

Lemmon Valley Properties MPA & RZA Application

WASHOE COUNTY, NV

January 17, 2017



Prepared For:

JDS LLC

7500 Rough Rock Drive Reno, NV 89502

Prepared By:



Manhard
CONSULTING

9850 Double R Blvd, Ste 101, Reno, NV 89521



Civil Engineering
Surveying
Water Resources Management
Water & Wastewater Engineering
Supply Chain Logistics
Construction Management
Environmental Sciences
Landscape Architecture
Land Planning

January 17, 2017

Mr. Bill Whitney
Planning and Development Division Director
PO Box 11130
Reno, NV 89520-0027

Re: Lemmon Valley Properties; Master Plan Amendment and Regulatory Zone Amendment Application

Dear Mr. Whitney,

On behalf of JDS LLC, Manhard Consulting appreciates your consideration of the enclosed applications for a Master Plan Amendment and Regulatory Zoning Amendment. The project is located in Lemmon Valley (APNs 080-730-18, 080-730-19, 080-730-21, 080-635-01, 080-635-02, and 552-210-07) and is within the North Valleys Area Plan, Lemmon Valley Suburban Character Management Area. The parcels have Master Plan designations of Suburban Residential (SR) and Rural (R) and are zoned a mix of Medium Density Suburban (MDS) and General Rural (GR).

This application packet includes the following:

- Application Fees
- Property Owner affidavits
- Proof of Property Tax Payments
- Title Report
- MPA Application Form
- RZA Application Form
- Application Map (Proposed Master Plan and Zoning Maps)
- Application attachments (Existing Master Plan and Zoning Maps, Slope Map)
- Traffic Impact Report
- Compliance with North Valleys Area Plan

Existing Conditions

The parcels have a mix of Master Plan designations SR and R and are zoned a mix of MDS and GR. The Washoe County Development Code, Development Standards permits 3 units per acre in the MDS zoning designation and 1 unit per 40 acres in the GR zoning Designation. The parcels are

currently undeveloped. Existing Zoning and Master Plan designations, permitted density, and permitted units are detailed in following table:

APN	Total Acreage*	Master Plan	Zoning	SR/MDS Split Acreage	R/GR Split Acreage	Density/ Intensity	Permitted Units
080-730-18	65.869	SR	MDS	9.88		3 du/ac	29.64
		R	GR		55.988	1 du/40 ac	1
080-730-19	41.05	R	GR		41.05	1 du/40 ac	1
080-730-21	43.211	SR	MDS	.432		3 du/ac	1.29
		R	GR		42.778	1 du/40 ac	1
080-635-01	13.59	SR	MDS	13.59		3 du/ac	40.77
080-635-02	1.89	SR	MDS	1.89		3 du/ac	5.67
552-210-07	43.005	SR	MDS	43.005		3 du/ac	129
	208.615	TOTAL SPLIT ACREAGE		68.797	139.816		
TOTAL PERMITTED UNITS							209

* Total Acreage provided by Washoe County GIS Quick Map and is assumed to be correct.

Surrounding Area

The Lemmon Valley neighborhood surrounding the project site is characterized by a mix of land uses, including developed single family residential, open space, and undeveloped land zoned for single family residential use.

Direction	Master Plan	Zoning	Current Land Use
North	Suburban Residential	SF15 (City of Reno)/ Medium Density Suburban (Washoe County)	Vacant, Single Family (unimproved)
South	Open Space Rural	N/A General Rural	Open Space (USA) Vacant, Single family (unimproved)
East	Rural	General Rural	Vacant, single family (unimproved)
West	Suburban Residential	Medium Density Suburban	Single Family Residential

Project Request

The MPA and RZA applications include a proposal to alter the split Master Plan designations of SR and R to an alternate mix of SR/R (with the same total acreage or SR/R) and will alter the split zoning designations of GR and MDS to an alternate mix of GR/MDS (with the same total acreage of GR/MDS) to allow for residential development in appropriate areas based on slope of the +/- 208.615 acre project site. The overall density of the project area will not change; the current zoning designations allow for 207 units to be developed and 207 are proposed to be developed if the MPA/RZA are approved. As proposed, this MPA/RZA will allow for the 207 housing units to be distributed in a more logical configuration that accommodates the natural slope of the site and has less impact to the existing neighborhood.

The attached map shows the proposed mix of SR and R Master Plan designations and MDS and GR zoning designations. The total acreage of each designation remains unchanged; the existing and proposed split acres remains 68.797 acres SR/MDS and 139.816 acres R/GR.

Proposed Master Plan and Zoning Designations

APN	Total Acreage *	Existing SR/MDS Split Acreage	Existing R/GR Split Acreage	Proposed SR/MDS Split Acreage	Proposed R/GR Split Acreage	Density/ Intensity	Permitted Units
080-730-18	65.869	9.88		23.99		3 du/ac	29.64
			55.988		41.879	1 du/40 ac	1.00
080-730-19	41.05		41.05	3.06		1 du/40 ac	1.00
					37.99		
080-730-21	43.211	.432		8.59		3 du/ac	1.29
			42.778		34.621	1 du/40 ac	1.00
080-635-01	13.59	13.59		13.59		3 du/ac	40.77
080-635-02	1.89	1.89		1.50		3 du/ac	5.67
					.39		
552-210-07	43.005	43.005		18.067		3 du/ac	129.00
					24.938		
	208.615	68.797	139.816	68.797	139.816		
TOTAL PERMITTED UNITS							209
(LESS TWO EXISTING UNITS) =							207

* Total Acreage provided by Washoe County GIS Quick Map and is assumed to be correct.

The project is consistent with the goals and policies of the Washoe County Master Plan and North Valleys Area Plan.

If you have any questions or require any additional information, please contact me at 775-746-3500 ext. 4821 or kdowns@manhard.com.

Sincerely,

Karen Downs
Land Planner
Manhard Consulting



Existing Master Plan



1 inch = 500 Feet

1,000 Feet



Legend

- Project Boundary
- Existing Parcels & APN#
- Suburban Residential 68.79 Acres
- Rural 139.81 Acres



Proposed Master Plan

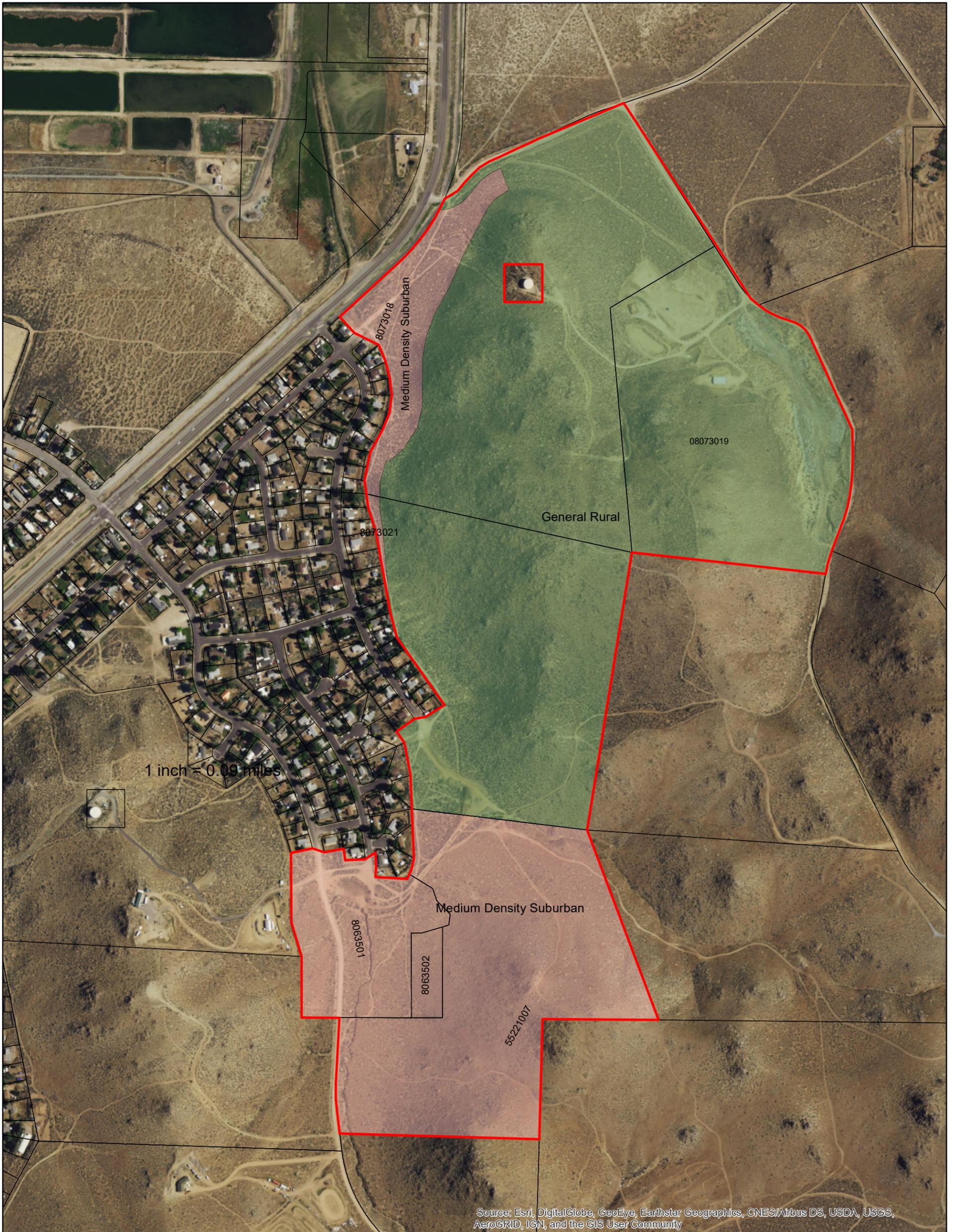


1 inch = 500 Feet

1,000 Feet



Legend	
	Project Boundary
	Existing Parcels & APN#
	Suburban Residential 68.79 Acres
	Rural 139.81 Acres



Existing Zoning



1 inch = 500 Feet

1,000 Feet



Legend

- Project Boundary
- Existing Parcels & APN#
- Medium Density Suburban 68.79 Acres
- General Rural 139.81 Acres



Proposed Zoning



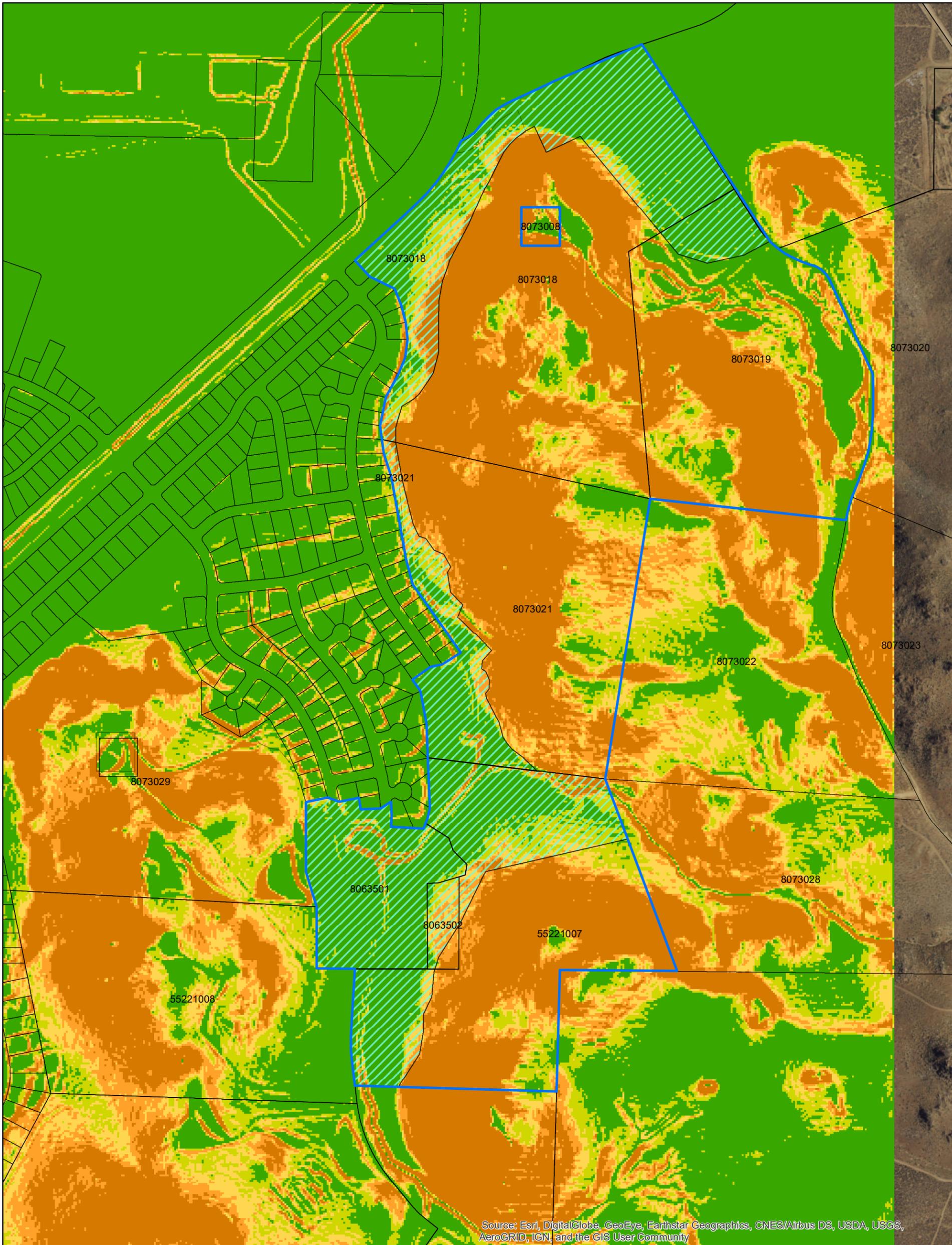
1 inch = 500 Feet

1,000 Feet



Legend

- Project Boundary
- Existing Parcels & APN#
- Medium Density Suburban 68.79 Acres
- General Rural 139.81 Acres



Existing Slope



1 inch = 500 Feet

1,000 Feet



Legend

- Project Boundary
- Existing Parcels & APN#
- Proposed SR/MDS 68.79 Acres

Slope%

- 0-15%
- 15-20%
- 20-25%
- 25-30%
- >30%

JDS LLC Lemmon Valley MPA/RZA

COMPLIANCE WITH NORTH VALLEYS AREA PLAN



The proposed MPA/RZA complies with the intent of the North Valleys Area Plan, establishing a land use pattern and site development that will implement and preserve the Lemmon Valley community character.

The following relevant policies have been reviewed and incorporated into the MPA/RZA Applications:

NV.1.1, NV.1.2, NV.1.7, NV.2.1, NV.2.2, NV.2.3, NV.2.4, NV.2.5, NV.2.6, NV.6.1

Per North Valleys Area Plan requirements, the standards established in policies NV.2.1-NV.2.6 and NV 6.1 will be implemented through tentative map conditions, improvements plans, CC&Rs, or deed restrictions as appropriate. Washoe County staff shall establish the implementation measures as conditions of tentative map approval.

NV 7.1 Washoe County's policy level of service (LOS) for local transportation facilities in the North Valleys planning area is LOS "C". All development proposals must demonstrate how the established level of service on local transportation facilities will be maintained.

A Traffic Study has been prepared for this project. Approval of the MPA and RZA will provide for an improved circulation pattern (than the currently approved development pattern) because the units will be more dispersed through the project area and there will be more access points to and from the development. At the time of Tentative Map submittal, specific implementation measures will be included to ensure LOS "C" or better at all intersections, pursuant to the requirement in NV 7.1.

NV 8.1, NV 8.2, NV 8.3

These requirements will be incorporated into the Tentative Map at the time of submittal.

NV 9.1 Prior to the approval of master plan amendments, tentative maps, or public-initiated capital improvements in the North Valleys planning area, the Nevada Department of Conservation and Natural Resources will be contacted and, if the department requires, an appropriate archaeological investigation will be conducted.

The Washoe County Master Plan Cultural Resources and Sensitive Landscapes Map does not indicate a high "Cultural Resources Value" of this area. However, contact with the Nevada Department of Conservation and Natural Resources will be contacted and, if the department requires, an appropriate archaeological investigation will be conducted.

Community Services Department
Planning and Development
MASTER PLAN AMENDMENT
APPLICATION



Community Services Department
Planning and Development
1001 E. Ninth St., Bldg. A
Reno, NV 89520

Telephone: 775.328.3600

Washoe County Development Application

Your entire application is a public record. If you have a concern about releasing personal information, please contact Planning and Development staff at 775.328.3600.

Project Information		Staff Assigned Case No.: _____	
Project Name: JDS LLC Lemmon Valley Properties MPA/RZA			
Project Description: Request for a Master Plan Amendment and Regulatory Zone Amendment to allow for a single family residential subdivision.			
Project Address: 1200 Estates Road, Washoe County, NV 89506			
Project Area (acres or square feet): 208.615 acres			
Project Location (with point of reference to major cross streets AND area locator): Lemmon Drive/Deodar Way/Estates Road; Lemmon Valley			
Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No.(s):	Parcel Acreage:
see cover letter (6 parcels)			
Section(s)/Township/Range:			
Indicate any previous Washoe County approvals associated with this application: Case No.(s).			
Applicant Information (attach additional sheets if necessary)			
Property Owner: (multiple- 6 parcels)		Professional Consultant:	
Name: Derek Larson; JDS LLC; Juan and Linda Arevalo		Name: Manhard Consulting	
Address: 7500 Rough Rock Road, Reno NV		Address: 9850 Double R Boulevard, Suite 101, Reno NV	
Zip: 89502		Zip: 89521	
Phone: 775-544-5482	Fax:	Phone: 775-746-3500	Fax:
Email: dvlarson03@gmail.com		Email: cbaker@manhard.com	
Cell:	Other:	Cell:	Other:
Contact Person: Derek Larson		Contact Person: Chris Baker	
Applicant/Developer:		Other Persons to be Contacted:	
Name: Derek Larson; JDS LLC		Name:	
Address: 7500 Rough Rock Road, Reno NV		Address:	
Zip: 89502		Zip:	
Phone: 775-544-5482	Fax:	Phone:	Fax:
Email: dvlarson03@gmail.com		Email:	
Cell:	Other:	Cell:	Other:
Contact Person: Derek Larson		Contact Person:	
For Office Use Only			
Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

Property Owner Affidavit

Applicant Name: Derek Vharson

The receipt of this application at the time of submittal does not guarantee the application complies with all requirements of the Washoe County Development Code, the Washoe County Master Plan or the applicable area plan, the applicable regulatory zoning, or that the application is deemed complete and will be processed.

STATE OF NEVADA)
)
COUNTY OF WASHOE)

I, Derek Vharson
(please print name)

being duly sworn, depose and say that I am the owner* of the property or properties involved in this application as listed below and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects complete, true, and correct to the best of my knowledge and belief. I understand that no assurance or guarantee can be given by members of Planning and Development.

(A separate Affidavit must be provided by each property owner named in the title report.)

Assessor Parcel Number(s): 552-210-06 + 552-210-07
080-730-18 + 080-730-19

Printed Name Derek Vharson

Signed [Signature]

Address 7500 Rough Rock Dr

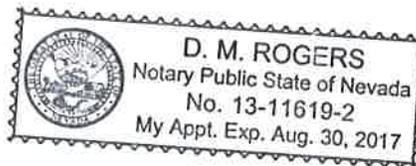
Reno NV 89502

Subscribed and sworn to before me this
12 day of Jan, 2017.

[Signature]
Notary Public in and for said county and state

My commission expires: 8/30/17

(Notary Stamp)



*Owner refers to the following: (Please mark appropriate box.)

- Owner
- Corporate Officer/Partner (Provide copy of record document indicating authority to sign.)
- Power of Attorney (Provide copy of Power of Attorney.)
- Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
- Property Agent (Provide copy of record document indicating authority to sign.)
- Letter from Government Agency with Stewardship

Property Owner Affidavit

Applicant Name: JDS LLC

The receipt of this application at the time of submittal does not guarantee the application complies with all requirements of the Washoe County Development Code, the Washoe County Master Plan or the applicable area plan, the applicable regulatory zoning, or that the application is deemed complete and will be processed.

STATE OF NEVADA)
)
COUNTY OF WASHOE)

I, Derek Larson
(please print name)

being duly sworn, depose and say that I am the owner* of the property or properties involved in this application as listed below and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects complete, true, and correct to the best of my knowledge and belief. I understand that no assurance or guarantee can be given by members of Planning and Development.

(A separate Affidavit must be provided by each property owner named in the title report.)

Assessor Parcel Number(s): 080 635 01 + 080 635 02

Printed Name JDS LLC

Signed [Signature]

Address 7500 Rough Rock Dr
Reno NV 89502

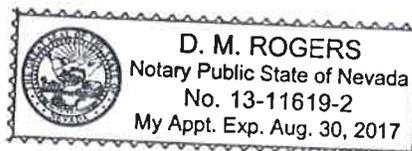
Subscribed and sworn to before me this
12 day of Jan, 2017.

[Signature]

Notary Public in and for said county and state

My commission expires: 8/30/17

(Notary Stamp)



*Owner refers to the following: (Please mark appropriate box.)

- Owner
- Corporate Officer/Partner (Provide copy of record document indicating authority to sign.)
- Power of Attorney (Provide copy of Power of Attorney.)
- Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
- Property Agent (Provide copy of record document indicating authority to sign.)
- Letter from Government Agency with Stewardship

Property Owner Affidavit

Applicant Name: Juan Arevalo

The receipt of this application at the time of submittal does not guarantee the application complies with all requirements of the Washoe County Development Code, the Washoe County Master Plan or the applicable area plan, the applicable regulatory zoning, or that the application is deemed complete and will be processed.

STATE OF NEVADA
Clark
COUNTY OF WASHOE (B)

Juan Arevalo
(please print name)

being duly sworn, depose and say that I am the owner* of the property or properties involved in this application as listed below and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects complete, true, and correct to the best of my knowledge and belief. I understand that no assurance or guarantee can be given by members of Planning and Development.

(A separate Affidavit must be provided by each property owner named in the title report.)

Assessor Parcel Number(s): 08073021

Printed Name Juan Arevalo

Signed Juan Arevalo

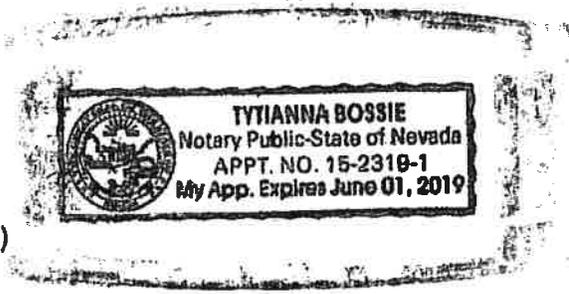
Address 6012 Valley Flower St
N. Las Vegas, NV. 89081

Subscribed and sworn to before me this
16 day of January, 2017

Notary Public in and for said county and state

My commission expires: 06/01/2019

(Notary Stamp)



*Owner refers to the following: (Please mark appropriate box.)

- Owner
- Corporate Officer/Partner (Provide copy of record document indicating authority to sign.)
- Power of Attorney (Provide copy of Power of Attorney.)
- Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
- Property Agent (Provide copy of record document indicating authority to sign.)
- Letter from Government Agency with Stewardship

Property Owner Affidavit

Applicant Name: Linda Arevalo

The receipt of this application at the time of submittal does not guarantee the application complies with all requirements of the Washoe County Development Code, the Washoe County Master Plan or the applicable area plan, the applicable regulatory zoning, or that the application is deemed complete and will be processed.

STATE OF NEVADA
Clark
COUNTY OF WASHOE

Linda Arevalo
(please print name)

being duly sworn, depose and say that I am the owner* of the property or properties involved in this application as listed below and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects complete, true, and correct to the best of my knowledge and belief. I understand that no assurance or guarantee can be given by members of Planning and Development.

(A separate Affidavit must be provided by each property owner named in the title report.)

Assessor Parcel Number(s): 08073021

Printed Name Linda Arevalo

Signed [Signature]

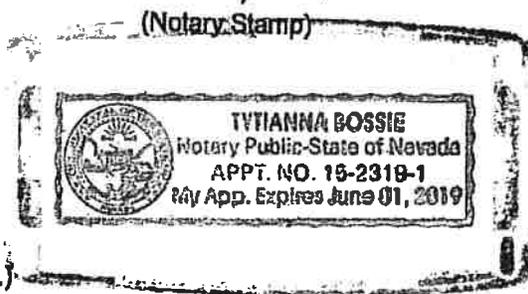
Address 6012 Valley Flower St
N. Las Vegas, NV 89081

Subscribed and sworn to before me this
16 day of JANUARY, 2017.

[Signature]

Notary Public in and for said county and state

My commission expires: 06/01/2019



*Owner refers to the following: (Please mark appropriate box.)

- Owner
- Corporate Officer/Partner (Provide copy of record document indicating authority to sign.)
- Power of Attorney (Provide copy of Power of Attorney.)
- Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
- Property Agent (Provide copy of record document indicating authority to sign.)
- Letter from Government Agency with Stewardship

Master Plan Amendment Supplemental Information

(All required information may be separately attached)

Chapter 110 of the Washoe County Code is commonly known as the Development Code. Specific references to Master Plan amendments may be found in Article 820, Amendment of Master Plan.

The Washoe County Master Plan describes how the physical character of the County exists today and is planned for the future. The plan is adopted by the community and contains information, policies and a series of land use maps. The Master Plan provides the essential framework for creating a healthy community system and helps guide decisions about growth and development in the County. The following are general types of requests the County receives to amend the Master Plan. Please identify which type of amendment you are requesting:

<input checked="" type="checkbox"/> A request to change a master plan designation(s) from the adopted master plan and/or area plan maps
<input type="checkbox"/> A request to add, amend, modify or delete any of the adopted policies found in the elements of the Master Plan
<input type="checkbox"/> A request to add, amend, modify or delete any of the adopted policies in the area plans
<input type="checkbox"/> A request to add, amend, modify or delete specific language found in the area plans
<input type="checkbox"/> Other (please identify):

Please complete this questionnaire to ensure consistent review of your request to amend the Washoe County Master Plan. Staff will review the application to determine if the amendment request is in conformance with the policies and language within the elements and area plans of the Master Plan or if the information provided supports a change to the plan. Please provide a brief explanation to all questions.

1. What is the Master Plan amendment being requested at this time?

<p>If approved, this request will alter the split Master Plan designations of Suburban Residential (SR) and Rural (R) to an alternate mix of SR/R and will alter the split zoning designations of General Rural (GR) and Medium Density Suburban (MDS) to an alternate mix of GR/MDS to allow for residential development in appropriate areas of the project site. The overall density of the project area will not change; the current zoning designations allow for 207 units to be developed and 207 units are proposed to be developed if the MPA/RZA are approved. As proposed, this MPA/RZA will allow for the 207 housing units to be distributed in a more logical configuration that accommodates the natural slope of the site and has less impact to the existing neighborhood. The circulation pattern will also be better if the MPA/RZA is approved because there will be more access points to the development which will distribute traffic throughout the project site.</p>

2. What conditions have changed and/or new studies have occurred since the adoption of the Washoe County Master Plan that supports the need for the amendment request?

There is available infrastructure at the site that will adequately accommodate residential development. Also, current mapping technology allows for the master plan and zoning designations to allow for a more accurate configuration of the site that is appropriate for development. As proposed, generally the slope area greater than 15% slope would be designated R/GR, and the project area able to be developed (less than 15% slope) would be designated SR/MDS. Please see the attached Slope Map. Better, more accurate slope data now shows for the site to be master planned and zoned accordingly.

There is a demand for housing in the area and the proposed area for development is well-suited for residential development because of the availability of infrastructure and minimal slope.

3. Please provide the following specific information.
 a. What is the location (address or distance and direction from nearest intersection)? Please attach a legal description.

1200 Estates Road. The project is located in the area around Lemmon Drive, Deodar Way, and Estates Road. The area continues in a southeast direction behind the existing residential subdivision.

A legal description is attached in the Preliminary Title Report which is part of this application.

- b. Please list the following (attach additional sheet if necessary):

APN of Parcel	Master Plan Designation	Existing Acres	Proposed Master Plan Designation	Proposed Acres
080-730-18	SR/R	65.869	SR/R	23.99 SR, 41.879 R
080-730-19	R	41.05	SR/R	3.06 SR, 37.99 R
080-730-21	SR/R	43.211	SR/R	8.59 SR, 34.621 R
080-635-01	SR	13.59	SR	13.59 SR
080-635-02	SR	1.89	SR/R	1.5 SR, .39 R
552-210-07	SR	43.005	SR/R	18.067 SR, 24.938 R

c. What are the adopted land use designations of adjacent parcels?

North	SF15 (City of Reno) MDS (Washoe County)
South	GR
East	SF15/GR
West	MDS

4. Describe the existing conditions and uses located at the site or in the vicinity (i.e. vacant land, roadways, buildings, etc.):

The existing site is vacant land, with direct access from Deodar Way and Estates Road. A portion of the project is adjacent to Lemmon Drive, Deodar Way (unpaved), and Estates Road (unpaved). A portion of the project area is adjacent to an existing single family development.

5. Describe the natural resources associated with the site under consideration. Your description should include resource characteristics such as water bodies, vegetation, topography, minerals, soils and wildlife habitat.

The proposed area for development does not exceed 15% in slope and is suitable for residential development. There are steeper grades on the site that are not proposed to be developed and will be designated as R/GR. Based on review of the Washoe County Master Plan, the vegetative community/landcover is sagebrush. There are no known minerals or metals present on the site, no bodies of water, and no wildlife habitat.

6. Describe whether any of the following natural resources or systems are related to the proposed amendment:

- a. Is property located in the 100-year floodplain? (If yes, please attach documentation of the extent of the floodplain and any proposed floodplain map revisions in compliance with Washoe County Development Code, Article 416, Flood Hazards, and consultation with the Washoe County Engineering.)

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
------------------------------	--

Explanation:

The property is not located in the 100-year floodplain.

- b. Does property contain wetlands? (If yes, please attach a preliminary delineation map and describe the impact the proposal will have on the wetlands. Impacts to the wetlands may require a permit issued from the U.S. Army Corps of Engineers.)

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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Explanation:

There are no wetlands on the site.

- c. Does property contain slopes or hillsides in excess of 15 percent and/or significant ridgelines? (If yes, please note the slope analysis requirements contained in Article 424, Hillside Development of the Washoe County Development Code.)

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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Explanation:

None of the site affected by hillsides in excess of 15% are proposed to be developed. Any development would be subject to the requirements of Article 424, Hillside Development of the Washoe County Development Code. The MPA and RZA will correctly designate property with slopes in excess of 15% as GR and R and appropriately designate slopes less than 15% MDS and SR.
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- d. Does property contain geologic hazards such as active faults; hillside or mountainous areas; is subject to avalanches, landslides, or flash floods; is near a stream or riparian area such as the Truckee River, and/or an area of groundwater recharge?

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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Explanation:

After review of the Washoe County Master Plan Geologic Hazards map, it was determined that there are no active faults on the site. The hillside area is depicted on the slope map. The site is not subject to flash floods as it is not located near a stream or riparian area.

- e. Does property contain prime farmland; is within a wildfire hazard area, geothermal or mining area, and/or wildlife mitigation route?

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
------------------------------	--

Explanation:

After review of appropriate Washoe County Master Plan maps, it was determined that there is no prime farmland, there are no geothermal sources, and there are no wildlife migration routes on the site. It is not within a wildfire hazard area given the northern Nevada sagebrush vegetative cover and no trees.

7. Please describe whether any archaeological, historic, cultural, or scenic resources are in the vicinity or associated with the proposed amendment:

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
------------------------------	--

Explanation:

After review of the appropriate Washoe County Master Plan maps, it was determined that there are no archaeological, historic, cultural, or scenic resources on the site or in the vicinity of the proposed amendment area.

8. Do you own sufficient water rights to accommodate the proposed amendment? (Amendment requests in some groundwater hydrographic basins [e.g. Cold Springs, Warm Springs, etc.] require proof of water rights be submitted with applications. Please provide copies of all water rights documents, including chain of title to the original water right holder.)

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
------------------------------	--

If yes, please identify the following quantities and documentation numbers relative to the water rights:

a. Permit #		acre-feet per year	
b. Certificate #		acre-feet per year	
c. Surface Claim #		acre-feet per year	
d. Other #		acre-feet per year	

- e. Please attach a copy(s) of the water rights title (as filed with the State Engineer in the Division of Water Resources of the Department of Conservation and Natural Resources):

- f. If the proposed amendment involves an intensification of land use, please identify how sufficient water rights will be available to serve the additional development.

No intensification of land use is proposed. However, additional rights would be purchased from the water purveyor at the time of development if required.

9. Please describe the source and timing of the water facilities necessary to serve the amendment:

a. System Type:

<input type="checkbox"/> Individual wells		
<input type="checkbox"/> Private water	Provider:	
<input checked="" type="checkbox"/> Public water	Provider:	TMWA

b. Available:

<input checked="" type="checkbox"/> Now	<input type="checkbox"/> 1-3 years	<input type="checkbox"/> 3-5 years	<input type="checkbox"/> 5+ years
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c. Washoe County Capital Improvements Program project?

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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d. If a public facility is proposed and is currently not listed in the Washoe County Capital Improvements Program and not available, please describe the funding mechanism for ensuring availability of water service:

<p>TMWA is a not-for-profit, community-owned water provider of the potable water service for this property. The area is not listed in the CIP for any public facility improvements. Therefore, water service to the site will be privately funded with development of the project. Water service is currently available to the west of the site, along Lemmon Drive in the existing residential development. Infrastructure will be connected to the site when a project is proposed. This property will need to be annexed into the TMWA service area.</p>

10. What is the nature and timing of sewer services necessary to accommodate the proposed amendment?

a. System Type:

<input type="checkbox"/> Individual septic		
<input checked="" type="checkbox"/> Public system	Provider:	Washoe County

b. Available:

<input checked="" type="checkbox"/> Now	<input checked="" type="checkbox"/> 1-3 years	<input type="checkbox"/> 3-5 years	<input type="checkbox"/> 5+ years
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c. Washoe County Capital Improvements Program project?

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
---	-----------------------------

- d. If a public facility is proposed and is currently not listed in the Washoe County Capital Improvements Program and not available, please describe the funding mechanism for ensuring availability of sewer service. If a private system is proposed, please describe the system and the recommended location(s) for the proposed facility.

The City of Reno and Washoe County have entered into an Interlocal Agreement for the Stead/Lemmon Valley Sanitary Sewer Capacity Analysis and Master Plan. The Stead/Lemmon Valley Sanitary Sewer Capacity Analysis and Master Plan was identified and recommended for approval by the Washoe County Board of County Commissioners in the 2015-16 Capital Improvement Program. County staff has indicated that these actions will enhance capacity at the facility and allow for increased development.

11. Please identify the street names and highways near the proposed amendment that will carry traffic to the regional freeway system.

Lemmon Drive

12. Will the proposed amendment impact existing or planned transportation systems? (If yes, a traffic report will be required. See attached Traffic Impact Report Guidelines.)

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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13. Community Services (provided and nearest facility):

a. Fire Station	Lemmon Valley Volunteer Fire Department (Lemmon Drive/Nectar Street)
b. Health Care Facility	Renown Medical Group (Golden Valley Road and North Hills Boulevard)
c. Elementary School	Lemmon Valley Elementary School (255 W. Patrician Drive)
d. Middle School	O'Brien Middle School (10500 Stead Boulevard)
e. High School	North Valleys High School (1470 Golden Valley Road)
f. Parks	Golden Valley Park (estates Road and Hillview Drive)
g. Library	North Valleys Library (Golden Valley Road and North Hills Boulevard)
h. Citifare Bus Stop	Lemmon Drive/Fleetwood Drive

14. Describe how the proposed amendment fosters, promotes or complies with the policies of the adopted area plans and elements of the Washoe County Master Plan:

a. Population Element:

The proposed amendment appears to be neutral with respect to population policies and the Population Element. The population policies are geared at ensuring that there is adequate housing available for the anticipated growth and that land use, public services and facilities, and infrastructure needs are based on the most current population information. The proposed amendment would allow for a redistribution of the approved amount of housing units by 207 (207 units are permitted under the existing master plan and zoning designations); it is within the 2,000 units of land use capacity through 2025 allocated to the North Valleys area (North Valleys Area Plan NV.1.2).

b. Conservation Element:

The Conservation Element of the Washoe County Master Plan serves as the conservation plan for unincorporated Washoe County and outlines policies and action programs for the conservation and preservation of natural resources. The proposed amendment is positive with respect to many of the conservation policies and framework. The impact on natural resources from this type of change is favorable when the conditions produce little or no impact on topography, trees, vegetative cover, view sheds and scenic corridors, wetlands, wildlife habitat, etc. The proposed amendment will allow for new housing in more appropriate locations of Lemmon Valley.

c. Housing Element:

The Housing Element is primarily focused on providing affordable housing which is further encouraged in higher density and affordable housing. Goal One within the Housing Element encourages the availability of affordable housing and Goal 7 is to promote homeownership opportunities. In addition one of the underlying NRS requirements of the housing policy is an analysis of the characteristics of the land that is suitable for residential development including a determination of whether the existing infrastructure is sufficient to sustain the current needs and projected growth of the community. With respect to these goals and policies, the subject property is suited for residential development and is being proposed at a density that is appropriate for the area and in consideration of the adjacent properties. Appendix A (Housing Needs Assessment) states that commercial development are not considered appropriate in Lemmon Valley. Appendix B illustrates that Lemmon Valley is an area for affordable housing opportunities (MDS in Lemmon Valley).

d. Land Use and Transportation Element:

The Land Use and Transportation Element (LUTE) focuses on providing for future population and employment in Washoe County, encouraging sustainable growth practices while discouraging sprawled communities. The proposed amendment, which will allow for logical residential development in appropriate areas and the preservation of open space, and will promote Land Use and Transportation policies (specifically, LUT 1.1, 1.4, 3.1, 3.2, 3.4, 4.1, 4.3, 5.1, 5.2, 5.3, 5.4, 9.1, 10.3, 10.4, 14.1, and 14.4). The Lemmon Valley Suburban Character Management Area (SCMA) is identified as an area for residential development. The proposed amendment promotes LUT goals 3.1-3.3 as responsible growth in the SCMA. The site is physically well-suited for residential use because of its gentle topography and access to an arterial roadway and is in proximity to retail/commercial land uses (north valleys) and areas that facilitate walking and cycling (LUT 1.4). The area is not suited to mixed use or commercial development (Housing Element Appendix A). With respect to employment and residential balance, the amendment will provide housing to support commercial and industrial employment development in the north valleys. This should have a positive impact on reverse commute and capturing some vehicle trips within the north valleys.

e. Public Services and Facilities Element:

The proposed amendment will promote policies of the public services and facilities element where applicable. The basic policy framework for the public services and facilities plan of the North Valleys area is to provide for community water and sewer for those areas with the Suburban Character Management Area (SCMA). This property falls within the Lemmon Valley SCMA and in an area where public services are planned for development and will adequately serve this project.

f. Adopted area plan(s):

North Valleys Area Plan
Goal Six: Lemmon Valley Suburban Character Management Area. This project meets (or will meet) the polices NV.6.1 and NV.6.4 related to single family subdivisions and tentative maps.

15. If the area plan includes a Plan Maintenance component, address all policies and attach all studies and analysis required by the Plan Maintenance criteria.

No amendment to the North Valleys Area Plan is proposed.

Applicant Comments

This page can be used by the applicant to support the regulatory zone amendment request and should address, at a minimum, how one or more of the findings for an amendment are satisfied. (Please refer to Article 820 of the Washoe County Development Code for the list of Findings.)

Consistency with Master Plan: The proposed amendment is in substantial compliance with the policies and action programs of the Master Plan, as detailed in this application. Approval of the amendment will not increase the total number of housing units approved for this project area.

Compatible Land Uses: The proposed amendment will provide for land uses compatible with adjacent land uses, and will not adversely impact the public health, safety, or welfare. The proposed development is of similar density and configuration as the existing, adjacent residential neighborhood.

Response to Changed Conditions: The proposed amendment responds to changed conditions or further studies that have occurred since the plan was adopted by the Board of County Commissioners, and the requested amendment represents a more desirable utilization of land. Technology depicting the slope pattern of the site allows for more accurate mapping and more desirable utilization of land. The proposed amendment responds to a demand for residential housing in the area. The timing and location of public services and facilities also encourages this residential development in a more logical configuration.

Availability of Facilities: There are or are planned to be adequate transportation, recreation, utility, and other facilities to accommodate the uses and densities permitted by the proposed Master Plan designation. The proposed development will ensure that all facilities are adequate for the site. The MPA/RZA does not change the facilities needed for development, as the amount of development is already approved under the existing master plan and zoning designations.

Desired Pattern of Growth: The proposed amendment will promote the desired pattern for the orderly physical growth of the county and guides development of the County based on the projected population growth with the least amount of natural resource impairment and the efficient expenditure of funds for public services. This MPA/RZA will result in the same level of development already permitted under the existing designations but will be able to be designed in a more logical configuration. The Master Plan, Housing Element, and North Valleys Plan Area (Lemmon Valley SCMA) anticipate this pattern of growth.

Community Services Department
Planning and Development
REGULATORY ZONE AMENDMENT
APPLICATION



Community Services Department
Planning and Development
1001 E. Ninth St., Bldg. A
Reno, NV 89520

Telephone: 775.328.3600

Washoe County Development Application

Your entire application is a public record. If you have a concern about releasing personal information, please contact Planning and Development staff at 775.328.3600.

Project Information		Staff Assigned Case No.: _____	
Project Name: JDS LLC Lemmon Valley Properties MPA/RZA			
Project Description: Request for a Master Plan Amendment and Regulatory Zone Amendment to allow for a single family residential subdivision.			
Project Address: 1200 Estates Road, Washoe County, NV 89506			
Project Area (acres or square feet):			
Project Location (with point of reference to major cross streets AND area locator): Lemmon Drive/Deodar Way/Estates Road; Lemmon Valley			
Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No.(s):	Parcel Acreage:
see cover letter (6 parcels)			
Section(s)/Township/Range:			
Indicate any previous Washoe County approvals associated with this application: Case No.(s).			
Applicant Information (attach additional sheets if necessary)			
Property Owner: (multiple- 6 parcels)		Professional Consultant:	
Name: Derek Larson; JDS LLC, Juan and Linda Arevalo		Name: Manhard Consulting	
Address: 7500 Rough Rock Road, Reno NV		Address: 9850 Double R Boulevard, Suite 101, Reno NV	
Zip: 89502		Zip: 89521	
Phone: 775-544-5482	Fax:	Phone: 775-746-3500	Fax:
Email: dvlarson03@gmail.com		Email: cbaker@manhard.com	
Cell:	Other:	Cell:	Other:
Contact Person: Derek Larson		Contact Person: Chris Baker	
Applicant/Developer:		Other Persons to be Contacted:	
Name: Derek Larson; JDS LLC		Name:	
Address: 7500 Rough Rock Road, Reno NV		Address:	
Zip: 89502		Zip:	
Phone: 775-544-5482	Fax:	Phone:	Fax:
Email: dvlarson03@gmail.com		Email:	
Cell:	Other:	Cell:	Other:
Contact Person: Derek Larson		Contact Person:	
For Office Use Only			
Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

Property Owner Affidavit

Applicant Name: Derek Vharson

The receipt of this application at the time of submittal does not guarantee the application complies with all requirements of the Washoe County Development Code, the Washoe County Master Plan or the applicable area plan, the applicable regulatory zoning, or that the application is deemed complete and will be processed.

STATE OF NEVADA)
)
COUNTY OF WASHOE)

I, Derek Vharson
(please print name)

being duly sworn, depose and say that I am the owner* of the property or properties involved in this application as listed below and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects complete, true, and correct to the best of my knowledge and belief. I understand that no assurance or guarantee can be given by members of Planning and Development.

(A separate Affidavit must be provided by each property owner named in the title report.)

Assessor Parcel Number(s): 552-210-06 + 552-210-07
080-730-18 + 080-730-19

Printed Name Derek Vharson

Signed [Signature]

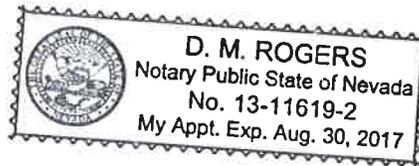
Address 7500 Rough Rock Dr
Reno NV 89502

Subscribed and sworn to before me this
12 day of Jan, 2017.

[Signature]
Notary Public in and for said county and state

My commission expires: 8/30/17

(Notary Stamp)



*Owner refers to the following: (Please mark appropriate box.)

- Owner
- Corporate Officer/Partner (Provide copy of record document indicating authority to sign.)
- Power of Attorney (Provide copy of Power of Attorney.)
- Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
- Property Agent (Provide copy of record document indicating authority to sign.)
- Letter from Government Agency with Stewardship

Property Owner Affidavit

Applicant Name: JDS LLC

The receipt of this application at the time of submittal does not guarantee the application complies with all requirements of the Washoe County Development Code, the Washoe County Master Plan or the applicable area plan, the applicable regulatory zoning, or that the application is deemed complete and will be processed.

STATE OF NEVADA)
)
COUNTY OF WASHOE)

I, Derek Larson
(please print name)

being duly sworn, depose and say that I am the owner* of the property or properties involved in this application as listed below and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects complete, true, and correct to the best of my knowledge and belief. I understand that no assurance or guarantee can be given by members of Planning and Development.

(A separate Affidavit must be provided by each property owner named in the title report.)

Assessor Parcel Number(s): 080 635 01 + 080 635 02

Printed Name JDS LLC

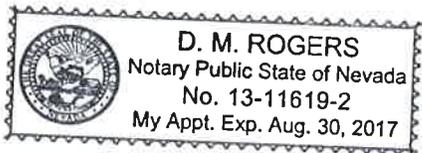
Signed [Signature]

Address 7500 Rough Rock Dr
Reno NV 89502

Subscribed and sworn to before me this 12 day of Jan, 2017.

[Signature]
Notary Public in and for said county and state
My commission expires: 8/30/17

(Notary Stamp)



- *Owner refers to the following: (Please mark appropriate box.)
- Owner
 - Corporate Officer/Partner (Provide copy of record document indicating authority to sign.)
 - Power of Attorney (Provide copy of Power of Attorney.)
 - Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
 - Property Agent (Provide copy of record document indicating authority to sign.)
 - Letter from Government Agency with Stewardship

Property Owner Affidavit

Applicant Name: Juan Arevalo

The receipt of this application at the time of submittal does not guarantee the application complies with all requirements of the Washoe County Development Code, the Washoe County Master Plan or the applicable area plan, the applicable regulatory zoning, or that the application is deemed complete and will be processed.

STATE OF NEVADA
Clark
COUNTY OF WASHOE (B)

Juan Arevalo
(please print name)

being duly sworn, depose and say that I am the owner* of the property or properties involved in this application as listed below and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects complete, true, and correct to the best of my knowledge and belief. I understand that no assurance or guarantee can be given by members of Planning and Development.

(A separate Affidavit must be provided by each property owner named in the title report.)

Assessor Parcel Number(s): 08073021

Printed Name Juan Arevalo

Signed Juan Arevalo

Address 6012 Valley Flower St
N. Las Vegas, NV. 89081

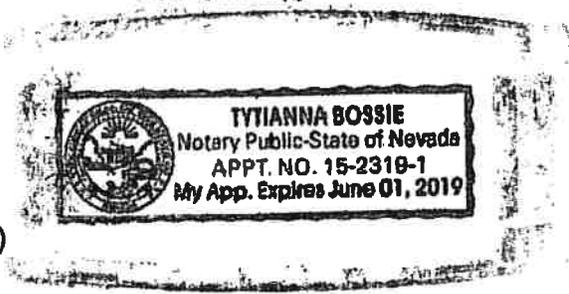
Subscribed and sworn to before me this
16 day of January, 2017

[Signature]

(Notary Stamp)

Notary Public in and for said county and state

My commission expires: 06/01/2019



*Owner refers to the following: (Please mark appropriate box.)

- Owner
- Corporate Officer/Partner (Provide copy of record document indicating authority to sign.)
- Power of Attorney (Provide copy of Power of Attorney.)
- Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
- Property Agent (Provide copy of record document indicating authority to sign.)
- Letter from Government Agency with Stewardship

Property Owner Affidavit

Applicant Name: Linda Arevalo

The receipt of this application at the time of submittal does not guarantee the application complies with all requirements of the Washoe County Development Code, the Washoe County Master Plan or the applicable area plan, the applicable regulatory zoning, or that the application is deemed complete and will be processed.

STATE OF NEVADA)
Clark)
COUNTY OF WASHOE (16)

Linda Arevalo
(please print name)

being duly sworn, depose and say that I am the owner* of the property or properties involved in this application as listed below and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects complete, true, and correct to the best of my knowledge and belief. I understand that no assurance or guarantee can be given by members of Planning and Development.

(A separate Affidavit must be provided by each property owner named in the title report.)

Assessor Parcel Number(s): 08073021

Printed Name Linda Arevalo

Signed [Signature]

Address 6012 Valley Flower St
N. Las Vegas, NV 89081

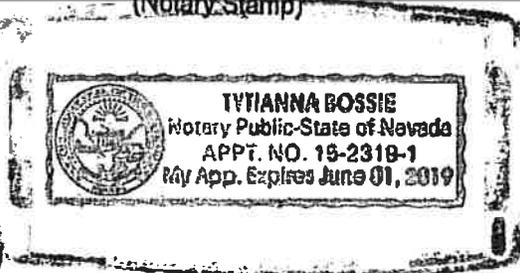
Subscribed and sworn to before me this
16 day of JANUARY, 2017

[Signature]

(Notary Stamp)

Notary Public in and for said county and state

My commission expires: 06/01/2019



*Owner refers to the following: (Please mark appropriate box.)

- Owner
- Corporate Officer/Partner (Provide copy of record document indicating authority to sign.)
- Power of Attorney (Provide copy of Power of Attorney.)
- Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
- Property Agent (Provide copy of record document indicating authority to sign.)
- Letter from Government Agency with Stewardship

Regulatory Zone Amendment Supplemental Information

(All required information may be separately attached)

Chapter 110 of the Washoe County Code is commonly known as the Development Code. Specific references to Regulatory Zone amendments may be found in Article 821, Amendment of Regulatory Zone.

Please complete this questionnaire to ensure consistent review of your request to amend the Washoe County Zoning Map. Please provide a brief explanation to all questions answered in the affirmative.

1. Please describe the Regulatory Zone amendment request:

If approved, this request will alter the split Master Plan designations of Suburban Residential (SR) and Rural (R) to an alternate mix of SR/R and will alter the split zoning designations of General Rural (GR) and Medium Density Suburban (MDS) to an alternate mix of GR/MDS to allow for residential development in appropriate areas of the project site. The overall density of the project area will not change; the current zoning designations allow for 207 units to be developed and 207 units are proposed to be developed if the MPA/RZA are approved. As proposed, this MPA/RZA will allow for the 207 housing units to be distributed in a more logical configuration that accommodates the natural slope of the site and has less impact to the existing neighborhood. The circulation pattern will also be better if the MPA/RZA is approved because there will be more access points to the development which will distribute traffic throughout the project site.

2. List the Following information regarding the property subject to the Regulatory Zone Amendment.
- a. What is the location (address, assessor's parcel number or distance and direction from nearest intersection)?

The project site is located at 1200 Estates Road, in the area surrounded by Lemmon Drive, Deodar Way, and Estates Road in Lemmon Valley.

Assessor's Parcel Numbers:

080-730-18
080-730-19
080-730-21
080-635-01
080-635-02
552-210-07

b. Please list the following (attach additional sheet if necessary):

APN of Parcel	Master Plan Designation	Current Zoning	Existing Acres	Proposed Zoning	Proposed Acres
080-730-18	SR/R	MDS/GR	65.869	MDS/GR	23.99 MDS, 41.879 GR
080-730-19	R	GR	41.05	MDS/GR	3.06 MDS, 37.99 GR
080-730-21	SR/R	MDS/GR	43.211	MDS/GR	8.59 MDS, 34.621 GR
080-635-01	SR	MDS	13.59	MDS	13.59 MDS
080-635-02	SR	MDS	1.89	MDS/GR	1.5 MDS, .39 GR
552-210-07	SR	MDS	43.005	MDS/GR	18.067 MDS, 24.938 GR

c. What are the regulatory zone designations of adjacent parcels?

	Zoning	Use (residential, vacant, commercial, etc.)
North	SF15 (City of Reno) MDS (Washoe County)	Vacant, Single Family Unimproved
South	GR	Open Space (USA), Vacant Single Family Unimproved
East	SF15/GR	Vacant, Single Family Unimproved
West	MDS	Single Family Residential

3. Describe the existing conditions and uses located at the site or in the vicinity (i.e. vacant land, roadways, easements, buildings, etc.):

The existing site is vacant land, with direct access from Deodar Way and Estates Road. A portion of the project is adjacent to Lemmon Drive, Deodar Way (unpaved), and Estates Road (unpaved). A portion of the project area is adjacent to an existing single family development.

4. Describe the natural resources associated with the site under consideration. Your description should include resource characteristics such as water bodies, vegetation, topography, minerals, soils and wildlife habitat.

The proposed area for development does not exceed 15% in slope and is suitable for residential development. There are steeper grades on the site that are not proposed to be developed and will be designated as R/GR. Based on review of the Washoe County Master Plan, the vegetative community/landcover is sagebrush. There are no known minerals or metals present on the site, no bodies of water, and no wildlife habitat.

5. Does the property contain development constraints such as floodplain or floodways, wetlands, slopes or hillsides in excess of 15%, geologic hazards such as active faults, significant hydrologic resources or major drainages or prime farmland?

<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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Explanation:

The property is not located in the 100-year floodplain. There are no wetlands on the site. The site is not subject to flash floods as it is not located near a stream or riparian area.

The hillside area is depicted on the attached slope map. None of the site affected by hillsides in excess of 15% are proposed to be developed. Any development would be subject to the requirements of Article 424, Hillside Development of the Washoe County Development Code. The MPA and RZA will correctly designate property with slopes in excess of 15% as GR and R and appropriately designate slopes less than 15% MDS and SR.

After review of the Washoe County Master Plan Geologic Hazards map, it was determined that there are no active faults on the site. There are no significant hydrologic resources, major drainages, or prime farmland on the site.

6. Please describe whether any archaeological, historic, cultural, or scenic resources are in the vicinity or associated with the proposed amendment:

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
------------------------------	--

Explanation:

After review of the appropriate Washoe County Master Plan maps, it was determined that there are no archaeological, historic, cultural, or scenic resources on the site or in the vicinity of the proposed amendment area.

7. Do you own sufficient water rights to accommodate the proposed amendment? (Amendment requests in some groundwater hydrographic basins [e.g. Cold Springs, Warm Springs, etc.] require proof of water rights be submitted with applications. Please provide copies of all water rights documents, including chain of title to the original water right holder.)

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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If yes, please identify the following quantities and documentation numbers relative to the water rights:

a. Permit #		acre-feet per year	
b. Certificate #		acre-feet per year	
c. Surface Claim #		acre-feet per year	
d. Other #		acre-feet per year	

- e. Title of those rights (as filed with the State Engineer in the Division of Water Resources of the Department of Conservation and Natural Resources):

- f. If the proposed amendment involves an intensification of land use, please identify how sufficient water rights will be available to serve the additional development.

No intensification of land use is proposed. However, additional rights would be purchased from the water purveyor at the time of development if required.

8. Please describe the source and timing of the water facilities necessary to serve the amendment:

a. System Type:

<input type="checkbox"/> Individual wells		
<input type="checkbox"/> Private water	Provider:	
<input checked="" type="checkbox"/> Public water	Provider:	TMWA

b. Available:

<input checked="" type="checkbox"/> Now	<input type="checkbox"/> 1-3 years	<input type="checkbox"/> 3-5 years	<input type="checkbox"/> 5+ years
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c. Is this part of a Washoe County Capital Improvements Program project?

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
------------------------------	--

d. If a public facility is proposed and is currently not listed in the Washoe County Capital Improvements Program and not available, please describe the funding mechanism for ensuring availability of water service:

<p>TMWA is a not-for-profit, community-owned water provider of the potable water service for this property. The area is not listed in the CIP for any public facility improvements. Therefore, water service to the site will be privately funded with development of the project. Water service is currently available to the west of the site, along Lemmon Drive in the existing residential development. Infrastructure will be connected to the site when a project is proposed. This property will need to be annexed into the TMWA service area.</p>

9. What is the nature and timing of sewer services necessary to accommodate the proposed amendment?

a. System Type:

<input type="checkbox"/> Individual septic		
<input checked="" type="checkbox"/> Public system	Provider:	Washoe County

b. Available:

<input type="checkbox"/> Now	<input checked="" type="checkbox"/> 1-3 years	<input type="checkbox"/> 3-5 years	<input type="checkbox"/> 5+ years
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c. Is this part of a Washoe County Capital Improvements Program project?

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
---	-----------------------------

- d. If a public facility is proposed and is currently not listed in the Washoe County Capital Improvements Program and not available, please describe the funding mechanism for ensuring availability of sewer service. If a private system is proposed, please describe the system and the recommended location(s) for the proposed facility.

The City of Reno and Washoe County have entered into an Interlocal Agreement for the Stead/Lemmon Valley Sanitary Sewer Capacity Analysis and Master Plan. The Stead/Lemmon Valley Sanitary Sewer Capacity Analysis and Master Plan was identified and recommended for approval by the Washoe County Board of County Commissioners in the 2015-16 Capital Improvement Program. County staff has indicated that these actions will enhance capacity at the facility and allow for increased development.

10. Please identify the street names and highways near the proposed amendment that will carry traffic to the regional freeway system.

Lemmon Drive

11. Will the proposed amendment impact existing or planned transportation systems? (If yes, a traffic report will be required. See attached Traffic Impact Report Guidelines.)

Yes No

12. Community Services (provided and nearest facility):

a. Fire Station	Lemmon Valley Volunteer Fire Department (Lemmon Drive/Nectar Street)
b. Health Care Facility	Renown Medical Group (Golden Valley Road and North Hills Boulevard)
c. Elementary School	Lemmon Valley Elementary School (255 W. Patrician Drive)
d. Middle School	O'Brien Middle School (10500 Stead Boulevard)
e. High School	North Valleys High School (1470 Golden Valley Road)
f. Parks	Golden Valley Park (estates Road and Hillview Drive)
g. Library	North Valleys Library (Golden Valley Road and North Hills Boulevard)
h. Citifare Bus Stop	Lemmon Drive/Fleetwood Drive

Projects of Regional Significance Information – for Regulatory Zone Amendments

Nevada Revised Statutes 278.026 defines "Projects of Regional Significance". Regulatory Zone amendment requests for properties within the jurisdiction of the Truckee Meadows Regional Planning Commission (TMRPC) must respond to the following questions. A "Yes" answer to any of the following questions may result in the application being referred first to the Truckee Meadows Regional Planning Agency for submission as a project of regional significance. Applicants should consult with County or Regional Planning staff if uncertain about the meaning or applicability of these questions.

1. Will the full development potential of the Regulatory Zone amendment increase employment by not less than 938 employees?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
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2. Will the full development potential of the Regulatory Zone amendment increase housing by 625 or more units?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

3. Will the full development potential of the Regulatory Zone amendment increase hotel accommodations by 625 or more rooms?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

4. Will the full development potential of the Regulatory Zone amendment increase sewage by 187,500 gallons or more per day?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

5. Will the full development potential of the Regulatory Zone amendment increase water usage by 625 acre-feet or more per year?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

6. Will the full development potential of the Regulatory Zone amendment increase traffic by 6,250 or more average daily trips?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

7. Will the full development potential of the Regulatory Zone amendment increase the student population from kindergarten to 12th grade by 325 students or more?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
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Applicant Comments

This page can be used by the applicant to support the regulatory zone amendment request and should address, at a minimum, how one or more of the findings for an amendment are satisfied. (Please refer to Article 821 of the Washoe County Development Code for the list of Findings.)

Consistency with Master Plan and Regulatory Zone Map: The proposed amendment is in substantial compliance with the policies and action programs of the Master Plan and Regulatory Zone Map, as detailed in this application. Approval of the amendment will not increase the total number of housing units approved for this project area.

Compatible Land Uses: The proposed amendment will provide for land uses compatible with adjacent land uses, and will not adversely impact the public health, safety, or welfare. The proposed development is of similar density and configuration as the existing, adjacent residential neighborhood.

Response to Changed Conditions: The proposed amendment responds to changed conditions or further studies that have occurred since the plan was adopted by the Board of County Commissioners, and the requested amendment represents a more desirable utilization of land. Technology depicting the slope pattern of the site allows for more accurate mapping and more desirable utilization of land. The proposed amendment responds to a demand for residential housing in the area. The timing and location of public services and facilities also encourages this residential development in a more logical configuration.

Availability of Facilities: There are or are planned to be adequate transportation, recreation, utility, and other facilities to accommodate the uses and densities permitted by the proposed zoning designation. The proposed development will ensure that all facilities are adequate for the site. The MPA/RZA does not change the facilities needed for development, as the amount of development is already approved under the existing master plan and zoning designations.

Desired Pattern of Growth: The proposed amendment will promote the desired pattern for the orderly physical growth of the county and guides development of the County based on the projected population growth with the least amount of natural resource impairment and the efficient expenditure of funds for public services. This MPA/RZA will result in the same level of development already permitted under the existing designations but will be able to be designed in a more logical configuration. The Master Plan, Housing Element, and North Valleys Plan Area (Lemmon Valley SCMA) anticipate this pattern of growth.

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Parcel ID	Status	Last Update
08073018	Active	12/30/2016 2:09:55 AM
Current Owner: LARSON, DEREK V 7500 ROUGH ROCK DR RENO, NV 89502		SITUS: 1200 ESTATES RD WCTY NV
Taxing District 4000	Geo CD:	
Legal Description		
Township 21 Section Lot 50 Block Range 19 SubdivisionName _UNSPECIFIED		

Tax Bill (Click on desired tax year for due dates and further details)					
Tax Year	Net Tax	Total Paid	Penalty/Fees	Interest	Balance Due
2016	\$619.60	\$641.29	\$0.00	\$0.00	\$0.00
2015	\$1,819.92	\$1,838.12	\$0.00	\$0.00	\$0.00
2014	\$1,780.10	\$1,780.10	\$0.00	\$0.00	\$0.00
2013	\$1,783.66	\$1,783.66	\$0.00	\$0.00	\$0.00
2012	\$2,017.04	\$2,017.04	\$0.00	\$0.00	\$0.00
Total					\$0.00

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08073019	Active	12/30/2016 2:09:55 AM

Current Owner:
LARSON, DEREK V
7500 ROUGH ROCK DR
RENO, NV 89502

SITUS:
1200 ESTATES RD
WCTY NV

Taxing District:
4000

Geo CD:

Legal Description

Section Lot 49 Block Range 19 Township 21 SubdivisionName _UNSPECIFIED

Tax Bill (Click on desired tax year for due dates and further details)

Tax Year	Net Tax	Total Paid	Penalty/Fees	Interest	Balance Due
2016	\$2,063.78	\$2,136.02	\$0.00	\$0.00	\$0.00
2015	\$408.27	\$412.35	\$0.00	\$0.00	\$0.00
2014	\$408.28	\$412.36	\$0.00	\$0.00	\$0.00
2013	\$408.28	\$408.28	\$0.00	\$0.00	\$0.00
2012	\$567.06	\$567.06	\$0.00	\$0.00	\$0.00
Total					\$0.00

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Parcel ID	Status	Last Update
08073021	Active	12/30/2016 2:09:55 AM

Current Owner:
AREVALO, JUAN D & LINDA C

6012 VALLEY FLOWER ST
NORTH LAS VEGAS, NV 89081

SITUS:
505 PALACE DR
WCTY NV

Taxing District
4000

Geo CD:

Legal Description

Range 19 Lot 51 SubdivisionName _UNSPECIFIED Township 21

Tax Bill (Click on desired tax year for due dates and further details)

Tax Year	Net Tax	Total Paid	Penalty/Fees	Interest	Balance Due
2016	\$409.09	\$423.41	\$0.00	\$0.00	\$0.00
2015	\$408.27	\$421.73	\$0.00	\$0.00	\$0.00
2014	\$408.28	\$447.37	\$0.00	\$0.00	\$0.00
2013	\$408.28	\$424.52	\$0.00	\$0.00	\$0.00
2012	\$567.06	\$596.64	\$0.00	\$0.00	\$0.00
Total					\$0.00

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Parcel ID	Status	Last Update
08063501	Active	1/16/2017 2:09:50 AM
Current Owner: JDS LLC 7500 ROUGH ROCK DR RENO, NV 89502		SITUS: 0 E PATRICIAN DR WASHOE COUNTY NV
Taxing District 4000	Geo CD:	
Legal Description		
Township 21 Section 34 Lot Block Range 19 SubdivisionName _UNSPECIFIED		

Tax Bill (Click on desired tax year for due dates and further details)					
Tax Year	Net Tax	Total Paid	Penalty/Fees	Interest	Balance Due
2016	\$289.56	\$144.78	\$4.58	\$0.00	\$159.02
2015	\$288.98	\$288.98	\$0.00	\$0.00	\$0.00
2014	\$288.98	\$288.98	\$0.00	\$0.00	\$0.00
2013	\$288.98	\$288.98	\$0.00	\$0.00	\$0.00
2012	\$385.28	\$385.28	\$0.00	\$0.00	\$0.00
Total					\$159.02

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Parcel ID	Status	Last Update
08063502	Active	1/16/2017 2:09:50 AM
Current Owner: JDS LLC 7500 ROUGH ROCK DR RENO, NV 89502		SITUS: 0 E PATRICIAN DR WASHOE COUNTY NV
Taxing District 4000	Geo CD:	
Legal Description		
Township 21 Section 34 Lot Block Range 19 SubdivisionName _UNSPECIFIED		

Tax Bill (Click on desired tax year for due dates and further details)					
Tax Year	Net Tax	Total Paid	Penalty/Fees	Interest	Balance Due
2016	\$143.18	\$71.60	\$2.27	\$0.00	\$78.62
2015	\$142.89	\$142.89	\$0.00	\$0.00	\$0.00
2014	\$142.90	\$142.90	\$0.00	\$0.00	\$0.00
2013	\$142.90	\$142.90	\$0.00	\$0.00	\$0.00
2012	\$198.50	\$230.27	\$0.00	\$0.00	\$0.00
Total					\$78.62

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Washoe County Parcel Information		
Parcel ID	Status	Last Update
55221007	Active	1/16/2017 2:09:50 AM
Current Owner: LARSON, DEREK 5355 KIETZKE LN STE 200 RENO, NV 89511		SITUS: 0 E PATRICIAN DR WASHOE COUNTY NV
Taxing District 4000	Geo CD:	
Legal Description		
Township 21 Section Lot 52 Block Range 19 SubdivisionName _UNSPECIFIED		

Tax Bill (Click on desired tax year for due dates and further details)					
Tax Year	Net Tax	Total Paid	Penalty/Fees	Interest	Balance Due
2016	\$916.39	\$0.00	\$73.32	\$0.00	\$989.71
2015	\$914.56	\$914.56	\$0.00	\$0.00	\$0.00
2014	\$914.56	\$914.86	\$0.00	\$0.00	\$0.00
2013	\$914.56	\$914.56	\$0.00	\$0.00	\$0.00
2012	\$1,105.50	\$1,105.52	\$0.00	\$0.00	\$0.00
Total					\$989.71

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LEMMON VALLEY SUBDIVISION
TRAFFIC STUDY

JANUARY, 2017



Prepared by:
Solaegui Engineers, Ltd.
715 H Street
Sparks, Nevada 89431
(775) 358-1004

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LEMMON VALLEY SUBDIVISION

TRAFFIC STUDY

EXECUTIVE SUMMARY

The proposed Lemmon Valley Subdivision will be located in Washoe County, Nevada. The project sites are generally located southeast of Lemmon Drive, south of Deodar Way and west of Estates Road. The project sites are currently undeveloped land. The purpose of this study is to address the project's impact upon the adjacent street network. The Lemmon Drive/Patrician Drive intersection and the Lemmon Drive/Deodar Way intersection have been identified for AM and PM peak hour capacity analysis for the existing, existing plus project, 2026 base and 2026 base plus project scenarios.

The proposed Lemmon Valley Subdivision will consist of the construction of a total of 209 single family detached homes. The northerly site will contain 90 dwelling units and the southerly site will contain 119 dwelling units. Access to the northerly site will be provided from accesses on Deodar Way and Estates Road via Lemmon Drive. Access to the southerly site will be provided from the extensions of Patrician Drive, Kess Way and Palace Way via Lemmon Drive. The project is anticipated to generate 1,990 average daily trips with 157 trips occurring during the AM peak hour and 209 trips occurring during the PM peak hour.

Traffic generated by the proposed Lemmon Valley Subdivision will have some impact on the adjacent street network. The following recommendations are made to mitigate project traffic impacts.

It is recommended that any required signing, striping, or traffic control improvements comply with Washoe County requirements.

It is recommended that the segment of Deodar Way adjacent to the site and all internal subdivision streets be constructed per Washoe County standards.

INTRODUCTION

STUDY AREA

The proposed Lemmon Valley Subdivision will be located in Washoe County, Nevada. The project sites are generally located southeast of Lemmon Drive, south of Deodar Way and west of Estates Road. Figure 1 shows the approximate location of the sites. The purpose of this study is to address the project's impact upon the adjacent street network. The Lemmon Drive/Patrician Drive intersection and the Lemmon Drive/Deodar Way intersection have been identified for AM and PM peak hour capacity analysis for the existing, existing plus project, 2026 base and 2026 base plus project scenarios.

EXISTING AND PROPOSED LAND USES

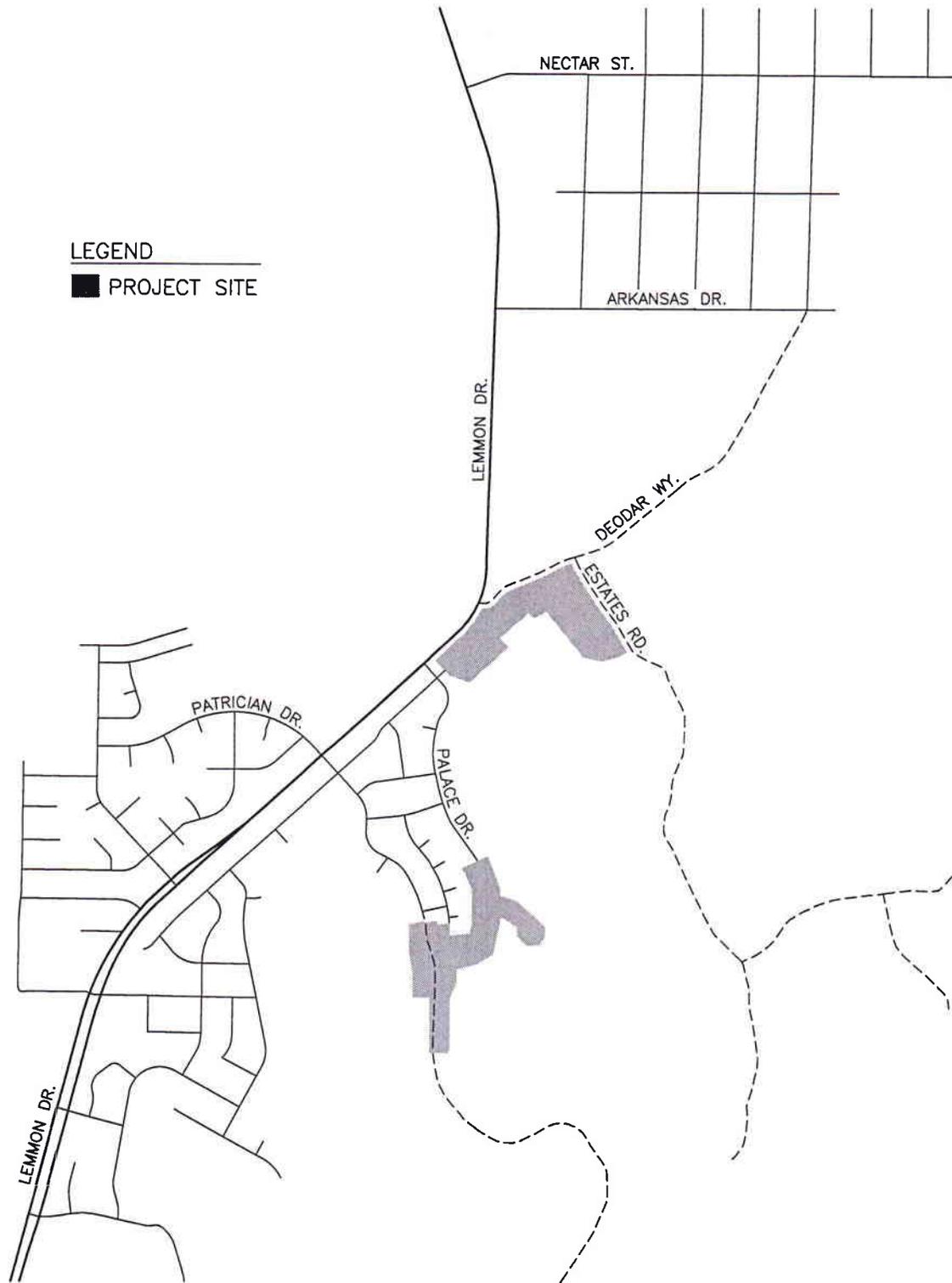
The project sites are currently undeveloped land. Adjacent properties generally include undeveloped land except for an existing subdivision located north of the southerly project site and west of the easterly project site. The Lemmon Valley Subdivision will consist of the construction of a total of 209 single family detached homes. The northerly site will contain 90 dwelling units and the southerly site will contain 119 dwelling units. Access to the northerly site will be provided from accesses on Deodar Way and Estates Road via Lemmon Drive. Access to the southerly site will be provided from the extensions of Patrician Drive, Kess Way and Palace Way via Lemmon Drive.

EXISTING AND PROPOSED ROADWAYS AND INTERSECTIONS

Lemmon Drive is a two-lane roadway with one through lane in each direction in the vicinity of the site. The posted speed limit changes from 45 miles per hour to the north and 35 miles per hour to the south approximately 1,000 feet north of Patrician Drive. Roadway improvements generally include graded shoulders with white edgelines and a yellow centerline. Asphalt pedestrian paths exist on both sides of the street south of Patrician Drive and on the east side of the street north of Patrician Drive. The Regional Transportation Commission's (RTC) *2035 Regional Transportation Plan* indicates that Lemmon Drive is planned to be widened to four lanes from Limber Pine Drive to Deodar Way in the 2023 to 2035 timeframe.

Patrician Drive is a two-lane roadway with one through lane in each direction east and west of Lemmon Drive. The speed limit is posted for 25 miles per hour. Roadway improvements generally include paved travel lanes with graded shoulders.

Deodar Way is a paved two-lane roadway with one lane in each direction from Lemmon Drive to approximately 65 feet to the east where it becomes a dirt roadway. The speed limit is not posted. It is anticipated that Deodar Way will be paved adjacent to the site with development of the project.



LEMMON VALLEY SUBDIVISION
VICINITY MAP
FIGURE 1

The Lemmon Drive/Patrician Drive intersection is an unsignalized four-leg intersection with stop sign control at the east and west Patrician Drive approaches. The north Lemmon Drive approach contains one left turn lane, one through lane, and one right turn lane. The south Lemmon Drive approach contains one left turn lane and one shared through-right turn lane. The east and west Patrician Drive approaches each contain one shared left turn-through-right turn lane. Pedestrian crosswalks exist at the north, east and west approaches. A pedestrian activated crossing flasher exists for the Lemmon Drive crossing.

The Lemmon Drive/Deodar Way intersection is an unsignalized three-leg intersection with stop sign control at the east approach. The north approach contains one shared left turn-through lane. The south approach contains one shared through-right turn lane. The east approach contains one shared left turn-right turn lane.

TRIP GENERATION

In order to assess the magnitude of traffic impacts of the proposed development on the adjacent street network, trip generation rates and peak hours had to be determined. Trip generation rates were obtained from the *Ninth Edition of ITE Trip Generation* (2012) for Land Use 210 “Single Family Detached Housing”.

The proposed Lemmon Valley Subdivision will consist of the construction of a total of 209 single family detached homes. The northerly site will contain 90 dwelling units and the southerly site will contain 119 dwelling units.

Trip generation was calculated for the weekday peak hours occurring between 7:00 AM and 9:00 AM and 4:00 PM and 6:00 PM, which correspond to the peak hours of adjacent street traffic. Table 1 shows a summary of the average weekday traffic (ADT) volumes and weekday peak hour volumes generated by the project.

LAND USE/VARIABLE	ADT	AM PEAK HOUR			PM PEAK HOUR		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Single Family Homes (209 D.U.)	1,990	39	118	157	132	77	209

As shown in Table 1, the proposed Lemmon Valley Subdivision is anticipated to generate 1,990 average daily trips with 157 trips occurring during the AM peak hour and 209 trips occurring during the PM peak hour.

TRIP DISTRIBUTION AND ASSIGNMENT

The distribution of the project traffic to the key intersections was based on existing peak hour traffic patterns and the locations of attractions and productions in the area. Figure 2 shows the anticipated trip distribution. The peak hour trips shown in Table 1 were subsequently assigned to the key intersections based on the trip distribution. Figure 3 shows the trip assignment at the key intersections for the AM and PM peak hours.

EXISTING AND PROJECTED TRAFFIC VOLUMES

Figure 4 shows the existing traffic volumes at the key intersections during the AM and PM peak hours. The existing traffic volumes at the Lemmon Drive/Patrician Drive intersection were obtained from traffic counts conducted in May of 2016. The existing traffic volumes at the Lemmon Drive/Deodar Way intersection were obtained from traffic counts conducted in July of 2016.

Figure 5 shows the existing plus project traffic volumes at the key intersections during the AM and PM peak hours. The existing plus project volumes were obtained by adding the trip assignment volumes shown on Figure 3 to the existing volumes shown on Figure 4.

Figure 6 shows the 2026 base traffic volumes during the AM and PM peak hours. The 2026 base traffic volumes were estimated by applying a 1.0% average annual growth rate to the existing traffic volumes. A +0.5% average annual growth rate on Patrician Drive and a -0.9% growth rate on Lemmon Drive were derived from 10-year historic traffic count data obtained from the Nevada Department of Transportation's (NDOT) Annual Traffic Report. However, the 1.0% growth rate was used in order to ensure conservative results. The project is anticipated to account for all the growth in the Patrician Drive area and therefore the growth rate was not applied to traffic volumes on the southeast leg of the Lemmon Drive/Patrician Drive intersection.

Figure 7 shows the 2026 base plus project traffic volumes. The 2026 base plus project volumes were obtained by adding the trip assignment volumes shown on Figure 3 to the 2026 base volumes shown on Figure 6.

INTERSECTION CAPACITY ANALYSIS

The key intersections were analyzed for capacity based on procedures presented in the 2010 *Highway Capacity Manual (HCM)*, prepared by the Transportation Research Board, for unsignalized intersections using the latest version of the Highway Capacity computer software.

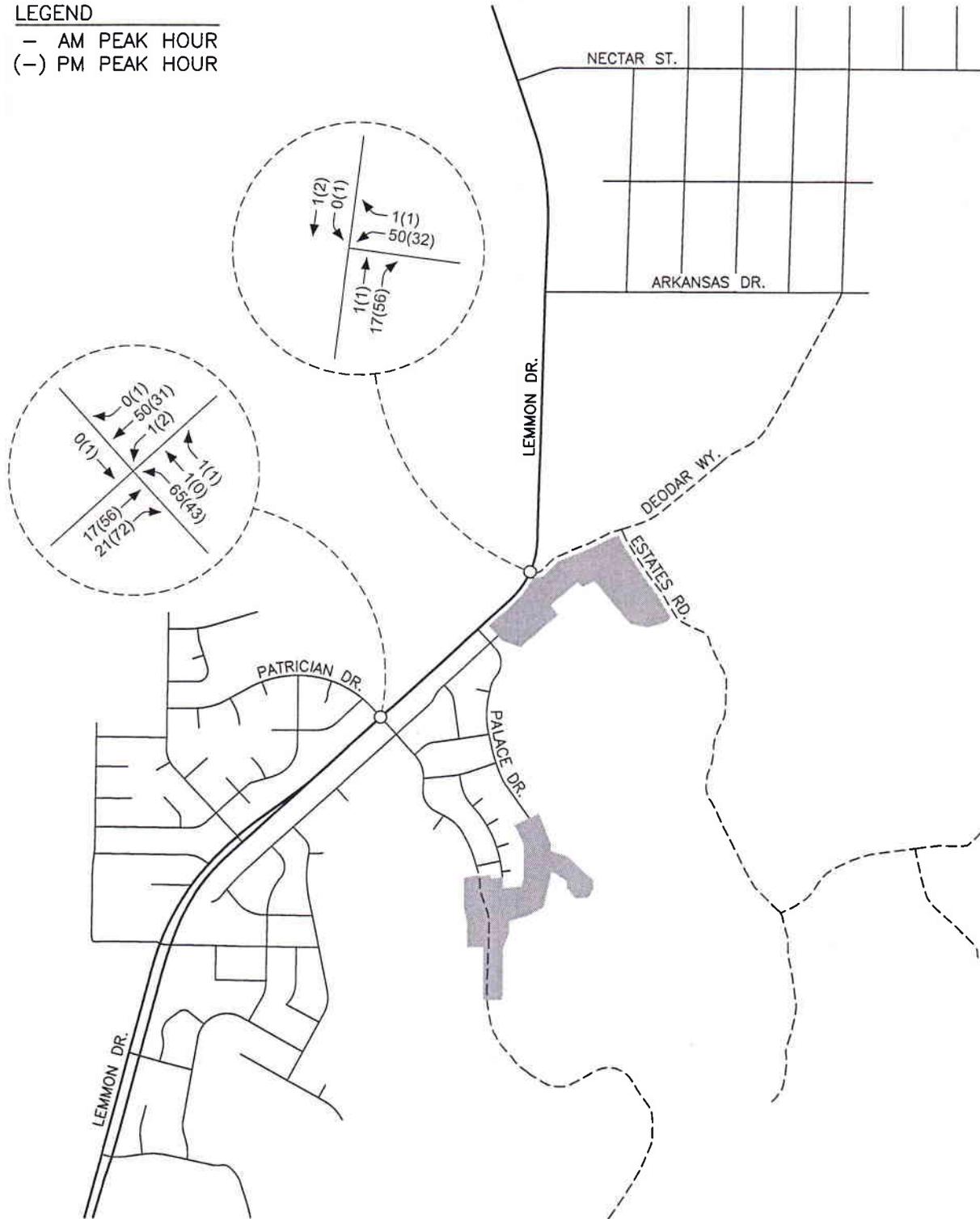
The result of capacity analysis is a level of service rating for each minor movement. Level of service is a qualitative measure of traffic operating conditions where a letter grade "A" through "F", corresponding to progressively worsening traffic operation, is assigned to the minor movement.



LEMMON VALLEY SUBDIVISION
TRIP DISTRIBUTION
FIGURE 2

LEGEND

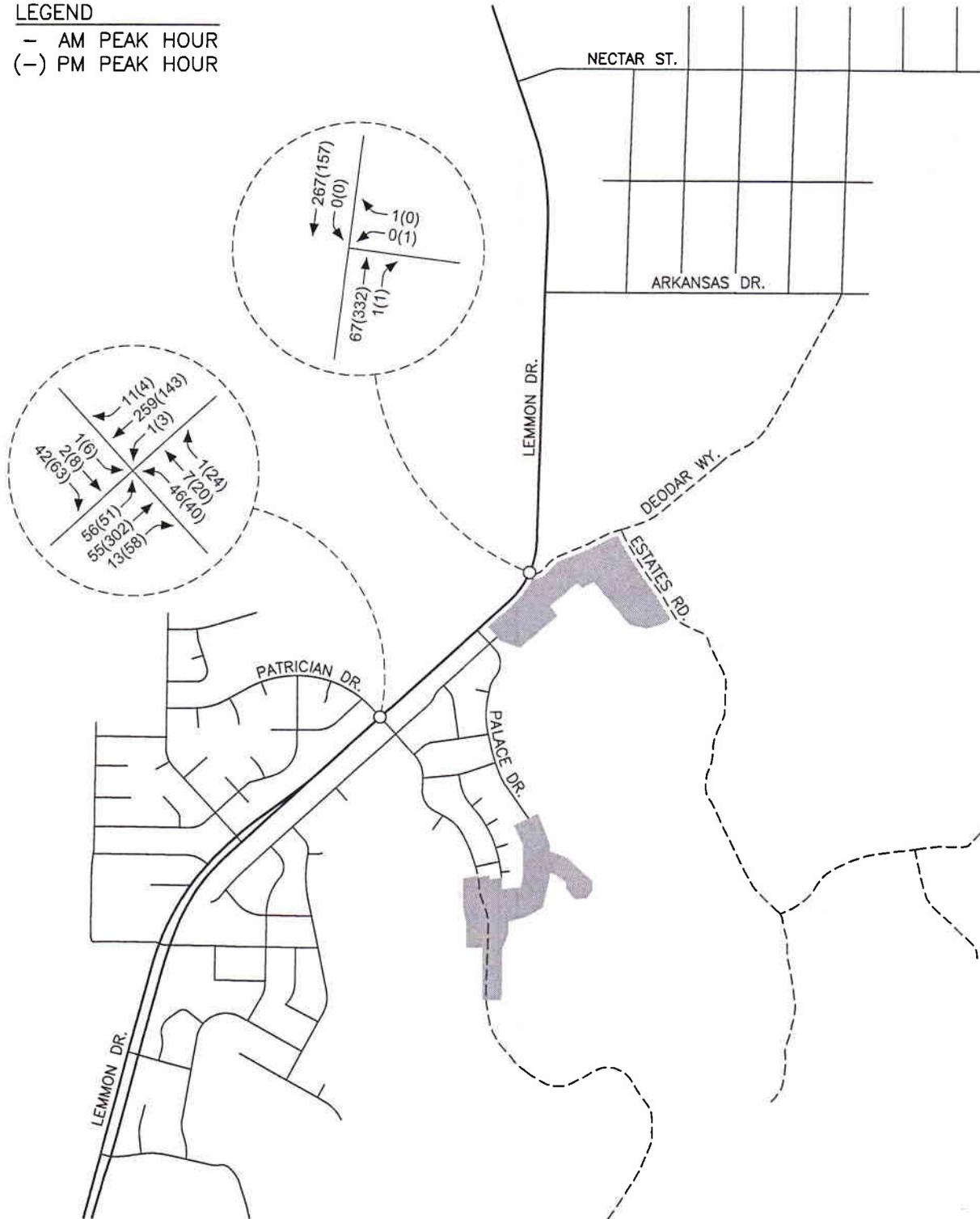
- AM PEAK HOUR
- (-) PM PEAK HOUR



LEMMON VALLEY SUBDIVISION
TRIP ASSIGNMENT
FIGURE 3

LEGEND

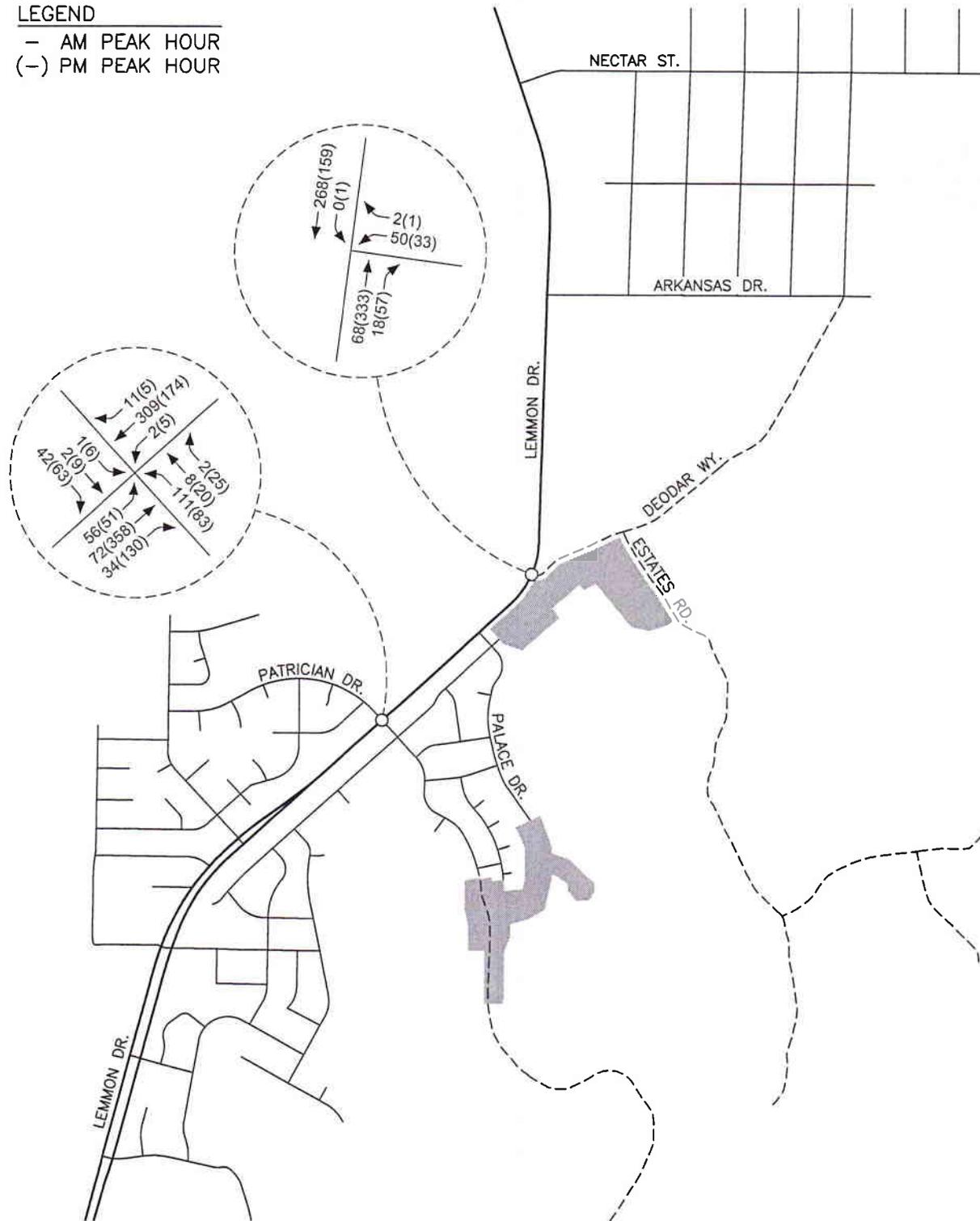
- AM PEAK HOUR
- (-) PM PEAK HOUR



LEMMON VALLEY SUBDIVISION
EXISTING TRAFFIC VOLUMES
FIGURE 4

LEGEND

- AM PEAK HOUR
- (-) PM PEAK HOUR

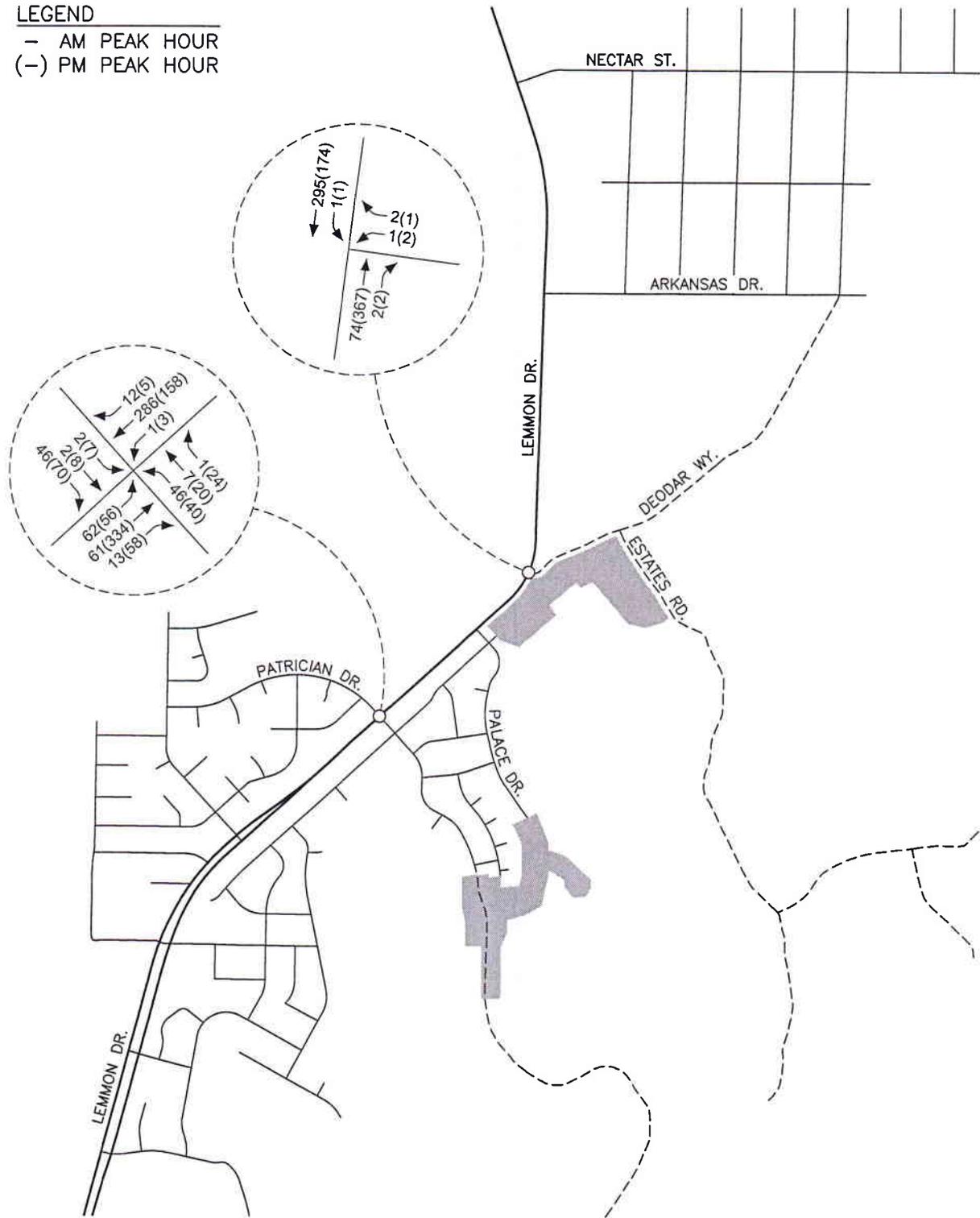


LEMMON VALLEY SUBDIVISION
EXISTING PLUS PROJECT TRAFFIC VOLUMES
FIGURE 5



LEGEND

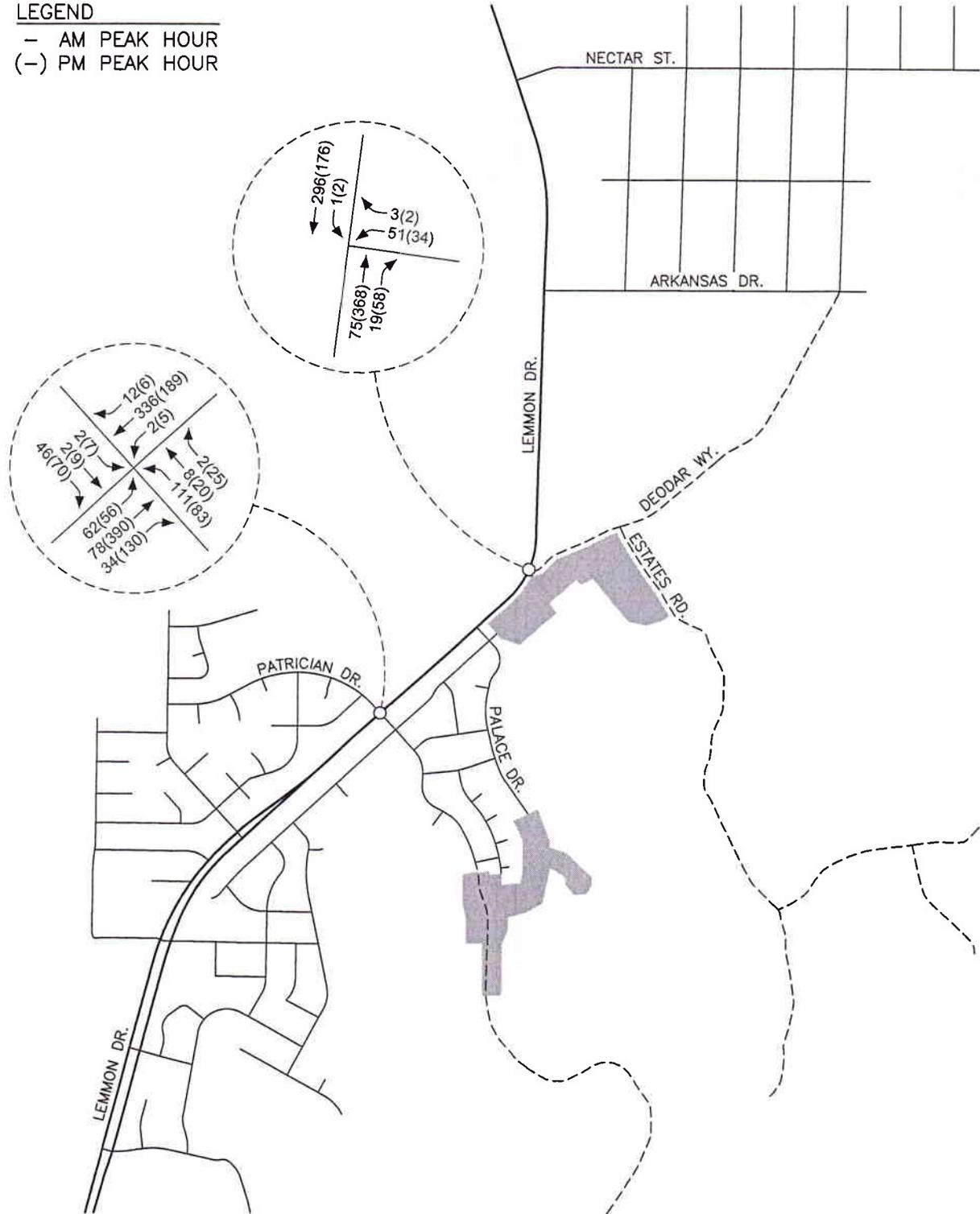
- AM PEAK HOUR
- (-) PM PEAK HOUR



LEMMON VALLEY SUBDIVISION
2026 BASE TRAFFIC VOLUMES
FIGURE 6

LEGEND

- AM PEAK HOUR
- (-) PM PEAK HOUR



LEMMON VALLEY SUBDIVISION
2026 BASE PLUS PROJECT TRAFFIC VOLUMES
FIGURE 7

The *Highway Capacity Manual* defines level of service for stop controlled intersections in terms of computed or measured control delay for each minor movement. Level of service is not defined for the intersection as a whole. The level of service criteria for unsignalized intersections is shown in Table 2.

LEVEL OF SERVICE	DELAY RANGE (SEC/VEH)
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	>50

The Regional Transportation Commission’s 2035 Regional Transportation Plan indicates that the level of service standard along this section of Lemmon Drive is LOS D based on the projected ADT for the 2035 planning scenario.

Table 3 shows a summary of the level of service and delay results for the existing, existing plus project, 2026 base, and 2026 base plus project scenarios. The capacity worksheets are included in the Appendix.

INTERSECTION	EXISTING		EXISTING + PROJECT		2026 BASE		2026 BASE + PROJECT	
	AM	PM	AM	PM	AM	PM	AM	PM
Lemmon & Patrician Stop at East and West Legs								
EB Left-Thru-Right	B10.3	B11.0	B10.8	B12.0	B10.6	B11.4	B11.1	B12.4
WB Left-Thru-Right	B14.4	C16.7	C19.2	D27.0	C15.4	C18.4	C21.3	D31.9
NB Left	A8.0	A7.7	A8.1	A7.7	A8.1	A7.7	A8.3	A7.8
SB Left	A7.4	A8.1	A7.5	A8.5	A7.4	A8.2	A7.5	A8.6
Lemmon & Deodar Stop at East Leg								
WB Left-Right	A8.7	B12.1	B11.2	B13.0	A9.5	B12.0	B11.6	B13.7
SB Left	A0.0	A0.0	A0.0	A8.2	A7.4	A8.1	A7.4	A8.3

Lemmon Drive/Patrician Drive Intersection

The Lemmon Drive/Patrician Drive intersection was analyzed as an unsignalized four-leg intersection with stop control at the east and west Patrician Drive approaches for all scenarios. The intersection minor movements currently operate at LOS B or better during the AM peak hour and LOS C or better during the PM peak hour. For the existing plus project traffic volumes the intersection minor movements are anticipated to operate at LOS C or better during the AM peak hour and LOS D or better during the PM peak hour. For the 2026 base traffic volumes the intersection minor movements are anticipated to operate at LOS C or better during the AM and PM peak hours. For the 2026 base plus project traffic volumes the intersection minor movements are anticipated to operate at LOS C or better during the AM peak hour and LOS D or better during the PM peak hour. The intersection was analyzed with the existing approach lanes for all scenarios. The intersection will meet policy LOS D standards established by the Washoe County Regional Transportation Commission.

The project is anticipated to add traffic to the southbound left turn movement at the Lemmon Drive/Patrician Drive intersection. Storage requirements were subsequently reviewed for this movement based on the unsignalized criteria of providing three minutes of storage during the peak hours. Less than 50 feet of storage length is required based on the 2026 base plus project traffic volumes. The existing left turn lane contains approximately 85 feet of storage length which will serve project traffic demands.

Lemmon Drive/Deodar Way Intersection

The Lemmon Drive/Deodar Way intersection was analyzed as an unsignalized three-leg intersection with stop control at the east approach for all scenarios. The intersection minor movements currently operate at LOS B or better during the AM and PM peak hours. For the existing plus project volumes the intersection minor movements will continue to operate at LOS B or better during the AM and PM peak hours. For the 2026 base traffic volumes the intersection minor movements are anticipated to operate at LOS B or better during the AM and PM peak hours. For the 2026 base plus project volumes the intersection minor movements will continue to operate at LOS B or better during the AM and PM peak hours. The intersection was analyzed with the existing approach lanes for all scenarios. The intersection will meet policy LOS D standards established by the Washoe County Regional Transportation Commission.

The project is anticipated to add traffic to the southbound left turn movement at the Lemmon Drive/Deodar Way intersection. The need for an exclusive lane for this movement was subsequently reviewed based on left turn lane guidelines presented in AASHTO's *A Policy on Geometric Design of Highways and Street*. The guidelines indicate that an exclusive left turn lane is not required for the southbound movement based on the 2026 base plus project traffic volumes.

SITE PLAN REVIEW

A copy of the site plan for the proposed Lemmon Valley Subdivision is included with this submittal. The site plan indicates that access to the northerly site will be provided from an access on Deodar Way and an access on Estates Road via Lemmon Drive. Access to the southerly site will be provided from the extensions of Patrician Drive, Kess Way and Palace Way via Lemmon Drive. The site plan indicates that that a cul-de-sac will be provided at the end of Fremont Street. Washoe County traffic engineering staff prefer that this be a regular street connection instead of a cul-de-sac. It is recommended that the segment of Deodar Way adjacent to the site and all internal subdivision streets be constructed per Washoe County standards.

RECOMMENDATIONS

Traffic generated by the proposed Lemmon Valley Subdivision will have some impact on the adjacent street network. The following recommendations are made to mitigate project traffic impacts.

It is recommended that any required signing, striping, or traffic control improvements comply with Washoe County requirements.

It is recommended that the segment of Deodar Way adjacent to the site and all internal subdivision streets be constructed per Washoe County standards.

APPENDIX

Trip Generation Summary - Alternative 1

Project: New Project
 Alternative: Alternative 1

Open Date: 12/28/2016
 Analysis Date: 12/28/2016

ITE	Land Use	Average Daily Trips			AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
210	SFHOUSE 1	995	995	1990	39	118	157	132	77	209
	209 Dwelling Units									
Unadjusted Volume		0	0	0	0	0	0	0	0	0
Internal Capture Trips		0	0	0	0	0	0	0	0	0
Pass-By Trips		0	0	0	0	0	0	0	0	0
Volume Added to Adjacent Streets		0	0	0	0	0	0	0	0	0

Total AM Peak Hour Internal Capture = 0 Percent

Total PM Peak Hour Internal Capture = 0 Percent

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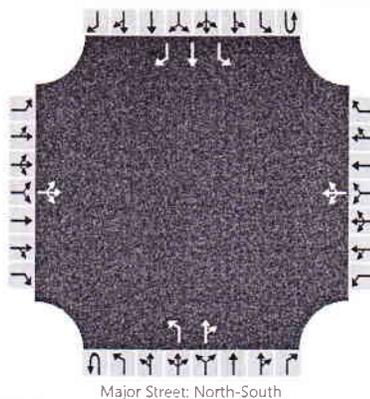
General Information

Analyst	MSH
Agency/Co.	Solaegui Engineers
Date Performed	12/28/2016
Analysis Year	2016
Time Analyzed	AM Existing
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Lemmon & Patrician
Jurisdiction	Washoe County
East/West Street	Patrician Drive
North/South Street	Lemmon Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	1
Configuration			LTR				LTR			L		TR		L	T	R
Volume, V (veh/h)		1	2	42		46	7	1		56	55	13		1	259	11
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized		No				No				No						
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			49				59				61				1		
Capacity, c (veh/h)			726				442				1260				1517		
v/c Ratio			0.07				0.13				0.05				0.00		
95% Queue Length, Q ₉₅ (veh)			0.2				0.5				0.2				0.0		
Control Delay (s/veh)			10.3				14.4				8.0				7.4		
Level of Service, LOS			B				B				A				A		
Approach Delay (s/veh)		10.3				14.4				3.6				0.0			
Approach LOS		B				B											

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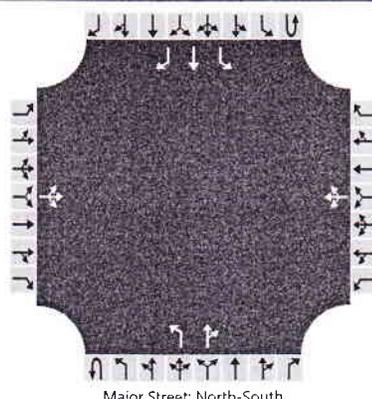
General Information

Analyst	MSH
Agency/Co.	Solaegui Engineers
Date Performed	12/28/2016
Analysis Year	2016
Time Analyzed	PM Existing
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Lemmon & Patrician
Jurisdiction	Washoe County
East/West Street	Patrician Drive
North/South Street	Lemmon Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	0		0	1	0		0	1	0		0	1	1	
Configuration			LTR				LTR			L		TR		L	T	R	
Volume, V (veh/h)		6	8	63		40	20	24		51	302	58		3	143	4	
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3			
Proportion Time Blocked																	
Percent Grade (%)		0				0											
Right Turn Channelized		No				No				No				No			
Median Type/Storage		Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			84				91				55				3		
Capacity, c (veh/h)			688				398				1413				1161		
v/c Ratio			0.12				0.23				0.04				0.00		
95% Queue Length, Q ₉₅ (veh)			0.4				0.9				0.1				0.0		
Control Delay (s/veh)			11.0				16.7				7.7				8.1		
Level of Service, LOS			B				C				A				A		
Approach Delay (s/veh)		11.0				16.7				0.9				0.2			
Approach LOS		B				C											

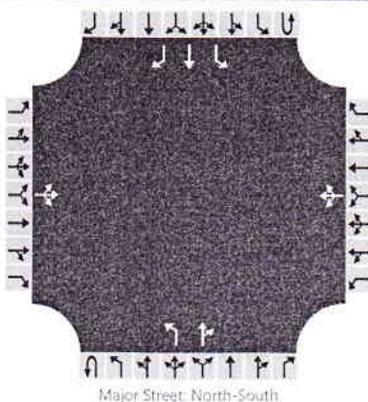
HCS 2010 Two-Way Stop-Control Report

General Information

Site Information

Analyst	MSH	Intersection	Lemmon & Patrician
Agency/Co.	Solaegui Engineers	Jurisdiction	Washoe County
Date Performed	12/28/2016	East/West Street	Patrician Drive
Analysis Year	2016	North/South Street	Lemmon Drive
Time Analyzed	AM Existing + Project	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description			

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	0		0	1	0		0	1	1	0		0	1	1
Configuration			LTR				LTR			L		TR		L	T	R	
Volume, V (veh/h)		1	2	42		111	8	2		56	72	34		2	309	11	
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3			
Proportion Time Blocked																	
Percent Grade (%)		0				0											
Right Turn Channelized		No				No				No				No			
Median Type/Storage		Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			49				132				61				2	
Capacity, c (veh/h)			673				384				1204				1466	
v/c Ratio			0.07				0.34				0.05				0.00	
95% Queue Length, Q ₉₅ (veh)			0.2				1.5				0.2				0.0	
Control Delay (s/veh)			10.8				19.2				8.1				7.5	
Level of Service, LOS			B				C				A				A	
Approach Delay (s/veh)		10.8				19.2				2.8				0.0		
Approach LOS		B				C										

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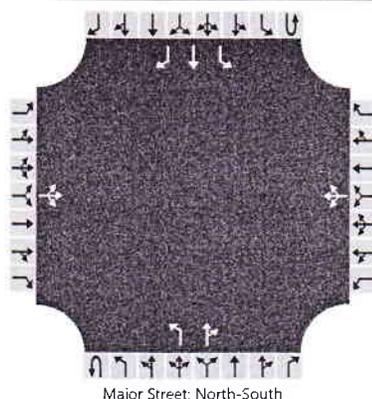
General Information

Analyst	MSH
Agency/Co.	Solaegui Engineers
Date Performed	12/28/2016
Analysis Year	2016
Time Analyzed	PM Existing + Project
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Lemmon & Patrician
Jurisdiction	Washoe County
East/West Street	Patrician Drive
North/South Street	Lemmon Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	1	
Configuration			LTR				LTR			L		TR		L	T	R	
Volume, V (veh/h)		6	9	63		83	20	25		51	358	130		5	174	5	
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3			
Proportion Time Blocked																	
Percent Grade (%)		0				0											
Right Turn Channelized		No				No				No				No			
Median Type/Storage		Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																	
Critical Headway (sec)																	
Base Follow-Up Headway (sec)																	
Follow-Up Headway (sec)																	

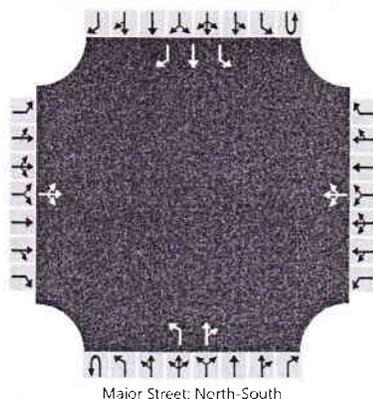
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			85				139				55					5	
Capacity, c (veh/h)			602				300				1372					1031	
v/c Ratio			0.14				0.46				0.04					0.00	
95% Queue Length, Q ₉₅ (veh)			0.5				2.3				0.1					0.0	
Control Delay (s/veh)			12.0				27.0				7.7					8.5	
Level of Service, LOS			B				D				A					A	
Approach Delay (s/veh)		12.0				27.0				0.7				0.2			
Approach LOS		B				D											

HCS 2010 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MSH	Intersection	Lemmon & Patrician
Agency/Co.	Solaegui Engineers	Jurisdiction	Washoe County
Date Performed	12/28/2016	East/West Street	Patrician Drive
Analysis Year	2026	North/South Street	Lemmon Drive
Time Analyzed	AM Base	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description			

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	1
Configuration			LTR				LTR			L		TR		L	T	R
Volume, V (veh/h)		2	2	46		46	7	1		62	61	13		1	286	12
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized		No				No				No						
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			54				59				67				1	
Capacity, c (veh/h)			692				406				1229				1510	
v/c Ratio			0.08				0.15				0.05				0.00	
95% Queue Length, Q ₉₅ (veh)			0.3				0.5				0.2				0.0	
Control Delay (s/veh)			10.6				15.4				8.1				7.4	
Level of Service, LOS			B				C				A				A	
Approach Delay (s/veh)	10.6				15.4				3.7				0.0			
Approach LOS	B				C											

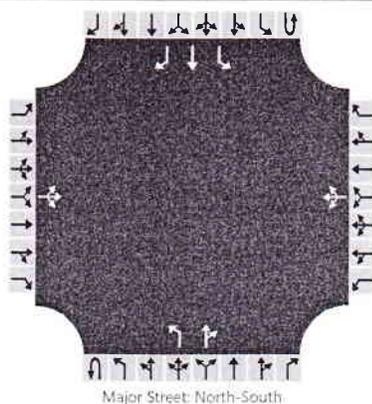
HCS 2010 Two-Way Stop-Control Report

General Information

Site Information

Analyst	MSH	Intersection	Lemmon & Patrician
Agency/Co.	Solaegui Engineers	Jurisdiction	Washoe County
Date Performed	12/28/2016	East/West Street	Patrician Drive
Analysis Year	2026	North/South Street	Lemmon Drive
Time Analyzed	PM Base	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description			

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	0		0	1	0	0	1	1	0	0	1	1	1	
Configuration			LTR				LTR			L		TR		L	T	R	
Volume, V (veh/h)		7	8	70		40	20	24		56	334	58		3	158	5	
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3			
Proportion Time Blocked																	
Percent Grade (%)		0				0											
Right Turn Channelized		No				No				No				No			
Median Type/Storage		Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																	
Critical Headway (sec)																	
Base Follow-Up Headway (sec)																	
Follow-Up Headway (sec)																	

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			93			91			61						3		
Capacity, c (veh/h)			660			360			1391						1127		
v/c Ratio			0.14			0.25			0.04						0.00		
95% Queue Length, Q ₉₅ (veh)			0.5			1.0			0.1						0.0		
Control Delay (s/veh)			11.4			18.4			7.7						8.2		
Level of Service, LOS			B			C			A						A		
Approach Delay (s/veh)		11.4				18.4				1.0				0.1			
Approach LOS		B				C											

HCS 2010 Two-Way Stop-Control Report

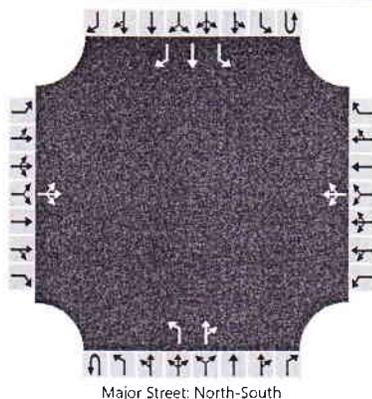
General Information

Analyst	MSH
Agency/Co.	Solaegui Engineers
Date Performed	12/28/2016
Analysis Year	2026
Time Analyzed	AM Base + Project
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Lemmon & Patrician
Jurisdiction	Washoe County
East/West Street	Patrician Drive
North/South Street	Lemmon Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	0		0	1	0		0	1	0		0	1	1	
Configuration			LTR				LTR			L		TR		L	T	R	
Volume, V (veh/h)		2	2	46		111	8	2		62	78	34		2	336	12	
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3			
Proportion Time Blocked																	
Percent Grade (%)		0				0											
Right Turn Channelized		No				No				No							
Median Type/Storage		Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			54				132				67				2		
Capacity, c (veh/h)			640				351				1174				1457		
v/c Ratio			0.08				0.38				0.06				0.00		
95% Queue Length, Q ₉₅ (veh)			0.3				1.7				0.2				0.0		
Control Delay (s/veh)			11.1				21.3				8.3				7.5		
Level of Service, LOS			B				C				A				A		
Approach Delay (s/veh)		11.1				21.3				2.9				0.0			
Approach LOS		B				C											

HCS 2010 Two-Way Stop-Control Report

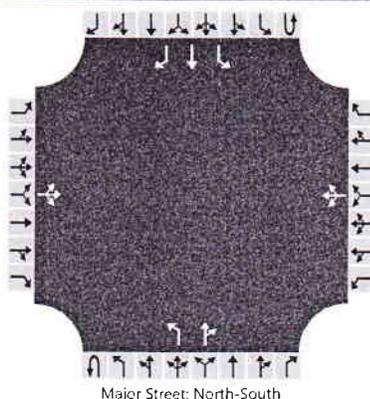
General Information

Analyst	MSH
Agency/Co.	Solaegui Engineers
Date Performed	12/28/2016
Analysis Year	2026
Time Analyzed	PM Base + Project
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Lemmon & Patrician
Jurisdiction	Washoe County
East/West Street	Patrician Drive
North/South Street	Lemmon Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0		0	1	0		0	1	1
Configuration			LTR				LTR			L		TR		L	T	R
Volume, V (veh/h)		7	9	70		83	20	25		56	390	130		5	189	6
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized		No				No				No				No		
Median Type/Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			94				139				61				5	
Capacity, c (veh/h)			577				269				1351				1001	
v/c Ratio			0.16				0.52				0.05				0.00	
95% Queue Length, Q ₉₅ (veh)			0.6				2.8				0.1				0.0	
Control Delay (s/veh)			12.4				31.9				7.8				8.6	
Level of Service, LOS			B				D				A				A	
Approach Delay (s/veh)		12.4				31.9				0.8				0.2		
Approach LOS		B				D										

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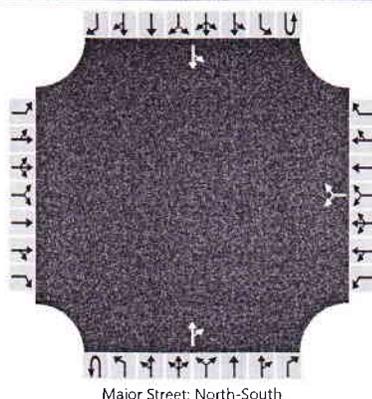
General Information

Analyst	MSH
Agency/Co.	Solaegui Engineers
Date Performed	12/28/2016
Analysis Year	2016
Time Analyzed	AM Existing
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Lemmon & Deodar
Jurisdiction	Washoe County
East/West Street	Deodar Way
North/South Street	Lemmon Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0		0	1	0		0	1	0
Configuration							LR					TR			LT	
Volume, V (veh/h)						0		1			67	1			0	267
Percent Heavy Vehicles (%)						3		3							3	
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized			No				No				No				No	
Median Type/Storage							Undivided									

Critical and Follow-up Headways

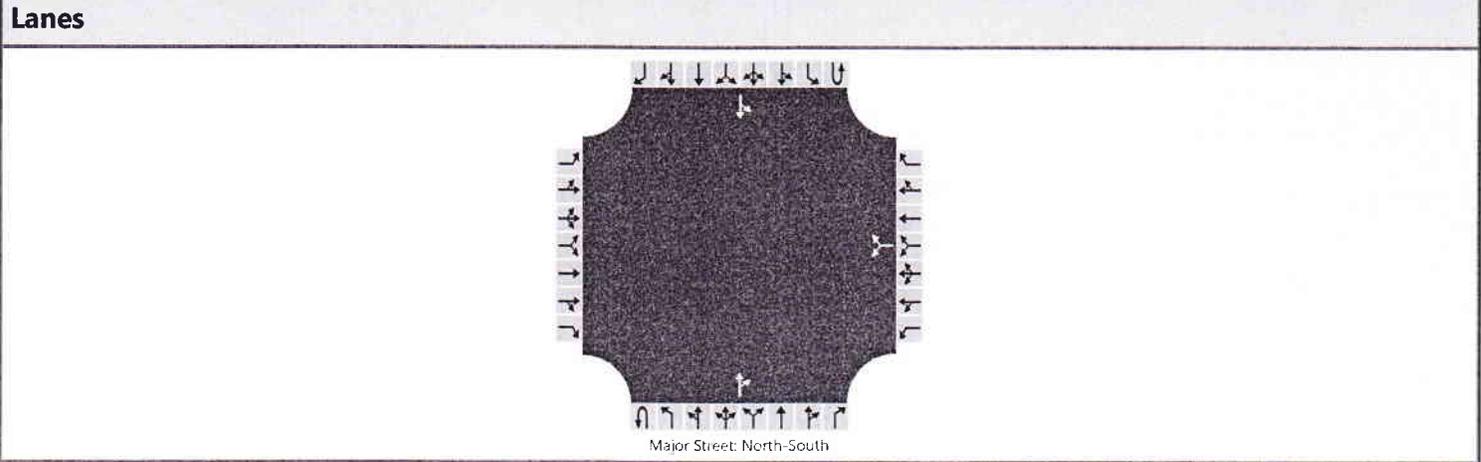
Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							1								0	
Capacity, c (veh/h)							984								1517	
v/c Ratio							0.00								0.00	
95% Queue Length, Q ₉₅ (veh)							0.0								0.0	
Control Delay (s/veh)							8.7								7.4	
Level of Service, LOS							A								A	
Approach Delay (s/veh)							8.7								0.0	
Approach LOS							A									

HCS 2010 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MSH			Intersection	Lemmon & Deodar		
Agency/Co.	Solaegui Engineers			Jurisdiction	Washoe County		
Date Performed	12/28/2016			East/West Street	Deodar Way		
Analysis Year	2016			North/South Street	Lemmon Drive		
Time Analyzed	PM Existing			Peak Hour Factor	0.92		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description							



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0		0	1	0		0	1	0
Configuration							LR					TR			LT	
Volume, V (veh/h)						1		0			332	1		0	157	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized		No				No				No				No		
Median Type/Storage	Undivided															

Critical and Follow-up Headways

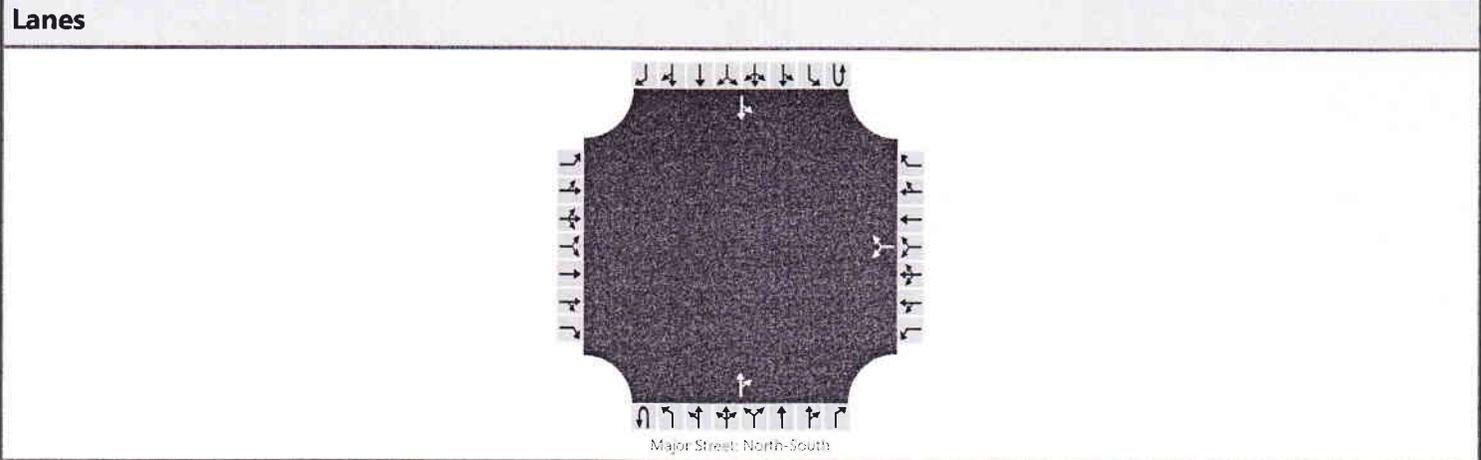
Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								1								0
Capacity, c (veh/h)								506								1190
v/c Ratio								0.00								0.00
95% Queue Length, Q ₉₅ (veh)								0.0								0.0
Control Delay (s/veh)								12.1								8.0
Level of Service, LOS								B								A
Approach Delay (s/veh)									12.1				0.0			
Approach LOS									B							

HCS 2010 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MSH	Intersection	Lemmon & Deodar
Agency/Co.	Solaegui Engineers	Jurisdiction	Washoe County
Date Performed	12/28/2016	East/West Street	Deodar Way
Analysis Year	2016	North/South Street	Lemmon Drive
Time Analyzed	AM Existing + Project	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description			



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0		0	1	0		0	1	0
Configuration							LR					TR			LT	
Volume, V (veh/h)						50		2			68	18			0	268
Percent Heavy Vehicles (%)						3		3							3	
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized		No				No				No				No		
Median Type/Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								56								0
Capacity, c (veh/h)								632								1492
v/c Ratio								0.09								0.00
95% Queue Length, Q ₉₅ (veh)								0.3								0.0
Control Delay (s/veh)								11.2								7.4
Level of Service, LOS								B								A
Approach Delay (s/veh)								11.2								0.0
Approach LOS								B								

HCS 2010 Two-Way Stop-Control Report

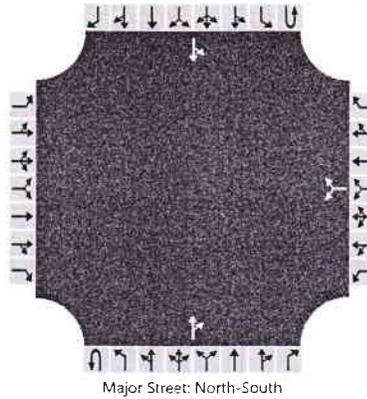
General Information

Analyst	MSH
Agency/Co.	Solaegui Engineers
Date Performed	12/28/2016
Analysis Year	2016
Time Analyzed	PM Existing + Project
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Lemmon & Deodar
Jurisdiction	Washoe County
East/West Street	Deodar Way
North/South Street	Lemmon Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume, V (veh/h)						33		1			333	57		1	159	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized		No				No				No				No		
Median Type/Storage		Undivided														

Critical and Follow-up Headways

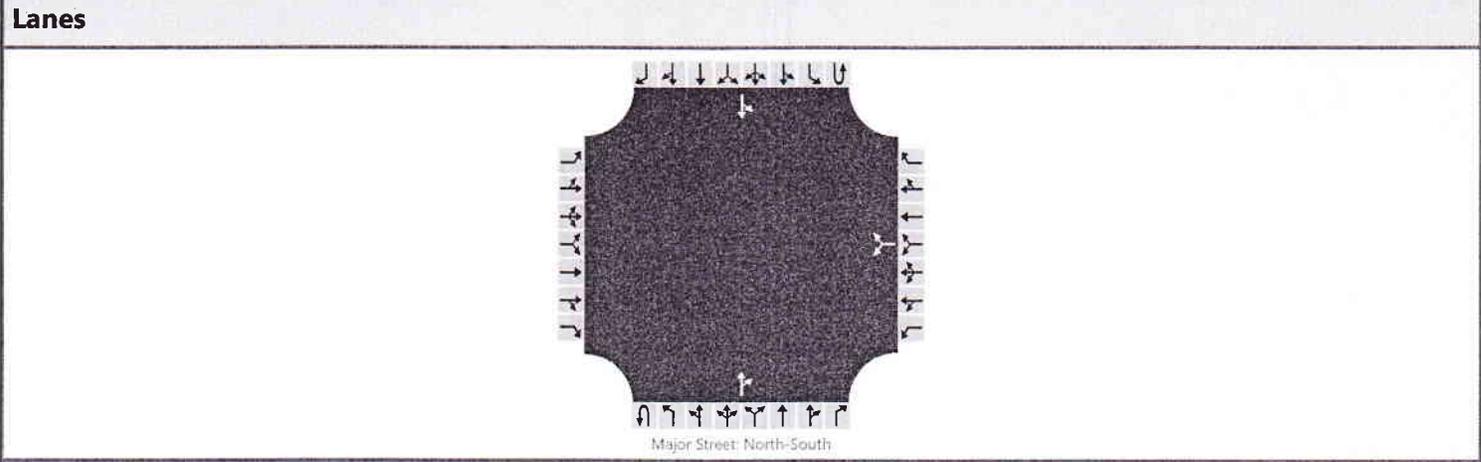
Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						37								1		
Capacity, c (veh/h)						485								1129		
v/c Ratio						0.08								0.00		
95% Queue Length, Q ₉₅ (veh)						0.2								0.0		
Control Delay (s/veh)						13.0								8.2		
Level of Service, LOS						B								A		
Approach Delay (s/veh)						13.0								0.1		
Approach LOS						B										

HCS 2010 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MSH	Intersection	Lemmon & Deodar
Agency/Co.	Solaegui Engineers	Jurisdiction	Washoe County
Date Performed	12/28/2016	East/West Street	Deodar Way
Analysis Year	2026	North/South Street	Lemmon Drive
Time Analyzed	AM Base	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description			



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0		0	1	0		0	1	0
Configuration							LR					TR			LT	
Volume, V (veh/h)						1		2			74	2			1	295
Percent Heavy Vehicles (%)						3		3							3	
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							3								1	
Capacity, c (veh/h)							807								1507	
v/c Ratio							0.00								0.00	
95% Queue Length, Q ₉₅ (veh)							0.0								0.0	
Control Delay (s/veh)							9.5								7.4	
Level of Service, LOS							A								A	
Approach Delay (s/veh)					9.5								0.0			
Approach LOS					A											

HCS 2010 Two-Way Stop-Control Report

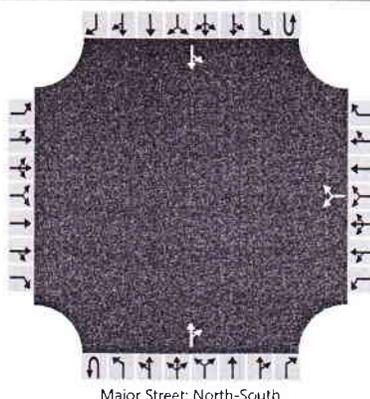
General Information

Analyst	MSH
Agency/Co.	Solaegui Engineers
Date Performed	12/28/2016
Analysis Year	2026
Time Analyzed	PM Base
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Lemmon & Deodar
Jurisdiction	Washoe County
East/West Street	Deodar Way
North/South Street	Lemmon Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0		0	1	0		0	1	0
Configuration							LR					TR			LT	
Volume, V (veh/h)						2		1			367	2			1	174
Percent Heavy Vehicles (%)						3		3							3	
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized			No				No				No				No	
Median Type/Storage							Undivided									

Critical and Follow-up Headways

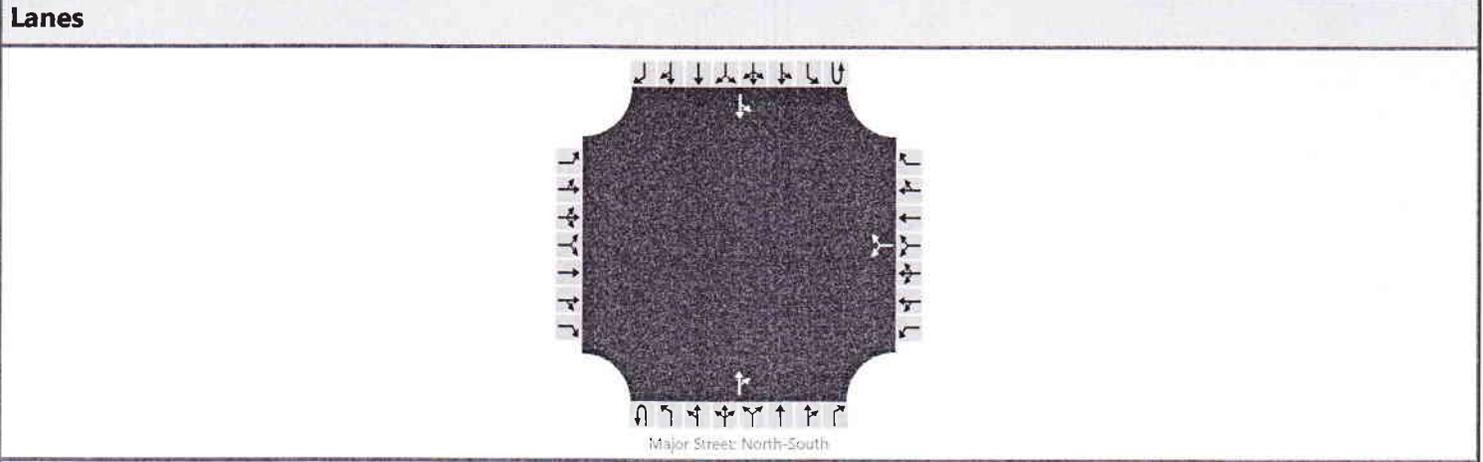
Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							3								1	
Capacity, c (veh/h)							515								1151	
v/c Ratio							0.01								0.00	
95% Queue Length, Q ₉₅ (veh)							0.0								0.0	
Control Delay (s/veh)							12.0								8.1	
Level of Service, LOS							B								A	
Approach Delay (s/veh)							12.0								0.1	
Approach LOS							B									

HCS 2010 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MSH	Intersection	Lemmon & Deodar
Agency/Co.	Solaegui Engineers	Jurisdiction	Washoe County
Date Performed	12/28/2016	East/West Street	Deodar Way
Analysis Year	2026	North/South Street	Lemmon Drive
Time Analyzed	AM Base + Project	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description			



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0		0	1	0		0	1	0
Configuration							LR					TR			LT	
Volume, V (veh/h)						51		3			75	19			1	296
Percent Heavy Vehicles (%)						3		3							3	
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized			No				No				No				No	
Median Type/Storage								Undivided								

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							58								1	
Capacity, c (veh/h)							602								1481	
v/c Ratio							0.10								0.00	
95% Queue Length, Q ₉₅ (veh)							0.3								0.0	
Control Delay (s/veh)							11.6								7.4	
Level of Service, LOS							B								A	
Approach Delay (s/veh)							11.6								0.0	
Approach LOS							B									

HCS 2010 Two-Way Stop-Control Report

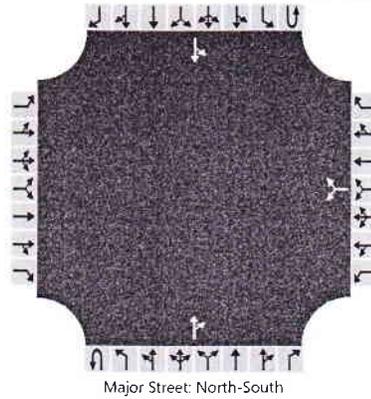
General Information

Analyst	MSH
Agency/Co.	Solaegui Engineers
Date Performed	12/28/2016
Analysis Year	2026
Time Analyzed	PM Base + Project
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Lemmon & Deodar
Jurisdiction	Washoe County
East/West Street	Deodar Way
North/South Street	Lemmon Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	0	1	0	
Configuration							LR					TR		LT			
Volume, V (veh/h)						34		2			368	50		2	176		
Percent Heavy Vehicles (%)						3		3						3			
Proportion Time Blocked																	
Percent Grade (%)							0										
Right Turn Channelized		No				No				No				No			
Median Type/Storage		Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																	
Critical Headway (sec)																	
Base Follow-Up Headway (sec)																	
Follow-Up Headway (sec)																	

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							39								2		
Capacity, c (veh/h)							454								1100		
v/c Ratio							0.09								0.00		
95% Queue Length, Q ₉₅ (veh)							0.3								0.0		
Control Delay (s/veh)							13.7								8.3		
Level of Service, LOS							B								A		
Approach Delay (s/veh)							13.7								0.1		
Approach LOS							B										