point in the Truckee Meadows would be the Summit Park & Ride in Reno where passengers can transfer to/from the Regional Connector – CARSON service. In the Tahoe area, potential stops include the Southwood Park & Ride facility, Tunnel Creek, and Sand Harbor State Park. Additional potential stops are at various trailheads along State Route 431 (Mt. Rose Highway) between the Reno and Tahoe areas.

The daily service span will be from 7:00 AM to 9:00 PM. Trips will require reservations using the application or phone 24 hours in advance to allow dispatch to group ride to ensure the most efficient and effective use of the equipment and service. All vehicles are accessible and bicycles are allowed on the service. Passenger fare will be set at $5.00 per trip.

Routine Schedule Time Adjustments

As part of RTC's on-going effort to provide reliable and on-time service, staff monitors bus travel times and speeds, as well as other statistics. As traffic patterns change, passenger habits change, and street networks change, these an effect on the reliability and on-time performance of each route. Therefore, each service change contains small adjustments to the schedule timetables to maintain their relevance to what the bus can actual perform, thereby improving reliability and on-time performance, as well as customer service. This service change will contain these small adjustments to a small group of routes.