



WASHOE COUNTY

"Dedicated To Excellence in Public Service"

www.washoecounty.us

CM/ACM KS
Finance DW
DA YCol
Risk Mgt. N/A
HR N/A
Clerk ✓

STAFF REPORT

BOARD MEETING DATE: January 13, 2015

DATE: December 19, 2014
TO: Board of County Commissioners
FROM: Clara Lawson, P.E., PTOE, Licensed Engineer
Community Services Department, 328-3603, clawson@washoecounty.us
THROUGH: Dwayne Smith, P.E., Division Director, Engineering and Capital Projects,
Community Services Department, 328-2043, desmith@washoecounty.us
SUBJECT: Second reading and possible adoption of an ordinance to adopt regional road impact fees for unincorporated Washoe County, as described in the Regional Road Capital Improvement Plan and Impact Fee Methodology dated September 19, 2014, and as provided for in NRS 278B.160 and Washoe County Code Section 110.706.05; and, providing for matters properly related thereto. (All Commission Districts.)

SUMMARY

The purpose of the agenda item is to hold a second reading and possible adoption of an ordinance to adopt regional road impact fees for unincorporated Washoe County. Under NRS 237.060, a business impact statement is not required when impact fees are imposed pursuant to Chapter 278B of the NRS.

Washoe County Strategic Objective supported by this item: Sustainability of our financial, social and natural resources.

PREVIOUS ACTION

On October 28, 2014, the Board of County Commissioners (Board) approved an Interlocal Agreement Regarding Regional Road Impact Fees Pursuant to NRS Chapter 277 and Chapter 278B between Washoe County, the Cities of Reno and Sparks and the Regional Transportation Commission (RTC) for the continuation of the Regional Road Impact Fee Program.

On November 12, 2014, the Board adopted a resolution authorizing the initiation of amendments to the Development Code, Chapter 110 of County Code, at Article 706, Impact Fees.

On November 12, 2014, the Board adopted a resolution establishing the Washoe County Planning Commission as the Washoe County Capital Improvements Advisory Committee for the Regional Road Impact Fee Program as authorized within NRS 278B.150.

AGENDA ITEM # 15

On November 13, 2014, the Planning Commission acknowledged receipt of the “Regional Road Impact Fee Program, 5th Edition Update”.

On January 6, 2015, the Capital Improvements Advisory Committee affirmed that the Regional Road Impact Fee Land Use Assumptions are in conformance with the Washoe County Master Plan, and reviewed the Regional Road Capital Improvements Plan and provided comments to be presented to the Board. (See attached letter from the Capital Improvements Advisory Committee dated January 6, 2015.)

On January 6, 2015, the Planning Commission adopted a resolution and recommended approval of proposed amendments to Washoe County Code, Chapter 110, at Article 706, Impact Fees (DCA 14-013).

On January 13, 2015, the Board of County Commissioners held an introduction and first reading of an ordinance to adopt regional road impact fees for unincorporated Washoe County, as described in the Regional Road Capital Improvement Plan and Impact Fee Methodology dated September 19, 2014, and as provided for in NRS 278B.160 and Washoe County Code Section 110.706.05; and, providing for matters properly related thereto; and if introduced, set a public hearing for second reading and possible adoption of the ordinance for January 27, 2015 at 6:00 p.m.

BACKGROUND

The Regional Road Impact Fee (RRIF) was created as a funding mechanism for roadway capacity improvement projects which are directly related to new development. Nevada Revised Statutes (NRS) 278B allows the imposition of such a fee. An impact fee is defined as a charge imposed by a local government on new development to finance the costs of a capital improvement or facility expansion necessitated by and attributable to the new development. The RRIF has been in effect since February 1996.

In accordance with the provisions of the Interlocal Cooperative Agreement entered into by the RTC, Washoe County, the City of Reno, and the City of Sparks, the RTC is responsible for initiating periodic reviews of the RRIF program and proposing modifications to the participating governments. The review process is undertaken by the RTC in conjunction with the RRIF Technical Advisory Committee (RRIF TAC), which includes local government technical experts, development representatives from the private sector, and members of the local planning commissions.

The RTC retained TischlerBise to perform an overview of the RRIF program and make recommendations for improvements in order to meet state law impact fee requirements, national case law standards, and current best professional practices.

The proposed revision to the Capital Improvement Plan (CIP) incorporates the recommendations from the RRIF Program Overview Report prepared by TischlerBise, along with input from the RRIF TAC.

The RTC Board approved the modifications to the RRIF General Administrative Manual (GAM) and CIP on September 19, 2014. Land use assumptions are presented to the respective Planning

Commissions of the Cities of Reno and Sparks and Washoe County for review and to determine conformance to each jurisdiction's master plan. The land use assumptions are subsequently presented to the respective elected boards of the Cities of Reno and Sparks and Washoe County for approval. Ordinances approving the CIP are presented to the respective elected boards of the Cities of Reno and Sparks and Washoe County for approval. Resolutions approving the GAM are also presented to elected boards of the Cities of Reno and Sparks and Washoe County for approval.

Pursuant to NRS 278B.160, the Board must impose any impact fee by ordinance. Washoe County Code Section 110.706.05(e) requires that the Board adopt the impact fees associated with the Regional Road Impact Fee Capital Improvement Plan (RRIF CIP, see Exhibit A to the attached ordinance) by ordinance. That ordinance is the subject of this staff report and of the recommended action by the Board.

FISCAL IMPACT

There is no fiscal impact associated with this item.

RECOMMENDATION

It is recommended the Board of County Commissioners hold a second reading and possible adoption of an ordinance to adopt regional road impact fees for unincorporated Washoe County, as described in the Regional Road Capital Improvement Plan and Impact Fee Methodology dated September 19, 2014, and as provided for in NRS 278B.160 and Washoe County Code Section 110.706.05; and, providing for matters properly related thereto.

POSSIBLE MOTION

Should the Board agree with the recommendation, a possible motion would be: "Move to hold a second reading and possible adoption to adopt regional road impact fees for unincorporated Washoe County, as described in the Regional Road Capital Improvement Plan and Impact Fee Methodology dated September 19, 2014, and as provided for in NRS 278B.160 and Washoe County Code Section 110.706.05; and, providing for matters properly related thereto."



Washoe County Capital Improvements Advisory Committee

January 6, 2015

Washoe County Commission
1001 East 9th Street
Reno, NV 89512

RE: Capital Improvements Advisory Committee Comments on the Regional Road Impact Fee

Dear Commissioners:

The Capital Improvements Advisory Committee (CIAC) has reviewed the proposed Regional Road Impact Fee (RRIF) Capital Improvements Plan (CIP). Pursuant to NRS 278B.150, the CIAC must review the RRIF CIP and provide written comments on the CIP to the Washoe County Board of Commissioners. The CIAC met on January 6, 2015, and is providing the following comments for consideration on the approval of an ordinance to adopt the RRIF CIP:

1. The Regional Capital Improvements Plan is based on the County Master Plan and the 2012 Consensus Forecast.
2. The Regional Capital Improvements Plan facilitates growth by constructing capacity improvements to the region's streets and highways that will benefit the efficient movement of persons and goods.
3. The North Service Area and South Service Area with separate Capital Improvements and Impact Fees are contributing to creating a reasonable nexus which is Federal law.
4. The Regional Capital Improvement Plan will not adversely impact the public health, safety, or welfare.
5. The Regional Capital Improvements Plan is based upon due and careful consideration of the information provided in the "2014 Regional Road Capital Improvements Plan and Impact Fee Methodology".

Sincerely,

A handwritten signature in black ink, appearing to read "R. Edwards", written over a horizontal line.

Roger M. Edwards, Chair
Capital Improvements Advisory Committee

cc: Dwayne Smith, P.E., Division Director, Engineering and Capital Projects
William H. Whitney, Division Director, Planning and Development

REGULAR TEXT: NO CHANGE IN LANGUAGE

~~STRIKEOUT TEXT:~~ DELETED LANGUAGE

BOLD TEXT: NEW LANGUAGE

Notice: Per NRS 239B.030, this document does not contain personal information as defined in NRS 603A.040

Summary: To adopt Regional Road Impact Fees pursuant to NRS 278B.160 and Washoe County Code Section 110.706.05.

BILL NO. _____

ORDINANCE NO. _____

An ordinance adopting regional road impact fees for unincorporated Washoe County, as described in the Regional Road Capital Improvement Plan and Impact Fee Methodology dated September 19, 2014, and as provided for in NRS 278B.160 and Washoe County Code Section 110.706.05; and, providing for matters properly related thereto.

WHEREAS:

- A. Following the notice and public hearing requirements set forth in Washoe County Code Chapter 110, Article 818; and
- B. This ordinance is adopted pursuant to a provision in NRS Chapter 278 and therefore is not a "rule" as defined in NRS 237.060 and does not require a business impact statement.

THE BOARD OF COUNTY COMMISSIONERS OF WASHOE COUNTY DOES HEREBY ORDAIN:

SECTION 1. The Regional Road Capital Improvement Plan and Impact Fee Methodology dated September 19, 2014 and attached hereto as Exhibit A, is hereby adopted to impose regional road impact fees within the unincorporated portions of Washoe County as contained in Exhibit A and as authorized pursuant to NRS 278B.160 and Washoe County Code Section 110.706.05.

SECTION 2. General Terms.

1. All actions, proceedings, matters and things heretofore taken, had and done by the County and its officers not inconsistent with the provisions of this Ordinance are ratified and approved.
2. The Chairman of the Board and the officers of the County are authorized and directed to take all action necessary or appropriate to effectuate the provisions of this ordinance. The District Attorney is authorized to make non-substantive edits and corrections to this Ordinance.
3. All ordinances, resolutions, bylaws and orders, or parts thereof, in conflict with the provisions of this ordinance are hereby repealed to the extent only of such inconsistency. This repealer shall not be construed to revive any ordinance, resolution, bylaw or order, or part thereof, heretofore repealed.
4. Each term and provision of this ordinance shall be valid and shall be enforced to the extent permitted by law. If any term or provision of this ordinance or the application thereof shall be deemed by a court of competent jurisdiction to be in violation of law or public policy, then it shall be deemed modified, ipso facto, to bring it within the limits of validity or enforceability, but if it cannot be so modified, then it shall be excised from this ordinance. In any event, the remainder of this ordinance, or the application of such term or provision to circumstances other than those to which it is invalid or unenforceable, shall not be affected.

PASSAGE AND EFFECTIVE DATE

This ordinance was proposed on _____ by Commissioner _____.

This ordinance was passed on _____.

Those voting "aye" were _____.

Those voting "nay" were _____.

Those absent were _____.

Those abstaining were _____.

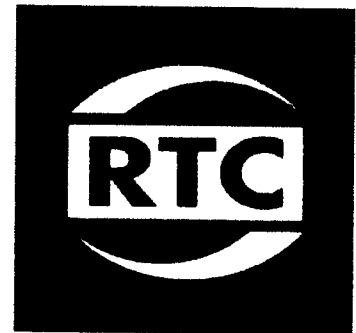
This ordinance shall be published and shall be in force and effect immediately upon the date of the second publication as set forth in NRS 244.100.

Chairman
Washoe County Commission

ATTEST:

Nancy Parent, County Clerk

***Regional Road
Capital Improvements Plan and
Impact Fee Methodology***



***Regional Transportation Commission
Washoe County/Reno/Sparks, Nevada***

August 28, 2014

Prepared by:

TischlerBise
Fiscal, Economic & Planning Consultants

4701 Sangamore Road
Suite S240
Bethesda, Maryland 20816
800.424.4318
www.tischlerbise.com

9/19/14

CONTENTS

EXECUTIVE SUMMARY3

REPORT ORGANIZATION3

HIGHLIGHTS OF NEVADA’S IMPACT FEE ENABLING LEGISLATION3

PROPOSED IMPACT FEE SCHEDULES.....4

Figure 1 – Current and Proposed Regional Road Impact Fees in North Service Area4

Figure 2 – Current and Proposed Regional Road Impact Fees in South Service Area5

CIP AND IMPACT FEE METHODOLOGY6

GENERAL LEGAL FRAMEWORK6

RRIF SERVICE AREAS.....7

Figure 3 – Proposed Service Areas8

EXISTING INFRASTRUCTURE, LEVEL OF USAGE, AND CAPACITY ANALYSIS9

EXCLUDED COSTS9

TRIP GENERATION RATES.....9

AVERAGE TRIP LENGTH.....9

FORECAST OF SERVICE UNITS.....9

Figure 4 – North Service Area Travel Model Inputs.....10

Figure 5 – South Service Area Travel Model Inputs.....10

ADJUSTMENTS FOR COMMUTING PATTERNS AND PASS-BY TRIPS10

Figure 6 - Inflow/Outflow Analysis.....11

TRIP LENGTH WEIGHTING FACTORS BY TYPE OF LAND USE11

PROJECTED VEHICLE MILES OF TRAVEL.....12

Figure 7 – North Travel Demand.....12

Figure 8 – South Travel Demand.....13

CAPITAL IMPROVEMENTS PLAN FOR REGIONAL ROADS13

Figure 9 – North Service Area Capital Improvements Plan14

Figure 10 – South Service Area Capital Improvements Plan15

CREDITS15

IMPACT FEES FOR REGIONAL ROADS16

Figure 11 – RRIF Schedule for North Service Area.....17

Figure 12 – RRIF Schedule for South Service Area.....19

PROJECTED REVENUE FROM REGIONAL ROAD IMPACT FEES.....20

Figure 13 – Projected RRIF Revenue in North Service Area.....20

Figure 14 – Projected RRIF Revenue in South Service Area.....21

APPENDIX A: LAND USE ASSUMPTIONS22

KEY GROWTH INDICATORS22

PERSONS PER HOUSING UNIT22

Figure A1 – Persons per Unit by Type of Housing in Washoe County22

CUSTOMIZED TRIP GENERATION RATES PER HOUSING UNIT23

Figure A2 - Residential Trip Generation Rates by Type of Housing.....23

FLOOR AREA OF NONRESIDENTIAL DEVELOPMENT24

Figure A3 – Employee and Building Area Ratios.....24

APPENDIX B: 2014 RRIF SCHEDULE BY SERVICE AREA25

EXECUTIVE SUMMARY

The Regional Transportation Commission (RTC) retained TischlerBise to update Regional Road Impact Fees (RRIF). RTC worked with the local governments of Reno, Sparks and Washoe County to prepare the supporting documentation for impact fees. Consistent with state law, impact fees are intended to pay the cost of constructing capital improvements or facility expansion necessitated by and attributable to new development. These growth-related projects are often referred to as “system improvements.” In contrast to project-level improvements, such as turn lanes for ingress/egress, impact fees fund growth-related infrastructure that will benefit multiple developments, or even the entire service area.

Report Organization

This report uses a “drill-down” layout that presents general information first, followed by the underlying details. All readers will want to know the bottom-line, which is presented in the Executive Summary. If you want to know more detailed information, the middle section of the report discusses each factor used to derive impact fees for regional roads. The final section in this document provides supplemental documentation on land use assumptions (see Appendix A).

Highlights of Nevada’s Impact Fee Enabling Legislation

Authority for impact fees in Nevada is provided in Chapter 278B of the Nevada Revised Statutes. The enabling legislation sets forth procedures and requirements for implementation of impact fees in Nevada. According to NRS 278B.160, eligible costs include:

- Estimated cost of actual construction;
- Estimated cost to acquire land; and
- Fees paid for professional services, such as engineering and preparation of the capital improvements plan, in anticipation of the imposition of an impact fee.

Before impact fees are adopted, the local government must develop and adopt a capital improvements plan (CIP) that includes those improvements for which fees were developed. The required CIP is contained in the middle section of this document. As specified in NRS 278B.130, street project means arterial or collector streets or roads designated in the master plan adopted by the local government, including all appurtenances, traffic signals and incidentals necessary for any such facilities.

Nevada allows property owners to request a refund of impact fees if construction of system improvements does not begin within five years of collection. Also, property owners may request a refund of any fee balance that has not been spent within ten years of collection. Because the CIP and impact fees are required to be updated at least every three years, impact fee calculations are in current dollars (not inflated over time). The Nevada Act also requires a Capital Improvements Advisory Committee to review land use assumptions and growth-related projects that will receive impact fee funding. The local planning commissions serve as the mandatory advisory group for the RRIF Program.

Proposed Impact Fee Schedules

Proposed 2014 fees by type of development are summarized in Figures 1 and 2, including fees for the north and south service areas, respectively. The 2014 RRIF analysis combines geographic areas previously known as the Northeast and Northwest Benefit Districts, into a single North Service Area. Current fees within the City of Reno (approved in 2010) are also shown, along with the dollar and percentage change between the proposed and current fees. Red numbers in the dollar change column indicate proposed reductions in the RRIF for all types of development.

Figure 1 – Current and Proposed Regional Road Impact Fees in North Service Area

Input Variables						
	Average Miles per Trip		2.87			
	RRIF Share of CIP		\$65,394,800			
	VMT Increase Over Ten Years		258,081			
	Capital Cost per VMT		\$253.39			
ITE Code	Development Type	Development Unit	Proposed 2014 RRIF	2010 RRIF (rounded)	\$ Change	% Change
Residential						
210	Single Unit	Dwelling	\$3,784	\$4,177	(\$393)	-9%
220	2+ Units per Structure	Dwelling	\$2,457	\$2,845	(\$388)	-14%
Industrial						
110	Light Industrial	1000 Sq Ft	\$1,850	\$2,534	(\$684)	-27%
140	Manufacturing	1000 Sq Ft	\$1,013	\$1,379	(\$366)	-27%
150	Warehouse	1000 Sq Ft	\$944	\$1,799	(\$855)	-48%
151	Mini-Warehouse	1000 Sq Ft	\$663	\$964	(\$301)	-31%
Commercial						
820	Retail and Eating/Drinking Places	1000 Sq Ft Leasable	\$6,763	\$8,681	(\$1,918)	-22%
RTC	Casino Gaming Area	1000 Sq Ft	\$12,223	\$16,699	(\$4,476)	-27%
Office & Other Services						
320	Lodging	Room	\$1,494	\$3,291	(\$1,797)	-55%
412	Regional Park	Acre	\$605	\$653	(\$48)	-7%
520	Schools and Daycare	1000 Sq Ft	\$2,703			
610	Hospital	1000 Sq Ft	\$3,509	\$6,201	(\$2,692)	-43%
620	Nursing Home	1000 Sq Ft	\$2,017	\$2,054	(\$37)	-2%
710	Office and Other Services	1000 Sq Ft	\$2,927	\$3,991	(\$1,064)	-27%
720	Medical Office	1000 Sq Ft	\$9,590	\$11,970	(\$2,380)	-20%

In the South Service Area, previously called the South Benefit District, the proposed 2014 fees decrease for all development types except single unit residential, regional park, and nursing home. These development types will have a slight increase ranging from one to nine percent.

Figure 2 – Current and Proposed Regional Road Impact Fees in South Service Area

Input Variables						
Average Miles per Trip			2.82			
RRIF Share of CIP			\$100,474,800			
VMT Increase Over Ten Years			350,027			
Capital Cost per VMT			\$287.05			
<i>ITE Code</i>	<i>Development Type</i>	<i>Development Unit</i>	<i>Proposed 2014 RRIF</i>	<i>2010 RRIF (rounded)</i>	<i>\$ Change</i>	<i>% Change</i>
Residential						
210	Single Unit	Dwelling	\$4,212	\$4,177	\$35	1%
220	2+ Units per Structure	Dwelling	\$2,735	\$2,845	(\$110)	-4%
Industrial						
110	Light Industrial	1000 Sq Ft	\$2,059	\$2,534	(\$475)	-19%
140	Manufacturing	1000 Sq Ft	\$1,128	\$1,379	(\$251)	-18%
150	Warehouse	1000 Sq Ft	\$1,051	\$1,799	(\$748)	-42%
151	Mini-Warehouse	1000 Sq Ft	\$738	\$964	(\$226)	-23%
Commercial						
820	Retail and Eating/Drinking Places	1000 Sq Ft Leasable	\$7,528	\$8,681	(\$1,153)	-13%
RTC	Casino Gaming Area	1000 Sq Ft	\$13,605	\$16,699	(\$3,094)	-19%
Office & Other Services						
320	Lodging	Room	\$1,663	\$3,291	(\$1,628)	-49%
412	Regional Park	Acre	\$673	\$653	\$20	3%
520	Schools and Daycare	1000 Sq Ft	\$3,008			
610	Hospital	1000 Sq Ft	\$3,905	\$6,201	(\$2,296)	-37%
620	Nursing Home	1000 Sq Ft	\$2,245	\$2,054	\$191	9%
710	Office and Other Services	1000 Sq Ft	\$3,258	\$3,991	(\$733)	-18%
720	Medical Office	1000 Sq Ft	\$10,674	\$11,970	(\$1,296)	-11%

CIP AND IMPACT FEE METHODOLOGY

This section of the methodology report includes the seven components of the capital improvements plan, as specified in NRS 278B.170. In simple terms, the growth-related cost of regional road improvements was allocated to the projected increase in development over the next ten years to yield the proposed impact fees.

General Legal Framework

Both state and federal courts have recognized the imposition of impact fees on development as a legitimate form of land use regulation, provided the fees meet standards intended to protect against regulatory takings. Land use regulations, development exactions, and impact fees are subject to the Fifth Amendment prohibition on taking of private property for public use without just compensation. To comply with the Fifth Amendment, development regulations must be shown to substantially advance a legitimate governmental interest. In the case of impact fees, that interest is in the protection of public health, safety, and welfare by ensuring that development is not detrimental to the quality of essential public services. The means to this end are also important, requiring both procedural and substantive due process. The process followed to receive community input, with open Advisory Committee meetings, work sessions and public hearings with elected officials, provided opportunity for comments and refinements to the impact fees.

There is little federal case law specifically dealing with impact fees, although other rulings on other types of exactions (e.g., land dedication requirements) are relevant. In one of the most important exaction cases, the U. S. Supreme Court found that a government agency imposing exactions on development must demonstrate an “essential nexus” between the exaction and the interest being protected (see *Nollan v. California Coastal Commission*, 1987). In a more recent case (*Dolan v. City of Tigard, OR*, 1994), the Court ruled that an exaction also must be “roughly proportional” to the burden created by development. However, the *Dolan* decision appeared to set a higher standard of review for mandatory dedications of land than for monetary exactions such as development impact fees. These standards have not been conclusively litigated in Nevada in the context of impact fees, nor has “roughly proportional” been defined as an acceptable range of value.

There are three reasonable relationship requirements for development impact fees that are closely related to “rational nexus” or “reasonable relationship” requirements enunciated by a number of state courts. Although the term “dual rational nexus” is often used to characterize the standard by which courts evaluate the validity of development impact fees under the U.S. Constitution, we prefer a more rigorous formulation that recognizes three elements: “need,” “benefit,” and “proportionality.” The dual rational nexus test explicitly addresses only the first two, although proportionality is reasonably implied, and was specifically mentioned by the U.S. Supreme Court in the *Dolan* case. The reasonable relationship standard of the Nevada statute is considered less strict than the rational nexus standard used by many courts. Individual elements of the nexus standard are discussed further in the following paragraphs.

All new development in a community creates additional demands on some, or all, public facilities provided by local government. If the capacity of facilities is not increased to satisfy that additional demand, the quality or availability of public services for the entire community will deteriorate. Development impact fees may be used to recover the cost of development-related facilities, but only to the extent that the need for facilities is a consequence of development that is subject to the fees. The *Nollan* decision reinforced the principle that development exactions may be used only to mitigate conditions created by the developments upon which they are imposed. That principle clearly applies to

impact fees. In this study, the impact of development on improvement needs is analyzed in terms of quantifiable relationships between various types of development and the demand for specific facilities, based on applicable level-of-service standards.

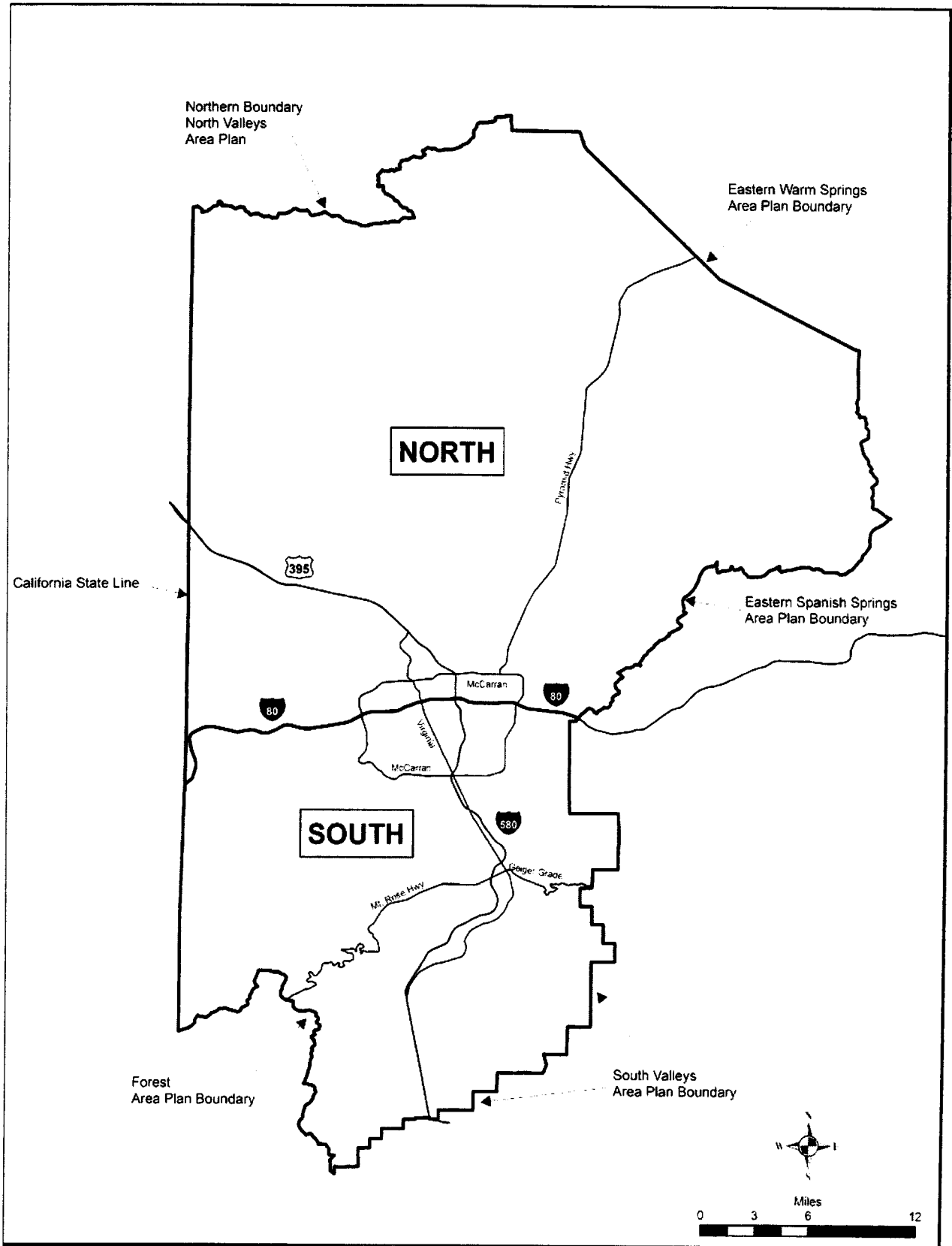
The requirement that exactions be proportional to the impacts of development was clearly stated by the U.S. Supreme Court in the *Dolan* case (although the relevance of that decision to impact fees has been debated) and is logically necessary to establish a proper nexus. Proportionality is established through the procedures used to identify development-related facility costs, and in the methods used to calculate impact fees for various types of facilities and categories of development. The demand for facilities is measured in terms of relevant and measurable attributes of development (e.g. a typical housing unit's average weekday vehicle trips).

A sufficient benefit relationship requires that impact fee revenues be segregated from other funds and expended only on the facilities for which the fees were charged. Impact fees must be expended in a timely manner and the facilities funded by the fees must serve the development paying the fees. However, nothing in the U.S. Constitution or the state enabling legislation requires that facilities funded with fee revenues be available *exclusively* to development paying the fees. In other words, benefit may extend to a general area including multiple real estate developments. Procedures for the earmarking and expenditure of fee revenues are mandated in state enabling legislation, as discussed further below. All of these procedural as well as substantive issues are intended to ensure that new development benefits from the impact fees they are required to pay. The authority and procedures to implement impact fees is separate from and complementary to the authority to require improvements as part of subdivision or zoning review.

RRIF Service Areas

As shown in Figure 3, the CIP and impact fees for regional roads combines the Northeast and Northwest Benefit Districts, used in the 2010 RRIF study, to form a single North Service Area. The proposed South Service Area is essentially the same as the previous South Benefit District. The service areas are defined by Washoe County Planning Area boundaries. Traffic analysis zones used in the long-range transportation model were the basis for the calculations used to develop the impact fees.

Figure 3 – Proposed Service Areas



Existing Infrastructure, Level of Usage, and Capacity Analysis

Regional road impact fees rely on RTC's extensive and ongoing transportation planning effort. RTC maintains an extensive database of all arterial and collector streets, including segment lengths and number of lanes. For the purpose of impact fees, RTC identified a regional road network that excludes limited access highways like Interstate 80 and all local streets. Also, the regional road network excludes collectors that carry less than 14,000 annualized average daily trips. Unless already identified in the CIP, a new road constructed by a private developer will not be added to the regional network until the first two lanes are built and the road meets the minimum traffic volume threshold.

As the designated Metropolitan Planning Organization (MPO) for the urbanized area of Reno, Sparks, and Washoe County, RTC analyzed the current and projected use of the regional road network to identify the need for capacity expansion, based on the approved land use assumptions. The recommended capital improvements, by service area, are necessitated by and attributable to new development.

Excluded Costs

The regional road impact fees exclude costs to upgrade, update, improve, expand, correct or replace streets to meet existing needs or more stringent safety, environmental or regulatory standards. These excluded costs will be addressed using funding sources other than impact fees.

Trip Generation Rates

Regional road impact fees are derived using average weekday vehicle trip ends (VTE). Trip generation rates are from the reference book Trip Generation published by the Institute of Transportation Engineers (ITE 2012). A VTE represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway). To calculate street fees, trip generation rates require an adjustment factor to avoid double counting each trip at both the origin and destination points. Therefore, the basic trip adjustment factor is 50%. As discussed further below, the RRIF methodology includes additional adjustments to make the fees proportionate to the infrastructure demand for particular types of development.

Average Trip Length

In addition to trip generation, the VMT analysis requires an average trip length, measured in miles. A typical vehicle trip, such as a person leaving their home and traveling to work, generally begins on a local street that connects to a collector street, which connects to an arterial road and eventually to a state or interstate highway. This progression of travel up and down the functional classification chain limits the average trip length determination, for the purpose of development fees, to the following question, "What is the average vehicle trip length on the regional road network?" RTC answered this question using a computerized transportation model and the technical expertise of a transportation consultant. The north service area has an average trip length on the regional road network of 2.87 miles, with a slightly shorter distance of 2.82 miles in the south service area.

Forecast of Service Units

Regional road impact fees use average weekday Vehicle Miles of Travel (VMT) as the service units for allocating the cost of future improvements. TischlerBise created an aggregate travel model to convert development units within the north and south service areas to vehicle trips and vehicle miles of travel.