



REGIONAL TRANSPORTATION COMMISSION
OF WASHOE COUNTY

REGIONAL ROAD IMPACT FEE
TECHNICAL ADVISORY COMMITTEE
MEETING AGENDA

THURSDAY, JANUARY 28, 2021
8:30AM-10:00AM

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

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

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.

II. The Regional Road Impact Fee Technical Advisory Committee (RRIF 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 RRIF 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 July 22, 2020, will be entered into the record.

III. The RRIF 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 Engineering & Construction at 775-348-0171. Supporting documents may also be found on the RTC website: www.rtcwashoe.com. In addition, a member of the public may request supporting materials electronically from Lee Anne Olivas at the following email address: lolivas@rtcwashoe.com.

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

****ROLL CALL****

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

ITEM 2 Public Comment - *please read paragraph II near the top of this page*

ITEM 3 Approval of the September 24, 2020 Meeting Minutes (*For Possible Action*)

ITEM 4 2050 Regional Transportation Plan Report (*For Possible Action*)

ITEM 5 RRIF General Administrative Manual Overview Discussion (*For Possible Action*)

ITEM 6 Public Comment - *please read paragraph II near the top of this page*

ITEM 7 Member Items

a) next RRIF TAC meeting: February 25, 2021

ITEM 8 Adjournment (*For Possible Action*)

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

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

Current posting locations: RTC website: www.rtcwashoe.com, State website: <https://notice.nv.gov/>



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: January 28, 2021

AGENDA ITEM 2

To: Regional Road Impact Fee Technical Advisory Committee (RRIF TAC)

From: Dale Keller, P.E., Engineering Manager

RECOMMENDED ACTION – PUBLIC INPUT

This agenda item allows the public the opportunity to provide information on topics within the jurisdiction of the Regional Road Impact Fee Technical Advisory Committee (RRIF TAC). Any person wishing to wait to provide public comment on a specific agenda item should indicate that item number on the “comment” card. The RRIF TAC reserves the right to take all public comment during Public Input. Individuals addressing the RRIF TAC during the Public Input portion of the meeting will be limited to three minutes total. However, an individual acting as a spokesperson for a group of individuals may request additional time. Individuals are expected to provide public input in a professional and constructive manner.

**REGIONAL TRANSPORTATION COMMISSION (RTC)
REGIONAL ROAD IMPACT FEE (RRIF)
TECHNICAL ADVISORY COMMITTEE**

Meeting Minutes

Thursday, September 24, 2020

Members Present:

Alex Velto, City of Reno
Brian Stewart, Regional Transportation Commission
Dan Doenges for Amy Cummings, Regional Transportation Commission
David Blaco, Sparks Planning Commission
Dwayne Smith, Washoe County
Jim Rundle, City of Sparks
Jon Ericson, City of Sparks
Kraig Knudsen, Private Sector
Larry Chesney, Washoe County Planning Commission
Mike Mischel, City of Reno
Mitchell Fink, Washoe County
Randy Walter, Private Sector
Ted Erkan, Private Sector

Members Absent:

John Krmptic, Private Sector
Kurt Dietrich, City of Reno Public Works

Guests

Claudia Hanson
Jeremy Smith

RTC Staff:

Adam Spear

Amber Bowsmith

Dale Keller

Hannah Yue

Jelena Williams

Lee Anne Olivas

Xuan Wang

The meeting was called to order at 8:35am. Roll call was taken to ensure there was a quorum.

Item 1: Approval of Agenda

The agenda was approved. It was determined Item 5 would be presented before Item 4 to better explain the coordination efforts between the RTC and TMRPA.

Item 2: Public Comment

None

Item 3: Approval of the August 27, 2020 Meeting Minutes

The August 27, 2020 Meeting Minutes were approved. Alex Velto, David Blaco, and Ted Erkan abstained.

Item 5: Regional Transportation Plan (RTP) and Travel Demand Model Methodology Presentation

Xuan Wang of the RTC provided a presentation (see Attachment A) on how the Travel Demand Model works and how trip lengths are calculated for RRIF analysis. Xuan Wang explained the model area and how it is separated into Traffic Analysis Zones (TAZs). TAZs contain land use, social economic data such as population, employment, and income levels. Based on the data, the model generates the number of trips for each zone and from one zone to another. The roadway network is laid over the TAZ and includes roadway attributes. Each TAZ is labeled with the service area they are in (north or south). The model determines the quickest route from each zone.

Only regional roads are included for RRIF calculations. Local roads and freeways are excluded. The regional distance is 8.8 miles. To get the total number of VMT, the regional distance is multiplied by the total number of trips for each zone. An important input to the model is the roadway network. RTC staff are currently in the process of prioritizing and evaluating the projects for the 2050 RTP. Another important input is the TAZ data from TMRPA.

Brian Stewart asked what the timeframe is for current projects and proposed new projects. Current projects are included in the 2040 RTP. Proposed New Projects are projects that have been recommended through corridor studies or from local agency and public input. Jon Ericson asked how freeway projects play into the model. Xuan stated freeway trips are excluded for RRIF calculations, but they are included in the model network.

A motion to receive the presentation was approved unanimously.

Item 4: TMRPA Development Model Presentation

Jeremy Smith of TMRPA provided a presentation (see Attachment B) on the TMRPA Land Use Model 2020. The purpose of the model is to collect data such as household size, job categories, and development tracking for TAZs. The model tracks existing and planned development to determine what future land use will be.

TMRPA performs the Consensus Forecast every years. The Consensus Forecast is the assessment of forecasted population and employment growth for 20 years. Four independent models are averaged together to determine the consensus forecast for employment and two independent models for employment. The draft forecast values is 603,369 for population and 398,908 for jobs. This equates to 126,221 new people, 50,488 new dwelling units, and 99,363 new jobs.

Spatial allocation of predicted growth is performed. A rule-based allocation model that uses an overall suitability score is used. Jeremy described how they ensure accurate accounting of potential units, the suitability analysis that is performed and how the location and type of employment is predicted. Upon complete of the analysis, data is attached to the appropriate TAZ.

Alex Velto asked where the household size multiplier comes from because it seemed a little high. Jeremy Smith stated it comes from the Census Bureau. There was discussion about putting together a team to discuss suitability factors. Jeremy Smith stated a portal would be available soon that includes a map viewer and dig in on the suitability factors. Jeremy Smith will coordinate a meeting and include a representative from each of the local jurisdictions. Brian Stewart asked where the base layers information comes from. The roads layer comes from Washoe County's GIS data. Sewer data is from the local Public Works departments and parcel information is from the Washoe County Assessor's office.

There was a motion to accept a presentation with TMRPA forwarding the data to the local jurisdictions and coordinating a meeting to review the suitability factors was approved unanimously

Item 6: Public Comment

None

Item 7: Member Items

- The next RRIF TAC meeting is scheduled for October 22, 2020 at 8:30am via teleconference. Agenda items include discussion of indexing, eligible improvements, and revenue. Lee Anne Olivas noted that typically the November and December meetings are combined because of the holidays so that's something to keep in mind for discussion of future items.

Item 8: Adjournment

There being no further business, the meeting adjourned at 9:33am.

Respectfully Submitted,

Lee Anne Olivas

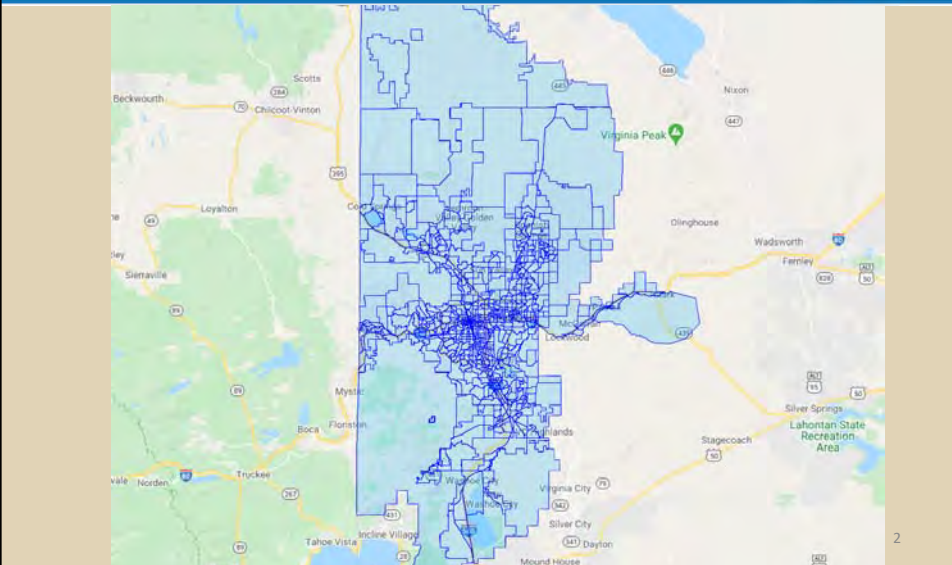


**Regional Road Impact Fee (RRIF)
Technical Advisory Committee
09/24/2020**

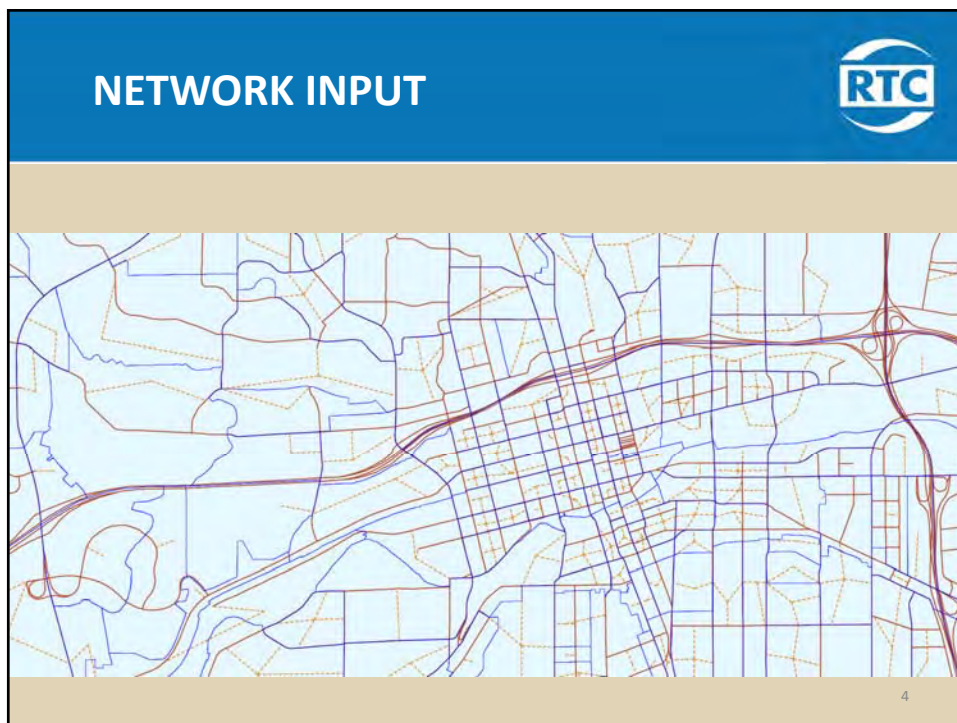
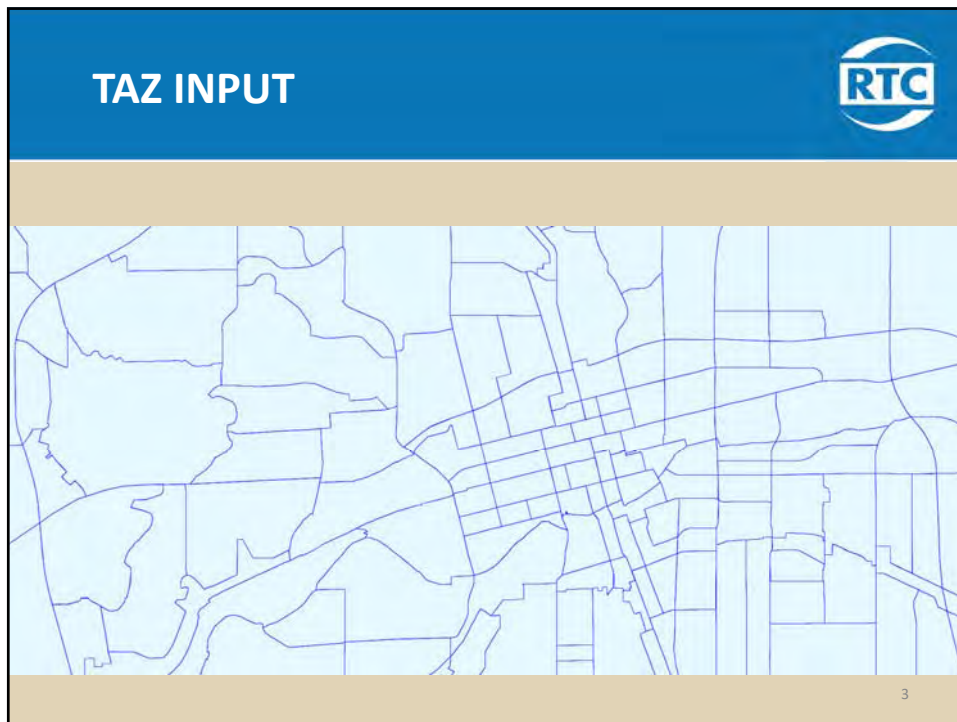
**Average Trip Lengths in the RTC Regional
Travel Demand Model**

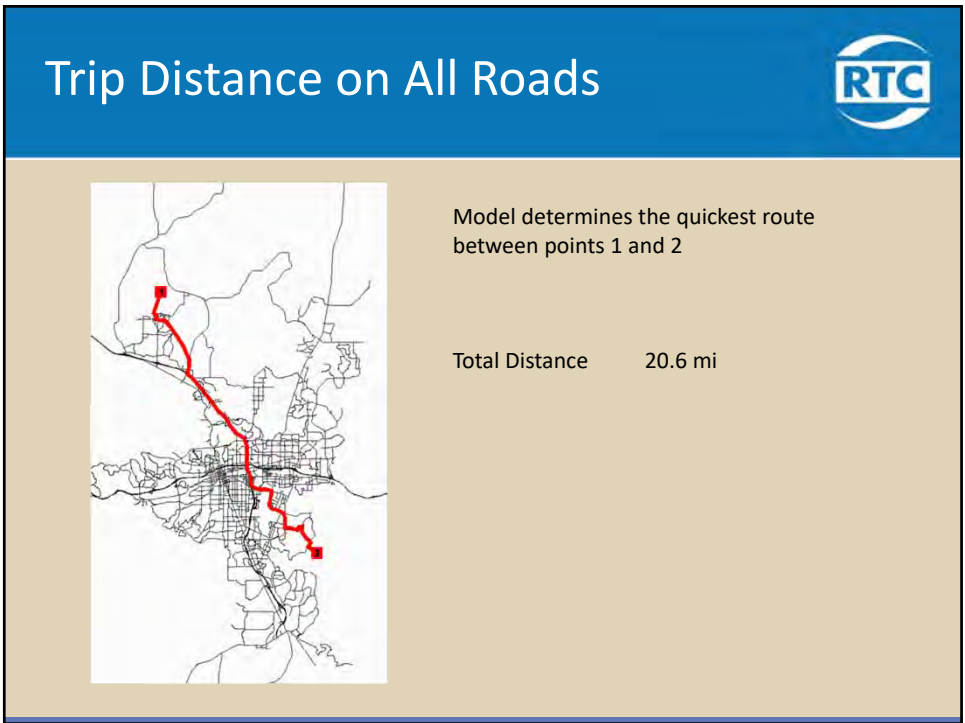
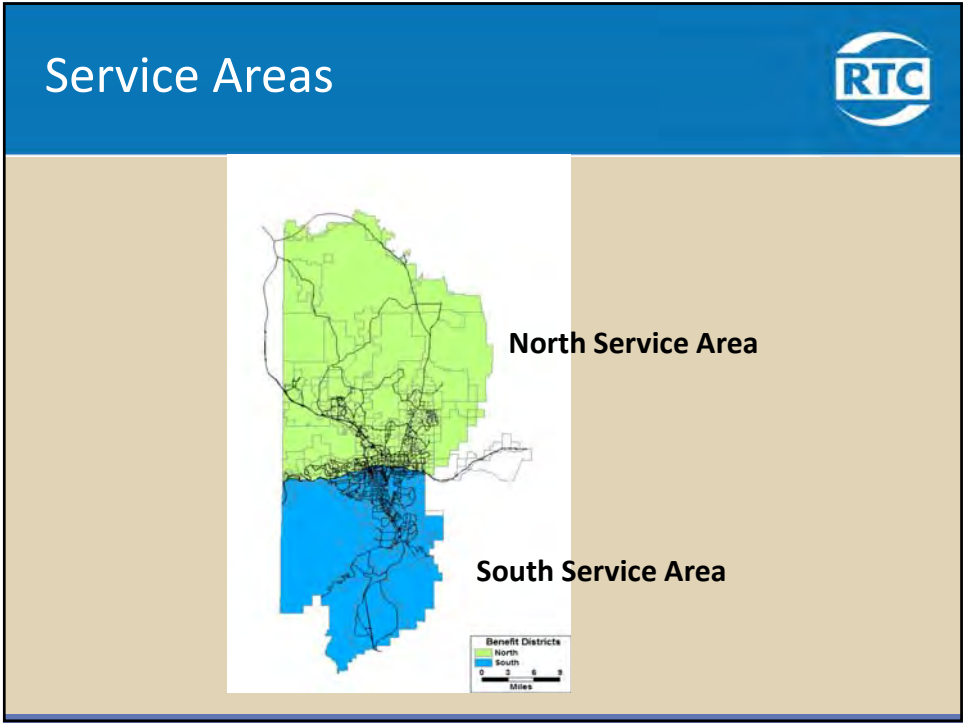
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MODEL AREA





2





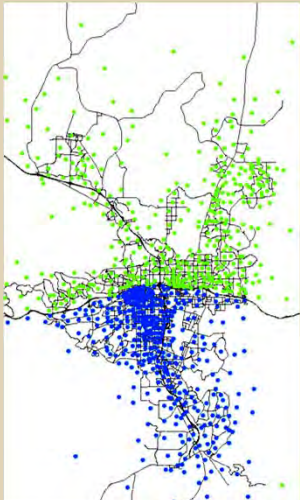

Trip Distance on Regional Roads



The **ORANGE** sections of the route are used for the regional road distance.

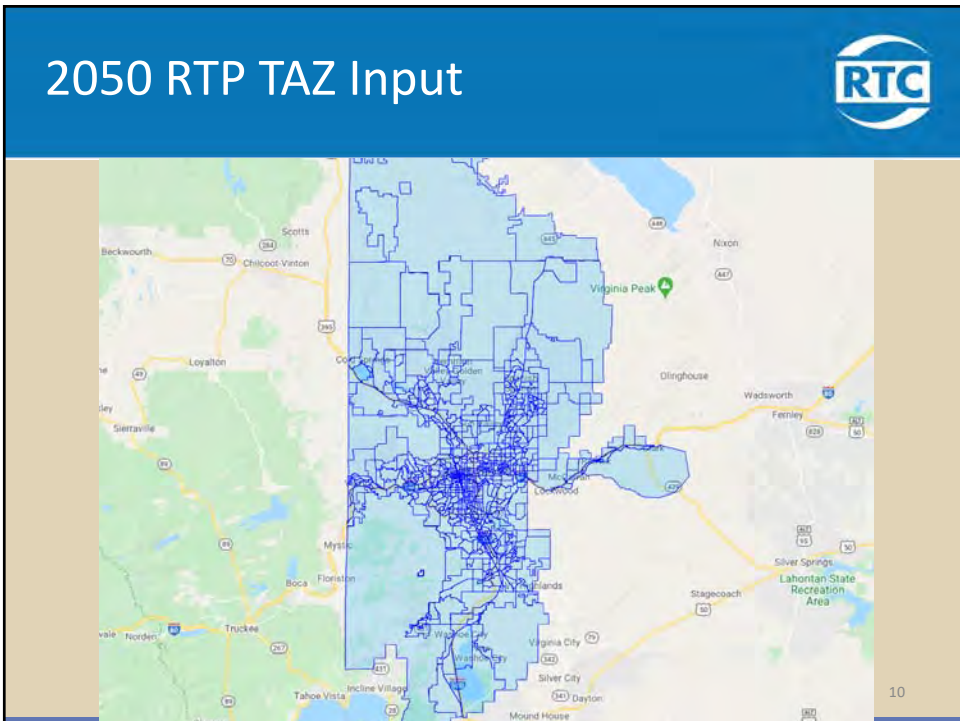
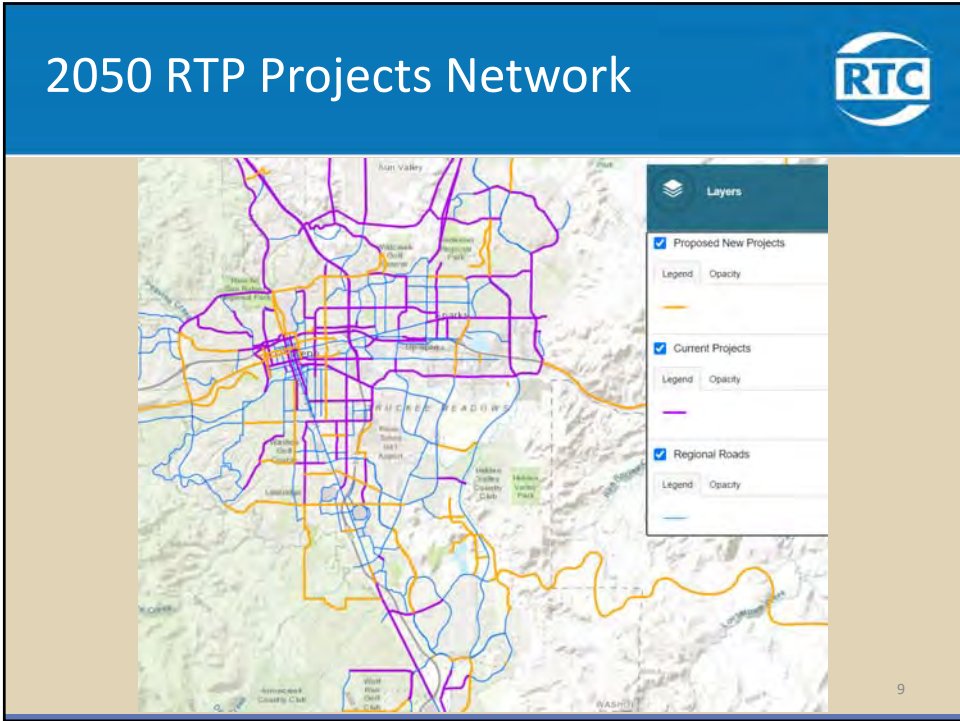
Regional Distance 8.8 mi

Trip Lengths in the Region



The process of calculating the distance between zones is repeated between every zone.

With the distance, and the trips between zones, the average trip length to the NORTH or to the SOUTH can be calculated.





TMRPA Land Use Model 2020

Jeremy M. Smith
Director, TMRPA

9/24/2020 Regional Road Impact Fee Technical
Advisory Committee



Development Tracking



Tracking residential development present and future potential

Tracking employees by business location

Tracking Current and Future Land Use

Monthly Process for Updating Land Use Fabric

TMRPA
TRUCKEE MEADOWS REGIONAL PLANNING AGENCY

Parcel Data - Enhanced
TMRPA Land Use Fabric

- Identify existing land use and zoning designation
 - Is it already developed?
- Identify vacant parcels
 - Unconstrained areas are buildable (remove slopes, public land, water bodies, flood)
- Estimate capacity of that land
 - Future housing units based on zoning and development approvals
 - Future employment based on existing employment mix and zoning

TMRPA
TRUCKEE MEADOWS REGIONAL PLANNING AGENCY

Consensus Forecast

TMRPA
TRUCKEE MEADOWS REGIONAL PLANNING AGENCY

Washoe County Consensus Forecast

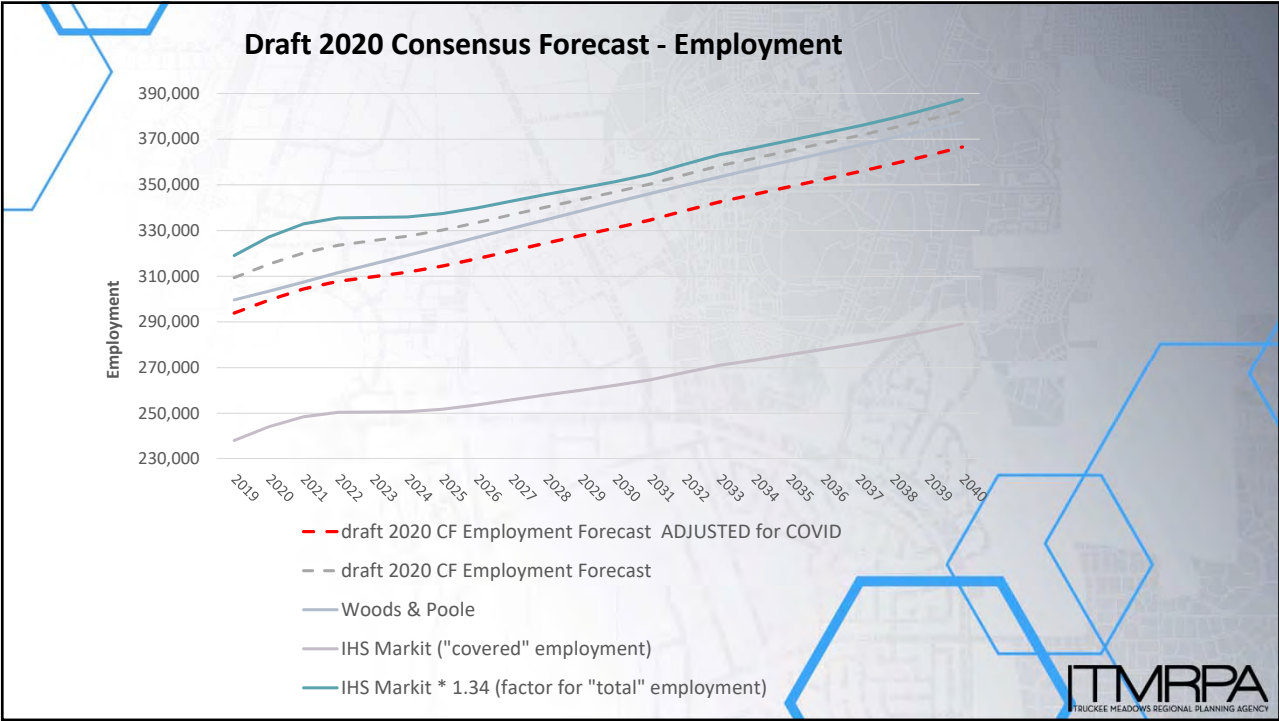
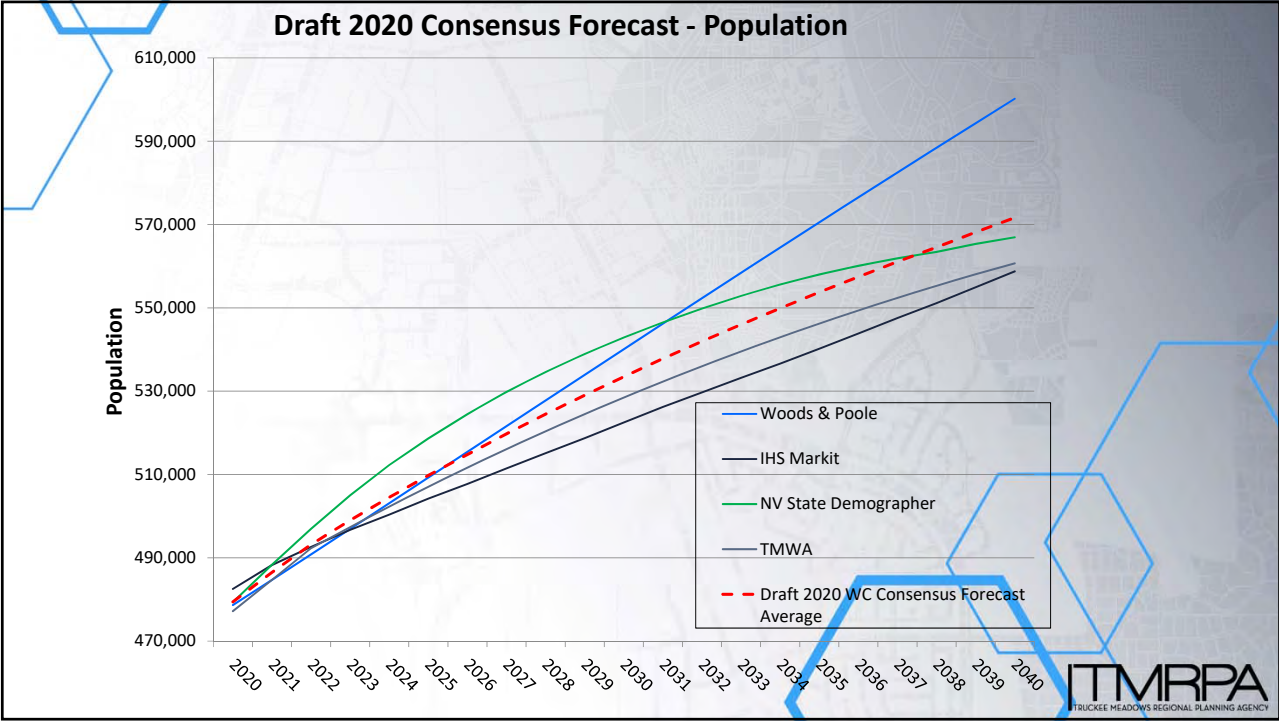
- Assessment of forecasted population and employment growth; performed every 2 years by TMRPA to inform planning efforts across the region.
- Sources
 - Nevada State Demographer
 - Truckee Meadows Water Authority
 - Woods and Poole
 - IHS – Global Insight

W&P
ECONOMICS



TRUCKEE MEADOWS WATER
AUTHORITY
Quality. Delivered.


TMRPA
TRUCKEE MEADOWS REGIONAL PLANNING AGENCY



Draft 2020 Consensus Forecast Values

	Population	Jobs
2020	477,148	299,545
2040	569,385	366,567
2050	603,369	398,908

	New People	New Dwelling Units	New Jobs
2040	92,237	36,895	67,022
2050	126,221	50,488	99,363




Spatial Modeling



Spatial Allocation of Predicted Growth

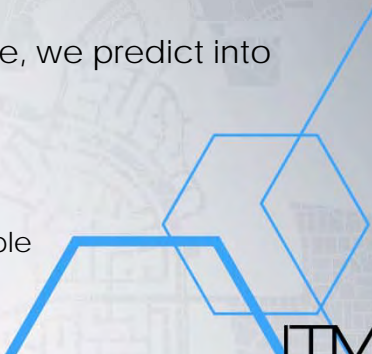
- Translate time series projections to spatial allocation of housing units and employment
- Rule-based allocation model that uses an overall suitability score
 - Parcel-based
 - Dual-mode suitability model
 - Population
 - Employment
 - Written in Python
- Model results can be aggregated to any geography
 - Traffic analysis zones
 - Wastewater treatment facility service areas
 - Etc.



ITMRPA
TRUCKEE MEADOWS REGIONAL PLANNING AGENCY

Potential Future Units

- **Ensure accurate accounting of potential units**
 - **Directed Units** – known projects received directly from jurisdictions planning departments
 - **MU attenuated** – Mixed use unit potentials factored down based on a neighborhood analysis
 - **Atomic** – whenever data are available, we predict into individual lots
 - E.g. Final mapped, Bubble-mapped
 - **Large Parcels**
 - Blobs with DU/Acre – 80% efficiency
 - Phasing of units per year that are realizable
 - Topographic limiter (in development)



ITMRPA
TRUCKEE MEADOWS REGIONAL PLANNING AGENCY

Dwelling Unit Splits by Tier (Targets)

Regional Land Designation	Total Dwelling Unit Share (absent Tribal Lands and Tahoe Basin)(%)	5-Year Unit Growth (%)	10-Year Unit Growth (%)	20-Year Unit Growth (%)	Future Unit Potential Units (%)	Average (%)	Proposed Share (%)
MU Core	12.12	13.37	12.75	7.36	13.41	11.80	13
Tier 1	28.77	15.07	13.78	8.80	9.70	15.22	17
Tier 2	42.98	63.19	64.41	67.68	51.84	58.02	60
Tier 3	14.06	7.05	7.57	13.89	23.73	13.26	9
RA	2.08	1.33	1.49	2.28	1.33	1.70	1



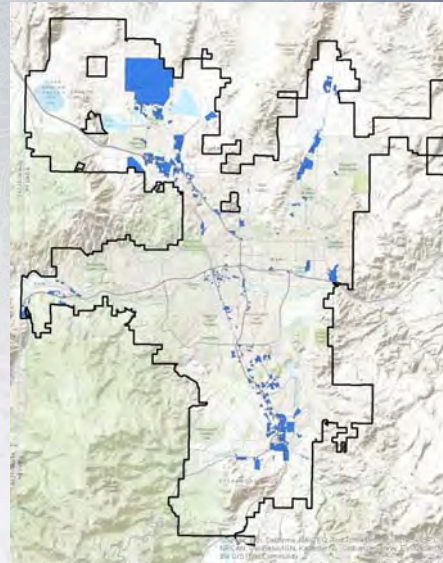
Suitability Analysis

- Suitability score controls timing of development in the model
- For residential, based on the spatial relationships of many factors to the location of housing development over the past 15 years
 - Single Family and multifamily distributions evaluated separately
 - Logistic regression used to predict development from 2000 to 2015 (using spatial variables like distance to major roads)
 - 75% prediction accuracy
 - Informs assignment of weighted suitability
- For more information check the TMRPA Housing Study Appendix C
<https://tmrpa.org/truckee-meadows-housing-study/>

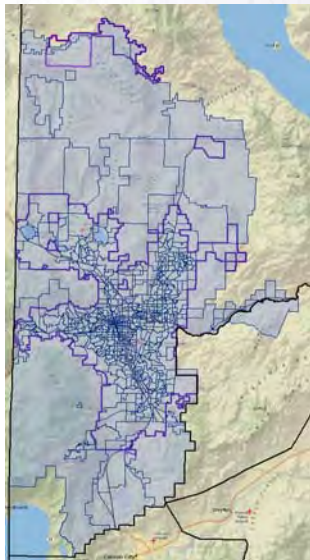


New employment footprint

- **Location and type of employment more difficult to predict**
 - Some employment grows in place (ca. 50%)
 - Other employment utilizes vacant land (ca. 50%)
 - Footprint of vacant land usage based on non-residential zoning

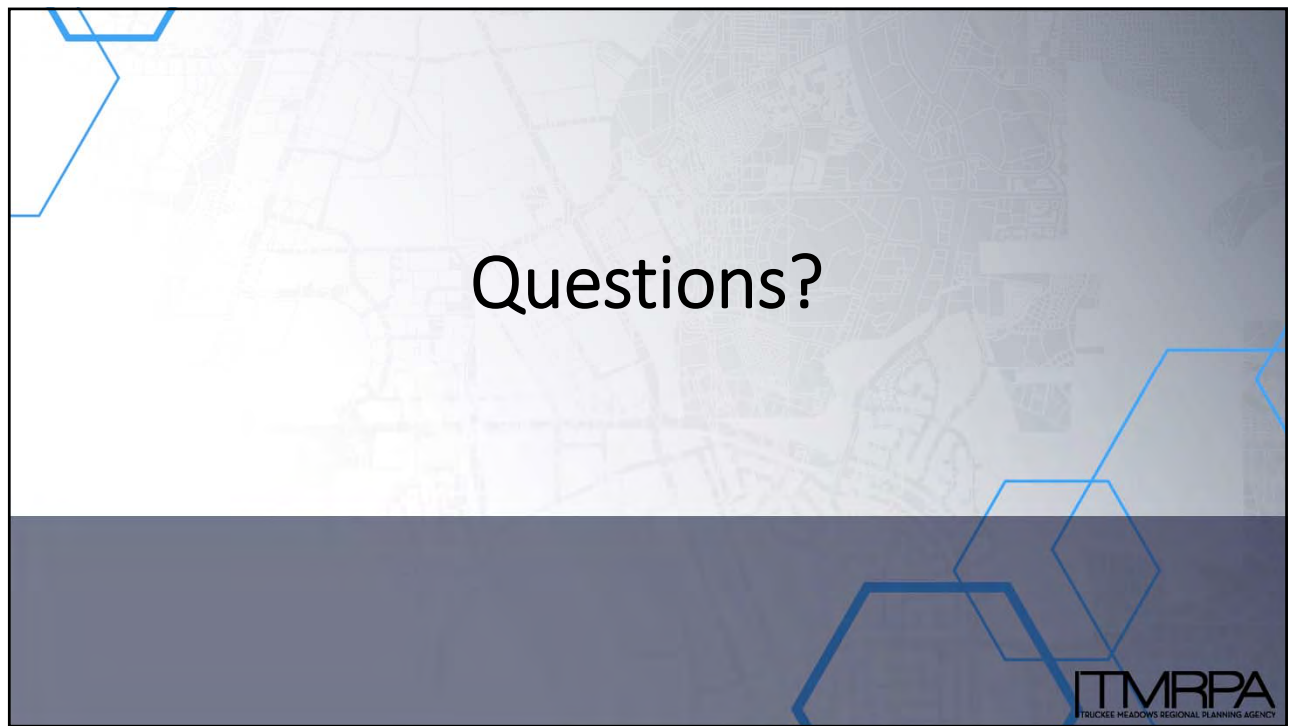


Conflate to TAZ



- **Upon completion, data are attached to appropriate TAZ and inherit all necessary fields**
 - E.g. household size distribution
 - Job categories
- **Model Years**
 - 2020 (delivered)
 - 2025
 - 2030
 - 2040
 - 2050
 - Full Build Out







REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: January 28, 2020

AGENDA ITEM 4

From: Dale Keller, P.E., Engineering Manager
Through: Brian Stewart, Director of Engineering

RECOMMENDED ACTION

Receive a report on the 2050 Regional Transportation Plan (RTP) draft project listing and provide direction accordingly.

BACKGROUND AND DISCUSSION

The RTC is evaluating projects for consideration in the 2050 Regional Transportation Plan. A virtual public meeting and online survey were open from December 17, 2020 through January 14, 2021 to gather community feedback regarding the evaluation and prioritization of projects. A discussion with and survey of partner agency staff was conducted through the Technical Advisory Committee and RTP Agency Working Group. Staff is scheduled to seek input from the Sparks City Council, Reno City Council, and Washoe County Commission the week of January 11, 2021.

The attachment includes the preliminary draft for the 2050 RTP fiscally constrained project listing. Staff is requesting input on this project listing prior to initiating the air quality conformity analysis on these projects. A draft 2050 RTP document will be circulated for review in February, with a final draft anticipated for completion in March.

The RTC issued a call for projects in an effort to seek agency and public input about projects to consider in the 2050 RTP. The RTC implemented an online survey to seek input from the public on potential new projects, which was open from June 22, 2020 through July 20, 2020. RTC is evaluating projects that were suggested for potential inclusion in the plan. The preliminary evaluation of projects, along with safety and traffic congestion data, is attached.

A virtual public meeting was held in November 2020 and December 2020 for the Downtown Reno Circulation Study, which is a component of the RTP. Staff are currently reviewing and addressing public comments about the proposed safety and mobility improvements in Downtown Reno.

The RTP is the RTC's long-range transportation plan as required under Title 23, Part 450 of the Code of Federal Regulations (CFR). It contains major transportation projects and programs for Washoe County for all modes of travel. It functions as the major tool for implementing long-range transportation planning. The RTP captures the community's vision of the transportation system and identifies the projects, programs and services necessary to achieve that vision that will be implemented by RTC, member entities, and Nevada Department of Transportation (NDOT).

FISCAL IMPACT

The 2050 RTP development is included in the Unified Planning Work Program.

ATTACHMENT(S)

- A. Preliminary Draft 2021-2025 Project Listing
- B. Preliminary Draft 2026-2030 Project Listing
- C. Preliminary Draft 2031-2050 Project Listing

Preliminary DRAFT 2021-2025 Listing for Discussion

Program	Description	Annual Amount	5 Year Amount
Bicycle, Pedestrian & 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	\$85,000,000
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
Privately Constructed Roads (to be added)		
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
Vassar Street Bike Facility	Kietzke Ln to Terminal Way	\$4,300,000
Vine Street Bike Facility	Riverside Drive to University Terrace	\$11,300,000

Preliminary DRAFT 2026-2030 Listing for Discussion

Program	Description	Annual Amount (est)	5 Year Amount
Bicycle, Pedestrian & 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	
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	Lemmon 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	
White Lake Pkwy - Widen	US 395 to Village Pkwy	\$38,231,000	
Privately Constructed Roads - to be added			
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	

Preliminary DRAFT 2031-2050 Listing for Discussion

Program	Description	Annual Amount (est)	20 Year Amount
Bicycle, Pedestrian & 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
Total		\$57,882,000	\$1,226,040,000
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 4 th 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	
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	Red Rock Rd to Silver Knolls Blvd	\$74,485,000	
SS/ER Parkway - New Road	Red Rock Rd to Mud Spring Dr	\$144,400,000	
TRI Center Northern Connection	La Posada to TRI Center	\$495,498,000	

ATTACHMENT C

TRI Center Southern Connection	Eastern Daybreak Boundary to USA Parkway	\$68,392,000
Vista - Widening	Wingfield Pkwy to Hubble Dr	\$40,060,000
Vista Knoll Pkwy Ext	To Lemmon Dr	\$8,987,000
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 & bike lane, travel lane to bus/bike	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



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MEETING DATE: January 28, 2020

AGENDA ITEM 5

From: Dale Keller, P.E., Engineering Manager
Through: Brian Stewart, Director of Engineering

RECOMMENDED ACTION

Receive a report on the potential changes to the 6th Edition Regional Road Impact Fee (RRIF) General Administrative Manual (GAM) including the RRIF Capital Improvement Plan (CIP) draft project listing.

BACKGROUND AND DISCUSSION

In conjunction with the 2050 Regional Transportation Plan, the RTC is evaluating projects for consideration in the RRIF CIP. As required by the Nevada impact fee statute, NRS 278B, Impact Fees for New Development, impact fee programs require the preparation of a “capital improvements plan” (CIP), a list of capacity projects, over a period not to exceed 10 years for which the fees are based.

The attachment includes the preliminary draft project listing for the 7th Edition RRIF GAM and RRIF CIP. Since the RRIF program has two separate Service Areas, the projects in the first 10 years of the RTP must also be divided into separate CIPs for each Service Area. Construction cost estimates were developed as part of the 2050 RTP process for each roadway project based on generalized cost estimates for the various types of improvements.

Staff is requesting input on this preliminary project listing.

ATTACHMENT(S)

- A. North Service Area – RRIF Capital Improvement Plan (DRAFT)
- B. South Service Area – RRIF Capital Improvement Plan (DRAFT)

**ATTACHMENT A
NORTH CAPITAL IMPROVEMENT PLAN**

Timeframe A #1	Service Area	Roadway	Limits	Description	RTP \$	Comments
2026-30	N	Buck Dr	Lemmon Dr to N Hills Blvd	Widen 2 to 4 lanes	\$1,912,000	
2021-25	N	Dolores Drive	Existing Dolores west to Lazy 5 Pkwy	New 2 lane road	\$1,500,000	
2021-25	N	Highland Ranch Pkwy	Five Ridges to Pyramid Hwy	Widen 2 to 4 lanes	TBD	New Project
2021-25	N	Kiley Pkwy	Wingfield Hills Rd to Henry Orr Pkwy	New 2 lane road	\$6,400,000	
2021-25	N	Lazy 5 Pkwy	W Sun Valley Arterial to Pyramid Hwy	New 4 lane road west of Pyramid Hwy transitioning to 2 lanes at future development entrance	\$27,600,000	
2021-25	N	Lemmon Drive	US 395 to Military Rd	Widen 4 to 6 lanes - US 395 to Military Rd	\$22,500,000	
2021-25	N	Lemmon Drive	Fleetwood Dr to Chickadee Dr	Widen 2 to 4 lanes - Fleetwood Dr to Chickadee Dr	\$39,000,000	
2022-26	N	Loop Rd	Salomon Circle to Eastern Slope Rd	New 2 lane road	\$4,900,000	Project Removed due to feasibility/need
2026-30	N	Military Rd	Lemmon Dr to Echo Ave	Widen 2 to 4 lanes	\$25,412,000	
2026-30	N	Moya Blvd	Red Rock Rd to Echo Ave	Widen 2 to 4 lanes	\$19,678,000	
2026-30	N	Moya Blvd Extension	Lemmon Dr to Echo Ave	New 2 lane road	\$74,100,000	New Project - 1st 2 lanes not RRIF Eligible
2026-30	N	N. Hills Blvd	Golden Valley Rd to Buck Dr	Widen 2 to 4 lanes	\$20,465,000	New Project
2021-25	N	N/S Connector Rd	Stonebrook Pkwy to Wingfield Hills Rd	New 2 lane road	\$8,400,000	
2026-30	N	North Virginia St	McCarran Blvd to Panther	Sidewalks and bike lanes. An off-street shared-use path may be considered	\$17,878,000	
2026-30	N	North Virginia St	Panther to Stead Blvd	Widen from 2 to 4 lanes and multimodal improvements	\$43,291,000	
2021-25	N	Oddie Blvd/Wells Ave	I-80 to Pyramid Way	Multimodal improvements	\$36,000,000	
2022-26	N	Rain Blvd	Ferrari MeLead to Raggio Pkwy	Interchange improvements	\$7,700,000	Improvements constructed
2017-21	NS	Pedestrian & Bicycle Facility Improvements	Spot improvements systemwide based on RDMIP	\$1 million per year	\$5,500,000	Program removed from RRIF eligibility and RRIF funding
2022-26	NS	Pedestrian & Bicycle Facility Improvements	Spot improvements systemwide based on RDMIP	\$1.20 million per year	\$6,400,000	Program removed from RRIF eligibility and RRIF funding
2021-25	N	Pyramid Hwy/Sun Valley/US 395 Connector Phase 1	Queen Way to Golden View	Widen Pyramid to 6 lanes from Queen Way to Golden View	\$54,100,000	
2026-30	N	Pyramid Hwy/Sun Valley/US 395 Connector Phase 2	Disc Drive Widening	Widen Disc drive from Pyramid Hwy to Vista Blvd	\$22,300,000	New Project
2026-30	N	Red Rock Rd	US 395 to Placerville Drive	Widen 2 to 4 lanes	\$58,246,000	
2026-30	NS	Sierra Street	California Ave to 9th St	Widen sidewalks & add bike lanes	\$5,060,000	
2021-25	N	Sky Vista Pkwy	Lemmon Dr to Silver Lake Rd	Widen 2 to 4 lanes	\$15,800,000	
2021-25	NS	Sparks Blvd	Greg to Baring	Multimodal improvements, widen 4 to 6 lanes - Greg to I-80, widen 4-6 lanes - I-80 to Springland	\$40,000,000	
2026-30	NS	Sparks Blvd	Greg to Baring	Multimodal improvements, widen 4 to 6 lanes - Greg to I-80, widen 4-6 lanes - I-80 to Springland	\$44,977,000	
2017-21	N	Stonebrook Parkway	La Posada Dr to N/S Connector Rd	New 2 lane road	\$11,300,000	Improvements constructed
2021-25	N	Stonebrook Parkway	N/S Connector Rd to Pyramid Highway	New 2 lane road	\$8,100,000	
2021-25	N	Sun Valley Blvd	7th Ave to Scottsdale	Multimodal improvements	\$25,000,000	
2017-21	NS	Traffic Signals: ITS Operations & Intersections	Systemwide	\$2.6 million per year	\$14,100,000	Program removed from RRIF eligibility and RRIF funding
2022-26	NS	Traffic Signals: ITS Operations & Intersections	Systemwide	\$3.22 million per year	\$16,600,000	Program removed from RRIF eligibility and RRIF funding
2021-25	N	Victorian Avenue	16th Street to Pyramid Way	Bike lanes	\$2,300,000	
2026-30	N	Vista Blvd	I-80 to Prater Way	Widen 4 to 6 lanes	\$11,244,000	New Project
2021-25	N	Whitelake Parkway	US 395 Interchange Improvements	Interchange improvements	\$28,000,000	Project Cost and description updated
2021-25	N	Whitelake Parkway	US 395 to Town Center North Road	Widen 2 to 4 lanes	\$2,800,000	New Project
2021-25	N	Wingfield Hills Rd	Existing Wingfield Hills Rd west to David Allen Pkwy	New 4 lane road	\$5,000,000	

**ATTACHMENT B
SOUTH CAPITAL IMPROVEMENT PLAN**

Timeframe A #1	Service Area	Roadway	Limits	Description	RTP \$	Comments
2017-21	S	2nd Street	Keystone Ave to I-580	Multimodal improvements (corridor study completed) Phase 1	\$3,000,000	Project Removed due to feasibility/need
2021-25	S	4th Street (Reno)	Keystone Avenue to Evans Ave	Enhanced sidewalks and bus/bike lanes, intersection improvements	\$35,000,000	
2022-26	S	Arrowcreek Pkwy	Wedge Pkwy to Zolezzi Ln	Widen 2 to 4 lanes	\$8,300,000	Moved to RTP outer years (2031-2050)
2021-25	S	Center Street	Moran to 9th Street	Widen sidewalks & add bike lanes	\$10,000,000	
2021-25	S	Damonte Ranch Pkwy	Veterans Pkwy to Rio Wrangler Pkwy	New 2 lane road	\$7,100,000	1st 2 lanes not RRIF Eligible
2026-30	S	Damonte Ranch Pkwy	I-580 to Double R	Roadway widening	\$4,723,000	New Project
2021-2025	S	Day Break	South Meadows Pkwy to Rio Poco Rd	Traffic and circulation improvements	TBD	New Project
2017-21	S	Forest Street	California Avenue to Mount Rose Street	Bike facility	\$4,100,000	Project Removed due to feasibility/need
2022-26	S	Geiger Grade	Toll Rd to Rim Rock	Widen 2 to 4 lanes	\$26,300,000	Project Removed due to feasibility/need
2026-30	S	Geiger Grade Realignment	Virginia St to Toll Rd	New 4 lane road	\$84,445,000	1st 2 lanes not RRIF Eligible
2017-21	S	Glendale Ave	Kietzke Ave to McCarran Blvd	Pavement reconstruction & multimodal improvements	\$46,400,000	Improvements constructed
2026-30	S	Keystone Ave	California to I-80	Multimodal improvements and Truckee River bridge replacement	\$61,169,000	
2022-26	S	Kietzke Ln	Virginia St to Galletti Way	Multimodal improvements Phase 2	\$10,700,000	Moved to RTP outer years (2031-2050)
2017-21	S	Kietzke Ln	Virginia St to Galletti Way	Multimodal improvements Phase 1	\$4,800,000	Moved to RTP outer years (2031-2050)
2021-25	S	McCarran Blvd	Kietzke to Greensboro	Intersection and Operations	\$10,000,000	New Project
2026-30	S	Mill Street	Kietzke to Terminal	Roadway widening and multimodal	\$60,000,000	New Project
2026-30	S	Mill St/Terminal Way	Reno Tahoe International Airport to Lake St (downtown Reno)	Multimodal & intersection improvements, add EB lane from Kietzke Ln to US 395	\$27,436,000	
2017-21	NS	Pedestrian & Bicycle Facility Improvements	Spot improvements systemwide based on BMP	\$1 million per year	\$5,500,000	Program removed from RRIF eligibility and RRIF funding
2022-26	NS	Pedestrian & Bicycle Facility Improvements	Spot improvements systemwide based on BMP	\$1.20 million per year	\$6,400,000	Program removed from RRIF eligibility and RRIF funding
2026-30	S	Pembroke Drive	McCarran Blvd to Veterans Pkwy	Roadway widening and multimodal	\$19,790,000	New Project
2022-26	S	Plumb Lane	Lakeside Drive to Kietzke Lane	Sidewalks and bike lanes	\$8,200,000	Moved to RTP outer years (2031-2050)
2026-30	S	Rio Wrangler Extension North	South Meadows Pkwy to Bucephalus Pkwy	New 2 lane road	TBD	New Project - 1st 2 lanes not RRIF Eligible
2026-30	S	Rio Wrangler Extension South	Damonte Ranch Pkwy to Veterans Pkwy	New 2 lane road	TBD	New Project - 1st 2 lanes not RRIF Eligible
2026-30	S	S. Virginia Street	I-580 to Longley	Add NB Lane	\$23,613,000	New Project
2026-30	NS	Sierra Street	California Ave to 9th St	Widen sidewalks & add bike lanes	\$5,060,000	
2026-30	S	South Meadows Extension	Mojave Sky Drive to Rio Wrangler	New 4 lane road	TBD	New Project - 1st 2 lanes not RRIF Eligible
2022-26	S	South Virginia Street	E. Patriot Blvd to Mt. Rose Hwy/Geiger Grade	Add sidewalk and bike lane, convert travel lane to bus/bike lane	\$16,000,000	Moved to RTP outer years (2031-2050)
2017-21	S	South Virginia Street	South of Arrowcreek Pkwy to the I-580 interchange	Safety and multimodal improvements including traffic signal and median	\$5,000,000	Moved to RTP outer years (2031-2050)
2021-25	NS	Sparks Blvd	Greg to Baring	Multimodal improvements, widen 4 to 6 lanes - Greg to I-80, widen 4-6 lanes - I-80 to Springland	\$40,000,000	
2026-30	NS	Sparks Blvd	Greg to Baring	Multimodal improvements, widen 4 to 6 lanes - Greg to I-80, widen 4-6 lanes - I-80 to Springland	\$44,977,000	
2026-30	S	Steamboat Pkwy	Promenade Way to Veterans Pkwy	Widen from 4 to 6 lanes	\$4,610,000	New Project
2017-21	NS	Traffic Signals, ITS Operations & Intersections	Systemwide	\$2.6 million per year	\$14,100,000	Program removed from RRIF eligibility and RRIF funding
2022-26	NS	Traffic Signals, ITS Operations & Intersections	Systemwide	\$3.32 million per year	\$16,600,000	Program removed from RRIF eligibility and RRIF funding
2021-25	S	Vassar Street	Holcomb Avenue to Terminal Way	Bike lanes	\$4,300,000	
2021-25	S	Vine Street	Riverside Drive to University Terrace	Bike lanes	\$11,300,000	
2022-26	S	W 2nd Street (Rene)	Keystone Avenue to Galletti Way	Enhanced sidewalks, landscaping, bike lanes	\$10,500,000	Project Removed due to feasibility/need



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MEETING DATE: January 28, 2021

AGENDA ITEM 6

To: Regional Road Impact Fee Technical Advisory Committee (RRIF TAC)

From: Dale Keller, P.E., Engineering Manager

RECOMMENDED ACTION – PUBLIC INPUT

This agenda item allows the public the opportunity to provide information on topics within the jurisdiction of the Regional Road Impact Fee Technical Advisory Committee (RRIF TAC). Any person wishing to wait to provide public comment on a specific agenda item should indicate that item number on the “comment” card. The RRIF TAC reserves the right to take all public comment during Public Input. Individuals addressing the RRIF TAC during the Public Input portion of the meeting will be limited to three minutes total. However, an individual acting as a spokesperson for a group of individuals may request additional time. Individuals are expected to provide public input in a professional and constructive manner.