

DEVELOPMENT APPLICATION**ACTION REQUESTED:**

☐ Administrative Review
☐ Administrative Review MME
☐ Annexation
☐ Conditional Use Permit
☐ Development Agreement
☒ Comprehensive Plan Amendment
☐ Major Deviation
☐ Minor Deviation
☐ Planned Development



☐ Rezoning
☐ Tentative Subdivision Map
☐ Variance

CASE NUMBER: |**FEE:**

\$

Noticing Fee

\$

TOTAL FEE:

\$

Rec'd by:

Date:

(For Planning Division Use Only)

DATE: 1/21/2026**PROJECT NAME:** Foothills @ Wingfield Springs Comprehensive Plan Amendment**PROJECT DESCRIPTION:** A request to amend approximately 34.75 acres of Open Space to Low Density Residential (LDR)

(Mark one box to indicate responsible party and mailing address)

☐ **PROPERTY OWNER***

Red Hawk Land Company, LLC a Nevada Limited Liability Company

Name: _____

Address: 4021 Port Chicago HwyCity Concord State CA Zip Code 94520

Phone: _____ Fax: _____

Contact Person: Blake PetersE-mail Address: bpeters@seenohomes.com☐ **APPLICANT***Name: SAME AS ABOVE

Address: _____

City _____ State _____ Zip Code _____

Phone: _____ Fax: _____

Contact Person: _____

E-mail Address: _____

☐ **PERSON / FIRM PREPARING PLANS**Name: Wood Rodgers, IncAddress: 1361 Corporate BlvdCity Reno State NV Zip Code 89502Phone: 775-823-4068 Fax: _____

Contact Person: _____

E-mail Address: renoplanningsubmittalgroup@woodrodgers.com**PROJECT ADDRESS:**0 La Posada Dr**PARCEL NO. (APN):** 526-010-04**PROPERTY SIZE:** 48.77 acres**EXISTING ZONING:** NUD**PROPOSED ZONING:** No Change**MASTER PLANNED LAND USE:** Open Space**EXISTING USE:** Undeveloped**SURROUNDING USES:**North Single Family ResidentialEast Single Family Residential/Open SpaceSouth Single FamilyWest Single Family Residential/Golf Course

- If a corporation, please attach a list of corporate officers.
- If a partnership, please list all general partners.

NOTE: Affidavits must be signed by both the property owner and the developer/lessee and notarized before the application is submitted.

Revised 01.29.2025

DEAR APPLICANT:

THE CITY OF SPARKS APPLICATION PROCESS REQUIRES THAT THE PROPERTY OWNER AUTHORIZE THE APPLICANT TO REQUEST DEVELOPMENT RELATED APPLICATIONS. DEVELOPMENT APPROVALS REMAIN WITH THE LAND; THEREFORE, THE PROPERTY OWNER IS ALWAYS RESPONSIBLE FOR ANY ACTIVITY ON THE PROPERTY.

OWNER AFFIDAVIT

STATE OF NEVADA)
) SS
COUNTY OF WASHOE)

authorized agent involved in this petition I say that I am an owner of property /
request development related applications on my property. I also for site by the Planning Commission,
City Council and City staff.

Subscribed and sworn before me ay

Notary Public in County and State

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See attached Acknowledgment

STATE OF NEVADA)
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See attached Acknowledgment

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A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document

STATE OF CALIFORNIA)
) ss
COUNTY OF CONTRA COSTA)

On January 13, 2026, before me, A. PEREZ, a Notary Public, personally appeared **ALBERT D. SEENO, JR.**, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

.....
A. PEREZ
COMM # 244927
CONTRA COSTA County
California Notary Pub
Comm Exp June 6, 2027
.....

SIGNATURE OF



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(Civ Code §1189)

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

SS

COUNTY OF CONTRA COSTA

On January 13, 2026, before me, A. PEREZ, a Notary Public, personally appeared **BLAKE PETERS**, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

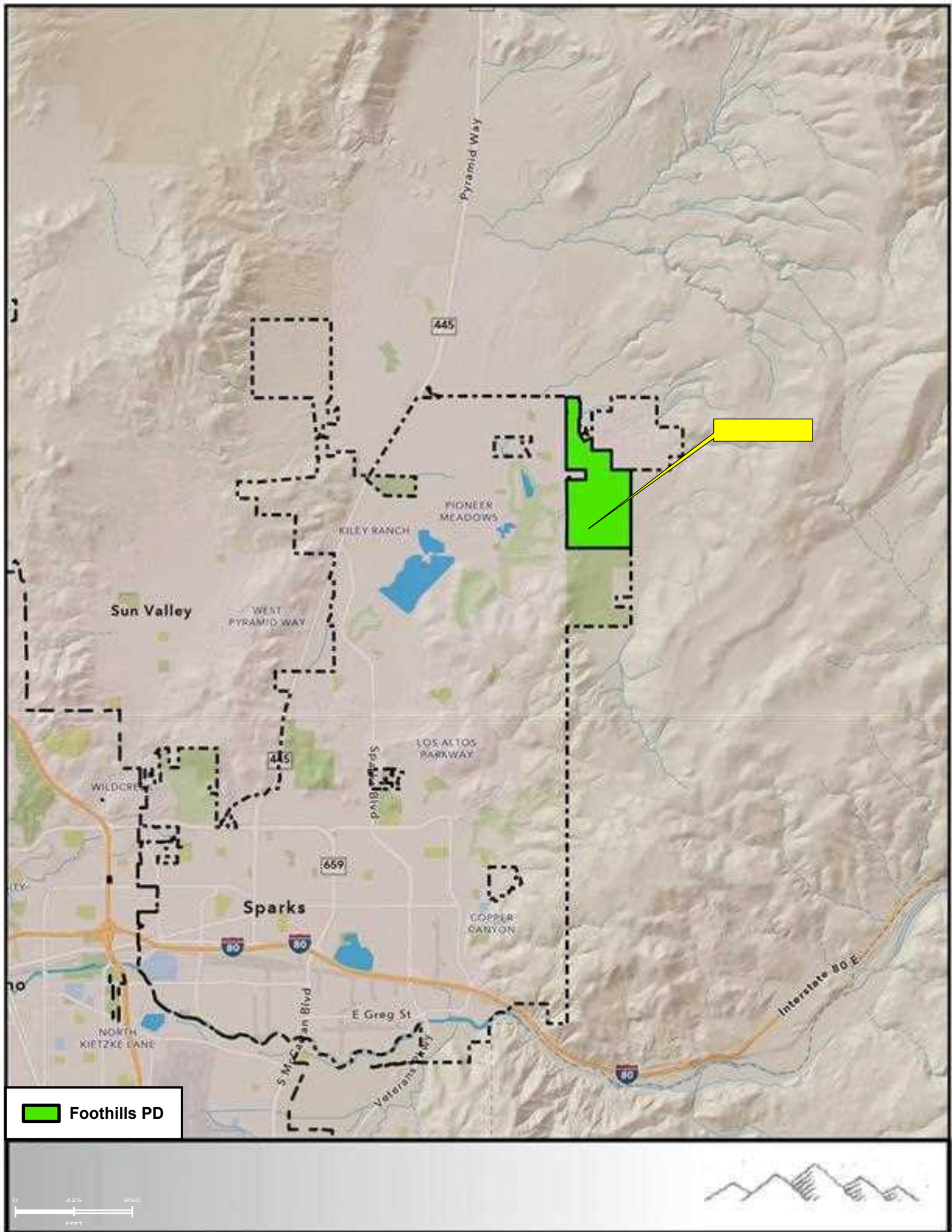
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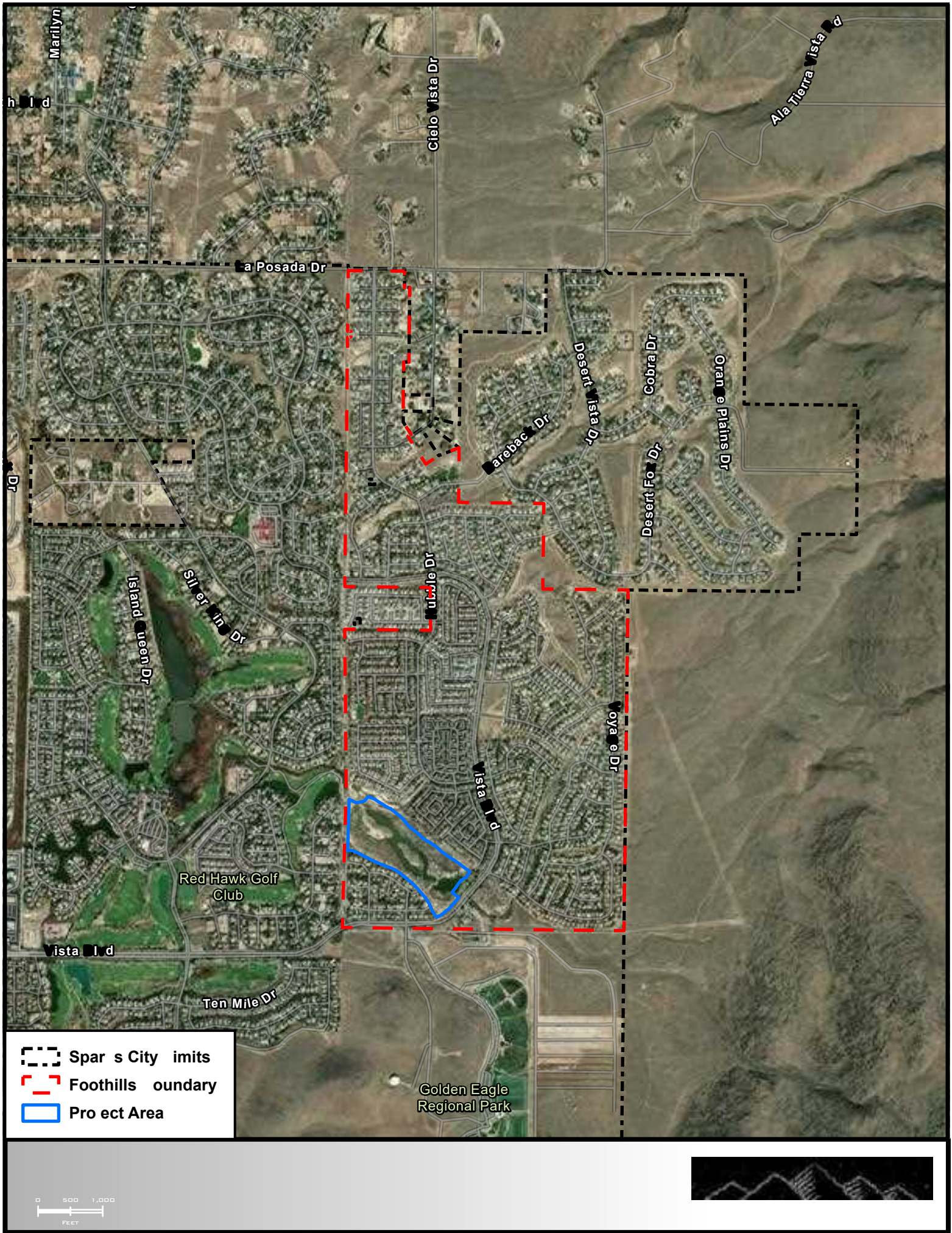
WITNESS my hand and official seal

A. PEREZ
COMM # 2449271
CONTRA COSTA County
California Notary Public
Comm Exp June 6, 2027

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Executive Summary

Ward #: 4
Applicant: Red Hawk Land Company, LLC
APN Numbers: APN 526-010-04
Request: This is a request for:
1) **Comprehensive Plan Amendment** to change 34.75±acres (ac) of Open Space (OS) to **Low Density Residential (LDR)** with the potential to develop additional single-family residential lots.

Location: The project area is located in northwest Sparks, NV, on the north side of Vista Boulevard approximately 1.5 miles (mi) south of La Posada Dr, 2.8 mi east of Pyramid Highway, and 0.4 mi west of Spark's eastern boundary, within the planned development *Foothills at Wingfield Springs*.

Background

The project site is located within the Foothills at Wingfield Springs Planned Development (PD) (Foothills PD) which included a Development Handbook (Handbook) with specific criteria for development within the Foothills PD. When the handbook was originally recorded in 2005, the subject site was identified as 53.22 acres (ac) of open space, but a recorded parcel map (PM 4212) establishes the subject parcel as 48.77 ac, highlighted here in **orange** on *Figure 1: Original Foothills PD Map*. This discrepancy is likely caused by surrounding OS buffers identified in the original Handbook captured by adjacent parcel boundaries or roadways on final recorded maps. Regardless, the total acreage established for the PD in the original Handbook of ±690 ac was accurate upon the PD's inception and remains accurate today. The original Handbook approved identified 173.05 ac of OS throughout Foothills PD, which constituted 25% of the total area of the Foothills PD and exceeded the 20% OS requirement by 5%. The site was originally constructed as 3 holes intended to be part of the adjacent Red Hawk Golf Course, however, the holes were never opened due to being economically unviable, resulting in a vacant and underutilized site.

Request

The current request is to change the Comprehensive Plan Land Use Designation for a ±34.75 ac portion of an approximately 48.77-ac parcel within the Foothills PD from Open Space (OS) to Low Density Residential (LDR), with ±14.02 ac of the parent parcel remaining OS, contributing to the approximately 138.3 ac (20% of total site area) of OS retained across the entire Foothills PD. The current OS land use designation does not allow single family homes to be constructed on the site. Changing the land use designation to LDR would allow a range of “3 to less than 6 dwelling units per acre” (du/ac) per the Sparks Comprehensive Plan. This request will support future

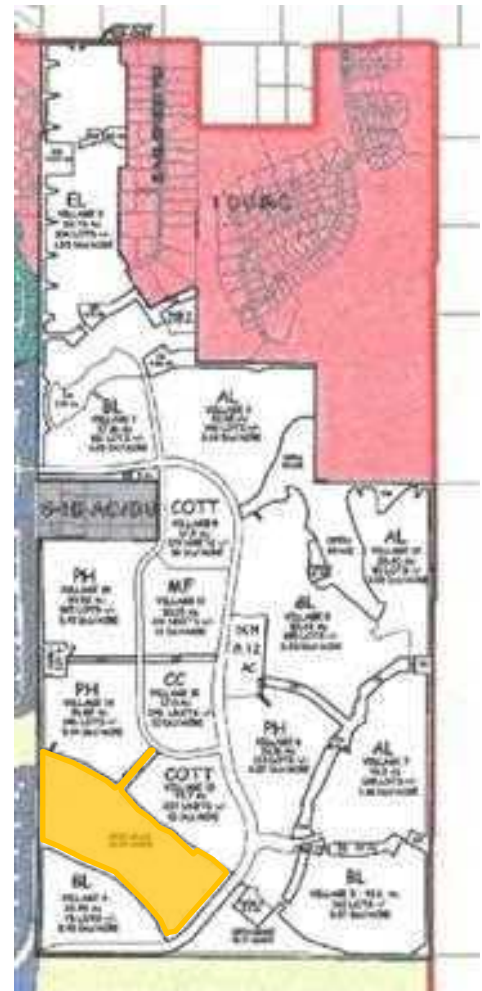


Figure 1: Original Foothills PD Map
(with subject site in **orange**)



development of a single family detached residential development, with similar density and lot sizes as the surrounding existing developments.

The request is summarized as follows:

- ✎ A **Comprehensive Plan Amendment (CPA)** to amend the land use designation of approximately 34.75 acres of a ±48.77-ac parcel from Open Space (OS) to **Low Density Residential (LDR)**, with ±14.02 acres of the site remaining OS and contributing to the ±138.3 ac of OS throughout the Foothills PD.

It is worth noting that an amendment of the Foothills at Wingfield Springs handbook is also being processed concurrently with this request. The Modification of Final Approved Plan (Handbook Amendment) amends the approved Foothills PD Handbook to be reflective of the requested CPA amendment and adds a new village that modifies total lot count and modifies total open space provided within the PD boundary.

Land Use Compatibility

The proposed Comprehensive Plan Amendment (CPA) to change the land use designation of the subject site from OS to LDR is compatible with surrounding land uses (*refer to Existing Land Use Map in Section 3 of this submittal packet*). Although originally constructed as 3 holes intended to be part of the adjacent Red Hawk Golf Course, the holes were never opened due to being economically unviable and remains vacant and underutilized. Designating the property as LDR will allow for single-family residential development that complements adjacent neighborhoods while maintaining substantial open space.

ADJACENT PROPERTY DESCRIPTION			
	Land Use Designation (Master Plan)	Zoning District (Development Code)	Current Use
North	Low Density Residential (LDR) Multi-Family 14 du/ac (MF-14)	Planned Development (PD) (Foothills) PD (Foothills)	Residential Residential
South	LDR	PD (Foothills)	Residential
East	Open Space (OS)	PD (Foothills)	Open space/park
West	OS Large Lot Residential (LLR)	PD (Wingfield Springs) PD (Wingfield Springs)	Open space Residential

North: To the north, Village 14 within the Foothills PD is designated LDR and developed at ±5.44 du/ac with patio-style homes, while Village 13 to the northeast is designated Multi-Family (MF-14) and developed with cottage-style housing at approximately 10 du/ac.

South: Adjacent to the site's southern boundary are parcels within the Foothills PD designated LDR and included in Foothills PD Village 4 which was developed with 78 lots on ±22.75 ac at an approximate density of 3.43 dwelling units per acre (du/ac).

East: The eastern boundary fronts Vista Boulevard, across from which lies an expanse of over 50 acres of dedicated open space which extends east and then north adjacent to the eastern PD boundary and includes a two (2)-acre park within the Foothills PD. Eagle Canyon Regional Park and Sports Complex is also located just south across Vista Boulevard.



West: To the west, the site abuts dedicated open space associated with Village 7 of the Wingfield Springs PD, which is designated Large Lot Residential (LLR) and developed at approximately 1.99 du/ac.

When considering these adjacent land use designations and development densities, the proposed LDR designation represents a logical and compatible transition. The Comprehensive Plan indicates an LDR land use designation supports 3 to 6 du/ac. At an anticipated density of approximately 4.6 du/ac, the site will provide a balanced progression between larger-lot residential to the west and higher-density multi-family housing to the northeast, consistent with the density intended for LDR lands. This transitional approach aligns with the established development pattern envisioned for the Foothills PD.

Further, the proposed design retains almost over 14 ac of open space on site (and over 138 ac of open space throughout the PD), ensuring that most existing homes currently adjacent to open space will maintain that adjacency after build out. With significant open space remaining on-site, combined with over 50 acres of open space and parkland directly east and Eagle Canyon Park to the south, the impact of converting this parcel from OS to LDR is minimal. Only a small number of existing homeowners will experience a change in adjacency, and the overall character of the area will remain consistent with its current mix of residential and open space uses. Additional analysis regarding land use compatibility can be found below in the findings of fact required for a CPA, specifically the analysis for ***Finding CP3***.

Impacts on Existing and Planned Facilities, Infrastructure and Public Services

As the project area is currently included in a Planned Development that was approved in 2005, the area has been master planned to accommodate for future growth and, as such, existing and planned facilities, infrastructure and public services are in place or will be in place with the development of the site.

Traffic: A Traffic Impact Study was prepared by Wood Rodgers Inc for the project and is included in *Section 4* of this application. Initial findings from suggest there are not any Level of Service (LOS) concerns with the proposed amendment. The study did find that for the 20-year projection there could be LOS concerns, however it is worth noting that the RTC has plans to widen Vista Boulevard from N. Wingfield Parkway to Hubble Drive, which will improve the future LOS to acceptable standards. The study also suggests some minor restriping improvements at N. Wingfield Parkway and Vista Boulevard may be necessary to serve future development. ***Refer to Traffic Impact Study in Section 4 for additional information.***

Water: In terms of water, the project site is within the Truckee Meadows Water Authority (TMWA) Service Boundary, and the area is currently developed and served by existing water infrastructure. The change in land use and subsequently the allowance for additional units will not have a detrimental effect on water service for the site.

Sewer: In terms of sewer service, the development area is surrounded by existing infrastructure built as part of the Foothills at Wingfield Springs community. It includes residential lots and public streets with public sewer mains. The sewer mains run through the area serving the existing villages. The subdivision mains converge flowing southwest through Wingfield Springs and then further downstream toward the west within Vista Boulevard.

Development of the new project area will include construction of a new public sanitary sewer network to serve the new Village. The sewer network will extend from an existing public sewer main on the west into the new subdivision streets.



The proposed sewer network is anticipated to be built using public mains with private laterals to each lot. There are currently no lift stations anticipated in order to serve this development. Final design will include analysis of peak flow velocity and flow depth with respect to pipe slopes and sizes. ***Refer to Preliminary Sanitary Sewer Study in Section 4 for additional information.***

Storm Drainage: The site has been designed at a preliminary level to perpetuate off-site generated flows that drain through the project. Preliminary analysis indicates that proposed detention strategies can be implemented to mitigate increased runoff while maintaining downstream hydraulic performance consistent with existing conditions. Storm water quality measures will be installed during construction to reduce probability of sediment being carried off-site by storm runoff. Currently, no negative impacts are anticipated from the development of the subject parcel of the Foothills PD. ***Refer to Preliminary Master Drainage Report in Section 4 for additional information.***

Gas and Electric: Gas and electric will be provided underground by NV Energy via connections to existing infrastructure in the area. Future development of the site will be coordinated with the appropriate agency and infrastructure improvements will be designed to meet service requirements.

Police and Fire: Fire protection will be provided by the City of Sparks Fire Department. When Foothills was originally adopted, there was an agreement to build Fire Station 5 at The Foothills, directly south of the subject site. With the recent brown-out of Station 5, the nearest City of Sparks Fire Station is Station 6 located at 6963 Scheidbar Road, approximately 2.5 miles away. Site specifics regarding fire access and public safety will be further analyzed during future entitlements including access and circulation.

Police protection services will be provided by the City of Sparks Police Department. The Police Station is located at 1701 East Prater Way.

Schools: The project site will be served by existing schools within the Washoe County School District. The proposed amendment to allow a maximum of 208 single family residential units is not anticipated to have a significant impact on the schools serving the area.

Parks: The Foothills has been developed with an extensive trail system and neighborhood parks strategically located throughout the community. While the proposed amendment removes land designated Open Space, this area was not previously identified as park site or part of the trail system. It is worth noting that as the site is developed in the future, it is likely that the trail system will be extended within this new Village to ensure pedestrian connectivity throughout Foothills.

For all the reasons demonstrated above and in combination with the analyses found in the submitted *Traffic Impact Study, Preliminary Hydrology Report, and Preliminary Sanitary Sewer Report*, it is concluded the proposed amendment is in conformance with the comprehensive plan. The developer will demonstrate further compliance prior to approval of any and all subsequent entitlements and/or building permits.



Fiscal Impact Report

A fiscal impact report was prepared by Ekay Economic Consultants. Based on the analysis, if the comprehensive plan amendment is approved, the additional residential units resulting from the related development are estimated to have a cumulative positive impact (revenue surplus) on the City of Sparks General and Road Funds of \$2.2 million. For detailed analysis regarding fiscal impacts of the proposed CPA and resultant residential subdivision *refer to the Fiscal Impact Analysis in Section 4 of this submittal packet.*

Truckee Meadows Regional Plan and Sparks Comprehensive Plan

Detailed analysis regarding the proposed CPA from OS to LDR and the subsequent residential development the CPA will facilitate and said project's consistency with the objectives, goals, and policies of the Truckee Meadows Regional Plan (TMRP) and the Sparks Comprehensive Plan can be found below in the written analysis for Findings CP1 and Finding CP2 respectively.



Findings

The City of Sparks has identified necessary findings of fact required for approval of a Comprehensive Plan Amendment (CPA). The required findings are listed here with responses below each:

A. Finding CP1: The proposed Comprehensive Plan amendment would be in conformance with the Regional Plan land use and intensity designation.

The site is designated in the Truckee Meadows Regional Plan (TMRP) as Tier 2 Land, which is generally suburban level development with some higher density nodes. Tier 2 land is meant to support a variety of residential and non-residential uses in areas where public facilities and services are either in place already or planned. Tier 2 land has no minimum density requirement and a maximum allowed density of 30 dwelling units per acre (du/ac). The proposed change to LDR allows for a density range of 3 to 6 dwelling units per acre which does not exceed the allowable density for Tier 2 Land.

The project area is quintessential Tier 2 Land, surrounded on all sides by low- to medium-density residential single family detached development typical of suburban style neighborhoods, served by higher density mixed use nodes with commercial services further to the west and south. In terms of intensity, the ±34.75 ac portion of the site intended for residential development as planned and discussed in the handbook amendment anticipates up to 158 lots, equating to a density of 4.6 du/ac, well below the allowed 30 du/ac maximum for Tier 2 Lands (and below the maximum 6 du/ac for LDR).

Beyond consistency with the established land use designations and intensity maximum identified in the TMRP, analysis has been conducted as to the projects consistency with the goals and policies of the TMRP. Upon analysis it is concluded that the proposed CPA is not in conflict with the goals or policies of the TMRP. Further, the proposed project supports several TMRP goals and policies, listed below with individual consistency response for each:

Population Growth (PG)

Objective PG2: *Ensure the provision of the necessary services and resources to support the projected growth in population, employment, and housing.*

Policy PG 3 – Use of the Consensus Forecast for Planning

Policy PG 4 – Affordable Housing Strategies

Response: TMRPA's 2024 Consensus Forecast (CF) indicates the total population in Washoe County is projected to grow from 515,085 in 2024 to 602,455 in 2044, representing an average annual growth rate of 0.81 percent. The CF acknowledges that the City of Sparks is estimated to have approximately 22.4% of that population share across the entire county. The City of Sparks, by 2044, is anticipated to have a population of up to 22,863 people. The CF also indicates the City of Sparks has an annual average dwelling unit growth share of 23.2%, commensurate with their population share. Additionally, Tier 2 land is anticipated to encompass 57% of the share of countywide dwelling units.

Historical context also indicates the sites suitability for the proposed residential. This site was included with the approved Foothills at Wingfield Springs, which considered the availability of necessary services and resources needed to support a substantial increase in residential land use.



The requested change to LDR supports residential development consistent with the PD but limits future development on the subject site to no more than 6 du/ac (or max 208 residential units). This change will further support population growth in the City of Sparks, and the Region, making available additional housing and in turn contributing to affordable housing stock within the city.

Regional Form (RF)

Objective RF3: *Direct new housing, businesses, and growth to established neighborhoods and older urban areas;*

Objective RF4: *Classify future land uses by density or intensity based on projected need, compatibility, and availability to serve.*

Policy RF 2 – Priority Hierarchy for Development in the Region

Policy RF 3 – Regional Land Designation Requirements

Response: Granting this request to LDR will establish land use that allows for development of housing, supporting the City (and Region)'s needs for additional, affordable housing options. Providing housing on site is a strategic choice to respond to the region's housing needs. Although some open space will be converted, this change is strategically aligned with regional needs, given the abundance of open space in the Sparks area and the Foothills PD. Additionally, the site is proposed designated for residential use rather than commercial development to address the region's housing demand, rather than providing neighborhood-serving commercial services.

The proposed land use is compatible with the surrounding single and multi-family uses that already exist in the vicinity, and availability of services were established with the approval of the Handbook in 2005.

Granting of this request to LDR will allow the site to be developed as an infill project in an established neighborhood (Foothills).

B. Finding CP2: *The Comprehensive Plan amendment would implement the goals listed within the Sparks Comprehensive Plan as listed in the staff report.*

Requested at this time is a CPA to change the land use designation of ±34.75 ac of APN 526-010-04 from OS to LDR. The remaining portion of the parcel will be retained as OS (approximately 14.02 ac). The land use change is specific to the area identified as a new village which will facilitate residential development compatible with surrounding land uses while preserving over 14 ac of OS on site and over 138 ac of OS throughout the Foothills PD, including ensuring the majority of existing residents retain their OS adjacency. The applicant/developer understands that when the land use designation for this area is amended, no more than 6 du/ac will be allowed, pursuant the Comprehensive Plans allowed density range for LDR of 3 to 6 du/ac. Regardless of maximum allowable density, the site is currently anticipated to include 158 individual lots, for a density of 4.6 du/ac, consistent with the intent for LDR in the Comprehensive Plan. Submitted in tandem with this application and to be processed concurrently is an application for a handbook amendment to bring the *Foothills at Wingfield Springs Handbook* into conformance with the new land use plan designation.



Detailed review of the goals and policies for the Sparks Comprehensive Plan found many goals and policies which are either consistent with or furthered by the proposed CPA and subsequent residential development. Relevant Comprehensive Plan goals and policies can be found below with detailed consistency analysis for each.

Managing Growth Goals and Policies (MG)

Goal MG2: *Foster diversity in the land use mix including residential, commercial, industrial, employment and recreational areas citywide.*

Goal MG4: *Facilitates infill and redevelopment.*

Goal MG6: *Promote compact development to reduce the per capita cost of providing infrastructure, public facilities and public services.*

Policy MG1 – *The Land Use Plan will provide for a diverse and integrated mix of residential and non-residential land uses which, in the aggregate, are fiscally positive.*

Policy MG4 – *When reviewing master plan amendments for sites over five acres, the City will evaluate or cause to be evaluated: a) the impacts on existing and planned public facilities and infrastructure; b) the impacts on existing and planned public services; c) the proposed land use in relationship to existing land uses; and, d) the fiscal implications for public service providers of the proposed land use changes as documented in a fiscal impact analysis.*

Policy MG11 – *Promote compact development to reduce the number of miles of roads, sidewalks, sewer and other infrastructure needed per capita and to manage the geographic area to which the City and other public agencies must provide services such as police and fire protection, emergency medical services and code enforcement.*

Policy MG13 – *Require new infill development to consider and be sensitive to the character of existing neighborhoods in regard to zoning, building mass, structure placement, height transitions, landscaping, streetscape, access and other physical features of the existing neighborhood.*

Response: The subject site was originally designated OS to accommodate 3 holes intended to be part of the adjacent Red Hawk Golf Course, the holes were never opened due to being economically unviable. The site currently provides no public recreation. The amendment to LDR will allow development of a single family detached neighborhood within the LDR range of 3 to 6 du/ac. The site plan retains ±14.02 ac of open space and maintains the Foothills PD's overall open space requirement (greater than 20%), thereby preserving meaningful on-site amenities while delivering needed housing.

The proposed CPA to change the land use designation for approximately 34.75 ac within the Foothills PD from OS to LDR implements and is consistent with the Managing Growth Goals and Policies (MG) of the Sparks Comprehensive Plan, including Goals MG2, MG4, MG6 and Policies MG1, MG4, MG11, MG13, with specific analysis for these goals and policies found below.

The amendment advances a balanced land use pattern by converting a non-functioning OS parcel into productive residential use within an established PD that already includes a range of residential densities and types (single-family, cottage, and multi-family). The LDR designation and anticipated lot count expand the spectrum of housing options in proximity to existing neighborhoods, parks, and recreation areas, thereby strengthening functional diversity *consistent with Goal MG2*.



The site is an infill location, surrounded by built or planned residential neighborhoods and OS/park areas. It is served by existing public facilities and infrastructure (roadways, sidewalks, water, sewer, storm drainage) and is within established police, fire, and emergency medical service response areas considered with the Foothills PD approval. The amendment facilitates the utilization of existing capacity, avoids inefficient perimeter expansion, and aligns with the Comprehensive Plan's strategy to focus growth in areas already served, *satisfying Goal MG4*.

The amendment transitions the site from an OS designation that is not providing public recreation to LDR within an existing PD, adding attainable single-family housing while preserving open space. The Fiscal Impact Analysis documents an estimated cumulative net positive impact of approximately \$2.2 million over a 20-year period to the City of Sparks General and Road funds. In aggregate, the land use mix and fiscal outcomes are positive, *consistent with Policy MG1 (refer to Fiscal Impact Analysis in Section 4 of this submittal packet)*.

The site is surrounded by established neighborhoods and infrastructure. Necessary extensions are limited and can be accommodated within existing system capacities and standard development conditions. The compact pattern and infill location minimize incremental service burdens. The site is bordered by residential and OS/parks. LDR harmonizes with adjacent single-family neighborhoods and complements nearby multi-family and cottage products, providing appropriate transitions in intensity and character. Fiscal Impact Analysis included with this application demonstrates an overall positive net fiscal outcome to public service providers, *consistent with Policy MG4*.

In terms of water, the project site is within the Truckee Meadows Water Authority (TMWA) Service Boundary, and the area is currently developed and served by existing water infrastructure. In terms of sewer service, the development area is surrounded by existing infrastructure built as part of the Foothills at Wingfield Springs community. It includes residential lots and public streets with public sewer mains. The sewer mains run through the area serving the existing villages. The subdivision mains converge flowing southwest through Wingfield Springs and then further downstream toward the west within Vista Boulevard. By focusing growth where services already exist, the project limits the additional miles of roads, sidewalks, sewer, and other utilities needed per capita. The development pattern reduces the geographic area the City and partner agencies must serve for police and fire protection, emergency medical services, and code enforcement, *fulfilling Policy MG11*.

All development will conform to the Foothills PD Handbook standards governing building mass, structure placement, height transitions, landscaping, streetscape, access, and related physical features. These standards ensure compatibility and sensitivity to adjacent neighborhoods and provide orderly transitions in scale and design, *consistent with Policy MG13*.

The proposed amendment implements the Sparks Comprehensive Plan's Managing Growth framework by converting a portion of a non-functional OS designated parcel to LDR in an infill context while preserving over 14 ac of open space and maintaining the Foothills PD's >20% open space requirement. The project leverages existing infrastructure and services, promotes compact and fiscally responsible growth, enhances housing diversity, and respects neighborhood character through adherence to PD Handbook standards. For the reasons stated above, the proposed amendment is consistent with and implements the Managing Growth Goals and Policies including but not limited to Goals MG2, MG4, MG6 and Policies MG1, MG4, MG11, MG13 of the Sparks Comprehensive Plan.

Connectivity (C) Goals and Policies

Goal C3: Facilitate non-motorized travel throughout the community



Policy C4 – Require sidewalks for pedestrians on all street networks within the City.

Response: The proposed amendment to the LDR will enable residential development designed to incorporate sidewalks and pedestrian safety features, ensuring strong connections to adjacent neighborhoods and community areas. This approach promotes non-motorized travel to nearby open spaces and golf course amenities. All future street networks associated with future development will include pedestrian sidewalks constructed in accordance with the standards outlined in the Handbook and applicable City requirements. Future development of the site is anticipated to include improved pedestrian pathways and connections that will be maintained by the HOA, providing safe, accessible routes and enhanced connectivity to surrounding neighborhoods.

Community Facilities and Services Goals and Policies (CF)

Goal CF1: Maintain or, as necessary, upgrade the condition of City-owned facilities and infrastructure while maximizing their utilization.

Goal CF2: Revenues permitting, maintain and enhance the level of public services provided to City residents, visitors and businesses.

Policy CF1 – When reviewing new development, the City will not approve an application unless City services can be provided at acceptable service levels.

Response: A Traffic Impact Study (TIS) prepared by Wood Rodgers, Inc. finds no Level of Service (LOS) concerns associated with the proposed amendment under existing conditions. For the 20-year horizon, the study notes potential LOS concerns; however, the Regional Transportation Commission (RTC) has programmed widening of Vista Boulevard from N. Wingfield Parkway to Hubble Drive, which will restore LOS to acceptable standards. The TIS also recommends minor restriping improvements at N. Wingfield Parkway/Vista Boulevard to accommodate future development. *Refer to Preliminary Traffic Impact Study in Section 4 of this packet for additional information.*

The site lies within the Truckee Meadows Water Authority (TMWA) Service Boundary and is currently served by existing water infrastructure. TMWA has annexed the Foothills subdivision into their service territory and has taken over the water network previously operated by Washoe County Utilities. The proposed subdivision improvements will require purchase of new water rights and dedication to TMWA for service. Installation of new water mains will be connected to the existing network and extended into the proposed subdivision streets. Allowing the site to develop under the LDR designation will not adversely affect water service to the site.

The development area is surrounded by public sewer mains constructed with the Foothills at Wingfield Springs PD. These mains serve existing villages, converging southwest through Wingfield Springs and continuing west within Vista Boulevard. The new project will construct a public sanitary sewer network to serve the new village, extending from an existing public main on the west into new subdivision streets. The system will consist of public mains with private laterals to each lot, with no lift stations anticipated. Final design will verify peak velocity, flow depth, and pipe slopes/sizes to meet applicable standards (*refer to Sanitary Sewer Report in Section 4 of this submittal packet*).



A Preliminary Hydrology Report has been submitted with the application (*refer to Section 4 of this submittal packet*). Future design will implement on-site stormwater conveyance and detention consistent with applicable City standards, ensuring peak flow management and protection of downstream facilities. Drainage improvements will be constructed concurrent with site development.

Fire protection will be provided by the City of Sparks Fire Department. With the recent brown-out of Station 5, the nearest active station is Station 6, located at 6963 Scheidbar Road, approximately 2.5 miles away. Site-specific fire access and circulation will be refined through future entitlements and final design, and the project will comply with current Fire Code and City standards.

Police protection will be provided by the City of Sparks Police Department, headquartered at 1701 East Prater Way.

The site will be served by existing Washoe County School District (WCSD) schools. The proposed CPA is not anticipated to significantly impact the schools serving the area based on current service conditions.

The Foothills PD includes an extensive trail system and neighborhood parks strategically located throughout. Although the CPA re-designates part of the site from OS to LDR, the removed area was not previously mapped as a park or trail corridor, and approximately 14 ac will remain Open Space. As the site develops, the trail system can be extended within the new Village to ensure pedestrian connectivity and integration with the broader Foothills network.

Community Character Goals and Policies (CC)

Goal CC1: *Ensure that Sparks' physical environment, services and amenities make it a city of choice for residents and businesses.*

Policy CC8 – *Foster neighborhood diversity and design by permitting varied lot sizes, building materials, building styles and color.*

Policy CC9 – *Promote quality of design for new construction through development standards that provide well-articulated building facades, defined entrances, clear pedestrian connections and landscaping.*

Response: To ensure Sparks remains a city of choice for residents and businesses, it is essential to provide adequate housing opportunities that meet current demand and anticipated population growth. Approval of this request will allow for the development of single-family residential homes on the subject site, contributing to the City's housing inventory and supporting neighborhood diversity. Future development of the site will likely include a mix of lot sizes and with ±14.02 ac open space preserved on the subject parcel, complemented by an adjacent park to the west and over 138 ac of open space throughout the PD including an extensive park and trail network. Existing utility infrastructure serves the site, and public safety services are provided by Sparks Police and Fire.

All new construction will comply with the design and development standards outlined in the Foothills Handbook, which addresses building articulation, defined entrances, pedestrian connectivity, and landscaping in accordance with Policy CC9. By incorporating varied lot sizes and adhering to established



design guidelines, this project will enhance housing options and promote quality neighborhood design, aligning with Goal CC1 and Policies CC8 and CC9 of the Comprehensive Plan

Housing and Affordability Goals and Policies (H)

Goal H1: Facilitate development of housing that is available, affordable and accessible to a diverse and growing population, including senior citizens.

Goal H2: Promote a strong, diverse housing market that supports economic growth and vitality while ensuring environmental and fiscal sustainability.

Goal H3: Ensure that Sparks residential and mixed-use neighborhoods are desirable locations to live.

Policy H1 – Ensure there are sufficient appropriately zoned areas with the infrastructure, public facilities and services necessary for the production of new housing.

Policy H2 – Promote a variety of housing types throughout Sparks, including within mixed -used settings, to expand the choices available to meet the financial and lifestyle needs of a diverse population and workforce.

Response: The proposed Comprehensive Plan amendment to change the master plan land use designation for approximately 34.75 ac within the Foothills PD from OS to LDR implements and is consistent with the Housing and Affordability Goals and Policies (H) of the Sparks Comprehensive Plan, including Goals H1, H2, H3 and Policies H1, H2

The amendment creates a new opportunity for housing in an infill location where public utilities, roadways, and infrastructure already exist, reducing development costs and supporting affordability. The proposed single-family homes will serve Sparks' growing population and workforce by providing attainable housing options in proximity to parks, schools, and commercial services. This location ensures accessibility and convenience, *consistent with Goal H1.*

The Foothills PD includes a variety of housing types, including multi-family, cottage-style, and single-family homes. The proposed LDR designation adds another opportunity for single-family housing consistent with the allowed density range for the LDR land use designation (3 to 6 du/ac), contributing to a balanced mix of housing products that meet diverse financial and lifestyle needs. Additionally, the attached Fiscal Impact Analysis demonstrates a net positive fiscal impact of approximately \$2.2 million over 20 years, reinforcing the project's contribution to fiscal sustainability and economic vitality, *consistent with Goal H2.*

Currently, the site is an unused OS parcel that does not enhance neighborhood desirability. The proposed development will transform the site into a vibrant residential neighborhood with strategically designed open space pockets, adjacency to parks, and connectivity to existing neighborhoods. The plan preserves open space along property lines for most existing homes (all but 18) and likely provides direct adjacency to OS for future lots in this area, ensuring accessibility to shared amenities and mitigating the impact of the OS designation change. The site's proximity to schools, recreation, and commercial services further supports neighborhood desirability, *consistent with Goal H3.*

The subject site is located within a previously approved PD with adequate infrastructure and public services in place. Police, fire, and emergency medical services meet required response times and were



considered during the original Foothills PD approval. The amendment leverages existing capacity, ensuring efficient and cost-effective service delivery, *consistent with **Policy H1***.

The proposed LDR designation complements surrounding residential patterns, which include densities ranging from 1.99 du/ac to 10 du/ac and housing types from single-family to multi-family and cottage-style units. Future development of the site is anticipated to add a moderate-density option that broadens housing choice and supports a strong, diverse housing market, *consistent with **Policy H2***.

The proposed amendment advances Sparks' Housing and Affordability Goals and Policies by converting an underutilized OS parcel into a productive residential use that not only provides attainable housing in an infill location served by existing infrastructure but also expands housing diversity within the Foothills PD and the broader Sparks market. The site as designed enhances neighborhood desirability through integrated open space and proximity to parks, schools, and services. Furthermore, the CPA facilitates development which supports fiscal sustainability, as documented in the attached Fiscal Impact Analysis showing a \$2.2 million net positive impact over 20 years. With all of these considerations it can be concluded the proposed amendment is consistent with and implements Goals H1, H2, H3 and Policies H1, H2 of the Sparks Comprehensive Plan

Economic Vitality Goals and Policies (EV)

Goal EV6: *Provide the facilities and public services necessary to support a vibrant economy by maintaining fiscal strength.*

Policy EV9 – *Promote a balanced and sustainable land-use mix that fiscally and environmentally benefits the City.*

Policy EV10 – *Require, prior to or with applications for land-use approval (Tentative Map, Administrative Review or Conditional Use Permit), all development projects on greenfield sites of 20 or more acres to demonstrate they are fiscally positive to the City for a period of at least 20 years.*

Response: The site is located within a previously approved PD and is surrounded by existing development with established infrastructure, including roadways, sidewalks, water, sewer, and storm drainage. Police, fire, and emergency medical services meet required response times and were considered during the original PD approval. Development of this site will not require significant new infrastructure investment, thereby maintaining fiscal strength and supporting efficient service delivery, *consistent with **Goal EV6***.

The amendment promotes a balanced land-use pattern by converting an underutilized OS parcel into productive residential use within an infill location. This approach avoids unnecessary expansion into undeveloped areas, minimizes environmental impacts, and leverages existing infrastructure. The addition of residential units in this area strengthens Sparks' housing inventory, supports housing needs, and contributes to a sustainable growth pattern that benefits the City both fiscally and environmentally, *consistent with **Policy EV9***.

The attached Fiscal Impact Analysis demonstrates that the proposed project will generate a net positive fiscal impact of approximately \$2.2 million over a 20-year period to the City of Sparks. This surplus



reflects revenues exceeding costs for infrastructure, public facilities, and services, *satisfying the requirement for fiscal positivity under **Policy EV10***.

The proposed amendment advances Sparks' Economic Vitality Goals and Policies by utilizing existing infrastructure and services thus avoiding unnecessary public costs, promoting a balanced and sustainable land-use mix that supports housing needs. As stated above, the amendment is consistent with and implements Goal EV6 and Policies EV9, EV10 of the Sparks Comprehensive Plan

C. Finding CP3: The Comprehensive Plan Amendment would be compatible with surrounding land uses.

The proposed Comprehensive Plan Amendment to change a portion of the land use designation of the subject site from OS to LDR is fully compatible with surrounding land uses and development patterns. Although originally constructed as 3 holes intended to be part of the adjacent Red Hawk Golf Course, the holes were never opened due to being economically unviable. Designating a portion of the property as LDR will allow for single-family residential development at a density range of 3 to less than 6 du/ac that complements adjacent neighborhoods while maintaining substantial open space.

ADJACENT PROPERTY DESCRIPTION			
	Land Use Designation (Master Plan)	Zoning District (Development Code)	Current Use
North	Low Density Residential (LDR) Multi-Family 14 du/ac (MF-14)	Planned Development (PD) (Foothills) PD (Foothills)	Residential
South	LDR	PD (Foothills)	Residential
East	OS	PD (Foothills)	Open space/park
West	Open Space (OS) Large Lot Residential (LLR)	PD (Wingfield Springs) PD (Wingfield Springs)	Residential

North: To the north, Village 14 within the Foothills PD is designated LDR and developed at ± 5.44 du/ac with patio-style homes, while Village 13 to the northeast is designated Multi-Family (MF-14) and developed with cottage-style housing at approximately 10 du/ac.

South: Adjacent to the site's southern boundary are parcels within the Foothills PD designated LDR and included in Foothills PD Village 4 which was developed with 78 lots on ± 22.75 ac at an approximate density of 3.43 dwelling units per acre (du/ac).

East: The eastern boundary fronts Vista Boulevard, across from which lies over 50 ac of dedicated open space within the Foothills PD and a two (2)-acre park within the Foothills PD. Eagle Canyon Regional Park and Sports Complex is also located just south across Vista Boulevard.

West: To the west, the site abuts dedicated open space associated with Village 7 of the Wingfield Springs PD, which is designated Large Lot Residential (LLR) and developed at approximately 1.99 du/ac.

When considering these adjacent land use designations and development densities, the proposed LDR designation represents a logical and compatible transition. At an anticipated density of approximately 4.6



du/ac, the site will provide a balanced progression between larger-lot residential to the west and higher-density multi-family housing to the northeast. This transitional approach aligns with the established development pattern envisioned for the Foothills PD.

Further, the proposed design retains just over 14 ac of open space, ensuring that most existing homes currently adjacent to open space will maintain that adjacency after build-out. With significant open space remaining (over 14 ac on site and over 138 ac within the Foothills PD), coupled with the 50 ac of open space and parkland directly east and Eagle Canyon Park to the south, the impact of converting this parcel from OS to LDR is minimal. Only a small number of existing homeowners will experience a change in adjacency, and the overall character of the area will remain consistent with its current mix of residential and open space uses.

The site's proximity to parks, schools, and services, along with existing roadway and utility infrastructure, further supports the appropriateness of the LDR designation. This amendment will activate an underutilized parcel, provide needed housing opportunities, and maintain compatibility with surrounding land uses, satisfying Finding CP3.

D. Finding CP4: Public notice was given and a public hearing held per the requirements of Nevada Revised Statutes and Sparks Municipal Code.

To be determined during application review. The applicant understands that a neighborhood meeting is required by NRS 278.210 prior to any public hearing.

PRELIMINARY SANITARY SEWER REPORT
FOR
FOOTHILLS AT WINGFIELD SPRINGS
DEVELOPMENT AGREEMENT HANDBOOK AMENDMENT

Prepared for:
Red Hawk Land Company, LLC
4021 Port Chicago Hwy
Concord, CA 94520

January 12, 2026

Prepared by:
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1/12/26

Megan Overton, P.E.
Principal Engineer



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VICINITY MAP
PRELIMINARY SEWER SHED MAP



INTRODUCTION

This study serves as the preliminary sewer report for the Foothills at Wingfield Springs Development Agreement Handbook Amendment. The purpose of this report is to address sewerage issues at a high level that result from development of the proposed project area in accordance with the City of Sparks' development code and sound design and engineering practices. This report describes the proposed future improvements and quantifies the estimated sanitary sewer flows to be generated from the new development area.

PROJECT LOCATION/DESCRIPTION

The project is situated within Section 7 of Township 20 North, Range 21 East, Mount Diablo Meridian (T20N, R21E, MDM), in Washoe County, Nevada. It is proposed as an expansion to the existing Foothills at Wingfield Springs community. The new development area is approximately 50 acres and falls within Assessor Parcel Number (APN) 526-010-04. The extent of new development spans across open space at the south end of the community. A vicinity map showing the new development area is included in the appendix.

The project proposes 158 single-family detached residential lots in a new village (Village I). A layout of the proposed village can be seen on the Preliminary Sewer Shed Map in the appendix.

EXISTING CONDITION

The development area is surrounded by existing infrastructure built as part of the Foothills at Wingfield Springs community. It includes residential lots and public streets. Public sewer mains are located within the existing streets serving the existing residences. The public sewer mains converge flowing southwest through Wingfield Springs and then further downstream toward the west within Vista Boulevard.

A map of the existing infrastructure can be seen on the Preliminary Sewer Shed Map located in the appendix.

PROPOSED CONDITION

Development of the new project area will include construction of a new public sanitary sewer network to serve Village I. The sewer network will extend from an existing public sewer main on the west into the new subdivision streets. The Preliminary Sewer Shed Map shows potential sewer main locations and routing directions as well as the proposed connection point to existing infrastructure.

CONTRIBUTIONS AND HYDRAULIC ANALYSIS

The peak daily flow for the project was preliminarily calculated using a standard sewage contribution for residential lots of 350 gpd/capita with single-family detached lots having 3 capita. Based on 158 single-family detached lots, the resulting total peak sewer flow rate is anticipated to be approximately 165,900



gallons per day (0.166 MGD).

The proposed sewer network is anticipated to be built using public mains with private laterals to each lot. Final design will include analysis of peak flow velocity and flow depth with respect to pipe slopes and sizes.

CONCLUSION

The proposed preliminary sanitary sewer system discussed in this report will be designed to sufficiently serve the proposed Foothills at Wingfield Springs new project area. All proposed sanitary sewer mains shall be dedicated to the City of Sparks for ownership and maintenance. This report is preliminary in nature and a final technical sewer study will be completed with development of the new village to support final design.



APPENDIX





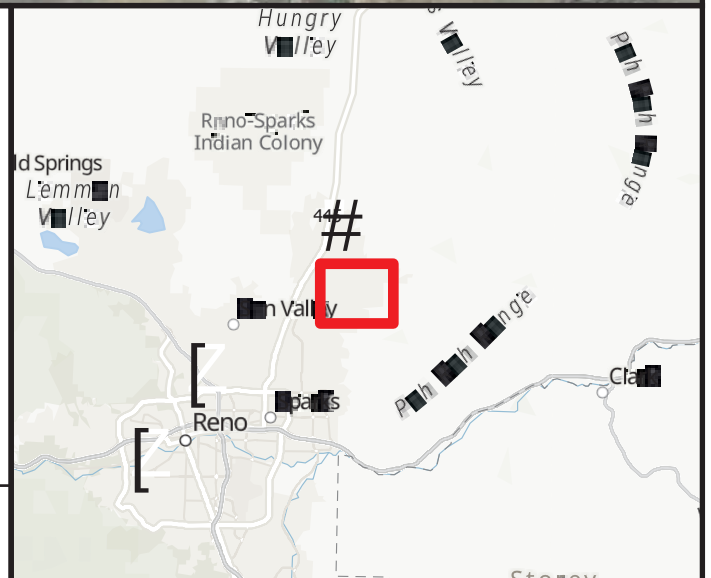
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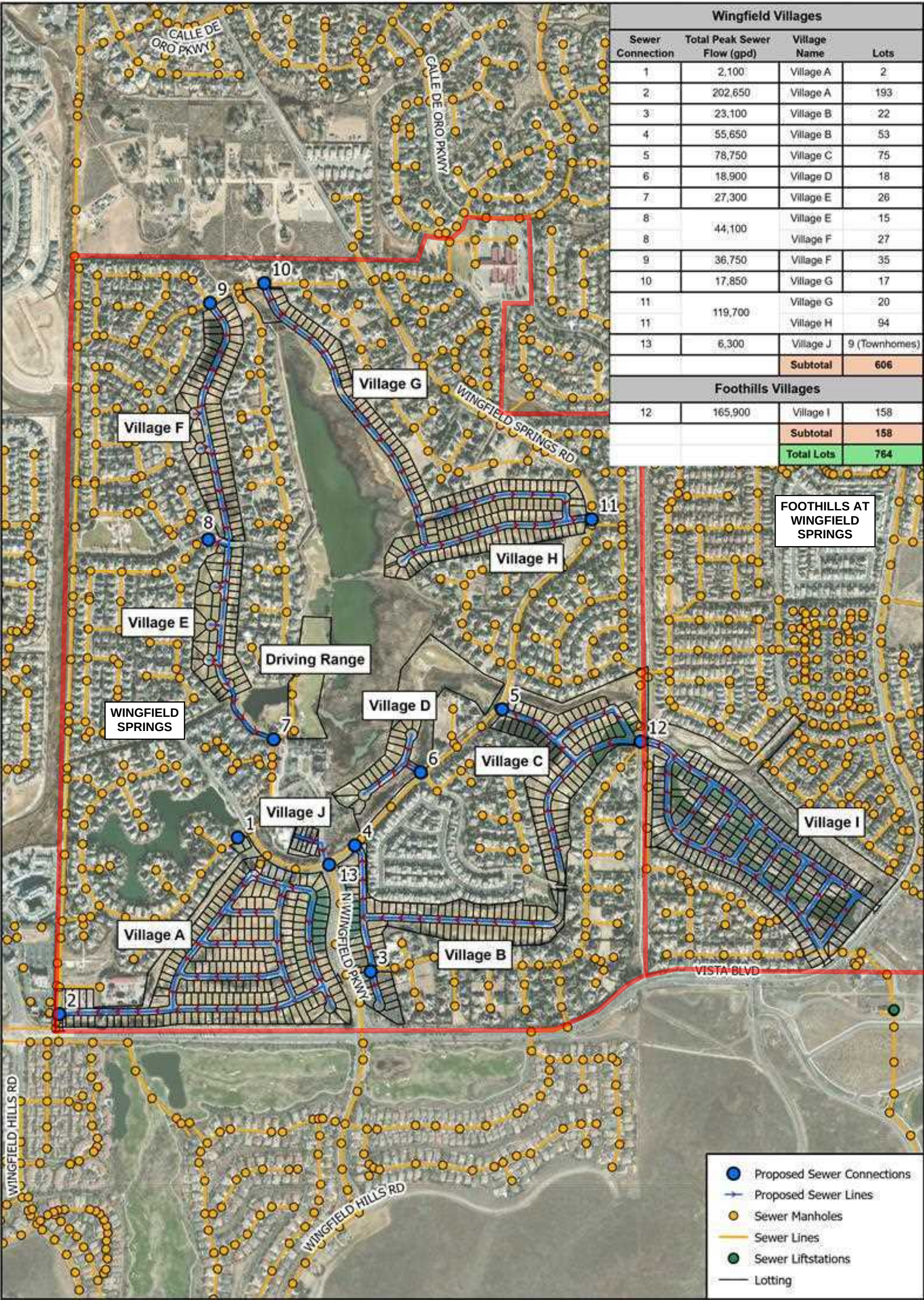
Wingfield Springs and Foothills

Sparks, Nevada

January, 2026

Prepared By: MWO

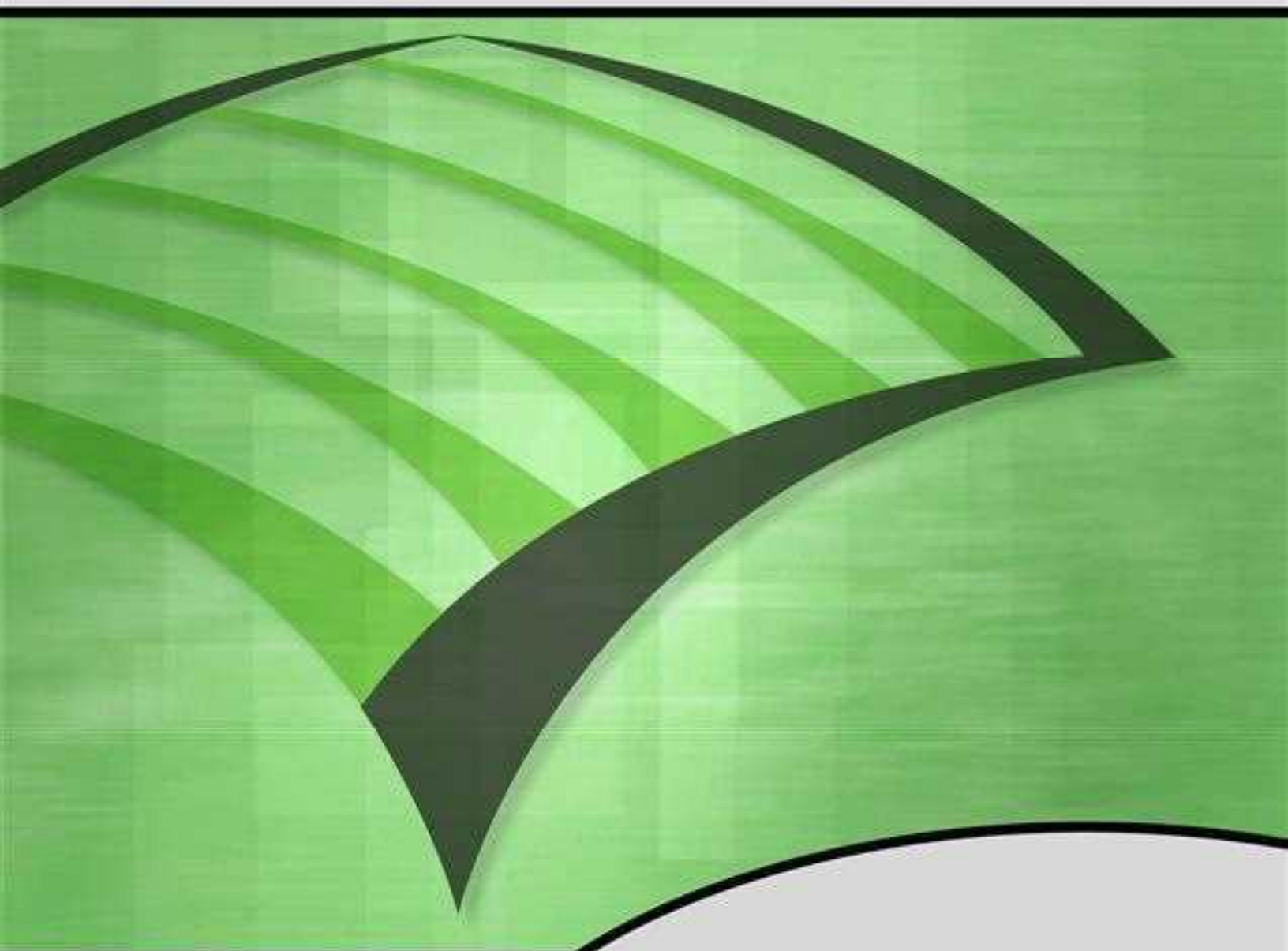




PRELIMINARY SEWER SHED MAP
WINGFIELD SPRINGS AND FOOTHILLS AT WINGFIELD SPRINGS
SPARKS, NV
JANUARY 2026

NOTES: Sewer flow based on 350 gpd / capita, 3 capita / unit for SFR, and 2 capita / unit for townhomes

Estates at Wingfield and Foothill PUDs Traffic Impact Study



PREPARED FOR

Red Hawk Land Company, LLC

January 19, 2026

Prepared By


WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

Sparks, NV

Estates at Wingfield and Foothill PUD Traffic Impact Study

REPORT

**Prepared For:
Red Hawk Land Company, LLC**

Prepared By



**1361 Corporate Boulevard
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January 2026



01/19/2026

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EXECUTIVE SUMMARY

PURPOSE

This report has been prepared to present the results of a Transportation Impact Study (TIS) for the proposed Estates at Wingfield and Foothill Planned Unit Development (PUD) Project (Project) located on the to-be-closed Lakes Golf Course north of Vista Boulevard within the City of Sparks, Nevada (City). This TIS has been prepared in accordance with the Regional Transportation Commission (RTC) of Washoe County guidelines.

PROJECT DESCRIPTION

The proposed Project consists of 764 residential units. The Project would include 10 Villages and a total of 755 single family detached housing units and 9 townhomes within 182.85 acres, located north of Vista Boulevard. The existing building that includes administrative offices, golf areas, private club facilities, dining, and event space is anticipated to remain. Project access connects via Wingfield Parkway and Wingfield Springs Road.

PROJECT GENERATED TRIPS

The Project generates a total of 6,946 daily trips, 535 AM peak hour trips (132 Inbound, 403 Outbound) and 707 PM peak hour trips (438 Inbound, 269 Outbound) under typical weekday traffic conditions.

TRAFFIC IMPACTS

The Wingfield Parkway & Vista Boulevard intersection is expected to operate at unacceptable LOS under Existing Plus Project and Cumulative Plus Project AM peak hour conditions. The Wingfield Springs Road & Eagle Wing Circle (South)/Cinnamon Drive (South) intersection is expected to operate at unacceptable LOS under Existing Plus Project and Cumulative Plus Project PM peak hour conditions. The Wingfield Parkway & Village A Access/Rey Del Sierra Drive intersection is expected to operate at unacceptable LOS under Cumulative Plus Project PM peak hour conditions. All other study intersections are projected to operate at acceptable LOS under all study scenarios.

The following queues are projected to exceed storage:

- **Wingfield Hills Road & Vista Boulevard:**
 - Southbound left PM peak hour conditions during Cumulative and Cumulative Plus Project scenarios
 - Southbound through AM peak hour conditions during Existing, Existing Plus Project, Cumulative, and Cumulative Plus Project scenarios and PM peak hour conditions during Cumulative Plus Project scenarios
 - Southbound right AM peak hour conditions during Existing, Existing Plus Project, Cumulative, and Cumulative Plus Project scenarios and PM peak hour conditions during Cumulative Plus Project scenarios
 - Westbound right AM peak hour and PM peak hour conditions during Cumulative and Cumulative Plus Project scenarios
- **Wingfield Parkway & Vista Boulevard:**
 - Southbound through AM peak hour conditions during Existing Plus Project, Cumulative, and Cumulative Plus Project scenarios
 - Southbound right PM peak hour conditions during Existing, Existing Plus Project, and Cumulative scenarios, and AM and PM peak hour conditions during Cumulative Plus Project scenario

All other queues are projected to fit within available storage.

RECOMMENDED IMPROVEMENTS

All study intersections operate at acceptable LOS under Cumulative Plus Project traffic conditions with the exception of the following:

1. Wingfield Parkway & Vista Boulevard (#3)
2. Wingfield Parkway & Village A Access/Rey Del Sierra Drive (#4)
3. Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South) (#8)

The following improvements are recommended to bring the intersection operations to acceptable LOS:

1. Wingfield Parkway & Vista Boulevard (#3)
 - a. Widen Vista Boulevard to 6 lanes (this improvement is included in the RTC Regional Transportation Plan (RTP) as a planned improvement)
 - b. Restripe the southbound approach to provide one left turn lane, one shared through-right turn lane, and one right turn lane
2. Wingfield Parkway & Village A Access/Rey Del Sierra Drive (#4)
 - a. Change the two-way stop-control to a roundabout (RAB)
3. Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South) (#8)
 - a. Add west leg to provide access to Village A
 - b. Change the one-way stop-control to a roundabout (RAB)

SITE ACCESS

The Project is made up of two subdivisions, Estates at Wingfield and Foothill. Project access to Estates at Wingfield connects to the main roadway via Wingfield Springs Road and Wingfield Parkway, while Project access to Foothill connects directly from two Village I accesses to Vista Boulevard.

SAFETY

A total of 58 collisions occurred at the study facilities over the last five years. The severity of most collisions involved was property damage only (PDO) (42 collisions), followed by injuries (15 collisions). The most common collision types were rear end collisions, followed by angle collisions. The most common primary collision factors were other unknown factors, followed by following too closely.

The Project is projected to operate similarly to the existing land uses and driveways in the area. Crash data did not display any areas of concern in the vicinity of the Project that are likely associated with the site. It is unlikely that the addition of Project traffic would result in a significant change in crash rates at the study facilities.

I INTRODUCTION

This report has been prepared to present the results of the Transportation Impact Study (TIS) performed by Wood Rodgers, Inc. for the proposed Estates at Wingfield and Foothill Planned Unit Development (PUD) Project (Project) located in Sparks, Nevada (City). This analysis has been performed to update the previously prepared TIS to analyze the impacts of replacing the existing golf course and driving range with new housing and to determine any impacts the proposed Project may have on surrounding intersections, as well as identify recommended improvement measures that could be implemented to address any significant impacts.

This analysis focuses on typical weekday operating conditions in and around the Project site. The Project location is shown in **Figure 1** on the following pages. The purpose of this TIS is to address the Project's impacts under the Regional Transportation Commission (RTC) of Washoe County requirements and evaluate the Project's potential off-site and on-site traffic operations. A local traffic operations analysis was conducted to evaluate the Project's potential traffic operational deficiencies and identify improvements as needed.

I.1 PROJECT DESCRIPTION

The Project is located north of Vista Boulevard and will be developed on the to-be-closed Lakes Golf Course owned by Red Hawk Land Company, LLC, approximately 189.25 acres. The Project is separated into two subdivisions, Estates at Wingfield and Foothill, which consist of 764 total residential units. The Project would include 10 Villages and a total of 755 single family detached housing units and 9 townhomes. The existing building that includes administrative offices, golf areas, private club facilities, dining, and event space is anticipated to remain. Project access is via Wingfield Parkway and Wingfield Springs Road.

The current Project Site Plan is illustrated in **Figure 2** on the following pages.

I.2 STUDY AREA

Study facilities include the intersections and roadway segments described below.

I.2.1 Intersections and Roadway Segments

Study intersections and roadway segments were selected based on the Project trip generation estimate and distribution. The following 22 study intersections were analyzed in this TIS:

1. Wingfield Hills Road & Vista Boulevard
2. Village A Access & Vista Boulevard
3. Wingfield Parkway & Vista Boulevard
4. Wingfield Parkway & Rey Del Sierra Drive
5. Wingfield Parkway & Wingfield Springs Road
6. Wingfield Springs Road & Poco Rey Drive
7. Wingfield Springs Road & Diamond Wing Circle
8. Wingfield Springs Road & Eagle Wing Circle (South)/Cinnamon Drive (South)
9. Wingfield Springs Road & Eagle Wing Circle (North)
10. Wingfield Springs Road & Silver King Drive/Cinnamon Drive (North)
11. Wingfield Springs Road & General Thatcher Drive/Florentine Drive
12. Silver King Drive & General Thatcher Drive
13. Island Queen Drive & General Thatcher Drive
14. Arrow Smith Drive & General Thatcher Drive
15. Island Queen Drive & Decoy Drive
16. Little Easy Street & Decoy Drive
17. Wingfield Springs Road & Poco Bueno Circle
18. Scorpius Drive/Homerun Drive & Vista Boulevard
19. Fire Station 5 Driveway & Vista Boulevard
20. Vista Boulevard & Black Hills Drive
21. Village I Access (South) & Vista Boulevard (proposed)

22. Vista Boulevard & Village I Access (North) (proposed)

The locations of the above study intersections are shown in **Figure 1** on the following page.

ANALYSIS SCENARIOS

The study facilities were evaluated under weekday AM and PM peak hour conditions for the following scenarios:

- **Existing Conditions:** Existing traffic volumes from collected traffic counts.
- **Existing Plus Project Conditions:** Existing traffic volumes plus traffic projected to be generated by the proposed Project.
- **Cumulative Conditions:** 2050 Cumulative conditions volumes based on RTC Washoe Traffic Demand Model.
- **Cumulative Plus Project Conditions:** Cumulative traffic volumes plus traffic projected to be generated by the proposed Project.

Figure 1. Project Location and Study Vicinity

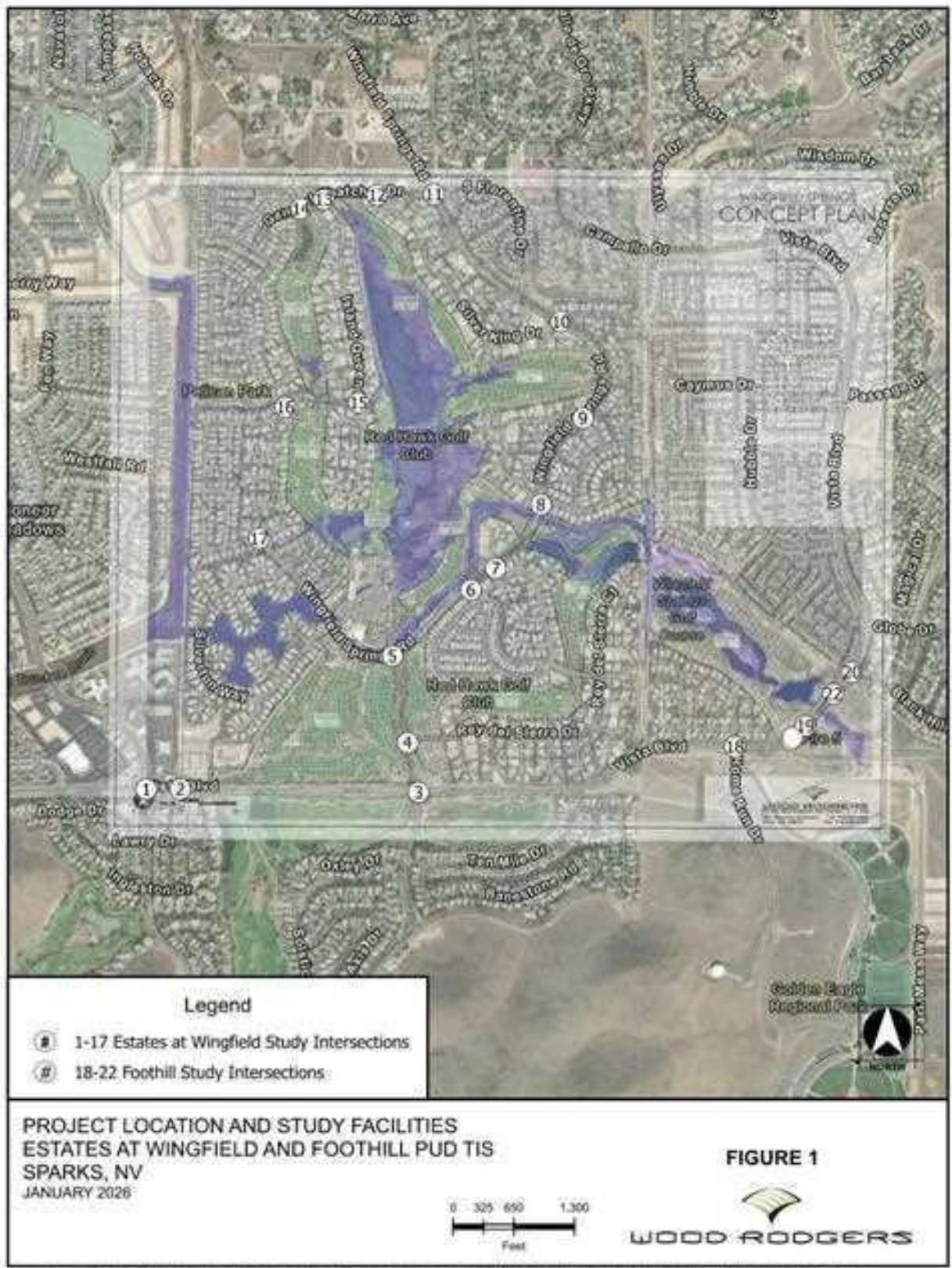


Figure 2. Project Land Use Plan



1.3 ANALYSIS METHODS

Traffic operations in this TIS have been quantified through the determination of "Level of Service" (LOS). Level of Service is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection or roadway segment, representing progressively worsening traffic operations. LOS "A" represents free-flow conditions with little to no delays, while LOS "F" represents jammed or grid-lock conditions.

1.3.1 Intersections

Synchro 12 software and Highway Capacity Manual, 7th Edition (HCM 7th Edition) methodology were used to determine intersection delay and Level of Service (LOS) for all stop-controlled and signalized study intersections. For signalized and all-way stop-controlled (AWSC) intersections, the intersection delays and LOS reported are the average values for the whole intersection. For two-way stop-controlled (TWSC) and one-way stop-controlled (OWSC) intersections, the worst approach/movement delay and LOS is reported. The delay-based HCM 7th Edition LOS criteria for different types of intersection controls are outlined in **Table 1**.

Table 1. HCM 7th Edition Based Intersection LOS Thresholds

Level of Service	Description	Intersection Control Delay (seconds/vehicle)	
		Unsignalized	Signalized
A	Free-flow conditions with negligible to minimal delays.	delay ≤ 10.0	delay ≤ 10.0
B	Good progression with slight delays.	10.0 < delay ≤ 15.0	10.0 < delay ≤ 20.0
C	Relatively higher delays.	15.0 < delay ≤ 25.0	20.0 < delay ≤ 35.0
D	Somewhat congested conditions with longer but tolerable delays.	25.0 < delay ≤ 35.0	35.0 < delay ≤ 55.0
E	Congested conditions with significant delays.	35.0 < delay ≤ 50.0	55.0 < delay ≤ 80.0
F	Jammed or grid-lock type operating conditions.	delay > 50.0	delay > 80.0

Source: HCM 7th Edition Exhibit 19-8 and 20-2.

Due to the proximity of the study locations, the *Synchro* model was utilized to run microsimulation models of the study network using *SimTraffic 12*. Ten (10) 1-hour model runs (with a 10-minute warm-up period) were run and averaged to obtain 95th percentile queueing results at all study intersections.

1.3.2 Signal Warrants

The Manual on Uniform Traffic Control Devices (MUTCD) Peak Hour Signal Warrant #3 was used to evaluate the potential need for the installation of a traffic signal at unsignalized study intersections.

1.4 LEVEL OF SERVICE STANDARDS

The Project is located within the City of Sparks, which uses the RTC's 2050 Regional Transportation Plan (RTP) to determine the LOS standards. **Table E-4** of Appendix E in the RTP indicates that the need for street improvements at a planning level is LOS D for all regional roadway facilities projected to carry less than 27,000 in Average Daily Traffic (ADT) and LOS E for all regional roadway facilities projected to carry more than 27,000 ADT. Vista Boulevard, Wingfield Hills Road, and Wingfield Springs Road are classified as regional roadways in the 2050 Regional Transportation Plan. RTC's traffic forecasting model indicates that Vista Boulevard, Wingfield Hills Road, and Wingfield Springs Road will carry less than 27,000 ADT and therefore LOS D is the standard for study intersections along these roadways. Per Washoe County's Master Plan, LOS C is the LOS standard for the intersections along Wingfield Parkway, General Thatcher Drive, and Decoy Drive since they are not considered regional roadways.

I.5 REPORT ORGANIZATION

The remainder of this report is divided into the following chapters:

- **Chapter 2: Existing Conditions** – Describes existing conditions and operations of the study area intersections, transit system, pedestrian facilities, and bicycle facilities.
- **Chapter 3: Existing Plus Project Conditions** – Describes the methods used to estimate and distribute Project generated traffic and the resulting study area operations under Existing Plus Project conditions.
- **Chapter 4: Cumulative Conditions** – Describes projected conditions and operations of study area facilities under 2050 Cumulative future conditions.
- **Chapter 5: Cumulative Plus Project Conditions** – Describes projected conditions and operations of study area facilities under Cumulative Plus Project conditions.
- **Chapter 6: Project-Related Deficiencies and Recommended Improvements** – Describes the projected operational deficiencies at study area facilities and presents potential improvements.
- **Chapter 7: Project Site Access and Internal Circulation** – Describes site access and on-site circulation for the Project site for all modes of travel.
- **Chapter 8: Transit, Pedestrian, and Bicycle Operations and Impacts**– Describes the Project impacts on alternative transportation facilities (transit/shuttles, bicycles, pedestrians).
- **Chapter 9: Safety Impacts**– Describes the potential safety concerns of the Project.

2 EXISTING CONDITIONS

This chapter describes the Existing roadway network, transit services, pedestrian facilities, and bicycle facilities within the study area. It also presents Existing traffic volumes at study intersections and traffic operations under Existing weekday AM and PM peak hour conditions.

2.1 EXISTING ROADWAY NETWORK

This section provides descriptions of the study area roadways.

Vista Boulevard is an east-west roadway that provides connectivity to Interstate 80, approximately 7.25 miles south of the Project, and Hubble Drive approximately 2 miles north of the Project. Within the Project area, Vista Boulevard is currently classified as a 4-lane Minor Arterial roadway west of Wingfield Parkway and 4-lane Minor Collector roadway east of Wingfield Parkway by the NDOT Roadway Functional Classification (2016) and a Regional roadway by the RTC 2050 Regional Transportation Plan. The posted speed limit is 40 mph west of Wingfield Parkway and 35 mph east of Wingfield Parkway.

Wingfield Hills Road is a north-south roadway that provides connectivity to Pyramid Way, approximately 2 miles north of the Project, and Telehurst Drive, approximately 1.5 miles south of the Project. Within the Project area, Wingfield Hills Road is currently classified as a 4-lane Minor Arterial roadway north of Vista Boulevard and a 2-lane local roadway south of Vista Boulevard by the NDOT Roadway Functional Classification (2016) and a Regional roadway by the RTC 2050 Regional Transportation Plan. The posted speed limit is 35 mph.

Wingfield Parkway is a north-south roadway with a southern limit at Wingfield Hills Road approximately 0.25 miles south of the Project and a northern limit at Wingfield Springs Road within the Project. The roadway is classified as a 4-lane Minor Collector by the NDOT Roadway Functional Classification (2016). The posted speed limit is 25 mph.

Wingfield Springs Road is a north-south roadway with a northern limit at Calle De Oro Parkway approximately 0.5 miles north of the Project and a southern limit at Wingfield Parkway within the Project. The roadway is classified as a 2-lane local roadway by the NDOT Roadway Functional Classification (2016) and a Regional roadway by the RTC 2050 Regional Transportation Plan. The posted speed limit is 25 mph.

General Thatcher Drive is an east-west roadway with an eastern limit at Wingfield Springs Road within the Project and a western limit at Chaucer Street approximately 0.1 miles west of the Project. The roadway is classified as a 2-lane Minor Collector by the NDOT Roadway Functional Classification (2016). The posted speed limit is 25 mph.

2.2 EXISTING PEDESTRIAN, BICYCLE, AND TRANSIT FACILITIES

There are currently pedestrian sidewalks along the north side of Vista Boulevard and both sides of Wingfield Hills Road within the Project vicinity. Pedestrian sidewalks exist along the west side of Wingfield Parkway and the north side of Wingfield Springs Road within the Project vicinity, and along both sides of General Thatcher Drive.

Bicycle facilities currently include Shared Lanes within the Project vicinity.

There are currently no public bus routes located within the Project vicinity.

2.3 BICYCLE FACILITIES

The RTC Bicycle & Pedestrian Master Plan (June 2017), classifies bikeway facilities as follows:

- **Shared-Use Path** – Shared use paths are facilities separated from the roadway, for the exclusive use of bicyclists and pedestrians, with minimal cross flow by motor vehicles.
- **Bicycle Lane** – A bicycle lane is within the paved street and are identified with striping, stencils, and signs for semi-exclusive use by bicyclists. Vehicle cross flow is generally permitted at intersections and driveways.

- **Buffered Bike Lane** – A buffered bike lane can be provided on roadways with sufficient width providing cyclists with a greater sense of security as they can travel farther away from vehicle traffic.
- **Shared Lanes** – Shared roadways provide right-of-way for bicycles in the vehicle travel lane with signs and pavement markings designating the shared travel way. A Shared Lane Marking (or “sharrow”) can be marked in the outside lane of a shared roadway to show the suggested path of travel for bicyclists.
- **Cycle Track** – A cycle track is an exclusive bicycle facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane. A cycle track is physically separated from motor traffic distinct from the sidewalk.

Study area bicycle facilities have been identified using information from the latest aerial images and field visits. There are currently Bicycle facilities including Shared Lanes along the Project vicinity.

2.4 EXISTING INTERSECTION OPERATIONS

2.4.1 Existing Traffic Counts

Intersection traffic operations were evaluated for the weekday AM and PM peak hours. The AM peak hour is defined as the highest one hour of traffic flow counted between 7:00 AM and 9:00 AM on a typical weekday. The PM peak hour was based on the highest one hour of traffic flow counted between 4:00 PM and 6:00 PM on a typical weekday. Wood Rodgers obtained AM and PM peak hour vehicular traffic counts at the 20 existing study intersections on Wednesday, November 19th, 2025. Traffic count data is provided in **Appendix A**. Estates at Wingfield study intersections are labeled as 1-17 (17 existing study intersections) and Foothill study intersections are labeled 18-22 (three (3) existing study intersections and two (2) proposed Project access intersections)

Figure 3 on the following pages illustrates Existing intersection lane geometrics and control for the study area intersections. **Figure 4** on the following pages depicts Existing conditions turning movements volumes for AM and PM weekday peak hours.

2.4.2 Existing Conditions Intersection Level of Service

Table 2 presents Existing study intersection traffic operations under Existing intersection lane geometrics and control (illustrated in **Figure 3**) and Existing traffic volumes (illustrated in **Figure 4**). Study intersections were calculated using HCM 7th edition in Synchro 12 software.

Table 2. Existing Intersection Operations

Subdivision	#	Intersection	Control Type	LOS Criteria	Peak Hour	Existing Conditions		
						Delay (S/V) ¹	LOS	Wmnt Met? ²
Estates at Wingfield	1	Wingfield Hills Road & Vista Boulevard	Signal	D	AM	22.7	C	-
					PM	22.5	C	-
	2	Village A Access & Vista Boulevard	OWSC ¹	D	AM	17.3	C	No
					PM	11.5	B	No
	3	Wingfield Parkway & Vista Boulevard	Signal	D	AM	35.8	D	-
					PM	16.6	B	-
	4	Wingfield Parkway & Village A Access/ Rey Del Sierra Drive	TWSC ²	D	AM	13.7	B	-
					PM	15.1	C	-
	5	Wingfield Parkway & Wingfield Springs Road	AWSC ³	D	AM	12.9	B	-
					PM	10.8	B	-

	6	Wingfield Springs Road & Poco Rey Drive	OWSC ¹	D	AM	13.3	B	No
					PM	12.5	B	No
	7	Wingfield Springs Road & Diamond Wing Court	OWSC ¹	D	AM	14.2	B	No
					PM	10.7	B	No
	8	Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South)	TWSC ²	D	AM	14.1	B	No
					PM	23.1	C	No
	9	Wingfield Springs Road & Eagle Wing Circle (North)	OWSC ¹	D	AM	11.4	B	No
					PM	11.4	B	No
	10	Wingfield Springs Road & Silver King Drive/Cinnamon Drive (North)	TWSC ²	D	AM	11.1	B	No
					PM	12.0	B	No
	11	Wingfield Springs Road & General Thatcher Drive	TWSC ²	D	AM	11.1	B	No
					PM	10.9	B	No
	12	Silver King Drive & General Thatcher Drive	OWSC ¹	C	AM	8.6	A	No
					PM	8.6	A	No
	13	Island Queen Drive & General Thatcher Drive	OWSC ¹	C	AM	8.5	A	No
					PM	8.5	A	No
	14	Arrow Smith Drive & General Thatcher Drive	TWSC ²	C	AM	8.7	A	No
					PM	9.0	A	No
	15	Island Queen Drive & Decoy Drive	OWSC ¹	C	AM	8.8	A	No
					PM	8.7	A	No
	16	Little Easy Street & Decoy Drive	OWSC ¹	C	AM	8.6	A	No
					PM	8.4	A	No
	17	Wingfield Springs Road & Poco Bueno Circle	TWSC ²	C	AM	7.4	A	No
					PM	7.3	A	No
Foothill	18	Scorpius Drive/Homerun Drive & Vista Boulevard	Signal	D	AM	10.8	B	No
					PM	11.4	B	No
	19	Fire Station 5 Driveway & Vista Boulevard	Signal	D	AM	1.1	A	No
					PM	1.2	A	No
	20	Vista Boulevard & Black Hills Drive	OWSC ¹	D	AM	14.6	B	No
					PM	18.6	C	No
	21	Village I Access (South) & Vista Boulevard ⁶	OWSC ¹	D	AM	0.0	A	No
					PM	0.0	A	No
	22	Vista Boulevard & Village I Access (North) ⁶	OWSC ¹	D	AM	0.0	A	No
					PM	0.0	A	No

Notes: **Bold** values indicate unacceptable LOS.

¹ OWSC = One-Way Stop-Controlled (i.e., minor street stop-controlled)

² TWSC = Two-Way Stop-Controlled

³ AWSC = All-Way Stop-Controlled

⁴ For OWSC and TWSC, the worst approach/movement delay and LOS is reported. For Signalized and AWSC intersections, average intersection delay is reported.

⁵ Wmnt Met? = Peak Hour Signal Warrant #3

⁶ Proposed Village I access

As shown in **Table 2**, all study intersections currently operate at acceptable LOS conditions. Synchro software intersection LOS output reports are included in **Appendix B**. MUTCD Peak Hour Signal Warrant #3 is currently unmet at the unsignalized intersection during both peak hours. Signal warrant worksheets are provided in **Appendix C**.

Figure 3. Existing Conditions Lane Geometrics and Control

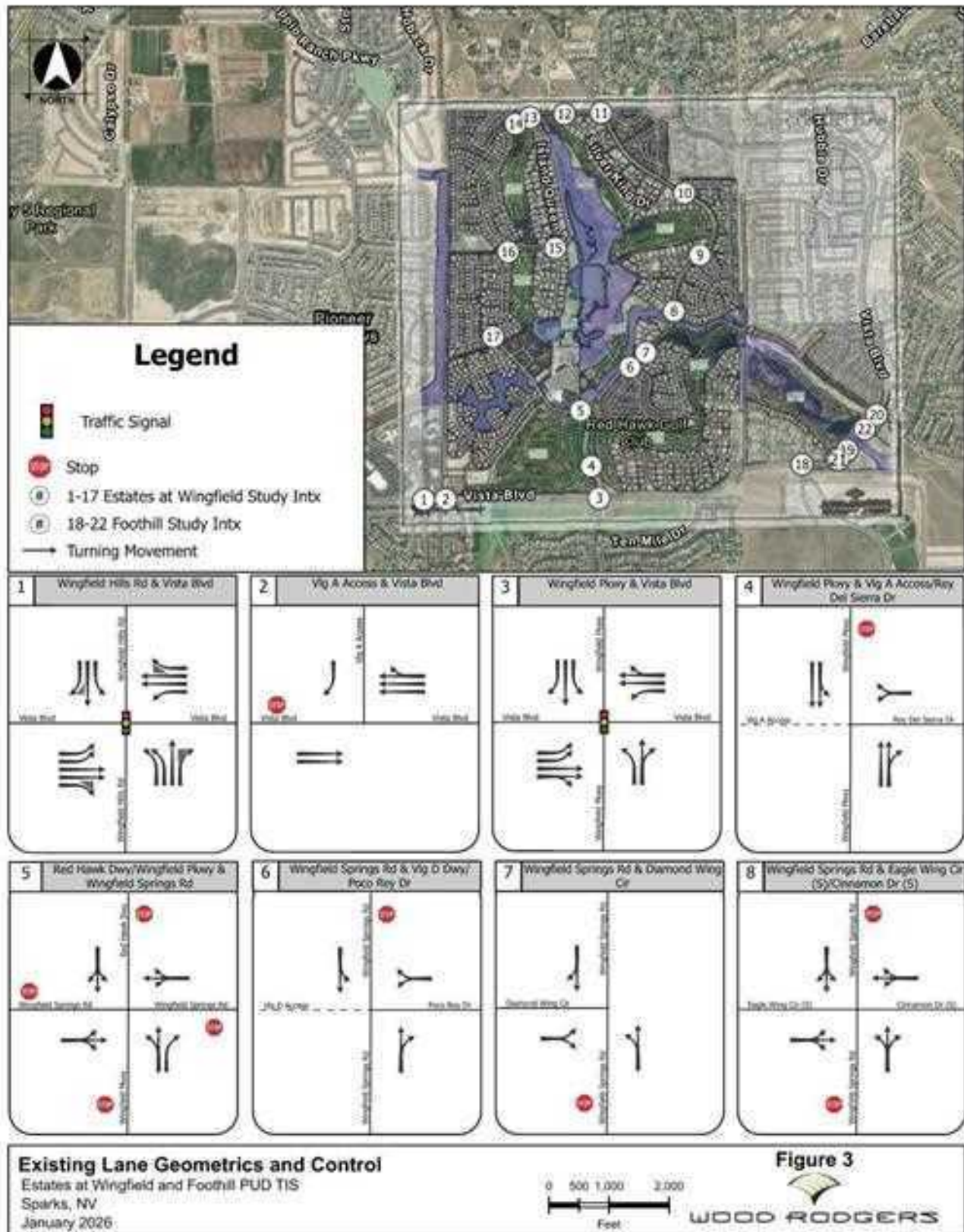
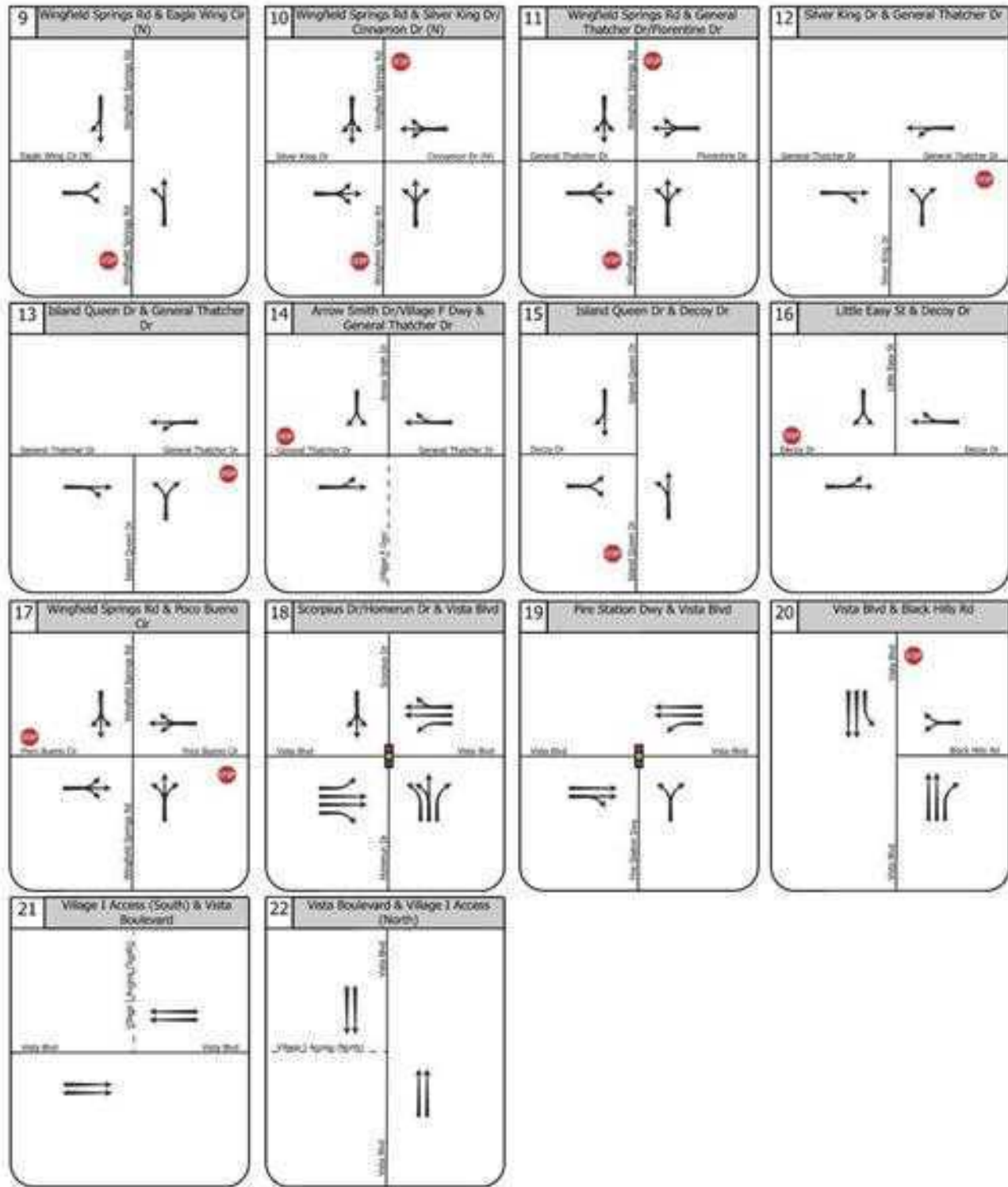


Figure 3. Existing Conditions Lane Geometrics and Control



Existing Lane Geometrics and Control

Estates at Wingfield and Foothill PUD TIS
Sparks, NV
January 2026

Figure 3

WOOD RODGERS

Figure 4. Existing Conditions Traffic Volumes

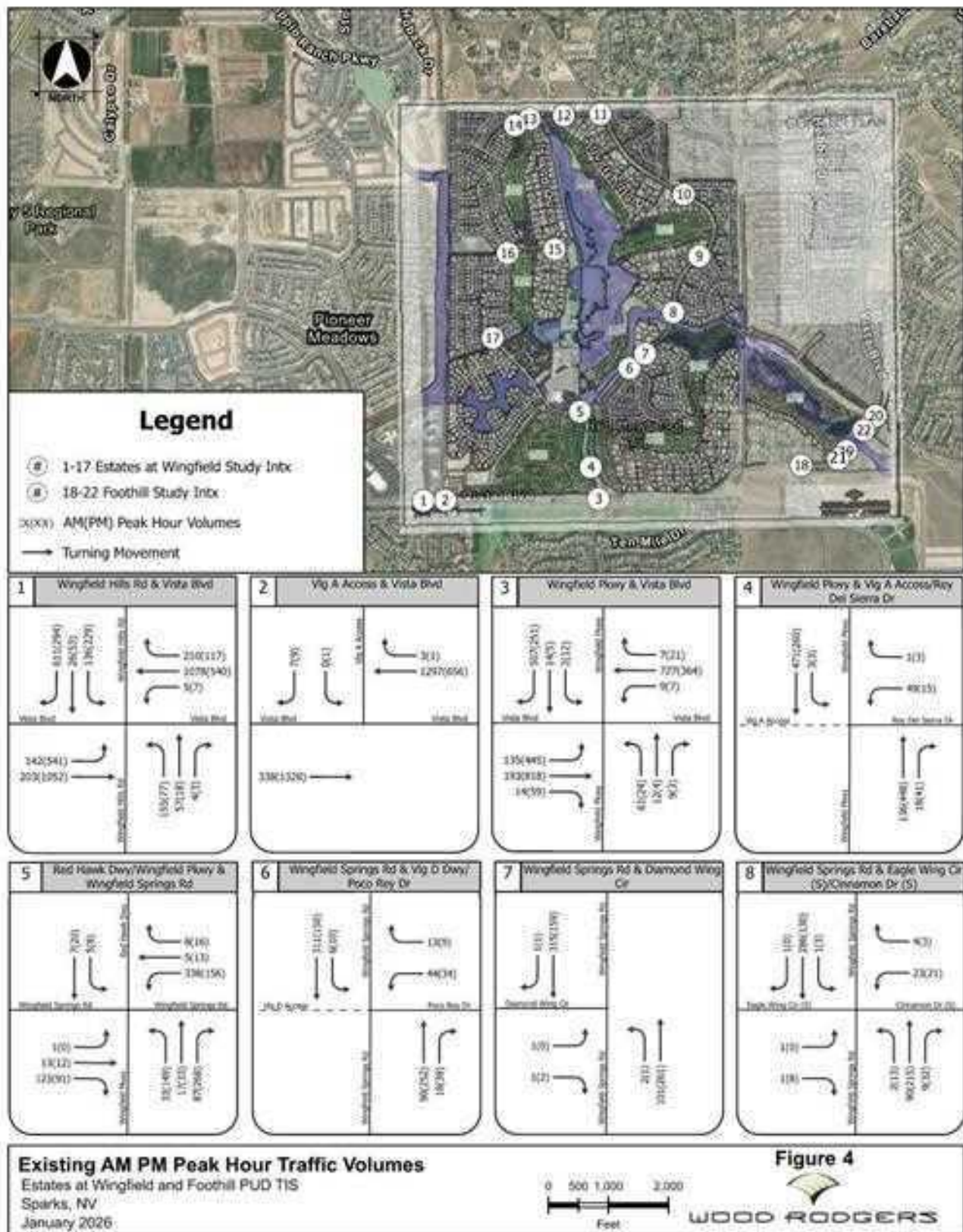
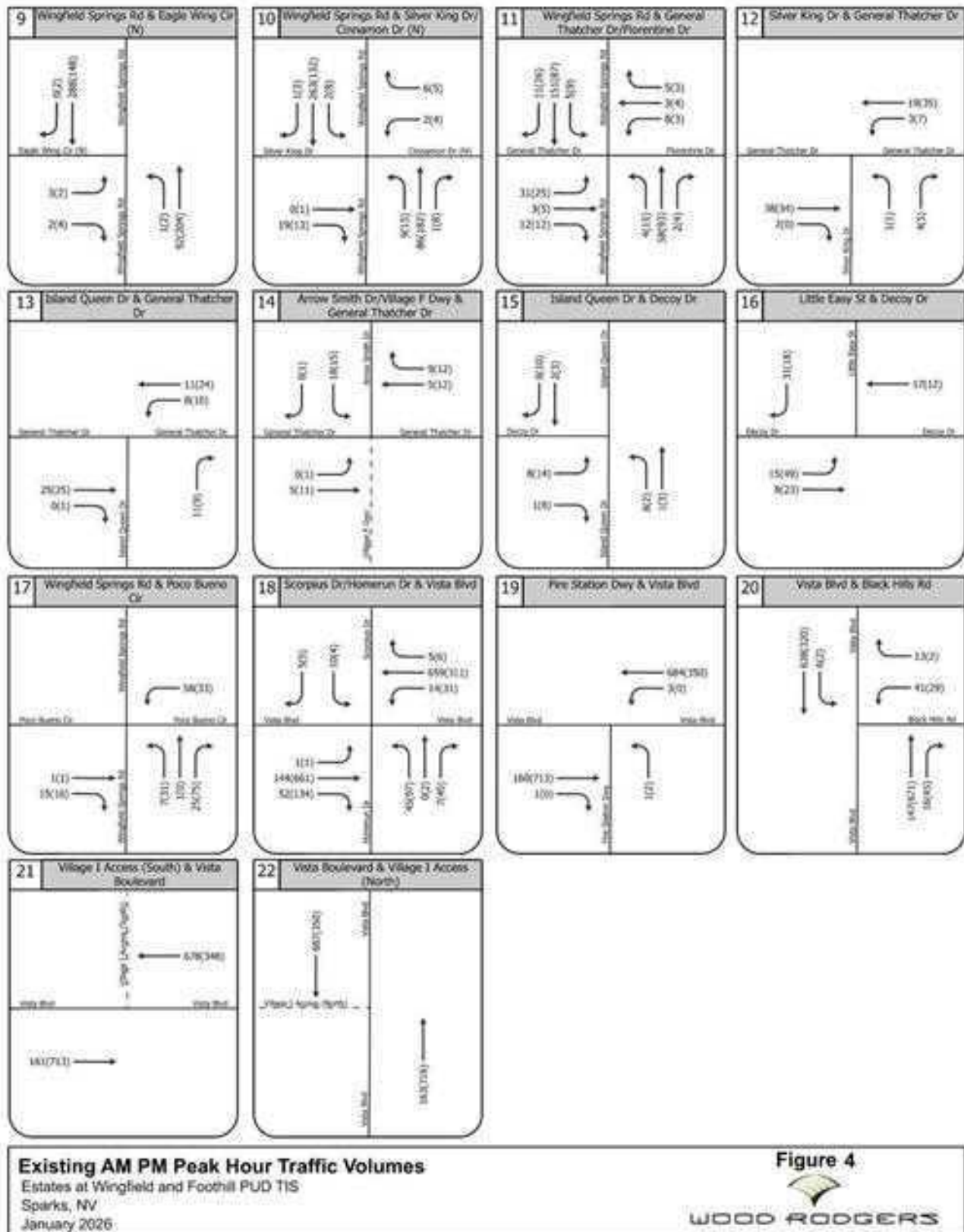


Figure 4. Existing Conditions Traffic Volumes



3 EXISTING PLUS PROJECT CONDITIONS

This chapter provides a description of the proposed Project, a discussion of the trip generation and distribution/assignment methods used to assign Project trips to study intersections, and an analysis of projected traffic operations and deficiencies under Existing Plus Project conditions.

3.1 PROJECT SITE

3.1.1 Project Site Access

The Project is made up of two subdivisions, Estates at Wingfield and Foothill. Project access to Estates at Wingfield connects via Wingfield Springs Road and Wingfield Parkway, while Project access to Foothill connects directly from two Village I accesses to Vista Boulevard. The current Project site plans are included in **Figure 2**.

3.2 PROJECT GENERATED TRIPS

3.2.1 Trip Generation

The trip generation data contained in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 12th Edition*, was used to approximate the number of trips generated by the Project. **Table 3** shows the Project trip generation rates.

The Single Family Detached Housing ITE land use category (ITE Code 210) and Single Family Attached Housing ITE land use category (ITE Code 215) were used to represent the project.

Table 3. Project Trip Generation Rates

Land Use	Source	ITE Code	Units	Weekly Daily Trip Rate/ Unit ¹	Weekday AM Peak Hour Rate/Unit			Weekday PM Peak Hour Rate/Unit ²		
					Total	In	Out	Total	In	Out
Single Family Detached Housing	ITE	210	DU ²	9.09	0.70	25%	75%	0.93	62%	38%
Single Family Attached Housing	ITE	215	DU ²	6.57	0.47	25%	75%	0.51	57%	43%
Notes: ¹ The daily trip rate and peak hour trip rates are based on the average rates for the proposed land use consistent with information contained in the ITE Trip Generation Manual, 12 th Edition										

The Project is split into two (2) subdivisions, Estates at Wingfield and Foothill, made up of 10 Villages (Village A-J). **Table 4** shows the Project rates for each village and subdivision.

Table 4. Project Trip Generation Volumes

Subdivision	Village	Land Use	Quantity	Units	Daily	AM Peak Hour			PM Peak Hour		
						Total	In	Out	Total	In	Out
Estates at Wingfield	Village A	SFD ²	195	DU ³	1773	137	34	103	181	112	69
	Village B	SFD ²	75	DU ³	682	53	13	40	70	43	27
	Village C	SFD ²	75	DU ³	682	53	13	40	70	43	27
	Village D	SFD ²	18	DU ³	164	13	3	10	17	11	6
	Village E	SFD ²	41	DU ³	373	29	7	22	38	24	14
	Village F	SFD ²	62	DU ³	564	43	11	32	58	36	22
	Village G	SFD ²	37	DU ³	336	26	6	20	34	21	13
	Village H	SFD ²	94	DU ³	854	66	16	50	87	54	33
	Village J	SFA	9	DU ³	82	4	1	3	5	3	2
Total Wingfield SFD			597		5,428	420	103	317	555	344	211
Total Wingfield SFA			9		82	4	1	3	5	3	2
Foothill	Village I	SFD ²	158	DU ³	1436	111	28	83	147	91	56
Total Foothill SFD			158		1436	111	28	83	147	91	56
Total Project SFD					6,864	531	131	400	702	435	267
Total Project SFA					82	4	1	3	5	3	2
Total Project Net Trips					6,946	535	132	403	707	438	269

As shown in **Table 4**, the Estates at Wingfield portion of the Project is estimated to generate a total of 5,510 Daily trips, 424 AM peak hour trips (104 Inbound, 320 Outbound), and 560 PM peak hour trips (347 Inbound, 213 Outbound) under typical weekday traffic demand conditions, and the Foothill portion of the Project is estimated to generate 1,436 Daily trips, 111 AM peak hour trips (28 Inbound, 83 Outbound), and 147 PM peak hour trips (91 Inbound, 56 Outbound) under typical weekday traffic demand conditions.

The total Project estimated trips are 6,946 Daily trips, 535 AM peak hour trips (132 Inbound, 403 Outbound), and 707 PM peak hour trips (438 Inbound, 269 Outbound) under typical weekday traffic demand conditions.

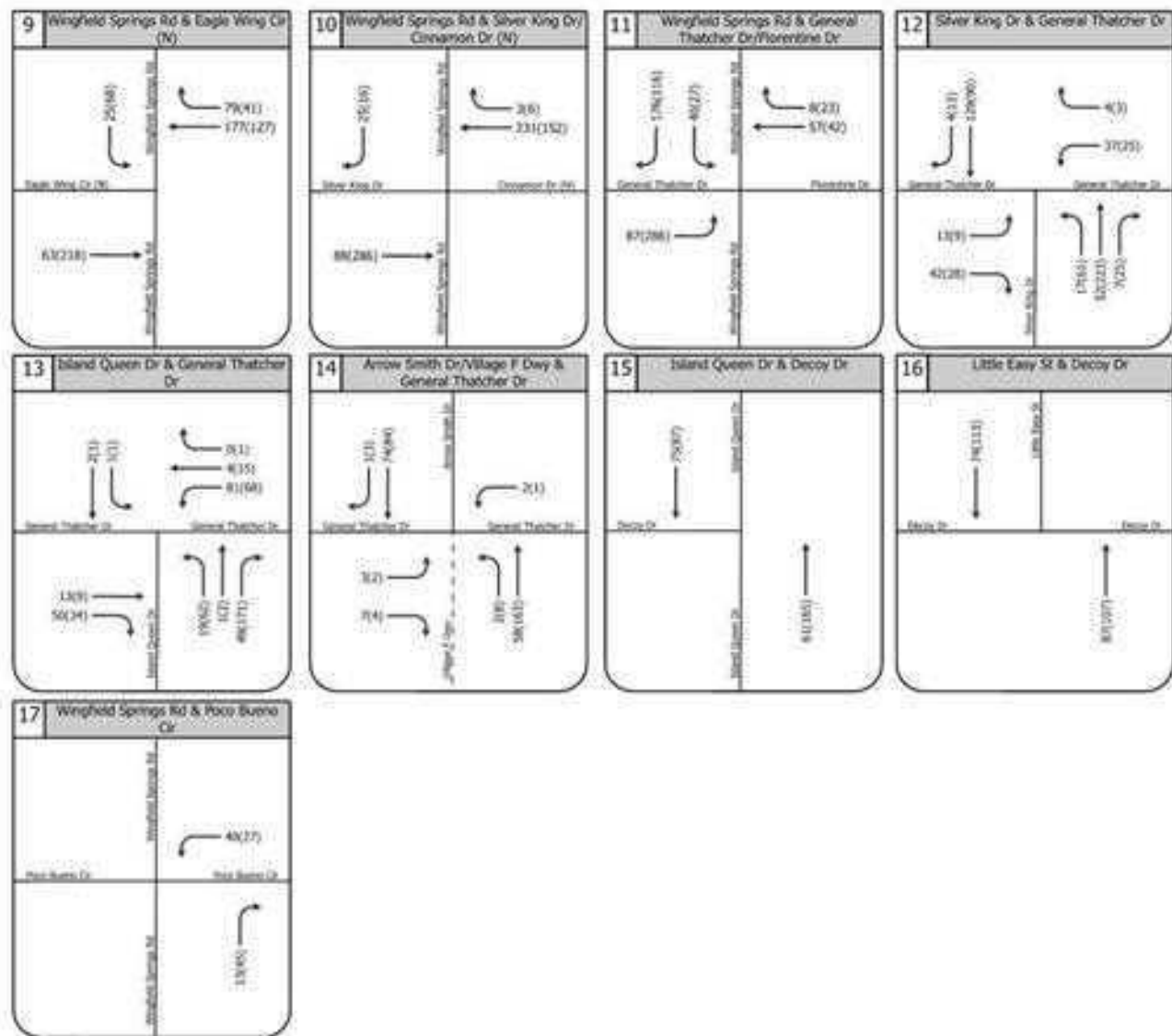
Trip Distribution and Assignment

The Project trip distribution was determined based on existing traffic counts and travel patterns, knowledge of the area, and engineering judgement. Project trip distribution and assignment is shown in **Figure 5.1** and **Figure 5.2**.

Figure 5.1. Estates at Wingfield Study Intersections Project-Only Trips and Distribution



Figure 5.1. Estates at Wingfield Study Intersections Project-Only Trips and Distribution

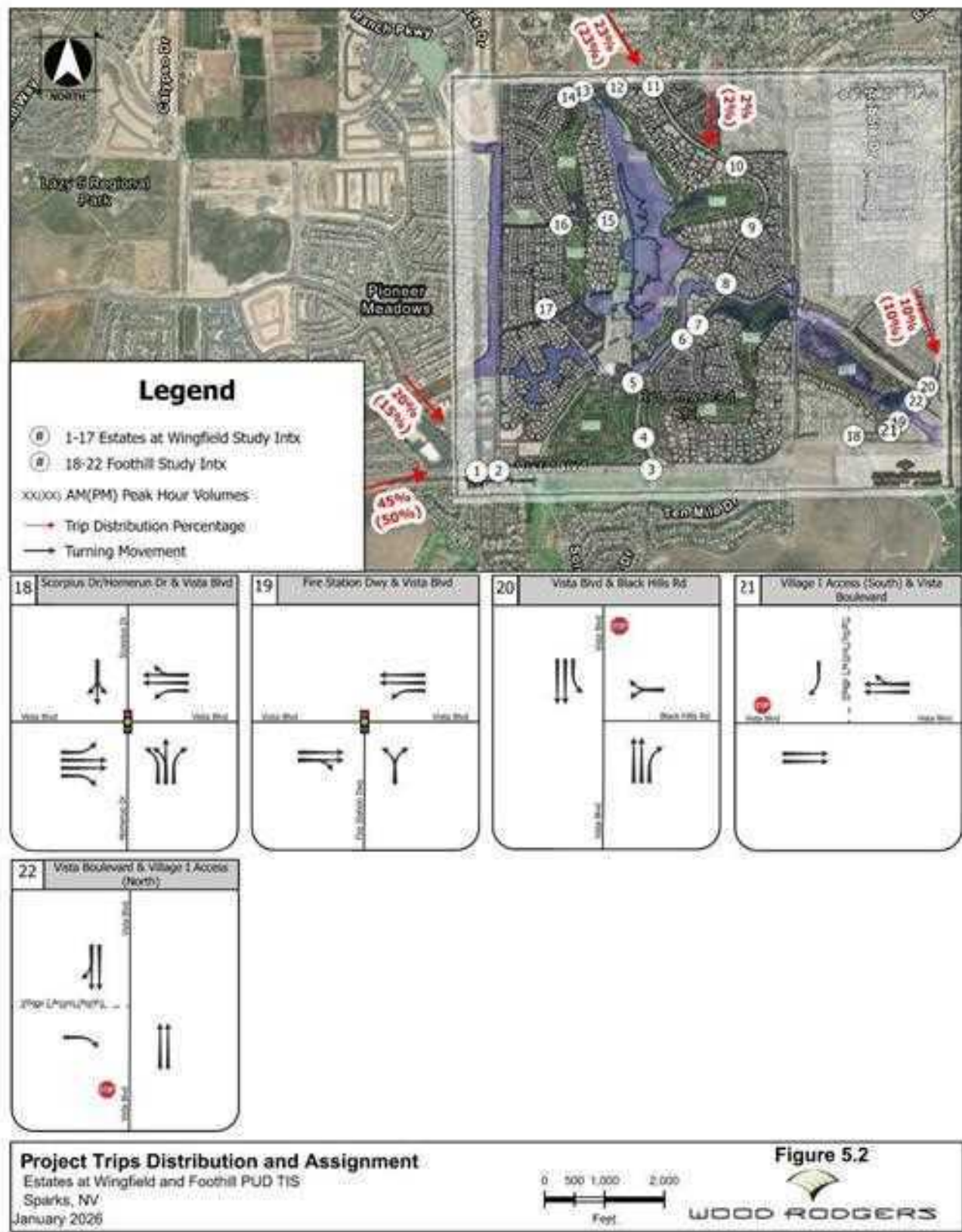


Project Trip Distribution and Assignment
 Estates at Wingfield and Foothill PUD TIS
 Sparks, NV
 January 2026

Figure 5.1

WOOD RODGERS

Figure 5.2. Foothill Study Intersections Project-Only Trips and Distribution



3.2.2 Existing Plus Project Conditions Intersection Level of Service

Project trips were added to Existing conditions traffic volumes to obtain Existing Plus Project conditions traffic volumes, shown in **Figure 7. Table 5** presents Existing Plus Project study intersection traffic operations under Existing Plus Project lane geometrics and control (illustrated in **Figure 6**). **Table 5** also shows operations under Existing conditions for comparison purposes. Study intersections traffic operations were calculated with HCM 7th edition using Synchro 12 software.

Table 5. Existing Plus Project Intersection Operations

Subdivision	#	Intersection	Control Type	LOS Criteria	Peak Hour	Existing Conditions			Existing Plus Project Conditions		
						Delay (S/V) ¹	LOS	Wrnt Met? ²	Delay (S/V) ¹	LOS	Wrnt Met? ²
Estates at Wingfield	1	Wingfield Hills Road & Vista Boulevard	Signal	D	AM	22.7	C	-	26.8	C	-
					PM	22.5	C	-	28.8	C	-
	2	Village A Access & Vista Boulevard	OWSC ¹	D	AM	17.3	C	No	22.3	C	No
					PM	11.5	B	No	12.6	B	No
	3	Wingfield Parkway & Vista Boulevard	Signal	D	AM	35.8	D	-	62.3	E	-
					PM	16.6	B	-	20.8	C	-
	4	Wingfield Parkway & Village A Access/ Rey Del Sierra Drive	TWSC ²	D	AM	13.7	B	-	22.5	C	-
					PM	15.1	C	-	32.2	D	-
	5	Wingfield Parkway & Wingfield Springs Road	AWSC ³	D	AM	12.9	B	-	21.7	C	-
					PM	10.8	B	-	15.4	C	-
	6	Wingfield Springs Road & Poco Rey Drive	OWSC ¹	D	AM	13.3	B	No	17.3	C	No
					PM	12.5	B	No	15.8	C	No
	7	Wingfield Springs Road & Diamond Wing Court	OWSC ¹	D	AM	14.2	B	No	17.4	C	No
					PM	10.7	B	No	12.5	B	No
	8	Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South)	TWSC ²	D	AM	14.1	B	No	19.1	C	No
					PM	23.1	C	No	65.5	F	No
	9	Wingfield Springs Road & Eagle Wing Circle (North)	OWSC ¹	D	AM	11.4	B	No	13.1	B	No
					PM	11.4	B	No	15.2	C	No
	10	Wingfield Springs Road & Silver King Drive/Cinnamon Drive (North)	TWSC ²	D	AM	11.1	B	No	11.6	B	No
					PM	12.0	B	No	14.2	B	No
	11	Wingfield Springs Road & General Thatcher Drive	TWSC ²	D	AM	11.1	B	No	13.4	B	No
					PM	10.9	B	No	13.7	B	No
	12	Silver King Drive & General Thatcher Drive	OWSC ¹	C	AM	8.6	A	No	8.8	A	No
					PM	8.6	A	No	8.8	A	No
	13	Island Queen Drive & General Thatcher Drive	OWSC ¹	C	AM	8.5	A	No	8.6	A	No
					PM	8.5	A	No	8.5	A	No
	14	Arrow Smith Drive & General Thatcher Drive	TWSC ²	C	AM	8.7	A	No	8.8	A	No
					PM	9.0	A	No	9.4	A	No
	15	Island Queen Drive & Decoy Drive	OWSC ¹	C	AM	8.8	A	No	8.9	A	No
					PM	8.7	A	No	8.7	A	No

	16	Little Easy Street & Decoy Drive	OWSC ¹	C	AM	8.6	A	No	9.0	A	No
					PM	8.4	A	No	8.6	A	No
	17	Wingfield Springs Road & Poco Bueno Circle	TWSC ²	C	AM	7.4	A	No	7.5	A	No
					PM	7.3	A	No	7.4	A	No
Foothill	18	Scorpius Drive/Homerun Drive & Vista Boulevard	Signal	D	AM	10.8	B	No	10.7	B	No
					PM	11.4	B	No	11.4	B	No
	19	Fire Station 5 Driveway & Vista Boulevard	Signal	D	AM	1.1	A	No	1.1	A	No
					PM	1.2	A	No	1.2	A	No
	20	Vista Boulevard & Black Hills Drive	OWSC ¹	D	AM	14.6	B	No	15.8	C	No
					PM	18.6	C	No	19.8	C	No
	21	Village I Access (South) & Vista Boulevard ⁶	OWSC ¹	D	AM	0.0	A	No	11.2	B	No
					PM	0.0	A	No	9.7	A	No
	22	Vista Boulevard & Village I Access (North) ⁶	OWSC ¹	D	AM	0.0	A	No	11.1	B	No
					PM	0.0	A	No	9.7	A	No

Notes: **Bold** values indicate unacceptable LOS.

¹ OWSC = One-Way Stop-Controlled (i.e., minor street stop-controlled)

² TWSC = Two-Way Stop-Controlled

³ AWSC = All-Way Stop-Controlled

⁴ For OWSC and TWSC, the worst approach/movement delay and LOS is reported. For Signalized and AWSC intersections, average intersection delay is reported.

⁵ Wmnt Met? = Peak Hour Signal Warrant #3

⁶ Proposed Village I access

As shown in **Table 5**, the Wingfield Parkway and Vista Boulevard intersection is expected to operate at an unacceptable LOS under AM peak hour conditions during Existing Plus Project conditions, and Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South) intersection are expected to operate at an unacceptable LOS under PM peak hour conditions during Existing Plus Project conditions. All other study intersections are projected to operate at acceptable LOS conditions under Existing and Existing Plus Project conditions. Synchro software intersection LOS output reports are included in **Appendix B**. MUTCD Peak Hour Signal Warrant is not projected to be met at the unsignalized study intersections. Signal warrant worksheets are provided in **Appendix C**.

Figure 6. Existing Plus Project Lane Geometrics and Control

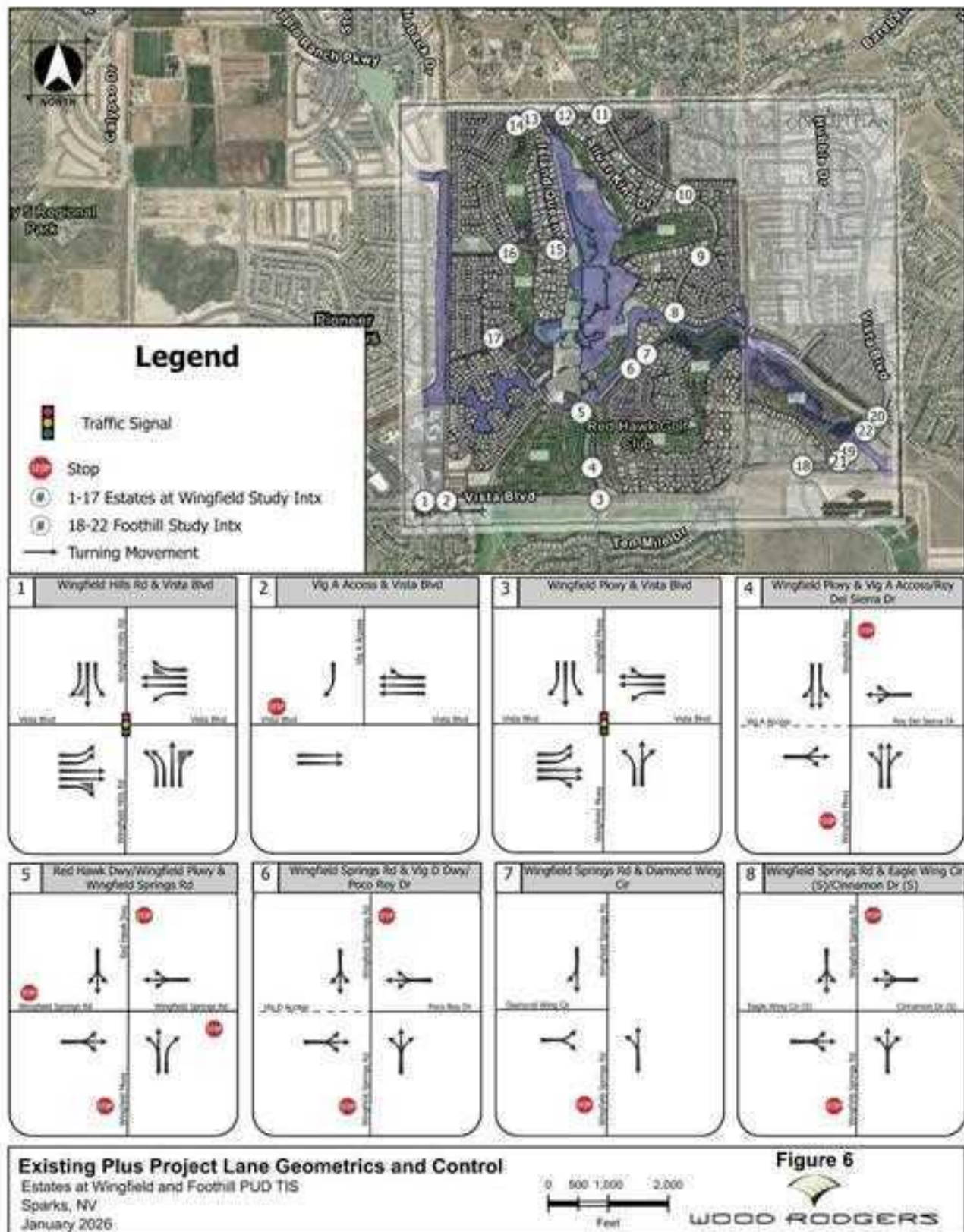


Figure 6. Existing Plus Project Lane Geometrics and Control

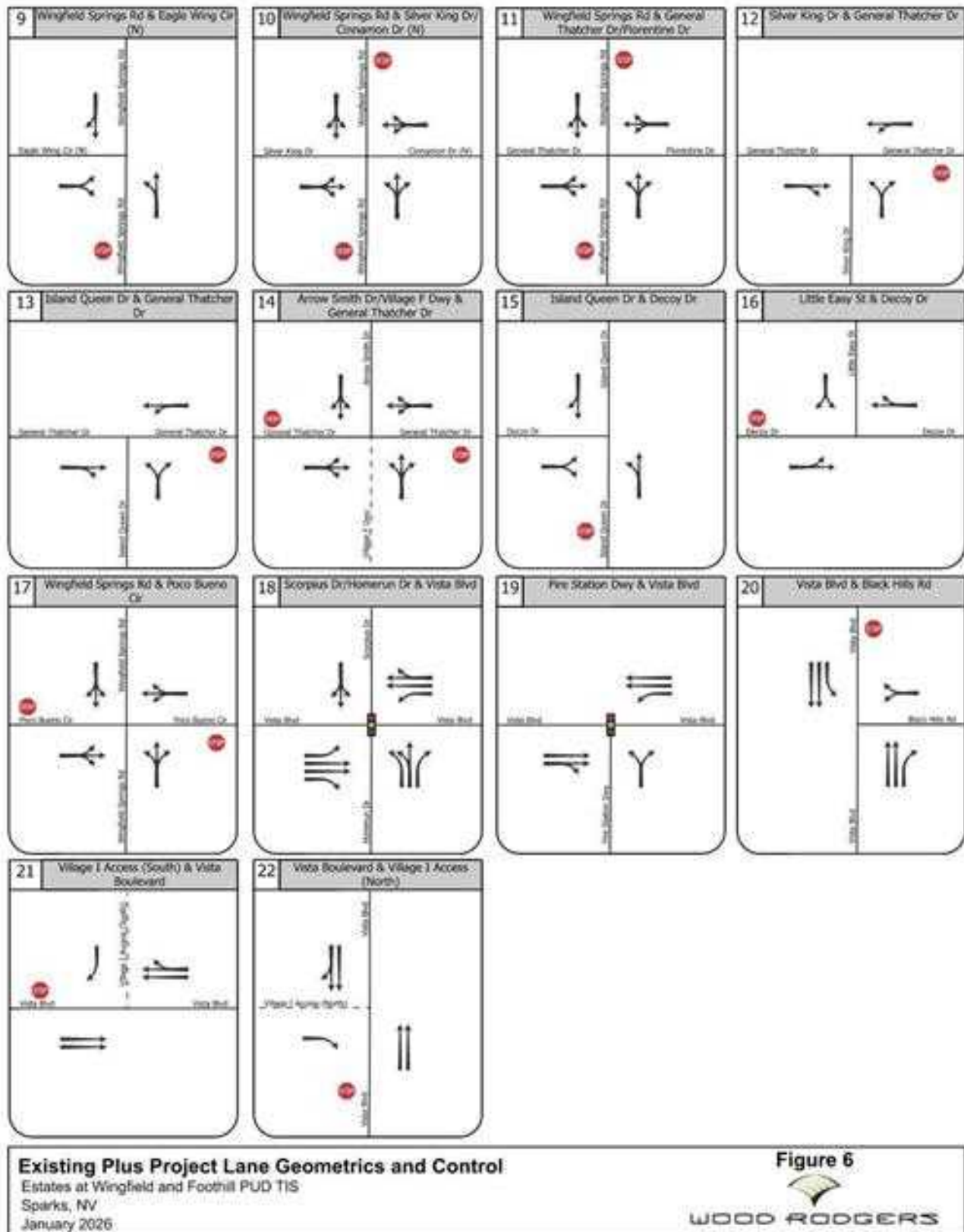


Figure 7. Existing Plus Project Traffic Volumes

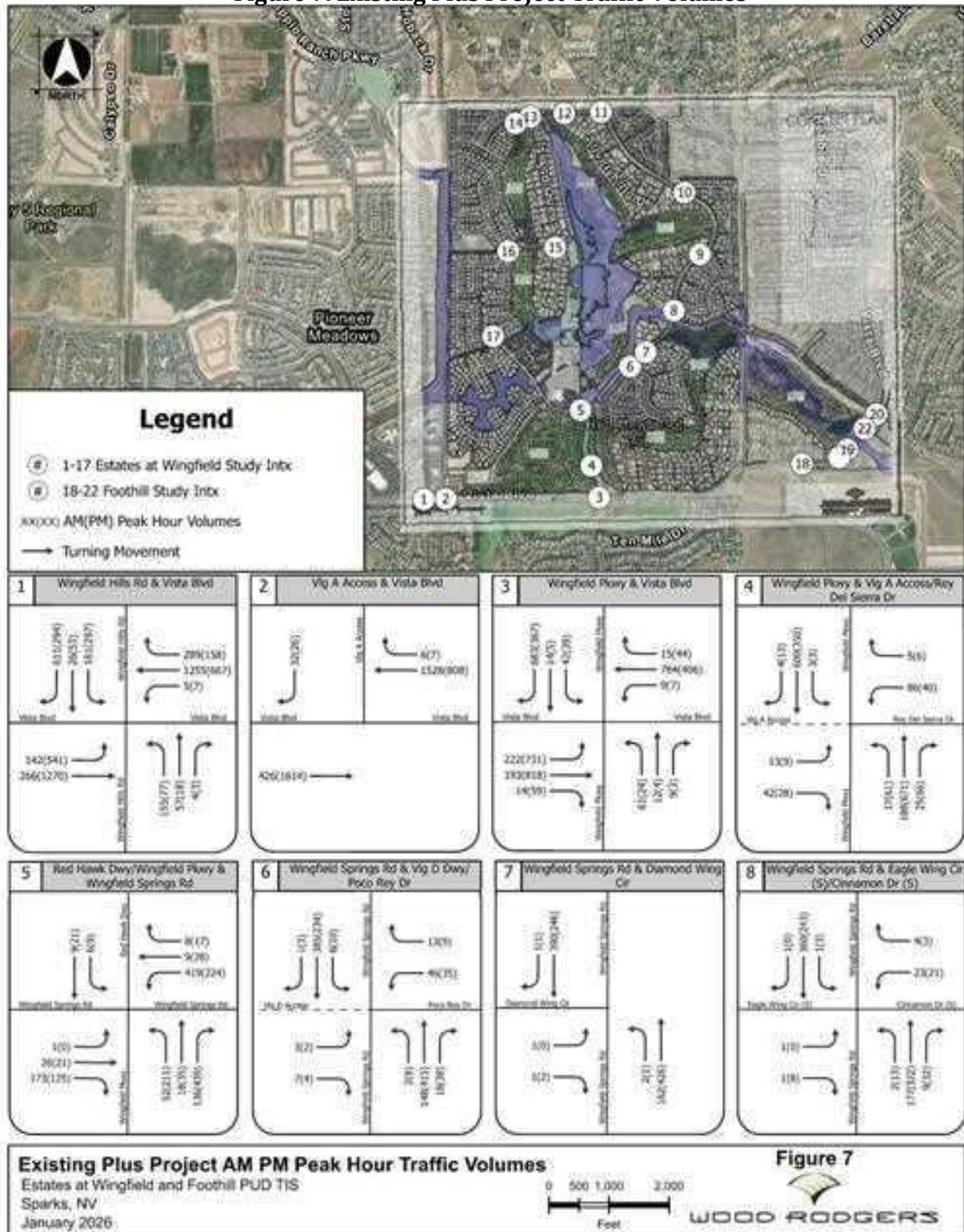
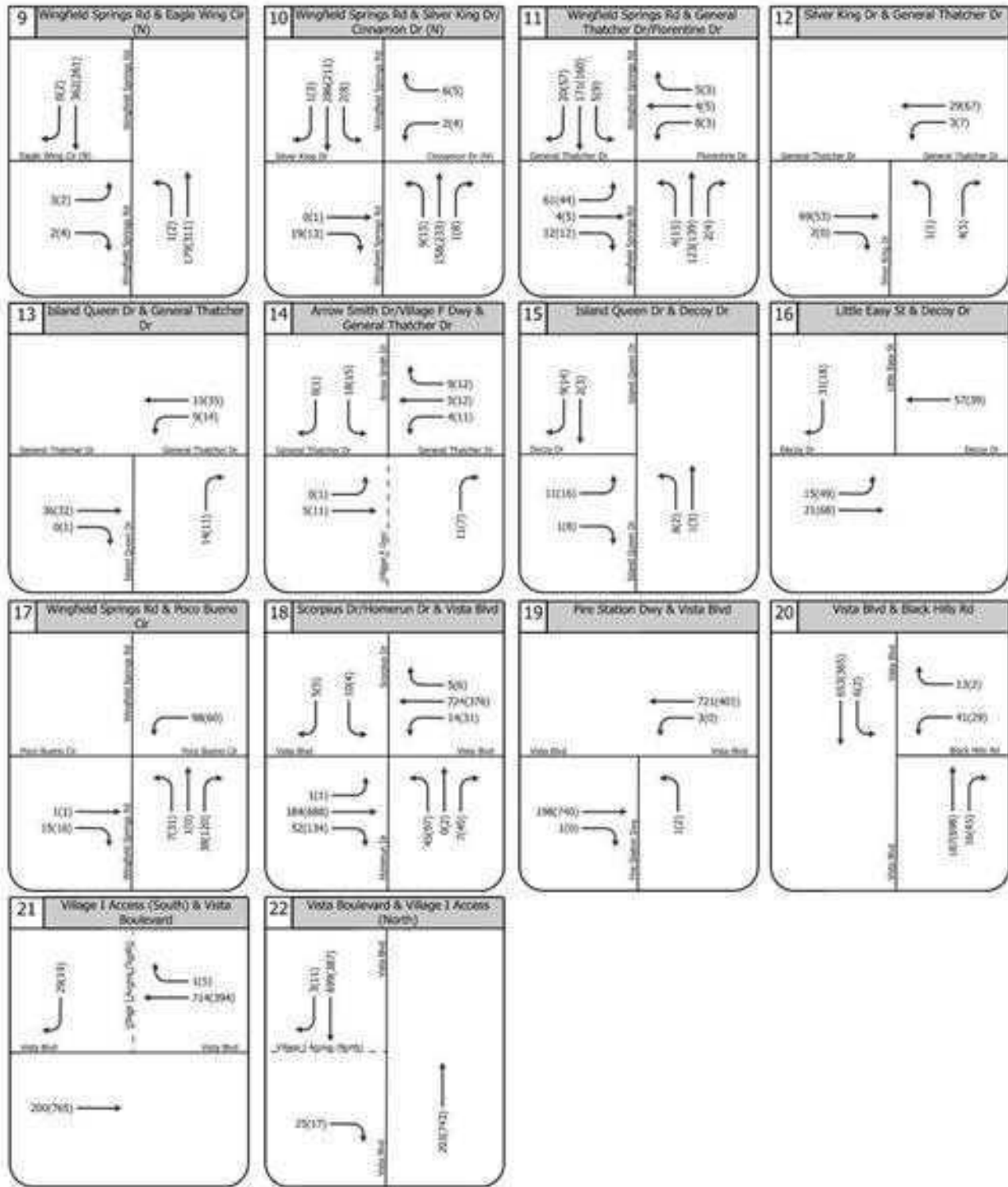


Figure 7. Existing Plus Project Traffic Volumes



Existing Plus Project AM PM Peak Hour Traffic Volumes

Estates at Wingfield and Foothill PUD TIS

Sparks, NV

January 2026

Figure 7



4 CUMULATIVE CONDITIONS

This chapter describes the Cumulative conditions traffic volumes and traffic operations at study intersections.

4.1 CUMULATIVE VOLUMES AND ROADWAY NETWORK

The Cumulative (Year 2050) conditions traffic volumes were developed by applying a yearly growth rate to existing (2025) counts over 25 years based on the RTC Washoe Traffic Demand Model.

2050 Cumulative condition volumes are shown in **Figure 7** on the following pages.

4.2 CUMULATIVE INTERSECTION OPERATIONS

Cumulative intersection operations were quantified under 2050 Cumulative traffic volumes (shown in **Figure 8**). **Table 6** illustrates the resulting Cumulative intersection LOS operations. Study intersections traffic operations were calculated using HCM 7th edition Synchro 12 software.

Table 6. 2050 Cumulative Intersection Operations

Subdivision	#	Intersection	Control Type	LOS Criteria	Peak Hour	Cumulative Conditions		
						Delay (S/V) ¹	LOS	Wrnt Met? ²
Estates at Wingfield	1	Wingfield Hills Road & Vista Boulevard	Signal	D	AM	27.5	C	-
					PM	31.8	C	-
	2	Village A Access & Vista Boulevard	OWSC ¹	D	AM	18.6	C	No
					PM	12.4	B	No
	3	Wingfield Parkway & Vista Boulevard	Signal	D	AM	44.6	D	-
					PM	19.3	B	-
	4	Wingfield Parkway & Village A Access/ Rey Del Sierra Drive	TWSC ²	D	AM	14.5	B	-
					PM	16.9	C	-
	5	Wingfield Parkway & Wingfield Springs Road	AWSC ³	D	AM	13.7	B	-
					PM	12.1	B	-
	6	Wingfield Springs Road & Poco Rey Drive	OWSC ¹	D	AM	13.5	B	No
					PM	13.4	B	No
	7	Wingfield Springs Road & Diamond Wing Court	OWSC ¹	D	AM	14.5	B	No
					PM	11.6	B	No
	8	Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South)	TWSC ²	D	AM	14.9	B	No
					PM	30.2	D	No
	9	Wingfield Springs Road & Eagle Wing Circle (North)	OWSC ¹	D	AM	11.4	B	No
					PM	12.8	B	No
	10	Wingfield Springs Road & Silver King Drive/Cinnamon Drive (North)	TWSC ²	D	AM	11.2	B	No
					PM	13.1	B	No
	11	Wingfield Springs Road & General Thatcher Drive	TWSC ²	D	AM	13.5	B	No
					PM	11.8	B	No
	12	Silver King Drive & General Thatcher Drive	OWSC ¹	C	AM	8.7	A	No
					PM	8.4	A	No
	13		OWSC ¹	C	AM	8.6	A	No

		Island Queen Drive & General Thatcher Drive			PM	8.6	A	No
	14	Arrow Smith Drive & General Thatcher Drive	TWSC ²	C	AM	8.8	A	No
					PM	9.1	A	No
	15	Island Queen Drive & Decoy Drive	OWSC ¹	C	AM	8.9	A	No
					PM	8.9	A	No
	16	Little Easy Street & Decoy Drive	OWSC ¹	C	AM	8.7	A	No
					PM	8.5	A	No
	17	Wingfield Springs Road & Poco Bueno Circle	TWSC ²	C	AM	7.4	A	No
					PM	7.6	A	No
Foothill	18	Scorpius Drive/Homerun Drive & Vista Boulevard	Signal	D	AM	12.5	B	No
					PM	12.2	B	No
	19	Fire Station 5 Driveway & Vista Boulevard	Signal	D	AM	1.1	A	No
					PM	1.1	A	No
	20	Vista Boulevard & Black Hills Drive	OWSC ¹	D	AM	15.9	C	No
					PM	21.0	C	No
	21	Village I Access (South) & Vista Boulevard ⁶	OWSC ¹	D	AM	0.0	A	No
					PM	0.0	A	No
	22	Vista Boulevard & Village I Access (North) ⁶	OWSC ¹	D	AM	0.0	A	No
					PM	0.0	A	No

Notes: **Bold** values indicate unacceptable LOS.

¹ OWSC = One-Way Stop-Controlled (i.e., minor street stop-controlled)

² TWSC = Two-Way Stop-Controlled

³ AWSC = All-Way Stop-Controlled

⁴ For OWSC and TWSC, the worst approach/movement delay and LOS is reported. For Signalized and AWSC intersections, average intersection delay is reported.

⁵ Wrnt Met? = Peak Hour Signal Warrant #3

⁶ Proposed Village I access

As shown in **Table 6**, all study intersections are projected to operate at acceptable LOS conditions under Cumulative conditions. Synchro intersection LOS output reports are included in **Appendix B**. MUTCD Peak Hour Signal Warrant #3 is not projected to be met at the unsignalized study intersection. Signal warrant worksheets are provided in **Appendix C**.

Figure 8. 2050 Cumulative Traffic Volumes

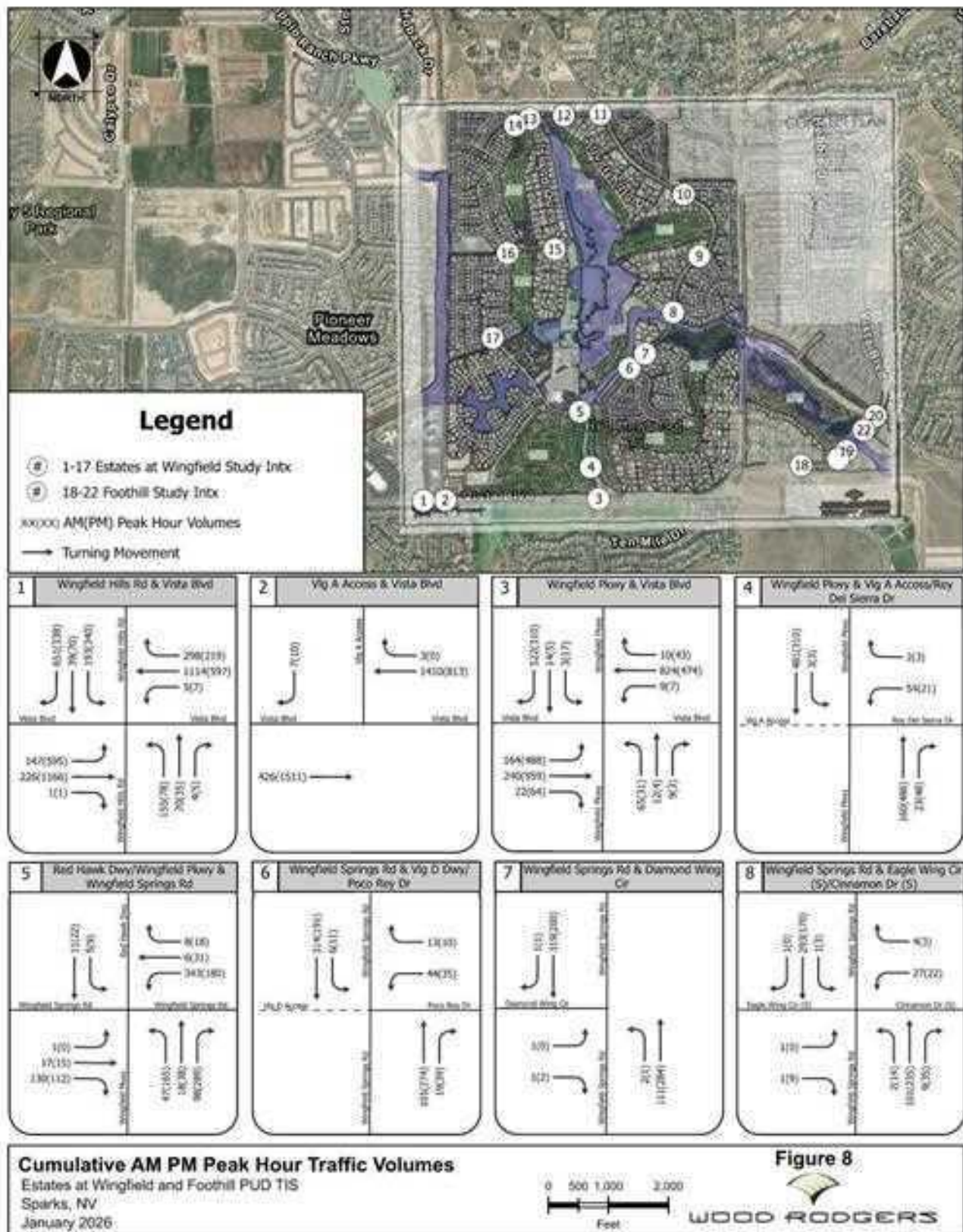
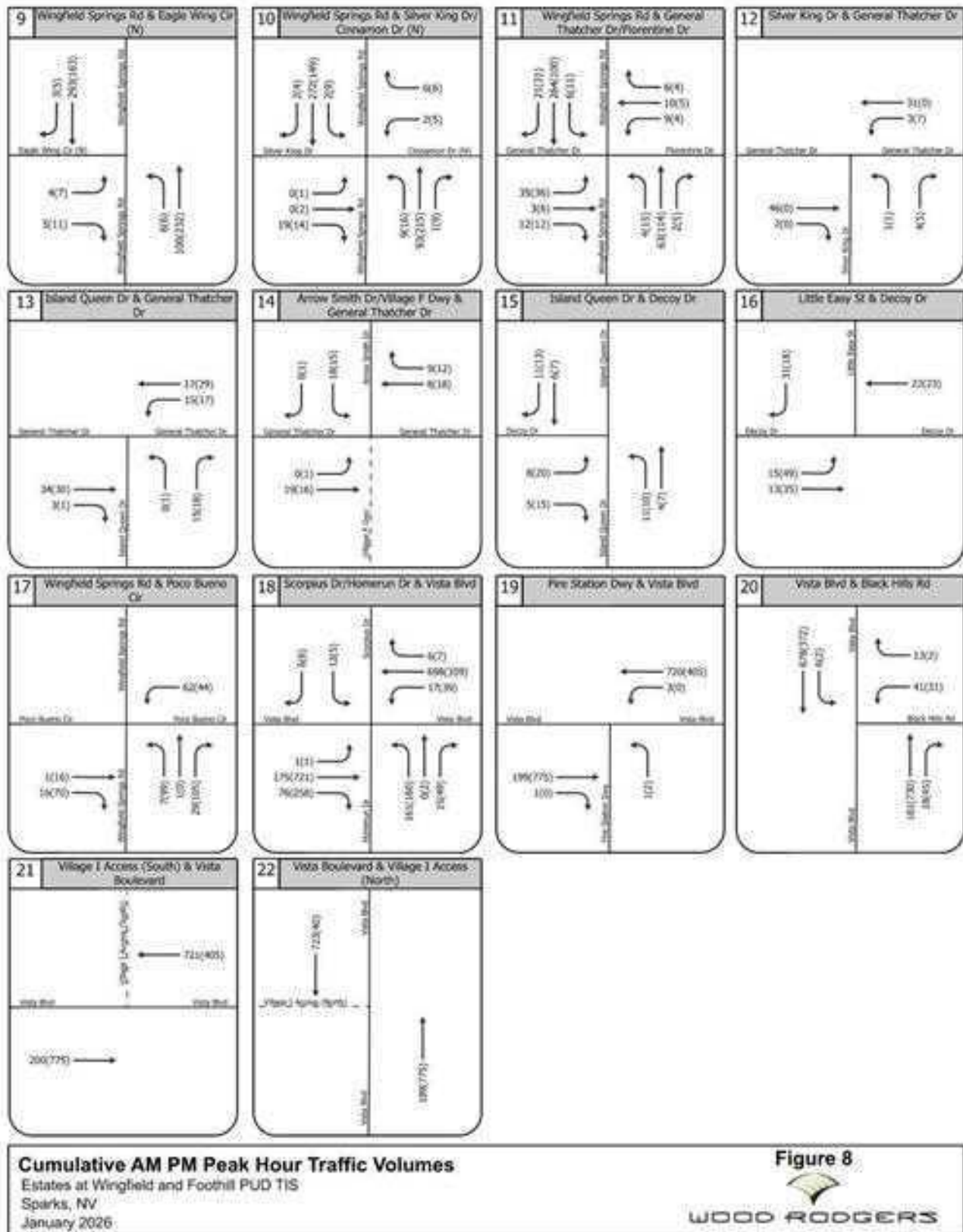


Figure 8. 2050 Cumulative Traffic Volumes



5 CUMULATIVE PLUS PROJECT CONDITIONS INTERSECTION LEVEL OF SERVICE

Project trips were added to Cumulative conditions traffic volumes to obtain 2050 Cumulative Plus Project conditions traffic volumes, shown in **Figure 9** on the following pages. **Table 7** presents 2050 Cumulative Plus Project study intersection traffic operations under Existing intersection lane geometrics and control (illustrated in **Figure 3**) and Cumulative Plus Project traffic volumes. Study intersection traffic operations were calculated using HCM 7th edition Synchro 12 software.

Table 7. 2050 Cumulative and Cumulative Plus Project Intersection Operations

Subdivision	#	Intersection	Control Type	LOS Criteria	Peak Hour	Cumulative Conditions			Cumulative Plus Project Conditions		
						Delay (S/V) ¹	LOS	Wrnt Met? ²	Delay (S/V) ¹	LOS	Wrnt Met? ²
Estates at Wingfield	1	Wingfield Hills Road & Vista Boulevard	Signal	D	AM	27.5	C	-	33.1	C	-
					PM	31.8	C	-	36.5	D	-
	2	Village A Access & Vista Boulevard	OWSC ¹	D	AM	18.6	C	No	24.5	C	No
					PM	12.4	B	No	13.7	B	No
	3	Wingfield Parkway & Vista Boulevard	Signal	D	AM	44.6	D	-	70.5	E	-
					PM	19.3	B	-	28.5	C	-
	4	Wingfield Parkway & Village A Access/ Rey Del Sierra Drive	TWSC ²	D	AM	14.5	B	-	24.9	C	-
					PM	16.9	C	-	47.1	E	-
	5	Wingfield Parkway & Wingfield Springs Road	AWSC ³	D	AM	13.7	B	-	25.9	D	-
					PM	12.1	B	-	22.5	C	-
	6	Wingfield Springs Road & Poco Rey Drive	OWSC ¹	D	AM	13.5	B	No	16.9	C	No
					PM	13.4	B	No	18.9	C	No
	7	Wingfield Springs Road & Diamond Wing Court	OWSC ¹	D	AM	14.5	B	No	18.0	C	No
					PM	11.6	B	No	13.9	B	No
	8	Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South)	TWSC ²	D	AM	14.9	B	No	20.5	C	No
					PM	30.2	D	No	107.6	F	No
	9	Wingfield Springs Road & Eagle Wing Circle (North)	OWSC ¹	D	AM	11.4	B	No	13.0	B	No
					PM	12.8	B	No	18.3	C	No
	10	Wingfield Springs Road & Silver King Drive/Cinnamon Drive (North)	TWSC ²	D	AM	11.2	B	No	11.8	B	No
					PM	13.1	B	No	15.7	C	No
	11	Wingfield Springs Road & General Thatcher Drive	TWSC ²	D	AM	13.5	B	No	17.6	C	No
					PM	11.8	B	No	15.2	C	No
	12	Silver King Drive & General Thatcher Drive	OWSC ¹	C	AM	8.7	A	No	8.9	A	No
					PM	8.4	A	No	8.5	A	No
	13	Island Queen Drive & General Thatcher Drive	OWSC ¹	C	AM	8.6	A	No	8.7	A	No
					PM	8.6	A	No	8.7	A	No
	14		TWSC ²	C	AM	8.8	A	No	9.0	A	No

		Arrow Smith Drive & General Thatcher Drive			PM	9.1	A	No	9.5	A	No
	15	Island Queen Drive & Decoy Drive	OWSC ¹	C	AM	8.9	A	No	9.0	A	No
					PM	8.9	A	No	8.9	A	No
	16	Little Easy Street & Decoy Drive	OWSC ¹	C	AM	8.7	A	No	9.0	A	No
					PM	8.5	A	No	8.6	A	No
	17	Wingfield Springs Road & Poco Bueno Circle	TWSC ²	C	AM	7.4	A	No	7.5	A	No
					PM	7.6	A	No	7.6	A	No
Foothill	18	Scorpius Drive/Homerun Drive & Vista Boulevard	Signal	D	AM	12.5	B	No	12.5	B	No
					PM	12.2	B	No	12.1	B	No
	19	Fire Station 5 Driveway & Vista Boulevard	Signal	D	AM	1.1	A	No	1.1	A	No
					PM	1.1	A	No	1.1	A	No
	20	Vista Boulevard & Black Hills Drive	OWSC ¹	D	AM	15.9	C	No	17.3	C	No
					PM	21.0	C	No	22.4	C	No
	21	Village I Access (South) & Vista Boulevard ⁶	OWSC ¹	D	AM	0.0	A	No	11.5	B	No
					PM	0.0	A	No	9.9	A	No
	22	Vista Boulevard & Village I Access (North) ⁶	OWSC ¹	D	AM	0.0	A	No	11.3	B	No
					PM	0.0	A	No	8.6	A	No

Notes: **Bold** values indicate unacceptable LOS.

¹ OWSC = One-Way Stop-Controlled (i.e., minor street stop-controlled)

² TWSC = Two-Way Stop-Controlled

³ AWSC = All-Way Stop-Controlled

⁴ For OWSC and TWSC, the worst approach/movement delay and LOS is reported. For Signalized and AWSC intersections, average intersection delay is reported.

⁵ Wmnt Met? = Peak Hour Signal Warrant #3

⁶ Proposed Village I access

As shown in **Table 7**, the Wingfield Parkway and Vista Boulevard intersection is expected to operate at an unacceptable LOS under AM peak hour conditions during Cumulative Plus Project conditions, and the Wingfield Parkway & Village A Access/ Rey Del Sierra Drive intersection and the Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South) intersection are expected to operate at an unacceptable LOS under PM peak hour conditions during Cumulative Plus Project conditions. All other study intersections are projected to operate at acceptable LOS conditions under Cumulative and Cumulative Plus Project conditions. Synchro software intersection LOS output reports are included in **Appendix B**. MUTCD Peak Hour Signal Warrant is not projected to be met at the unsignalized study intersections. Signal warrant worksheets are provided in **Appendix C**.

Figure 9. Cumulative Plus Project Traffic Volumes

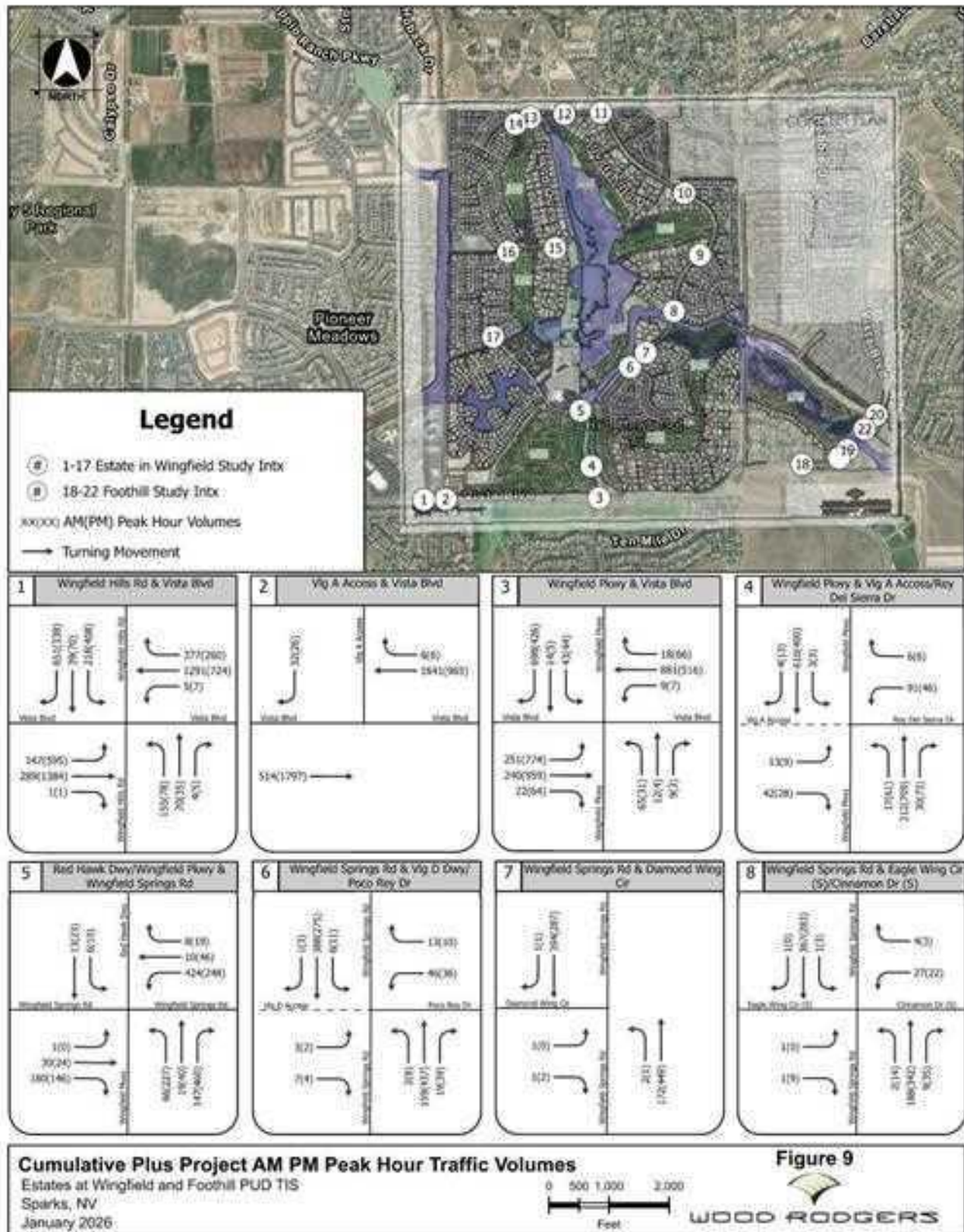
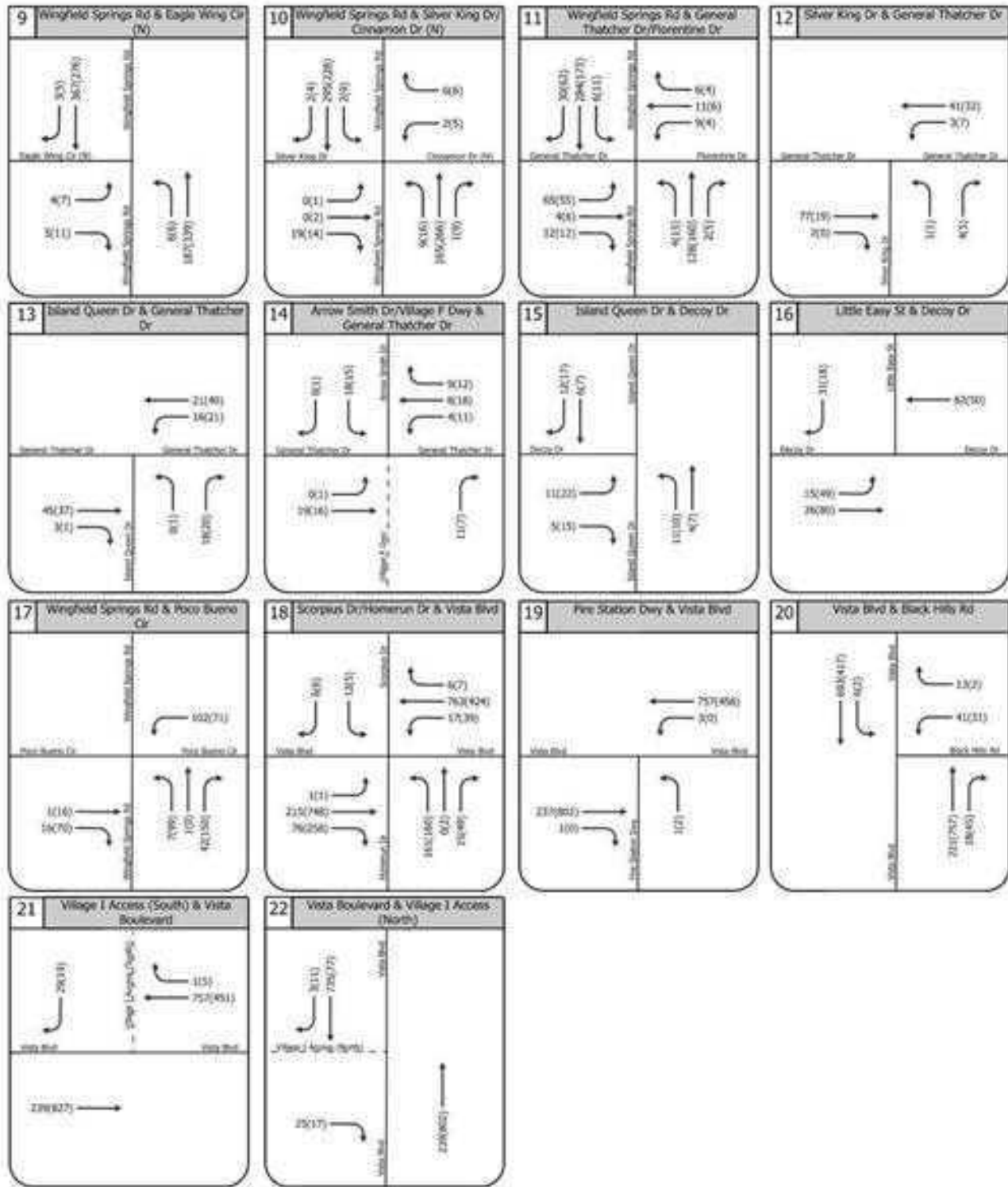


Figure 9. Cumulative Plus Project Traffic Volumes



Cumulative Plus Project AM PM Peak Hour Traffic Volumes

Estates at Wingfield and Foothill PUD TIS

Sparks, NV

January 2026

Figure 9



6 INTERSECTION QUEUEING OPERATIONS

Vehicle queueing was analyzed at the study intersections for all stop-controlled movements, roundabout movements, and movements with turn pockets that the Project would add trips to. **Table 8** shows the available storage lengths and 95th percentile queues under all scenarios.

As shown in **Table 8**, the following queues are projected to exceed storage:

- **Wingfield Hills Road & Vista Boulevard:**
 - Southbound left PM peak hour conditions during Cumulative and Cumulative Plus Project scenarios
 - Southbound through AM peak hour conditions during Existing, Existing Plus Project, Cumulative, and Cumulative Plus Project scenarios and PM peak hour conditions during Cumulative Plus Project scenarios
 - Southbound right AM peak hour conditions during Existing, Existing Plus Project, Cumulative, and Cumulative Plus Project scenarios and PM peak hour conditions during Cumulative Plus Project scenarios
 - Westbound right AM peak hour and PM peak hour conditions during Cumulative and Cumulative Plus Project scenarios
- **Wingfield Parkway & Vista Boulevard:**
 - Southbound through AM peak hour conditions during Existing Plus Project, Cumulative, and Cumulative Plus Project scenarios
 - Southbound right PM peak hour conditions during Existing, Existing Plus Project, and Cumulative scenarios, and AM and PM peak hour conditions during Cumulative Plus Project scenario

All other queues are projected to fit within available storage. Synchro queue reports using Simtraffic are included in **Appendix C**.

Table 8. 95th Percentile Queueing

#	Intersection	Movement	Available Storage (ft)	Existing Conditions 95th Percentile Queueing (ft)		Existing Plus Project Conditions 95th Percentile Queueing (ft)		Cumulative 95th Percentile Queueing (ft)		Cum Plus Project Conditions 95th Percentile Queueing (ft)	
				AM	PM	AM	PM	AM	PM	AM	PM
Estates at Wingfield											
1	Wingfield Hills Road & Vista Boulevard	NBL	275	117	79	124	85	133	86	156	98
		NBT	475	88	46	93	46	102	63	122	79
		NBR	50	32	32	39	27	32	39	35	-
		SBL	275	182	194	229	257	257	348	327	301
		SBT	785	1417	85	1620	117	1605	590	1884	1822
		SBR	785	1599	20	1735	33	1719	204	1883	2187
		EBL	620	136	257	138	259	155	299	165	487
		EBT	850	80	217	99	301	129	265	139	771
		EBR	820	-	-	-	-	-	-	-	-
		WBL	500	20	20	16	24	18	31	18	22
		WBT	285	250	155	285	192	274	289	280	303
		WBR	100	100	20	-	68	121	132	125	145
2	Village A Access & Vista Boulevard	SBR	350	25	31	61	50	26	34	59	52
		EBT	275	-	-	-	-	-	10	-	-
		WBT	1500	161	-	169	17	63	88	51	100
		WBTR	1500	47	-	80	6	68	87	61	99
3	Wingfield Parkway & Vista Boulevard	NBL	100	73	45	71	45	72	54	96	58
		NBTR	680	34	21	36	23	35	20	45	25
		SBL	400	11	37	116	49	39	39	85	66
		SBT	400	310	22	632	22	594	65	596	125
		SBR	150	203	87	196	125	208	132	192	178
		EBL	705	72	118	94	149	85	141	122	226
		EBT	1500	47	91	43	115	74	268	91	254

		EBTR	1500	56	114	57	137	92	210	111	290
		WBL	160	27	20	25	20	43	22	66	43
		WBT	1500	152	89	156	107	249	172	784	258
		WBTR	1500	167	114	180	136	273	199	820	282
4	Wingfield Parkway & Rey Del Sierra Drive	NBLT	425	-	-	30	73	-	7	30	97
		NBTR	425	-	6	8	49	-	7	12	66
		SBLT	885	7	5	321	5	48	6	197	6
		SBTR	885	14	-	574	4	285	-	492	-
		EBLTR		N/A	N/A	378	30	N/A	N/A	265	27
		WBLTR	480	37	21	697	49	231	22	761	48
5	Wingfield Parkway & Wingfield Springs Road	NBLT	880	49	87	56	114	59	91	74	156
		NBR	880	60	100	77	137	131	102	142	178
		SBLTR	115	23	30	24	30	24	32	25	32
		EBLTR	750	73	63	103	68	73	65	95	79
		WBLTR	1050	133	80	244	109	143	88	281	112
6	Wingfield Springs Road & Poco Rey Drive	NBLTR	1050	-	-	5	21	-	2	13	26
		SBLTR	335	11	20	16	25	23	24	24	27
		EBLTR		-	-	40	27	-	-	30	20
		WBLTR	130	52	52	56	51	57	51	66	53
7	Wingfield Springs Road & Diamond Wing Court	NBLT	335	10	8	17	10	8	7	8	8
		SBTR	815	-	-	-	-	-	-	-	-
		EBLR	225	15	12	17	15	11	11	17	13
8	Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South)	NBLTR	815	12	34	12	80	8	35	15	53
		SBLTR	960	3	13	4	49	-	14	5	32
		EBLTR	200	6	11	6	11	5	10	6	11
		WBLTR	325	41	43	44	57	47	45	53	59
9	Wingfield Springs Road & Eagle Wing Circle (North)	NBLT	960	3	4	3	13	22	16	34	30
		SBTR	1250	-	-	-	-	2	-	-	-
		EBLR	500	17	18	22	18	24	32	25	36
10	Wingfield Springs Road & Silver King Drive/Cinnamon Drive (North)	NBLTR	1250	21	16	16	26	27	22	37	32
		SBLTR	510	5	12	12	32	16	19	10	18
		EBLTR	275	32	27	35	28	32	29	32	31

		WBLTR	55	26	25	22	25	23	28	23	28
11	Wingfield Springs Road & General Thatcher Drive	NBLTR	1375	11	18	9	21	17	24	20	32
		SBLTR	330	13	14	19	23	9	29	26	39
		EBLTR	550	35	27	48	52	41	38	49	42
		WBLTR	185	20	12	23	14	20	12	19	16
12	Silver King Drive & General Thatcher Drive	NBLR	440	17	21	18	21	17	17	18	18
		EBTR	540	-	-	-	-	-	-	-	-
		WBLT	550	6	-	3	10	6	5	5	10
13	Island Queen Drive & General Thatcher Drive	NBLR	730	28	26	37	54	33	41	38	43
		EBTR	220	-	-	-	-	-	-	-	-
		WBLT	500	5	3	9	6	3	10	14	10
14	Arrow Smith Drive & General Thatcher Drive	NBLTR	0	N/A	N/A	20	16	N/A	N/A	21	18
		SBLTR	425	39	38	39	38	37	38	38	39
		EBLT	630	-	-	-	-	-	-	-	3
		WBTR	225	-	-	-	4	-	-	6	4
15	Island Queen Drive & Decoy Drive	NBLT	175	3	-	10	10	4	6	5	3
		SBTR	130	-	-	-	-	-	-	-	-
		EBLR	750	30	41	39	55	34	50	39	45
16	Little Easy Street & Decoy Drive	SBLR	230	35	29	35	29	35	30	35	30
		EBLT	150	6	6	12	18	6	10	14	15
		WBTR	750	-	-	-	-	-	-	-	-
17	Wingfield Springs Road & Poco Bueno Circle	NBLTR	375	48	74	49	78	49	77	52	83
		SBLTR	50	-	-	-	-	-	-	-	-
		EBLTR	275	-	-	-	2	-	-	-	3
		WBLTR	475	15	23	19	29	16	28	16	33
Foothill											
18	Scorpius Drive/Homerun Drive & Vista Boulevard	NBL	220	17	29	15	31	49	49	51	48
		NBLT	220	48	58	48	60	73	74	68	73
		NBR	220	23	45	23	48	27	50	29	48
		SBLTR	120	34	28	37	29	38	30	42	31
		EBL	200	8	8	7	4	5	6	4	8
		EBT	525	39	124	44	146	90	265	86	241

		EBR	500	29	51	28	49	45	83	35	83
		WBL	200	32	48	31	46	38	50	37	55
		WBT	550	72	55	69	61	119	86	135	95
		WBTR	550	69	50	70	54	126	88	148	100
19	Fire Station 5 Driveway & Vista Boulevard	NBLR	50	9	15	9	12	9	13	12	15
		EBT	745	19	25	23	22	27	36	29	28
		EBTR	745	15	29	13	32	23	39	22	36
		WBL	105	10	-	9	-	15	-	11	-
		WBT	660	28	21	31	18	30	30	34	30
20	Vista Boulevard & Black Hills Drive	NBT	760	3	-	-	-	3	-	3	-
		NBR	140	-	-	-	-	-	-	-	-
		SBL	175	10	4	10	10	11	13	16	10
		SBT	375	-	-	-	-	-	-	-	-
		WBLR	0	56	51	47	52	63	61	62	58
21	Village I Access (South) & Vista Boulevard	SBR	200	N/A	N/A	46	39	N/A	N/A	45	39
		EBT	275	-	-	-	5	6	8	-	3
		WBT	355	3	-	3	-	4	-	7	-
		WBTR	355	N/A	N/A	5	3	N/A	N/A	8	-
22	Vista Boulevard & Village I Access (North)	NBT	400	-	-	-	-	-	-	-	-
		SBTR	215	N/A	N/A	-	-	-	-	4	3
		EBR	200	N/A	N/A	43	36	N/A	N/A	44	38
Notes: Bold values indicate queue has exceeded storage length ¹ Storage reported is available queueing length within a turn pocket. Storage reported for through movements is the distance to the nearest major cross-street.											

7 DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

All study intersections operate at acceptable LOS under Cumulative Plus Project traffic conditions with the exception of the following:

4. Wingfield Parkway & Vista Boulevard (#3)
5. Wingfield Parkway & Village A Access/Rey Del Sierra Drive (#4)
6. Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South) (#8)

The following improvements are recommended to bring the intersection operations to acceptable LOS:

4. Wingfield Parkway & Vista Boulevard (#3)
 - a. Widen Vista Boulevard to 6 lanes (this improvement is included in the RTC 2050 RTP as a planned improvement)
 - b. Restripe southbound approach to provide left turn lane, shared through-right turn lane, and a right turn lane
5. Wingfield Parkway & Village A Access/Rey Del Sierra Drive (#4)
 - a. Change the two-way stop-control to a roundabout (RAB)
6. Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South) (#8)
 - a. Add west leg to provide access to Village A
 - b. Change the one-way stop-control to a roundabout (RAB)

7.1 WINGFIELD PARKWAY & VISTA BOULEVARD INTERSECTION

The RTC 2050 RTP proposes future improvements in the vicinity of the Project including widening Vista Boulevard from four lanes to six lanes from Wingfield Parkway to Hubble Drive.

Additional improvements proposed at the Wingfield Parkway & Vista Boulevard analyzed include conversion of the southbound through lane to a southbound through-left lane. These proposed improvements are expected to allow the intersection to operate at acceptable LOS under Cumulative Plus Project conditions, shown in **Table 9.1** and improved 95th Percentile Queueing shown in **Table 9.2** on the following page.

Table 9.1 2050 Cumulative Plus Project With Improvements Intersection Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Cumulative Plus Project Conditions		Cum Plus Project With Improvements	
					Delay (S/V) ¹	LOS	Delay (S/V) ¹	LOS
3	Wingfield Parkway & Vista Boulevard	Signal	D	AM	70.5	E	24.3	C
				PM	28.5	C	18.2	B

Notes: **Bold** values indicate unacceptable LOS.

Table 10.2 2050 Cumulative Plus Project With Improvements 95th Percentile Queueing

#	Intersection	Movement	Cumulative Plus Project Conditions 95 th Percentile Queueing (ft)			Cumulative Plus Project Conditions With Improvements 95 th Percentile Queueing (ft)		
			Available Storage (ft)	AM	PM	Available Storage (ft)	AM	PM
3	Wingfield Parkway & Vista Boulevard	NBL	100	96	58	100	104	64
		NBTR	680	45	25	680	67	31
		SBL	400	85	66	400	86	69
		SBT	400	596	125	-	-	-
		SBTR	-	-	-	400	262	123
		SBR	150	192	178	150	100	90
		EBL	705	122	226	705	132	249
		EBT	1500	91	254	1500	119	309
		EBTR	1500	111	290	1500	144	350
		WBL	160	66	43	160	63	30
		WBT	1500	784	258	1500	348	238
		WBTR	1500	820	282	1500	340	219

Notes: **Bold** values indicate queue has exceeded storage length

¹ Storage reported is available queueing length within a turn pocket. Storage reported for through movements is the distance to the nearest major cross-street.

7.2 WINGFIELD PARKWAY & VILLAGE ACCESS/ REY DEL SIERRA DRIVE INTERSECTION

Improvements proposed at the Wingfield Parkway & Village A Access/ Rey Del Sierra Drive intersection include conversion of the control from two-way stop-control to a roundabout. As shown in **Table 10.1** and **Table 10.2** on the following page, this improvement is expected to allow the intersection to operate at acceptable LOS and improved queueing respectively under Cumulative Plus Project conditions.

Table 11.1 2050 Cumulative Plus Project With Improvements Intersection Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Cumulative Plus Project		Cumulative Plus Project With Roundabout Alternative	
					Delay ²	LOS	Delay	LOS
4	Wingfield Parkway & Village A Access/ Rey Del Sierra Drive	TWSC/ RAB ¹	D	AM	24.9	C	4.9	A
				PM	47.1	E	5.4	A

Notes: **Bold** values indicate unacceptable LOS.

¹ Wingfield Parkway & Rey Del Sierra Drive intersection analyzed as a 2-lane roundabout

² TWSC = Two-Way Stop-Controlled, RAB = Roundabout

³ For TWSC, the worst approach/movement delay and LOS is reported. For roundabout intersections, average intersection delay is reported.

Table 12.2 2050 Cumulative Plus Project With Improvements 95th Percentile Queueing

#	Intersection	Movement	Cumulative Plus Project Conditions 95 th Percentile Queueing (ft)			Cumulative Plus Project Conditions With Improvements 95 th Percentile Queueing (ft)		
			Available Storage (ft)	AM	PM	Available Storage (ft)	AM	PM
4	Wingfield Parkway & Village A Access/ Rey Del Sierra Drive	NBLT	425	30	97	-	-	-
		NB	-	-	-	425	11	48
		NBTR	425	12	66	-	-	-
		SBLT	885	197	6	-	-	-
		SB	-	-	-	885	34	21
		SBTR	885	492	-	-	-	-
		EBLTR	200	265	27	200	10	5
		WBLTR	480	761	48	480	12	10

Notes: **Bold** values indicate queue has exceeded storage length

¹ Storage reported is available queueing length within a turn pocket. Storage reported for through movements is the distance to the nearest major cross-street.

An alternative improvement at the Wingfield & Village A Access/Rey Del Sierra Drive intersection that can be considered is construction of a raised median to restrict the Rey Del Sierra Drive and Village A Access roadway to a Right-In/Right-Out access only.

7.3 WINGFIELD SPRINGS ROAD & EAGLE WING CIRCLE (SOUTH)/ CINNAMON DRIVE (SOUTH) INTERSECTION

Improvements proposed at the Wingfield Springs Road & Eagle Wing Circle (South)/Cinnamon Drive (South) intersection include conversion of the control from two-way stop-control to a roundabout. As shown in **Table 11.1** and **Table 11.2** on the following page, this improvement is expected to allow the intersection to operate at acceptable LOS and improved queueing respectively under Cumulative Plus Project conditions.

Table 13.1 2050 Cumulative Plus Project With Improvements Intersection Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Cumulative Plus Project		Cumulative Plus Project With Roundabout Alternative	
					Delay ²	LOS	Delay	LOS
8	Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South)	TWSC/ RAB ¹	D	AM	20.5	C	5.0	A
				PM	107.6	F	5.2	A

Notes: **Bold** values indicate unacceptable LOS.

¹ Wingfield Parkway & Rey Del Sierra Drive intersection analyzed as a 2-lane roundabout

² TWSC = Two-Way Stop-Controlled, RAB = Roundabout

³ For TWSC, the worst approach/movement delay and LOS is reported. For roundabout intersections, average intersection delay is reported.

Table 11.2 2050 Cumulative Plus Project With Improvements 95th Percentile Queueing

#	Intersection	Movement	Cumulative Plus Project Conditions 95 th Percentile Queueing (ft)			Cumulative Plus Project Conditions With Improvements 95 th Percentile Queueing (ft)		
			Available Storage (ft)	AM	PM	Available Storage (ft)	AM	PM
4	Wingfield Parkway & Village A Access/ Rey Del Sierra Drive	NBLTR	815	15	53	815	20	48
		SBLTR	960	5	32	960	46	33
		EBLTR	200	6	11	200	1	2
		WBLTR	325	53	59	325	4	4

Notes: **Bold** values indicate queue has exceeded storage length

¹ Storage reported is available queueing length within a turn pocket. Storage reported for through movements is the distance to the nearest major cross-street.

8 PROJECT SITE ACCESS AND INTERNAL CIRCULATION

The Project site access connects via Wingfield Parkway and Wingfield Springs Road.

9 PROJECT EFFECTS ON PEDESTRIAN, BICYCLE, AND TRANSIT FACILITIES

The Project is not anticipated to cause a significant increase in pedestrian and bicycle traffic in the study area, and therefore no improvements are needed. The study area is not served by transit.

10 SAFETY EVALUATION

Five years of crash data (September 10, 2019 – September 09, 2024) were obtained from NDOT to identify high crash locations and common crash characteristics. NDOT crash data is included in **Appendix D**.

Table 12 on the following page summarizes the crash in the study area and describes the crash severity (fatal, incapacitating, non-incapacitating, claimed, not reported, no injury, unknown, and property damage only(PDO)) and **Table 13** summarizes the crash type (head-on, rear-end, angle, sideswipe-overtaking, non-collision, vehicle/pedestrian, vehicle/bicycle, and other/not stated). The NDOT data indicated that a total of 58 crashes occurred at the study facilities over the last five years.

Table 14. Summary of Crash Severity in Study Area (NDOT, 2019 – 2024)

Intersection	Total Crashes	Severity					
		Fatal	Incapacitating	Non-Incapacitating	Claimed	Property Damage (PDO)	Unknown/Not Reported
Wingfield Hills Road & Vista Boulevard	25	0	1	1	4	19	0
Village A Access & Vista Boulevard	0	0	0	0	0	0	0
Wingfield Parkway & Vista Boulevard	15	0	0	2	2	11	0
Wingfield Parkway & Rey Del Sierra Drive	3	0	0	0	3	0	0
Wingfield Parkway & Wingfield Springs Road	0	0	0	0	0	0	0
Wingfield Springs Road & Poco Rey Drive	3	1	0	0	0	2	0
Wingfield Springs Road & Diamond Wing Court	0	0	0	0	0	0	0
Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South)	0	0	0	0	0	0	0
Wingfield Springs Road & Eagle Wing Circle (North)	0	0	0	0	0	0	0
Wingfield Springs Road & Silver King Drive/Cinnamon Drive (North)	1	0	0	0	0	1	0
Wingfield Springs Road & General Thatcher Drive	2	0	0	1	0	1	0
Silver King Drive & General Thatcher Drive	1	0	0	0	0	1	0
Island Queen Drive & General Thatcher Drive	0	0	0	0	0	0	0
Arrow Smith Drive & General Thatcher Drive	0	0	0	0	0	0	0
Island Queen Drive & Decoy Drive	0	0	0	0	0	0	0
Little Easy Street & Decoy Drive	0	0	0	0	0	0	0
Wingfield Springs Road & Poco Bueno Circle	0	0	0	0	0	0	0
Scorpius Drive/Homerun Drive & Vista Boulevard	5	0	0	1	0	4	0
Fire Station 5 Driveway & Vista Boulevard	0	0	0	0	0	0	0
Vista Boulevard & Black Hills Drive	3	0	0	0	0	3	0
Totals	58	1	1	4	10	42	0

As shown in **Table 12**, the severity of most crashes involved PDO (42 collisions), followed by injuries (15 collisions). As shown in **Table 13**, the most common crash types were rear end crashes, followed by angle crashes.

Table 15. Summary of Crash Type in Study Area (NDOT, 2019 - 2024)

Intersection	Total Crashes	Type							
		Head-On	Rear-End	Sideswipe-Overtaking	Angle	Non-Collision	Vehicle/Pedestrian	Vehicle/Bicycle	Other/Not Stated
Wingfield Hills Road & Vista Boulevard	25	0	18	1	3	2	0	0	1
Village A Access & Vista Boulevard	0	0	0	0	0	0	0	0	0
Wingfield Parkway & Vista Boulevard	15	0	9	0	6	0	0	0	0
Wingfield Parkway & Rey Del Sierra Drive	3	0	3	0	0	0	0	0	0
Wingfield Parkway & Wingfield Springs Road	0	0	0	0	0	0	0	0	0
Wingfield Springs Road & Poco Rey Drive	3	0	0	0	1	2	0	0	0
Wingfield Springs Road & Diamond Wing Court	0	0	0	0	0	0	0	0	0
Wingfield Springs Road & Eagle Wing Circle (South)/Cinnamon Drive (South)	0	0	0	0	0	0	0	0	0
Wingfield Springs Road & Eagle Wing Circle (North)	0	0	0	0	0	0	0	0	0
Wingfield Springs Road & Silver King Drive/Cinnamon Drive (North)	1	0	0	1	0	0	0	0	0
Wingfield Springs Road & General Thatcher Drive	2	0	0	0	2	0	0	0	0
Silver King Drive & General Thatcher Drive	1	0	0	0	0	1	0	0	0
Island Queen Drive & General Thatcher Drive	0	0	0	0	0	0	0	0	0
Arrow Smith Drive & General Thatcher Drive	0	0	0	0	0	0	0	0	0
Island Queen Drive & Decoy Drive	0	0	0	0	0	0	0	0	0
Little Easy Street & Decoy Drive	0	0	0	0	0	0	0	0	0
Wingfield Springs Road & Poco Bueno Circle	0	0	0	0	0	0	0	0	0
Scorpius Drive/Homerun Drive & Vista Boulevard	5	0	0	0	3	2	0	0	0
Fire Station 5 Driveway & Vista Boulevard	0	0	0	0	0	0	0	0	0
Vista Boulevard & Black Hills Drive	3	0	2	0	0	1	0	0	0
Totals	58	0	32	2	15	8	0	0	1

Table 14 shows the primary crash factors (PCFs) at each study intersection. The most common PCFs were other unknown factors, followed by following too closely. Note that in Primary Crash Factors Driving under the Influence was reported in combination with other collision factors.

Table 16. Summary of Primary Crash Factors in Study Area (NDOT, 2019 – 2024)

Intersection	Total Crashes	PCF										
		Driving or Bicycling Under the Influence	Unsafe Speed	Wrong Side of Road	Unsafe Lane Change	Fail To Maintain Lane	Automobile Right of Way	Cyclist Right of Way	Traffic Signals and Signs	Following Too Closely	Other Improper Driving	Unknown
Wingfield Hills Road & Vista Boulevard	25	0	0	0	1	1	1	0	2	4	7	9
Village A Access & Vista Boulevard	0	0	0	0	0	0	0	0	0	0	0	0
Wingfield Parkway & Vista Boulevard	15	2	1	0	1	1	1	0	2	4	2	3
Wingfield Parkway & Rey Del Sierra Drive	3	0	0	0	0	0	0	0	0	0	2	1
Wingfield Parkway & Wingfield Springs Road	0	0	0	0	0	0	0	0	0	0	0	0
Wingfield Springs Road & Poco Rey Drive	3	0	1	0	0	0	0	0	0	0	0	2
Wingfield Springs Road & Diamond Wing Court	0	0	0	0	0	0	0	0	0	0	0	0
Wingfield Springs Road & Eagle Wing Circle (South)/ Cinnamon Drive (South)	0	0	0	0	0	0	0	0	0	0	0	0
Wingfield Springs Road & Eagle Wing Circle (North)	0	0	0	0	0	0	0	0	0	0	0	0
Wingfield Springs Road & Silver King Drive/Cinnamon Drive (North)	1	1	0	0	0	0	0	0	0	0	0	1
Wingfield Springs Road & General Thatcher Drive	2	0	0	0	1	0	1	0	0	0	0	0
Silver King Drive & General Thatcher Drive	1	1	0	0	0	0	0	0	0	0	0	1
Island Queen Drive & General Thatcher Drive	0	0	0	0	0	0	0	0	0	0	0	0
Arrow Smith Drive & General Thatcher Drive	0	0	0	0	0	0	0	0	0	0	0	0
Island Queen Drive & Decoy Drive	0	0	0	0	0	0	0	0	0	0	0	0
Little Easy Street & Decoy Drive	0	0	0	0	0	0	0	0	0	0	0	0
Wingfield Springs Road & Poco Bueno Circle	0	0	0	0	0	0	0	0	0	0	0	0
Scorpius Drive/Homerun Drive & Vista Boulevard	5	0	0	0	0	1	2	0	0	0	1	1
Fire Station 5 Driveway & Vista Boulevard	0	0	0	0	0	0	0	0	0	0	0	0
Vista Boulevard & Black Hills Drive	3	0	0	0	0	0	0	0	0	2	0	1
Totals	58	4	2	0	3	3	5	0	4	10	12	19

The Project is projected to operate similarly to the existing land uses and driveways in the area. Crash data did not display any areas of concern in the vicinity of the Project that are likely associated with the site. It is unlikely that the addition of Project traffic would result in a significant change in crash rates at the study facilities.

APPENDIX A | TRAFFIC COUNTS

City of Sparks, NV
N/S: Wingfield Hills Road
E/W: Vista Boulevard
Weather: Clear

File Name : 03_SPK_Wf Hill_Vista AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

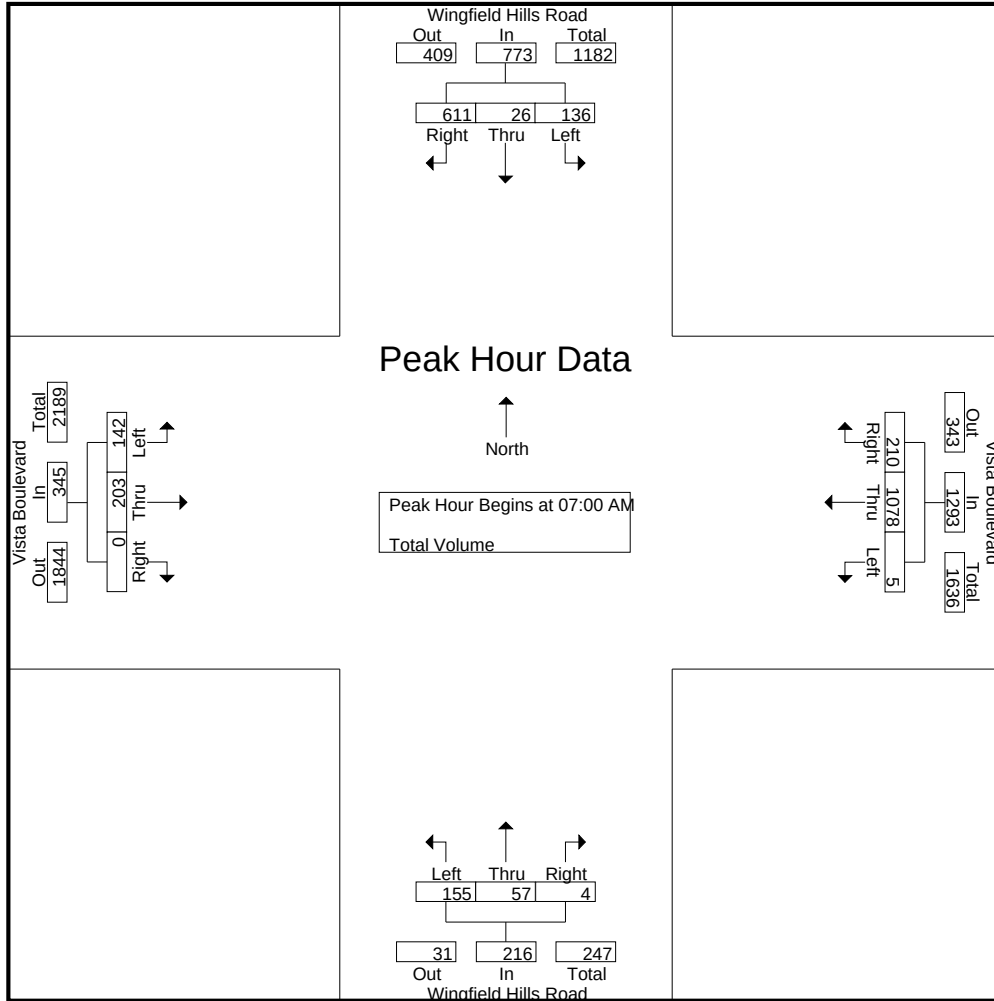
Groups Printed- Total Volume

	Wingfield Hills Road Southbound				Vista Boulevard Westbound				Wingfield Hills Road Northbound				Vista Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	30	6	137	173	2	270	98	370	46	14	1	61	25	37	0	62	666
07:15 AM	48	9	155	212	2	311	58	371	36	20	1	57	29	45	0	74	714
07:30 AM	42	10	171	223	0	251	30	281	40	13	1	54	44	48	0	92	650
07:45 AM	16	1	148	165	1	246	24	271	33	10	1	44	44	73	0	117	597
Total	136	26	611	773	5	1078	210	1293	155	57	4	216	142	203	0	345	2627
08:00 AM	14	12	145	171	0	245	40	285	35	5	1	41	36	53	0	89	586
08:15 AM	33	6	146	185	0	253	35	288	36	8	3	47	35	65	0	100	620
08:30 AM	34	6	107	147	0	252	26	278	40	2	0	42	37	71	0	108	575
08:45 AM	19	1	78	98	1	172	23	196	26	9	4	39	42	84	0	126	459
Total	100	25	476	601	1	922	124	1047	137	24	8	169	150	273	0	423	2240
Grand Total	236	51	1087	1374	6	2000	334	2340	292	81	12	385	292	476	0	768	4867
Apprch %	17.2	3.7	79.1		0.3	85.5	14.3		75.8	21	3.1		38	62	0		
Total %	4.8	1	22.3	28.2	0.1	41.1	6.9	48.1	6	1.7	0.2	7.9	6	9.8	0	15.8	

	Wingfield Hills Road Southbound				Vista Boulevard Westbound				Wingfield Hills Road Northbound				Vista Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	30	6	137	173	2	270	98	370	46	14	1	61	25	37	0	62	666
07:15 AM	48	9	155	212	2	311	58	371	36	20	1	57	29	45	0	74	714
07:30 AM	42	10	171	223	0	251	30	281	40	13	1	54	44	48	0	92	650
07:45 AM	16	1	148	165	1	246	24	271	33	10	1	44	44	73	0	117	597
Total Volume	136	26	611	773	5	1078	210	1293	155	57	4	216	142	203	0	345	2627
% App. Total	17.6	3.4	79		0.4	83.4	16.2		71.8	26.4	1.9		41.2	58.8	0		
PHF	.708	.650	.893	.867	.625	.867	.536	.871	.842	.713	1.00	.885	.807	.695	.000	.737	.920

City of Sparks, NV
N/S: Wingfield Hills Road
E/W: Vista Boulevard
Weather: Clear

File Name : 03_SPK_Wf Hill_Vista AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				08:00 AM			
+0 mins.	30	6	137	173	2	270	98	370	46	14	1	61	36	53	0	89
+15 mins.	48	9	155	212	2	311	58	371	36	20	1	57	35	65	0	100
+30 mins.	42	10	171	223	0	251	30	281	40	13	1	54	37	71	0	108
+45 mins.	16	1	148	165	1	246	24	271	33	10	1	44	42	84	0	126
Total Volume	136	26	611	773	5	1078	210	1293	155	57	4	216	150	273	0	423
% App. Total	17.6	3.4	79		0.4	83.4	16.2		71.8	26.4	1.9		35.5	64.5	0	
PHF	.708	.650	.893	.867	.625	.867	.536	.871	.842	.713	1.000	.885	.893	.813	.000	.839

City of Sparks, NV
N/S: Wingfield Hills Road
E/W: Vista Boulevard
Weather: Clear

File Name : 03_SPK_Wf Hill_Vista PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

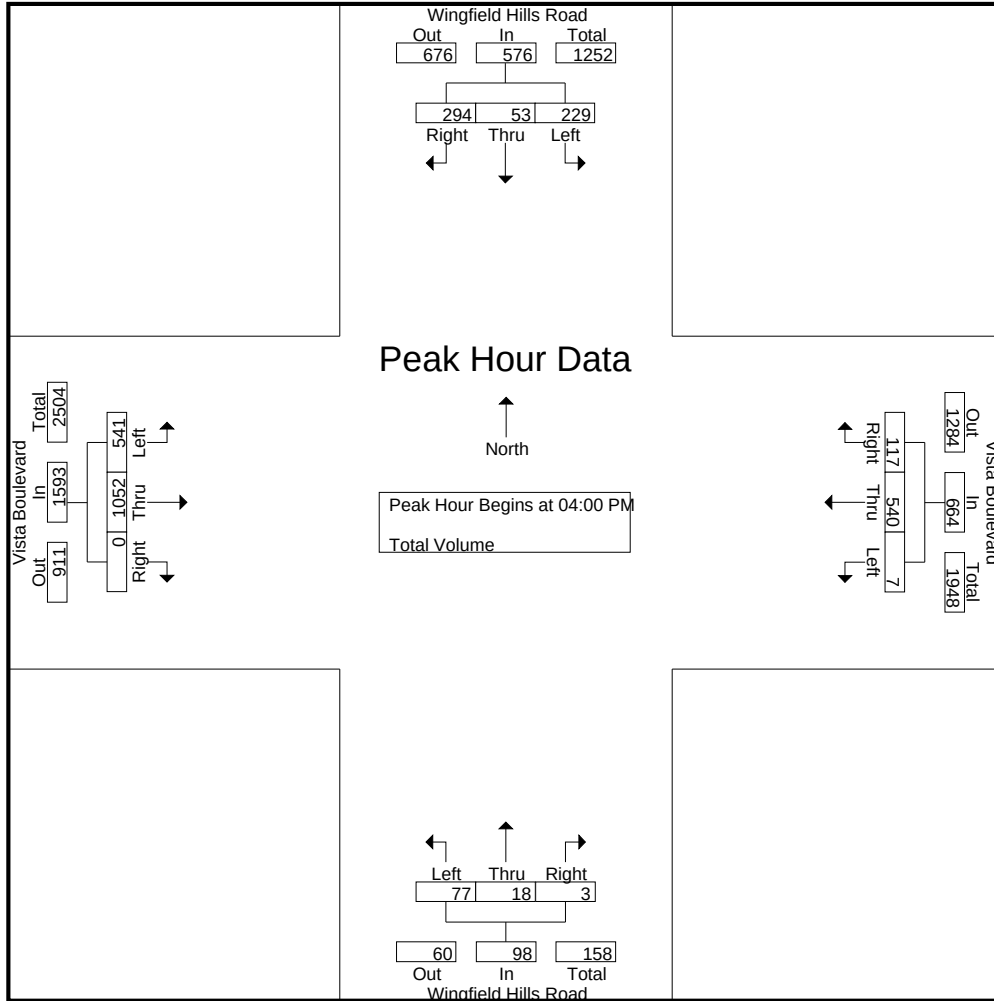
Groups Printed- Total Volume

	Wingfield Hills Road Southbound				Vista Boulevard Westbound				Wingfield Hills Road Northbound				Vista Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	55	14	82	151	3	148	27	178	16	5	1	22	144	243	0	387	738
04:15 PM	48	16	76	140	1	140	31	172	19	8	0	27	124	264	0	388	727
04:30 PM	67	13	69	149	0	124	33	157	23	1	0	24	137	267	0	404	734
04:45 PM	59	10	67	136	3	128	26	157	19	4	2	25	136	278	0	414	732
Total	229	53	294	576	7	540	117	664	77	18	3	98	541	1052	0	1593	2931
05:00 PM	44	9	56	109	2	148	23	173	10	7	0	17	130	263	0	393	692
05:15 PM	49	16	60	125	2	125	25	152	19	6	3	28	145	285	0	430	735
05:30 PM	77	11	64	152	1	136	39	176	15	5	2	22	140	268	0	408	758
05:45 PM	59	13	62	134	2	118	38	158	13	6	5	24	135	258	0	393	709
Total	229	49	242	520	7	527	125	659	57	24	10	91	550	1074	0	1624	2894
Grand Total	458	102	536	1096	14	1067	242	1323	134	42	13	189	1091	2126	0	3217	5825
Apprch %	41.8	9.3	48.9		1.1	80.7	18.3		70.9	22.2	6.9		33.9	66.1	0		
Total %	7.9	1.8	9.2	18.8	0.2	18.3	4.2	22.7	2.3	0.7	0.2	3.2	18.7	36.5	0	55.2	

	Wingfield Hills Road Southbound				Vista Boulevard Westbound				Wingfield Hills Road Northbound				Vista Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	55	14	82	151	3	148	27	178	16	5	1	22	144	243	0	387	738
04:15 PM	48	16	76	140	1	140	31	172	19	8	0	27	124	264	0	388	727
04:30 PM	67	13	69	149	0	124	33	157	23	1	0	24	137	267	0	404	734
04:45 PM	59	10	67	136	3	128	26	157	19	4	2	25	136	278	0	414	732
Total Volume	229	53	294	576	7	540	117	664	77	18	3	98	541	1052	0	1593	2931
% App. Total	39.8	9.2	51		1.1	81.3	17.6		78.6	18.4	3.1		34	66	0		
PHF	.854	.828	.896	.954	.583	.912	.886	.933	.837	.563	.375	.907	.939	.946	.000	.962	.993

City of Sparks, NV
N/S: Wingfield Hills Road
E/W: Vista Boulevard
Weather: Clear

File Name : 03_SPK_Wf Hill_Vista PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:45 PM			
+0 mins.	55	14	82	151	3	148	27	178	16	5	1	22	136	278	0	414
+15 mins.	48	16	76	140	1	140	31	172	19	8	0	27	130	263	0	393
+30 mins.	67	13	69	149	0	124	33	157	23	1	0	24	145	285	0	430
+45 mins.	59	10	67	136	3	128	26	157	19	4	2	25	140	268	0	408
Total Volume	229	53	294	576	7	540	117	664	77	18	3	98	551	1094	0	1645
% App. Total	39.8	9.2	51		1.1	81.3	17.6		78.6	18.4	3.1		33.5	66.5	0	
PHF	.854	.828	.896	.954	.583	.912	.886	.933	.837	.563	.375	.907	.950	.960	.000	.956

City of Sparks, NV
N/S: Village A Access
E/W: Vista Boulevard
Weather: Clear

File Name : 02_SPK_V A Acs_Vista AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

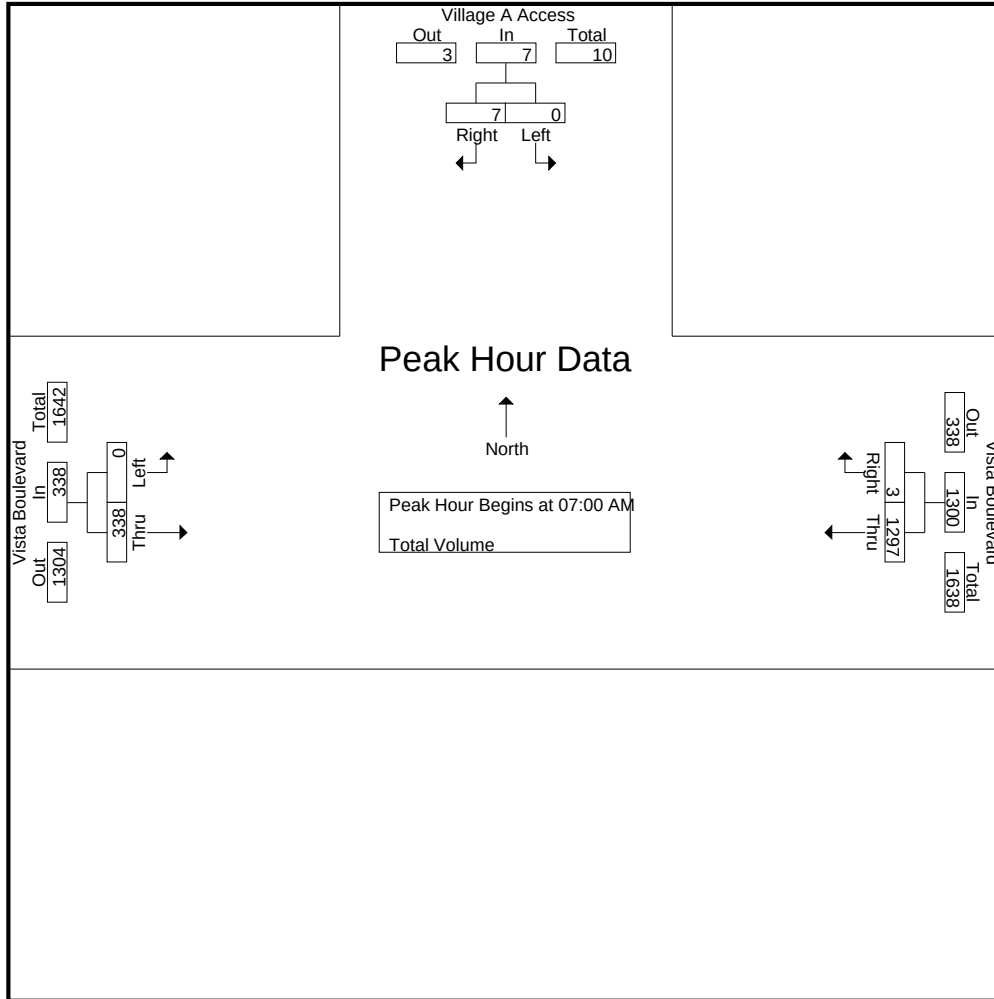
Groups Printed- Total Volume

	Village A Access Southbound			Vista Boulevard Westbound			Vista Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	5	5	377	1	378	0	67	67	450
07:15 AM	0	2	2	357	1	358	0	91	91	451
07:30 AM	0	0	0	294	0	294	0	90	90	384
07:45 AM	0	0	0	269	1	270	0	90	90	360
Total	0	7	7	1297	3	1300	0	338	338	1645
08:00 AM	0	1	1	287	0	287	0	66	66	354
08:15 AM	0	0	0	277	0	277	0	100	100	377
08:30 AM	0	1	1	277	1	278	0	99	99	378
08:45 AM	0	0	0	200	0	200	0	109	109	309
Total	0	2	2	1041	1	1042	0	374	374	1418
Grand Total	0	9	9	2338	4	2342	0	712	712	3063
Apprch %	0	100		99.8	0.2		0	100		
Total %	0	0.3	0.3	76.3	0.1	76.5	0	23.2	23.2	

	Village A Access Southbound			Vista Boulevard Westbound			Vista Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	5	5	377	1	378	0	67	67	450
07:15 AM	0	2	2	357	1	358	0	91	91	451
07:30 AM	0	0	0	294	0	294	0	90	90	384
07:45 AM	0	0	0	269	1	270	0	90	90	360
Total Volume	0	7	7	1297	3	1300	0	338	338	1645
% App. Total	0	100		99.8	0.2		0	100		
PHF	.000	.350	.350	.860	.750	.860	.000	.929	.929	.912

City of Sparks, NV
N/S: Village A Access
E/W: Vista Boulevard
Weather: Clear

File Name : 02_SPK_V A Acs_Vista AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			08:00 AM		
+0 mins.	0	5	5	377	1	378	0	66	66
+15 mins.	0	2	2	357	1	358	0	100	100
+30 mins.	0	0	0	294	0	294	0	99	99
+45 mins.	0	0	0	269	1	270	0	109	109
Total Volume	0	7	7	1297	3	1300	0	374	374
% App. Total	0	100		99.8	0.2		0	100	
PHF	.000	.350	.350	.860	.750	.860	.000	.858	.858

City of Sparks, NV
N/S: Village A Access
E/W: Vista Boulevard
Weather: Clear

File Name : 02_SPK_V A Acs_Vista PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

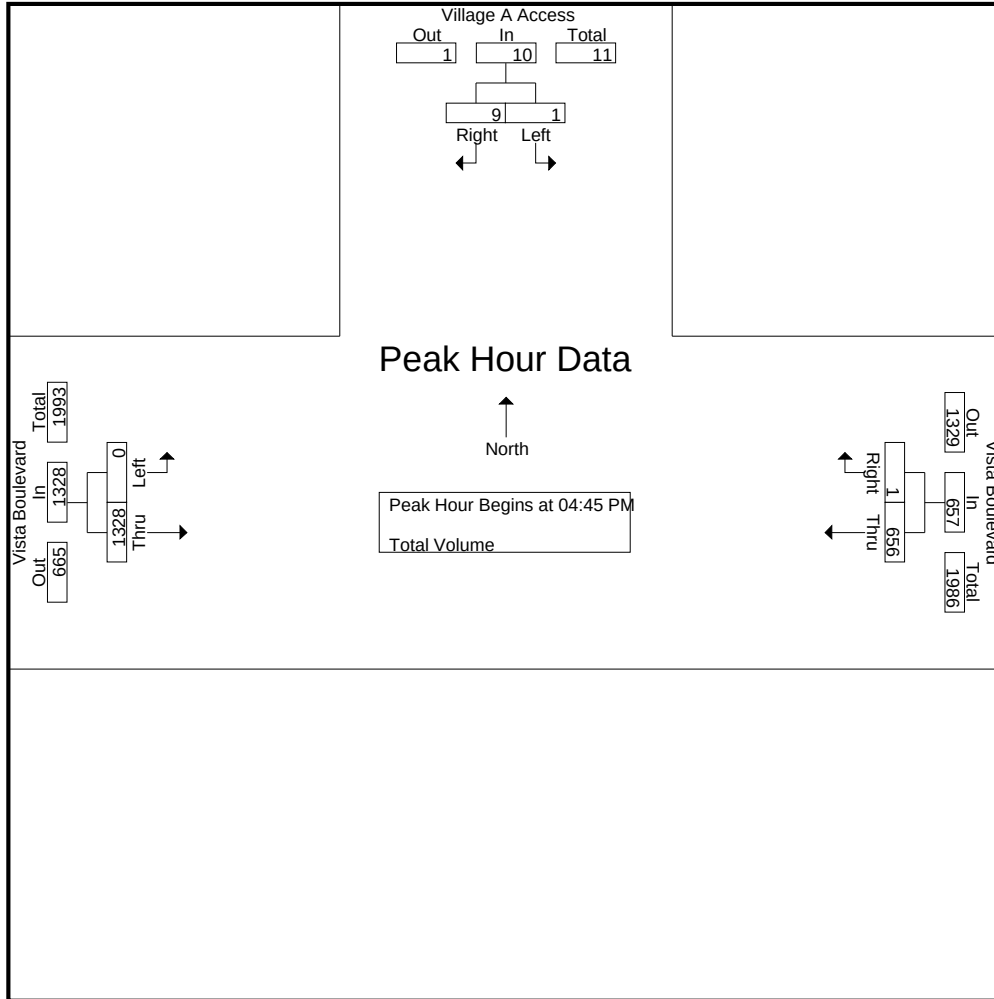
Groups Printed- Total Volume

	Village A Access Southbound			Vista Boulevard Westbound			Vista Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	169	3	172	0	299	299	471
04:15 PM	0	7	7	167	3	170	0	309	309	486
04:30 PM	0	6	6	151	3	154	0	334	334	494
04:45 PM	0	8	8	148	0	148	0	344	344	500
Total	0	21	21	635	9	644	0	1286	1286	1951
05:00 PM	0	0	0	172	1	173	0	306	306	479
05:15 PM	1	1	2	152	0	152	0	337	337	491
05:30 PM	0	0	0	184	0	184	0	341	341	525
05:45 PM	0	0	0	158	0	158	0	328	328	486
Total	1	1	2	666	1	667	0	1312	1312	1981
Grand Total	1	22	23	1301	10	1311	0	2598	2598	3932
Apprch %	4.3	95.7		99.2	0.8		0	100		
Total %	0	0.6	0.6	33.1	0.3	33.3	0	66.1	66.1	

	Village A Access Southbound			Vista Boulevard Westbound			Vista Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	8	8	148	0	148	0	344	344	500
05:00 PM	0	0	0	172	1	173	0	306	306	479
05:15 PM	1	1	2	152	0	152	0	337	337	491
05:30 PM	0	0	0	184	0	184	0	341	341	525
Total Volume	1	9	10	656	1	657	0	1328	1328	1995
% App. Total	10	90		99.8	0.2		0	100		
PHF	.250	.281	.313	.891	.250	.893	.000	.965	.965	.950

City of Sparks, NV
N/S: Village A Access
E/W: Vista Boulevard
Weather: Clear

File Name : 02_SPK_V A Acs_Vista PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			05:00 PM			04:45 PM		
+0 mins.	0	0	0	172	1	173	0	344	344
+15 mins.	0	7	7	152	0	152	0	306	306
+30 mins.	0	6	6	184	0	184	0	337	337
+45 mins.	0	8	8	158	0	158	0	341	341
Total Volume	0	21	21	666	1	667	0	1328	1328
% App. Total	0	100		99.9	0.1		0	100	
PHF	.000	.656	.656	.905	.250	.906	.000	.965	.965

City of Sparks, NV
N/S: Wingfield Parkway
E/W: Vista Boulevard
Weather: Clear

File Name : 01_SPK_Wf P_Vista AM
Site Code : 251153
Start Date : 11/19/2025
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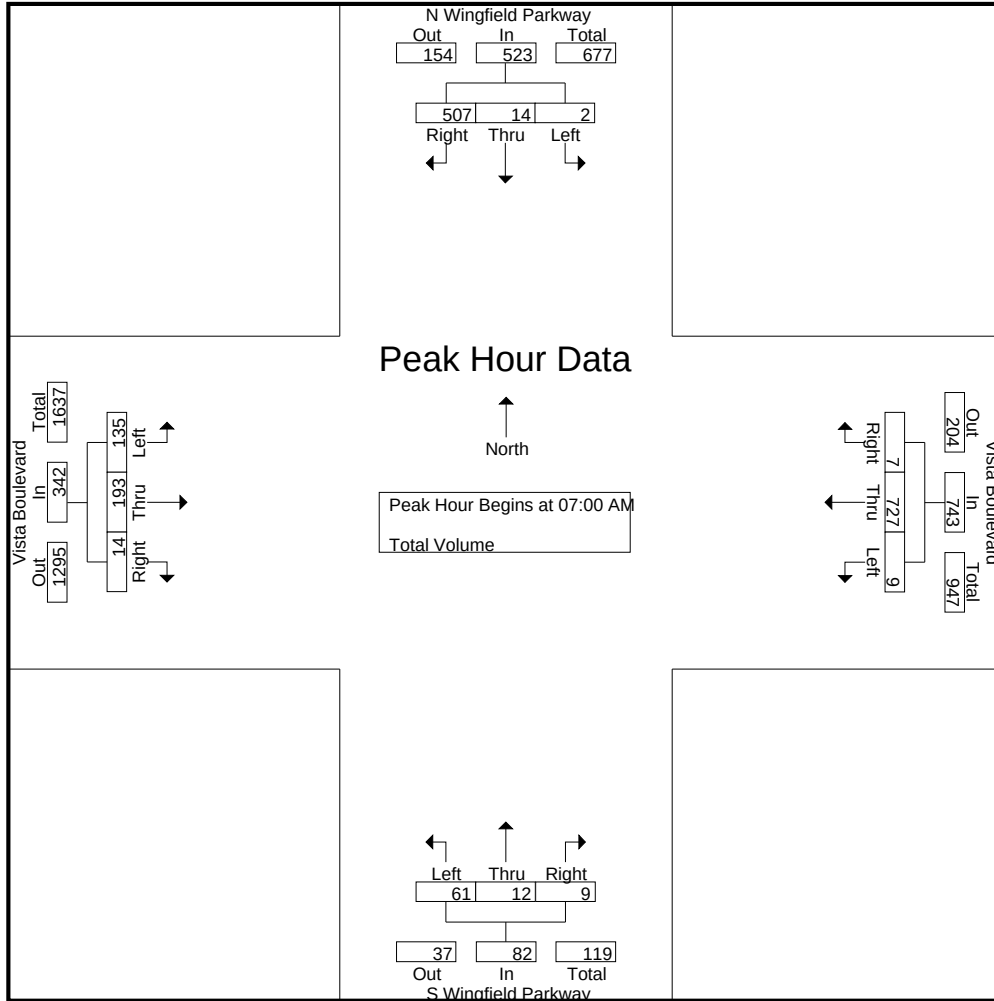
Groups Printed- Total Volume

	N Wingfield Parkway Southbound				Vista Boulevard Westbound				S Wingfield Parkway Northbound				Vista Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	5	153	158	5	226	3	234	16	4	2	22	24	37	5	66	480
07:15 AM	1	3	134	138	1	186	0	187	18	1	6	25	34	59	6	99	449
07:30 AM	1	1	111	113	0	171	2	173	12	4	1	17	38	48	1	87	390
07:45 AM	0	5	109	114	3	144	2	149	15	3	0	18	39	49	2	90	371
Total	2	14	507	523	9	727	7	743	61	12	9	82	135	193	14	342	1690
08:00 AM	1	1	120	122	0	148	0	148	13	0	0	13	27	36	4	67	350
08:15 AM	2	5	100	107	1	159	4	164	16	6	0	22	42	51	9	102	395
08:30 AM	1	3	82	86	0	174	4	178	13	3	0	16	45	47	5	97	377
08:45 AM	1	0	80	81	0	114	2	116	5	5	0	10	49	60	1	110	317
Total	5	9	382	396	1	595	10	606	47	14	0	61	163	194	19	376	1439
Grand Total	7	23	889	919	10	1322	17	1349	108	26	9	143	298	387	33	718	3129
Apprch %	0.8	2.5	96.7		0.7	98	1.3		75.5	18.2	6.3		41.5	53.9	4.6		
Total %	0.2	0.7	28.4	29.4	0.3	42.2	0.5	43.1	3.5	0.8	0.3	4.6	9.5	12.4	1.1	22.9	

	N Wingfield Parkway Southbound				Vista Boulevard Westbound				S Wingfield Parkway Northbound				Vista Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	5	153	158	5	226	3	234	16	4	2	22	24	37	5	66	480
07:15 AM	1	3	134	138	1	186	0	187	18	1	6	25	34	59	6	99	449
07:30 AM	1	1	111	113	0	171	2	173	12	4	1	17	38	48	1	87	390
07:45 AM	0	5	109	114	3	144	2	149	15	3	0	18	39	49	2	90	371
Total Volume	2	14	507	523	9	727	7	743	61	12	9	82	135	193	14	342	1690
% App. Total	0.4	2.7	96.9		1.2	97.8	0.9		74.4	14.6	11		39.5	56.4	4.1		
PHF	.500	.700	.828	.828	.450	.804	.583	.794	.847	.750	.375	.820	.865	.818	.583	.864	.880

City of Sparks, NV
N/S: Wingfield Parkway
E/W: Vista Boulevard
Weather: Clear

File Name : 01_SPK_Wf P_Vista AM
Site Code : 251153
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				08:00 AM			
+0 mins.	0	5	153	158	5	226	3	234	16	4	2	22	27	36	4	67
+15 mins.	1	3	134	138	1	186	0	187	18	1	6	25	42	51	9	102
+30 mins.	1	1	111	113	0	171	2	173	12	4	1	17	45	47	5	97
+45 mins.	0	5	109	114	3	144	2	149	15	3	0	18	49	60	1	110
Total Volume	2	14	507	523	9	727	7	743	61	12	9	82	163	194	19	376
% App. Total	0.4	2.7	96.9		1.2	97.8	0.9		74.4	14.6	11		43.4	51.6	5.1	
PHF	.500	.700	.828	.828	.450	.804	.583	.794	.847	.750	.375	.820	.832	.808	.528	.855

City of Sparks, NV
N/S: Wingfield Parkway
E/W: Vista Boulevard
Weather: Clear

File Name : 01_SPK_Wf P_Vista PM
Site Code : 251153
Start Date : 11/19/2025
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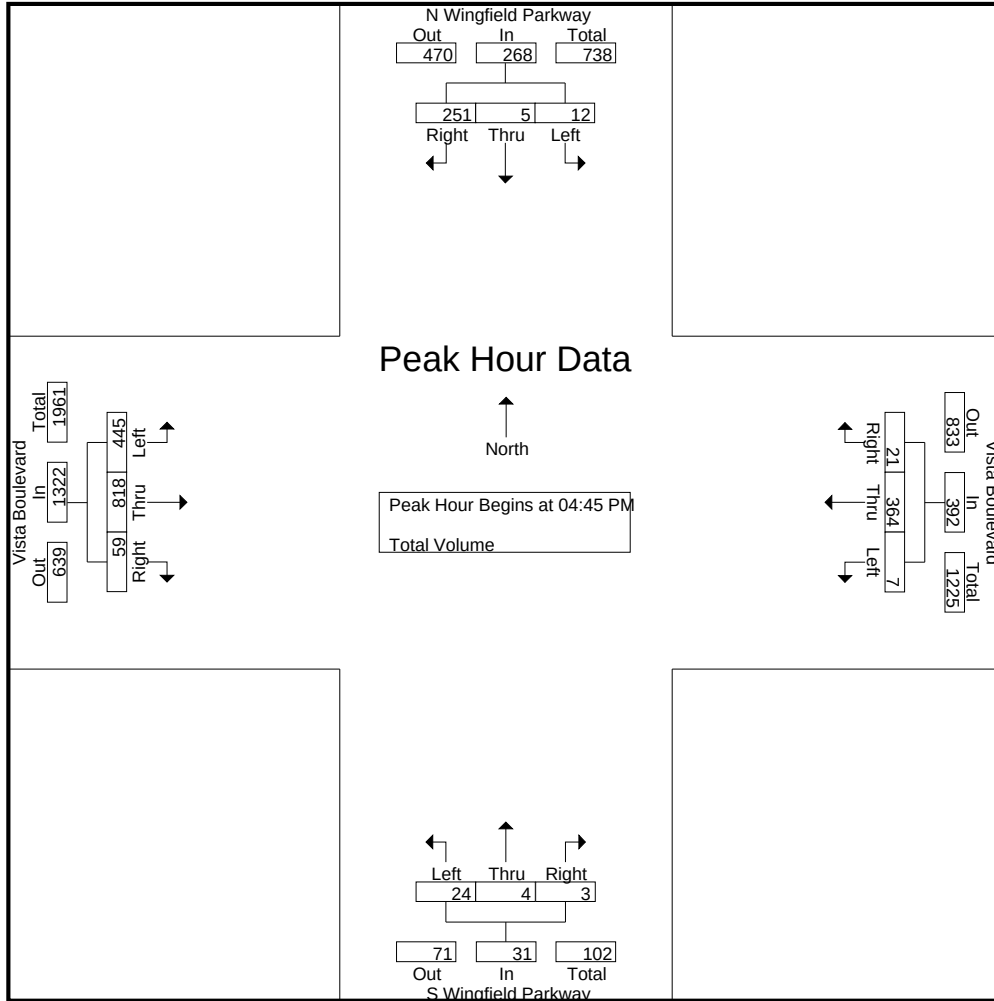
Groups Printed- Total Volume

	N Wingfield Parkway Southbound				Vista Boulevard Westbound				S Wingfield Parkway Northbound				Vista Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	8	72	84	2	89	4	95	9	0	1	10	119	171	14	304	493
04:15 PM	3	2	63	68	0	100	2	102	9	3	1	13	113	178	12	303	486
04:30 PM	3	5	57	65	1	95	4	100	5	2	2	9	122	192	12	326	500
04:45 PM	3	1	63	67	1	79	3	83	4	0	1	5	119	211	14	344	499
Total	13	16	255	284	4	363	13	380	27	5	5	37	473	752	52	1277	1978
05:00 PM	2	2	59	63	2	106	5	113	7	1	0	8	98	187	13	298	482
05:15 PM	0	0	58	58	1	81	6	88	5	1	0	6	112	206	19	337	489
05:30 PM	7	2	71	80	3	98	7	108	8	2	2	12	116	214	13	343	543
05:45 PM	4	3	48	55	1	105	8	114	7	3	2	12	118	184	10	312	493
Total	13	7	236	256	7	390	26	423	27	7	4	38	444	791	55	1290	2007
Grand Total	26	23	491	540	11	753	39	803	54	12	9	75	917	1543	107	2567	3985
Apprch %	4.8	4.3	90.9		1.4	93.8	4.9		72	16	12		35.7	60.1	4.2		
Total %	0.7	0.6	12.3	13.6	0.3	18.9	1	20.2	1.4	0.3	0.2	1.9	23	38.7	2.7	64.4	

	N Wingfield Parkway Southbound				Vista Boulevard Westbound				S Wingfield Parkway Northbound				Vista Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	3	1	63	67	1	79	3	83	4	0	1	5	119	211	14	344	499
05:00 PM	2	2	59	63	2	106	5	113	7	1	0	8	98	187	13	298	482
05:15 PM	0	0	58	58	1	81	6	88	5	1	0	6	112	206	19	337	489
05:30 PM	7	2	71	80	3	98	7	108	8	2	2	12	116	214	13	343	543
Total Volume	12	5	251	268	7	364	21	392	24	4	3	31	445	818	59	1322	2013
% App. Total	4.5	1.9	93.7		1.8	92.9	5.4		77.4	12.9	9.7		33.7	61.9	4.5		
PHF	.429	.625	.884	.838	.583	.858	.750	.867	.750	.500	.375	.646	.935	.956	.776	.961	.927

City of Sparks, NV
N/S: Wingfield Parkway
E/W: Vista Boulevard
Weather: Clear

File Name : 01_SPK_Wf P_Vista PM
Site Code : 251153
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				05:00 PM				04:45 PM			
+0 mins.	4	8	72	84	2	106	5	113	7	1	0	8	119	211	14	344
+15 mins.	3	2	63	68	1	81	6	88	5	1	0	6	98	187	13	298
+30 mins.	3	5	57	65	3	98	7	108	8	2	2	12	112	206	19	337
+45 mins.	3	1	63	67	1	105	8	114	7	3	2	12	116	214	13	343
Total Volume	13	16	255	284	7	390	26	423	27	7	4	38	445	818	59	1322
% App. Total	4.6	5.6	89.8		1.7	92.2	6.1		71.1	18.4	10.5		33.7	61.9	4.5	
PHF	.813	.500	.885	.845	.583	.920	.813	.928	.844	.583	.500	.792	.935	.956	.776	.961

City of Sparks, NV
N/S: Wingfield Parkway
E/W: Rey Del Sierra Drive
Weather: Clear

File Name : 07_SPK_Wf P_RDeIS AM
Site Code : 251153
Start Date : 11/19/2025
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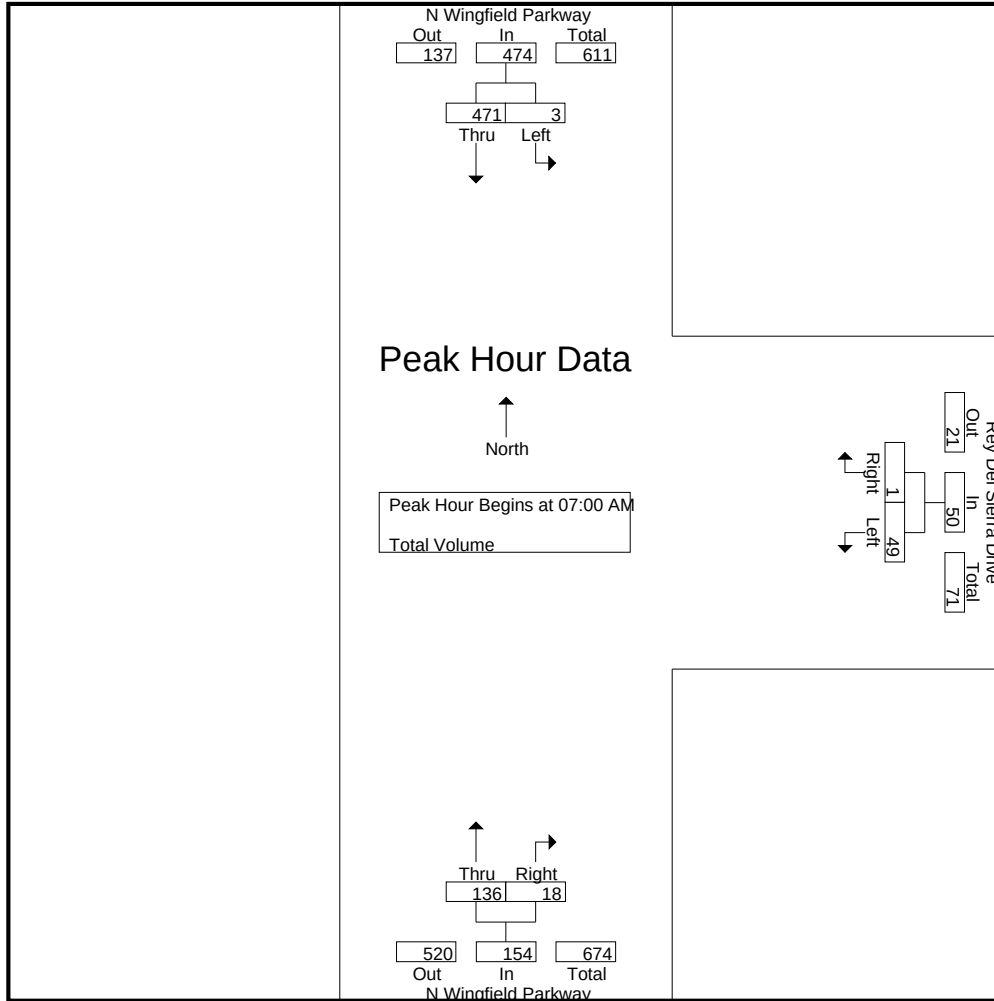
Groups Printed- Total Volume

	N Wingfield Parkway Southbound			Rey Del Sierra Drive Westbound			N Wingfield Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	1	154	155	14	0	14	29	2	31	200
07:15 AM	0	110	110	14	0	14	26	4	30	154
07:30 AM	0	108	108	10	0	10	40	9	49	167
07:45 AM	2	99	101	11	1	12	41	3	44	157
Total	3	471	474	49	1	50	136	18	154	678
08:00 AM	0	111	111	10	1	11	24	2	26	148
08:15 AM	1	98	99	8	0	8	42	5	47	154
08:30 AM	1	78	79	7	0	7	53	4	57	143
08:45 AM	0	77	77	5	1	6	52	3	55	138
Total	2	364	366	30	2	32	171	14	185	583
Grand Total	5	835	840	79	3	82	307	32	339	1261
Apprch %	0.6	99.4		96.3	3.7		90.6	9.4		
Total %	0.4	66.2	66.6	6.3	0.2	6.5	24.3	2.5	26.9	

	N Wingfield Parkway Southbound			Rey Del Sierra Drive Westbound			N Wingfield Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	154	155	14	0	14	29	2	31	200
07:15 AM	0	110	110	14	0	14	26	4	30	154
07:30 AM	0	108	108	10	0	10	40	9	49	167
07:45 AM	2	99	101	11	1	12	41	3	44	157
Total Volume	3	471	474	49	1	50	136	18	154	678
% App. Total	0.6	99.4		98	2		88.3	11.7		
PHF	.375	.765	.765	.875	.250	.893	.829	.500	.786	.848

City of Sparks, NV
N/S: Wingfield Parkway
E/W: Rey Del Sierra Drive
Weather: Clear

File Name : 07_SPK_Wf P_RDelS AM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			08:00 AM		
+0 mins.	1	154	155	14	0	14	24	2	26
+15 mins.	0	110	110	14	0	14	42	5	47
+30 mins.	0	108	108	10	0	10	53	4	57
+45 mins.	2	99	101	11	1	12	52	3	55
Total Volume	3	471	474	49	1	50	171	14	185
% App. Total	0.6	99.4		98	2		92.4	7.6	
PHF	.375	.765	.765	.875	.250	.893	.807	.700	.811

City of Sparks, NV
N/S: Wingfield Parkway
E/W: Rey Del Sierra Drive
Weather: Clear

File Name : 07_SPK_Wf P_RDelS PM
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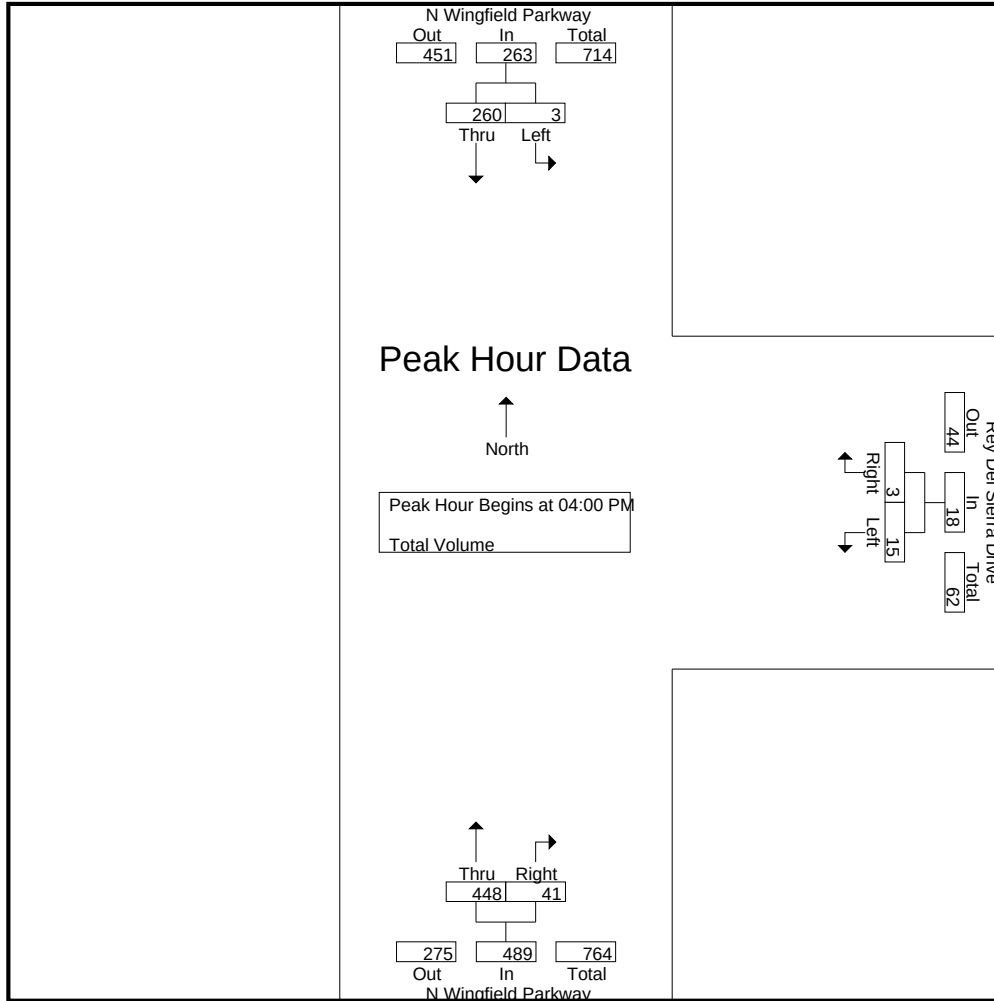
Groups Printed- Total Volume

	N Wingfield Parkway Southbound			Rey Del Sierra Drive Westbound			N Wingfield Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	1	79	80	4	3	7	107	11	118	205
04:15 PM	1	65	66	4	0	4	105	13	118	188
04:30 PM	1	59	60	4	0	4	123	11	134	198
04:45 PM	0	57	57	3	0	3	113	6	119	179
Total	3	260	263	15	3	18	448	41	489	770
05:00 PM	0	51	51	9	0	9	92	11	103	163
05:15 PM	0	60	60	2	0	2	113	10	123	185
05:30 PM	1	75	76	4	0	4	112	8	120	200
05:45 PM	1	51	52	2	0	2	112	11	123	177
Total	2	237	239	17	0	17	429	40	469	725
Grand Total	5	497	502	32	3	35	877	81	958	1495
Apprch %	1	99		91.4	8.6		91.5	8.5		
Total %	0.3	33.2	33.6	2.1	0.2	2.3	58.7	5.4	64.1	

	N Wingfield Parkway Southbound			Rey Del Sierra Drive Westbound			N Wingfield Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	1	79	80	4	3	7	107	11	118	205
04:15 PM	1	65	66	4	0	4	105	13	118	188
04:30 PM	1	59	60	4	0	4	123	11	134	198
04:45 PM	0	57	57	3	0	3	113	6	119	179
Total Volume	3	260	263	15	3	18	448	41	489	770
% App. Total	1.1	98.9		83.3	16.7		91.6	8.4		
PHF	.750	.823	.822	.938	.250	.643	.911	.788	.912	.939

City of Sparks, NV
N/S: Wingfield Parkway
E/W: Rey Del Sierra Drive
Weather: Clear

File Name : 07_SPK_Wf P_RDelS PM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:15 PM			04:00 PM		
+0 mins.	1	79	80	4	0	4	107	11	118
+15 mins.	1	65	66	4	0	4	105	13	118
+30 mins.	1	59	60	3	0	3	123	11	134
+45 mins.	0	57	57	9	0	9	113	6	119
Total Volume	3	260	263	20	0	20	448	41	489
% App. Total	1.1	98.9		100	0		91.6	8.4	
PHF	.750	.823	.822	.556	.000	.556	.911	.788	.912

City of Sparks, NV
N/S: Wingfield Parkway
E/W: Wingfield Springs Road
Weather: Clear

File Name : 08_SPK_Wf P_Wf Sp AM
Site Code : 251153
Start Date : 11/19/2025
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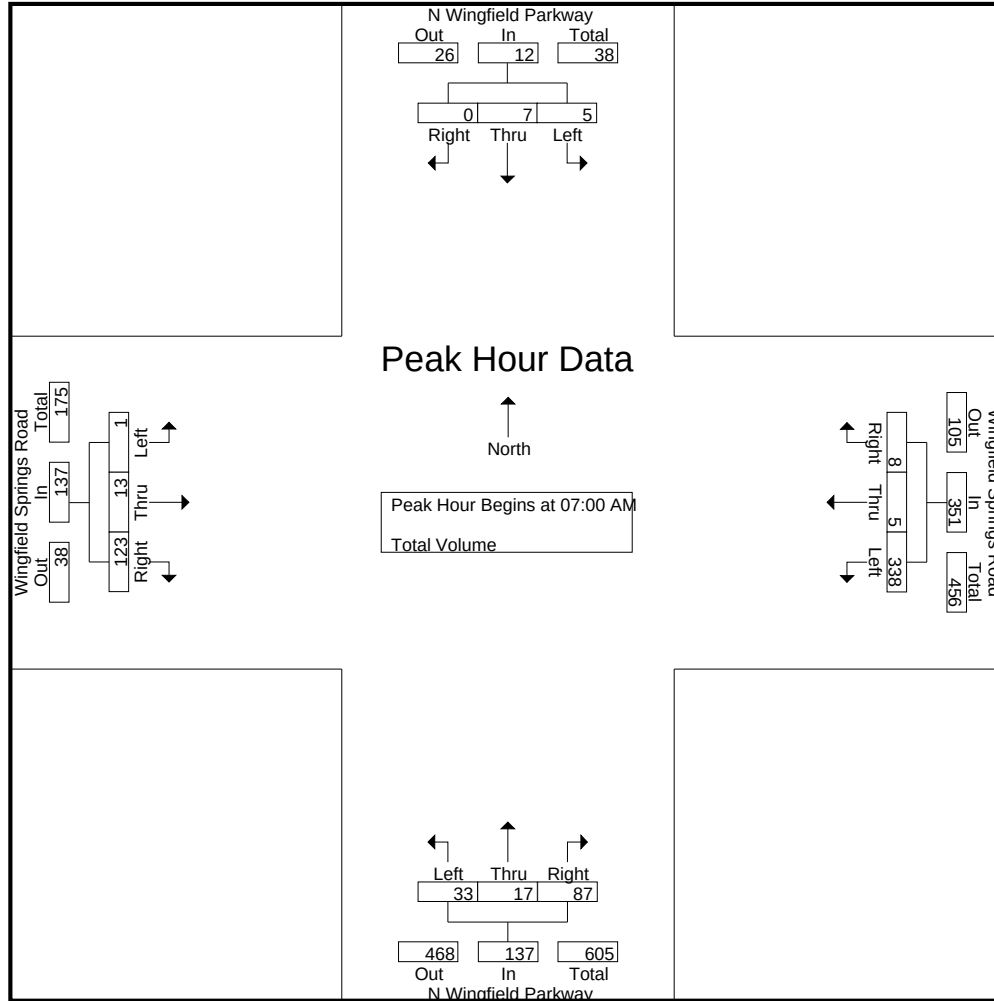
Groups Printed- Total Volume

	N Wingfield Parkway Southbound				Wingfield Springs Road Westbound				N Wingfield Parkway Northbound				Wingfield Springs Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	2	0	4	111	0	4	115	8	7	14	29	0	4	42	46	194
07:15 AM	1	0	0	1	81	2	1	84	6	2	16	24	0	1	26	27	136
07:30 AM	0	2	0	2	73	1	0	74	11	2	27	40	0	4	28	32	148
07:45 AM	2	3	0	5	73	2	3	78	8	6	30	44	1	4	27	32	159
Total	5	7	0	12	338	5	8	351	33	17	87	137	1	13	123	137	637
08:00 AM	1	1	0	2	90	1	1	92	6	2	19	27	0	1	23	24	145
08:15 AM	0	3	0	3	65	3	5	73	10	11	20	41	0	2	32	34	151
08:30 AM	2	1	0	3	56	0	4	60	14	5	33	52	0	0	19	19	134
08:45 AM	0	3	0	3	47	4	2	53	17	5	26	48	0	1	27	28	132
Total	3	8	0	11	258	8	12	278	47	23	98	168	0	4	101	105	562
Grand Total	8	15	0	23	596	13	20	629	80	40	185	305	1	17	224	242	1199
Apprch %	34.8	65.2	0		94.8	2.1	3.2		26.2	13.1	60.7		0.4	7	92.6		
Total %	0.7	1.3	0	1.9	49.7	1.1	1.7	52.5	6.7	3.3	15.4	25.4	0.1	1.4	18.7	20.2	

	N Wingfield Parkway Southbound				Wingfield Springs Road Westbound				N Wingfield Parkway Northbound				Wingfield Springs Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	2	0	4	111	0	4	115	8	7	14	29	0	4	42	46	194
07:15 AM	1	0	0	1	81	2	1	84	6	2	16	24	0	1	26	27	136
07:30 AM	0	2	0	2	73	1	0	74	11	2	27	40	0	4	28	32	148
07:45 AM	2	3	0	5	73	2	3	78	8	6	30	44	1	4	27	32	159
Total Volume	5	7	0	12	338	5	8	351	33	17	87	137	1	13	123	137	637
% App. Total	41.7	58.3	0		96.3	1.4	2.3		24.1	12.4	63.5		0.7	9.5	89.8		
PHF	.625	.583	.000	.600	.761	.625	.500	.763	.750	.607	.725	.778	.250	.813	.732	.745	.821

City of Sparks, NV
N/S: Wingfield Parkway
E/W: Wingfield Springs Road
Weather: Clear

File Name : 08_SPK_Wf P_Wf Sp AM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:00 AM				08:00 AM				07:00 AM			
+0 mins.	2	3	0	5	111	0	4	115	6	2	19	27	0	4	42	46
+15 mins.	1	1	0	2	81	2	1	84	10	11	20	41	0	1	26	27
+30 mins.	0	3	0	3	73	1	0	74	14	5	33	52	0	4	28	32
+45 mins.	2	1	0	3	73	2	3	78	17	5	26	48	1	4	27	32
Total Volume	5	8	0	13	338	5	8	351	47	23	98	168	1	13	123	137
% App. Total	38.5	61.5	0		96.3	1.4	2.3		28	13.7	58.3		0.7	9.5	89.8	
PHF	.625	.667	.000	.650	.761	.625	.500	.763	.691	.523	.742	.808	.250	.813	.732	.745

City of Sparks, NV
N/S: Wingfield Parkway
E/W: Wingfield Springs Road
Weather: Clear

File Name : 08_SPK_Wf P_Wf Sp PM
Site Code : 251153
Start Date : 11/19/2025
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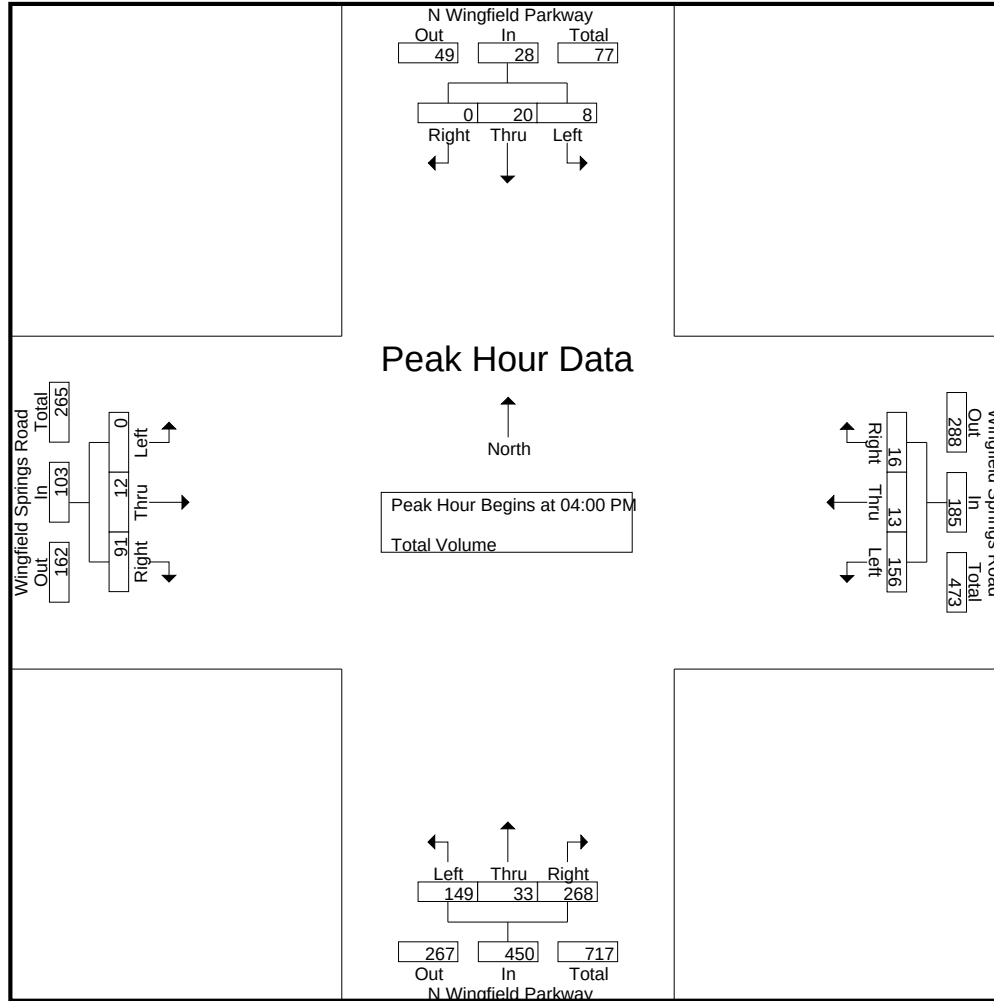
Groups Printed- Total Volume

	N Wingfield Parkway Southbound				Wingfield Springs Road Westbound				N Wingfield Parkway Northbound				Wingfield Springs Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	7	0	8	47	5	2	54	32	9	75	116	0	3	24	27	205
04:15 PM	3	5	0	8	43	2	1	46	36	4	67	107	0	1	18	19	180
04:30 PM	4	4	0	8	34	5	5	44	46	11	70	127	0	7	20	27	206
04:45 PM	0	4	0	4	32	1	8	41	35	9	56	100	0	1	29	30	175
Total	8	20	0	28	156	13	16	185	149	33	268	450	0	12	91	103	766
05:00 PM	8	3	0	11	30	1	1	32	32	4	69	105	0	1	16	17	165
05:15 PM	2	3	0	5	46	3	4	53	26	10	59	95	0	2	12	14	167
05:30 PM	2	7	0	9	48	2	9	59	42	17	64	123	0	1	20	21	212
05:45 PM	2	6	0	8	28	3	18	49	27	16	69	112	0	0	16	16	185
Total	14	19	0	33	152	9	32	193	127	47	261	435	0	4	64	68	729
Grand Total	22	39	0	61	308	22	48	378	276	80	529	885	0	16	155	171	1495
Apprch %	36.1	63.9	0		81.5	5.8	12.7		31.2	9	59.8		0	9.4	90.6		
Total %	1.5	2.6	0	4.1	20.6	1.5	3.2	25.3	18.5	5.4	35.4	59.2	0	1.1	10.4	11.4	

	N Wingfield Parkway Southbound				Wingfield Springs Road Westbound				N Wingfield Parkway Northbound				Wingfield Springs Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	7	0	8	47	5	2	54	32	9	75	116	0	3	24	27	205
04:15 PM	3	5	0	8	43	2	1	46	36	4	67	107	0	1	18	19	180
04:30 PM	4	4	0	8	34	5	5	44	46	11	70	127	0	7	20	27	206
04:45 PM	0	4	0	4	32	1	8	41	35	9	56	100	0	1	29	30	175
Total Volume	8	20	0	28	156	13	16	185	149	33	268	450	0	12	91	103	766
% App. Total	28.6	71.4	0		84.3	7	8.6		33.1	7.3	59.6		0	11.7	88.3		
PHF	.500	.714	.000	.875	.830	.650	.500	.856	.810	.750	.893	.886	.000	.429	.784	.858	.930

City of Sparks, NV
N/S: Wingfield Parkway
E/W: Wingfield Springs Road
Weather: Clear

File Name : 08_SPK_Wf P_Wf Sp PM
Site Code : 251153
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				04:00 PM				04:00 PM			
+0 mins.	8	3	0	11	30	1	1	32	32	9	75	116	0	3	24	27
+15 mins.	2	3	0	5	46	3	4	53	36	4	67	107	0	1	18	19
+30 mins.	2	7	0	9	48	2	9	59	46	11	70	127	0	7	20	27
+45 mins.	2	6	0	8	28	3	18	49	35	9	56	100	0	1	29	30
Total Volume	14	19	0	33	152	9	32	193	149	33	268	450	0	12	91	103
% App. Total	42.4	57.6	0		78.8	4.7	16.6		33.1	7.3	59.6		0	11.7	88.3	
PHF	.438	.679	.000	.750	.792	.750	.444	.818	.810	.750	.893	.886	.000	.429	.784	.858

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Poco Rey Drive
Weather: Clear

File Name : 09_SPK_Wf Sp_PoRey AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

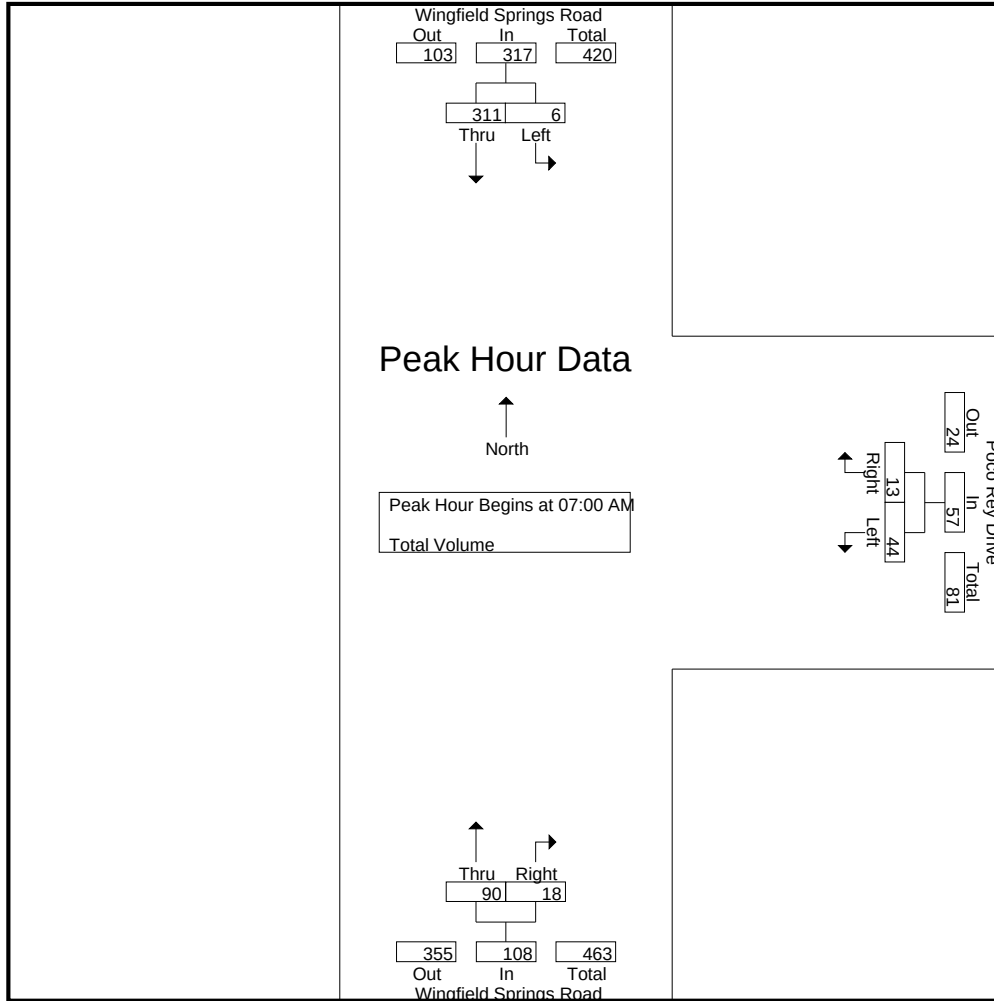
Groups Printed- Total Volume

	Wingfield Springs Road Southbound			Poco Rey Drive Westbound			Wingfield Springs Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	1	102	103	16	2	18	14	5	19	140
07:15 AM	1	73	74	10	3	13	19	4	23	110
07:30 AM	2	64	66	11	4	15	29	1	30	111
07:45 AM	2	72	74	7	4	11	28	8	36	121
Total	6	311	317	44	13	57	90	18	108	482
08:00 AM	2	70	72	19	1	20	14	7	21	113
08:15 AM	3	62	65	13	1	14	19	3	22	101
08:30 AM	2	50	52	6	0	6	26	7	33	91
08:45 AM	1	50	51	7	4	11	22	6	28	90
Total	8	232	240	45	6	51	81	23	104	395
Grand Total	14	543	557	89	19	108	171	41	212	877
Apprch %	2.5	97.5		82.4	17.6		80.7	19.3		
Total %	1.6	61.9	63.5	10.1	2.2	12.3	19.5	4.7	24.2	

	Wingfield Springs Road Southbound			Poco Rey Drive Westbound			Wingfield Springs Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	102	103	16	2	18	14	5	19	140
07:15 AM	1	73	74	10	3	13	19	4	23	110
07:30 AM	2	64	66	11	4	15	29	1	30	111
07:45 AM	2	72	74	7	4	11	28	8	36	121
Total Volume	6	311	317	44	13	57	90	18	108	482
% App. Total	1.9	98.1		77.2	22.8		83.3	16.7		
PHF	.750	.762	.769	.688	.813	.792	.776	.563	.750	.861

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Poco Rey Drive
Weather: Clear

File Name : 09_SPK_Wf Sp_PoRey AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:45 AM		
+0 mins.	1	102	103	11	4	15	28	8	36
+15 mins.	1	73	74	7	4	11	14	7	21
+30 mins.	2	64	66	19	1	20	19	3	22
+45 mins.	2	72	74	13	1	14	26	7	33
Total Volume	6	311	317	50	10	60	87	25	112
% App. Total	1.9	98.1		83.3	16.7		77.7	22.3	
PHF	.750	.762	.769	.658	.625	.750	.777	.781	.778

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Poco Rey Drive
Weather: Clear

File Name : 09_SPK_Wf Sp_PoRey PM
Site Code : 251153
Start Date : 11/19/2025
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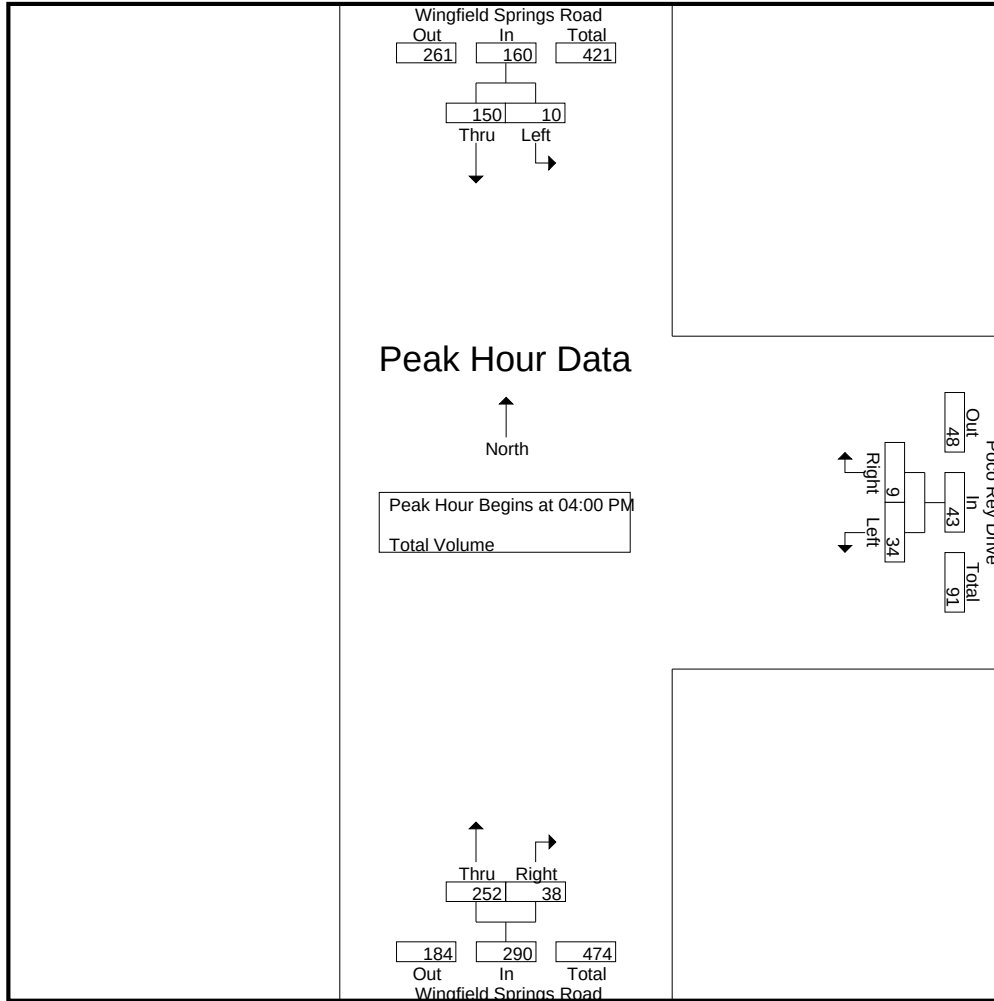
Groups Printed- Total Volume

	Wingfield Springs Road Southbound			Poco Rey Drive Westbound			Wingfield Springs Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	5	46	51	9	1	10	69	11	80	141
04:15 PM	1	37	38	9	2	11	64	7	71	120
04:30 PM	3	34	37	8	4	12	68	12	80	129
04:45 PM	1	33	34	8	2	10	51	8	59	103
Total	10	150	160	34	9	43	252	38	290	493
05:00 PM	1	25	26	10	3	13	70	8	78	117
05:15 PM	1	42	43	10	2	12	50	14	64	119
05:30 PM	4	49	53	10	4	14	56	12	68	135
05:45 PM	6	44	50	5	1	6	53	13	66	122
Total	12	160	172	35	10	45	229	47	276	493
Grand Total	22	310	332	69	19	88	481	85	566	986
Apprch %	6.6	93.4		78.4	21.6		85	15		
Total %	2.2	31.4	33.7	7	1.9	8.9	48.8	8.6	57.4	

	Wingfield Springs Road Southbound			Poco Rey Drive Westbound			Wingfield Springs Road Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	5	46	51	9	1	10	69	11	80	141
04:15 PM	1	37	38	9	2	11	64	7	71	120
04:30 PM	3	34	37	8	4	12	68	12	80	129
04:45 PM	1	33	34	8	2	10	51	8	59	103
Total Volume	10	150	160	34	9	43	252	38	290	493
% App. Total	6.2	93.8		79.1	20.9		86.9	13.1		
PHF	.500	.815	.784	.944	.563	.896	.913	.792	.906	.874

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Poco Rey Drive
Weather: Clear

File Name : 09_SPK_Wf Sp_PoRey PM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:45 PM			04:00 PM		
+0 mins.	1	25	26	8	2	10	69	11	80
+15 mins.	1	42	43	10	3	13	64	7	71
+30 mins.	4	49	53	10	2	12	68	12	80
+45 mins.	6	44	50	10	4	14	51	8	59
Total Volume	12	160	172	38	11	49	252	38	290
% App. Total	7	93		77.6	22.4		86.9	13.1	
PHF	.500	.816	.811	.950	.688	.875	.913	.792	.906

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Diamond Wing Court
Weather: Clear

File Name : 10_SPK_Wf Sp_DiaWi AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

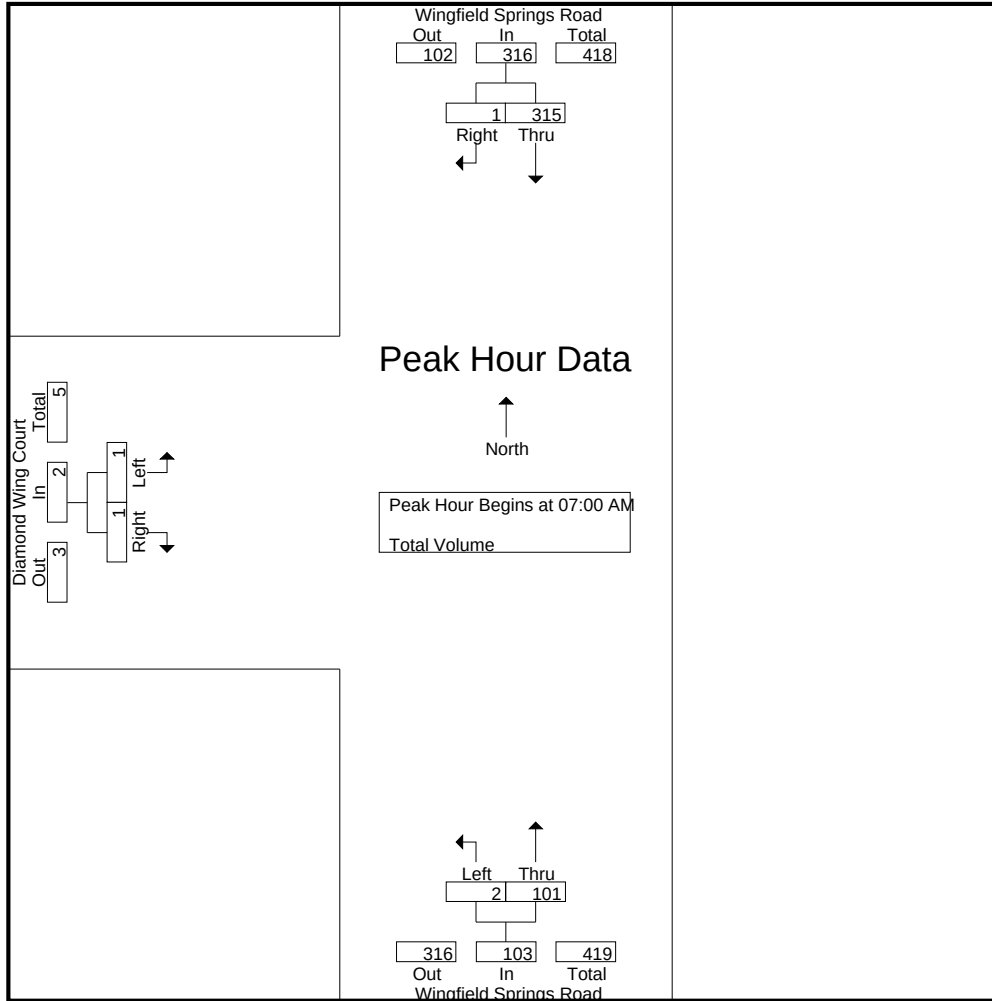
Groups Printed- Total Volume

	Wingfield Springs Road Southbound			Wingfield Springs Road Northbound			Diamond Wing Court Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	102	0	102	0	16	16	0	1	1	119
07:15 AM	73	0	73	2	20	22	1	0	1	96
07:30 AM	67	0	67	0	33	33	0	0	0	100
07:45 AM	73	1	74	0	32	32	0	0	0	106
Total	315	1	316	2	101	103	1	1	2	421
08:00 AM	72	0	72	0	14	14	0	0	0	86
08:15 AM	68	0	68	0	20	20	0	0	0	88
08:30 AM	50	0	50	0	26	26	0	0	0	76
08:45 AM	50	0	50	1	25	26	1	1	2	78
Total	240	0	240	1	85	86	1	1	2	328
Grand Total	555	1	556	3	186	189	2	2	4	749
Apprch %	99.8	0.2		1.6	98.4		50	50		
Total %	74.1	0.1	74.2	0.4	24.8	25.2	0.3	0.3	0.5	

	Wingfield Springs Road Southbound			Wingfield Springs Road Northbound			Diamond Wing Court Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	102	0	102	0	16	16	0	1	1	119
07:15 AM	73	0	73	2	20	22	1	0	1	96
07:30 AM	67	0	67	0	33	33	0	0	0	100
07:45 AM	73	1	74	0	32	32	0	0	0	106
Total Volume	315	1	316	2	101	103	1	1	2	421
% App. Total	99.7	0.3		1.9	98.1		50	50		
PHF	.772	.250	.775	.250	.765	.780	.250	.250	.500	.884

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Diamond Wing Court
Weather: Clear

File Name : 10_SPK_Wf Sp_DiaWi AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	102	0	102	0	16	16	0	1	1
+15 mins.	73	0	73	2	20	22	1	0	1
+30 mins.	67	0	67	0	33	33	0	0	0
+45 mins.	73	1	74	0	32	32	0	0	0
Total Volume	315	1	316	2	101	103	1	1	2
% App. Total	99.7	0.3		1.9	98.1		50	50	
PHF	.772	.250	.775	.250	.765	.780	.250	.250	.500

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Diamond Wing Court
Weather: Clear

File Name : 10_SPK_Wf Sp_DiaWi PM
Site Code : 251153
Start Date : 11/19/2025
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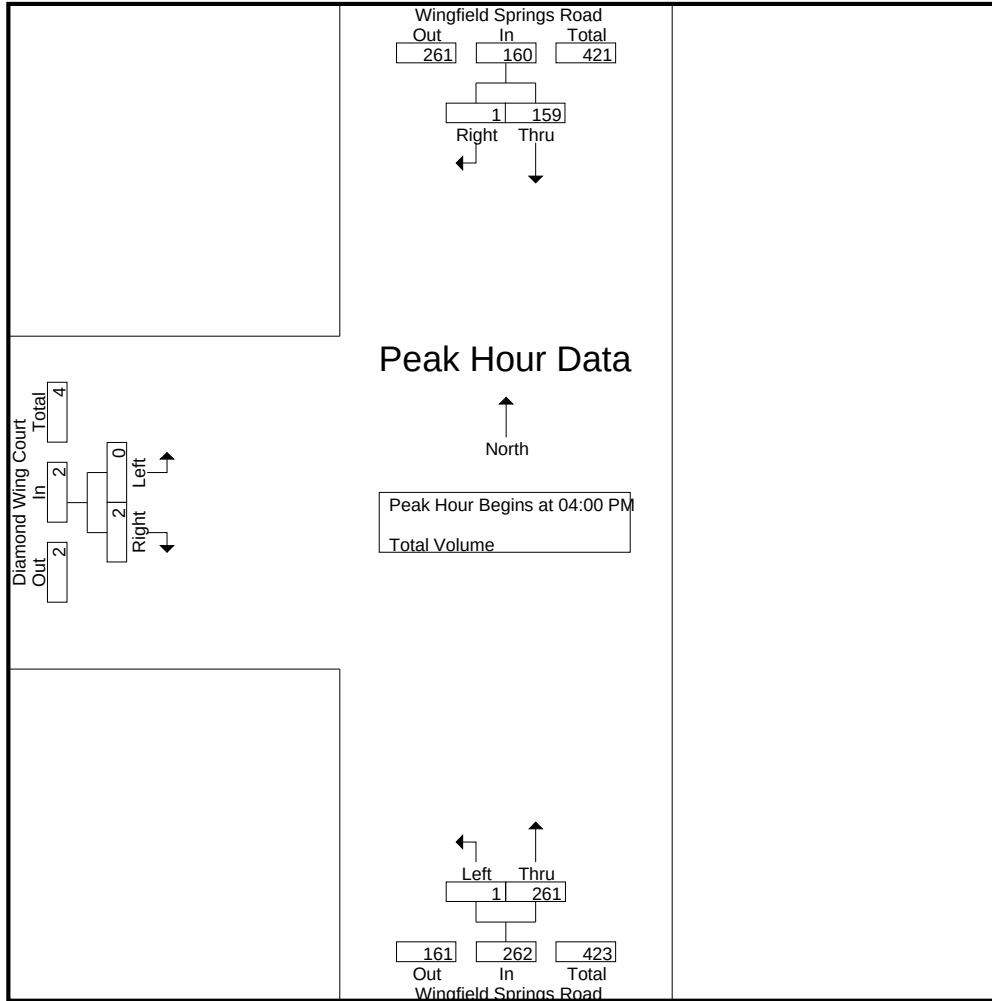
Groups Printed- Total Volume

	Wingfield Springs Road Southbound			Wingfield Springs Road Northbound			Diamond Wing Court Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	54	1	55	0	71	71	0	0	0	126
04:15 PM	35	0	35	0	66	66	0	1	1	102
04:30 PM	39	0	39	1	71	72	0	0	0	111
04:45 PM	31	0	31	0	53	53	0	1	1	85
Total	159	1	160	1	261	262	0	2	2	424
05:00 PM	26	0	26	0	73	73	0	0	0	99
05:15 PM	43	0	43	0	51	51	0	1	1	95
05:30 PM	54	1	55	1	60	61	0	0	0	116
05:45 PM	49	1	50	1	54	55	0	2	2	107
Total	172	2	174	2	238	240	0	3	3	417
Grand Total	331	3	334	3	499	502	0	5	5	841
Apprch %	99.1	0.9		0.6	99.4		0	100		
Total %	39.4	0.4	39.7	0.4	59.3	59.7	0	0.6	0.6	

	Wingfield Springs Road Southbound			Wingfield Springs Road Northbound			Diamond Wing Court Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	54	1	55	0	71	71	0	0	0	126
04:15 PM	35	0	35	0	66	66	0	1	1	102
04:30 PM	39	0	39	1	71	72	0	0	0	111
04:45 PM	31	0	31	0	53	53	0	1	1	85
Total Volume	159	1	160	1	261	262	0	2	2	424
% App. Total	99.4	0.6		0.4	99.6		0	100		
PHF	.736	.250	.727	.250	.919	.910	.000	.500	.500	.841

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Diamond Wing Court
Weather: Clear

File Name : 10_SPK_Wf Sp_DiaWi PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:15 PM			05:00 PM		
+0 mins.	26	0	26	0	66	66	0	0	0
+15 mins.	43	0	43	1	71	72	0	1	1
+30 mins.	54	1	55	0	53	53	0	0	0
+45 mins.	49	1	50	0	73	73	0	2	2
Total Volume	172	2	174	1	263	264	0	3	3
% App. Total	98.9	1.1		0.4	99.6		0	100	
PHF	.796	.500	.791	.250	.901	.904	.000	.375	.375

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Eagle Wing Circle S/Cinnamon Dr S
Weather: Clear

File Name : 11_SPK_Wf Sp_EWC S AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

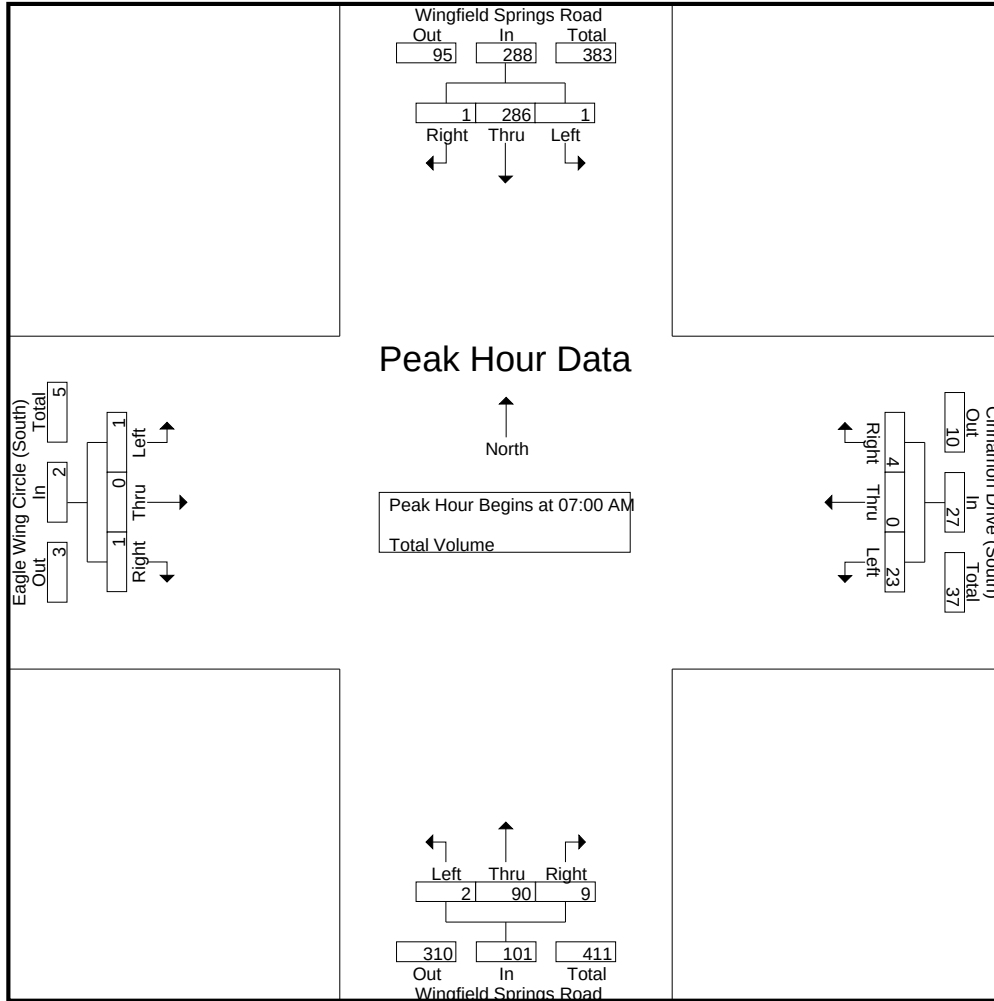
Groups Printed- Total Volume

	Wingfield Springs Road Southbound				Cinnamon Drive (South) Westbound				Wingfield Springs Road Northbound				Eagle Wing Circle (South) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	86	0	86	9	0	1	10	0	14	2	16	0	0	1	1	113
07:15 AM	1	70	0	71	2	0	2	4	0	18	2	20	0	0	0	0	95
07:30 AM	0	65	0	65	5	0	1	6	1	29	2	32	0	0	0	0	103
07:45 AM	0	65	1	66	7	0	0	7	1	29	3	33	1	0	0	1	107
Total	1	286	1	288	23	0	4	27	2	90	9	101	1	0	1	2	418
08:00 AM	1	61	0	62	8	0	0	8	0	14	1	15	0	0	0	0	85
08:15 AM	0	57	0	57	9	0	1	10	0	20	1	21	0	0	2	2	90
08:30 AM	0	41	0	41	8	0	2	10	0	19	5	24	0	0	1	1	76
08:45 AM	1	46	0	47	3	0	1	4	2	24	2	28	0	0	2	2	81
Total	2	205	0	207	28	0	4	32	2	77	9	88	0	0	5	5	332
Grand Total	3	491	1	495	51	0	8	59	4	167	18	189	1	0	6	7	750
Apprch %	0.6	99.2	0.2		86.4	0	13.6		2.1	88.4	9.5		14.3	0	85.7		
Total %	0.4	65.5	0.1	66	6.8	0	1.1	7.9	0.5	22.3	2.4	25.2	0.1	0	0.8	0.9	

	Wingfield Springs Road Southbound				Cinnamon Drive (South) Westbound				Wingfield Springs Road Northbound				Eagle Wing Circle (South) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	86	0	86	9	0	1	10	0	14	2	16	0	0	1	1	113
07:15 AM	1	70	0	71	2	0	2	4	0	18	2	20	0	0	0	0	95
07:30 AM	0	65	0	65	5	0	1	6	1	29	2	32	0	0	0	0	103
07:45 AM	0	65	1	66	7	0	0	7	1	29	3	33	1	0	0	1	107
Total Volume	1	286	1	288	23	0	4	27	2	90	9	101	1	0	1	2	418
% App. Total	0.3	99.3	0.3		85.2	0	14.8		2	89.1	8.9		50	0	50		
PHF	.250	.831	.250	.837	.639	.000	.500	.675	.500	.776	.750	.765	.250	.000	.250	.500	.925

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Eagle Wing Circle S/Cinnamon Dr S
Weather: Clear

File Name : 11_SPK_Wf Sp_EWC S AM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:45 AM				07:00 AM				08:00 AM			
+0 mins.	0	86	0	86	7	0	0	7	0	14	2	16	0	0	0	0
+15 mins.	1	70	0	71	8	0	0	8	0	18	2	20	0	0	2	2
+30 mins.	0	65	0	65	9	0	1	10	1	29	2	32	0	0	1	1
+45 mins.	0	65	1	66	8	0	2	10	1	29	3	33	0	0	2	2
Total Volume	1	286	1	288	32	0	3	35	2	90	9	101	0	0	5	5
% App. Total	0.3	99.3	0.3		91.4	0	8.6		2	89.1	8.9		0	0	100	
PHF	.250	.831	.250	.837	.889	.000	.375	.875	.500	.776	.750	.765	.000	.000	.625	.625

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Eagle Wing Circle S/Cinnamon Dr S
Weather: Clear

File Name : 11_SPK_Wf Sp_EWC S PM
Site Code : 251153
Start Date : 11/19/2025
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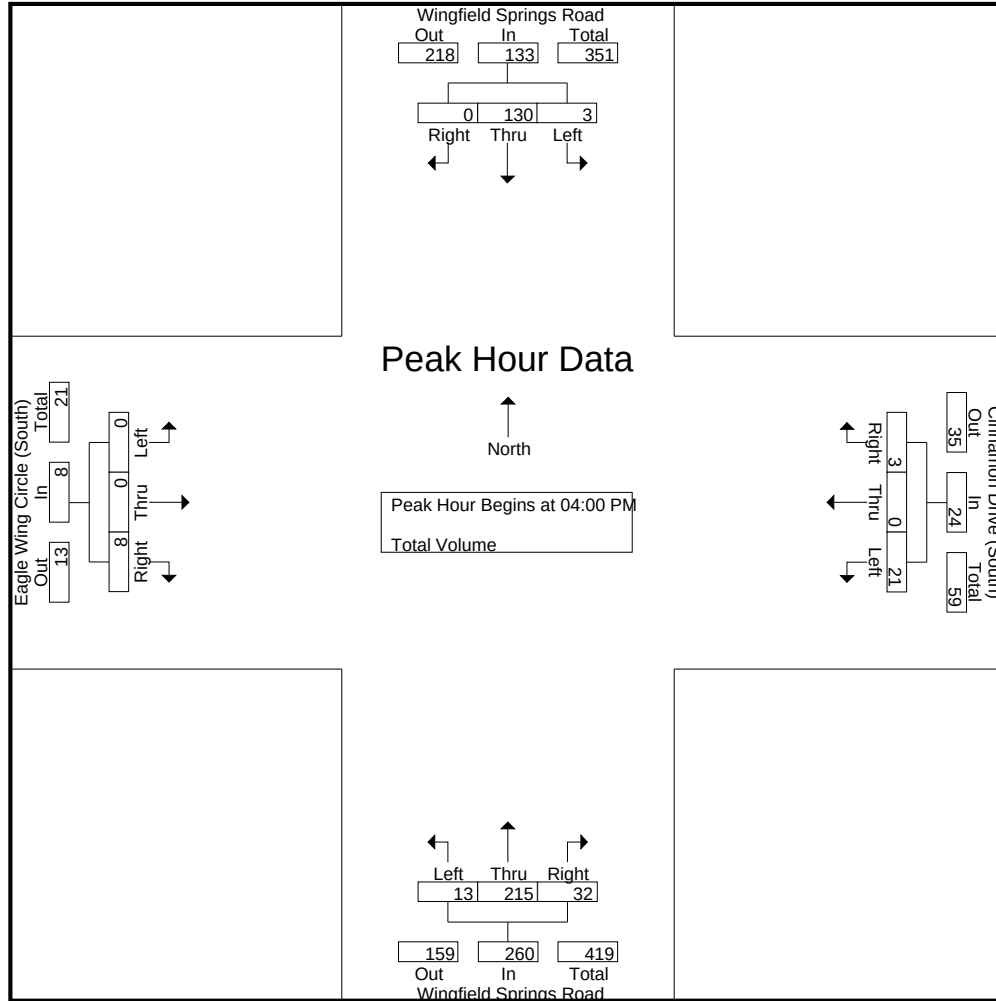
Groups Printed- Total Volume

	Wingfield Springs Road Southbound				Cinnamon Drive (South) Westbound				Wingfield Springs Road Northbound				Eagle Wing Circle (South) Eastbound				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	50	0	51	4	0	0	4	8	55	7	70	0	0	4	4	129
04:15 PM	2	26	0	28	4	0	0	4	2	56	8	66	0	0	1	1	99
04:30 PM	0	31	0	31	7	0	2	9	3	58	10	71	0	0	2	2	113
04:45 PM	0	23	0	23	6	0	1	7	0	46	7	53	0	0	1	1	84
Total	3	130	0	133	21	0	3	24	13	215	32	260	0	0	8	8	425
05:00 PM	0	19	0	19	3	0	1	4	0	65	8	73	1	0	6	7	103
05:15 PM	1	37	1	39	4	0	0	4	0	44	6	50	0	0	1	1	94
05:30 PM	2	47	0	49	8	0	0	8	0	51	10	61	1	0	0	1	119
05:45 PM	2	42	0	44	5	1	0	6	3	43	6	52	0	0	3	3	105
Total	5	145	1	151	20	1	1	22	3	203	30	236	2	0	10	12	421
Grand Total	8	275	1	284	41	1	4	46	16	418	62	496	2	0	18	20	846
Apprch %	2.8	96.8	0.4		89.1	2.2	8.7		3.2	84.3	12.5		10	0	90		
Total %	0.9	32.5	0.1	33.6	4.8	0.1	0.5	5.4	1.9	49.4	7.3	58.6	0.2	0	2.1	2.4	

	Wingfield Springs Road Southbound				Cinnamon Drive (South) Westbound				Wingfield Springs Road Northbound				Eagle Wing Circle (South) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	50	0	51	4	0	0	4	8	55	7	70	0	0	4	4	129
04:15 PM	2	26	0	28	4	0	0	4	2	56	8	66	0	0	1	1	99
04:30 PM	0	31	0	31	7	0	2	9	3	58	10	71	0	0	2	2	113
04:45 PM	0	23	0	23	6	0	1	7	0	46	7	53	0	0	1	1	84
Total Volume	3	130	0	133	21	0	3	24	13	215	32	260	0	0	8	8	425
% App. Total	2.3	97.7	0		87.5	0	12.5		5	82.7	12.3		0	0	100		
PHF	.375	.650	.000	.652	.750	.000	.375	.667	.406	.927	.800	.915	.000	.000	.500	.500	.824

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Eagle Wing Circle S/Cinnamon Dr S
Weather: Clear

File Name : 11_SPK_Wf Sp_EWC S PM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:15 PM				05:00 PM			
+0 mins.	0	19	0	19	4	0	0	4	2	56	8	66	1	0	6	7
+15 mins.	1	37	1	39	4	0	0	4	3	58	10	71	0	0	1	1
+30 mins.	2	47	0	49	7	0	2	9	0	46	7	53	1	0	0	1
+45 mins.	2	42	0	44	6	0	1	7	0	65	8	73	0	0	3	3
Total Volume	5	145	1	151	21	0	3	24	5	225	33	263	2	0	10	12
% App. Total	3.3	96	0.7		87.5	0	12.5		1.9	85.6	12.5		16.7	0	83.3	
PHF	.625	.771	.250	.770	.750	.000	.375	.667	.417	.865	.825	.901	.500	.000	.417	.429

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Eagle Wing Circle (North)
Weather: Clear

File Name : 12_SPK_Wf Sp_EWC N AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

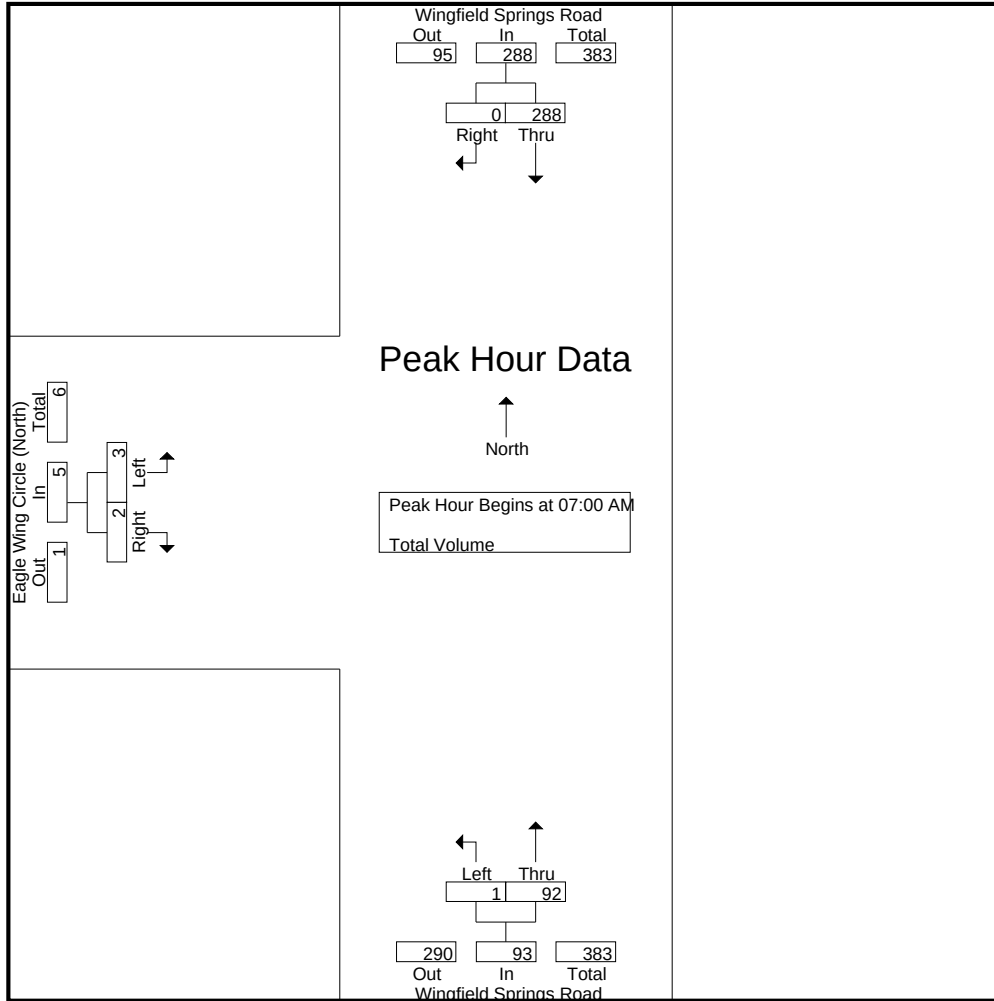
Groups Printed- Total Volume

	Wingfield Springs Road Southbound			Wingfield Springs Road Northbound			Eagle Wing Circle (North) Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	91	0	91	0	16	16	0	1	1	108
07:15 AM	71	0	71	0	19	19	1	1	2	92
07:30 AM	61	0	61	1	30	31	1	0	1	93
07:45 AM	65	0	65	0	27	27	1	0	1	93
Total	288	0	288	1	92	93	3	2	5	386
08:00 AM	61	0	61	1	14	15	0	1	1	77
08:15 AM	56	1	57	1	20	21	1	1	2	80
08:30 AM	40	0	40	0	21	21	0	1	1	62
08:45 AM	45	0	45	1	23	24	1	1	2	71
Total	202	1	203	3	78	81	2	4	6	290
Grand Total	490	1	491	4	170	174	5	6	11	676
Apprch %	99.8	0.2		2.3	97.7		45.5	54.5		
Total %	72.5	0.1	72.6	0.6	25.1	25.7	0.7	0.9	1.6	

	Wingfield Springs Road Southbound			Wingfield Springs Road Northbound			Eagle Wing Circle (North) Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	91	0	91	0	16	16	0	1	1	108
07:15 AM	71	0	71	0	19	19	1	1	2	92
07:30 AM	61	0	61	1	30	31	1	0	1	93
07:45 AM	65	0	65	0	27	27	1	0	1	93
Total Volume	288	0	288	1	92	93	3	2	5	386
% App. Total	100	0		1.1	98.9		60	40		
PHF	.791	.000	.791	.250	.767	.750	.750	.500	.625	.894

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Eagle Wing Circle (North)
Weather: Clear

File Name : 12_SPK_Wf Sp_EWC N AM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			08:00 AM		
+0 mins.	91	0	91	1	30	31	0	1	1
+15 mins.	71	0	71	0	27	27	1	1	2
+30 mins.	61	0	61	1	14	15	0	1	1
+45 mins.	65	0	65	1	20	21	1	1	2
Total Volume	288	0	288	3	91	94	2	4	6
% App. Total	100	0		3.2	96.8		33.3	66.7	
PHF	.791	.000	.791	.750	.758	.758	.500	1.000	.750

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Eagle Wing Circle (North)
Weather: Clear

File Name : 12_SPK_Wf Sp_EWC N PM
Site Code : 251153
Start Date : 11/19/2025
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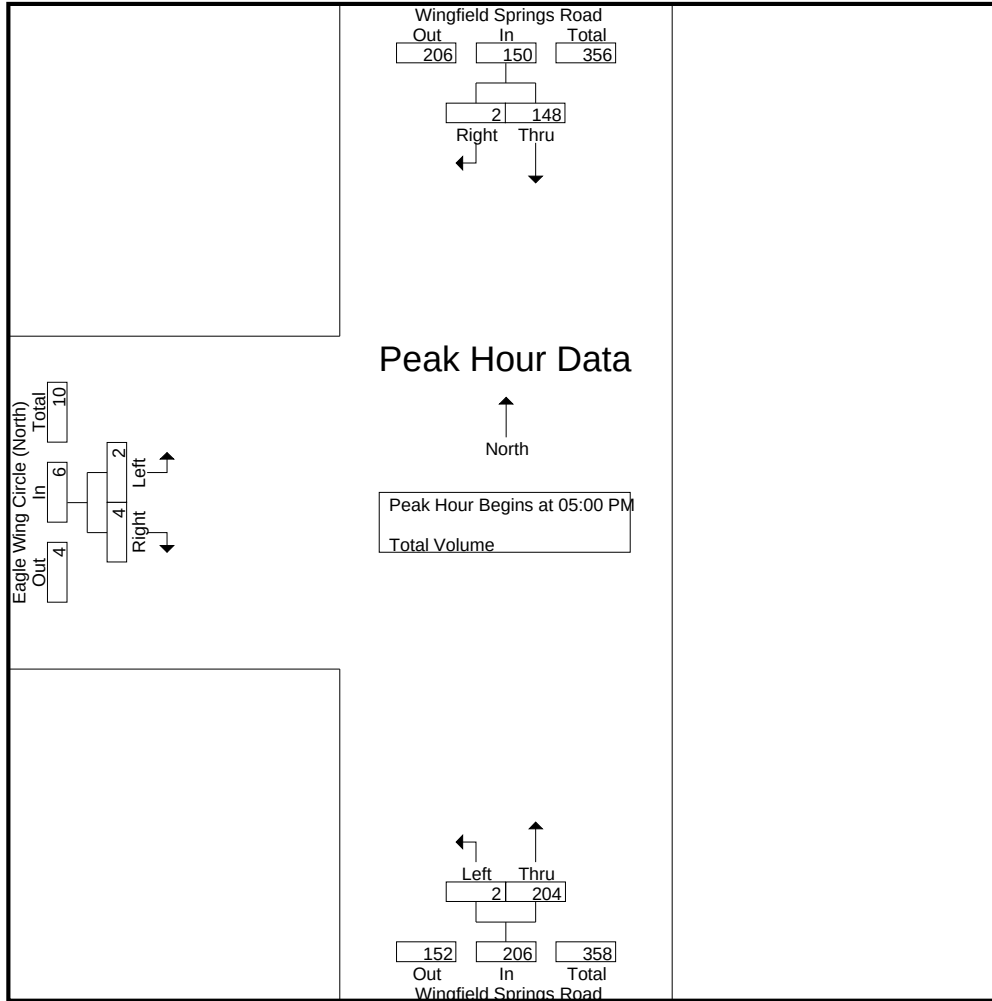
Groups Printed- Total Volume

	Wingfield Springs Road Southbound			Wingfield Springs Road Northbound			Eagle Wing Circle (North) Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	46	2	48	1	53	54	0	1	1	103
04:15 PM	28	0	28	0	57	57	0	0	0	85
04:30 PM	30	0	30	0	60	60	0	0	0	90
04:45 PM	22	0	22	0	47	47	0	1	1	70
Total	126	2	128	1	217	218	0	2	2	348
05:00 PM	19	0	19	0	67	67	1	1	2	88
05:15 PM	40	0	40	0	43	43	0	0	0	83
05:30 PM	46	0	46	1	51	52	0	1	1	99
05:45 PM	43	2	45	1	43	44	1	2	3	92
Total	148	2	150	2	204	206	2	4	6	362
Grand Total	274	4	278	3	421	424	2	6	8	710
Apprch %	98.6	1.4		0.7	99.3		25	75		
Total %	38.6	0.6	39.2	0.4	59.3	59.7	0.3	0.8	1.1	

	Wingfield Springs Road Southbound			Wingfield Springs Road Northbound			Eagle Wing Circle (North) Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	19	0	19	0	67	67	1	1	2	88
05:15 PM	40	0	40	0	43	43	0	0	0	83
05:30 PM	46	0	46	1	51	52	0	1	1	99
05:45 PM	43	2	45	1	43	44	1	2	3	92
Total Volume	148	2	150	2	204	206	2	4	6	362
% App. Total	98.7	1.3		1	99		33.3	66.7		
PHF	.804	.250	.815	.500	.761	.769	.500	.500	.500	.914

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Eagle Wing Circle (North)
Weather: Clear

File Name : 12_SPK_Wf Sp_EWC N PM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:15 PM			05:00 PM		
+0 mins.	19	0	19	0	57	57	1	1	2
+15 mins.	40	0	40	0	60	60	0	0	0
+30 mins.	46	0	46	0	47	47	0	1	1
+45 mins.	43	2	45	0	67	67	1	2	3
Total Volume	148	2	150	0	231	231	2	4	6
% App. Total	98.7	1.3		0	100		33.3	66.7	
PHF	.804	.250	.815	.000	.862	.862	.500	.500	.500

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Silver King Drive S/Cinnamon Dr N
Weather: Clear

File Name : 13_SPK_Wf Sp_SK AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

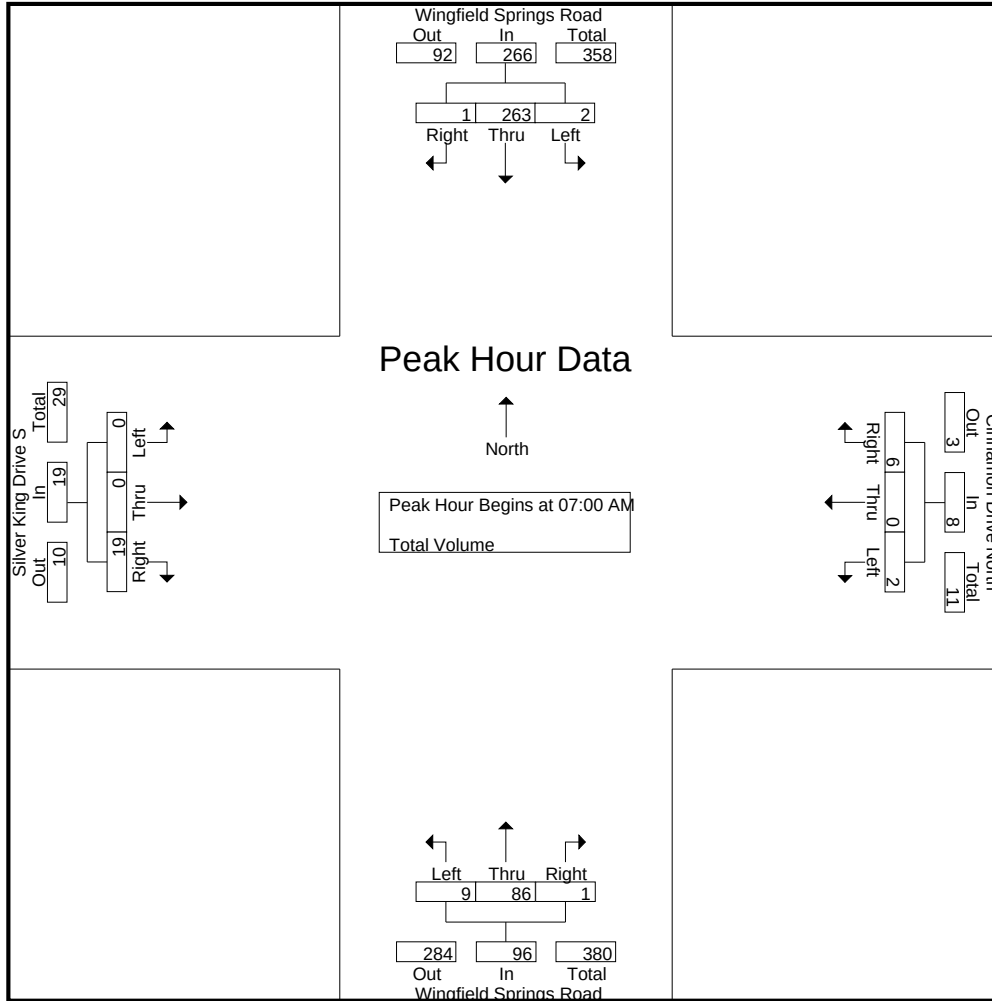
Groups Printed- Total Volume

	Wingfield Springs Road Southbound				Cinnamon Drive North Westbound				Wingfield Springs Road Northbound				Silver King Drive S Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	83	1	85	2	0	0	2	2	16	0	18	0	0	4	4	109
07:15 AM	0	70	0	70	0	0	1	1	2	14	1	17	0	0	2	2	90
07:30 AM	0	52	0	52	0	0	3	3	5	28	0	33	0	0	9	9	97
07:45 AM	1	58	0	59	0	0	2	2	0	28	0	28	0	0	4	4	93
Total	2	263	1	266	2	0	6	8	9	86	1	96	0	0	19	19	389
08:00 AM	3	57	0	60	2	0	1	3	2	10	3	15	0	0	4	4	82
08:15 AM	3	50	0	53	1	0	0	1	1	18	0	19	0	0	5	5	78
08:30 AM	1	36	0	37	1	0	0	1	5	19	0	24	0	0	4	4	66
08:45 AM	2	43	0	45	1	0	2	3	2	20	0	22	0	0	4	4	74
Total	9	186	0	195	5	0	3	8	10	67	3	80	0	0	17	17	300
Grand Total	11	449	1	461	7	0	9	16	19	153	4	176	0	0	36	36	689
Apprch %	2.4	97.4	0.2		43.8	0	56.2		10.8	86.9	2.3		0	0	100		
Total %	1.6	65.2	0.1	66.9	1	0	1.3	2.3	2.8	22.2	0.6	25.5	0	0	5.2	5.2	

	Wingfield Springs Road Southbound				Cinnamon Drive North Westbound				Wingfield Springs Road Northbound				Silver King Drive S Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	83	1	85	2	0	0	2	2	16	0	18	0	0	4	4	109
07:15 AM	0	70	0	70	0	0	1	1	2	14	1	17	0	0	2	2	90
07:30 AM	0	52	0	52	0	0	3	3	5	28	0	33	0	0	9	9	97
07:45 AM	1	58	0	59	0	0	2	2	0	28	0	28	0	0	4	4	93
Total Volume	2	263	1	266	2	0	6	8	9	86	1	96	0	0	19	19	389
% App. Total	0.8	98.9	0.4		25	0	75		9.4	89.6	1		0	0	100		
PHF	.500	.792	.250	.782	.250	.000	.500	.667	.450	.768	.250	.727	.000	.000	.528	.528	.892

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Silver King Drive S/Cinnamon Dr N
Weather: Clear

File Name : 13_SPK_Wf Sp_SK AM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:00 AM				07:30 AM			
+0 mins.	1	83	1	85	0	0	1	1	2	16	0	18	0	0	9	9
+15 mins.	0	70	0	70	0	0	3	3	2	14	1	17	0	0	4	4
+30 mins.	0	52	0	52	0	0	2	2	5	28	0	33	0	0	4	4
+45 mins.	1	58	0	59	2	0	1	3	0	28	0	28	0	0	5	5
Total Volume	2	263	1	266	2	0	7	9	9	86	1	96	0	0	22	22
% App. Total	0.8	98.9	0.4		22.2	0	77.8		9.4	89.6	1		0	0	100	
PHF	.500	.792	.250	.782	.250	.000	.583	.750	.450	.768	.250	.727	.000	.000	.611	.611

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PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Silver King Drive S/Cinnamon Dr N
Weather: Clear

File Name : 13_SPK_Wf Sp_SK PM
Site Code : 251153
Start Date : 11/19/2025
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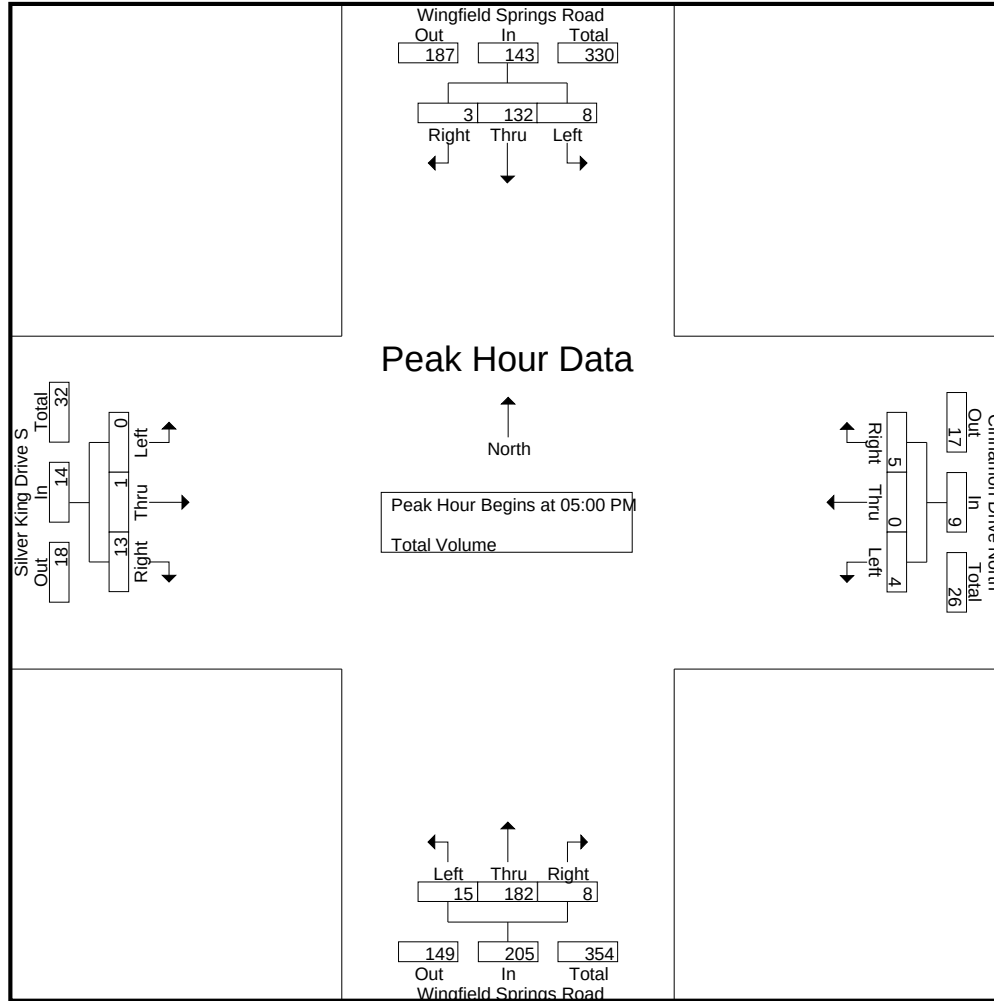
Groups Printed- Total Volume

	Wingfield Springs Road Southbound				Cinnamon Drive North Westbound				Wingfield Springs Road Northbound				Silver King Drive S Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	39	0	40	3	0	1	4	4	42	4	50	1	0	4	5	99
04:15 PM	4	24	0	28	0	0	2	2	5	55	2	62	0	0	3	3	95
04:30 PM	0	30	0	30	0	0	4	4	6	53	1	60	0	0	1	1	95
04:45 PM	0	19	0	19	0	0	1	1	5	40	1	46	0	0	3	3	69
Total	5	112	0	117	3	0	8	11	20	190	8	218	1	0	11	12	358
05:00 PM	3	17	1	21	0	0	1	1	4	63	2	69	0	0	1	1	92
05:15 PM	2	36	1	39	0	0	2	2	3	35	1	39	0	0	7	7	87
05:30 PM	1	38	1	40	4	0	1	5	4	45	4	53	0	1	5	6	104
05:45 PM	2	41	0	43	0	0	1	1	4	39	1	44	0	0	0	0	88
Total	8	132	3	143	4	0	5	9	15	182	8	205	0	1	13	14	371
Grand Total	13	244	3	260	7	0	13	20	35	372	16	423	1	1	24	26	729
Apprch %	5	93.8	1.2		35	0	65		8.3	87.9	3.8		3.8	3.8	92.3		
Total %	1.8	33.5	0.4	35.7	1	0	1.8	2.7	4.8	51	2.2	58	0.1	0.1	3.3	3.6	

	Wingfield Springs Road Southbound				Cinnamon Drive North Westbound				Wingfield Springs Road Northbound				Silver King Drive S Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	3	17	1	21	0	0	1	1	4	63	2	69	0	0	1	1	92
05:15 PM	2	36	1	39	0	0	2	2	3	35	1	39	0	0	7	7	87
05:30 PM	1	38	1	40	4	0	1	5	4	45	4	53	0	1	5	6	104
05:45 PM	2	41	0	43	0	0	1	1	4	39	1	44	0	0	0	0	88
Total Volume	8	132	3	143	4	0	5	9	15	182	8	205	0	1	13	14	371
% App. Total	5.6	92.3	2.1		44.4	0	55.6		7.3	88.8	3.9		0	7.1	92.9		
PHF	.667	.805	.750	.831	.250	.000	.625	.450	.938	.722	.500	.743	.000	.250	.464	.500	.892

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Silver King Drive S/Cinnamon Dr N
Weather: Clear

File Name : 13_SPK_Wf Sp_SK PM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:15 PM				04:45 PM			
+0 mins.	3	17	1	21	3	0	1	4	5	55	2	62	0	0	3	3
+15 mins.	2	36	1	39	0	0	2	2	6	53	1	60	0	0	1	1
+30 mins.	1	38	1	40	0	0	4	4	5	40	1	46	0	0	7	7
+45 mins.	2	41	0	43	0	0	1	1	4	63	2	69	0	1	5	6
Total Volume	8	132	3	143	3	0	8	11	20	211	6	237	0	1	16	17
% App. Total	5.6	92.3	2.1		27.3	0	72.7		8.4	89	2.5		0	5.9	94.1	
PHF	.667	.805	.750	.831	.250	.000	.500	.688	.833	.837	.750	.859	.000	.250	.571	.607

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City of Sparks, NV
N/S: Wingfield Springs Road
E/W: General Thatcher Dr/S Florentine Dr
Weather: Clear

File Name : 14_SPK_Wf Sp_GnF AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

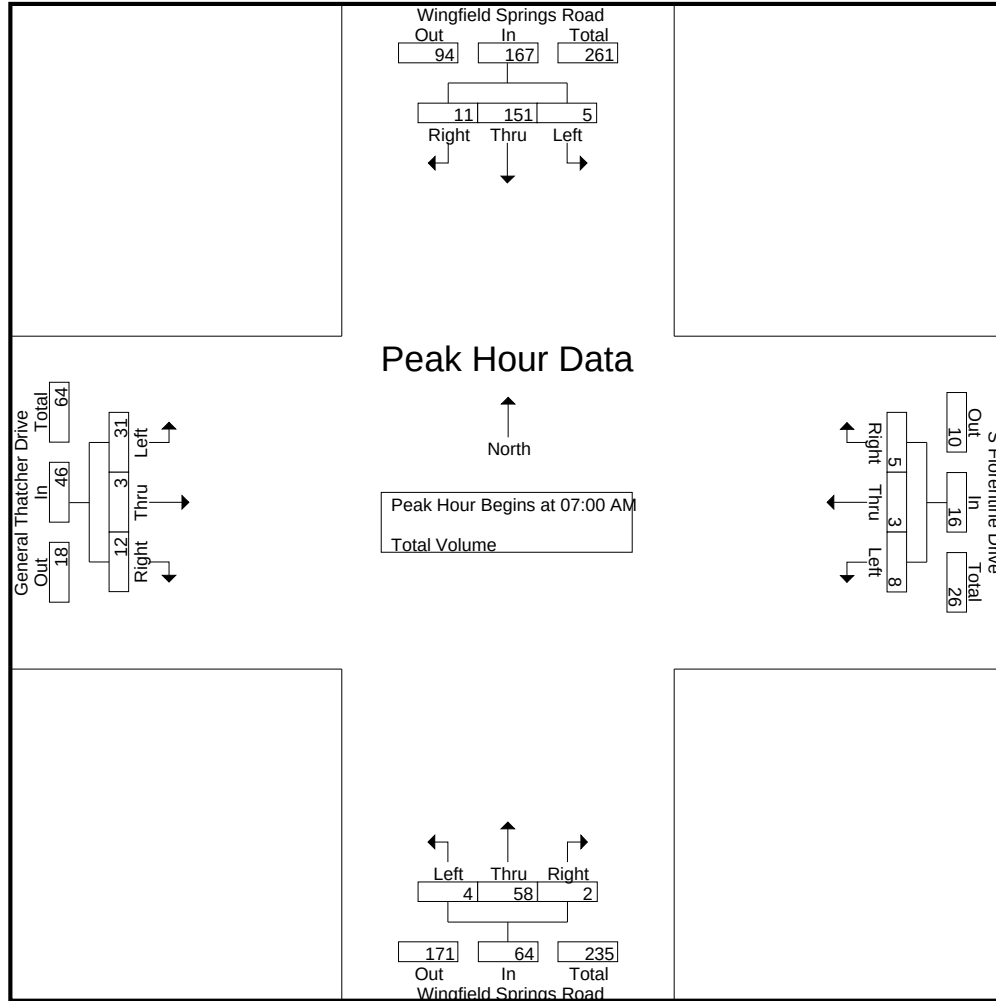
Groups Printed- Total Volume

	Wingfield Springs Road Southbound				S Florentine Drive Westbound				Wingfield Springs Road Northbound				General Thatcher Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	35	2	40	5	2	0	7	0	9	0	9	7	2	3	12	68
07:15 AM	1	40	0	41	2	1	2	5	0	13	0	13	4	0	3	7	66
07:30 AM	0	32	8	40	0	0	0	0	1	17	1	19	12	1	3	16	75
07:45 AM	1	44	1	46	1	0	3	4	3	19	1	23	8	0	3	11	84
Total	5	151	11	167	8	3	5	16	4	58	2	64	31	3	12	46	293
08:00 AM	0	36	1	37	2	1	2	5	2	4	0	6	4	0	6	10	58
08:15 AM	4	34	5	43	0	1	0	1	1	11	0	12	4	0	2	6	62
08:30 AM	1	21	3	25	0	0	0	0	4	9	0	13	3	0	3	6	44
08:45 AM	1	23	6	30	0	1	1	2	0	9	1	10	2	1	6	9	51
Total	6	114	15	135	2	3	3	8	7	33	1	41	13	1	17	31	215
Grand Total	11	265	26	302	10	6	8	24	11	91	3	105	44	4	29	77	508
Apprch %	3.6	87.7	8.6		41.7	25	33.3		10.5	86.7	2.9		57.1	5.2	37.7		
Total %	2.2	52.2	5.1	59.4	2	1.2	1.6	4.7	2.2	17.9	0.6	20.7	8.7	0.8	5.7	15.2	

	Wingfield Springs Road Southbound				S Florentine Drive Westbound				Wingfield Springs Road Northbound				General Thatcher Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	3	35	2	40	5	2	0	7	0	9	0	9	7	2	3	12	68
07:15 AM	1	40	0	41	2	1	2	5	0	13	0	13	4	0	3	7	66
07:30 AM	0	32	8	40	0	0	0	0	1	17	1	19	12	1	3	16	75
07:45 AM	1	44	1	46	1	0	3	4	3	19	1	23	8	0	3	11	84
Total Volume	5	151	11	167	8	3	5	16	4	58	2	64	31	3	12	46	293
% App. Total	3	90.4	6.6		50	18.8	31.2		6.2	90.6	3.1		67.4	6.5	26.1		
PHF	.417	.858	.344	.908	.400	.375	.417	.571	.333	.763	.500	.696	.646	.375	1.00	.719	.872

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: General Thatcher Dr/S Florentine Dr
Weather: Clear

File Name : 14_SPK_Wf Sp_GnF AM
Site Code : 251153
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	3	35	2	40	5	2	0	7	0	9	0	9	7	2	3	12
+15 mins.	1	40	0	41	2	1	2	5	0	13	0	13	4	0	3	7
+30 mins.	0	32	8	40	0	0	0	0	1	17	1	19	12	1	3	16
+45 mins.	1	44	1	46	1	0	3	4	3	19	1	23	8	0	3	11
Total Volume	5	151	11	167	8	3	5	16	4	58	2	64	31	3	12	46
% App. Total	3	90.4	6.6		50	18.8	31.2		6.2	90.6	3.1		67.4	6.5	26.1	
PHF	.417	.858	.344	.908	.400	.375	.417	.571	.333	.763	.500	.696	.646	.375	1.000	.719

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: General Thatcher Dr/S Florentine Dr
Weather: Clear

File Name : 14_SPK_Wf Sp_GnF PM
Site Code : 251153
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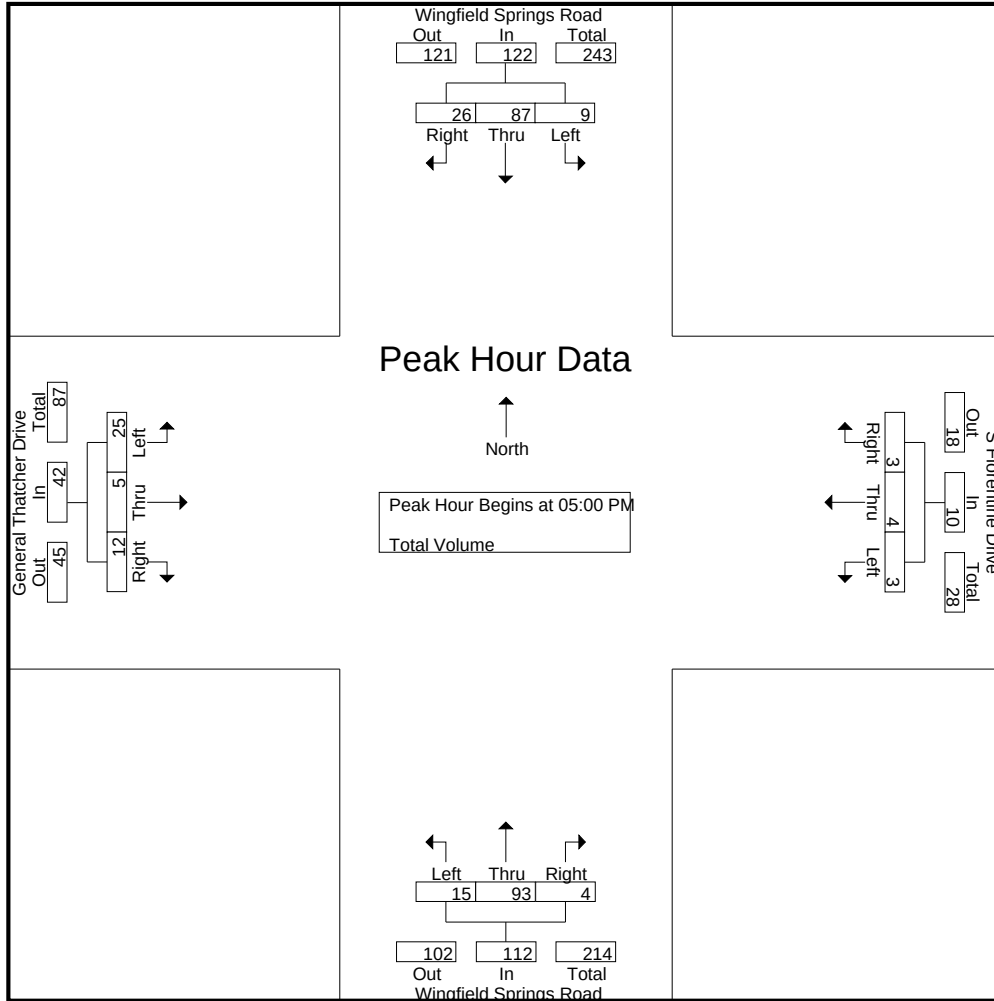
Groups Printed- Total Volume

	Wingfield Springs Road Southbound				S Florentine Drive Westbound				Wingfield Springs Road Northbound				General Thatcher Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	21	3	27	0	2	3	5	4	22	1	27	4	0	4	8	67
04:15 PM	1	20	3	24	0	1	1	2	2	27	2	31	1	3	1	5	62
04:30 PM	0	17	4	21	0	2	3	5	5	34	1	40	4	1	2	7	73
04:45 PM	0	8	4	12	1	1	3	5	5	22	1	28	1	1	1	3	48
Total	4	66	14	84	1	6	10	17	16	105	5	126	10	5	8	23	250
05:00 PM	3	11	4	18	0	0	0	0	4	30	2	36	3	0	3	6	60
05:15 PM	3	24	8	35	0	1	1	2	3	30	0	33	7	1	3	11	81
05:30 PM	1	25	7	33	1	1	0	2	3	18	2	23	9	2	3	14	72
05:45 PM	2	27	7	36	2	2	2	6	5	15	0	20	6	2	3	11	73
Total	9	87	26	122	3	4	3	10	15	93	4	112	25	5	12	42	286
Grand Total	13	153	40	206	4	10	13	27	31	198	9	238	35	10	20	65	536
Apprch %	6.3	74.3	19.4		14.8	37	48.1		13	83.2	3.8		53.8	15.4	30.8		
Total %	2.4	28.5	7.5	38.4	0.7	1.9	2.4	5	5.8	36.9	1.7	44.4	6.5	1.9	3.7	12.1	

	Wingfield Springs Road Southbound				S Florentine Drive Westbound				Wingfield Springs Road Northbound				General Thatcher Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	3	11	4	18	0	0	0	0	4	30	2	36	3	0	3	6	60
05:15 PM	3	24	8	35	0	1	1	2	3	30	0	33	7	1	3	11	81
05:30 PM	1	25	7	33	1	1	0	2	3	18	2	23	9	2	3	14	72
05:45 PM	2	27	7	36	2	2	2	6	5	15	0	20	6	2	3	11	73
Total Volume	9	87	26	122	3	4	3	10	15	93	4	112	25	5	12	42	286
% App. Total	7.4	71.3	21.3		30	40	30		13.4	83	3.6		59.5	11.9	28.6		
PHF	.750	.806	.813	.847	.375	.500	.375	.417	.750	.775	.500	.778	.694	.625	1.00	.750	.883

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: General Thatcher Dr/S Florentine Dr
Weather: Clear

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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:30 PM				05:00 PM			
+0 mins.	3	11	4	18	0	2	3	5	5	34	1	40	3	0	3	6
+15 mins.	3	24	8	35	0	1	1	2	5	22	1	28	7	1	3	11
+30 mins.	1	25	7	33	0	2	3	5	4	30	2	36	9	2	3	14
+45 mins.	2	27	7	36	1	1	3	5	3	30	0	33	6	2	3	11
Total Volume	9	87	26	122	1	6	10	17	17	116	4	137	25	5	12	42
% App. Total	7.4	71.3	21.3		5.9	35.3	58.8		12.4	84.7	2.9		59.5	11.9	28.6	
PHF	.750	.806	.813	.847	.250	.750	.833	.850	.850	.853	.500	.856	.694	.625	1.000	.750

City of Sparks, NV
N/S: Silver King Drive
E/W: General Thatcher Drive
Weather: Clear

File Name : 15_SPK_SK_GnF AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

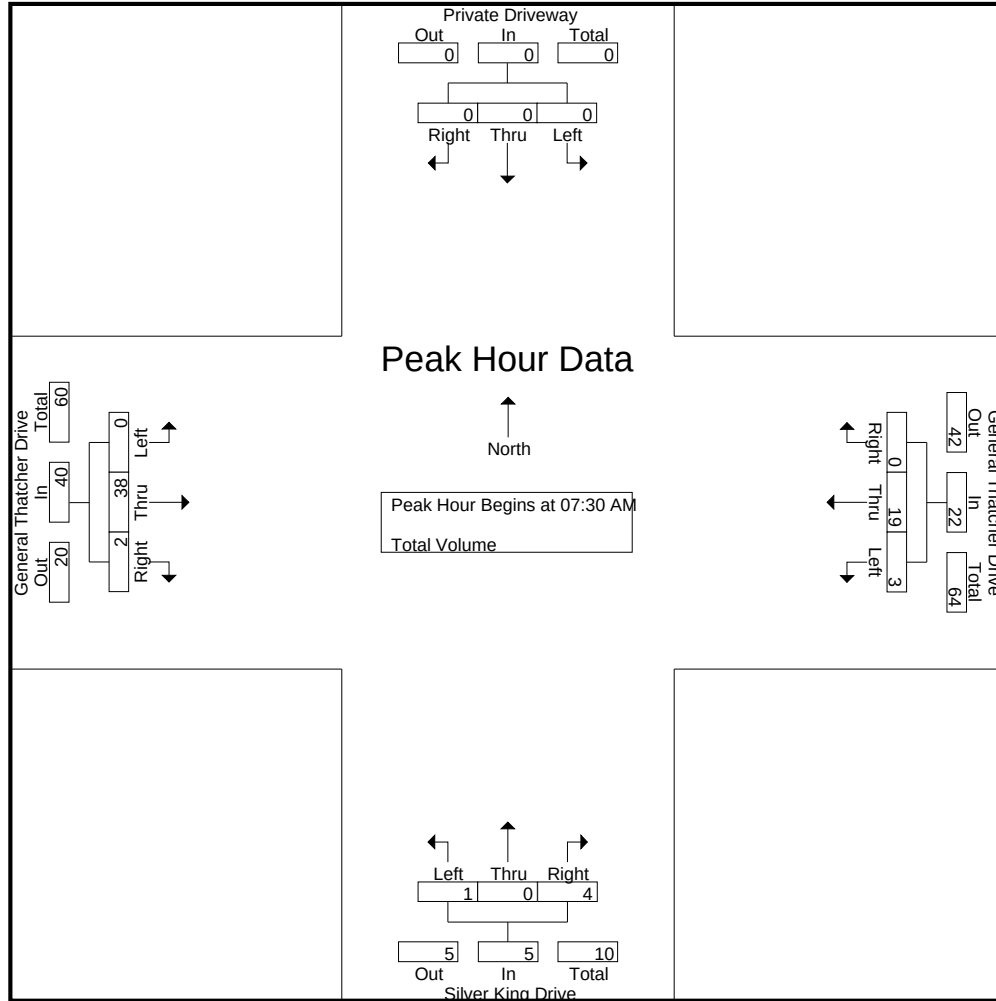
Groups Printed- Total Volume

	Private Driveway Southbound				General Thatcher Drive Westbound				Silver King Drive Northbound				General Thatcher Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	1	3	0	4	0	0	0	0	0	12	0	12	16
07:15 AM	0	0	0	0	0	1	0	1	0	0	3	3	0	5	0	5	9
07:30 AM	0	0	0	0	1	8	0	9	0	0	3	3	0	12	0	12	24
07:45 AM	0	0	0	0	0	2	0	2	1	0	1	2	0	10	0	10	14
Total	0	0	0	0	2	14	0	16	1	0	7	8	0	39	0	39	63
08:00 AM	0	0	0	0	2	2	0	4	0	0	0	0	0	10	1	11	15
08:15 AM	0	0	0	0	0	7	0	7	0	0	0	0	0	6	1	7	14
08:30 AM	0	0	0	0	2	6	0	8	0	0	0	0	0	4	2	6	14
08:45 AM	0	0	0	0	2	5	0	7	0	0	1	1	0	10	0	10	18
Total	0	0	0	0	6	20	0	26	0	0	1	1	0	30	4	34	61
Grand Total	0	0	0	0	8	34	0	42	1	0	8	9	0	69	4	73	124
Apprch %	0	0	0		19	81	0		11.1	0	88.9		0	94.5	5.5		
Total %	0	0	0	0	6.5	27.4	0	33.9	0.8	0	6.5	7.3	0	55.6	3.2	58.9	

	Private Driveway Southbound				General Thatcher Drive Westbound				Silver King Drive Northbound				General Thatcher Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	1	8	0	9	0	0	3	3	0	12	0	12	24
07:45 AM	0	0	0	0	0	2	0	2	1	0	1	2	0	10	0	10	14
08:00 AM	0	0	0	0	2	2	0	4	0	0	0	0	0	10	1	11	15
08:15 AM	0	0	0	0	0	7	0	7	0	0	0	0	0	6	1	7	14
Total Volume	0	0	0	0	3	19	0	22	1	0	4	5	0	38	2	40	67
% App. Total	0	0	0		13.6	86.4	0		20	0	80		0	95	5		
PHF	.000	.000	.000	.000	.375	.594	.000	.611	.250	.000	.333	.417	.000	.792	.500	.833	.698

City of Sparks, NV
N/S: Silver King Drive
E/W: General Thatcher Drive
Weather: Clear

File Name : 15_SPK_SK_GnF AM
Site Code : 251153
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				08:00 AM				07:00 AM				07:30 AM			
+0 mins.	0	0	0	0	2	2	0	4	0	0	0	0	0	12	0	12
+15 mins.	0	0	0	0	0	7	0	7	0	0	3	3	0	10	0	10
+30 mins.	0	0	0	0	2	6	0	8	0	0	3	3	0	10	1	11
+45 mins.	0	0	0	0	2	5	0	7	1	0	1	2	0	6	1	7
Total Volume	0	0	0	0	6	20	0	26	1	0	7	8	0	38	2	40
% App. Total	0	0	0	0	23.1	76.9	0		12.5	0	87.5		0	95	5	
PHF	.000	.000	.000	.000	.750	.714	.000	.813	.250	.000	.583	.667	.000	.792	.500	.833

City of Sparks, NV
N/S: Silver King Drive
E/W: General Thatcher Drive
Weather: Clear

File Name : 15_SPK_SK_GnF PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

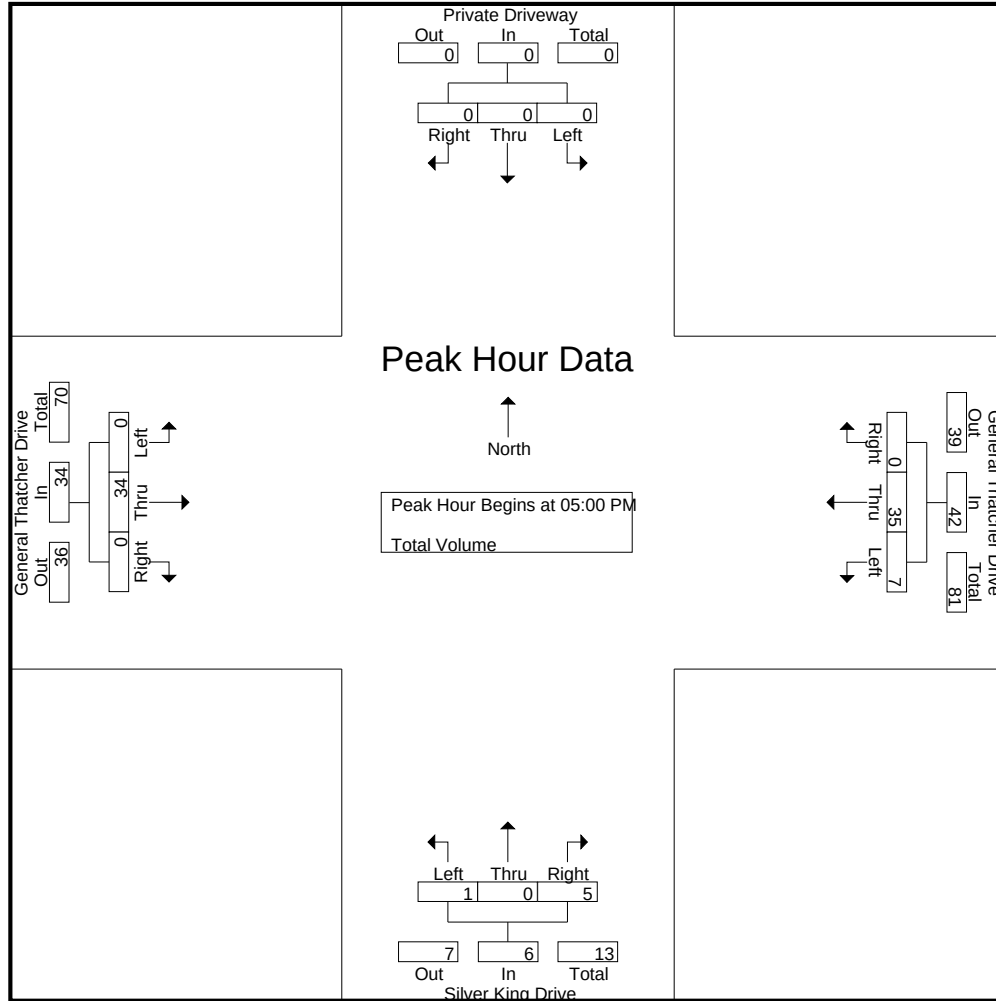
Groups Printed- Total Volume

	Private Driveway Southbound				General Thatcher Drive Westbound				Silver King Drive Northbound				General Thatcher Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	9	0	9	1	0	0	1	0	8	1	9	19
04:15 PM	0	0	0	0	1	5	0	6	0	0	0	0	0	3	0	3	9
04:30 PM	0	0	0	0	1	7	0	8	0	0	1	1	0	5	0	5	14
04:45 PM	0	0	0	0	2	7	0	9	0	0	0	0	0	3	1	4	13
Total	0	0	0	0	4	28	0	32	1	0	1	2	0	19	2	21	55
05:00 PM	0	0	0	0	0	9	0	9	1	0	1	2	0	4	0	4	15
05:15 PM	0	0	0	0	4	7	0	11	0	0	2	2	0	9	0	9	22
05:30 PM	0	0	0	0	1	8	0	9	0	0	2	2	0	11	0	11	22
05:45 PM	0	0	0	0	2	11	0	13	0	0	0	0	0	10	0	10	23
Total	0	0	0	0	7	35	0	42	1	0	5	6	0	34	0	34	82
Grand Total	0	0	0	0	11	63	0	74	2	0	6	8	0	53	2	55	137
Apprch %	0	0	0		14.9	85.1	0		25	0	75		0	96.4	3.6		
Total %	0	0	0		8	46	0	54	1.5	0	4.4	5.8	0	38.7	1.5	40.1	

	Private Driveway Southbound				General Thatcher Drive Westbound				Silver King Drive Northbound				General Thatcher Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	9	0	9	1	0	1	2	0	4	0	4	15
05:15 PM	0	0	0	0	4	7	0	11	0	0	2	2	0	9	0	9	22
05:30 PM	0	0	0	0	1	8	0	9	0	0	2	2	0	11	0	11	22
05:45 PM	0	0	0	0	2	11	0	13	0	0	0	0	0	10	0	10	23
Total Volume	0	0	0	0	7	35	0	42	1	0	5	6	0	34	0	34	82
% App. Total	0	0	0		16.7	83.3	0		16.7	0	83.3		0	100	0		
PHF	.000	.000	.000	.000	.438	.795	.000	.808	.250	.000	.625	.750	.000	.773	.000	.773	.891

City of Sparks, NV
N/S: Silver King Drive
E/W: General Thatcher Drive
Weather: Clear

File Name : 15_SPK_SK_GnF PM
Site Code : 251153
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:45 PM				05:00 PM			
+0 mins.	0	0	0	0	0	9	0	9	0	0	0	0	0	4	0	4
+15 mins.	0	0	0	0	4	7	0	11	1	0	1	2	0	9	0	9
+30 mins.	0	0	0	0	1	8	0	9	0	0	2	2	0	11	0	11
+45 mins.	0	0	0	0	2	11	0	13	0	0	2	2	0	10	0	10
Total Volume	0	0	0	0	7	35	0	42	1	0	5	6	0	34	0	34
% App. Total	0	0	0	0	16.7	83.3	0		16.7	0	83.3		0	100	0	
PHF	.000	.000	.000	.000	.438	.795	.000	.808	.250	.000	.625	.750	.000	.773	.000	.773

City of Sparks, NV
N/S: Island Queen Drive
E/W: General Thatcher Drive
Weather: Clear

File Name : 16_SPK_IsQu_GnF AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

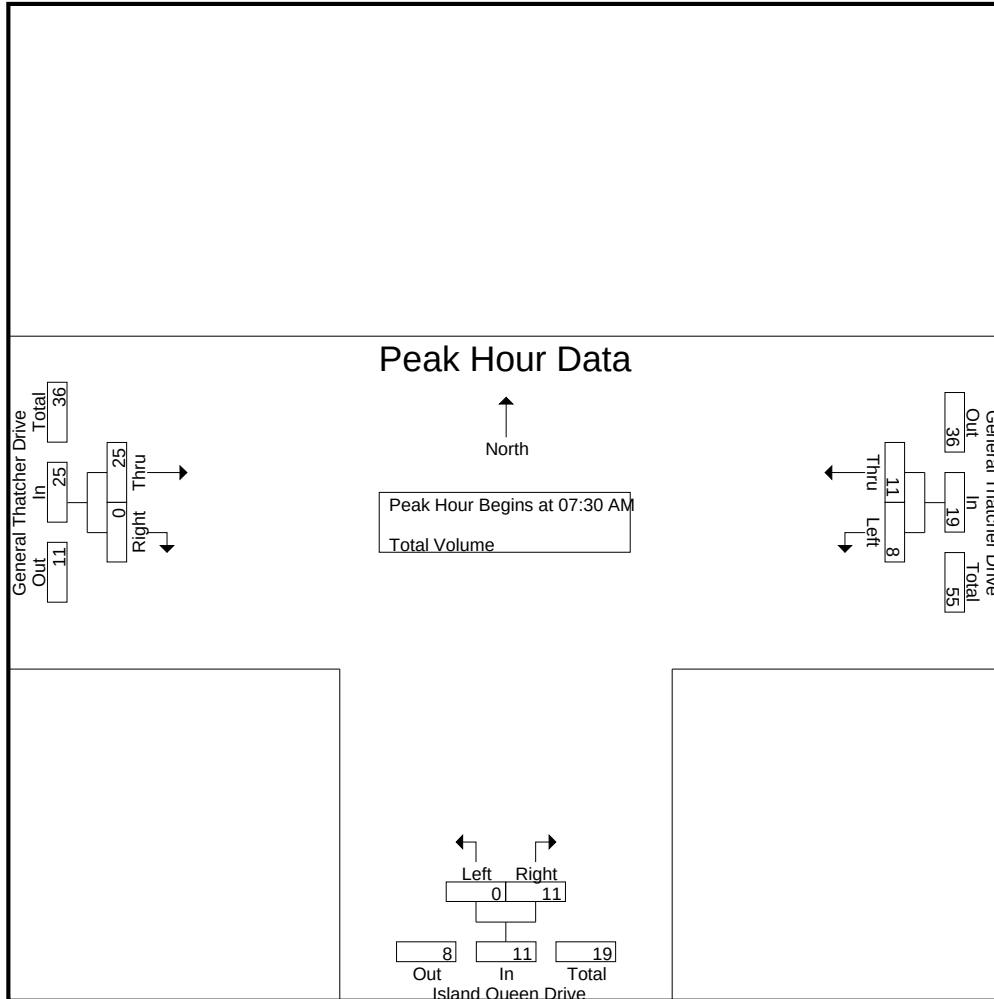
Groups Printed- Total Volume

	General Thatcher Drive Westbound			Island Queen Drive Northbound			General Thatcher Drive Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	3	3	0	3	3	9	0	9	15
07:15 AM	0	1	1	0	2	2	3	0	3	6
07:30 AM	3	5	8	0	4	4	7	0	7	19
07:45 AM	2	1	3	0	2	2	6	0	6	11
Total	5	10	15	0	11	11	25	0	25	51
08:00 AM	0	2	2	0	3	3	7	0	7	12
08:15 AM	3	3	6	0	2	2	5	0	5	13
08:30 AM	1	3	4	0	2	2	4	0	4	10
08:45 AM	1	4	5	0	2	2	7	0	7	14
Total	5	12	17	0	9	9	23	0	23	49
Grand Total	10	22	32	0	20	20	48	0	48	100
Apprch %	31.2	68.8		0	100		100	0		
Total %	10	22	32	0	20	20	48	0	48	

	General Thatcher Drive Westbound			Island Queen Drive Northbound			General Thatcher Drive Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	3	5	8	0	4	4	7	0	7	19
07:45 AM	2	1	3	0	2	2	6	0	6	11
08:00 AM	0	2	2	0	3	3	7	0	7	12
08:15 AM	3	3	6	0	2	2	5	0	5	13
Total Volume	8	11	19	0	11	11	25	0	25	55
% App. Total	42.1	57.9		0	100		100	0		
PHF	.667	.550	.594	.000	.688	.688	.893	.000	.893	.724

City of Sparks, NV
 N/S: Island Queen Drive
 E/W: General Thatcher Drive
 Weather: Clear

File Name : 16_SPK_IsQu_GnF AM
 Site Code : 251153
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM			07:00 AM			07:00 AM		
+0 mins.	3	5	8	0	3	3	9	0	9
+15 mins.	2	1	3	0	2	2	3	0	3
+30 mins.	0	2	2	0	4	4	7	0	7
+45 mins.	3	3	6	0	2	2	6	0	6
Total Volume	8	11	19	0	11	11	25	0	25
% App. Total	42.1	57.9		0	100		100	0	
PHF	.667	.550	.594	.000	.688	.688	.694	.000	.694

City of Sparks, NV
N/S: Island Queen Drive
E/W: General Thatcher Drive
Weather: Clear

File Name : 16_SPK_IsQu_GnF PM
Site Code : 251153
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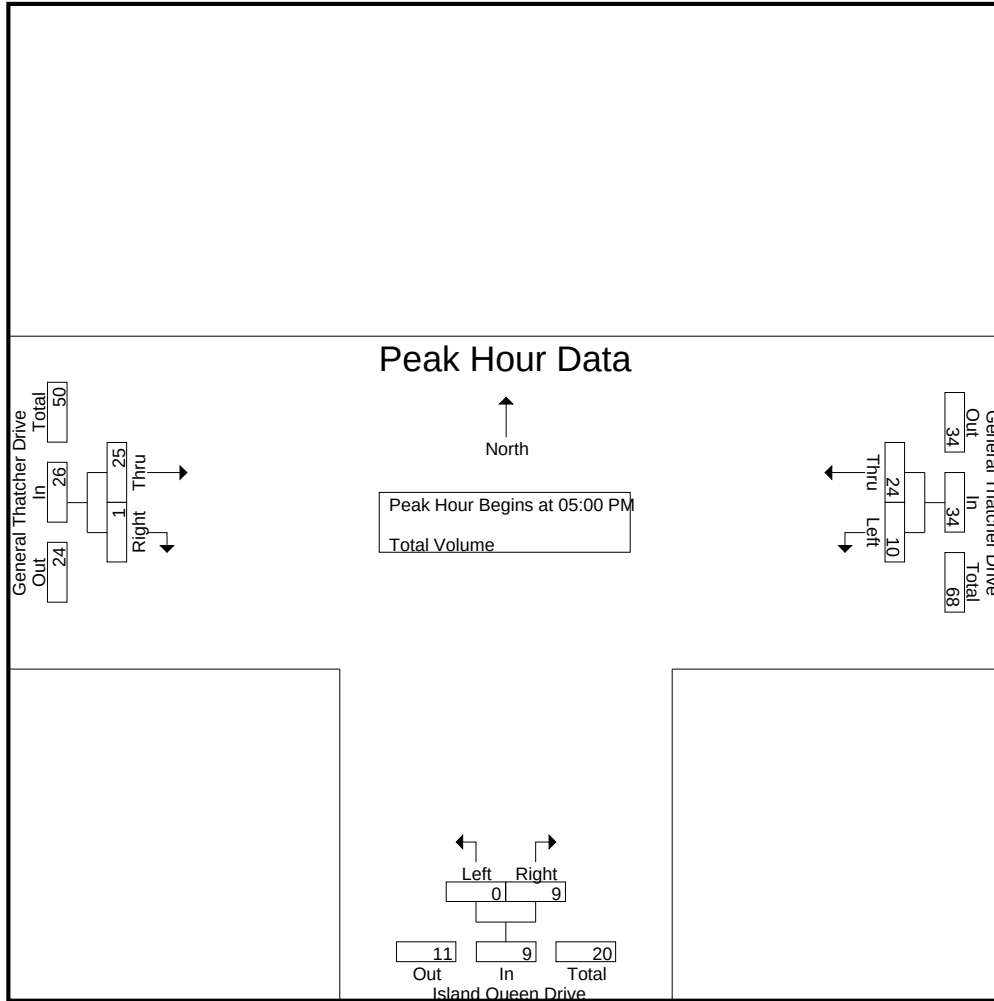
Groups Printed- Total Volume

	General Thatcher Drive Westbound			Island Queen Drive Northbound			General Thatcher Drive Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	2	8	10	0	2	2	7	0	7	19
04:15 PM	3	1	4	0	1	1	2	0	2	7
04:30 PM	2	8	10	0	3	3	2	0	2	15
04:45 PM	0	6	6	0	0	0	4	0	4	10
Total	7	23	30	0	6	6	15	0	15	51
05:00 PM	3	4	7	0	1	1	3	1	4	12
05:15 PM	3	5	8	0	4	4	6	0	6	18
05:30 PM	2	6	8	0	2	2	8	0	8	18
05:45 PM	2	9	11	0	2	2	8	0	8	21
Total	10	24	34	0	9	9	25	1	26	69
Grand Total	17	47	64	0	15	15	40	1	41	120
Apprch %	26.6	73.4		0	100		97.6	2.4		
Total %	14.2	39.2	53.3	0	12.5	12.5	33.3	0.8	34.2	

	General Thatcher Drive Westbound			Island Queen Drive Northbound			General Thatcher Drive Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	3	4	7	0	1	1	3	1	4	12
05:15 PM	3	5	8	0	4	4	6	0	6	18
05:30 PM	2	6	8	0	2	2	8	0	8	18
05:45 PM	2	9	11	0	2	2	8	0	8	21
Total Volume	10	24	34	0	9	9	25	1	26	69
% App. Total	29.4	70.6		0	100		96.2	3.8		
PHF	.833	.667	.773	.000	.563	.563	.781	.250	.813	.821

City of Sparks, NV
N/S: Island Queen Drive
E/W: General Thatcher Drive
Weather: Clear

File Name : 16_SPK_IsQu_GnF PM
Site Code : 251153
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	3	4	7	0	1	1	3	1	4
+15 mins.	3	5	8	0	4	4	6	0	6
+30 mins.	2	6	8	0	2	2	8	0	8
+45 mins.	2	9	11	0	2	2	8	0	8
Total Volume	10	24	34	0	9	9	25	1	26
% App. Total	29.4	70.6		0	100		96.2	3.8	
PHF	.833	.667	.773	.000	.563	.563	.781	.250	.813

City of Sparks, NV
N/S: Arrow Smith Drive
E/W: General Thatcher Drive
Weather: Clear

File Name : 17_SPK_ArSm_GnF AM
Site Code : 251153
Start Date : 11/19/2025
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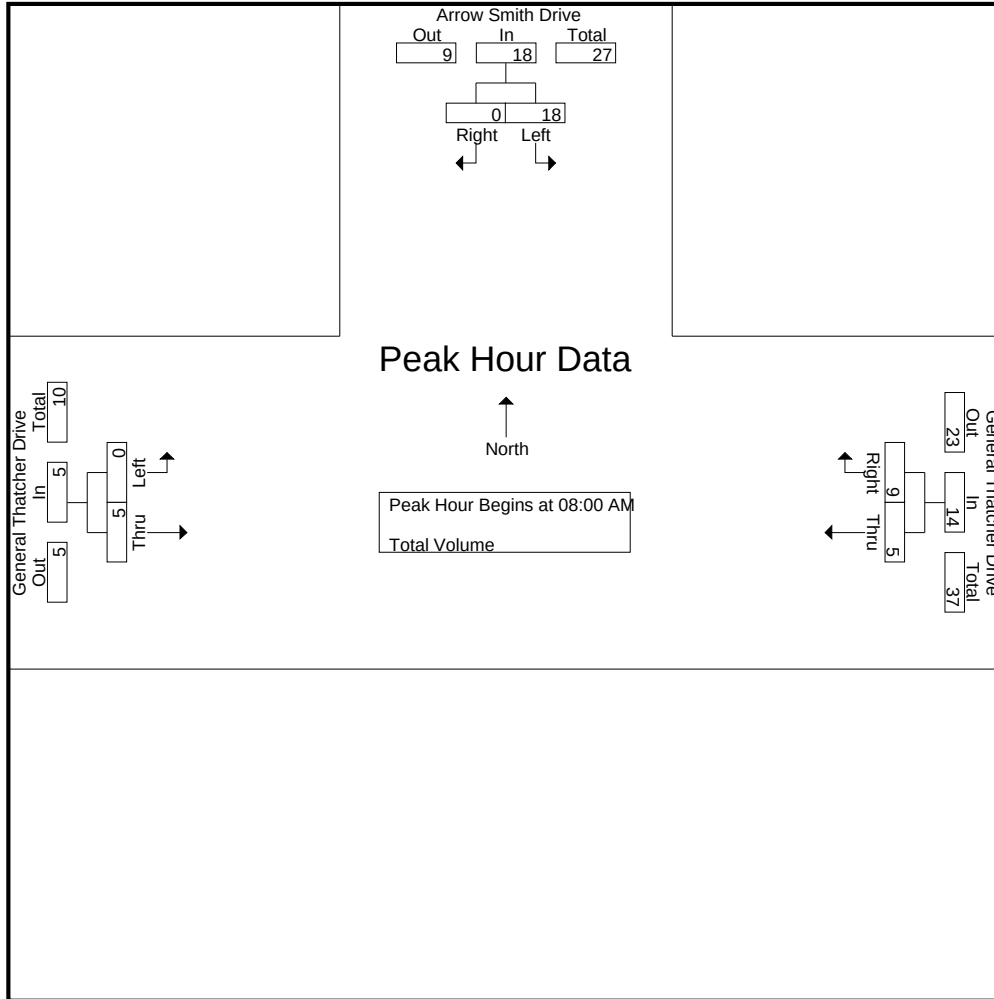
Groups Printed- Total Volume

	Arrow Smith Drive Southbound			General Thatcher Drive Westbound			General Thatcher Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	5	0	5	1	2	3	0	4	4	12
07:15 AM	2	1	3	1	0	1	0	1	1	5
07:30 AM	2	0	2	1	4	5	0	4	4	11
07:45 AM	3	0	3	0	1	1	0	3	3	7
Total	12	1	13	3	7	10	0	12	12	35
08:00 AM	3	0	3	0	2	2	0	4	4	9
08:15 AM	4	0	4	2	1	3	0	1	1	8
08:30 AM	4	0	4	1	4	5	0	0	0	9
08:45 AM	7	0	7	2	2	4	0	0	0	11
Total	18	0	18	5	9	14	0	5	5	37
Grand Total	30	1	31	8	16	24	0	17	17	72
Apprch %	96.8	3.2		33.3	66.7		0	100		
Total %	41.7	1.4	43.1	11.1	22.2	33.3	0	23.6	23.6	

	Arrow Smith Drive Southbound			General Thatcher Drive Westbound			General Thatcher Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	3	0	3	0	2	2	0	4	4	9
08:15 AM	4	0	4	2	1	3	0	1	1	8
08:30 AM	4	0	4	1	4	5	0	0	0	9
08:45 AM	7	0	7	2	2	4	0	0	0	11
Total Volume	18	0	18	5	9	14	0	5	5	37
% App. Total	100	0		35.7	64.3		0	100		
PHF	.643	.000	.643	.625	.563	.700	.000	.313	.313	.841

City of Sparks, NV
N/S: Arrow Smith Drive
E/W: General Thatcher Drive
Weather: Clear

File Name : 17_SPK_ArSm_GnF AM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			07:00 AM		
+0 mins.	3	0	3	0	2	2	0	4	4
+15 mins.	4	0	4	2	1	3	0	1	1
+30 mins.	4	0	4	1	4	5	0	4	4
+45 mins.	7	0	7	2	2	4	0	3	3
Total Volume	18	0	18	5	9	14	0	12	12
% App. Total	100	0		35.7	64.3		0	100	
PHF	.643	.000	.643	.625	.563	.700	.000	.750	.750

City of Sparks, NV
N/S: Arrow Smith Drive
E/W: General Thatcher Drive
Weather: Clear

File Name : 17_SPK_ArSm_GnF PM
Site Code : 251153
Start Date : 11/19/2025
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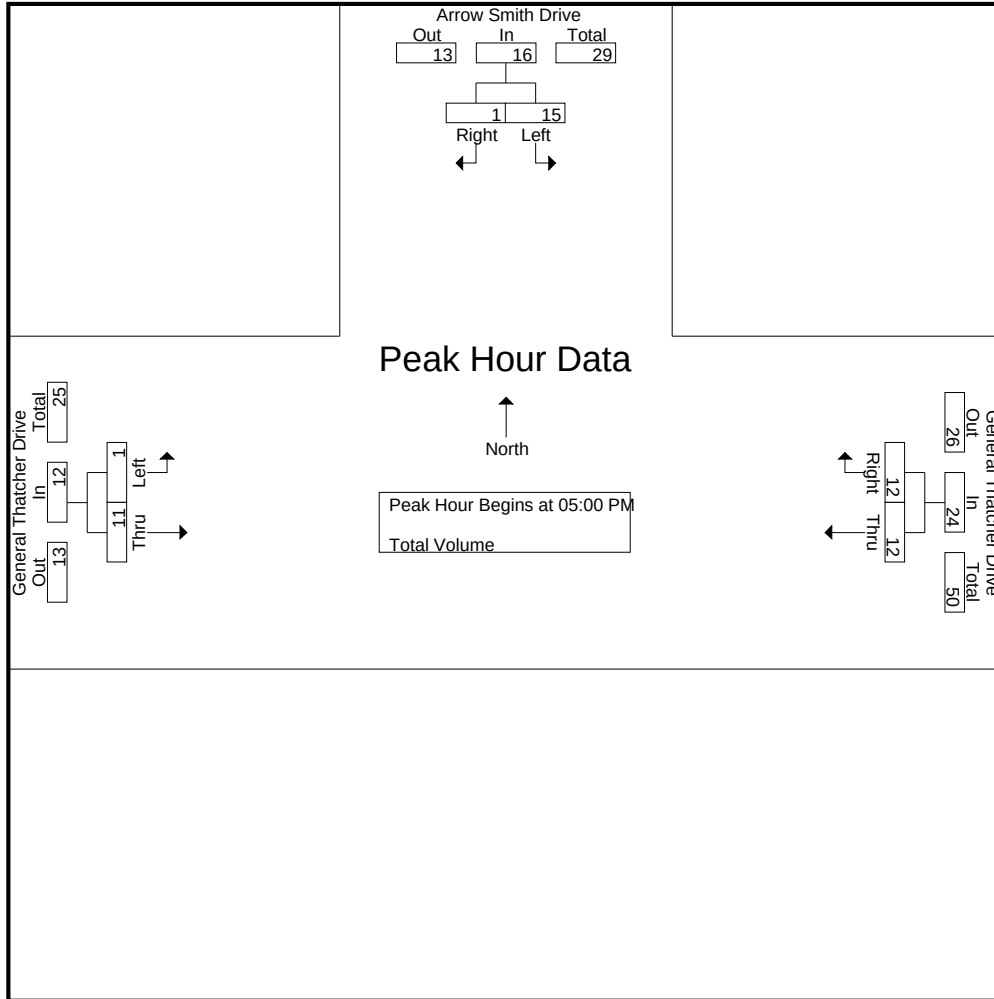
Groups Printed- Total Volume

	Arrow Smith Drive Southbound			General Thatcher Drive Westbound			General Thatcher Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	1	0	1	2	6	8	0	5	5	14
04:15 PM	1	0	1	1	0	1	0	1	1	3
04:30 PM	1	0	1	3	3	6	0	1	1	8
04:45 PM	1	0	1	2	4	6	0	3	3	10
Total	4	0	4	8	13	21	0	10	10	35
05:00 PM	3	0	3	0	4	4	0	1	1	8
05:15 PM	2	0	2	4	1	5	0	4	4	11
05:30 PM	7	1	8	2	4	6	0	1	1	15
05:45 PM	3	0	3	6	3	9	1	5	6	18
Total	15	1	16	12	12	24	1	11	12	52
Grand Total	19	1	20	20	25	45	1	21	22	87
Apprch %	95	5		44.4	55.6		4.5	95.5		
Total %	21.8	1.1	23	23	28.7	51.7	1.1	24.1	25.3	

	Arrow Smith Drive Southbound			General Thatcher Drive Westbound			General Thatcher Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	3	0	3	0	4	4	0	1	1	8
05:15 PM	2	0	2	4	1	5	0	4	4	11
05:30 PM	7	1	8	2	4	6	0	1	1	15
05:45 PM	3	0	3	6	3	9	1	5	6	18
Total Volume	15	1	16	12	12	24	1	11	12	52
% App. Total	93.8	6.2		50	50		8.3	91.7		
PHF	.536	.250	.500	.500	.750	.667	.250	.550	.500	.722

City of Sparks, NV
N/S: Arrow Smith Drive
E/W: General Thatcher Drive
Weather: Clear

File Name : 17_SPK_ArSm_GnF PM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	3	0	3	0	4	4	0	1	1
+15 mins.	2	0	2	4	1	5	0	4	4
+30 mins.	7	1	8	2	4	6	0	1	1
+45 mins.	3	0	3	6	3	9	1	5	6
Total Volume	15	1	16	12	12	24	1	11	12
% App. Total	93.8	6.2		50	50		8.3	91.7	
PHF	.536	.250	.500	.500	.750	.667	.250	.550	.500

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City of Sparks, NV
N/S: Island Queen Drive
E/W: Decoy Drive
Weather: Clear

File Name : 19_SPK_IsQu_Deco AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

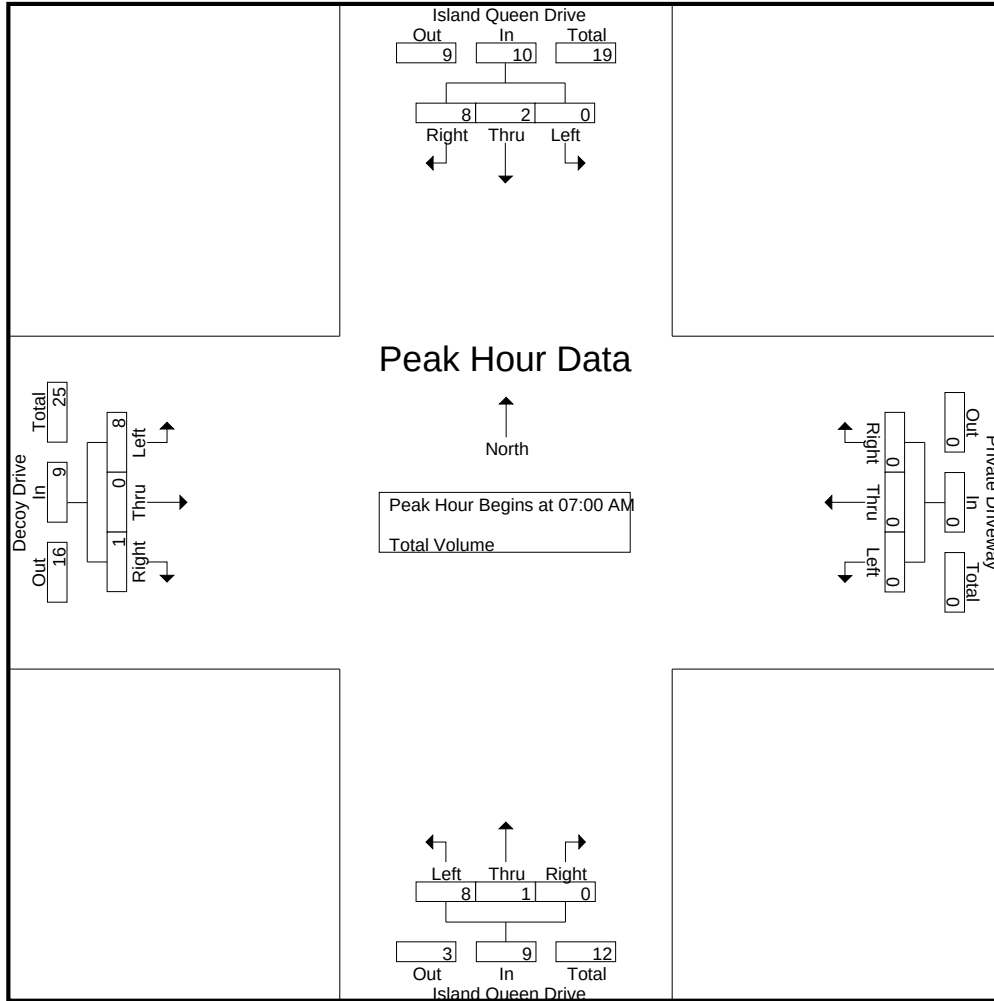
Groups Printed- Total Volume

	Island Queen Drive Southbound				Private Driveway Westbound				Island Queen Drive Northbound				Decoy Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	2	2	0	0	0	0	6	0	0	6	2	0	0	2	10
07:15 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	1	1	3
07:30 AM	0	2	3	5	0	0	0	0	1	0	0	1	5	0	0	5	11
07:45 AM	0	0	3	3	0	0	0	0	0	0	0	0	1	0	0	1	4
Total	0	2	8	10	0	0	0	0	8	1	0	9	8	0	1	9	28
08:00 AM	0	0	1	1	0	0	0	0	1	1	0	2	1	0	0	1	4
08:15 AM	0	1	2	3	0	0	0	0	2	1	0	3	0	0	0	0	6
08:30 AM	0	0	3	3	0	0	0	0	2	1	0	3	1	0	1	2	8
08:45 AM	0	0	1	1	0	0	0	0	2	0	0	2	4	0	0	4	7
Total	0	1	7	8	0	0	0	0	7	3	0	10	6	0	1	7	25
Grand Total	0	3	15	18	0	0	0	0	15	4	0	19	14	0	2	16	53
Apprch %	0	16.7	83.3		0	0	0		78.9	21.1	0		87.5	0	12.5		
Total %	0	5.7	28.3	34	0	0	0	0	28.3	7.5	0	35.8	26.4	0	3.8	30.2	

	Island Queen Drive Southbound				Private Driveway Westbound				Island Queen Drive Northbound				Decoy Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	2	2	0	0	0	0	6	0	0	6	2	0	0	2	10
07:15 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	1	1	3
07:30 AM	0	2	3	5	0	0	0	0	1	0	0	1	5	0	0	5	11
07:45 AM	0	0	3	3	0	0	0	0	0	0	0	0	1	0	0	1	4
Total Volume	0	2	8	10	0	0	0	0	8	1	0	9	8	0	1	9	28
% App. Total	0	20	80		0	0	0		88.9	11.1	0		88.9	0	11.1		
PHF	.000	.250	.667	.500	.000	.000	.000	.000	.333	.250	.000	.375	.400	.000	.250	.450	.636

City of Sparks, NV
N/S: Island Queen Drive
E/W: Decoy Drive
Weather: Clear

File Name : 19_SPK_IsQu_Deco AM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM				08:00 AM				07:00 AM			
+0 mins.	0	2	3	5	0	0	0	0	1	1	0	2	2	0	0	2
+15 mins.	0	0	3	3	0	0	0	0	2	1	0	3	0	0	1	1
+30 mins.	0	0	1	1	0	0	0	0	2	1	0	3	5	0	0	5
+45 mins.	0	1	2	3	0	0	0	0	2	0	0	2	1	0	0	1
Total Volume	0	3	9	12	0	0	0	0	7	3	0	10	8	0	1	9
% App. Total	0	25	75		0	0	0		70	30	0		88.9	0	11.1	
PHF	.000	.375	.750	.600	.000	.000	.000	.000	.875	.750	.000	.833	.400	.000	.250	.450

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City of Sparks, NV
N/S: Island Queen Drive
E/W: Decoy Drive
Weather: Clear

File Name : 19_SPK_IsQu_Decoym PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

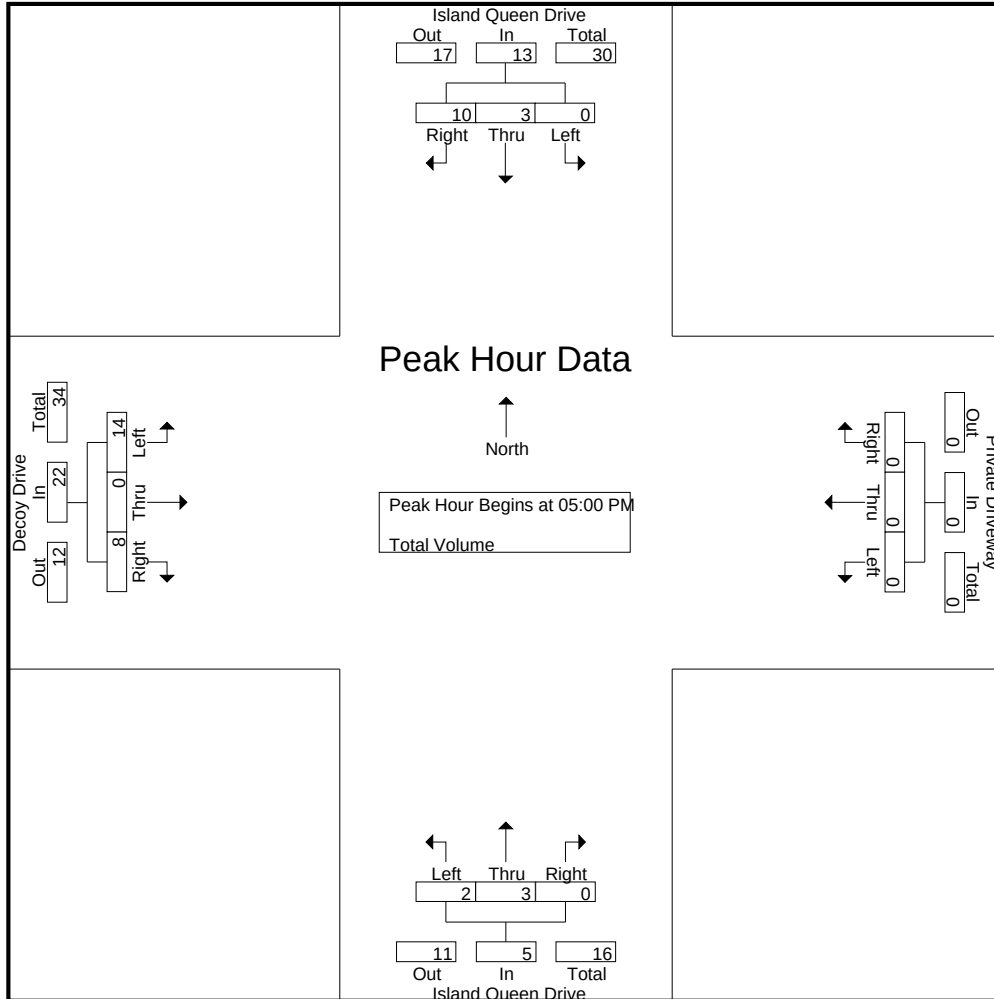
Groups Printed- Total Volume

	Island Queen Drive Southbound				Private Driveway Westbound				Island Queen Drive Northbound				Decoy Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	2	0	0	0	0	1	0	0	1	2	0	1	3	6
04:15 PM	0	0	3	3	0	0	0	0	0	0	0	0	6	0	1	7	10
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4	4
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	1	0	3	4	5
Total	0	1	4	5	0	0	0	0	2	0	0	2	11	0	7	18	25
05:00 PM	0	0	1	1	0	0	0	0	0	1	0	1	5	0	0	5	7
05:15 PM	0	2	2	4	0	0	0	0	0	1	0	1	4	0	1	5	10
05:30 PM	0	0	3	3	0	0	0	0	1	0	0	1	0	0	3	3	7
05:45 PM	0	1	4	5	0	0	0	0	1	1	0	2	5	0	4	9	16
Total	0	3	10	13	0	0	0	0	2	3	0	5	14	0	8	22	40
Grand Total	0	4	14	18	0	0	0	0	4	3	0	7	25	0	15	40	65
Apprch %	0	22.2	77.8		0	0	0		57.1	42.9	0		62.5	0	37.5		
Total %	0	6.2	21.5	27.7	0	0	0	0	6.2	4.6	0	10.8	38.5	0	23.1	61.5	

	Island Queen Drive Southbound				Private Driveway Westbound				Island Queen Drive Northbound				Decoy Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	1	1	0	0	0	0	0	1	0	1	5	0	0	5	7
05:15 PM	0	2	2	4	0	0	0	0	0	1	0	1	4	0	1	5	10
05:30 PM	0	0	3	3	0	0	0	0	1	0	0	1	0	0	3	3	7
05:45 PM	0	1	4	5	0	0	0	0	1	1	0	2	5	0	4	9	16
Total Volume	0	3	10	13	0	0	0	0	2	3	0	5	14	0	8	22	40
% App. Total	0	23.1	76.9		0	0	0		40	60	0		63.6	0	36.4		
PHF	.000	.375	.625	.650	.000	.000	.000	.000	.500	.750	.000	.625	.700	.000	.500	.611	.625

City of Sparks, NV
N/S: Island Queen Drive
E/W: Decoy Drive
Weather: Clear

File Name : 19_SPK_IsQu_Deco PM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	1	1	0	0	0	0	0	1	0	1	5	0	0	5
+15 mins.	0	2	2	4	0	0	0	0	0	1	0	1	4	0	1	5
+30 mins.	0	0	3	3	0	0	0	0	1	0	0	1	0	0	3	3
+45 mins.	0	1	4	5	0	0	0	0	1	1	0	2	5	0	4	9
Total Volume	0	3	10	13	0	0	0	0	2	3	0	5	14	0	8	22
% App. Total	0	23.1	76.9		0	0	0	0	40	60	0		63.6	0	36.4	
PHF	.000	.375	.625	.650	.000	.000	.000	.000	.500	.750	.000	.625	.700	.000	.500	.611

City of Sparks, NV
N/S: Little Easy Street
E/W: Decoy Drive
Weather: Clear

File Name : 18_SPK_LEasy_Deco AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

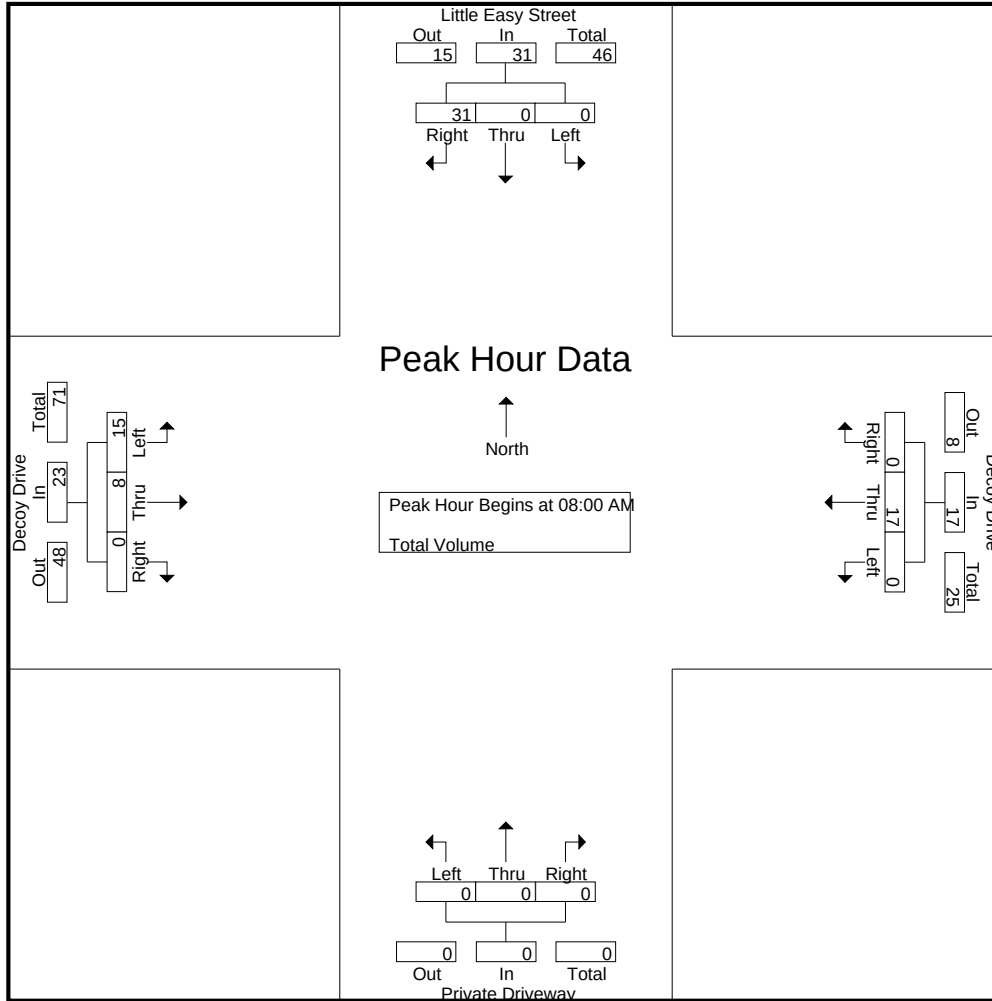
Groups Printed- Total Volume

	Little Easy Street Southbound				Decoy Drive Westbound				Private Driveway Northbound				Decoy Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	10	10	0	9	0	9	0	0	0	0	2	2	0	4	23
07:15 AM	0	0	8	8	0	1	0	1	0	0	0	0	2	1	0	3	12
07:30 AM	0	0	4	4	0	4	0	4	0	0	0	0	0	5	0	5	13
07:45 AM	0	0	8	8	0	3	0	3	0	0	0	0	0	1	0	1	12
Total	0	0	30	30	0	17	0	17	0	0	0	0	4	9	0	13	60
08:00 AM	0	0	6	6	0	2	0	2	0	0	0	0	2	1	0	3	11
08:15 AM	0	0	10	10	0	5	0	5	0	0	0	0	3	0	0	3	18
08:30 AM	0	0	6	6	0	6	0	6	0	0	0	0	4	3	0	7	19
08:45 AM	0	0	9	9	0	4	0	4	0	0	0	0	6	4	0	10	23
Total	0	0	31	31	0	17	0	17	0	0	0	0	15	8	0	23	71
Grand Total	0	0	61	61	0	34	0	34	0	0	0	0	19	17	0	36	131
Apprch %	0	0	100		0	100	0		0	0	0		52.8	47.2	0		
Total %	0	0	46.6	46.6	0	26	0	26	0	0	0	0	14.5	13	0	27.5	

	Little Easy Street Southbound				Decoy Drive Westbound				Private Driveway Northbound				Decoy Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	6	6	0	2	0	2	0	0	0	0	2	1	0	3	11
08:15 AM	0	0	10	10	0	5	0	5	0	0	0	0	3	0	0	3	18
08:30 AM	0	0	6	6	0	6	0	6	0	0	0	0	4	3	0	7	19
08:45 AM	0	0	9	9	0	4	0	4	0	0	0	0	6	4	0	10	23
Total Volume	0	0	31	31	0	17	0	17	0	0	0	0	15	8	0	23	71
% App. Total	0	0	100		0	100	0		0	0	0		65.2	34.8	0		
PHF	.000	.000	.775	.775	.000	.708	.000	.708	.000	.000	.000	.000	.625	.500	.000	.575	.772

City of Sparks, NV
N/S: Little Easy Street
E/W: Decoy Drive
Weather: Clear

File Name : 18_SPK_LEasy_Deco AM
Site Code : 251153
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:00 AM				07:00 AM				08:00 AM			
+0 mins.	0	0	6	6	0	9	0	9	0	0	0	0	2	1	0	3
+15 mins.	0	0	10	10	0	1	0	1	0	0	0	0	3	0	0	3
+30 mins.	0	0	6	6	0	4	0	4	0	0	0	0	4	3	0	7
+45 mins.	0	0	9	9	0	3	0	3	0	0	0	0	6	4	0	10
Total Volume	0	0	31	31	0	17	0	17	0	0	0	0	15	8	0	23
% App. Total	0	0	100		0	100	0		0	0	0		65.2	34.8	0	
PHF	.000	.000	.775	.775	.000	.472	.000	.472	.000	.000	.000	.000	.625	.500	.000	.575

City of Sparks, NV
N/S: Little Easy Street
E/W: Decoy Drive
Weather: Clear

File Name : 18_SPK_LEasy_Deco PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

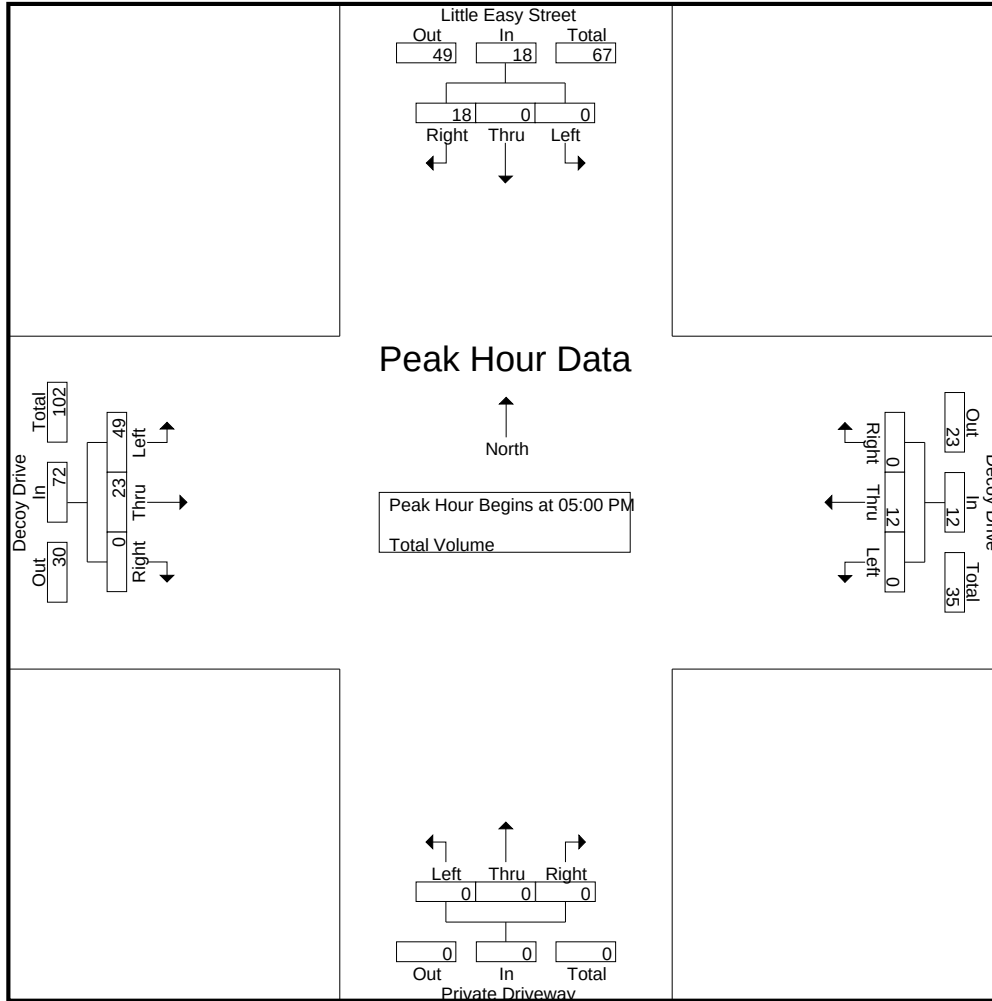
Groups Printed- Total Volume

	Little Easy Street Southbound				Decoy Drive Westbound				Private Driveway Northbound				Decoy Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	7	7	0	2	0	2	0	0	0	0	8	3	0	11	20
04:15 PM	0	0	2	2	0	3	0	3	0	0	0	0	12	7	0	19	24
04:30 PM	0	0	5	5	0	0	0	0	0	0	0	0	10	4	0	14	19
04:45 PM	0	0	6	6	0	0	0	0	0	0	0	0	12	4	0	16	22
Total	0	0	20	20	0	5	0	5	0	0	0	0	42	18	0	60	85
05:00 PM	0	0	5	5	0	1	0	1	0	0	0	0	12	5	0	17	23
05:15 PM	0	0	2	2	0	1	0	1	0	0	0	0	13	5	0	18	21
05:30 PM	0	0	3	3	0	4	0	4	0	0	0	0	13	5	0	18	25
05:45 PM	0	0	8	8	0	6	0	6	0	0	0	0	11	8	0	19	33
Total	0	0	18	18	0	12	0	12	0	0	0	0	49	23	0	72	102
Grand Total	0	0	38	38	0	17	0	17	0	0	0	0	91	41	0	132	187
Apprch %	0	0	100		0	100	0		0	0	0		68.9	31.1	0		
Total %	0	0	20.3	20.3	0	9.1	0	9.1	0	0	0	0	48.7	21.9	0	70.6	

	Little Easy Street Southbound				Decoy Drive Westbound				Private Driveway Northbound				Decoy Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	5	5	0	1	0	1	0	0	0	0	12	5	0	17	23
05:15 PM	0	0	2	2	0	1	0	1	0	0	0	0	13	5	0	18	21
05:30 PM	0	0	3	3	0	4	0	4	0	0	0	0	13	5	0	18	25
05:45 PM	0	0	8	8	0	6	0	6	0	0	0	0	11	8	0	19	33
Total Volume	0	0	18	18	0	12	0	12	0	0	0	0	49	23	0	72	102
% App. Total	0	0	100		0	100	0		0	0	0		68.1	31.9	0		
PHF	.000	.000	.563	.563	.000	.500	.000	.500	.000	.000	.000	.000	.942	.719	.000	.947	.773

City of Sparks, NV
N/S: Little Easy Street
E/W: Decoy Drive
Weather: Clear

File Name : 18_SPK_LEasy_Deco PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:00 PM				05:00 PM			
+0 mins.	0	0	7	7	0	1	0	1	0	0	0	0	12	5	0	17
+15 mins.	0	0	2	2	0	1	0	1	0	0	0	0	13	5	0	18
+30 mins.	0	0	5	5	0	4	0	4	0	0	0	0	13	5	0	18
+45 mins.	0	0	6	6	0	6	0	6	0	0	0	0	11	8	0	19
Total Volume	0	0	20	20	0	12	0	12	0	0	0	0	49	23	0	72
% App. Total	0	0	100		0	100	0		0	0	0		68.1	31.9	0	
PHF	.000	.000	.714	.714	.000	.500	.000	.500	.000	.000	.000	.000	.942	.719	.000	.947

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(951) 268-6268

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Poco Bueno Circle
Weather: Clear

File Name : 20_SPK_Wf Sp_PoBu AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

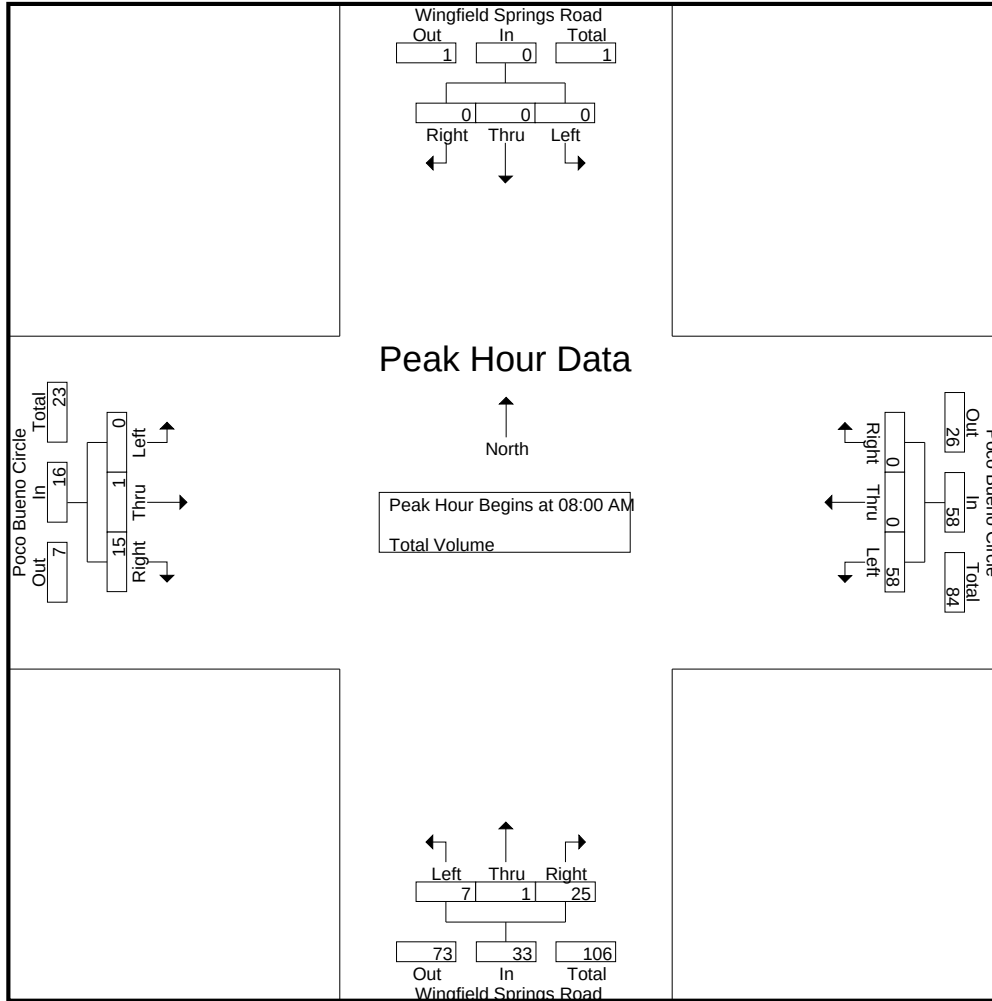
Groups Printed- Total Volume

	Wingfield Springs Road Southbound				Poco Bueno Circle Westbound				Wingfield Springs Road Northbound				Poco Bueno Circle Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	23	0	0	23	2	0	4	6	0	0	4	4	34
07:15 AM	0	0	0	0	13	0	0	13	1	1	2	4	0	0	6	6	23
07:30 AM	0	0	0	0	11	0	0	11	2	0	6	8	0	0	8	8	27
07:45 AM	0	0	0	0	11	0	0	11	1	0	3	4	0	0	3	3	18
Total	0	1	0	1	58	0	0	58	6	1	15	22	0	0	21	21	102
08:00 AM	0	0	0	0	15	0	0	15	1	0	3	4	0	0	3	3	22
08:15 AM	0	0	0	0	17	0	0	17	0	0	4	4	0	0	4	4	25
08:30 AM	0	0	0	0	11	0	0	11	0	0	9	9	0	0	5	5	25
08:45 AM	0	0	0	0	15	0	0	15	6	1	9	16	0	1	3	4	35
Total	0	0	0	0	58	0	0	58	7	1	25	33	0	1	15	16	107
Grand Total	0	1	0	1	116	0	0	116	13	2	40	55	0	1	36	37	209
Apprch %	0	100	0		100	0	0		23.6	3.6	72.7		0	2.7	97.3		
Total %	0	0.5	0	0.5	55.5	0	0	55.5	6.2	1	19.1	26.3	0	0.5	17.2	17.7	

	Wingfield Springs Road Southbound				Poco Bueno Circle Westbound				Wingfield Springs Road Northbound				Poco Bueno Circle Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	15	0	0	15	1	0	3	4	0	0	3	3	22
08:15 AM	0	0	0	0	17	0	0	17	0	0	4	4	0	0	4	4	25
08:30 AM	0	0	0	0	11	0	0	11	0	0	9	9	0	0	5	5	25
08:45 AM	0	0	0	0	15	0	0	15	6	1	9	16	0	1	3	4	35
Total Volume	0	0	0	0	58	0	0	58	7	1	25	33	0	1	15	16	107
% App. Total	0	0	0		100	0	0		21.2	3	75.8		0	6.2	93.8		
PHF	.000	.000	.000	.000	.853	.000	.000	.853	.292	.250	.694	.516	.000	.250	.750	.800	.764

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Poco Bueno Circle
Weather: Clear

File Name : 20_SPK_Wf Sp_PoBu AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				08:00 AM				07:00 AM			
+0 mins.	0	1	0	1	23	0	0	23	1	0	3	4	0	0	4	4
+15 mins.	0	0	0	0	13	0	0	13	0	0	4	4	0	0	6	6
+30 mins.	0	0	0	0	11	0	0	11	0	0	9	9	0	0	8	8
+45 mins.	0	0	0	0	11	0	0	11	6	1	9	16	0	0	3	3
Total Volume	0	1	0	1	58	0	0	58	7	1	25	33	0	0	21	21
% App. Total	0	100	0	0	100	0	0	0	21.2	3	75.8		0	0	100	
PHF	.000	.250	.000	.250	.630	.000	.000	.630	.292	.250	.694	.516	.000	.000	.656	.656

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PO Box 1178
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City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Poco Bueno Circle
Weather: Clear

File Name : 20_SPK_Wf Sp_PoBu PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

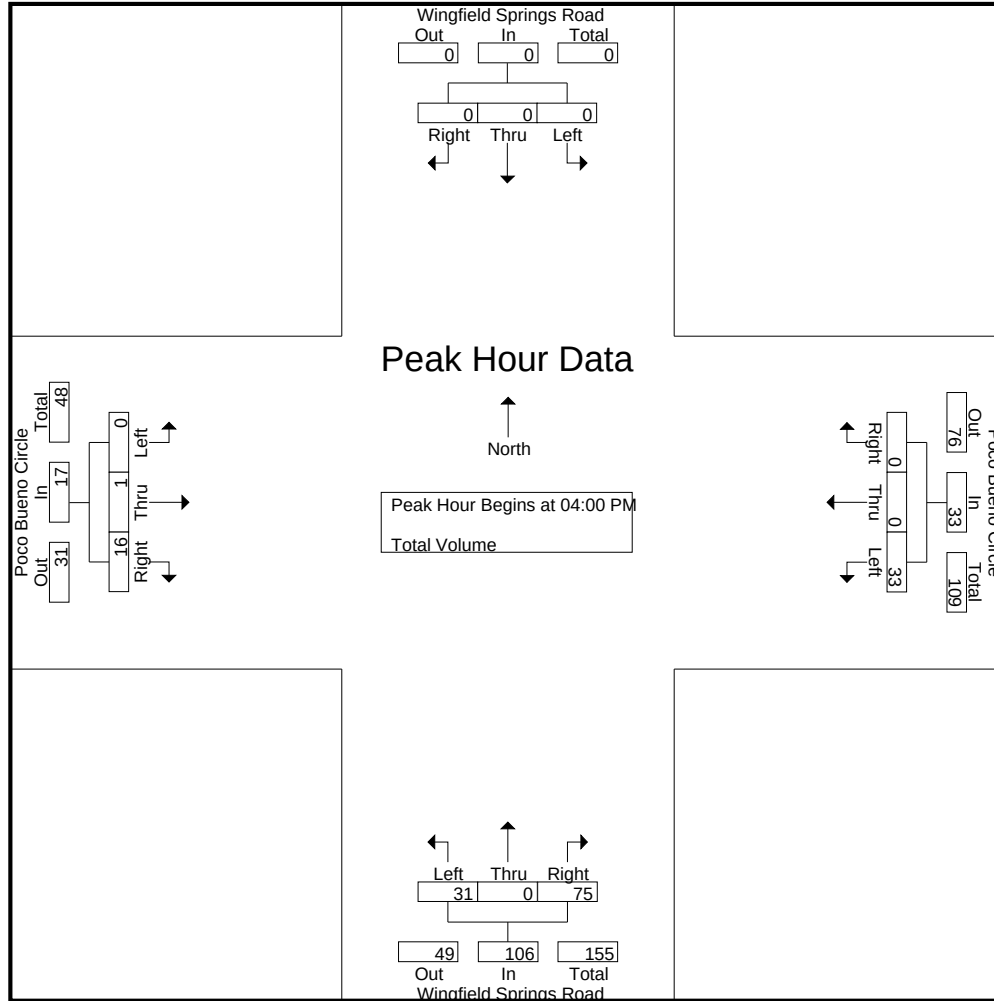
Groups Printed- Total Volume

	Wingfield Springs Road Southbound				Poco Bueno Circle Westbound				Wingfield Springs Road Northbound				Poco Bueno Circle Eastbound				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	12	0	0	12	7	0	16	23	0	0	6	6	41
04:15 PM	0	0	0	0	6	0	0	6	5	0	19	24	0	0	6	6	36
04:30 PM	0	0	0	0	5	0	0	5	12	0	22	34	0	1	0	1	40
04:45 PM	0	0	0	0	10	0	0	10	7	0	18	25	0	0	4	4	39
Total	0	0	0	0	33	0	0	33	31	0	75	106	0	1	16	17	156
05:00 PM	0	0	0	0	7	0	0	7	3	0	20	23	0	0	2	2	32
05:15 PM	0	0	0	0	2	0	0	2	3	0	22	25	0	0	7	7	34
05:30 PM	0	1	1	2	10	0	0	10	8	2	20	30	0	0	3	3	45
05:45 PM	0	1	0	1	13	0	0	13	1	0	21	22	0	0	3	3	39
Total	0	2	1	3	32	0	0	32	15	2	83	100	0	0	15	15	150
Grand Total	0	2	1	3	65	0	0	65	46	2	158	206	0	1	31	32	306
Apprch %	0	66.7	33.3		100	0	0		22.3	1	76.7		0	3.1	96.9		
Total %	0	0.7	0.3	1	21.2	0	0	21.2	15	0.7	51.6	67.3	0	0.3	10.1	10.5	

	Wingfield Springs Road Southbound				Poco Bueno Circle Westbound				Wingfield Springs Road Northbound				Poco Bueno Circle Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	12	0	0	12	7	0	16	23	0	0	6	6	41
04:15 PM	0	0	0	0	6	0	0	6	5	0	19	24	0	0	6	6	36
04:30 PM	0	0	0	0	5	0	0	5	12	0	22	34	0	1	0	1	40
04:45 PM	0	0	0	0	10	0	0	10	7	0	18	25	0	0	4	4	39
Total Volume	0	0	0	0	33	0	0	33	31	0	75	106	0	1	16	17	156
% App. Total	0	0	0		100	0	0		29.2	0	70.8		0	5.9	94.1		
PHF	.000	.000	.000	.000	.688	.000	.000	.688	.646	.000	.852	.779	.000	.250	.667	.708	.951

City of Sparks, NV
N/S: Wingfield Springs Road
E/W: Poco Bueno Circle
Weather: Clear

File Name : 20_SPK_Wf Sp_PoBu PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:30 PM				04:00 PM			
+0 mins.	0	0	0	0	12	0	0	12	12	0	22	34	0	0	6	6
+15 mins.	0	0	0	0	6	0	0	6	7	0	18	25	0	0	6	6
+30 mins.	0	1	1	2	5	0	0	5	3	0	20	23	0	1	0	1
+45 mins.	0	1	0	1	10	0	0	10	3	0	22	25	0	0	4	4
Total Volume	0	2	1	3	33	0	0	33	25	0	82	107	0	1	16	17
% App. Total	0	66.7	33.3		100	0	0		23.4	0	76.6		0	5.9	94.1	
PHF	.000	.500	.250	.375	.688	.000	.000	.688	.521	.000	.932	.787	.000	.250	.667	.708

City of Sparks, NV
N/S: Scorpius Drive/Homerun Drive
E/W: Vista Boulevard
Weather: Clear

File Name : 04_SPK_Hr_Vista AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

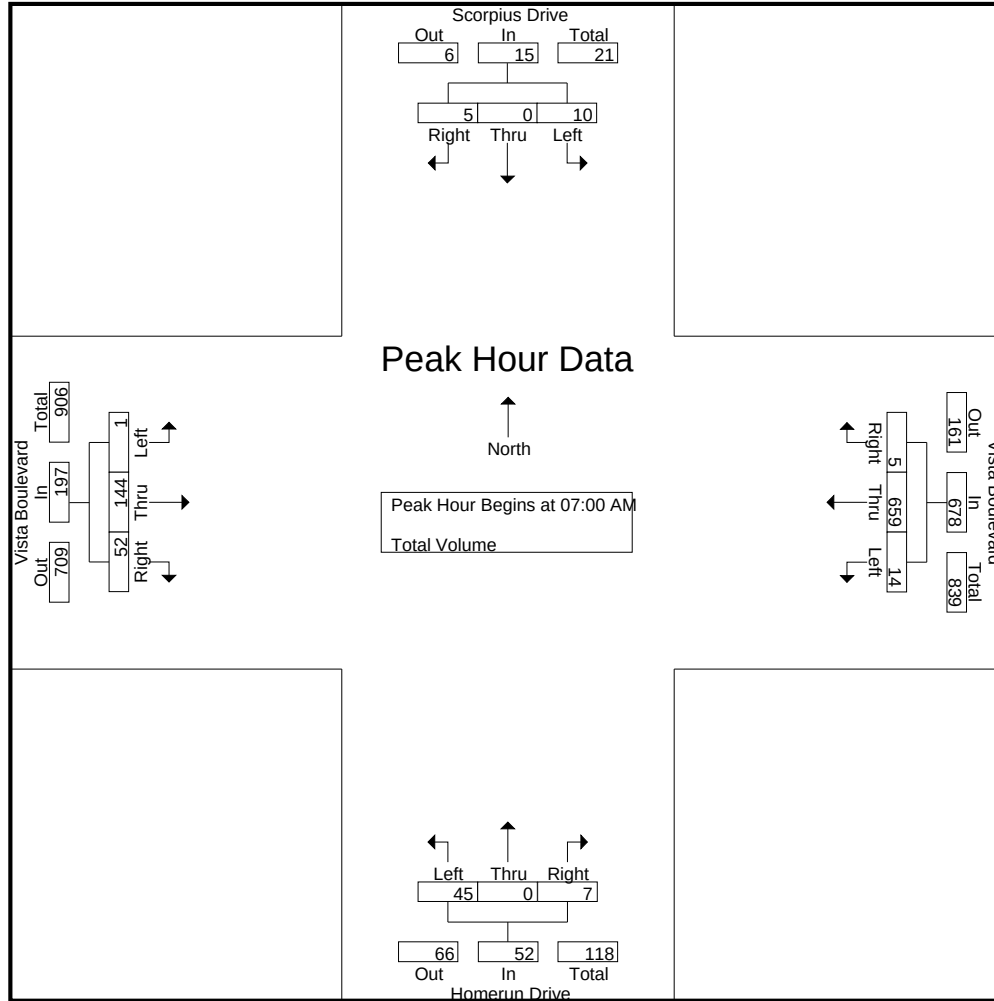
Groups Printed- Total Volume

	Scorpius Drive Southbound				Vista Boulevard Westbound				Homerun Drive Northbound				Vista Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	0	1	3	7	196	0	203	8	0	3	11	0	24	12	36	253
07:15 AM	1	0	2	3	3	190	0	193	14	0	1	15	0	43	14	57	268
07:30 AM	4	0	1	5	0	136	1	137	12	0	3	15	0	42	16	58	215
07:45 AM	3	0	1	4	4	137	4	145	11	0	0	11	1	35	10	46	206
Total	10	0	5	15	14	659	5	678	45	0	7	52	1	144	52	197	942
08:00 AM	1	0	2	3	1	143	1	145	7	0	4	11	0	34	9	43	202
08:15 AM	0	0	2	2	1	160	2	163	10	0	1	11	0	30	11	41	217
08:30 AM	1	0	2	3	2	146	1	149	16	0	2	18	0	44	8	52	222
08:45 AM	5	0	1	6	0	110	1	111	7	0	4	11	0	52	8	60	188
Total	7	0	7	14	4	559	5	568	40	0	11	51	0	160	36	196	829
Grand Total	17	0	12	29	18	1218	10	1246	85	0	18	103	1	304	88	393	1771
Apprch %	58.6	0	41.4		1.4	97.8	0.8		82.5	0	17.5		0.3	77.4	22.4		
Total %	1	0	0.7	1.6	1	68.8	0.6	70.4	4.8	0	1	5.8	0.1	17.2	5	22.2	

	Scorpius Drive Southbound				Vista Boulevard Westbound				Homerun Drive Northbound				Vista Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	0	1	3	7	196	0	203	8	0	3	11	0	24	12	36	253
07:15 AM	1	0	2	3	3	190	0	193	14	0	1	15	0	43	14	57	268
07:30 AM	4	0	1	5	0	136	1	137	12	0	3	15	0	42	16	58	215
07:45 AM	3	0	1	4	4	137	4	145	11	0	0	11	1	35	10	46	206
Total Volume	10	0	5	15	14	659	5	678	45	0	7	52	1	144	52	197	942
% App. Total	66.7	0	33.3		2.1	97.2	0.7		86.5	0	13.5		0.5	73.1	26.4		
PHF	.625	.000	.625	.750	.500	.841	.313	.835	.804	.000	.583	.867	.250	.837	.813	.849	.879

City of Sparks, NV
N/S: Scorpius Drive/Homerun Drive
E/W: Vista Boulevard
Weather: Clear

File Name : 04_SPK_Hr_Vista AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:15 AM			
+0 mins.	2	0	1	3	7	196	0	203	8	0	3	11	0	43	14	57
+15 mins.	1	0	2	3	3	190	0	193	14	0	1	15	0	42	16	58
+30 mins.	4	0	1	5	0	136	1	137	12	0	3	15	1	35	10	46
+45 mins.	3	0	1	4	4	137	4	145	11	0	0	11	0	34	9	43
Total Volume	10	0	5	15	14	659	5	678	45	0	7	52	1	154	49	204
% App. Total	66.7	0	33.3		2.1	97.2	0.7		86.5	0	13.5		0.5	75.5	24	
PHF	.625	.000	.625	.750	.500	.841	.313	.835	.804	.000	.583	.867	.250	.895	.766	.879

City of Sparks, NV
N/S: Scorpius Drive/Homerun Drive
E/W: Vista Boulevard
Weather: Clear

File Name : 04_SPK_Hr_Vista PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

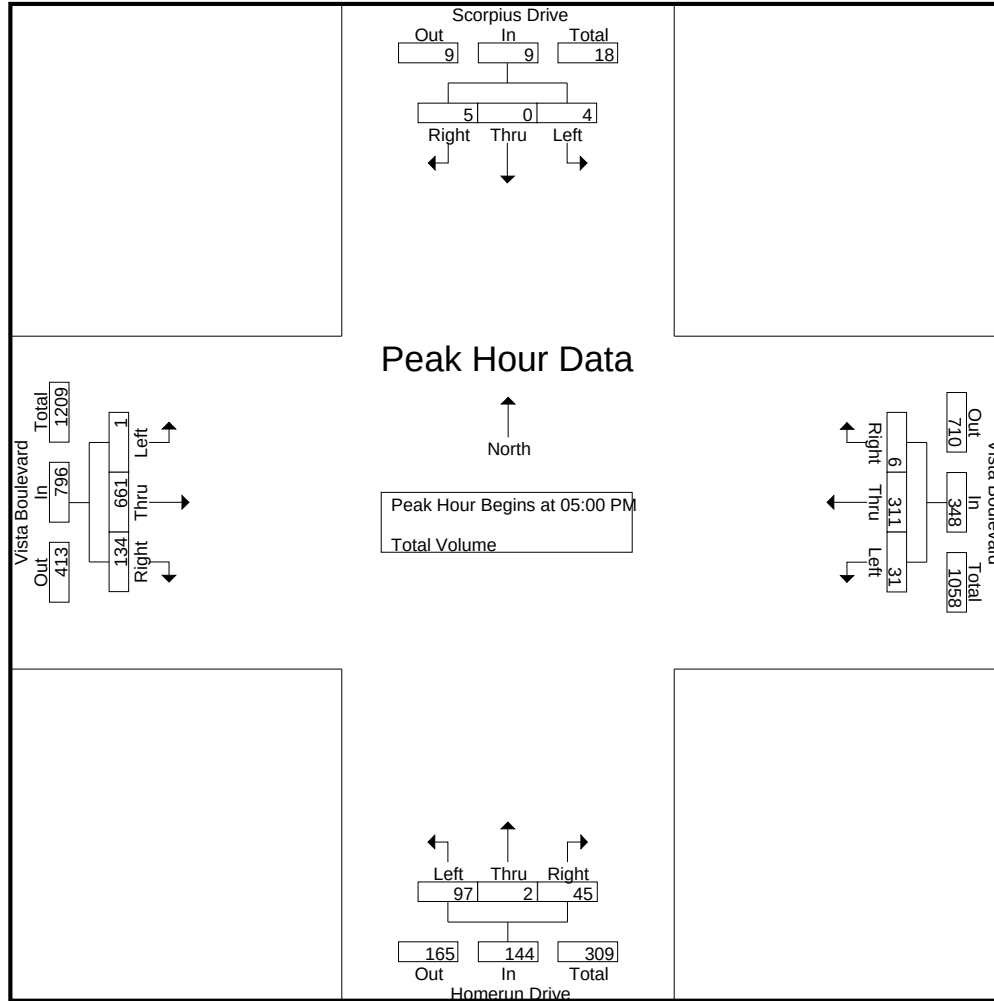
Groups Printed- Total Volume

	Scorpius Drive Southbound				Vista Boulevard Westbound				Homerun Drive Northbound				Vista Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	0	1	2	72	1	75	14	0	5	19	1	163	14	178	273
04:15 PM	3	0	1	4	5	92	0	97	9	0	6	15	0	150	20	170	286
04:30 PM	0	0	2	2	4	83	0	87	18	0	7	25	2	164	33	199	313
04:45 PM	1	0	0	1	1	71	1	73	12	0	8	20	0	164	38	202	296
Total	5	0	3	8	12	318	2	332	53	0	26	79	3	641	105	749	1168
05:00 PM	1	0	2	3	2	85	0	87	23	1	6	30	0	151	34	185	305
05:15 PM	0	0	1	1	7	75	3	85	19	1	12	32	0	181	27	208	326
05:30 PM	3	0	0	3	13	73	2	88	26	0	15	41	1	170	36	207	339
05:45 PM	0	0	2	2	9	78	1	88	29	0	12	41	0	159	37	196	327
Total	4	0	5	9	31	311	6	348	97	2	45	144	1	661	134	796	1297
Grand Total	9	0	8	17	43	629	8	680	150	2	71	223	4	1302	239	1545	2465
Apprch %	52.9	0	47.1		6.3	92.5	1.2		67.3	0.9	31.8		0.3	84.3	15.5		
Total %	0.4	0	0.3	0.7	1.7	25.5	0.3	27.6	6.1	0.1	2.9	9	0.2	52.8	9.7	62.7	

	Scorpius Drive Southbound				Vista Boulevard Westbound				Homerun Drive Northbound				Vista Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	0	2	3	2	85	0	87	23	1	6	30	0	151	34	185	305
05:15 PM	0	0	1	1	7	75	3	85	19	1	12	32	0	181	27	208	326
05:30 PM	3	0	0	3	13	73	2	88	26	0	15	41	1	170	36	207	339
05:45 PM	0	0	2	2	9	78	1	88	29	0	12	41	0	159	37	196	327
Total Volume	4	0	5	9	31	311	6	348	97	2	45	144	1	661	134	796	1297
% App. Total	44.4	0	55.6		8.9	89.4	1.7		67.4	1.4	31.2		0.1	83	16.8		
PHF	.333	.000	.625	.750	.596	.915	.500	.989	.836	.500	.750	.878	.250	.913	.905	.957	.956

City of Sparks, NV
N/S: Scorpius Drive/Homerun Drive
E/W: Vista Boulevard
Weather: Clear

File Name : 04_SPK_Hr_Vista PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				05:00 PM				05:00 PM				04:45 PM			
+0 mins.	3	0	1	4	2	85	0	87	23	1	6	30	0	164	38	202
+15 mins.	0	0	2	2	7	75	3	85	19	1	12	32	0	151	34	185
+30 mins.	1	0	0	1	13	73	2	88	26	0	15	41	0	181	27	208
+45 mins.	1	0	2	3	9	78	1	88	29	0	12	41	1	170	36	207
Total Volume	5	0	5	10	31	311	6	348	97	2	45	144	1	666	135	802
% App. Total	50	0	50		8.9	89.4	1.7		67.4	1.4	31.2		0.1	83	16.8	
PHF	.417	.000	.625	.625	.596	.915	.500	.989	.836	.500	.750	.878	.250	.920	.888	.964

City of Sparks, NV
N/S: Vista Boulevard
E/W: Sparks Fire Station #5
Weather: Clear

File Name : 05_SPK_Vista_SFS5 AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

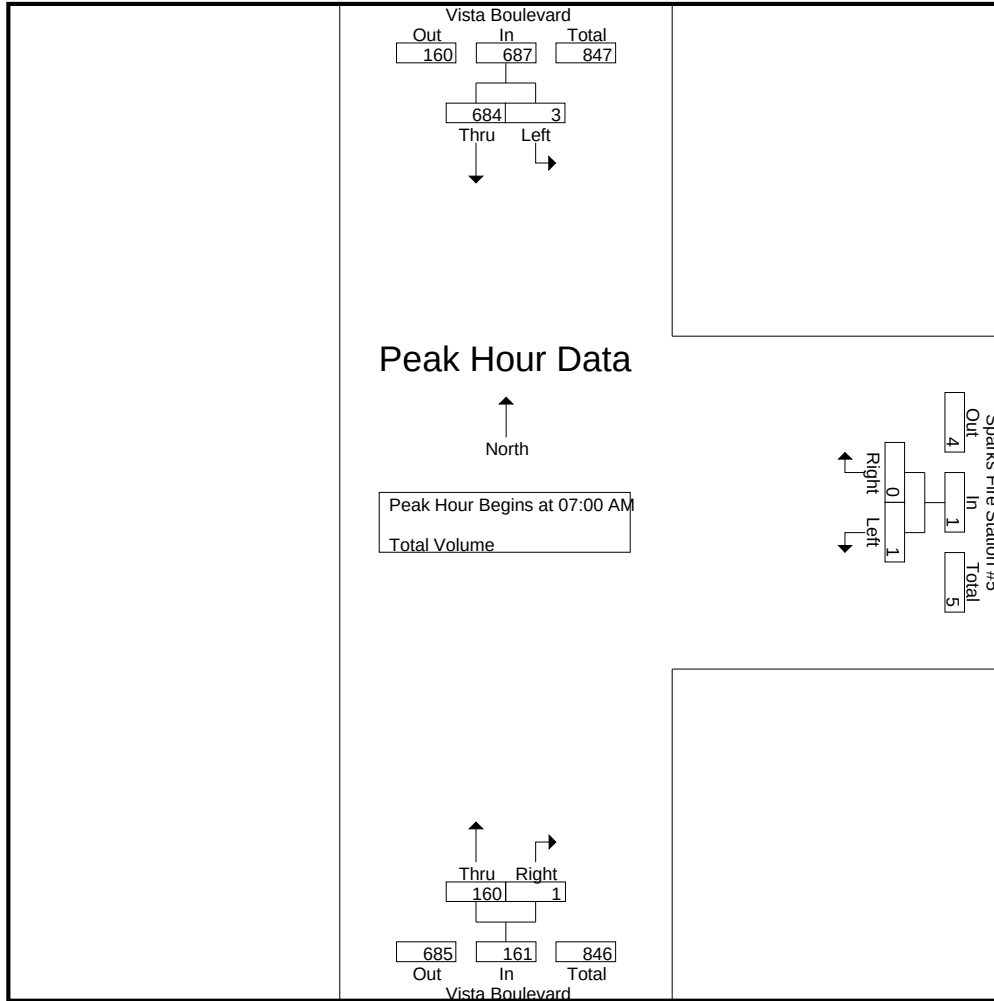
Groups Printed- Total Volume

	Vista Boulevard Southbound			Sparks Fire Station #5 Westbound			Vista Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	2	203	205	0	0	0	29	0	29	234
07:15 AM	0	195	195	0	0	0	43	0	43	238
07:30 AM	0	137	137	0	0	0	48	1	49	186
07:45 AM	1	149	150	1	0	1	40	0	40	191
Total	3	684	687	1	0	1	160	1	161	849
08:00 AM	0	139	139	0	0	0	37	0	37	176
08:15 AM	0	160	160	1	0	1	31	0	31	192
08:30 AM	0	148	148	0	0	0	47	0	47	195
08:45 AM	0	109	109	1	0	1	61	0	61	171
Total	0	556	556	2	0	2	176	0	176	734
Grand Total	3	1240	1243	3	0	3	336	1	337	1583
Apprch %	0.2	99.8		100	0		99.7	0.3		
Total %	0.2	78.3	78.5	0.2	0	0.2	21.2	0.1	21.3	

	Vista Boulevard Southbound			Sparks Fire Station #5 Westbound			Vista Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	2	203	205	0	0	0	29	0	29	234
07:15 AM	0	195	195	0	0	0	43	0	43	238
07:30 AM	0	137	137	0	0	0	48	1	49	186
07:45 AM	1	149	150	1	0	1	40	0	40	191
Total Volume	3	684	687	1	0	1	160	1	161	849
% App. Total	0.4	99.6		100	0		99.4	0.6		
PHF	.375	.842	.838	.250	.000	.250	.833	.250	.821	.892

City of Sparks, NV
N/S: Vista Boulevard
E/W: Sparks Fire Station #5
Weather: Clear

File Name : 05_SPK_Vista_SFS5 AM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			08:00 AM		
+0 mins.	2	203	205	0	0	0	37	0	37
+15 mins.	0	195	195	1	0	1	31	0	31
+30 mins.	0	137	137	0	0	0	47	0	47
+45 mins.	1	149	150	1	0	1	61	0	61
Total Volume	3	684	687	2	0	2	176	0	176
% App. Total	0.4	99.6		100	0		100	0	
PHF	.375	.842	.838	.500	.000	.500	.721	.000	.721

City of Sparks, NV
N/S: Vista Boulevard
E/W: Sparks Fire Station #5
Weather: Clear

File Name : 05_SPK_Vista_SFS5 PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

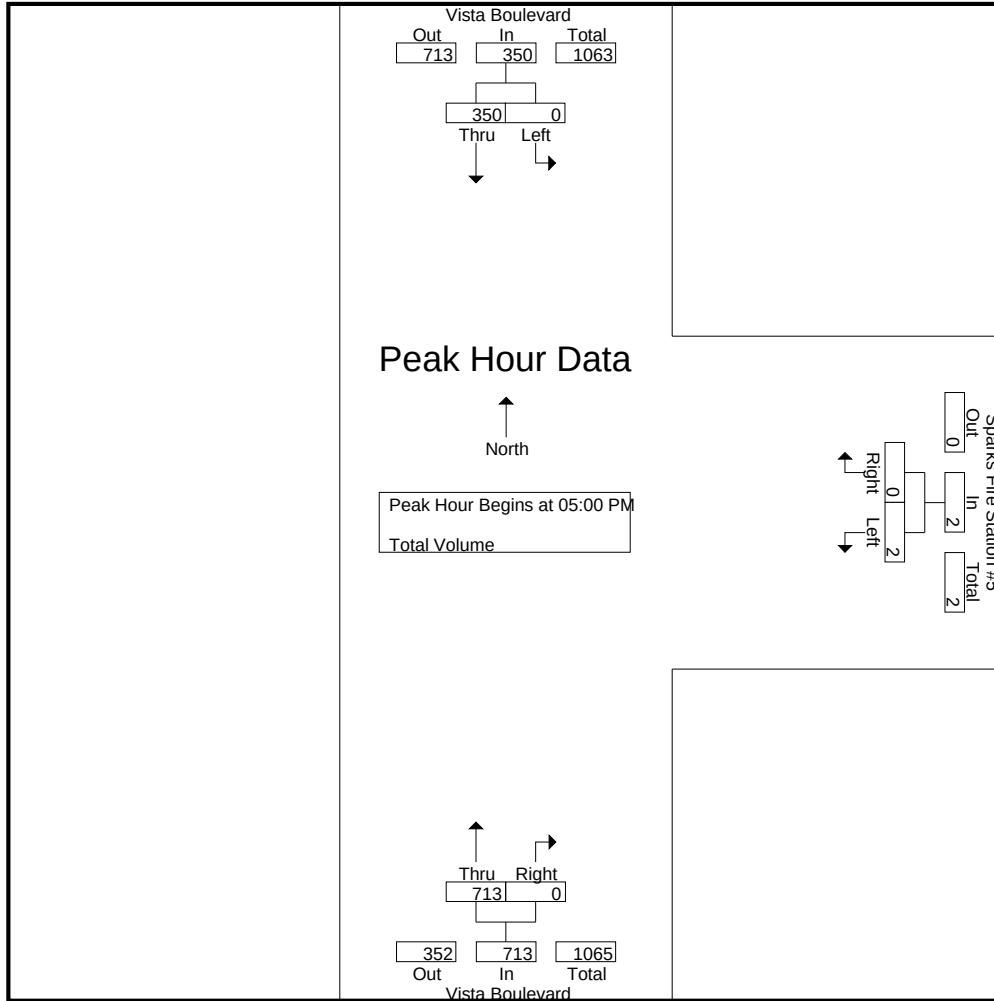
Groups Printed- Total Volume

	Vista Boulevard Southbound			Sparks Fire Station #5 Westbound			Vista Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	78	78	0	0	0	169	1	170	248
04:15 PM	0	92	92	0	0	0	149	0	149	241
04:30 PM	0	88	88	0	0	0	169	1	170	258
04:45 PM	0	72	72	0	0	0	177	0	177	249
Total	0	330	330	0	0	0	664	2	666	996
05:00 PM	0	88	88	0	0	0	158	0	158	246
05:15 PM	0	84	84	0	0	0	186	0	186	270
05:30 PM	0	94	94	0	0	0	191	0	191	285
05:45 PM	0	84	84	2	0	2	178	0	178	264
Total	0	350	350	2	0	2	713	0	713	1065
Grand Total	0	680	680	2	0	2	1377	2	1379	2061
Apprch %	0	100		100	0		99.9	0.1		
Total %	0	33	33	0.1	0	0.1	66.8	0.1	66.9	

	Vista Boulevard Southbound			Sparks Fire Station #5 Westbound			Vista Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	88	88	0	0	0	158	0	158	246
05:15 PM	0	84	84	0	0	0	186	0	186	270
05:30 PM	0	94	94	0	0	0	191	0	191	285
05:45 PM	0	84	84	2	0	2	178	0	178	264
Total Volume	0	350	350	2	0	2	713	0	713	1065
% App. Total	0	100		100	0		100	0		
PHF	.000	.931	.931	.250	.000	.250	.933	.000	.933	.934

City of Sparks, NV
N/S: Vista Boulevard
E/W: Sparks Fire Station #5
Weather: Clear

File Name : 05_SPK_Vista_SFS5 PM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	88	88	0	0	0	158	0	158
+15 mins.	0	84	84	0	0	0	186	0	186
+30 mins.	0	94	94	0	0	0	191	0	191
+45 mins.	0	84	84	2	0	2	178	0	178
Total Volume	0	350	350	2	0	2	713	0	713
% App. Total	0	100		100	0		100	0	
PHF	.000	.931	.931	.250	.000	.250	.933	.000	.933

City of Sparks, NV
N/S: Vista Boulevard
E/W: Black Hills Drive
Weather: Clear

File Name : 06_SPK_Vista_BlK H AM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

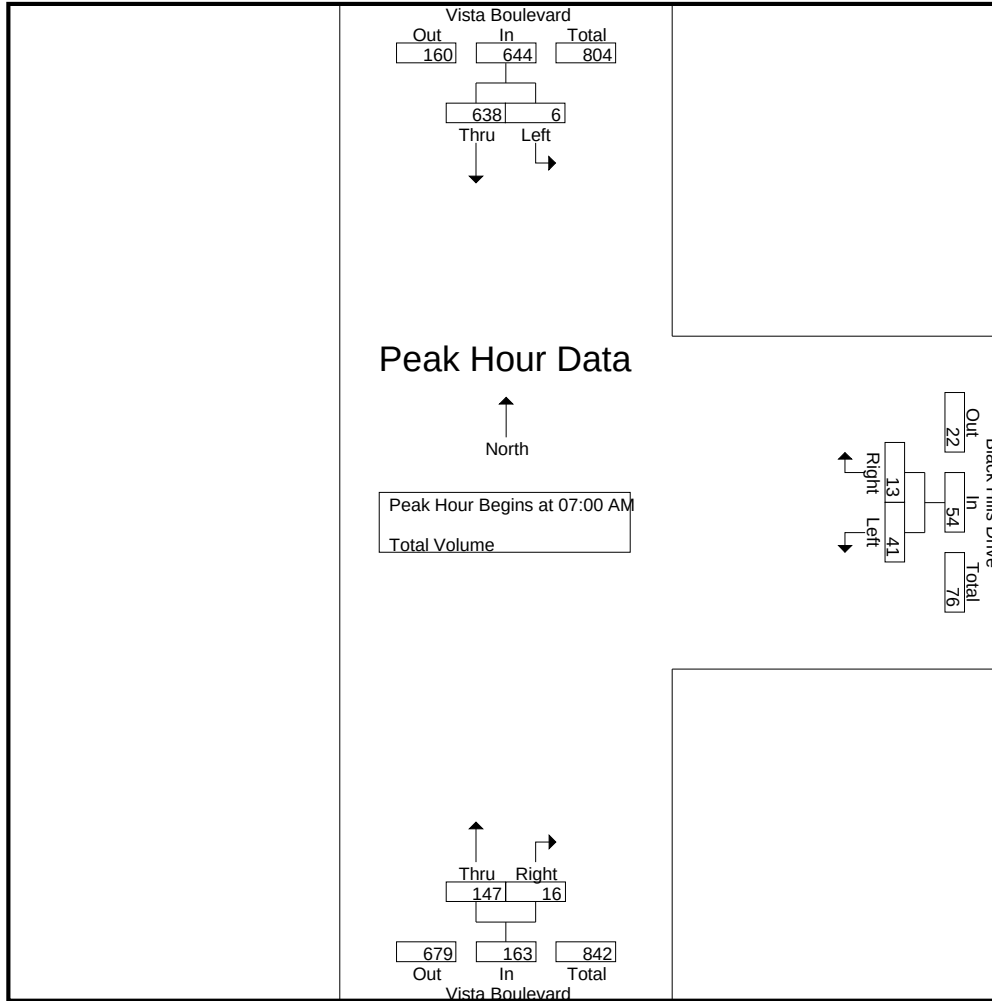
Groups Printed- Total Volume

	Vista Boulevard Southbound			Black Hills Drive Westbound			Vista Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	2	193	195	9	5	14	29	3	32	241
07:15 AM	1	182	183	15	0	15	39	4	43	241
07:30 AM	1	128	129	6	5	11	43	4	47	187
07:45 AM	2	135	137	11	3	14	36	5	41	192
Total	6	638	644	41	13	54	147	16	163	861
08:00 AM	1	131	132	9	0	9	33	2	35	176
08:15 AM	2	146	148	12	1	13	29	2	31	192
08:30 AM	0	138	138	9	2	11	44	2	46	195
08:45 AM	0	100	100	9	1	10	53	8	61	171
Total	3	515	518	39	4	43	159	14	173	734
Grand Total	9	1153	1162	80	17	97	306	30	336	1595
Apprch %	0.8	99.2		82.5	17.5		91.1	8.9		
Total %	0.6	72.3	72.9	5	1.1	6.1	19.2	1.9	21.1	

	Vista Boulevard Southbound			Black Hills Drive Westbound			Vista Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	2	193	195	9	5	14	29	3	32	241
07:15 AM	1	182	183	15	0	15	39	4	43	241
07:30 AM	1	128	129	6	5	11	43	4	47	187
07:45 AM	2	135	137	11	3	14	36	5	41	192
Total Volume	6	638	644	41	13	54	147	16	163	861
% App. Total	0.9	99.1		75.9	24.1		90.2	9.8		
PHF	.750	.826	.826	.683	.650	.900	.855	.800	.867	.893

City of Sparks, NV
N/S: Vista Boulevard
E/W: Black Hills Drive
Weather: Clear

File Name : 06_SPK_Vista_Bl H AM
Site Code : 251153
Start Date : 11/19/2025
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			08:00 AM		
+0 mins.	2	193	195	9	5	14	33	2	35
+15 mins.	1	182	183	15	0	15	29	2	31
+30 mins.	1	128	129	6	5	11	44	2	46
+45 mins.	2	135	137	11	3	14	53	8	61
Total Volume	6	638	644	41	13	54	159	14	173
% App. Total	0.9	99.1		75.9	24.1		91.9	8.1	
PHF	.750	.826	.826	.683	.650	.900	.750	.438	.709

City of Sparks, NV
N/S: Vista Boulevard
E/W: Black Hills Drive
Weather: Clear

File Name : 06_SPK_Vista_BlK H PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 1

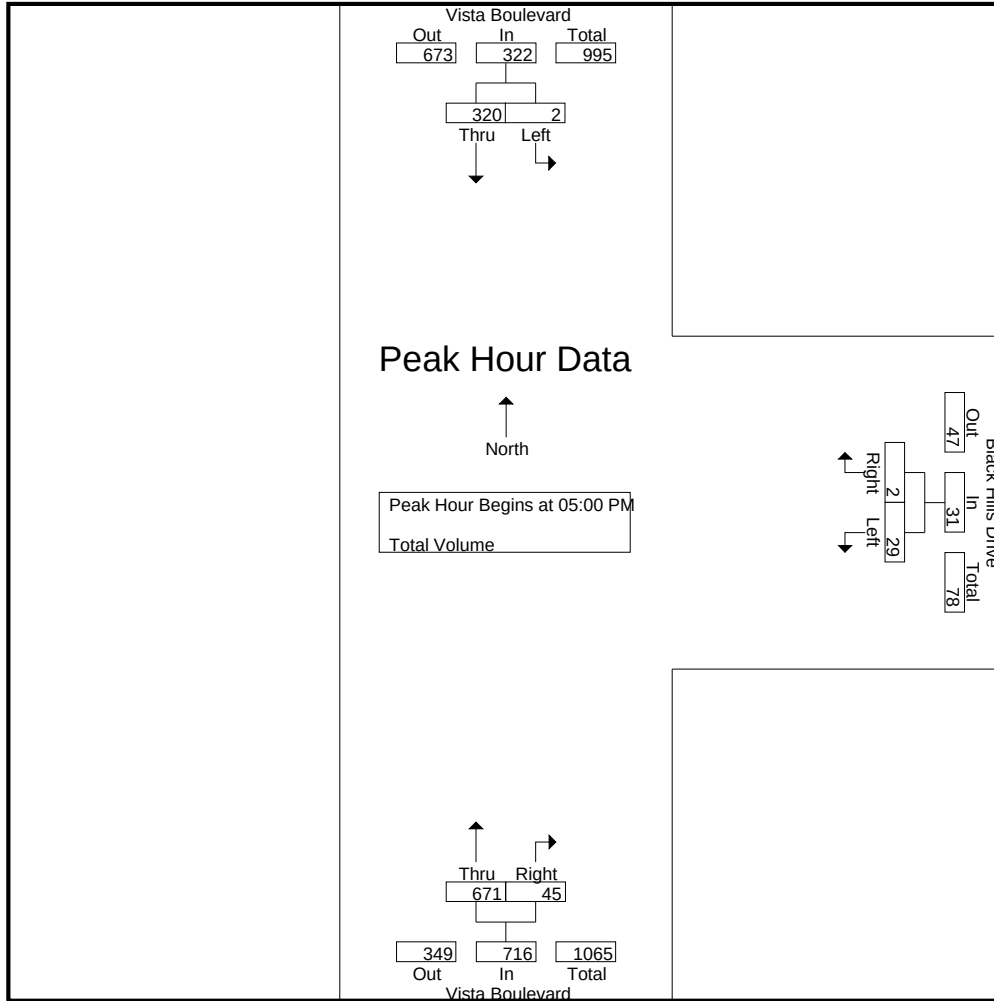
Groups Printed- Total Volume

	Vista Boulevard Southbound			Black Hills Drive Westbound			Vista Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	3	70	73	7	3	10	152	18	170	253
04:15 PM	0	84	84	4	0	4	141	9	150	238
04:30 PM	2	84	86	4	1	5	153	10	163	254
04:45 PM	2	66	68	8	1	9	160	19	179	256
Total	7	304	311	23	5	28	606	56	662	1001
05:00 PM	1	78	79	7	0	7	147	15	162	248
05:15 PM	0	80	80	4	1	5	177	12	189	274
05:30 PM	1	88	89	7	1	8	177	12	189	286
05:45 PM	0	74	74	11	0	11	170	6	176	261
Total	2	320	322	29	2	31	671	45	716	1069
Grand Total	9	624	633	52	7	59	1277	101	1378	2070
Apprch %	1.4	98.6		88.1	11.9		92.7	7.3		
Total %	0.4	30.1	30.6	2.5	0.3	2.9	61.7	4.9	66.6	

	Vista Boulevard Southbound			Black Hills Drive Westbound			Vista Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	1	78	79	7	0	7	147	15	162	248
05:15 PM	0	80	80	4	1	5	177	12	189	274
05:30 PM	1	88	89	7	1	8	177	12	189	286
05:45 PM	0	74	74	11	0	11	170	6	176	261
Total Volume	2	320	322	29	2	31	671	45	716	1069
% App. Total	0.6	99.4		93.5	6.5		93.7	6.3		
PHF	.500	.909	.904	.659	.500	.705	.948	.750	.947	.934

City of Sparks, NV
N/S: Vista Boulevard
E/W: Black Hills Drive
Weather: Clear

File Name : 06_SPK_Vista_Bl H PM
Site Code : 251153
Start Date : 11/19/2025
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			04:45 PM		
+0 mins.	1	78	79	7	0	7	160	19	179
+15 mins.	0	80	80	4	1	5	147	15	162
+30 mins.	1	88	89	7	1	8	177	12	189
+45 mins.	0	74	74	11	0	11	177	12	189
Total Volume	2	320	322	29	2	31	661	58	719
% App. Total	0.6	99.4		93.5	6.5		91.9	8.1	
PHF	.500	.909	.904	.659	.500	.705	.934	.763	.951

APPENDIX B | SYNCHRO, SIMTRAFFIC AND SIDRA LOS AND QUEUE REPORTS

HCM 7th Signalized Intersection Summary

1: Wingfield Hills Rd & Vista Blvd

Existing AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	203	0	5	1078	210	155	57	4	136	26	611
Future Volume (veh/h)	142	203	0	5	1078	210	155	57	4	136	26	611
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	169	242	0	6	1283	0	185	68	0	162	31	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	1860		14	1627		272	127		206	196	
Arrive On Green	0.07	0.52	0.00	0.01	0.46	0.00	0.08	0.07	0.00	0.12	0.10	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	169	242	0	6	1283	0	185	68	0	162	31	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.5	2.6	0.0	0.2	22.5	0.0	3.8	2.6	0.0	6.5	1.1	0.0
Cycle Q Clear(g_c), s	3.5	2.6	0.0	0.2	22.5	0.0	3.8	2.6	0.0	6.5	1.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	1860		14	1627		272	127		206	196	
V/C Ratio(X)	0.67	0.13		0.43	0.79		0.68	0.54		0.79	0.16	
Avail Cap(c_a), veh/h	324	2247		121	2155		352	944		494	1272	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.2	9.0	0.0	36.3	16.9	0.0	33.0	33.2	0.0	31.6	30.0	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.0	19.5	1.5	0.0	3.5	3.5	0.0	6.5	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.8	0.0	0.2	8.1	0.0	1.7	1.2	0.0	3.0	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.7	9.0	0.0	55.8	18.4	0.0	36.5	36.6	0.0	38.2	30.4	0.0
LnGrp LOS	D	A		E	B		D	D		D	C	
Approach Vol, veh/h	411			1289			253			193		
Approach Delay, s/veh	20.4			18.6			36.5			36.9		
Approach LOS	C			B			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.6	10.1	6.0	43.9	10.9	12.8	10.8	39.1				
Change Period (Y+Rc), s	5.1	5.1	5.4	5.4	5.1	5.1	5.4	5.4				
Max Green Setting (Gmax), s	20.4	37.1	5.0	46.5	7.5	50.0	6.9	44.6				
Max Q Clear Time (g_c+I1), s	8.5	4.6	2.2	4.6	5.8	3.1	5.5	24.5				
Green Ext Time (p_c), s	0.3	0.3	0.0	1.5	0.1	0.1	0.1	9.1				

Intersection Summary

HCM 7th Control Delay, s/veh	22.7
HCM 7th LOS	C

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑↑↑			↑
Traffic Vol, veh/h	0	338	1297	3	0	7
Future Vol, veh/h	0	338	1297	3	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	393	1508	3	0	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	756
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	301
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	301
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		17.29		
HCM LOS	C					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	301		
HCM Lane V/C Ratio	-	-	-	0.027		
HCM Ctrl Dly (s/v)	-	-	-	17.3		
HCM Lane LOS	-	-	-	C		
HCM 95th %tile Q(veh)	-	-	-	0.1		

HCM 7th Signalized Intersection Summary

3: Wingfield Pkwy & Vista Blvd

Existing AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	193	14	9	727	7	61	12	9	2	14	507
Future Volume (veh/h)	135	193	14	9	727	7	61	12	9	2	14	507
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	157	224	16	10	845	8	71	14	10	2	16	590
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	237	1099	78	22	974	9	91	425	303	5	692	696
Arrive On Green	0.07	0.33	0.33	0.01	0.27	0.27	0.05	0.42	0.42	0.00	0.37	0.37
Sat Flow, veh/h	3456	3365	239	1781	3607	34	1781	1015	725	1781	1870	1585
Grp Volume(v), veh/h	157	118	122	10	416	437	71	0	24	2	16	590
Grp Sat Flow(s),veh/h/ln	1728	1777	1827	1781	1777	1864	1781	0	1740	1781	1870	1585
Q Serve(g_s), s	3.7	4.0	4.0	0.5	18.6	18.6	3.3	0.0	0.7	0.1	0.5	27.7
Cycle Q Clear(g_c), s	3.7	4.0	4.0	0.5	18.6	18.6	3.3	0.0	0.7	0.1	0.5	27.7
Prop In Lane	1.00		0.13	1.00		0.02	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	237	580	596	22	480	504	91	0	728	5	692	696
V/C Ratio(X)	0.66	0.20	0.21	0.45	0.87	0.87	0.78	0.00	0.03	0.41	0.02	0.85
Avail Cap(c_a), veh/h	439	648	666	107	529	555	115	0	728	107	767	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	20.3	20.3	40.9	29.0	29.0	39.1	0.0	14.3	41.5	16.7	20.9
Incr Delay (d2), s/veh	3.1	0.2	0.2	13.8	13.4	12.8	22.6	0.0	0.0	48.0	0.0	8.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.6	1.6	0.3	9.2	9.5	2.0	0.0	0.3	0.1	0.2	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.0	20.4	20.4	54.7	42.4	41.8	61.7	0.0	14.3	89.5	16.7	29.3
LnGrp LOS	D	C	C	D	D	D	E		B	F	B	C
Approach Vol, veh/h	397			863			95			608		
Approach Delay, s/veh	28.6			42.2			49.7			29.2		
Approach LOS	C			D			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	39.5	6.4	32.6	8.9	35.5	11.1	27.9				
Change Period (Y+Rc), s	4.6	4.6	5.4	5.4	4.6	4.6	5.4	5.4				
Max Green Setting (Gmax), s	5.0	34.6	5.0	30.4	5.4	34.2	10.6	24.8				
Max Q Clear Time (g_c+I1), s	2.1	2.7	2.5	6.0	5.3	29.7	5.7	20.6				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.2	0.0	1.1	0.2	1.9				
Intersection Summary												
HCM 7th Control Delay, s/veh	35.8											
HCM 7th LOS	D											

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	49	0	1	0	136	18	3	471	0
Future Vol, veh/h	0	0	0	49	0	1	0	136	18	3	471	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	60	0	1	0	168	22	4	581	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	673	779	291	477	768	95	581	0	0	190	0	0
Stage 1	589	589	-	179	179	-	-	-	-	-	-	-
Stage 2	84	190	-	298	589	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	341	326	706	471	331	943	989	-	-	1381	-	-
Stage 1	462	494	-	805	750	-	-	-	-	-	-	-
Stage 2	915	742	-	686	494	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	339	325	706	470	329	943	989	-	-	1381	-	-
Mov Cap-2 Maneuver	339	325	-	470	329	-	-	-	-	-	-	-
Stage 1	460	492	-	805	750	-	-	-	-	-	-	-
Stage 2	913	742	-	684	492	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	13.72	0	0.07
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	989	-	-	-	474	23	-
HCM Lane V/C Ratio	-	-	-	-	0.13	0.003	-
HCM Ctrl Dly (s/v)	0	-	-	0	13.7	7.6	0
HCM Lane LOS	A	-	-	A	B	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0	-

HCM 7th AWSC

5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs RdExisting AM Peak Hour

Intersection	
Intersection Delay, s/veh	12.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	13	123	338	5	8	33	17	87	5	7	0
Future Vol, veh/h	1	13	123	338	5	8	33	17	87	5	7	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	17	164	451	7	11	44	23	116	7	9	0
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	8.9	15.9	9.6	9.2
HCM LOS	A	C	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	66%	0%	1%	96%	42%
Vol Thru, %	34%	0%	9%	1%	58%
Vol Right, %	0%	100%	90%	2%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	87	137	351	12
LT Vol	33	0	1	338	5
Through Vol	17	0	13	5	7
RT Vol	0	87	123	8	0
Lane Flow Rate	67	116	183	468	16
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.118	0.172	0.228	0.63	0.027
Departure Headway (Hd)	6.397	5.352	4.498	4.846	6.077
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	555	662	789	739	593
Service Time	4.193	3.147	2.575	2.906	4.077
HCM Lane V/C Ratio	0.121	0.175	0.232	0.633	0.027
HCM Control Delay, s/veh	10.1	9.3	8.9	15.9	9.2
HCM Lane LOS	B	A	A	C	A
HCM 95th-tile Q	0.4	0.6	0.9	4.5	0.1

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	44	0	13	0	90	18	6	311	0
Future Vol, veh/h	0	0	0	44	0	13	0	90	18	6	311	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	56	0	17	0	115	23	8	399	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	529	553	399	541	541	127	399	0	0	138	0	0
Stage 1	414	414	-	127	127	-	-	-	-	-	-	-
Stage 2	115	138	-	414	414	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	460	441	651	452	448	923	1160	-	-	1445	-	-
Stage 1	615	593	-	877	791	-	-	-	-	-	-	-
Stage 2	889	782	-	615	593	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	449	438	651	449	445	923	1160	-	-	1445	-	-
Mov Cap-2 Maneuver	449	438	-	449	445	-	-	-	-	-	-	-
Stage 1	611	589	-	877	791	-	-	-	-	-	-	-
Stage 2	873	782	-	611	589	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	13.27	0	0.14
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1160	-	-	-	508	34	-
HCM Lane V/C Ratio	-	-	-	-	0.144	0.005	-
HCM Ctrl Dly (s/v)	0	-	-	0	13.3	7.5	0
HCM Lane LOS	A	-	-	A	B	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	2	101	315	1
Future Vol, veh/h	1	1	2	101	315	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	4	202	630	2

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	841	631	632	0	-	0
Stage 1	631	-	-	-	-	-
Stage 2	210	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	335	481	951	-	-	-
Stage 1	530	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	333	481	951	-	-	-
Mov Cap-2 Maneuver	333	-	-	-	-	-
Stage 1	528	-	-	-	-	-
Stage 2	825	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	14.24	0.17	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	35	-	394	-	-
HCM Lane V/C Ratio	0.004	-	0.01	-	-
HCM Ctrl Dly (s/v)	8.8	0	14.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC

8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South) Existing AM Peak Hour

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	1	23	0	4	2	90	9	1	286	1
Future Vol, veh/h	1	0	1	23	0	4	2	90	9	1	286	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	2	37	0	6	3	143	14	2	454	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	607	621	455	613	615	150	456	0	0	157	0	0
Stage 1	458	458	-	156	156	-	-	-	-	-	-	-
Stage 2	149	163	-	457	459	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	408	403	605	404	407	896	1105	-	-	1423	-	-
Stage 1	583	567	-	846	768	-	-	-	-	-	-	-
Stage 2	853	763	-	583	567	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	404	401	605	401	405	896	1105	-	-	1423	-	-
Mov Cap-2 Maneuver	404	401	-	401	405	-	-	-	-	-	-	-
Stage 1	582	566	-	843	766	-	-	-	-	-	-	-
Stage 2	845	760	-	581	566	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	12.48		14.13		0.16		0.03	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	35	-	-	484	437	6	-
HCM Lane V/C Ratio	0.003	-	-	0.007	0.098	0.001	-
HCM Ctrl Dly (s/v)	8.3	0	-	12.5	14.1	7.5	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	2	1	92	288	0
Future Vol, veh/h	3	2	1	92	288	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	3	1	123	384	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	509	384	384	0	-	0
Stage 1	384	-	-	-	-	-
Stage 2	125	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	524	664	1174	-	-	-
Stage 1	688	-	-	-	-	-
Stage 2	900	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	523	664	1174	-	-	-
Mov Cap-2 Maneuver	523	-	-	-	-	-
Stage 1	688	-	-	-	-	-
Stage 2	900	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	11.37	0.09		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	19	-	572	-	-	
HCM Lane V/C Ratio	0.001	-	0.012	-	-	
HCM Ctrl Dly (s/v)	8.1	0	11.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

HCM 7th TWSC

10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Existing AM Peak Hour

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	19	2	0	6	9	86	1	2	263	1
Future Vol, veh/h	0	0	19	2	0	6	9	86	1	2	263	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	31	3	0	10	15	141	2	3	431	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	609	611	432	609	611	142	433	0	0	143	0	0
Stage 1	439	439	-	171	171	-	-	-	-	-	-	-
Stage 2	170	172	-	438	439	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	407	409	624	407	409	906	1127	-	-	1440	-	-
Stage 1	597	578	-	831	757	-	-	-	-	-	-	-
Stage 2	831	756	-	598	578	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	396	402	624	380	402	906	1127	-	-	1440	-	-
Mov Cap-2 Maneuver	396	402	-	380	402	-	-	-	-	-	-	-
Stage 1	595	577	-	819	746	-	-	-	-	-	-	-
Stage 2	811	746	-	566	576	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	11.08		10.45		0.77		0.06	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	168	-	-	624	673	14	-
HCM Lane V/C Ratio	0.013	-	-	0.05	0.019	0.002	-
HCM Ctrl Dly (s/v)	8.2	0	-	11.1	10.5	7.5	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-

HCM 7th TWSC

11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Existing AM Peak Hour

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	3	12	8	3	5	4	58	2	5	151	11
Future Vol, veh/h	31	3	12	8	3	5	4	58	2	5	151	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	4	17	11	4	7	6	81	3	7	210	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	325	326	217	319	332	82	225	0	0	83	0	0
Stage 1	231	231	-	93	93	-	-	-	-	-	-	-
Stage 2	94	94	-	226	239	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	628	592	822	634	588	978	1344	-	-	1514	-	-
Stage 1	772	713	-	914	818	-	-	-	-	-	-	-
Stage 2	913	817	-	777	708	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	613	587	822	611	582	978	1344	-	-	1514	-	-
Mov Cap-2 Maneuver	613	587	-	611	582	-	-	-	-	-	-	-
Stage 1	768	709	-	910	814	-	-	-	-	-	-	-
Stage 2	898	813	-	753	704	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	11.09		10.43		0.48		0.22	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	112	-	-	655	685	53	-
HCM Lane V/C Ratio	0.004	-	-	0.098	0.032	0.005	-
HCM Ctrl Dly (s/v)	7.7	0	-	11.1	10.4	7.4	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0	-

Intersection

Int Delay, s/veh 1

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations

Traffic Vol, veh/h 38 2 3 19 1 4

Future Vol, veh/h 38 2 3 19 1 4

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 83 83 83 83 83 83

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 46 2 4 23 1 5

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 48 0 77 47

Stage 1 - - - - 47 -

Stage 2 - - - - 30 -

Critical Hdwy - - 4.12 - 6.42 6.22

Critical Hdwy Stg 1 - - - - 5.42 -

Critical Hdwy Stg 2 - - - - 5.42 -

Follow-up Hdwy - - 2.218 - 3.518 3.318

Pot Cap-1 Maneuver - - 1559 - 926 1022

Stage 1 - - - - 975 -

Stage 2 - - - - 992 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1559 - 924 1022

Mov Cap-2 Maneuver - - - - 924 -

Stage 1 - - - - 975 -

Stage 2 - - - - 990 -

Approach EB WB NB

HCM Ctrl Dly, s/v 0 1 8.62

HCM LOS A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 1001 - - 245 -

HCM Lane V/C Ratio 0.006 - - 0.002 -

HCM Ctrl Dly (s/v) 8.6 - - 7.3 0

HCM Lane LOS A - - A A

HCM 95th %tile Q(veh) 0 - - 0 -

Intersection

Int Delay, s/veh 2.8

Movement EBT EBR WBL WBT NBL NBRLane Configurations 

Traffic Vol, veh/h 25 0 8 11 0 11

Future Vol, veh/h 25 0 8 11 0 11

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 69 69 69 69 69 69

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 36 0 12 16 0 16

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 36 0 75 36

Stage 1 - - - - 36 -

Stage 2 - - - - 39 -

Critical Hdwy - - 4.12 - 6.42 6.22

Critical Hdwy Stg 1 - - - - 5.42 -

Critical Hdwy Stg 2 - - - - 5.42 -

Follow-up Hdwy - - 2.218 - 3.518 3.318

Pot Cap-1 Maneuver - - 1575 - 928 1036

Stage 1 - - - - 986 -

Stage 2 - - - - 983 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1575 - 921 1036

Mov Cap-2 Maneuver - - - - 921 -

Stage 1 - - - - 986 -

Stage 2 - - - - 976 -

Approach EB WB NB

HCM Ctrl Dly, s/v 0 3.08 8.53

HCM LOS A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 1036 - - 758 -

HCM Lane V/C Ratio 0.015 - - 0.007 -

HCM Ctrl Dly (s/v) 8.5 - - 7.3 0

HCM Lane LOS A - - A A

HCM 95th %tile Q(veh) 0 - - 0 -

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	5	0	0	5	9	0	0	0	18	0	0
Future Vol, veh/h	0	5	0	0	5	9	0	0	0	18	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	0	0	7	12	0	0	0	24	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	19	0	0	7	0	0	13	25	7	19	19	13
Stage 1	-	-	-	-	-	-	7	7	-	13	13	-
Stage 2	-	-	-	-	-	-	7	19	-	7	7	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1598	-	-	1614	-	-	1003	868	1076	994	875	1068
Stage 1	-	-	-	-	-	-	1015	890	-	1008	885	-
Stage 2	-	-	-	-	-	-	1015	880	-	1015	890	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1598	-	-	1614	-	-	1003	868	1076	994	875	1068
Mov Cap-2 Maneuver	-	-	-	-	-	-	1003	868	-	994	875	-
Stage 1	-	-	-	-	-	-	1015	890	-	1008	885	-
Stage 2	-	-	-	-	-	-	1015	880	-	1015	890	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0	8.71
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1598	-	-	1614	-	-	994
HCM Lane V/C Ratio	-	-	-	-	-	-	-	0.024
HCM Ctrl Dly (s/v)	0	0	-	-	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1

HCM 7th TWSC
15: Island Queen Dr & Decoy Dr

Existing AM Peak Hour

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	1	8	1	2	8
Future Vol, veh/h	8	1	8	1	2	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	45	45	45	45	45	45
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	2	18	2	4	18

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	51	13	22	0	-	0
Stage 1	13	-	-	-	-	-
Stage 2	38	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	958	1067	1593	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	947	1067	1593	-	-	-
Mov Cap-2 Maneuver	947	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	985	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.83	6.48	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1591	-	959	-	-
HCM Lane V/C Ratio	0.011	-	0.021	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	8	17	0	0	31
Future Vol, veh/h	15	8	17	0	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	58	58	58	58	58	58
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	14	29	0	0	53

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	29	0	95
Stage 1	-	-	29
Stage 2	-	-	66
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1584	-	905
Stage 1	-	-	993
Stage 2	-	-	957
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1584	-	890
Mov Cap-2 Maneuver	-	-	890
Stage 1	-	-	977
Stage 2	-	-	957

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	4.77	0	8.63
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1174	-	-	-	1045
HCM Lane V/C Ratio	0.016	-	-	-	0.051
HCM Ctrl Dly (s/v)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	15	58	0	0	7	1	25	0	0	0
Future Vol, veh/h	0	1	15	58	0	0	7	1	25	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	23	88	0	0	11	2	38	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	24	0	0	189	189	13	178	200	0
Stage 1	-	-	-	-	-	-	13	13	-	176	176	-
Stage 2	-	-	-	-	-	-	176	176	-	2	24	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1590	-	-	772	706	1067	784	696	-
Stage 1	-	-	-	-	-	-	1007	885	-	826	754	-
Stage 2	-	-	-	-	-	-	826	754	-	1020	875	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1590	-	-	-	667	1067	713	657	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	667	-	713	657	-
Stage 1	-	-	-	-	-	-	1007	885	-	780	712	-
Stage 2	-	-	-	-	-	-	780	712	-	983	875	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	7.4		0
HCM LOS			-	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1590	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.055	-	-	-
HCM Ctrl Dly (s/v)	-	0	-	-	7.4	0	-	0
HCM Lane LOS	-	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.2	-	-	-

HCM 7th Signalized Intersection Summary

18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Existing AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Traffic Volume (veh/h)	1	144	52	14	659	5	45	0	7	10	0	5
Future Volume (veh/h)	1	144	52	14	659	5	45	0	7	10	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	164	59	16	749	6	51	0	8	11	0	6
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	1122	501	37	1211	10	224	0	100	24	0	13
Arrive On Green	0.00	0.32	0.32	0.02	0.34	0.34	0.06	0.00	0.06	0.02	0.00	0.02
Sat Flow, veh/h	1781	3554	1585	1781	3613	29	3563	0	1585	1104	0	602
Grp Volume(v), veh/h	1	164	59	16	368	387	51	0	8	17	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1865	1781	0	1585	1707	0	0
Q Serve(g_s), s	0.0	1.1	0.9	0.3	5.9	5.9	0.5	0.0	0.2	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.1	0.9	0.3	5.9	5.9	0.5	0.0	0.2	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.65		0.35
Lane Grp Cap(c), veh/h	5	1122	501	37	595	625	224	0	100	37	0	0
V/C Ratio(X)	0.19	0.15	0.12	0.44	0.62	0.62	0.23	0.00	0.08	0.46	0.00	0.00
Avail Cap(c_a), veh/h	263	2005	894	263	1002	1052	2999	0	1334	897	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.9	8.3	8.2	16.4	9.4	9.4	15.1	0.0	14.9	16.4	0.0	0.0
Incr Delay (d2), s/veh	16.6	0.1	0.1	7.9	1.1	1.0	0.5	0.0	0.3	8.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.2	0.2	1.6	1.7	0.2	0.0	0.1	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.5	8.4	8.3	24.3	10.5	10.4	15.6	0.0	15.3	24.8	0.0	0.0
LnGrp LOS	C	A	A	C	B	B	B		B	C		
Approach Vol, veh/h	224			771			59			17		
Approach Delay, s/veh	8.5			10.8			15.6			24.8		
Approach LOS	A			B			B			C		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	6.8		5.8	15.8		5.4		5.1	16.4			
Change Period (Y+Rc), s	4.7		5.1	5.1		4.7		5.1	5.1			
Max Green Setting (Gmax), s	28.5		5.0	19.1		17.8		5.0	19.1			
Max Q Clear Time (g_c+l1), s	2.5		2.3	3.1		2.3		2.0	7.9			
Green Ext Time (p_c), s	0.1		0.0	1.0		0.0		0.0	3.5			
Intersection Summary												
HCM 7th Control Delay, s/veh	10.8											
HCM 7th LOS	B											
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 7th Signalized Intersection Summary

19: Fire Station Access & Vista Blvd

Existing AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Volume (veh/h)	160	1	3	684	1	0
Future Volume (veh/h)	160	1	3	684	1	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	222	1	4	950	0	0
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2400	11	1259	2351	0	0
Arrive On Green	0.66	0.66	0.66	0.66	0.00	0.00
Sat Flow, veh/h	3721	16	1158	3647	0	0
Grp Volume(v), veh/h	109	114	4	950	0	0
Grp Sat Flow(s), veh/h/ln	1777	1867	1158	1777	0	0
Q Serve(g_s), s	0.3	0.3	0.0	1.7	0.0	0.0
Cycle Q Clear(g_c), s	0.3	0.3	0.3	1.7	0.0	0.0
Prop In Lane		0.01	1.00		0.00	0.00
Lane Grp Cap(c), veh/h	1176	1235	1259	2351	0	0
V/C Ratio(X)	0.09	0.09	0.00	0.40	0.00	0.00
Avail Cap(c_a), veh/h	2277	2393	1977	4554	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.8	0.8	0.9	1.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.9	0.9	0.9	1.2	0.0	0.0
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h	223			954	0	
Approach Delay, s/veh	0.9			1.2	0.0	
Approach LOS	A			A		
Timer - Assigned Phs	2			4		8
Phs Duration (G+Y+Rc), s	0.0			13.9		13.9
Change Period (Y+Rc), s	4.7			4.7		4.7
Max Green Setting (Gmax), s	17.8			17.8		17.8
Max Q Clear Time (g_c+I1), s	0.0			2.3		3.7
Green Ext Time (p_c), s	0.0			1.0		5.6
Intersection Summary						
HCM 7th Control Delay, s/veh			1.1			
HCM 7th LOS			A			

Intersection

Int Delay, s/veh 1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	13	147	16	6	638
Future Vol, veh/h	41	13	147	16	6	638
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	18	207	23	8	899

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	673	104	0
Stage 1	207	-	-
Stage 2	466	-	-
Critical Hdwy	6.84	6.94	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	-
Pot Cap-1 Maneuver	388	931	-
Stage 1	807	-	-
Stage 2	598	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	386	931	-
Mov Cap-2 Maneuver	386	-	-
Stage 1	807	-	-
Stage 2	594	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	14.64	0	0.07
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	449	1336
HCM Lane V/C Ratio	-	-	0.169	0.006
HCM Ctrl Dly (s/v)	-	-	14.6	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	161	678	0	0	0
Future Vol, veh/h	0	161	678	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	175	737	0	0	0
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	368
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	629
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	629
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	-		
HCM Lane V/C Ratio	-	-	-	-		
HCM Ctrl Dly (s/v)	-	-	-	0		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	-		

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	163	687	0
Future Vol, veh/h	0	0	0	163	687	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	177	747	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 373	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 6.94	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.32	- -	- -
Pot Cap-1 Maneuver	0 624	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 624	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- -	- -	- -
HCM Lane V/C Ratio	- -	- -	- -
HCM Ctrl Dly (s/v)	- 0	- -	- -
HCM Lane LOS	- A	- -	- -
HCM 95th %tile Q(veh)	- -	- -	- -

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1	0	0
Stage 1	-	-	1
Stage 2	-	-	0
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1622	-	1022
Stage 1	-	-	1022
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1622	-	1022
Mov Cap-2 Maneuver	-	-	1022
Stage 1	-	-	1022
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 7th Signalized Intersection Summary

1: Wingfield Hills Rd & Vista Blvd

Existing PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	541	1052	0	7	540	117	77	18	3	229	53	294
Future Volume (veh/h)	541	1052	0	7	540	117	77	18	3	229	53	294
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	564	1096	0	7	562	0	80	19	0	239	55	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	706	1495		16	802		207	138		290	332	
Arrive On Green	0.20	0.42	0.00	0.01	0.23	0.00	0.06	0.07	0.00	0.16	0.18	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	564	1096	0	7	562	0	80	19	0	239	55	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	9.8	16.3	0.0	0.2	9.2	0.0	1.4	0.6	0.0	8.2	1.6	0.0
Cycle Q Clear(g_c), s	9.8	16.3	0.0	0.2	9.2	0.0	1.4	0.6	0.0	8.2	1.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	706	1495		16	802		207	138		290	332	
V/C Ratio(X)	0.80	0.73		0.43	0.70		0.39	0.14		0.82	0.17	
Avail Cap(c_a), veh/h	948	2159		141	1466		323	929		407	1181	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.9	15.3	0.0	31.1	22.4	0.0	28.5	27.3	0.0	25.5	22.0	0.0
Incr Delay (d2), s/veh	3.6	0.7	0.0	16.9	1.1	0.0	1.2	0.4	0.0	9.1	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	5.5	0.0	0.2	3.5	0.0	0.6	0.3	0.0	3.9	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.4	16.0	0.0	47.9	23.6	0.0	29.7	27.8	0.0	34.6	22.2	0.0
LnGrp LOS	C	B		D	C		C	C		C	C	
Approach Vol, veh/h	1660			569			99			294		
Approach Delay, s/veh	19.9			23.9			29.3			32.3		
Approach LOS	B			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	9.8	6.0	31.9	8.9	16.3	18.3	19.6				
Change Period (Y+Rc), s	5.1	5.1	5.4	5.4	5.1	5.1	5.4	5.4				
Max Green Setting (Gmax), s	14.4	31.3	5.0	38.3	5.9	39.8	17.3	26.0				
Max Q Clear Time (g_c+I1), s	10.2	2.6	2.2	18.3	3.4	3.6	11.8	11.2				
Green Ext Time (p_c), s	0.3	0.0	0.0	7.5	0.0	0.2	1.1	3.1				

Intersection Summary

HCM 7th Control Delay, s/veh	22.5
HCM 7th LOS	C

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 7th TWSC
2: Vista Blvd & Village A Access

Existing PM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑↑			↑
Traffic Vol, veh/h	0	1328	656	1	1	9
Future Vol, veh/h	0	1328	656	1	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1369	676	1	1	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	1361	339
Stage 1	-	-	-	-	677	-
Stage 2	-	-	-	-	685	-
Critical Hdwy	-	-	-	-	6.29	7.14
Critical Hdwy Stg 1	-	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	-	-	3.67	3.92
Pot Cap-1 Maneuver	0	-	-	-	168	561
Stage 1	0	-	-	-	390	-
Stage 2	0	-	-	-	449	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	168	561
Mov Cap-2 Maneuver	-	-	-	-	168	-
Stage 1	-	-	-	-	390	-
Stage 2	-	-	-	-	449	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		11.53		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	561		
HCM Lane V/C Ratio	-	-	-	0.017		
HCM Ctrl Dly (s/v)	-	-	-	11.5		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.1		

HCM 7th Signalized Intersection Summary

3: Wingfield Pkwy & Vista Blvd

Existing PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	445	818	59	7	364	21	24	4	3	12	5	251
Future Volume (veh/h)	445	818	59	7	364	21	24	4	3	12	5	251
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	464	852	61	7	379	22	25	4	3	12	5	261
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	664	1235	88	17	629	36	53	193	145	27	337	590
Arrive On Green	0.19	0.37	0.37	0.01	0.18	0.18	0.03	0.19	0.19	0.02	0.18	0.18
Sat Flow, veh/h	3456	3363	241	1781	3414	198	1781	992	744	1781	1870	1585
Grp Volume(v), veh/h	464	450	463	7	197	204	25	0	7	12	5	261
Grp Sat Flow(s),veh/h/ln	1728	1777	1827	1781	1777	1835	1781	0	1736	1781	1870	1585
Q Serve(g_s), s	6.1	10.4	10.4	0.2	4.9	4.9	0.7	0.0	0.2	0.3	0.1	6.0
Cycle Q Clear(g_c), s	6.1	10.4	10.4	0.2	4.9	4.9	0.7	0.0	0.2	0.3	0.1	6.0
Prop In Lane	1.00		0.13	1.00		0.11	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	664	653	671	17	328	338	53	0	337	27	337	590
V/C Ratio(X)	0.70	0.69	0.69	0.42	0.60	0.60	0.48	0.00	0.02	0.44	0.01	0.44
Avail Cap(c_a), veh/h	1330	1161	1194	184	662	683	199	0	1200	184	1277	1387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	13.0	13.0	23.8	18.1	18.1	23.1	0.0	15.8	23.6	16.3	11.4
Incr Delay (d2), s/veh	1.3	1.3	1.3	16.3	1.8	1.7	6.5	0.0	0.0	10.6	0.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.3	3.4	0.1	1.8	1.9	0.4	0.0	0.1	0.2	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.6	14.3	14.2	40.1	19.8	19.8	29.6	0.0	15.8	34.2	16.3	11.9
LnGrp LOS	B	B	B	D	B	B	C		B	C	B	B
Approach Vol, veh/h	1377			408			32			278		
Approach Delay, s/veh	16.0			20.2			26.6			13.0		
Approach LOS	B			C			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.3	14.0	5.8	23.2	6.0	13.3	14.7	14.3				
Change Period (Y+Rc), s	4.6	4.6	5.4	5.4	4.6	4.6	5.4	5.4				
Max Green Setting (Gmax), s	5.0	33.4	5.0	31.6	5.4	33.0	18.6	18.0				
Max Q Clear Time (g_c+I1), s	2.3	2.2	2.2	12.4	2.7	8.0	8.1	6.9				
Green Ext Time (p_c), s	0.0	0.0	0.0	5.4	0.0	0.9	1.3	1.6				
Intersection Summary												
HCM 7th Control Delay, s/veh	16.6											
HCM 7th LOS	B											

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	15	0	3	0	448	41	3	260	0
Future Vol, veh/h	0	0	0	15	0	3	0	448	41	3	260	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	16	0	3	0	492	45	3	286	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	538	830	143	664	807	269	286	0	0	537	0	0
Stage 1	292	292	-	515	515	-	-	-	-	-	-	-
Stage 2	246	537	-	149	292	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	426	304	879	346	314	729	1273	-	-	1027	-	-
Stage 1	691	669	-	511	533	-	-	-	-	-	-	-
Stage 2	736	521	-	838	669	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	422	303	879	345	313	729	1273	-	-	1027	-	-
Mov Cap-2 Maneuver	422	303	-	345	313	-	-	-	-	-	-	-
Stage 1	689	667	-	511	533	-	-	-	-	-	-	-
Stage 2	732	521	-	835	667	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	15.05	0	0.13
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1273	-	-	-	378	41	-
HCM Lane V/C Ratio	-	-	-	-	0.052	0.003	-
HCM Ctrl Dly (s/v)	0	-	-	0	15.1	8.5	0
HCM Lane LOS	A	-	-	A	C	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0	-

HCM 7th AWSC

5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs RdExisting PM Peak Hour

Intersection												
Intersection Delay, s/veh	10.8											
Intersection LOS	B											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	12	91	156	13	16	149	33	268	8	20	0
Future Vol, veh/h	0	12	91	156	13	16	149	33	268	8	20	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	106	181	15	19	173	38	312	9	23	0
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0
Approach	EB		WB			NB			SB			
Opposing Approach	WB		EB			SB			NB			
Opposing Lanes	1		1			1			2			
Conflicting Approach Left	SB		NB			EB			WB			
Conflicting Lanes Left	1		2			1			1			
Conflicting Approach Right	NB		SB			WB			EB			
Conflicting Lanes Right	2		1			1			1			
HCM Control Delay, s/veh	9		11.1			11.2			9			
HCM LOS	A		B			B			A			
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1							
Vol Left, %	82%	0%	0%	84%	29%							
Vol Thru, %	18%	0%	12%	7%	71%							
Vol Right, %	0%	100%	88%	9%	0%							
Sign Control	Stop	Stop	Stop	Stop	Stop							
Traffic Vol by Lane	182	268	103	185	28							
LT Vol	149	0	0	156	8							
Through Vol	33	0	12	13	20							
RT Vol	0	268	91	16	0							
Lane Flow Rate	212	312	120	215	33							
Geometry Grp	5	5	2	2	4a							
Degree of Util (X)	0.343	0.408	0.164	0.324	0.051							
Departure Headway (Hd)	5.837	4.719	4.942	5.424	5.687							
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes							
Cap	612	754	716	656	634							
Service Time	3.618	2.499	3.036	3.505	3.687							
HCM Lane V/C Ratio	0.346	0.414	0.168	0.328	0.052							
HCM Control Delay, s/veh	11.7	10.8	9	11.1	9							
HCM Lane LOS	B	B	A	B	A							
HCM 95th-tile Q	1.5	2	0.6	1.4	0.2							

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	34	0	9	0	252	38	10	150	0
Future Vol, veh/h	0	0	0	34	0	9	0	252	38	10	150	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	37	0	10	0	277	42	11	165	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	464	505	165	485	485	298	165	0	0	319	0	0
Stage 1	187	187	-	298	298	-	-	-	-	-	-	-
Stage 2	277	319	-	187	187	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	509	469	880	493	482	742	1413	-	-	1241	-	-
Stage 1	815	745	-	711	667	-	-	-	-	-	-	-
Stage 2	729	653	-	815	745	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	497	465	880	488	478	742	1413	-	-	1241	-	-
Mov Cap-2 Maneuver	497	465	-	488	478	-	-	-	-	-	-	-
Stage 1	807	738	-	711	667	-	-	-	-	-	-	-
Stage 2	720	653	-	807	738	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	12.53	0	0.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1413	-	-	-	525	113	-
HCM Lane V/C Ratio	-	-	-	-	0.09	0.009	-
HCM Ctrl Dly (s/v)	0	-	-	0	12.5	7.9	0
HCM Lane LOS	A	-	-	A	B	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0	-

Intersection

Int Delay, s/veh 0.1

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 0 2 1 261 159 1

Future Vol, veh/h 0 2 1 261 159 1

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 38 38 38 38 38 38

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 5 3 687 418 3

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 1112 420 421 0 - 0

Stage 1 420 - - - - -

Stage 2 692 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 231 634 1138 - - -

Stage 1 663 - - - - -

Stage 2 497 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 230 634 1138 - - -

Mov Cap-2 Maneuver 230 - - - - -

Stage 1 661 - - - - -

Stage 2 497 - - - - -

Approach EB NB SB

HCM Ctrl Dly, s/v 10.73 0.03 0

HCM LOS B

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 7 - 634 - -

HCM Lane V/C Ratio 0.002 - 0.008 - -

HCM Ctrl Dly (s/v) 8.2 0 10.7 - -

HCM Lane LOS A A B - -

HCM 95th %tile Q(veh) 0 - 0 - -

HCM 7th TWSC

8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South) Existing PM Peak Hour

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	8	21	0	3	13	215	32	3	130	0
Future Vol, veh/h	0	0	8	21	0	3	13	215	32	3	130	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	43	43	43	43	43	43	43	43	43	43	43	43
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	19	49	0	7	30	500	74	7	302	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	877	951	302	914	914	537	302	0	0	574	0	0
Stage 1	316	316	-	598	598	-	-	-	-	-	-	-
Stage 2	560	635	-	316	316	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	269	260	737	254	273	544	1259	-	-	999	-	-
Stage 1	695	655	-	489	491	-	-	-	-	-	-	-
Stage 2	513	472	-	695	655	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	254	248	737	237	261	544	1259	-	-	999	-	-
Mov Cap-2 Maneuver	254	248	-	237	261	-	-	-	-	-	-	-
Stage 1	689	649	-	472	474	-	-	-	-	-	-	-
Stage 2	488	456	-	672	649	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	10.01		23.07		0.4		0.19					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	88	-	-	737	255	41	-	-				
HCM Lane V/C Ratio	0.024	-	-	0.025	0.219	0.007	-	-				
HCM Ctrl Dly (s/v)	7.9	0	-	10	23.1	8.6	0	-				
HCM Lane LOS	A	A	-	B	C	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.8	0	-	-				

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	4	2	204	148	2
Future Vol, veh/h	2	4	2	204	148	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	8	4	408	296	4

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	714	298	300	0	-	0
Stage 1	298	-	-	-	-	-
Stage 2	416	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	398	741	1261	-	-	-
Stage 1	753	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	396	741	1261	-	-	-
Mov Cap-2 Maneuver	396	-	-	-	-	-
Stage 1	750	-	-	-	-	-
Stage 2	666	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	11.4	0.08	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	17	-	575	-	-
HCM Lane V/C Ratio	0.003	-	0.021	-	-
HCM Ctrl Dly (s/v)	7.9	0	11.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 7th TWSC

10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Existing PM Peak Hour

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	13	4	0	5	15	182	8	8	132	3
Future Vol, veh/h	0	1	13	4	0	5	15	182	8	8	132	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	21	7	0	8	25	298	13	13	216	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	593	606	219	598	602	305	221	0	0	311	0	0
Stage 1	245	245	-	354	354	-	-	-	-	-	-	-
Stage 2	348	361	-	243	248	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	418	412	821	414	414	735	1348	-	-	1249	-	-
Stage 1	759	703	-	663	630	-	-	-	-	-	-	-
Stage 2	668	626	-	760	702	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	399	398	821	388	400	735	1348	-	-	1249	-	-
Mov Cap-2 Maneuver	399	398	-	388	400	-	-	-	-	-	-	-
Stage 1	750	695	-	648	616	-	-	-	-	-	-	-
Stage 2	646	612	-	730	693	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	9.87		12.04		0.56		0.44	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	131	-	-	763	526	100	-
HCM Lane V/C Ratio	0.018	-	-	0.03	0.028	0.011	-
HCM Ctrl Dly (s/v)	7.7	0	-	9.9	12	7.9	0
HCM Lane LOS	A	A	-	A	B	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0	-

HCM 7th TWSC

11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Existing PM Peak Hour

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	5	12	3	4	3	15	93	4	9	87	26
Future Vol, veh/h	25	5	12	3	4	3	15	93	4	9	87	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	7	16	4	5	4	20	124	5	12	116	35

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	324	327	133	310	341	127	151	0	0	129	0	0
Stage 1	157	157	-	167	167	-	-	-	-	-	-	-
Stage 2	167	169	-	143	175	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	629	592	916	642	581	924	1430	-	-	1456	-	-
Stage 1	845	768	-	835	760	-	-	-	-	-	-	-
Stage 2	835	758	-	859	754	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	606	578	916	609	567	924	1430	-	-	1456	-	-
Mov Cap-2 Maneuver	606	578	-	609	567	-	-	-	-	-	-	-
Stage 1	837	761	-	823	749	-	-	-	-	-	-	-
Stage 2	813	747	-	830	748	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	10.9		10.6		1.01		0.55	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	239	-	-	666	657	127	-
HCM Lane V/C Ratio	0.014	-	-	0.084	0.02	0.008	-
HCM Ctrl Dly (s/v)	7.6	0	-	10.9	10.6	7.5	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	34	0	7	35	1	5
Future Vol, veh/h	34	0	7	35	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	0	9	45	1	6
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	44	0	108	44
Stage 1	-	-	-	-	44	-
Stage 2	-	-	-	-	64	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1564	-	890	1026
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	959	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1564	-	884	1026
Mov Cap-2 Maneuver	-	-	-	-	884	-
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	953	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	1.22		8.63		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	999	-	-	300	-	
HCM Lane V/C Ratio	0.008	-	-	0.006	-	
HCM Ctrl Dly (s/v)	8.6	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection

Int Delay, s/veh 2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	25	1	10	24	0	9
Future Vol, veh/h	25	1	10	24	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	1	12	30	0	11

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	32
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1580
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1580
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.15	8.49
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1043	-	-	529	-
HCM Lane V/C Ratio	0.011	-	-	0.008	-
HCM Ctrl Dly (s/v)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	11	0	0	12	12	0	0	0	15	0	1
Future Vol, veh/h	1	11	0	0	12	12	0	0	0	15	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	22	0	0	24	24	0	0	0	30	0	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	48	0	0	22	0	0	50	74	22	62	62	36
Stage 1	-	-	-	-	-	-	26	26	-	36	36	-
Stage 2	-	-	-	-	-	-	24	48	-	26	26	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1559	-	-	1593	-	-	950	816	1055	933	829	1037
Stage 1	-	-	-	-	-	-	992	874	-	980	865	-
Stage 2	-	-	-	-	-	-	994	855	-	992	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1559	-	-	1593	-	-	947	815	1055	932	828	1037
Mov Cap-2 Maneuver	-	-	-	-	-	-	947	815	-	932	828	-
Stage 1	-	-	-	-	-	-	990	872	-	980	865	-
Stage 2	-	-	-	-	-	-	992	855	-	990	872	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.61			0			0			8.98		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	150	-	-	1593	-	-	938				
HCM Lane V/C Ratio	-	0.001	-	-	-	-	-	0.034				
HCM Ctrl Dly (s/v)	0	7.3	0	-	0	-	-	9				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1				

HCM 7th TWSC
15: Island Queen Dr & Decoy Dr

Existing PM Peak Hour

Intersection						
Int Delay, s/veh	5.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	8	2	3	3	10
Future Vol, veh/h	14	8	2	3	3	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	13	3	5	5	16

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	25	13	21	0	-	0
Stage 1	13	-	-	-	-	-
Stage 2	11	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	991	1067	1594	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	989	1067	1594	-	-	-
Mov Cap-2 Maneuver	989	-	-	-	-	-
Stage 1	1008	-	-	-	-	-
Stage 2	1011	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.67	2.91	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	720	-	1016	-	-
HCM Lane V/C Ratio	0.002	-	0.035	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	49	23	12	0	0	18
Future Vol, veh/h	49	23	12	0	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	24	13	0	0	19

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	13	0	0 140 13
Stage 1	-	-	- 13 -
Stage 2	-	-	- 127 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1606	-	- 853 1068
Stage 1	-	-	- 1010 -
Stage 2	-	-	- 898 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1606	-	- 825 1068
Mov Cap-2 Maneuver	-	-	- 825 -
Stage 1	-	-	- 977 -
Stage 2	-	-	- 898 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	4.98	0	8.43
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1225	-	-	-	1068
HCM Lane V/C Ratio	0.032	-	-	-	0.018
HCM Ctrl Dly (s/v)	7.3	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	16	33	0	0	31	0	75	0	0	0
Future Vol, veh/h	0	1	16	33	0	0	31	0	75	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	71	71	71	71	71	71	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	23	46	0	0	44	0	106	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	24	0	0	106	106	13	94	117	0
Stage 1	-	-	-	-	-	-	13	13	-	93	93	-
Stage 2	-	-	-	-	-	-	93	93	-	1	24	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1591	-	-	874	784	1068	889	773	-
Stage 1	-	-	-	-	-	-	1008	885	-	914	818	-
Stage 2	-	-	-	-	-	-	914	818	-	1022	875	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1591	-	-	-	762	1068	778	751	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	762	-	778	751	-
Stage 1	-	-	-	-	-	-	1008	885	-	887	794	-
Stage 2	-	-	-	-	-	-	887	794	-	920	875	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	7.33		0
HCM LOS			-	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1591	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.029	-	-	-
HCM Ctrl Dly (s/v)	-	0	-	-	7.3	0	-	0
HCM Lane LOS	-	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.1	-	-	-

HCM 7th Signalized Intersection Summary

18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Existing PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	661	134	31	311	6	97	2	45	4	0	5
Future Volume (veh/h)	1	661	134	31	311	6	97	2	45	4	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	689	140	32	324	6	102	0	47	4	0	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	1131	505	67	1266	23	376	0	167	9	0	11
Arrive On Green	0.00	0.32	0.32	0.04	0.35	0.35	0.11	0.00	0.11	0.01	0.00	0.01
Sat Flow, veh/h	1781	3554	1585	1781	3569	66	3563	0	1585	741	0	926
Grp Volume(v), veh/h	1	689	140	32	161	169	102	0	47	9	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1858	1781	0	1585	1667	0	0
Q Serve(g_s), s	0.0	6.1	2.5	0.7	2.4	2.4	1.0	0.0	1.0	0.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.1	2.5	0.7	2.4	2.4	1.0	0.0	1.0	0.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.44		0.56
Lane Grp Cap(c), veh/h	5	1131	505	67	630	659	376	0	167	20	0	0
V/C Ratio(X)	0.21	0.61	0.28	0.47	0.26	0.26	0.27	0.00	0.28	0.45	0.00	0.00
Avail Cap(c_a), veh/h	239	1804	804	239	902	943	2727	0	1213	806	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.6	10.7	9.5	17.6	8.5	8.5	15.3	0.0	15.4	18.3	0.0	0.0
Incr Delay (d2), s/veh	20.3	0.5	0.3	5.1	0.2	0.2	0.4	0.0	0.9	15.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.8	0.6	0.3	0.7	0.7	0.4	0.0	0.3	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.9	11.3	9.8	22.7	8.7	8.7	15.7	0.0	16.3	33.5	0.0	0.0
LnGrp LOS	D	B	A	C	A	A	B		B	C		
Approach Vol, veh/h	830				362				149		9	
Approach Delay, s/veh	11.0				10.0				15.9		33.5	
Approach LOS	B				A				B		C	
Timer - Assigned Phs	2		3	4		6	7	8				
Phs Duration (G+Y+Rc), s	8.6		6.5	17.0		5.1	5.2	18.3				
Change Period (Y+Rc), s	4.7		5.1	5.1		4.7	5.1	5.1				
Max Green Setting (Gmax), s	28.5		5.0	18.9		18.0	5.0	18.9				
Max Q Clear Time (g_c+I1), s	3.0		2.7	8.1		2.2	2.0	4.4				
Green Ext Time (p_c), s	0.5		0.0	3.8		0.0	0.0	1.5				
Intersection Summary												
HCM 7th Control Delay, s/veh	11.4											
HCM 7th LOS	B											
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 7th Signalized Intersection Summary

19: Fire Station Access & Vista Blvd

Existing PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Volume (veh/h)	713	0	0	350	2	0
Future Volume (veh/h)	713	0	0	350	2	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	767	0	0	376	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2195	0	586	2195	0	0
Arrive On Green	0.62	0.00	0.00	0.62	0.00	0.00
Sat Flow, veh/h	3741	0	701	3647	0	0
Grp Volume(v), veh/h	767	0	0	376	0	0
Grp Sat Flow(s), veh/h/ln	1777	0	701	1777	0	0
Q Serve(g_s), s	1.3	0.0	0.0	0.6	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.6	0.0	0.0
Prop In Lane		0.00	1.00		0.00	0.00
Lane Grp Cap(c), veh/h	2195	0	586	2195	0	0
V/C Ratio(X)	0.35	0.00	0.00	0.17	0.00	0.00
Avail Cap(c_a), veh/h	5144	0	1167	5144	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.1	0.0	0.0	1.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	1.2	0.0	0.0	1.0	0.0	0.0
LnGrp LOS	A			A		
Approach Vol, veh/h	767			376	0	
Approach Delay, s/veh	1.2			1.0	0.0	
Approach LOS	A			A		
Timer - Assigned Phs	2			4		8
Phs Duration (G+Y+Rc), s	0.0			12.3		12.3
Change Period (Y+Rc), s	4.7			4.7		4.7
Max Green Setting (Gmax), s	17.8			17.8		17.8
Max Q Clear Time (g_c+I1), s	0.0			3.3		2.6
Green Ext Time (p_c), s	0.0			4.5		2.0
Intersection Summary						
HCM 7th Control Delay, s/veh			1.2			
HCM 7th LOS			A			

Intersection

Int Delay, s/veh 0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	2	671	45	2	320
Future Vol, veh/h	29	2	671	45	2	320
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	2	706	47	2	337

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	879	353	0
Stage 1	706	-	-
Stage 2	173	-	-
Critical Hdwy	6.84	6.94	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	-
Pot Cap-1 Maneuver	287	643	-
Stage 1	450	-	-
Stage 2	840	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	286	643	-
Mov Cap-2 Maneuver	286	-	-
Stage 1	450	-	-
Stage 2	838	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	18.62	0	0.06
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	297	852
HCM Lane V/C Ratio	-	-	0.11	0.002
HCM Ctrl Dly (s/v)	-	-	18.6	9.2
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.4	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	713	348	0	0	0
Future Vol, veh/h	0	713	348	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	775	378	0	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 189
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.32
Pot Cap-1 Maneuver	0	-	- 0 821
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 821
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection

Int Delay, s/veh 0

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 0 0 0 716 350 0

Future Vol, veh/h 0 0 0 716 350 0

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length - 0 - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 0 0 778 380 0

Major/Minor Minor2 Major1 Major2

Conflicting Flow All - 190 - 0 - 0

Stage 1 - - - - - -

Stage 2 - - - - - -

Critical Hdwy - 6.94 - - - -

Critical Hdwy Stg 1 - - - - - -

Critical Hdwy Stg 2 - - - - - -

Follow-up Hdwy - 3.32 - - - -

Pot Cap-1 Maneuver 0 819 0 - - 0

Stage 1 0 - 0 - - 0

Stage 2 0 - 0 - - 0

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - 819 - - - -

Mov Cap-2 Maneuver - - - - - -

Stage 1 - - - - - -

Stage 2 - - - - - -

Approach EB NB SB

HCM Ctrl Dly, s/v 0 0 0

HCM LOS A

Minor Lane/Major Mvmt NBT EBLn1 SBT

Capacity (veh/h) - - -

HCM Lane V/C Ratio - - -

HCM Ctrl Dly (s/v) - 0 -

HCM Lane LOS - A -

HCM 95th %tile Q(veh) - - -

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1	0	-	0	1	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	1022	1083
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	1022	1083
Mov Cap-2 Maneuver	-	-	-	-	1022	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1622	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	0	-	-	-	0	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	-	

HCM 7th Signalized Intersection Summary

1: Wingfield Hills Rd & Vista Blvd

Existing Plus Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	266	0	5	1255	289	155	57	4	161	26	611
Future Volume (veh/h)	142	266	0	5	1255	289	155	57	4	161	26	611
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	169	317	0	6	1494	0	185	68	0	192	31	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	244	1947		14	1723		262	117		234	221	
Arrive On Green	0.07	0.55	0.00	0.01	0.48	0.00	0.08	0.06	0.00	0.13	0.12	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	169	317	0	6	1494	0	185	68	0	192	31	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.0	3.7	0.0	0.3	31.4	0.0	4.4	3.0	0.0	8.8	1.2	0.0
Cycle Q Clear(g_c), s	4.0	3.7	0.0	0.3	31.4	0.0	4.4	3.0	0.0	8.8	1.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	244	1947		14	1723		262	117		234	221	
V/C Ratio(X)	0.69	0.16		0.43	0.87		0.71	0.58		0.82	0.14	
Avail Cap(c_a), veh/h	284	1969		106	1888		309	827		433	1114	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.1	9.4	0.0	41.5	19.2	0.0	37.9	38.3	0.0	35.5	33.2	0.0
Incr Delay (d2), s/veh	5.8	0.0	0.0	19.9	4.3	0.0	5.9	4.5	0.0	7.0	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.3	0.0	0.2	12.2	0.0	2.0	1.5	0.0	4.1	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.9	9.5	0.0	61.4	23.5	0.0	43.7	42.7	0.0	42.5	33.5	0.0
LnGrp LOS	D	A		E	C		D	D		D	C	
Approach Vol, veh/h	486			1500			253			223		
Approach Delay, s/veh	21.4			23.6			43.5			41.2		
Approach LOS	C			C			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.1	10.4	6.1	51.4	11.5	15.0	11.3	46.1				
Change Period (Y+Rc), s	5.1	5.1	5.4	5.4	5.1	5.1	5.4	5.4				
Max Green Setting (Gmax), s	20.4	37.1	5.0	46.5	7.5	50.0	6.9	44.6				
Max Q Clear Time (g_c+I1), s	10.8	5.0	2.3	5.7	6.4	3.2	6.0	33.4				
Green Ext Time (p_c), s	0.3	0.3	0.0	2.1	0.1	0.1	0.0	7.3				
Intersection Summary												
HCM 7th Control Delay, s/veh				26.8								
HCM 7th LOS				C								
Notes												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑↑			↑
Traffic Vol, veh/h	0	426	1528	6	0	32
Future Vol, veh/h	0	426	1528	6	0	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	495	1777	7	0	37

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 892
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 7.14
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.92
Pot Cap-1 Maneuver	0	-	- 0 245
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 245
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	22.33
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	245
HCM Lane V/C Ratio	-	-	-	0.152
HCM Ctrl Dly (s/v)	-	-	-	22.3
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.5

HCM 7th Signalized Intersection Summary

3: Wingfield Pkwy & Vista Blvd

Existing Plus Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	212	14	9	784	15	61	12	9	28	14	684
Future Volume (veh/h)	204	212	14	9	784	15	61	12	9	28	14	684
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	237	247	16	10	912	17	71	14	10	33	16	795
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	313	1179	76	22	962	18	91	398	284	55	695	732
Arrive On Green	0.09	0.35	0.35	0.01	0.27	0.27	0.05	0.39	0.39	0.03	0.37	0.37
Sat Flow, veh/h	3456	3390	218	1781	3569	67	1781	1015	725	1781	1870	1585
Grp Volume(v), veh/h	237	129	134	10	454	475	71	0	24	33	16	795
Grp Sat Flow(s),veh/h/ln	1728	1777	1831	1781	1777	1858	1781	0	1740	1781	1870	1585
Q Serve(g_s), s	6.2	4.7	4.7	0.5	23.1	23.1	3.6	0.0	0.8	1.7	0.5	34.2
Cycle Q Clear(g_c), s	6.2	4.7	4.7	0.5	23.1	23.1	3.6	0.0	0.8	1.7	0.5	34.2
Prop In Lane	1.00		0.12	1.00		0.04	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	313	618	637	22	479	501	91	0	682	55	695	732
V/C Ratio(X)	0.76	0.21	0.21	0.46	0.95	0.95	0.78	0.00	0.04	0.60	0.02	1.09
Avail Cap(c_a), veh/h	398	618	637	97	479	501	105	0	682	97	695	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	21.1	21.1	45.2	33.0	33.0	43.1	0.0	17.3	44.0	18.3	24.8
Incr Delay (d2), s/veh	6.2	0.2	0.2	14.2	28.5	27.7	27.2	0.0	0.0	10.0	0.0	58.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	1.9	2.0	0.3	13.1	13.6	2.3	0.0	0.3	0.9	0.2	26.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.1	21.3	21.3	59.4	61.5	60.7	70.3	0.0	17.3	54.0	18.3	83.6
LnGrp LOS	D	C	C	E	E	E	E		B	D	B	F
Approach Vol, veh/h	500			939			95			844		
Approach Delay, s/veh	33.5			61.1			56.9			81.2		
Approach LOS	C			E			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	40.7	6.5	37.4	9.3	38.8	13.7	30.2				
Change Period (Y+Rc), s	4.6	4.6	5.4	5.4	4.6	4.6	5.4	5.4				
Max Green Setting (Gmax), s	5.0	34.6	5.0	30.4	5.4	34.2	10.6	24.8				
Max Q Clear Time (g_c+I1), s	3.7	2.8	2.5	6.7	5.6	36.2	8.2	25.1				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.3	0.0	0.0	0.2	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	62.3											
HCM 7th LOS	E											

HCM 7th TWSC

4: Wingfield Pkwy & Village A Dwy/Rey Del Sierra Dr

Existing Plus Project AM Peak Hour

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	42	89	0	5	17	188	26	3	592	4
Future Vol, veh/h	13	0	42	89	0	5	17	188	26	3	592	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	0	52	110	0	6	21	232	32	4	731	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	899	1047	368	663	1033	132	736	0	0	264	0	0
Stage 1	741	741	-	290	290	-	-	-	-	-	-	-
Stage 2	158	306	-	373	743	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	234	227	629	347	231	893	866	-	-	1297	-	-
Stage 1	374	421	-	693	671	-	-	-	-	-	-	-
Stage 2	828	660	-	620	420	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	225	220	629	309	224	893	866	-	-	1297	-	-
Mov Cap-2 Maneuver	225	220	-	309	224	-	-	-	-	-	-	-
Stage 1	373	420	-	675	653	-	-	-	-	-	-	-
Stage 2	801	643	-	567	418	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	14.62		22.53		0.85		0.07	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	226	-	-	442	320	18	-
HCM Lane V/C Ratio	0.024	-	-	0.154	0.363	0.003	-
HCM Ctrl Dly (s/v)	9.3	0.2	-	14.6	22.5	7.8	0
HCM Lane LOS	A	A	-	B	C	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.5	1.6	0	-

HCM 7th AWSC

5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs Pk Project AM Peak Hour

Intersection												
Intersection Delay, s/veh	21.7											
Intersection LOS	C											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	26	173	411	9	8	52	18	136	6	9	0
Future Vol, veh/h	1	26	173	411	9	8	52	18	136	6	9	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	35	231	548	12	11	69	24	181	8	12	0
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			2		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			2			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	2			1			1			1		
HCM Control Delay, s/veh	11.4			31.8			11.4			10.4		
HCM LOS	B			D			B			B		
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1							
Vol Left, %	74%	0%	1%	96%	40%							
Vol Thru, %	26%	0%	13%	2%	60%							
Vol Right, %	0%	100%	87%	2%	0%							
Sign Control	Stop	Stop	Stop	Stop	Stop							
Traffic Vol by Lane	70	136	200	428	15							
LT Vol	52	0	1	411	6							
Through Vol	18	0	26	9	9							
RT Vol	0	136	173	8	0							
Lane Flow Rate	93	181	267	571	20							
Geometry Grp	5	5	2	2	4a							
Degree of Util (X)	0.185	0.304	0.383	0.854	0.039							
Departure Headway (Hd)	7.124	6.03	5.164	5.385	6.975							
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes							
Cap	502	595	693	673	510							
Service Time	4.883	3.789	3.219	3.427	5.065							
HCM Lane V/C Ratio	0.185	0.304	0.385	0.848	0.039							
HCM Control Delay, s/veh	11.5	11.4	11.4	31.8	10.4							
HCM Lane LOS	B	B	B	D	B							
HCM 95th-tile Q	0.7	1.3	1.8	9.7	0.1							

HCM 7th TWSC

6: Wingfield Springs Rd & Village D Dwy/Poco Rey Dr

Existing Plus Project AM Peak Hour

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	8	7	44	8	13	2	148	18	6	381	1
Future Vol, veh/h	3	8	7	44	8	13	2	148	18	6	381	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	10	9	56	10	17	3	190	23	8	488	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	704	722	489	715	712	201	490	0	0	213	0	0
Stage 1	504	504	-	206	206	-	-	-	-	-	-	-
Stage 2	200	218	-	509	505	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	351	353	579	346	358	840	1073	-	-	1357	-	-
Stage 1	550	541	-	796	731	-	-	-	-	-	-	-
Stage 2	802	723	-	547	540	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	331	349	579	327	354	840	1073	-	-	1357	-	-
Mov Cap-2 Maneuver	331	349	-	327	354	-	-	-	-	-	-	-
Stage 1	546	536	-	793	729	-	-	-	-	-	-	-
Stage 2	773	721	-	524	536	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	14.34		17.26		0.1		0.12	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	21	-	-	408	376	28	-
HCM Lane V/C Ratio	0.002	-	-	0.057	0.221	0.006	-
HCM Ctrl Dly (s/v)	8.4	0	-	14.3	17.3	7.7	0
HCM Lane LOS	A	A	-	B	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2	0.8	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	2	162	386	1
Future Vol, veh/h	1	1	2	162	386	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	4	324	772	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1105	773	774	0	-	0
Stage 1	773	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	233	399	842	-	-	-
Stage 1	455	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	232	399	842	-	-	-
Mov Cap-2 Maneuver	232	-	-	-	-	-
Stage 1	453	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	17.44	0.11		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	22	-	293	-	-	
HCM Lane V/C Ratio	0.005	-	0.014	-	-	
HCM Ctrl Dly (s/v)	9.3	0	17.4	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

HCM 7th TWSC

8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Ex St(Sp) Project AM Peak Hour

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	1	23	0	4	2	177	9	1	360	1
Future Vol, veh/h	1	0	1	23	0	4	2	177	9	1	360	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	2	37	0	6	3	281	14	2	571	2
Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	863	877	572	869	871	288	573	0	0	295	0	0
Stage 1	575	575	-	294	294	-	-	-	-	-	-	-
Stage 2	287	302	-	575	576	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	275	287	519	272	289	751	1000	-	-	1266	-	-
Stage 1	503	503	-	714	669	-	-	-	-	-	-	-
Stage 2	720	665	-	504	502	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	271	285	519	270	288	751	1000	-	-	1266	-	-
Mov Cap-2 Maneuver	271	285	-	270	288	-	-	-	-	-	-	-
Stage 1	502	502	-	711	667	-	-	-	-	-	-	-
Stage 2	711	662	-	501	501	-	-	-	-	-	-	-
Approach	EB		WB			NB		SB				
HCM Ctrl Dly, s/v	15.2		19.09			0.09		0.02				
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	19	-	-	356	298	5	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.009	0.144	0.001	-	-				
HCM Ctrl Dly (s/v)	8.6	0	-	15.2	19.1	7.8	0	-				
HCM Lane LOS	A	A	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.5	0	-	-				

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	2	1	179	362	0
Future Vol, veh/h	3	2	1	179	362	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	3	1	239	483	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	724	483	483
Stage 1	483	-	-
Stage 2	241	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	393	584	1080
Stage 1	621	-	-
Stage 2	799	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	392	584	1080
Mov Cap-2 Maneuver	392	-	-
Stage 1	620	-	-
Stage 2	799	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13.1	0.05	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	10	-	451	-	-
HCM Lane V/C Ratio	0.001	-	0.015	-	-
HCM Ctrl Dly (s/v)	8.3	0	13.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC

10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (New) Existing Plus Project AM Peak Hour

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	19	2	0	6	9	158	1	2	286	1
Future Vol, veh/h	0	0	19	2	0	6	9	158	1	2	286	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	31	3	0	10	15	259	2	3	469	2

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	765	766	470	765	766	260	470	0
Stage 1	476	476	-	289	289	-	-	-
Stage 2	289	290	-	475	477	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-
Pot Cap-1 Maneuver	320	333	594	320	333	779	1091	-
Stage 1	570	557	-	718	673	-	-	-
Stage 2	719	672	-	570	556	-	-	-
Platoon blocked, %								-
Mov Cap-1 Maneuver	310	326	594	298	326	779	1091	-
Mov Cap-2 Maneuver	310	326	-	298	326	-	-	-
Stage 1	568	555	-	707	662	-	-	-
Stage 2	699	662	-	538	554	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	11.4	11.65	0.45	0.05
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	96	-	-	594	555	12	-	-
HCM Lane V/C Ratio	0.014	-	-	0.052	0.024	0.003	-	-
HCM Ctrl Dly (s/v)	8.3	0	-	11.4	11.6	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

HCM 7th TWSC

11: Wingfield Springs Rd & General Thatcher Dr/Florentine Existing Plus Project AM Peak Hour

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	4	12	8	4	5	4	123	2	5	171	20
Future Vol, veh/h	61	4	12	8	4	5	4	123	2	5	171	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	85	6	17	11	6	7	6	171	3	7	238	28

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	450	450	251	438	463	172	265	0	0	174	0	0
Stage 1	265	265	-	183	183	-	-	-	-	-	-	-
Stage 2	185	185	-	254	279	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	519	504	787	529	496	871	1299	-	-	1403	-	-
Stage 1	740	689	-	818	748	-	-	-	-	-	-	-
Stage 2	817	747	-	750	680	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	504	499	787	507	491	871	1299	-	-	1403	-	-
Mov Cap-2 Maneuver	504	499	-	507	491	-	-	-	-	-	-	-
Stage 1	736	685	-	815	744	-	-	-	-	-	-	-
Stage 2	801	743	-	724	676	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	13.43		11.55		0.24		0.19	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	56	-	-	534	573	45	-	-
HCM Lane V/C Ratio	0.004	-	-	0.2	0.041	0.005	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	13.4	11.6	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.1	0	-	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	69	2	3	29	1	4
Future Vol, veh/h	69	2	3	29	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	2	4	35	1	5

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	86	0	127	84
Stage 1	-	-	-	-	84	-
Stage 2	-	-	-	-	42	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1511	-	868	975
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	980	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1511	-	866	975
Mov Cap-2 Maneuver	-	-	-	-	866	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	978	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.69	8.81
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	951	-	-	169	-
HCM Lane V/C Ratio	0.006	-	-	0.002	-
HCM Ctrl Dly (s/v)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection

Int Delay, s/veh 2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	36	0	9	15	0	14
Future Vol, veh/h	36	0	9	15	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	0	13	22	0	20

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	52
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1554
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1554
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.75	8.62
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1015	-	-	675	-
HCM Lane V/C Ratio	0.02	-	-	0.008	-
HCM Ctrl Dly (s/v)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 7th TWSC

14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr Existing Plus Project AM Peak Hour

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	5	0	4	5	9	0	0	11	18	0	0
Future Vol, veh/h	0	5	0	4	5	9	0	0	11	18	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	0	5	7	12	0	0	15	24	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	19	0	0	7	0	0	24	36	7	30	30	13
Stage 1	-	-	-	-	-	-	7	7	-	23	23	-
Stage 2	-	-	-	-	-	-	17	29	-	7	7	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1598	-	-	1614	-	-	987	856	1076	979	863	1068
Stage 1	-	-	-	-	-	-	1015	890	-	995	876	-
Stage 2	-	-	-	-	-	-	1002	871	-	1015	890	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1598	-	-	1614	-	-	984	854	1076	962	860	1068
Mov Cap-2 Maneuver	-	-	-	-	-	-	984	854	-	962	860	-
Stage 1	-	-	-	-	-	-	1015	890	-	991	873	-
Stage 2	-	-	-	-	-	-	999	868	-	1001	890	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			1.61			8.39			8.84		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1076	1598	-	-	354	-	-	962				
HCM Lane V/C Ratio	0.014	-	-	-	0.003	-	-	0.025				
HCM Ctrl Dly (s/v)	8.4	0	-	-	7.2	0	-	8.8				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	1	8	1	2	9
Future Vol, veh/h	11	1	8	1	2	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	45	45	45	45	45	45
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	2	18	2	4	20

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	52	14	24
Stage 1	14	-	-
Stage 2	38	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	956	1065	1590
Stage 1	1008	-	-
Stage 2	985	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	946	1065	1590
Mov Cap-2 Maneuver	946	-	-
Stage 1	997	-	-
Stage 2	985	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.88	6.48	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1588	-	955	-	-
HCM Lane V/C Ratio	0.011	-	0.028	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection

Int Delay, s/veh 3.1

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations

Traffic Vol, veh/h 15 21 57 0 0 31

Future Vol, veh/h 15 21 57 0 0 31

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # - 0 0 - 0 -

Grade, % - 0 0 - 0 -

Peak Hour Factor 58 58 58 58 58 58

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 26 36 98 0 0 53

Major/Minor Major1 Major2 Minor2

Conflicting Flow All 98 0 - 0 186 98

Stage 1 - - - - 98 -

Stage 2 - - - - 88 -

Critical Hdwy 4.12 - - - 6.42 6.22

Critical Hdwy Stg 1 - - - - 5.42 -

Critical Hdwy Stg 2 - - - - 5.42 -

Follow-up Hdwy 2.218 - - - 3.518 3.318

Pot Cap-1 Maneuver 1495 - - - 803 958

Stage 1 - - - - 926 -

Stage 2 - - - - 935 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver 1495 - - - 789 958

Mov Cap-2 Maneuver - - - - 789 -

Stage 1 - - - - 909 -

Stage 2 - - - - 935 -

Approach EB WB SB

HCM Ctrl Dly, s/v 3.1 0 8.98

HCM LOS A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h) 750 - - - 958

HCM Lane V/C Ratio 0.017 - - - 0.056

HCM Ctrl Dly (s/v) 7.5 0 - - 9

HCM Lane LOS A A - - A

HCM 95th %tile Q(veh) 0.1 - - - 0.2

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	15	98	0	0	7	1	38	0	0	0
Future Vol, veh/h	0	1	15	98	0	0	7	1	38	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	23	148	0	0	11	2	58	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	24	0	0	310	310	13	299	321	0
Stage 1	-	-	-	-	-	-	13	13	-	297	297	-
Stage 2	-	-	-	-	-	-	297	297	-	2	24	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1590	-	-	643	605	1067	653	596	-
Stage 1	-	-	-	-	-	-	1007	885	-	712	668	-
Stage 2	-	-	-	-	-	-	712	668	-	1020	875	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1590	-	-	-	548	1067	559	540	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	548	-	559	540	-
Stage 1	-	-	-	-	-	-	1007	885	-	645	605	-
Stage 2	-	-	-	-	-	-	645	605	-	964	875	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	7.5		0
HCM LOS			-	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1590	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.093	-	-	-
HCM Ctrl Dly (s/v)	-	0	-	-	7.5	0	-	0
HCM Lane LOS	-	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.3	-	-	-

HCM 7th Signalized Intersection Summary

18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Existing Plus Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	189	52	14	724	5	45	0	7	10	0	5
Future Volume (veh/h)	1	189	52	14	724	5	45	0	7	10	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	215	59	16	823	6	51	0	8	11	0	6
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	1187	530	37	1277	9	222	0	99	24	0	13
Arrive On Green	0.00	0.33	0.33	0.02	0.35	0.35	0.06	0.00	0.06	0.02	0.00	0.02
Sat Flow, veh/h	1781	3554	1585	1781	3616	26	3563	0	1585	1104	0	602
Grp Volume(v), veh/h	1	215	59	16	404	425	51	0	8	17	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1866	1781	0	1585	1707	0	0
Q Serve(g_s), s	0.0	1.5	0.9	0.3	6.7	6.7	0.5	0.0	0.2	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.5	0.9	0.3	6.7	6.7	0.5	0.0	0.2	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.65		0.35
Lane Grp Cap(c), veh/h	5	1187	530	37	628	659	222	0	99	37	0	0
V/C Ratio(X)	0.20	0.18	0.11	0.44	0.64	0.64	0.23	0.00	0.08	0.46	0.00	0.00
Avail Cap(c_a), veh/h	255	1943	867	255	972	1020	2907	0	1293	870	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.4	8.2	8.0	16.9	9.5	9.5	15.6	0.0	15.4	16.9	0.0	0.0
Incr Delay (d2), s/veh	17.7	0.1	0.1	8.0	1.1	1.1	0.5	0.0	0.3	8.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.2	0.2	1.8	1.9	0.2	0.0	0.1	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.1	8.3	8.1	24.9	10.6	10.5	16.1	0.0	15.8	25.4	0.0	0.0
LnGrp LOS	D	A	A	C	B	B	B		B	C		
Approach Vol, veh/h	275		845				59		17			
Approach Delay, s/veh	8.4		10.8				16.1		25.4			
Approach LOS	A		B				B		C			
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	6.9		5.8		16.8		5.5		5.1		17.4	
Change Period (Y+Rc), s	4.7		5.1		5.1		4.7		5.1		5.1	
Max Green Setting (Gmax), s	28.5		5.0		19.1		17.8		5.0		19.1	
Max Q Clear Time (g_c+I1), s	2.5		2.3		3.5		2.3		2.0		8.7	
Green Ext Time (p_c), s	0.1		0.0		1.3		0.0		0.0		3.7	
Intersection Summary												
HCM 7th Control Delay, s/veh	10.7											
HCM 7th LOS	B											
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 7th Signalized Intersection Summary

19: Fire Station Access & Vista Blvd

Existing Plus Project AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↔	↑↑	↔	
Traffic Volume (veh/h)	199	1	3	721	1	0
Future Volume (veh/h)	199	1	3	721	1	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	276	1	4	1001	0	0
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2442	9	1213	2390	0	0
Arrive On Green	0.67	0.67	0.67	0.67	0.00	0.00
Sat Flow, veh/h	3725	13	1102	3647	0	0
Grp Volume(v), veh/h	135	142	4	1001	0	0
Grp Sat Flow(s), veh/h/ln	1777	1868	1102	1777	0	0
Q Serve(g_s), s	0.4	0.4	0.0	1.8	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.4	0.4	1.8	0.0	0.0
Prop In Lane		0.01	1.00		0.00	0.00
Lane Grp Cap(c), veh/h	1195	1256	1213	2390	0	0
V/C Ratio(X)	0.11	0.11	0.00	0.42	0.00	0.00
Avail Cap(c_a), veh/h	2204	2317	1839	4407	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.8	0.8	0.9	1.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.9	0.9	0.9	1.2	0.0	0.0
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h	277			1005	0	
Approach Delay, s/veh	0.9			1.2	0.0	
Approach LOS	A			A		
Timer - Assigned Phs	2			4		8
Phs Duration (G+Y+Rc), s	0.0			14.4		14.4
Change Period (Y+Rc), s	4.7			4.7		4.7
Max Green Setting (Gmax), s	17.8			17.8		17.8
Max Q Clear Time (g_c+I1), s	0.0			2.4		3.8
Green Ext Time (p_c), s	0.0			1.3		5.9
Intersection Summary						
HCM 7th Control Delay, s/veh			1.1			
HCM 7th LOS			A			

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	13	187	16	6	653
Future Vol, veh/h	41	13	187	16	6	653
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	18	263	23	8	920

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	740	132	0	0	286
Stage 1	263	-	-	-	-
Stage 2	477	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	352	893	-	-	1273
Stage 1	757	-	-	-	-
Stage 2	590	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	350	893	-	-	1273
Mov Cap-2 Maneuver	350	-	-	-	-
Stage 1	757	-	-	-	-
Stage 2	587	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	15.77	0	0.07
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	410	1273
HCM Lane V/C Ratio	-	-	0.186	0.007
HCM Ctrl Dly (s/v)	-	-	15.8	7.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.7	0

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		 	 			
Traffic Vol, veh/h	0	200	714	1	0	29
Future Vol, veh/h	0	200	714	1	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	217	776	1	0	32
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	389
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	610
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	610
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		11.22		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	610		
HCM Lane V/C Ratio	-	-	-	0.052		
HCM Ctrl Dly (s/v)	-	-	-	11.2		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.2		

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	203	699	3
Future Vol, veh/h	0	25	0	203	699	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	221	760	3
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	382	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	616	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	616	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	11.11	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 616		-	-		
HCM Lane V/C Ratio	- 0.044		-	-		
HCM Ctrl Dly (s/v)	- 11.1		-	-		
HCM Lane LOS	- B		-	-		
HCM 95th %tile Q(veh)	- 0.1		-	-		

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1	0	-	0	1	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	1022	1083
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	1022	1083
Mov Cap-2 Maneuver	-	-	-	-	1022	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1622	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	0	-	-	-	0	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	-	

HCM 7th Signalized Intersection Summary

1: Wingfield Hills Rd & Vista Blvd

01/12/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	541	1270	0	7	667	158	77	18	3	297	53	294
Future Volume (veh/h)	541	1270	0	7	667	158	77	18	3	297	53	294
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	564	1323	0	7	695	0	80	19	0	309	55	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	674	1592		16	931		188	121		347	383	
Arrive On Green	0.19	0.45	0.00	0.01	0.26	0.00	0.05	0.06	0.00	0.19	0.20	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	564	1323	0	7	695	0	80	19	0	309	55	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	11.6	24.2	0.0	0.3	13.3	0.0	1.7	0.7	0.0	12.5	1.8	0.0
Cycle Q Clear(g_c), s	11.6	24.2	0.0	0.3	13.3	0.0	1.7	0.7	0.0	12.5	1.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	674	1592		16	931		188	121		347	383	
V/C Ratio(X)	0.84	0.83		0.43	0.75		0.42	0.16		0.89	0.14	
Avail Cap(c_a), veh/h	808	1839		120	1249		276	791		347	1006	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.7	18.0	0.0	36.5	25.1	0.0	33.9	32.7	0.0	29.0	24.1	0.0
Incr Delay (d2), s/veh	6.6	3.0	0.0	17.3	1.7	0.0	1.5	0.6	0.0	23.8	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	9.1	0.0	0.2	5.3	0.0	0.7	0.3	0.0	7.3	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.3	21.0	0.0	53.8	26.8	0.0	35.4	33.3	0.0	52.8	24.3	0.0
LnGrp LOS	D	C		D	C		D	C		D	C	
Approach Vol, veh/h	1887			702			99			364		
Approach Delay, s/veh	25.3			27.0			35.0			48.5		
Approach LOS	C			C			C			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.5	9.9	6.1	38.5	9.1	20.3	19.8	24.8				
Change Period (Y+Rc), s	5.1	5.1	5.4	5.4	5.1	5.1	5.4	5.4				
Max Green Setting (Gmax), s	14.4	31.3	5.0	38.3	5.9	39.8	17.3	26.0				
Max Q Clear Time (g_c+I1), s	14.5	2.7	2.3	26.2	3.7	3.8	13.6	15.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	6.9	0.0	0.2	0.8	3.3				

Intersection Summary

HCM 7th Control Delay, s/veh	28.8
HCM 7th LOS	C

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑↑			↑
Traffic Vol, veh/h	0	1614	808	7	0	26
Future Vol, veh/h	0	1614	808	7	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1664	833	7	0	27

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 420
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 7.14
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.92
Pot Cap-1 Maneuver	0	-	- - 0 497
Stage 1	0	-	- - 0 -
Stage 2	0	-	- - 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 497
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	12.65
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	497
HCM Lane V/C Ratio	-	-	-	0.054
HCM Ctrl Dly (s/v)	-	-	-	12.6
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

01/12/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	673	876	59	7	406	44	24	4	3	29	5	367
Future Volume (veh/h)	673	876	59	7	406	44	24	4	3	29	5	367
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	701	913	61	7	423	46	25	4	3	30	5	382
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	845	1412	94	16	590	64	50	217	163	58	418	741
Arrive On Green	0.24	0.42	0.42	0.01	0.18	0.18	0.03	0.22	0.22	0.03	0.22	0.22
Sat Flow, veh/h	3456	3381	226	1781	3234	350	1781	992	744	1781	1870	1585
Grp Volume(v), veh/h	701	480	494	7	231	238	25	0	7	30	5	382
Grp Sat Flow(s),veh/h/ln	1728	1777	1830	1781	1777	1807	1781	0	1736	1781	1870	1585
Q Serve(g_s), s	11.9	13.4	13.4	0.2	7.6	7.7	0.9	0.0	0.2	1.0	0.1	10.5
Cycle Q Clear(g_c), s	11.9	13.4	13.4	0.2	7.6	7.7	0.9	0.0	0.2	1.0	0.1	10.5
Prop In Lane	1.00		0.12	1.00		0.19	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	845	742	764	16	324	329	50	0	380	58	418	741
V/C Ratio(X)	0.83	0.65	0.65	0.43	0.71	0.72	0.50	0.00	0.02	0.52	0.01	0.52
Avail Cap(c_a), veh/h	1034	903	930	143	515	523	155	0	933	143	993	1229
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	14.4	14.4	30.6	23.9	23.9	29.8	0.0	19.0	29.6	18.8	11.6
Incr Delay (d2), s/veh	4.8	1.2	1.1	16.8	2.9	3.0	7.4	0.0	0.0	7.0	0.0	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	4.6	4.8	0.2	3.1	3.2	0.5	0.0	0.1	0.5	0.1	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.1	15.6	15.6	47.4	26.8	26.9	37.2	0.0	19.1	36.6	18.8	12.2
LnGrp LOS	C	B	B	D	C	C	D		B	D	B	B
Approach Vol, veh/h	1675			476			32			417		
Approach Delay, s/veh	20.4			27.2			33.2			14.0		
Approach LOS	C			C			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	18.2	6.0	31.4	6.4	18.5	20.6	16.7				
Change Period (Y+Rc), s	4.6	4.6	5.4	5.4	4.6	4.6	5.4	5.4				
Max Green Setting (Gmax), s	5.0	33.4	5.0	31.6	5.4	33.0	18.6	18.0				
Max Q Clear Time (g_c+I1), s	3.0	2.2	2.2	15.4	2.9	12.5	13.9	9.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	5.4	0.0	1.4	1.2	1.6				
Intersection Summary												
HCM 7th Control Delay, s/veh	20.8											
HCM 7th LOS	C											

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	28	40	0	6	61	613	66	3	340	13
Future Vol, veh/h	9	0	28	40	0	6	61	613	66	3	340	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	0	31	44	0	7	67	674	73	3	374	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	858	1268	194	1037	1238	373	388	0	0	746	0	0
Stage 1	387	387	-	844	844	-	-	-	-	-	-	-
Stage 2	471	880	-	193	395	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	250	167	815	185	174	624	1167	-	-	858	-	-
Stage 1	608	608	-	324	377	-	-	-	-	-	-	-
Stage 2	543	363	-	790	603	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	229	155	815	165	161	624	1167	-	-	858	-	-
Mov Cap-2 Maneuver	229	155	-	165	161	-	-	-	-	-	-	-
Stage 1	605	605	-	301	350	-	-	-	-	-	-	-
Stage 2	498	337	-	757	601	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	12.8	32.19	1.1	0.11
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	261	-	-	502	182	29	-	-
HCM Lane V/C Ratio	0.057	-	-	0.081	0.278	0.004	-	-
HCM Ctrl Dly (s/v)	8.3	0.5	-	12.8	32.2	9.2	0	-
HCM Lane LOS	A	A	-	B	D	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	1.1	0	-	-

Intersection

Intersection Delay, s/veh 15.4

Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	21	125	214	28	17	211	35	381	9	21	0
Future Vol, veh/h	0	21	125	214	28	17	211	35	381	9	21	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	24	145	249	33	20	245	41	443	10	24	0
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	10.9	15.2	16.7	10.1
HCM LOS	B	C	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	86%	0%	0%	83%	30%
Vol Thru, %	14%	0%	14%	11%	70%
Vol Right, %	0%	100%	86%	7%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	246	381	146	259	30
LT Vol	211	0	0	214	9
Through Vol	35	0	21	28	21
RT Vol	0	381	125	17	0
Lane Flow Rate	286	443	170	301	35
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.511	0.651	0.269	0.507	0.063
Departure Headway (Hd)	6.435	5.291	5.708	6.061	6.546
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	561	682	628	593	545
Service Time	4.175	3.03	3.758	4.103	4.614
HCM Lane V/C Ratio	0.51	0.65	0.271	0.508	0.064
HCM Control Delay, s/veh	15.7	17.4	10.9	15.2	10.1
HCM Lane LOS	C	C	B	C	B
HCM 95th-tile Q	2.9	4.8	1.1	2.9	0.2

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	4	34	0	9	8	357	38	10	225	3
Future Vol, veh/h	2	0	4	34	0	9	8	357	38	10	225	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	4	37	0	10	9	392	42	11	247	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	681	723	249	700	703	413	251	0	0	434	0	0
Stage 1	271	271	-	431	431	-	-	-	-	-	-	-
Stage 2	410	452	-	269	273	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	365	353	790	354	362	639	1315	-	-	1126	-	-
Stage 1	735	685	-	603	583	-	-	-	-	-	-	-
Stage 2	619	571	-	736	684	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	352	346	790	345	355	639	1315	-	-	1126	-	-
Mov Cap-2 Maneuver	352	346	-	345	355	-	-	-	-	-	-	-
Stage 1	727	678	-	597	578	-	-	-	-	-	-	-
Stage 2	604	566	-	724	676	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	11.53		15.76		0.15		0.35	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	35	-	-	558	382	75	-	-
HCM Lane V/C Ratio	0.007	-	-	0.012	0.124	0.01	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	11.5	15.8	8.2	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2	1	368	237	1
Future Vol, veh/h	0	2	1	368	237	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	38	38	38	38	38	38
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	3	968	624	3

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1599	625	626	0	-	0
Stage 1	625	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	117	485	955	-	-	-
Stage 1	534	-	-	-	-	-
Stage 2	366	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	116	485	955	-	-	-
Mov Cap-2 Maneuver	116	-	-	-	-	-
Stage 1	530	-	-	-	-	-
Stage 2	366	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	12.51	0.02	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	5	-	485	-	-
HCM Lane V/C Ratio	0.003	-	0.011	-	-
HCM Ctrl Dly (s/v)	8.8	0	12.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	8	21	0	3	13	322	32	3	243	0
Future Vol, veh/h	0	0	8	21	0	3	13	322	32	3	243	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	43	43	43	43	43	43	43	43	43	43	43	43
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	19	49	0	7	30	749	74	7	565	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1388	1463	565	1426	1426	786	565	0	0	823	0	0
Stage 1	579	579	-	847	847	-	-	-	-	-	-	-
Stage 2	809	884	-	579	579	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	120	129	524	113	135	392	1007	-	-	807	-	-
Stage 1	501	501	-	357	378	-	-	-	-	-	-	-
Stage 2	374	364	-	501	501	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	110	120	524	102	126	392	1007	-	-	807	-	-
Mov Cap-2 Maneuver	110	120	-	102	126	-	-	-	-	-	-	-
Stage 1	494	494	-	337	357	-	-	-	-	-	-	-
Stage 2	347	343	-	477	494	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	12.12		65.48		0.31		0.12	
HCM LOS	B		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	63	-	-	524	112	22	-	-
HCM Lane V/C Ratio	0.03	-	-	0.035	0.498	0.009	-	-
HCM Ctrl Dly (s/v)	8.7	0	-	12.1	65.5	9.5	0	-
HCM Lane LOS	A	A	-	B	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	2.3	0	-	-

Intersection

Int Delay, s/veh 0.2

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 2 4 2 311 261 2

Future Vol, veh/h 2 4 2 311 261 2

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 50 50 50 50 50 50

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 4 8 4 622 522 4

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 1154 524 526 0 - 0

Stage 1 524 - - - - -

Stage 2 630 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 218 553 1041 - - -

Stage 1 594 - - - - -

Stage 2 531 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 217 553 1041 - - -

Mov Cap-2 Maneuver 217 - - - - -

Stage 1 591 - - - - -

Stage 2 531 - - - - -

Approach EB NB SB

HCM Ctrl Dly, s/v 15.21 0.05 0

HCM LOS C

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 12 - 364 - -

HCM Lane V/C Ratio 0.004 - 0.033 - -

HCM Ctrl Dly (s/v) 8.5 0 15.2 - -

HCM Lane LOS A A C - -

HCM 95th %tile Q(veh) 0 - 0.1 - -

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	13	4	0	5	15	233	8	8	211	3
Future Vol, veh/h	0	1	13	4	0	5	15	233	8	8	211	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	21	7	0	8	25	382	13	13	346	5

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	806	819	348	811	815	389	351	0	0	395	0	0
Stage 1	375	375	-	438	438	-	-	-	-	-	-	-
Stage 2	431	444	-	373	377	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	300	310	695	298	312	660	1208	-	-	1163	-	-
Stage 1	646	617	-	598	579	-	-	-	-	-	-	-
Stage 2	603	575	-	648	616	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	285	298	695	276	300	660	1208	-	-	1163	-	-
Mov Cap-2 Maneuver	285	298	-	276	300	-	-	-	-	-	-	-
Stage 1	637	609	-	582	564	-	-	-	-	-	-	-
Stage 2	579	560	-	617	607	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB				
HCM Ctrl Dly, s/v	10.89		14.16		0.47			0.29				
HCM LOS	B		B									

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	105	-	-	634	408	65	-	-
HCM Lane V/C Ratio	0.02	-	-	0.036	0.036	0.011	-	-
HCM Ctrl Dly (s/v)	8	0	-	10.9	14.2	8.1	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0	-	-

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	5	12	3	5	3	15	139	4	9	160	57
Future Vol, veh/h	44	5	12	3	5	3	15	139	4	9	160	57
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	7	16	4	7	4	20	185	5	12	213	76

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	504	506	251	469	541	188	289	0	0	191	0	0
Stage 1	275	275	-	228	228	-	-	-	-	-	-	-
Stage 2	229	231	-	241	313	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	478	469	787	505	448	854	1273	-	-	1383	-	-
Stage 1	731	682	-	775	715	-	-	-	-	-	-	-
Stage 2	774	713	-	763	657	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	456	456	787	474	435	854	1273	-	-	1383	-	-
Mov Cap-2 Maneuver	456	456	-	474	435	-	-	-	-	-	-	-
Stage 1	723	675	-	761	703	-	-	-	-	-	-	-
Stage 2	750	701	-	732	650	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	13.65	12.18	0.75	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	170	-	-	497	516	68	-	-
HCM Lane V/C Ratio	0.016	-	-	0.164	0.028	0.009	-	-
HCM Ctrl Dly (s/v)	7.9	0	-	13.7	12.2	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.1	0	-	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	53	0	7	67	1	5
Future Vol, veh/h	53	0	7	67	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	69	0	9	87	1	6

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	69	0	174	69
Stage 1	-	-	-	-	69	-
Stage 2	-	-	-	-	105	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1532	-	816	994
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	919	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1532	-	811	994
Mov Cap-2 Maneuver	-	-	-	-	811	-
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	913	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.7	8.79
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	958	-	-	170	-
HCM Lane V/C Ratio	0.008	-	-	0.006	-
HCM Ctrl Dly (s/v)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection

Int Delay, s/veh 2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	32	1	14	35	0	11
Future Vol, veh/h	32	1	14	35	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	1	17	43	0	14

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	41
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1569
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1569
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.09	8.54
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1031	-	-	514	-
HCM Lane V/C Ratio	0.013	-	-	0.011	-
HCM Ctrl Dly (s/v)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	11	0	11	12	12	0	0	7	15	0	1
Future Vol, veh/h	1	11	0	11	12	12	0	0	7	15	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	22	0	22	24	24	0	0	14	30	0	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	48	0	0	22	0	0	94	118	22	106	106	36
Stage 1	-	-	-	-	-	-	26	26	-	80	80	-
Stage 2	-	-	-	-	-	-	68	92	-	26	26	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1559	-	-	1593	-	-	889	772	1055	873	784	1037
Stage 1	-	-	-	-	-	-	992	874	-	929	828	-
Stage 2	-	-	-	-	-	-	942	819	-	992	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1559	-	-	1593	-	-	874	760	1055	849	772	1037
Mov Cap-2 Maneuver	-	-	-	-	-	-	874	760	-	849	772	-
Stage 1	-	-	-	-	-	-	990	872	-	915	817	-
Stage 2	-	-	-	-	-	-	927	807	-	977	872	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.61			2.29			8.46			9.36		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1055	150	-	-	514	-	-	858				
HCM Lane V/C Ratio	0.013	0.001	-	-	0.014	-	-	0.037				
HCM Ctrl Dly (s/v)	8.5	7.3	0	-	7.3	0	-	9.4				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	8	2	3	3	14
Future Vol, veh/h	16	8	2	3	3	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	13	3	5	5	23

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	28	16	28
Stage 1	16	-	-
Stage 2	11	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	987	1063	1586
Stage 1	1006	-	-
Stage 2	1011	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	985	1063	1586
Mov Cap-2 Maneuver	985	-	-
Stage 1	1004	-	-
Stage 2	1011	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.71	2.91	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	720	-	1010	-	-
HCM Lane V/C Ratio	0.002	-	0.039	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection

Int Delay, s/veh 3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	49	68	39	0	0	18
Future Vol, veh/h	49	68	39	0	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	72	41	0	0	19

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	41	0	0 216 41
Stage 1	-	-	- 41 -
Stage 2	-	-	- 175 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1568	-	- 772 1030
Stage 1	-	-	- 981 -
Stage 2	-	-	- 856 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1568	-	- 746 1030
Mov Cap-2 Maneuver	-	-	- 746 -
Stage 1	-	-	- 948 -
Stage 2	-	-	- 856 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.09	0	8.56
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	754	-	-	-	1030
HCM Lane V/C Ratio	0.033	-	-	-	0.018
HCM Ctrl Dly (s/v)	7.4	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	16	60	0	0	31	0	120	0	0	0
Future Vol, veh/h	0	1	16	60	0	0	31	0	120	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	71	71	71	71	71	71	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	23	85	0	0	44	0	169	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	24	0	0	182	182	13	170	193	0
Stage 1	-	-	-	-	-	-	13	13	-	169	169	-
Stage 2	-	-	-	-	-	-	169	169	-	1	24	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1591	-	-	780	712	1068	793	702	-
Stage 1	-	-	-	-	-	-	1008	885	-	833	759	-
Stage 2	-	-	-	-	-	-	833	759	-	1022	875	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1591	-	-	-	674	1068	632	665	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	674	-	632	665	-
Stage 1	-	-	-	-	-	-	1008	885	-	789	718	-
Stage 2	-	-	-	-	-	-	789	718	-	860	875	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	7.39		0
HCM LOS			-	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1591	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.053	-	-	-
HCM Ctrl Dly (s/v)	-	0	-	-	7.4	0	-	0
HCM Lane LOS	-	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.2	-	-	-

HCM 7th Signalized Intersection Summary
18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

01/12/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	736	134	31	376	6	97	2	45	4	0	5
Future Volume (veh/h)	1	736	134	31	376	6	97	2	45	4	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	767	140	32	392	6	102	0	47	4	0	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	1197	534	67	1337	20	369	0	164	9	0	11
Arrive On Green	0.00	0.34	0.34	0.04	0.37	0.37	0.10	0.00	0.10	0.01	0.00	0.01
Sat Flow, veh/h	1781	3554	1585	1781	3583	55	3563	0	1585	741	0	926
Grp Volume(v), veh/h	1	767	140	32	194	204	102	0	47	9	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1860	1781	0	1585	1667	0	0
Q Serve(g_s), s	0.0	7.0	2.5	0.7	3.0	3.0	1.0	0.0	1.1	0.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	7.0	2.5	0.7	3.0	3.0	1.0	0.0	1.1	0.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	0.44		0.56
Lane Grp Cap(c), veh/h	5	1197	534	67	663	694	369	0	164	20	0	0
V/C Ratio(X)	0.22	0.64	0.26	0.48	0.29	0.29	0.28	0.00	0.29	0.45	0.00	0.00
Avail Cap(c_a), veh/h	232	1747	779	232	874	915	2642	0	1175	781	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.2	10.8	9.3	18.1	8.5	8.5	15.9	0.0	15.9	18.9	0.0	0.0
Incr Delay (d2), s/veh	21.7	0.6	0.3	5.2	0.2	0.2	0.4	0.0	0.9	15.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.0	0.6	0.3	0.8	0.9	0.4	0.0	0.4	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.9	11.4	9.5	23.3	8.7	8.7	16.3	0.0	16.9	34.1	0.0	0.0
LnGrp LOS	D	B	A	C	A	A	B		B	C		
Approach Vol, veh/h	908			430			149			9		
Approach Delay, s/veh	11.1			9.8			16.5			34.1		
Approach LOS	B			A			B			C		
Timer - Assigned Phs	2		3	4		6	7	8				
Phs Duration (G+Y+Rc), s	8.7		6.5	18.0		5.2	5.2	19.4				
Change Period (Y+Rc), s	4.7		5.1	5.1		4.7	5.1	5.1				
Max Green Setting (Gmax), s	28.5		5.0	18.9		18.0	5.0	18.9				
Max Q Clear Time (g_c+I1), s	3.1		2.7	9.0		2.2	2.0	5.0				
Green Ext Time (p_c), s	0.5		0.0	3.9		0.0	0.0	1.8				
Intersection Summary												
HCM 7th Control Delay, s/veh	11.4											
HCM 7th LOS	B											
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 7th Signalized Intersection Summary
19: Fire Station Access & Vista Blvd

01/12/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Volume (veh/h)	765	0	0	404	2	0
Future Volume (veh/h)	765	0	0	404	2	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	823	0	0	434	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2251	0	561	2251	0	0
Arrive On Green	0.63	0.00	0.00	0.63	0.00	0.00
Sat Flow, veh/h	3741	0	665	3647	0	0
Grp Volume(v), veh/h	823	0	0	434	0	0
Grp Sat Flow(s), veh/h/ln	1777	0	665	1777	0	0
Q Serve(g_s), s	1.4	0.0	0.0	0.7	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.7	0.0	0.0
Prop In Lane		0.00	1.00		0.00	0.00
Lane Grp Cap(c), veh/h	2251	0	561	2251	0	0
V/C Ratio(X)	0.37	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	4932	0	1063	4932	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.1	0.0	0.0	1.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	1.2	0.0	0.0	1.0	0.0	0.0
LnGrp LOS	A			A		
Approach Vol, veh/h	823			434	0	
Approach Delay, s/veh	1.2			1.0	0.0	
Approach LOS	A			A		
Timer - Assigned Phs	2			4		8
Phs Duration (G+Y+Rc), s	0.0			12.8		12.8
Change Period (Y+Rc), s	4.7			4.7		4.7
Max Green Setting (Gmax), s	17.8			17.8		17.8
Max Q Clear Time (g_c+I1), s	0.0			3.4		2.7
Green Ext Time (p_c), s	0.0			4.8		2.4
Intersection Summary						
HCM 7th Control Delay, s/veh			1.2			
HCM 7th LOS			A			

Intersection

Int Delay, s/veh 0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	2	698	45	2	365
Future Vol, veh/h	29	2	698	45	2	365
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	2	735	47	2	384

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	931	367	0
Stage 1	735	-	-
Stage 2	196	-	-
Critical Hdwy	6.84	6.94	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	-
Pot Cap-1 Maneuver	266	630	-
Stage 1	435	-	-
Stage 2	817	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	265	630	-
Mov Cap-2 Maneuver	265	-	-
Stage 1	435	-	-
Stage 2	815	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	19.83	0	0.05
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	275	832
HCM Lane V/C Ratio	-	-	0.119	0.003
HCM Ctrl Dly (s/v)	-	-	19.8	9.3
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.4	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	765	394	5	0	19
Future Vol, veh/h	0	765	394	5	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	832	428	5	0	21

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 217
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.32
Pot Cap-1 Maneuver	0	-	- 0 788
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 788
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	9.69
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	788
HCM Lane V/C Ratio	-	-	-	0.026
HCM Ctrl Dly (s/v)	-	-	-	9.7
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	0	743	387	11
Future Vol, veh/h	0	17	0	743	387	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	18	0	808	421	12

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	216	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	788	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	788	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.68	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 788	-	-
HCM Lane V/C Ratio	- 0.023	-	-
HCM Ctrl Dly (s/v)	- 9.7	-	-
HCM Lane LOS	- A	-	-
HCM 95th %tile Q(veh)	- 0.1	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1	0	0
Stage 1	-	-	1
Stage 2	-	-	0
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1622	-	1022
Stage 1	-	-	1022
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1622	-	1022
Mov Cap-2 Maneuver	-	-	1022
Stage 1	-	-	1022
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 7th Signalized Intersection Summary

1: Wingfield Hills Rd & Vista Blvd

Cumulative AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	226	1	5	1114	298	155	70	4	193	39	651
Future Volume (veh/h)	147	226	1	5	1114	298	155	70	4	193	39	651
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	175	269	0	6	1326	0	185	83	0	230	46	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	1828		14	1597		263	134		273	279	
Arrive On Green	0.07	0.51	0.00	0.01	0.45	0.00	0.08	0.07	0.00	0.15	0.15	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	175	269	0	6	1326	0	185	83	0	230	46	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.1	3.3	0.0	0.3	27.3	0.0	4.3	3.6	0.0	10.4	1.8	0.0
Cycle Q Clear(g_c), s	4.1	3.3	0.0	0.3	27.3	0.0	4.3	3.6	0.0	10.4	1.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	251	1828		14	1597		263	134		273	279	
V/C Ratio(X)	0.70	0.15		0.43	0.83		0.70	0.62		0.84	0.16	
Avail Cap(c_a), veh/h	287	1987		107	1906		312	834		437	1125	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.7	10.6	0.0	41.1	20.1	0.0	37.5	37.5	0.0	34.2	30.9	0.0
Incr Delay (d2), s/veh	6.1	0.0	0.0	19.9	2.8	0.0	5.7	4.6	0.0	8.1	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.2	0.0	0.2	10.5	0.0	2.0	1.8	0.0	5.0	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.8	10.6	0.0	60.9	22.9	0.0	43.2	42.0	0.0	42.3	31.1	0.0
LnGrp LOS	D	B		E	C		D	D		D	C	
Approach Vol, veh/h	444			1332			268			276		
Approach Delay, s/veh	23.7			23.1			42.8			40.4		
Approach LOS	C			C			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.9	11.1	6.0	48.2	11.4	17.5	11.4	42.8				
Change Period (Y+Rc), s	5.1	5.1	5.4	5.4	5.1	5.1	5.4	5.4				
Max Green Setting (Gmax), s	20.4	37.1	5.0	46.5	7.5	50.0	6.9	44.6				
Max Q Clear Time (g_c+I1), s	12.4	5.6	2.3	5.3	6.3	3.8	6.1	29.3				
Green Ext Time (p_c), s	0.4	0.4	0.0	1.7	0.1	0.2	0.0	8.1				

Intersection Summary

HCM 7th Control Delay, s/veh	27.5
HCM 7th LOS	C

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 7th TWSC
2: Vista Blvd & Village A Access

Cumulative AM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↑
Traffic Vol, veh/h	0	426	1410	3	0	7
Future Vol, veh/h	0	426	1410	3	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	495	1640	3	0	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	822
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	272
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	272
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		18.62		
HCM LOS				C		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	272		
HCM Lane V/C Ratio	-	-	-	0.03		
HCM Ctrl Dly (s/v)	-	-	-	18.6		
HCM Lane LOS	-	-	-	C		
HCM 95th %tile Q(veh)	-	-	-	0.1		

HCM 7th Signalized Intersection Summary

3: Wingfield Pkwy & Vista Blvd

Cumulative AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	240	22	9	824	10	65	12	9	3	14	522
Future Volume (veh/h)	164	240	22	9	824	10	65	12	9	3	14	522
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	191	279	26	10	958	12	76	14	10	3	16	607
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	267	1147	106	22	1020	13	97	422	301	7	682	701
Arrive On Green	0.08	0.35	0.35	0.01	0.28	0.28	0.05	0.42	0.42	0.00	0.36	0.36
Sat Flow, veh/h	3456	3288	304	1781	3594	45	1781	1015	725	1781	1870	1585
Grp Volume(v), veh/h	191	150	155	10	474	496	76	0	24	3	16	607
Grp Sat Flow(s),veh/h/ln	1728	1777	1816	1781	1777	1862	1781	0	1740	1781	1870	1585
Q Serve(g_s), s	4.9	5.5	5.6	0.5	23.8	23.8	3.8	0.0	0.7	0.2	0.5	31.6
Cycle Q Clear(g_c), s	4.9	5.5	5.6	0.5	23.8	23.8	3.8	0.0	0.7	0.2	0.5	31.6
Prop In Lane	1.00		0.17	1.00		0.02	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	267	620	634	22	504	529	97	0	723	7	682	701
V/C Ratio(X)	0.71	0.24	0.24	0.46	0.94	0.94	0.78	0.00	0.03	0.42	0.02	0.87
Avail Cap(c_a), veh/h	401	620	634	98	506	531	100	0	723	98	682	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	21.1	21.1	44.8	31.9	31.9	42.6	0.0	15.8	45.3	18.6	23.0
Incr Delay (d2), s/veh	3.5	0.2	0.2	14.2	25.6	24.8	31.3	0.0	0.0	34.7	0.0	11.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.2	2.3	0.3	13.2	13.7	2.5	0.0	0.3	0.1	0.2	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.6	21.3	21.3	59.0	57.5	56.7	73.9	0.0	15.8	80.1	18.6	34.1
LnGrp LOS	D	C	C	E	E	E	E		B	F	B	C
Approach Vol, veh/h	496			980			100			626		
Approach Delay, s/veh	30.3			57.1			59.9			33.9		
Approach LOS	C			E			E			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	42.5	6.5	37.2	9.6	37.9	12.5	31.3				
Change Period (Y+Rc), s	4.6	4.6	5.4	5.4	4.6	4.6	5.4	5.4				
Max Green Setting (Gmax), s	5.0	33.4	5.0	31.6	5.1	33.3	10.6	26.0				
Max Q Clear Time (g_c+I1), s	2.2	2.7	2.5	7.6	5.8	33.6	6.9	25.8				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.6	0.0	0.0	0.2	0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh	44.6											
HCM 7th LOS	D											

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	54	0	2	0	160	23	3	481	0
Future Vol, veh/h	0	0	0	54	0	2	0	160	23	3	481	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	67	0	2	0	198	28	4	594	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	700	827	297	516	813	113	594	0	0	226	0	0
Stage 1	601	601	-	212	212	-	-	-	-	-	-	-
Stage 2	99	226	-	304	601	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	326	305	699	442	311	918	978	-	-	1340	-	-
Stage 1	454	487	-	771	726	-	-	-	-	-	-	-
Stage 2	897	716	-	680	487	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	324	304	699	440	310	918	978	-	-	1340	-	-
Mov Cap-2 Maneuver	324	304	-	440	310	-	-	-	-	-	-	-
Stage 1	452	486	-	771	726	-	-	-	-	-	-	-
Stage 2	894	716	-	678	486	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	14.48	0	0.07
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	978	-	-	- 449	22	-	-
HCM Lane V/C Ratio	-	-	-	0.154	0.003	-	-
HCM Ctrl Dly (s/v)	0	-	-	0 14.5	7.7	0	-
HCM Lane LOS	A	-	-	A B	A A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0	-	-

HCM 7th AWSC

5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs Cumulative AM Peak Hour

Intersection												
Intersection Delay, s/veh	13.7											
Intersection LOS	B											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	17	130	343	6	8	47	18	98	5	11	0
Future Vol, veh/h	1	17	130	343	6	8	47	18	98	5	11	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	23	173	457	8	11	63	24	131	7	15	0
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			2		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			2			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	2			1			1			1		
HCM Control Delay, s/veh	9.4			17.3			10.1			9.5		
HCM LOS	A			C			B			A		
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1							
Vol Left, %	72%	0%	1%	96%	31%							
Vol Thru, %	28%	0%	11%	2%	69%							
Vol Right, %	0%	100%	88%	2%	0%							
Sign Control	Stop	Stop	Stop	Stop	Stop							
Traffic Vol by Lane	65	98	148	357	16							
LT Vol	47	0	1	343	5							
Through Vol	18	0	17	6	11							
RT Vol	0	98	130	8	0							
Lane Flow Rate	87	131	197	476	21							
Geometry Grp	5	5	2	2	4a							
Degree of Util (X)	0.16	0.201	0.261	0.658	0.037							
Departure Headway (Hd)	6.629	5.551	4.753	4.98	6.235							
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes							
Cap	543	649	758	714	576							
Service Time	4.34	3.261	2.768	3.079	4.254							
HCM Lane V/C Ratio	0.16	0.202	0.26	0.667	0.036							
HCM Control Delay, s/veh	10.6	9.7	9.4	17.3	9.5							
HCM Lane LOS	B	A	A	C	A							
HCM 95th-tile Q	0.6	0.7	1	5	0.1							

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	44	0	13	0	101	19	6	314	0
Future Vol, veh/h	0	0	0	44	0	13	0	101	19	6	314	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	56	0	17	0	129	24	8	403	0
Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	547	572	403	560	560	142	403	0	0	154	0	0
Stage 1	418	418	-	142	142	-	-	-	-	-	-	-
Stage 2	129	154	-	418	418	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	448	430	648	439	437	906	1156	-	-	1427	-	-
Stage 1	613	591	-	861	780	-	-	-	-	-	-	-
Stage 2	874	770	-	613	591	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	436	427	648	436	434	906	1156	-	-	1427	-	-
Mov Cap-2 Maneuver	436	427	-	436	434	-	-	-	-	-	-	-
Stage 1	608	587	-	861	780	-	-	-	-	-	-	-
Stage 2	858	770	-	608	587	-	-	-	-	-	-	-
Approach	EB		WB		NB			SB				
HCM Ctrl Dly, s/v	0		13.53		0			0.14				
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1156	-	-	-	495	34	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.148	0.005	-	-				
HCM Ctrl Dly (s/v)	0	-	-	0	13.5	7.5	0	-				
HCM Lane LOS	A	-	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0	-	-				

Intersection

Int Delay, s/veh 0.1

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 1 1 2 111 319 1

Future Vol, veh/h 1 1 2 111 319 1

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 50 50 50 50 50 50

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 2 2 4 222 638 2

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 869 639 640 0 - 0

Stage 1 639 - - - - -

Stage 2 230 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 322 476 944 - - -

Stage 1 526 - - - - -

Stage 2 808 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 321 476 944 - - -

Mov Cap-2 Maneuver 321 - - - - -

Stage 1 523 - - - - -

Stage 2 808 - - - - -

Approach EB NB SB

HCM Ctrl Dly, s/v 14.49 0.16 0

HCM LOS B

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 32 - 383 - -

HCM Lane V/C Ratio 0.004 - 0.01 - -

HCM Ctrl Dly (s/v) 8.8 0 14.5 - -

HCM Lane LOS A A B - -

HCM 95th %tile Q(veh) 0 - 0 - -

HCM 7th TWSC

8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South) Cumulative AM Peak Hour

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	1	27	0	4	2	101	9	1	293	1
Future Vol, veh/h	1	0	1	27	0	4	2	101	9	1	293	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	2	43	0	6	3	160	14	2	465	2

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	636	650	466	642	644	167	467	0
Stage 1	469	469	-	174	174	-	-	-
Stage 2	167	181	-	468	470	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-
Pot Cap-1 Maneuver	391	388	597	387	391	877	1095	-
Stage 1	575	561	-	828	755	-	-	-
Stage 2	835	750	-	575	560	-	-	-
Platoon blocked, %								-
Mov Cap-1 Maneuver	386	386	597	384	390	877	1095	-
Mov Cap-2 Maneuver	386	386	-	384	390	-	-	-
Stage 1	574	560	-	825	753	-	-	-
Stage 2	827	747	-	573	559	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	12.73	14.86	0.15	0.03
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	32	-	-	469	414	6	-	-
HCM Lane V/C Ratio	0.003	-	-	0.007	0.119	0.001	-	-
HCM Ctrl Dly (s/v)	8.3	0	-	12.7	14.9	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0	-	-

Intersection

Int Delay, s/veh 0.4

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 4 5 6 100 293 3

Future Vol, veh/h 4 5 6 100 293 3

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 75 75 75 75 75 75

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 5 7 8 133 391 4

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 542 393 395 0 - 0

Stage 1 393 - - - - -

Stage 2 149 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 501 656 1164 - - -

Stage 1 682 - - - - -

Stage 2 878 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 498 656 1164 - - -

Mov Cap-2 Maneuver 498 - - - - -

Stage 1 677 - - - - -

Stage 2 878 - - - - -

Approach EB NB SB

HCM Ctrl Dly, s/v 11.4 0.46 0

HCM LOS B

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 102 - 575 - -

HCM Lane V/C Ratio 0.007 - 0.021 - -

HCM Ctrl Dly (s/v) 8.1 0 11.4 - -

HCM Lane LOS A A B - -

HCM 95th %tile Q(veh) 0 - 0.1 - -

HCM 7th TWSC

10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Cumulative AM Peak Hour

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	19	2	0	6	9	93	1	2	272	2
Future Vol, veh/h	0	0	19	2	0	6	9	93	1	2	272	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	31	3	0	10	15	152	2	3	446	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	636	638	448	635	639	153	449	0	0	154	0	0
Stage 1	454	454	-	183	183	-	-	-	-	-	-	-
Stage 2	182	184	-	452	456	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	391	395	611	391	394	893	1111	-	-	1426	-	-
Stage 1	586	569	-	819	748	-	-	-	-	-	-	-
Stage 2	820	748	-	587	568	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	379	388	611	365	387	893	1111	-	-	1426	-	-
Mov Cap-2 Maneuver	379	388	-	365	387	-	-	-	-	-	-	-
Stage 1	584	568	-	807	738	-	-	-	-	-	-	-
Stage 2	799	737	-	555	567	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	11.21		10.61		0.72		0.05	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	157	-	-	611	655	13	-
HCM Lane V/C Ratio	0.013	-	-	0.051	0.02	0.002	-
HCM Ctrl Dly (s/v)	8.3	0	-	11.2	10.6	7.5	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-

HCM 7th TWSC

11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Cumulative AM Peak Hour

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	3	12	9	10	6	4	63	2	6	264	21
Future Vol, veh/h	35	3	12	9	10	6	4	63	2	6	264	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	4	17	13	14	8	6	88	3	8	367	29

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	503	499	381	485	513	89	396	0	0	90	0	0
Stage 1	398	398	-	100	100	-	-	-	-	-	-	-
Stage 2	106	101	-	385	413	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	479	473	666	492	465	969	1163	-	-	1505	-	-
Stage 1	628	603	-	906	812	-	-	-	-	-	-	-
Stage 2	900	811	-	638	594	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	455	467	666	470	459	969	1163	-	-	1505	-	-
Mov Cap-2 Maneuver	455	467	-	470	459	-	-	-	-	-	-	-
Stage 1	623	599	-	902	808	-	-	-	-	-	-	-
Stage 2	873	807	-	613	590	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	13.49		12.26		0.47		0.15	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	104	-	-	493	531	37	-
HCM Lane V/C Ratio	0.005	-	-	0.141	0.065	0.006	-
HCM Ctrl Dly (s/v)	8.1	0	-	13.5	12.3	7.4	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	46	2	3	31	1	4
Future Vol, veh/h	46	2	3	31	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	2	4	37	1	5
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	58	0	101	57
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	45	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1546	-	897	1010
Stage 1	-	-	-	-	966	-
Stage 2	-	-	-	-	978	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1546	-	895	1010
Mov Cap-2 Maneuver	-	-	-	-	895	-
Stage 1	-	-	-	-	966	-
Stage 2	-	-	-	-	976	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0.65		8.68	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	985	-	-	159	-	
HCM Lane V/C Ratio	0.006	-	-	0.002	-	
HCM Ctrl Dly (s/v)	8.7	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	2.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	34	3	15	17	0	15
Future Vol, veh/h	34	3	15	17	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	4	22	25	0	22
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	54	0	120	51
Stage 1	-	-	-	-	51	-
Stage 2	-	-	-	-	68	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1552	-	876	1016
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	955	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1552	-	864	1016
Mov Cap-2 Maneuver	-	-	-	-	864	-
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	941	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		3.45		8.62	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1016	-	-	844	-	
HCM Lane V/C Ratio	0.021	-	-	0.014	-	
HCM Ctrl Dly (s/v)	8.6	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 7th TWSC

14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr

Cumulative AM Peak Hour

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	19	0	0	8	9	0	0	0	18	0	0
Future Vol, veh/h	0	19	0	0	8	9	0	0	0	18	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	25	0	0	11	12	0	0	0	24	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	23	0	0	25	0	0	36	48	25	42	42	17
Stage 1	-	-	-	-	-	-	25	25	-	17	17	-
Stage 2	-	-	-	-	-	-	11	23	-	25	25	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1593	-	-	1589	-	-	970	844	1051	961	850	1062
Stage 1	-	-	-	-	-	-	992	874	-	1003	882	-
Stage 2	-	-	-	-	-	-	1010	876	-	992	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1593	-	-	1589	-	-	970	844	1051	961	850	1062
Mov Cap-2 Maneuver	-	-	-	-	-	-	970	844	-	961	850	-
Stage 1	-	-	-	-	-	-	992	874	-	1003	882	-
Stage 2	-	-	-	-	-	-	1010	876	-	992	874	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			0			0			8.84		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	1593	-	-	1589	-	-	961				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	0.025				
HCM Ctrl Dly (s/v)	0	0	-	-	0	-	-	8.8				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1				

HCM 7th TWSC
15: Island Queen Dr & Decoy Dr

Cumulative AM Peak Hour

Intersection						
Int Delay, s/veh	4.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	5	11	4	6	11
Future Vol, veh/h	8	5	11	4	6	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	45	45	45	45	45	45
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	11	24	9	13	24

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	83	26	38
Stage 1	26	-	-
Stage 2	58	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	918	1050	1573
Stage 1	997	-	-
Stage 2	965	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	904	1050	1573
Mov Cap-2 Maneuver	904	-	-
Stage 1	981	-	-
Stage 2	965	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.89	5.37	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1320	-	955	-	-
HCM Lane V/C Ratio	0.016	-	0.03	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 7th TWSC
16: Decoy Dr & Little Easy St

Cumulative AM Peak Hour

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	13	22	0	0	31
Future Vol, veh/h	15	13	22	0	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	58	58	58	58	58	58
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	22	38	0	0	53
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	38	0	-	0	112	38
Stage 1	-	-	-	-	38	-
Stage 2	-	-	-	-	74	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1572	-	-	-	885	1034
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	949	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1572	-	-	-	870	1034
Mov Cap-2 Maneuver	-	-	-	-	870	-
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	949	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	3.93	0		8.67		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	964	-	-	-	-	1034
HCM Lane V/C Ratio	0.016	-	-	-	-	0.052
HCM Ctrl Dly (s/v)	7.3	0	-	-	-	8.7
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.2

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	16	62	0	0	7	1	29	0	0	0
Future Vol, veh/h	0	1	16	62	0	0	7	1	29	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	24	94	0	0	11	2	44	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	26	0	0	202	202	14	190	214	0
Stage 1	-	-	-	-	-	-	14	14	-	188	188	-
Stage 2	-	-	-	-	-	-	188	188	-	2	26	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1588	-	-	757	695	1066	770	684	-
Stage 1	-	-	-	-	-	-	1007	884	-	814	745	-
Stage 2	-	-	-	-	-	-	814	745	-	1020	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1588	-	-	-	653	1066	693	643	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	653	-	693	643	-
Stage 1	-	-	-	-	-	-	1007	884	-	766	701	-
Stage 2	-	-	-	-	-	-	766	701	-	977	874	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			7.41						0		
HCM LOS							-			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	-	-	-	1588	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.059	-	-	-				
HCM Ctrl Dly (s/v)	-	0	-	-	7.4	0	-	0				
HCM Lane LOS	-	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	-	-	-	-	0.2	-	-	-				

HCM 7th Signalized Intersection Summary

18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Cumulative AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	175	76	17	698	6	161	0	15	12	0	6
Future Volume (veh/h)	1	175	76	17	698	6	161	0	15	12	0	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	199	86	19	793	7	183	0	17	14	0	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	1104	493	43	1203	11	416	0	185	30	0	15
Arrive On Green	0.00	0.31	0.31	0.02	0.33	0.33	0.12	0.00	0.12	0.03	0.00	0.03
Sat Flow, veh/h	1781	3554	1585	1781	3610	32	3563	0	1585	1140	0	570
Grp Volume(v), veh/h	1	199	86	19	390	410	183	0	17	21	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1865	1781	0	1585	1711	0	0
Q Serve(g_s), s	0.0	1.5	1.5	0.4	7.0	7.0	1.8	0.0	0.4	0.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.5	1.5	0.4	7.0	7.0	1.8	0.0	0.4	0.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.67		0.33
Lane Grp Cap(c), veh/h	5	1104	493	43	592	621	416	0	185	45	0	0
V/C Ratio(X)	0.21	0.18	0.17	0.45	0.66	0.66	0.44	0.00	0.09	0.47	0.00	0.00
Avail Cap(c_a), veh/h	237	1809	807	237	905	949	2706	0	1204	812	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.7	9.4	9.4	18.1	10.7	10.7	15.4	0.0	14.8	18.0	0.0	0.0
Incr Delay (d2), s/veh	20.7	0.1	0.2	7.1	1.3	1.2	0.7	0.0	0.2	7.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.4	0.2	2.1	2.2	0.7	0.0	0.1	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.3	9.5	9.6	25.2	11.9	11.9	16.2	0.0	15.0	25.4	0.0	0.0
LnGrp LOS	D	A	A	C	B	B	B		B	C		
Approach Vol, veh/h	286			819			200			21		
Approach Delay, s/veh	9.6			12.2			16.1			25.4		
Approach LOS	A			B			B			C		
Timer - Assigned Phs	2		3	4		6	7	8				
Phs Duration (G+Y+Rc), s	9.1		6.0	16.8		5.7	5.2	17.6				
Change Period (Y+Rc), s	4.7		5.1	5.1		4.7	5.1	5.1				
Max Green Setting (Gmax), s	28.5		5.0	19.1		17.8	5.0	19.1				
Max Q Clear Time (g_c+I1), s	3.8		2.4	3.5		2.5	2.0	9.0				
Green Ext Time (p_c), s	0.6		0.0	1.2		0.0	0.0	3.5				
Intersection Summary												
HCM 7th Control Delay, s/veh	12.5											
HCM 7th LOS	B											
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 7th Signalized Intersection Summary

19: Fire Station Access & Vista Blvd

Cumulative AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	199	1	3	720	1	0
Future Volume (veh/h)	199	1	3	720	1	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	276	1	4	1000	0	0
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2442	9	1213	2389	0	0
Arrive On Green	0.67	0.67	0.67	0.67	0.00	0.00
Sat Flow, veh/h	3725	13	1102	3647	0	0
Grp Volume(v), veh/h	135	142	4	1000	0	0
Grp Sat Flow(s), veh/h/ln	1777	1868	1102	1777	0	0
Q Serve(g_s), s	0.4	0.4	0.0	1.8	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.4	0.4	1.8	0.0	0.0
Prop In Lane		0.01	1.00		0.00	0.00
Lane Grp Cap(c), veh/h	1195	1256	1213	2389	0	0
V/C Ratio(X)	0.11	0.11	0.00	0.42	0.00	0.00
Avail Cap(c_a), veh/h	2205	2318	1840	4410	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.8	0.8	0.9	1.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.9	0.9	0.9	1.2	0.0	0.0
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h	277			1004	0	
Approach Delay, s/veh	0.9			1.2	0.0	
Approach LOS	A			A		
Timer - Assigned Phs	2			4		8
Phs Duration (G+Y+Rc), s	0.0			14.3		14.3
Change Period (Y+Rc), s	4.7			4.7		4.7
Max Green Setting (Gmax), s	17.8			17.8		17.8
Max Q Clear Time (g_c+I1), s	0.0			2.4		3.8
Green Ext Time (p_c), s	0.0			1.3		5.9
Intersection Summary						
HCM 7th Control Delay, s/veh			1.1			
HCM 7th LOS			A			

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	13	181	18	6	678
Future Vol, veh/h	41	13	181	18	6	678
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	18	255	25	8	955

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	749	127	0	0	280
Stage 1	255	-	-	-	-
Stage 2	494	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	347	899	-	-	1279
Stage 1	764	-	-	-	-
Stage 2	578	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	345	899	-	-	1279
Mov Cap-2 Maneuver	345	-	-	-	-
Stage 1	764	-	-	-	-
Stage 2	575	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	15.92	0	0.07
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	405	1279
HCM Lane V/C Ratio	-	-	0.188	0.007
HCM Ctrl Dly (s/v)	-	-	15.9	7.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.7	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		 	 			 
Traffic Vol, veh/h	0	200	721	0	0	0
Future Vol, veh/h	0	200	721	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	217	784	0	0	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	392
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	607
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	607
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS					A	
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	-		
HCM Lane V/C Ratio	-	-	-	-		
HCM Ctrl Dly (s/v)	-	-	-	0		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	-		

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	199	723	0
Future Vol, veh/h	0	0	0	199	723	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	216	786	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	393	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	606	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	606	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	-		-	-		
HCM Lane V/C Ratio	-		-	-		
HCM Ctrl Dly (s/v)	-		0	-		
HCM Lane LOS	-		A	-		
HCM 95th %tile Q(veh)	-		-	-		

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1	0	-	0	1	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	1022	1083
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	1022	1083
Mov Cap-2 Maneuver	-	-	-	-	1022	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1622	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	0	-	-	-	0	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	-	

HCM 7th Signalized Intersection Summary

1: Wingfield Hills Rd & Vista Blvd

Cumulative PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	595	1166	1	7	597	219	78	35	5	340	70	338
Future Volume (veh/h)	595	1166	1	7	597	219	78	35	5	340	70	338
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	620	1215	0	7	622	0	81	36	0	354	73	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	727	1544		16	829		192	126		354	394	
Arrive On Green	0.21	0.43	0.00	0.01	0.23	0.00	0.06	0.07	0.00	0.20	0.21	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	620	1215	0	7	622	0	81	36	0	354	73	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	12.5	21.3	0.0	0.3	11.8	0.0	1.6	1.3	0.0	14.4	2.3	0.0
Cycle Q Clear(g_c), s	12.5	21.3	0.0	0.3	11.8	0.0	1.6	1.3	0.0	14.4	2.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	727	1544		16	829		192	126		354	394	
V/C Ratio(X)	0.85	0.79		0.43	0.75		0.42	0.29		1.00	0.19	
Avail Cap(c_a), veh/h	826	1879		123	1276		282	808		354	1028	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.5	17.6	0.0	35.7	25.8	0.0	33.1	32.1	0.0	29.0	23.5	0.0
Incr Delay (d2), s/veh	7.8	1.9	0.0	17.2	1.4	0.0	1.5	1.2	0.0	47.7	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	7.8	0.0	0.2	4.7	0.0	0.7	0.6	0.0	10.4	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.4	19.5	0.0	52.9	27.2	0.0	34.6	33.3	0.0	76.7	23.7	0.0
LnGrp LOS	D	B		D	C		C	C		E	C	
Approach Vol, veh/h	1835				629				117		427	
Approach Delay, s/veh	24.8				27.5				34.2		67.6	
Approach LOS	C				C				C		E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.5	10.0	6.1	36.9	9.1	20.4	20.6	22.3				
Change Period (Y+Rc), s	5.1	5.1	5.4	5.4	5.1	5.1	5.4	5.4				
Max Green Setting (Gmax), s	14.4	31.3	5.0	38.3	5.9	39.8	17.3	26.0				
Max Q Clear Time (g_c+I1), s	16.4	3.3	2.3	23.3	3.6	4.3	14.5	13.8				
Green Ext Time (p_c), s	0.0	0.1	0.0	7.3	0.0	0.3	0.7	3.1				

Intersection Summary

HCM 7th Control Delay, s/veh	31.8
HCM 7th LOS	C

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 7th TWSC
2: Vista Blvd & Village A Access

Cumulative PM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑↑			↑
Traffic Vol, veh/h	0	1511	813	0	0	10
Future Vol, veh/h	0	1511	813	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1558	838	0	0	10
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	419
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	498
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	498
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		12.38		
HCM LOS				B		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	498		
HCM Lane V/C Ratio	-	-	-	0.021		
HCM Ctrl Dly (s/v)	-	-	-	12.4		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.1		

HCM 7th Signalized Intersection Summary

3: Wingfield Pkwy & Vista Blvd

Cumulative PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	488	959	64	7	474	43	31	4	3	17	5	310
Future Volume (veh/h)	488	959	64	7	474	43	31	4	3	17	5	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	508	999	67	7	494	45	32	4	3	18	5	323
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	672	1345	90	16	701	64	62	219	164	39	388	637
Arrive On Green	0.19	0.40	0.40	0.01	0.21	0.21	0.03	0.22	0.22	0.02	0.21	0.21
Sat Flow, veh/h	3456	3380	227	1781	3294	299	1781	992	744	1781	1870	1585
Grp Volume(v), veh/h	508	525	541	7	266	273	32	0	7	18	5	323
Grp Sat Flow(s),veh/h/ln	1728	1777	1830	1781	1777	1817	1781	0	1736	1781	1870	1585
Q Serve(g_s), s	7.9	14.4	14.4	0.2	7.9	8.0	1.0	0.0	0.2	0.6	0.1	8.7
Cycle Q Clear(g_c), s	7.9	14.4	14.4	0.2	7.9	8.0	1.0	0.0	0.2	0.6	0.1	8.7
Prop In Lane	1.00		0.12	1.00		0.16	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	672	707	728	16	378	386	62	0	383	39	388	637
V/C Ratio(X)	0.76	0.74	0.74	0.43	0.70	0.71	0.52	0.00	0.02	0.46	0.01	0.51
Avail Cap(c_a), veh/h	1066	1022	1052	156	629	643	156	0	980	156	1056	1203
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	14.7	14.7	28.1	20.8	20.8	27.1	0.0	17.4	27.6	18.0	12.8
Incr Delay (d2), s/veh	1.8	1.7	1.7	16.6	2.4	2.4	6.5	0.0	0.0	8.4	0.0	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.9	5.1	0.2	3.1	3.2	0.5	0.0	0.1	0.3	0.1	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.5	16.4	16.4	44.7	23.2	23.2	33.5	0.0	17.4	36.0	18.0	13.4
LnGrp LOS	C	B	B	D	C	C	C		B	D	B	B
Approach Vol, veh/h	1574			546			39			346		
Approach Delay, s/veh	18.7			23.5			30.6			14.7		
Approach LOS	B			C			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	17.2	5.9	28.1	6.6	16.4	16.5	17.5				
Change Period (Y+Rc), s	4.6	4.6	5.4	5.4	4.6	4.6	5.4	5.4				
Max Green Setting (Gmax), s	5.0	32.2	5.0	32.8	5.0	32.2	17.6	20.2				
Max Q Clear Time (g_c+I1), s	2.6	2.2	2.2	16.4	3.0	10.7	9.9	10.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	6.1	0.0	1.1	1.2	2.2				
Intersection Summary												
HCM 7th Control Delay, s/veh	19.3											
HCM 7th LOS	B											

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	21	0	3	0	486	48	3	310	0
Future Vol, veh/h	0	0	0	21	0	3	0	486	48	3	310	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	23	0	3	0	534	53	3	341	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	614	934	170	737	908	293	341	0	0	587	0	0
Stage 1	347	347	-	560	560	-	-	-	-	-	-	-
Stage 2	267	587	-	177	347	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	376	264	844	306	274	703	1215	-	-	984	-	-
Stage 1	642	633	-	480	509	-	-	-	-	-	-	-
Stage 2	715	495	-	808	633	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	373	263	844	305	273	703	1215	-	-	984	-	-
Mov Cap-2 Maneuver	373	263	-	305	273	-	-	-	-	-	-	-
Stage 1	639	631	-	480	509	-	-	-	-	-	-	-
Stage 2	712	495	-	805	631	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Ctrl Dly, s/v	0		16.91			0			0.11			
HCM LOS	A		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1215	-	-	-	328	35	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.08	0.003	-	-				
HCM Ctrl Dly (s/v)	0	-	-	0	16.9	8.7	0	-				
HCM Lane LOS	A	-	-	A	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0	-	-				

HCM 7th AWSC

5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs Cumulative PM Peak Hour

Intersection												
Intersection Delay, s/veh	12.1											
Intersection LOS	B											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	15	112	180	31	18	165	38	289	9	22	0
Future Vol, veh/h	0	15	112	180	31	18	165	38	289	9	22	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	17	130	209	36	21	192	44	336	10	26	0
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	9.8	12.8	12.6	9.5
HCM LOS	A	B	B	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	81%	0%	0%	79%	29%
Vol Thru, %	19%	0%	12%	14%	71%
Vol Right, %	0%	100%	88%	8%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	203	289	127	229	31
LT Vol	165	0	0	180	9
Through Vol	38	0	15	31	22
RT Vol	0	289	112	18	0
Lane Flow Rate	236	336	148	266	36
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.405	0.472	0.217	0.421	0.061
Departure Headway (Hd)	6.176	5.057	5.29	5.696	6.068
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	583	712	678	634	590
Service Time	3.902	2.782	3.326	3.728	4.111
HCM Lane V/C Ratio	0.405	0.472	0.218	0.42	0.061
HCM Control Delay, s/veh	13.1	12.2	9.8	12.8	9.5
HCM Lane LOS	B	B	A	B	A
HCM 95th-tile Q	2	2.5	0.8	2.1	0.2

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	35	0	10	0	274	39	11	191	0
Future Vol, veh/h	0	0	0	35	0	10	0	274	39	11	191	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	38	0	11	0	301	43	12	210	0
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	535	578	210	557	557	323	210	0	0	344	0	0
Stage 1	234	234	-	323	323	-	-	-	-	-	-	-
Stage 2	301	344	-	234	234	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	456	427	830	441	439	718	1361	-	-	1215	-	-
Stage 1	769	711	-	689	651	-	-	-	-	-	-	-
Stage 2	708	637	-	769	711	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	444	422	830	436	434	718	1361	-	-	1215	-	-
Mov Cap-2 Maneuver	444	422	-	436	434	-	-	-	-	-	-	-
Stage 1	760	703	-	689	651	-	-	-	-	-	-	-
Stage 2	697	637	-	760	703	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			13.4			0			0.44		
HCM LOS	A			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1361	-	-	-	478	98	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.103	0.01	-	-				
HCM Ctrl Dly (s/v)	0	-	-	0	13.4	8	0	-				
HCM Lane LOS	A	-	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0	-	-				

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2	1	284	200	1
Future Vol, veh/h	0	2	1	284	200	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	38	38	38	38	38	38
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	3	747	526	3

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1280	528	529
Stage 1	528	-	-
Stage 2	753	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	183	551	1038
Stage 1	592	-	-
Stage 2	465	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	182	551	1038
Mov Cap-2 Maneuver	182	-	-
Stage 1	589	-	-
Stage 2	465	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	11.6	0.03	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	6	-	551	-	-
HCM Lane V/C Ratio	0.003	-	0.01	-	-
HCM Ctrl Dly (s/v)	8.5	0	11.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC

8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South) Cumulative PM Peak Hour

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	9	22	0	3	14	235	35	3	170	0
Future Vol, veh/h	0	0	9	22	0	3	14	235	35	3	170	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	43	43	43	43	43	43	43	43	43	43	43	43
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	21	51	0	7	33	547	81	7	395	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1021	1102	395	1062	1062	587	395	0	0	628	0	0
Stage 1	409	409	-	652	652	-	-	-	-	-	-	-
Stage 2	612	693	-	409	409	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	215	212	654	201	224	509	1163	-	-	954	-	-
Stage 1	619	596	-	457	464	-	-	-	-	-	-	-
Stage 2	481	445	-	619	596	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	201	200	654	185	212	509	1163	-	-	954	-	-
Mov Cap-2 Maneuver	201	200	-	185	212	-	-	-	-	-	-	-
Stage 1	613	590	-	437	444	-	-	-	-	-	-	-
Stage 2	453	425	-	594	590	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Ctrl Dly, s/v	10.69		30.21			0.4			0.15			
HCM LOS	B		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	86	-	-	654	200	31	-	-				
HCM Lane V/C Ratio	0.028	-	-	0.032	0.291	0.007	-	-				
HCM Ctrl Dly (s/v)	8.2	0	-	10.7	30.2	8.8	0	-				
HCM Lane LOS	A	A	-	B	D	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.1	1.2	0	-	-				

Intersection

Int Delay, s/veh 0.7

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 7 11 6 232 163 5

Future Vol, veh/h 7 11 6 232 163 5

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 50 50 50 50 50 50

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 14 22 12 464 326 10

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 819 331 336 0 - 0

Stage 1 331 - - - - -

Stage 2 488 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 345 711 1223 - - -

Stage 1 728 - - - - -

Stage 2 617 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 341 711 1223 - - -

Mov Cap-2 Maneuver 341 - - - - -

Stage 1 718 - - - - -

Stage 2 617 - - - - -

Approach EB NB SB

HCM Ctrl Dly, s/v 12.77 0.2 0

HCM LOS B

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 45 - 500 - -

HCM Lane V/C Ratio 0.01 - 0.072 - -

HCM Ctrl Dly (s/v) 8 0 12.8 - -

HCM Lane LOS A A B - -

HCM 95th %tile Q(veh) 0 - 0.2 - -

HCM 7th TWSC

10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Cumulative PM Peak Hour

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	2	14	5	0	6	16	215	9	9	149	4
Future Vol, veh/h	1	2	14	5	0	6	16	215	9	9	149	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	3	23	8	0	10	26	352	15	15	244	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	682	697	248	688	693	360	251	0	0	367	0	0
Stage 1	277	277	-	412	412	-	-	-	-	-	-	-
Stage 2	405	420	-	275	280	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	364	365	791	361	367	685	1315	-	-	1191	-	-
Stage 1	729	681	-	617	594	-	-	-	-	-	-	-
Stage 2	623	590	-	731	679	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	345	351	791	333	353	685	1315	-	-	1191	-	-
Mov Cap-2 Maneuver	345	351	-	333	353	-	-	-	-	-	-	-
Stage 1	719	671	-	601	579	-	-	-	-	-	-	-
Stage 2	598	575	-	696	669	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	10.82		13.09		0.52		0.45	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	119	-	-	646	463	99	-	-
HCM Lane V/C Ratio	0.02	-	-	0.043	0.039	0.012	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	10.8	13.1	8.1	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0	-	-

HCM 7th TWSC

11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Cumulative PM Peak Hour

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	6	12	4	5	4	15	114	5	11	100	31
Future Vol, veh/h	36	6	12	4	5	4	15	114	5	11	100	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	8	16	5	7	5	20	152	7	15	133	41

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	379	382	154	362	399	155	175	0	0	159	0	0
Stage 1	183	183	-	195	195	-	-	-	-	-	-	-
Stage 2	195	199	-	167	204	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	579	551	892	594	539	890	1402	-	-	1421	-	-
Stage 1	818	748	-	806	739	-	-	-	-	-	-	-
Stage 2	806	737	-	835	733	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	553	536	892	559	524	890	1402	-	-	1421	-	-
Mov Cap-2 Maneuver	553	536	-	559	524	-	-	-	-	-	-	-
Stage 1	809	739	-	794	728	-	-	-	-	-	-	-
Stage 2	782	725	-	802	724	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	11.79		11.04		0.85		0.59	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	200	-	-	602	614	133	-	-
HCM Lane V/C Ratio	0.014	-	-	0.12	0.028	0.01	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	11.8	11	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	0	-	-

Intersection						
Int Delay, s/veh	7.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	7	0	1	5
Future Vol, veh/h	0	0	7	0	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	9	0	1	6

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1	0	19	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	18	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1621	-	998	1083
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	1005	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1621	-	992	1083
Mov Cap-2 Maneuver	-	-	-	-	992	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	999	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	7.23	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1067	-	-	1621	-
HCM Lane V/C Ratio	0.007	-	-	0.006	-
HCM Ctrl Dly (s/v)	8.4	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection

Int Delay, s/veh 3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	30	1	17	29	1	18
Future Vol, veh/h	30	1	17	29	1	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	1	21	36	1	22

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	38
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1572
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1572
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.71	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1024	-	-	665	-
HCM Lane V/C Ratio	0.023	-	-	0.013	-
HCM Ctrl Dly (s/v)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 7th TWSC

14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr

Cumulative PM Peak Hour

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	16	0	0	18	12	0	0	0	15	0	1
Future Vol, veh/h	1	16	0	0	18	12	0	0	0	15	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	32	0	0	36	24	0	0	0	30	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	32	0	0	72	96	32	84	84	48
Stage 1	-	-	-	-	-	-	36	36	-	48	48	-
Stage 2	-	-	-	-	-	-	36	60	-	36	36	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1544	-	-	1580	-	-	919	794	1042	903	806	1021
Stage 1	-	-	-	-	-	-	980	865	-	965	855	-
Stage 2	-	-	-	-	-	-	980	845	-	980	865	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1544	-	-	1580	-	-	916	793	1042	902	805	1021
Mov Cap-2 Maneuver	-	-	-	-	-	-	916	793	-	902	805	-
Stage 1	-	-	-	-	-	-	978	864	-	965	855	-
Stage 2	-	-	-	-	-	-	978	845	-	978	864	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.43	0	0	9.11
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	106	-	-	1580	-	-	908
HCM Lane V/C Ratio	-	0.001	-	-	-	-	-	0.035
HCM Ctrl Dly (s/v)	0	7.3	0	-	0	-	-	9.1
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1

HCM 7th TWSC
15: Island Queen Dr & Decoy Dr

Cumulative PM Peak Hour

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	15	10	7	7	13
Future Vol, veh/h	20	15	10	7	7	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	25	16	11	11	21

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	66	22	33	0	-	0
Stage 1	22	-	-	-	-	-
Stage 2	44	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	939	1055	1579	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	978	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	929	1055	1579	-	-	-
Mov Cap-2 Maneuver	929	-	-	-	-	-
Stage 1	990	-	-	-	-	-
Stage 2	978	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.91	4.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1059	-	979	-	-
HCM Lane V/C Ratio	0.01	-	0.059	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	49	35	23	0	0	18
Future Vol, veh/h	49	35	23	0	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	37	24	0	0	19

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	24	0	0 164 24
Stage 1	-	-	- - 24 -
Stage 2	-	-	- - 140 -
Critical Hdwy	4.12	-	- - 6.42 6.22
Critical Hdwy Stg 1	-	-	- - 5.42 -
Critical Hdwy Stg 2	-	-	- - 5.42 -
Follow-up Hdwy	2.218	-	- - 3.518 3.318
Pot Cap-1 Maneuver	1591	-	- - 826 1052
Stage 1	-	-	- - 998 -
Stage 2	-	-	- - 887 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	1591	-	- - 799 1052
Mov Cap-2 Maneuver	-	-	- - 799 -
Stage 1	-	-	- - 965 -
Stage 2	-	-	- - 887 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	4.28	0	8.48
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1050	-	-	-	1052
HCM Lane V/C Ratio	0.032	-	-	-	0.018
HCM Ctrl Dly (s/v)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	16	70	44	0	0	99	0	105	0	0	0
Future Vol, veh/h	0	16	70	44	0	0	99	0	105	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	71	71	71	71	71	71	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	99	62	0	0	139	0	148	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	121	0	0	196	196	72	146	245	0
Stage 1	-	-	-	-	-	-	72	72	-	124	124	-
Stage 2	-	-	-	-	-	-	124	124	-	23	121	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1466	-	-	763	700	990	822	657	-
Stage 1	-	-	-	-	-	-	938	835	-	880	793	-
Stage 2	-	-	-	-	-	-	880	793	-	996	796	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1466	-	-	-	670	990	670	629	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	670	-	670	629	-
Stage 1	-	-	-	-	-	-	938	835	-	843	760	-
Stage 2	-	-	-	-	-	-	843	760	-	847	796	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			7.56						0		
HCM LOS							-			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	-	-	-	1466	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.042	-	-	-				
HCM Ctrl Dly (s/v)	-	0	-	-	7.6	0	-	0				
HCM Lane LOS	-	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	-	-	-	-	0.1	-	-	-				

HCM 7th Signalized Intersection Summary

18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Cumulative PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	721	258	39	359	7	160	2	49	5	0	6
Future Volume (veh/h)	1	721	258	39	359	7	160	2	49	5	0	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	751	269	41	374	7	168	0	51	5	0	6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	4	1185	529	82	1348	25	408	0	181	11	0	13
Arrive On Green	0.00	0.33	0.33	0.05	0.38	0.38	0.11	0.00	0.11	0.01	0.00	0.01
Sat Flow, veh/h	1781	3554	1585	1781	3568	67	3563	0	1585	758	0	910
Grp Volume(v), veh/h	1	751	269	41	186	195	168	0	51	11	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1858	1781	0	1585	1669	0	0
Q Serve(g_s), s	0.0	7.1	5.4	0.9	2.9	2.9	1.7	0.0	1.2	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	7.1	5.4	0.9	2.9	2.9	1.7	0.0	1.2	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.45		0.55
Lane Grp Cap(c), veh/h	4	1185	529	82	671	702	408	0	181	24	0	0
V/C Ratio(X)	0.22	0.63	0.51	0.50	0.28	0.28	0.41	0.00	0.28	0.46	0.00	0.00
Avail Cap(c_a), veh/h	224	1686	752	224	843	882	2549	0	1134	754	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.9	11.2	10.7	18.6	8.6	8.6	16.4	0.0	16.1	19.5	0.0	0.0
Incr Delay (d2), s/veh	23.5	0.6	0.8	4.7	0.2	0.2	0.7	0.0	0.8	13.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.1	1.5	0.4	0.8	0.9	0.6	0.0	0.4	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.3	11.8	11.4	23.3	8.8	8.8	17.1	0.0	17.0	32.5	0.0	0.0
LnGrp LOS	D	B	B	C	A	A	B		B	C		
Approach Vol, veh/h	1021			422			219			11		
Approach Delay, s/veh	11.7			10.2			17.0			32.5		
Approach LOS	B			B			B			C		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	9.3		6.9	18.4		5.3		5.2	20.2			
Change Period (Y+Rc), s	4.7		5.1	5.1		4.7		5.1	5.1			
Max Green Setting (Gmax), s	28.5		5.0	18.9		18.0		5.0	18.9			
Max Q Clear Time (g_c+I1), s	3.7		2.9	9.1		2.3		2.0	4.9			
Green Ext Time (p_c), s	0.7		0.0	4.2		0.0		0.0	1.8			
Intersection Summary												
HCM 7th Control Delay, s/veh	12.2											
HCM 7th LOS	B											
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 7th Signalized Intersection Summary

19: Fire Station Access & Vista Blvd

Cumulative PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	775	0	0	405	2	0
Future Volume (veh/h)	775	0	0	405	2	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	833	0	0	435	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2260	0	558	2260	0	0
Arrive On Green	0.64	0.00	0.00	0.64	0.00	0.00
Sat Flow, veh/h	3741	0	659	3647	0	0
Grp Volume(v), veh/h	833	0	0	435	0	0
Grp Sat Flow(s), veh/h/ln	1777	0	659	1777	0	0
Q Serve(g_s), s	1.4	0.0	0.0	0.7	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.7	0.0	0.0
Prop In Lane		0.00	1.00		0.00	0.00
Lane Grp Cap(c), veh/h	2260	0	558	2260	0	0
V/C Ratio(X)	0.37	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	4898	0	1047	4898	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.1	0.0	0.0	1.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	1.2	0.0	0.0	1.0	0.0	0.0
LnGrp LOS	A			A		
Approach Vol, veh/h	833			435	0	
Approach Delay, s/veh	1.2			1.0	0.0	
Approach LOS	A			A		
Timer - Assigned Phs	2			4		8
Phs Duration (G+Y+Rc), s	0.0			12.9		12.9
Change Period (Y+Rc), s	4.7			4.7		4.7
Max Green Setting (Gmax), s	17.8			17.8		17.8
Max Q Clear Time (g_c+I1), s	0.0			3.4		2.7
Green Ext Time (p_c), s	0.0			4.9		2.4
Intersection Summary						
HCM 7th Control Delay, s/veh			1.1			
HCM 7th LOS			A			

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	2	730	45	2	372
Future Vol, veh/h	31	2	730	45	2	372
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	2	768	47	2	392

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	968	384	0
Stage 1	768	-	-
Stage 2	200	-	-
Critical Hdwy	6.84	6.94	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	-
Pot Cap-1 Maneuver	251	614	-
Stage 1	418	-	-
Stage 2	814	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	251	614	-
Mov Cap-2 Maneuver	251	-	-
Stage 1	418	-	-
Stage 2	812	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	20.97	0	0.05
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	260	808
HCM Lane V/C Ratio	-	-	0.134	0.003
HCM Ctrl Dly (s/v)	-	-	21	9.5
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.5	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	775	405	0	0	0
Future Vol, veh/h	0	775	405	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	842	440	0	0	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	220
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	784
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	784
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	-		
HCM Lane V/C Ratio	-	-	-	-		
HCM Ctrl Dly (s/v)	-	-	-	0		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	-		

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		7		↑↑	↑↑	
Traffic Vol, veh/h	0	0	0	775	40	0
Future Vol, veh/h	0	0	0	775	40	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	842	43	0
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	22	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	1050	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	1050	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB	SB			
HCM Ctrl Dly, s/v	0	0	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	-	-	-	-		
HCM Lane V/C Ratio	-	-	-	-		
HCM Ctrl Dly (s/v)	-	0	-	-		
HCM Lane LOS	-	A	-	-		
HCM 95th %tile Q(veh)	-	-	-	-		

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1	0	0
Stage 1	-	-	1
Stage 2	-	-	0
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1622	-	1022
Stage 1	-	-	1022
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1622	-	1022
Mov Cap-2 Maneuver	-	-	1022
Stage 1	-	-	1022
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 7th Signalized Intersection Summary

1: Wingfield Hills Rd & Vista Blvd

Cumulative Plus Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	289	1	5	1291	377	155	70	4	218	39	651
Future Volume (veh/h)	147	289	1	5	1291	377	155	70	4	218	39	651
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	175	344	0	6	1537	0	185	83	0	260	46	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	1968		14	1750		249	125		297	303	
Arrive On Green	0.07	0.55	0.00	0.01	0.49	0.00	0.07	0.07	0.00	0.17	0.16	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	175	344	0	6	1537	0	185	83	0	260	46	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	5.1	4.9	0.0	0.3	39.7	0.0	5.4	4.4	0.0	14.6	2.2	0.0
Cycle Q Clear(g_c), s	5.1	4.9	0.0	0.3	39.7	0.0	5.4	4.4	0.0	14.6	2.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	1968		14	1750		249	125		297	303	
V/C Ratio(X)	0.73	0.17		0.44	0.88		0.74	0.67		0.87	0.15	
Avail Cap(c_a), veh/h	256	2017		87	1927		266	710		467	1056	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.8	11.3	0.0	50.7	23.3	0.0	46.7	46.7	0.0	41.7	36.9	0.0
Incr Delay (d2), s/veh	9.7	0.0	0.0	20.7	4.7	0.0	10.1	6.0	0.0	10.7	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	1.8	0.0	0.2	16.2	0.0	2.6	2.2	0.0	7.2	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	56.5	11.3	0.0	71.3	27.9	0.0	56.8	52.7	0.0	52.4	37.2	0.0
LnGrp LOS	E	B		E	C		E	D		D	D	
Approach Vol, veh/h	519			1543			268			306		
Approach Delay, s/veh	26.6			28.1			55.5			50.1		
Approach LOS	C			C			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.2	11.9	6.2	62.2	12.5	21.7	12.5	55.9				
Change Period (Y+Rc), s	5.1	5.1	5.4	5.4	5.1	5.1	5.4	5.4				
Max Green Setting (Gmax), s	26.9	38.9	5.0	58.2	7.9	57.9	7.6	55.6				
Max Q Clear Time (g_c+I1), s	16.6	6.4	2.3	6.9	7.4	4.2	7.1	41.7				
Green Ext Time (p_c), s	0.5	0.4	0.0	2.3	0.0	0.2	0.0	8.8				

Intersection Summary

HCM 7th Control Delay, s/veh	33.1
HCM 7th LOS	C

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑↑			↑
Traffic Vol, veh/h	0	514	1641	6	0	32
Future Vol, veh/h	0	514	1641	6	0	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	598	1908	7	0	37
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	958
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	221
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	221
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		24.52		
HCM LOS				C		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	221		
HCM Lane V/C Ratio	-	-	-	0.168		
HCM Ctrl Dly (s/v)	-	-	-	24.5		
HCM Lane LOS	-	-	-	C		
HCM 95th %tile Q(veh)	-	-	-	0.6		

HCM 7th Signalized Intersection Summary

3: Wingfield Pkwy & Vista Blvd

Cumulative Plus Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	240	22	9	881	18	65	12	9	43	14	698
Future Volume (veh/h)	251	240	22	9	881	18	65	12	9	43	14	698
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	279	26	10	1024	21	76	14	10	50	16	812
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	380	1343	124	22	1106	23	97	349	249	67	611	692
Arrive On Green	0.11	0.41	0.41	0.01	0.31	0.31	0.05	0.34	0.34	0.04	0.33	0.33
Sat Flow, veh/h	3456	3288	304	1781	3561	73	1781	1015	725	1781	1870	1585
Grp Volume(v), veh/h	292	150	155	10	511	534	76	0	24	50	16	812
Grp Sat Flow(s),veh/h/ln	1728	1777	1816	1781	1777	1857	1781	0	1740	1781	1870	1585
Q Serve(g_s), s	8.3	5.5	5.6	0.6	28.1	28.1	4.3	0.0	0.9	2.8	0.6	33.0
Cycle Q Clear(g_c), s	8.3	5.5	5.6	0.6	28.1	28.1	4.3	0.0	0.9	2.8	0.6	33.0
Prop In Lane	1.00		0.17	1.00		0.04	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	380	726	742	22	552	577	97	0	599	67	611	692
V/C Ratio(X)	0.77	0.21	0.21	0.46	0.93	0.93	0.78	0.00	0.04	0.75	0.03	1.17
Avail Cap(c_a), veh/h	821	901	921	88	567	592	102	0	599	155	611	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	19.3	19.3	49.5	33.7	33.7	47.1	0.0	22.0	48.1	23.1	28.4
Incr Delay (d2), s/veh	3.3	0.1	0.1	14.7	21.1	20.4	30.2	0.0	0.0	15.5	0.0	92.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	2.2	2.3	0.3	14.7	15.3	2.7	0.0	0.4	1.5	0.3	33.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.0	19.4	19.5	64.2	54.8	54.1	77.4	0.0	22.1	63.7	23.1	121.1
LnGrp LOS	D	B	B	E	D	D	E		C	E	C	F
Approach Vol, veh/h	597			1055			100			878		
Approach Delay, s/veh	32.9			54.5			64.1			116.0		
Approach LOS	C			D			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	39.3	6.6	46.6	10.1	37.6	16.5	36.8				
Change Period (Y+Rc), s	4.6	4.6	5.4	5.4	4.6	4.6	5.4	5.4				
Max Green Setting (Gmax), s	8.8	30.0	5.0	51.2	5.8	33.0	24.0	32.2				
Max Q Clear Time (g_c+I1), s	4.8	2.9	2.6	7.6	6.3	35.0	10.3	30.1				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.7	0.0	0.0	0.8	1.3				
Intersection Summary												
HCM 7th Control Delay, s/veh	70.5											
HCM 7th LOS	E											

HCM 7th TWSC

4: Wingfield Pkwy & Village A Dwy/Rey Del Sierra Dr Cumulative Plus Project AM Peak Hour

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	42	91	0	6	17	212	30	3	610	4
Future Vol, veh/h	13	0	42	91	0	6	17	212	30	3	610	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	0	52	112	0	7	21	262	37	4	753	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	936	1104	379	706	1088	149	758	0	0	299	0	0
Stage 1	763	763	-	322	322	-	-	-	-	-	-	-
Stage 2	173	341	-	384	765	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	220	210	619	323	214	870	849	-	-	1259	-	-
Stage 1	363	411	-	664	649	-	-	-	-	-	-	-
Stage 2	812	637	-	611	410	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	211	203	619	287	208	870	849	-	-	1259	-	-
Mov Cap-2 Maneuver	211	203	-	287	208	-	-	-	-	-	-	-
Stage 1	362	410	-	646	632	-	-	-	-	-	-	-
Stage 2	783	620	-	557	409	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	15.07		24.86		0.79		0.07	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	201	-	-	425	299	17	-
HCM Lane V/C Ratio	0.025	-	-	0.16	0.401	0.003	-
HCM Ctrl Dly (s/v)	9.3	0.2	-	15.1	24.9	7.9	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.6	1.9	0	-

HCM 7th AWSC

5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs PUD Project AM Peak Hour

Intersection	
Intersection Delay, s/veh	25.9
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	30	180	424	10	8	66	19	147	6	13	0
Future Vol, veh/h	1	30	180	424	10	8	66	19	147	6	13	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	40	240	565	13	11	88	25	196	8	17	0
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	12.3	40.2	12.2	10.7
HCM LOS	B	E	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	78%	0%	0%	96%	32%
Vol Thru, %	22%	0%	14%	2%	68%
Vol Right, %	0%	100%	85%	2%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	85	147	211	442	19
LT Vol	66	0	1	424	6
Through Vol	19	0	30	10	13
RT Vol	0	147	180	8	0
Lane Flow Rate	113	196	281	589	25
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.23	0.337	0.42	0.909	0.052
Departure Headway (Hd)	7.295	6.182	5.375	5.555	7.333
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	491	578	664	648	491
Service Time	5.068	3.955	3.449	3.613	5.333
HCM Lane V/C Ratio	0.23	0.339	0.423	0.909	0.051
HCM Control Delay, s/veh	12.3	12.1	12.3	40.2	10.7
HCM Lane LOS	B	B	B	E	B
HCM 95th-tile Q	0.9	1.5	2.1	11.6	0.2

HCM 7th TWSC

6: Wingfield Springs Rd & Village D Dwy/Poco Rey Dr Cumulative Plus Project AM Peak Hour

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	7	46	0	13	2	159	19	6	388	1
Future Vol, veh/h	3	0	7	46	0	13	2	159	19	6	388	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	9	59	0	17	3	204	24	8	497	1
Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	722	747	498	734	735	216	499	0	0	228	0	0
Stage 1	513	513	-	221	221	-	-	-	-	-	-	-
Stage 2	209	233	-	513	514	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	342	342	572	336	347	824	1065	-	-	1340	-	-
Stage 1	544	536	-	781	720	-	-	-	-	-	-	-
Stage 2	793	712	-	544	535	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	331	338	572	327	343	824	1065	-	-	1340	-	-
Mov Cap-2 Maneuver	331	338	-	327	343	-	-	-	-	-	-	-
Stage 1	539	531	-	779	718	-	-	-	-	-	-	-
Stage 2	775	710	-	531	531	-	-	-	-	-	-	-
Approach	EB		WB		NB			SB				
HCM Ctrl Dly, s/v	12.88		16.93		0.09			0.12				
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	20	-	-	470	377	27	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.027	0.201	0.006	-	-				
HCM Ctrl Dly (s/v)	8.4	0	-	12.9	16.9	7.7	0	-				
HCM Lane LOS	A	A	-	B	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.7	0	-	-				

Intersection

Int Delay, s/veh 0.1

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 1 1 2 172 394 1

Future Vol, veh/h 1 1 2 172 394 1

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 50 50 50 50 50 50

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 2 2 4 344 788 2

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 1141 789 790 0 - 0

Stage 1 789 - - - - -

Stage 2 352 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 222 391 830 - - -

Stage 1 448 - - - - -

Stage 2 712 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 221 391 830 - - -

Mov Cap-2 Maneuver 221 - - - - -

Stage 1 445 - - - - -

Stage 2 712 - - - - -

Approach EB NB SB

HCM Ctrl Dly, s/v 17.95 0.11 0

HCM LOS C

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 21 - 282 - -

HCM Lane V/C Ratio 0.005 - 0.014 - -

HCM Ctrl Dly (s/v) 9.4 0 18 - -

HCM Lane LOS A A C - -

HCM 95th %tile Q(veh) 0 - 0 - -

HCM 7th TWSC

8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnabar Dr (South) Project AM Peak Hour

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	1	27	0	4	2	188	9	1	367	1
Future Vol, veh/h	1	0	1	27	0	4	2	188	9	1	367	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	2	43	0	6	3	298	14	2	583	2
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	891	906	583	898	899	306	584	0	0	313	0	0
Stage 1	587	587	-	312	312	-	-	-	-	-	-	-
Stage 2	305	319	-	586	587	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	263	276	512	260	279	734	990	-	-	1248	-	-
Stage 1	496	497	-	699	658	-	-	-	-	-	-	-
Stage 2	705	653	-	497	496	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	259	275	512	258	277	734	990	-	-	1248	-	-
Mov Cap-2 Maneuver	259	275	-	258	277	-	-	-	-	-	-	-
Stage 1	495	496	-	696	655	-	-	-	-	-	-	-
Stage 2	696	650	-	494	495	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	15.56		20.47		0.09		0.02					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	18	-	-	344	282	5	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.009	0.175	0.001	-	-				
HCM Ctrl Dly (s/v)	8.6	0	-	15.6	20.5	7.9	0	-				
HCM Lane LOS	A	A	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.6	0	-	-				

HCM 7th TWSC

9: Wingfield Springs Rd & Eagle Wing Cir (North)

Cumulative Plus Project AM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	5	6	187	367	3
Future Vol, veh/h	4	5	6	187	367	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	7	8	249	489	4

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	757	491	493	0	-	0
Stage 1	491	-	-	-	-	-
Stage 2	265	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	376	577	1070	-	-	-
Stage 1	615	-	-	-	-	-
Stage 2	779	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	372	577	1070	-	-	-
Mov Cap-2 Maneuver	372	-	-	-	-	-
Stage 1	610	-	-	-	-	-
Stage 2	779	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	12.97	0.26	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	56	-	464	-	-
HCM Lane V/C Ratio	0.007	-	0.026	-	-
HCM Ctrl Dly (s/v)	8.4	0	13	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 7th TWSC

10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North) Alternative Plus Project AM Peak Hour

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	19	2	0	6	9	165	1	2	295	2
Future Vol, veh/h	0	0	19	2	0	6	9	165	1	2	295	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	31	3	0	10	15	270	2	3	484	3
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	792	793	485	791	794	271	487	0	0	272	0	0
Stage 1	492	492	-	301	301	-	-	-	-	-	-	-
Stage 2	300	302	-	490	493	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	307	321	582	307	321	767	1076	-	-	1291	-	-
Stage 1	559	548	-	708	665	-	-	-	-	-	-	-
Stage 2	709	664	-	560	547	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	297	315	582	285	314	767	1076	-	-	1291	-	-
Mov Cap-2 Maneuver	297	315	-	285	314	-	-	-	-	-	-	-
Stage 1	557	546	-	697	654	-	-	-	-	-	-	-
Stage 2	689	654	-	528	545	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	11.54		11.84		0.43		0.05					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	92	-	-	582	539	12	-	-				
HCM Lane V/C Ratio	0.014	-	-	0.054	0.024	0.003	-	-				
HCM Ctrl Dly (s/v)	8.4	0	-	11.5	11.8	7.8	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-				

HCM 7th TWSC

11: Wingfield Springs Rd & General Thatcher Dr/Florentine Blvd Cumulative Plus Project AM Peak Hour

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	65	4	12	9	11	6	4	128	2	6	284	30
Future Vol, veh/h	65	4	12	9	11	6	4	128	2	6	284	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	90	6	17	13	15	8	6	178	3	8	394	42

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	628	624	415	604	643	179	436	0
Stage 1	432	432	-	190	190	-	-	-
Stage 2	197	192	-	414	453	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-
Pot Cap-1 Maneuver	395	402	637	410	392	864	1124	-
Stage 1	602	582	-	811	743	-	-	-
Stage 2	805	742	-	616	570	-	-	-
Platoon blocked, %								-
Mov Cap-1 Maneuver	371	397	637	389	387	864	1124	-
Mov Cap-2 Maneuver	371	397	-	389	387	-	-	-
Stage 1	597	578	-	807	739	-	-	-
Stage 2	777	738	-	589	566	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	17.62	13.82	0.25	0.14
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	54	-	-	397	444	33	-	-
HCM Lane V/C Ratio	0.005	-	-	0.283	0.081	0.006	-	-
HCM Ctrl Dly (s/v)	8.2	0	-	17.6	13.8	7.6	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.1	0.3	0	-	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	77	2	3	41	1	4
Future Vol, veh/h	77	2	3	41	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	93	2	4	49	1	5

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	95	0	151
Stage 1	-	-	-	-	94
Stage 2	-	-	-	-	57
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1499	-	841
Stage 1	-	-	-	-	930
Stage 2	-	-	-	-	966
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1499	-	839
Mov Cap-2 Maneuver	-	-	-	-	839
Stage 1	-	-	-	-	930
Stage 2	-	-	-	-	964

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.51	8.87
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	935	-	-	123	-
HCM Lane V/C Ratio	0.006	-	-	0.002	-
HCM Ctrl Dly (s/v)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	45	3	16	21	0	18
Future Vol, veh/h	45	3	16	21	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	4	23	30	0	26
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	70	0	144	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	77	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1531	-	848	996
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	946	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1531	-	835	996
Mov Cap-2 Maneuver	-	-	-	-	835	-
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	932	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		3.19		8.71	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	996	-	-	778	-	
HCM Lane V/C Ratio	0.026	-	-	0.015	-	
HCM Ctrl Dly (s/v)	8.7	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 7th TWSC

14: Village F Dwy/Arrow Smith Dr & General Thatcher DCumulative Plus Project AM Peak Hour

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	19	0	4	8	9	0	0	11	18	0	0
Future Vol, veh/h	0	19	0	4	8	9	0	0	11	18	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	25	0	5	11	12	0	0	15	24	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	23	0	0	25	0	0	47	59	25	53	53	17
Stage 1	-	-	-	-	-	-	25	25	-	27	27	-
Stage 2	-	-	-	-	-	-	21	33	-	25	25	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1593	-	-	1589	-	-	955	832	1051	946	839	1062
Stage 1	-	-	-	-	-	-	992	874	-	990	872	-
Stage 2	-	-	-	-	-	-	997	867	-	992	874	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1593	-	-	1589	-	-	951	829	1051	930	836	1062
Mov Cap-2 Maneuver	-	-	-	-	-	-	951	829	-	930	836	-
Stage 1	-	-	-	-	-	-	992	874	-	987	869	-
Stage 2	-	-	-	-	-	-	994	864	-	979	874	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			1.39			8.47			8.98		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1051	1593	-	-	310	-	-	930
HCM Lane V/C Ratio	0.014	-	-	-	0.003	-	-	0.026
HCM Ctrl Dly (s/v)	8.5	0	-	-	7.3	0	-	9
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	5	11	4	6	12
Future Vol, veh/h	11	5	11	4	6	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	45	45	45	45	45	45
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	11	24	9	13	27
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	84	27	40	0	-	0
Stage 1	27	-	-	-	-	-
Stage 2	58	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	917	1049	1570	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	965	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	903	1049	1570	-	-	-
Mov Cap-2 Maneuver	903	-	-	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	965	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	8.96	5.38		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1320	-	944	-	-	
HCM Lane V/C Ratio	0.016	-	0.038	-	-	
HCM Ctrl Dly (s/v)	7.3	0	9	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	26	62	0	0	31
Future Vol, veh/h	15	26	62	0	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	58	58	58	58	58	58
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	45	107	0	0	53

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	107	0	0 203 107
Stage 1	-	-	- 107 -
Stage 2	-	-	- 97 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1484	-	- 785 947
Stage 1	-	-	- 917 -
Stage 2	-	-	- 927 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1484	-	- 771 947
Mov Cap-2 Maneuver	-	-	- 771 -
Stage 1	-	-	- 901 -
Stage 2	-	-	- 927 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	2.73	0	9.03
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	659	-	-	-	947
HCM Lane V/C Ratio	0.017	-	-	-	0.056
HCM Ctrl Dly (s/v)	7.5	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	16	102	0	0	7	1	42	0	0	0
Future Vol, veh/h	0	1	16	102	0	0	7	1	42	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	24	155	0	0	11	2	64	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	26	0	0	323	323	14	311	335	0
Stage 1	-	-	-	-	-	-	14	14	-	309	309	-
Stage 2	-	-	-	-	-	-	309	309	-	2	26	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1588	-	-	630	595	1066	641	586	-
Stage 1	-	-	-	-	-	-	1007	884	-	701	660	-
Stage 2	-	-	-	-	-	-	701	660	-	1020	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1588	-	-	-	537	1066	543	529	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	537	-	543	529	-
Stage 1	-	-	-	-	-	-	1007	884	-	633	595	-
Stage 2	-	-	-	-	-	-	633	595	-	958	874	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			7.51						0		
HCM LOS							-			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	-	-	-	1588	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.097	-	-	-				
HCM Ctrl Dly (s/v)	-	0	-	-	7.5	0	-	0				
HCM Lane LOS	-	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	-	-	-	-	0.3	-	-	-				

HCM 7th Signalized Intersection Summary

18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd Cumulative Plus Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	215	76	17	763	6	161	0	15	12	0	6
Future Volume (veh/h)	1	215	76	17	763	6	161	0	15	12	0	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	244	86	19	867	7	183	0	17	14	0	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	1165	520	43	1265	10	407	0	181	30	0	15
Arrive On Green	0.00	0.33	0.33	0.02	0.35	0.35	0.11	0.00	0.11	0.03	0.00	0.03
Sat Flow, veh/h	1781	3554	1585	1781	3613	29	3563	0	1585	1140	0	570
Grp Volume(v), veh/h	1	244	86	19	426	448	183	0	17	21	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1865	1781	0	1585	1711	0	0
Q Serve(g_s), s	0.0	1.9	1.5	0.4	7.9	7.9	1.9	0.0	0.4	0.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.9	1.5	0.4	7.9	7.9	1.9	0.0	0.4	0.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.67		0.33
Lane Grp Cap(c), veh/h	5	1165	520	43	622	653	407	0	181	45	0	0
V/C Ratio(X)	0.22	0.21	0.17	0.45	0.69	0.69	0.45	0.00	0.09	0.47	0.00	0.00
Avail Cap(c_a), veh/h	231	1759	784	231	879	923	2631	0	1171	789	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.2	9.4	9.2	18.6	10.7	10.7	16.0	0.0	15.3	18.5	0.0	0.0
Incr Delay (d2), s/veh	21.9	0.1	0.1	7.2	1.3	1.3	0.8	0.0	0.2	7.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.5	0.4	0.2	2.4	2.5	0.7	0.0	0.1	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.2	9.5	9.4	25.8	12.1	12.0	16.7	0.0	15.5	26.0	0.0	0.0
LnGrp LOS	D	A	A	C	B	B	B		B	C		
Approach Vol, veh/h	331			893			200			21		
Approach Delay, s/veh	9.5			12.3			16.6			26.0		
Approach LOS	A			B			B			C		
Timer - Assigned Phs	2		3	4		6	7	8				
Phs Duration (G+Y+Rc), s	9.1		6.0	17.7		5.7	5.2	18.6				
Change Period (Y+Rc), s	4.7		5.1	5.1		4.7	5.1	5.1				
Max Green Setting (Gmax), s	28.5		5.0	19.1		17.8	5.0	19.1				
Max Q Clear Time (g_c+l1), s	3.9		2.4	3.9		2.5	2.0	9.9				
Green Ext Time (p_c), s	0.6		0.0	1.5		0.0	0.0	3.6				
Intersection Summary												
HCM 7th Control Delay, s/veh	12.5											
HCM 7th LOS	B											
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 7th Signalized Intersection Summary

19: Fire Station Access & Vista Blvd

Cumulative Plus Project AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	
Traffic Volume (veh/h)	237	1	3	757	1	0
Future Volume (veh/h)	237	1	3	757	1	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	329	1	4	1051	0	0
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2479	8	1170	2424	0	0
Arrive On Green	0.68	0.68	0.68	0.68	0.00	0.00
Sat Flow, veh/h	3728	11	1050	3647	0	0
Grp Volume(v), veh/h	161	169	4	1051	0	0
Grp Sat Flow(s), veh/h/ln	1777	1868	1050	1777	0	0
Q Serve(g_s), s	0.5	0.5	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.5	0.5	2.0	0.0	0.0
Prop In Lane		0.01	1.00		0.00	0.00
Lane Grp Cap(c), veh/h	1212	1275	1170	2424	0	0
V/C Ratio(X)	0.13	0.13	0.00	0.43	0.00	0.00
Avail Cap(c_a), veh/h	2139	2249	1717	4277	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.8	0.8	0.9	1.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.9	0.9	0.9	1.2	0.0	0.0
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h	330			1055	0	
Approach Delay, s/veh	0.9			1.2	0.0	
Approach LOS	A			A		
Timer - Assigned Phs	2			4		8
Phs Duration (G+Y+Rc), s		0.0		14.8		14.8
Change Period (Y+Rc), s		4.7		4.7		4.7
Max Green Setting (Gmax), s		17.8		17.8		17.8
Max Q Clear Time (g_c+I1), s		0.0		2.5		4.0
Green Ext Time (p_c), s		0.0		1.5		6.1
Intersection Summary						
HCM 7th Control Delay, s/veh			1.1			
HCM 7th LOS			A			

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	13	221	18	6	693
Future Vol, veh/h	41	13	221	18	6	693
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	18	311	25	8	976
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	816	156	0	0	337	0
Stage 1	311	-	-	-	-	-
Stage 2	505	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	315	862	-	-	1219	-
Stage 1	716	-	-	-	-	-
Stage 2	571	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	313	862	-	-	1219	-
Mov Cap-2 Maneuver	313	-	-	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	567	-	-	-	-	-
Approach	WB	NB	SB			
HCM Ctrl Dly, s/v	17.26	0	0.07			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	369	1219	-	
HCM Lane V/C Ratio	-	-	0.206	0.007	-	
HCM Ctrl Dly (s/v)	-	-	17.3	8	-	
HCM Lane LOS	-	-	C	A	-	
HCM 95th %tile Q(veh)	-	-	0.8	0	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	239	757	1	0	29
Future Vol, veh/h	0	239	757	1	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	260	823	1	0	32
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	412
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	589
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	589
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		11.46		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	589		
HCM Lane V/C Ratio	-	-	-	0.054		
HCM Ctrl Dly (s/v)	-	-	-	11.5		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.2		

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	239	735	3
Future Vol, veh/h	0	25	0	239	735	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	260	799	3
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	401	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	599	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	599	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	11.3	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 599		-	-		
HCM Lane V/C Ratio	- 0.045		-	-		
HCM Ctrl Dly (s/v)	- 11.3		-	-		
HCM Lane LOS	- B		-	-		
HCM 95th %tile Q(veh)	- 0.1		-	-		

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1	0	0
Stage 1	-	-	1
Stage 2	-	-	0
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1622	-	1022
Stage 1	-	-	1022
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1622	-	1022
Mov Cap-2 Maneuver	-	-	1022
Stage 1	-	-	1022
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 7th Signalized Intersection Summary

1: Wingfield Hills Rd & Vista Blvd

Cumulative Plus Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	595	1384	1	7	724	260	78	35	5	408	70	338
Future Volume (veh/h)	595	1384	1	7	724	260	78	35	5	408	70	338
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	620	1442	0	7	754	0	81	36	0	425	73	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	719	1694		16	985		152	91		464	495	
Arrive On Green	0.21	0.48	0.00	0.01	0.28	0.00	0.04	0.05	0.00	0.26	0.26	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	620	1442	0	7	754	0	81	36	0	425	73	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	17.7	36.5	0.0	0.4	19.9	0.0	2.3	1.9	0.0	23.7	3.0	0.0
Cycle Q Clear(g_c), s	17.7	36.5	0.0	0.4	19.9	0.0	2.3	1.9	0.0	23.7	3.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	719	1694		16	985		152	91		464	495	
V/C Ratio(X)	0.86	0.85		0.45	0.77		0.53	0.40		0.92	0.15	
Avail Cap(c_a), veh/h	951	2004		87	1200		250	595		591	1080	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.0	23.5	0.0	50.4	33.9	0.0	47.8	47.1	0.0	36.7	28.7	0.0
Incr Delay (d2), s/veh	6.4	3.3	0.0	18.5	2.4	0.0	2.9	2.8	0.0	16.6	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	14.7	0.0	0.3	8.5	0.0	1.1	0.9	0.0	12.1	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.5	26.8	0.0	68.9	36.3	0.0	50.7	49.9	0.0	53.3	28.9	0.0
LnGrp LOS	D	C		E	D		D	D		D	C	
Approach Vol, veh/h	2062			761			117			498		
Approach Delay, s/veh	32.4			36.6			50.4			49.7		
Approach LOS	C			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.7	10.1	6.3	54.1	9.6	32.2	26.7	33.7				
Change Period (Y+Rc), s	5.1	5.1	5.4	5.4	5.1	5.1	5.4	5.4				
Max Green Setting (Gmax), s	33.9	32.5	5.0	57.6	7.4	59.0	28.1	34.5				
Max Q Clear Time (g_c+I1), s	25.7	3.9	2.4	38.5	4.3	5.0	19.7	21.9				
Green Ext Time (p_c), s	0.9	0.1	0.0	10.2	0.0	0.4	1.6	3.9				

Intersection Summary

HCM 7th Control Delay, s/veh	36.5
HCM 7th LOS	D

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑↑↑↑				↑
Traffic Vol, veh/h	0	1797	965	6	0	26
Future Vol, veh/h	0	1797	965	6	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1853	995	6	0	27
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	501
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	441
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	441
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		13.68		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	441		
HCM Lane V/C Ratio	-	-	-	0.061		
HCM Ctrl Dly (s/v)	-	-	-	13.7		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.2		

HCM 7th Signalized Intersection Summary

3: Wingfield Pkwy & Vista Blvd

Cumulative Plus Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	774	959	64	7	516	66	31	4	3	44	5	426
Future Volume (veh/h)	774	959	64	7	516	66	31	4	3	44	5	426
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	806	999	67	7	538	69	32	4	3	46	5	444
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	911	1527	102	16	626	80	58	230	172	73	450	799
Arrive On Green	0.26	0.45	0.45	0.01	0.20	0.20	0.03	0.23	0.23	0.04	0.24	0.24
Sat Flow, veh/h	3456	3380	227	1781	3169	405	1781	992	744	1781	1870	1585
Grp Volume(v), veh/h	806	525	541	7	301	306	32	0	7	46	5	444
Grp Sat Flow(s),veh/h/ln	1728	1777	1830	1781	1777	1797	1781	0	1736	1781	1870	1585
Q Serve(g_s), s	16.8	17.3	17.3	0.3	12.3	12.4	1.3	0.0	0.2	1.9	0.2	14.5
Cycle Q Clear(g_c), s	16.8	17.3	17.3	0.3	12.3	12.4	1.3	0.0	0.2	1.9	0.2	14.5
Prop In Lane	1.00		0.12	1.00		0.23	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	911	803	827	16	351	355	58	0	402	73	450	799
V/C Ratio(X)	0.88	0.65	0.65	0.43	0.86	0.86	0.55	0.00	0.02	0.63	0.01	0.56
Avail Cap(c_a), veh/h	994	803	827	119	369	373	119	0	719	159	817	1110
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	16.0	16.0	37.0	29.1	29.2	35.8	0.0	22.3	35.5	21.7	12.8
Incr Delay (d2), s/veh	9.1	1.9	1.9	17.4	17.3	17.8	8.0	0.0	0.0	8.6	0.0	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	6.5	6.6	0.2	6.5	6.7	0.7	0.0	0.1	1.0	0.1	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.7	17.9	17.9	54.4	46.4	46.9	43.9	0.0	22.3	44.0	21.7	13.4
LnGrp LOS	D	B	B	D	D	D	D		C	D	C	B
Approach Vol, veh/h	1872			614			39			495		
Approach Delay, s/veh	25.6			46.8			40.0			16.4		
Approach LOS	C			D			D			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	22.0	6.1	39.3	7.0	22.7	25.2	20.2				
Change Period (Y+Rc), s	4.6	4.6	5.4	5.4	4.6	4.6	5.4	5.4				
Max Green Setting (Gmax), s	6.7	31.1	5.0	32.2	5.0	32.8	21.6	15.6				
Max Q Clear Time (g_c+I1), s	3.9	2.2	2.3	19.3	3.3	16.5	18.8	14.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	5.4	0.0	1.6	1.0	0.5				
Intersection Summary												
HCM 7th Control Delay, s/veh	28.5											
HCM 7th LOS	C											

HCM 7th TWSC

4: Wingfield Pkwy & Village A Dwy/Rey Del Sierra Dr Cumulative Plus Project PM Peak Hour

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	28	46	0	6	61	709	73	3	400	13
Future Vol, veh/h	9	0	28	46	0	6	61	709	73	3	400	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	0	31	51	0	7	67	779	80	3	440	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	977	1447	227	1180	1414	430	454	0	0	859	0	0
Stage 1	453	453	-	953	953	-	-	-	-	-	-	-
Stage 2	524	993	-	226	460	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	205	130	776	146	137	574	1103	-	-	778	-	-
Stage 1	556	568	-	278	336	-	-	-	-	-	-	-
Stage 2	505	321	-	756	564	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	186	119	776	128	125	574	1103	-	-	778	-	-
Mov Cap-2 Maneuver	186	119	-	128	125	-	-	-	-	-	-	-
Stage 1	553	565	-	256	309	-	-	-	-	-	-	-
Stage 2	459	296	-	722	561	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	14.07		47.09		1.1		0.11	
HCM LOS	B		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	230	-	-	438	141	25	-
HCM Lane V/C Ratio	0.061	-	-	0.093	0.406	0.004	-
HCM Ctrl Dly (s/v)	8.5	0.6	-	14.1	47.1	9.6	0
HCM Lane LOS	A	A	-	B	E	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.3	1.8	0	-

HCM 7th AWSC

5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Pkwy/Red Hawk Dwy Project PM Peak Hour

Intersection	
Intersection Delay, s/veh	22.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	
Traffic Vol, veh/h	0	24	146	248	46	19	227	40	460	10	23	0
Future Vol, veh/h	0	24	146	248	46	19	227	40	460	10	23	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	28	170	288	53	22	264	47	535	12	27	0
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	12.3	20.3	26.4	10.9
HCM LOS	B	C	D	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	85%	0%	0%	79%	30%
Vol Thru, %	15%	0%	14%	15%	70%
Vol Right, %	0%	100%	86%	6%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	267	460	170	313	33
LT Vol	227	0	0	248	10
Through Vol	40	0	24	46	23
RT Vol	0	460	146	19	0
Lane Flow Rate	310	535	198	364	38
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.585	0.838	0.336	0.643	0.077
Departure Headway (Hd)	6.785	5.64	6.118	6.365	7.252
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	531	642	585	564	497
Service Time	4.546	3.401	4.19	4.425	5.252
HCM Lane V/C Ratio	0.584	0.833	0.338	0.645	0.076
HCM Control Delay, s/veh	18.7	30.9	12.3	20.3	10.9
HCM Lane LOS	C	D	B	C	B
HCM 95th-tile Q	3.7	9.1	1.5	4.6	0.2

HCM 7th TWSC

6: Wingfield Springs Rd & Village D Dwy/Poco Rey Dr Cumulative Plus Project PM Peak Hour

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	4	36	0	10	8	437	39	11	275	3
Future Vol, veh/h	2	0	4	36	0	10	8	437	39	11	275	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	4	40	0	11	9	480	43	12	302	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	826	869	304	846	849	502	305	0	0	523	0	0
Stage 1	328	328	-	519	519	-	-	-	-	-	-	-
Stage 2	498	541	-	326	330	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	291	290	736	282	298	570	1255	-	-	1043	-	-
Stage 1	685	647	-	540	532	-	-	-	-	-	-	-
Stage 2	554	521	-	686	646	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	279	283	736	274	291	570	1255	-	-	1043	-	-
Mov Cap-2 Maneuver	279	283	-	274	291	-	-	-	-	-	-	-
Stage 1	675	638	-	534	527	-	-	-	-	-	-	-
Stage 2	538	516	-	673	637	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	12.67		18.92		0.13		0.32	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	29	-	-	476	309	68	-	-
HCM Lane V/C Ratio	0.007	-	-	0.014	0.164	0.012	-	-
HCM Ctrl Dly (s/v)	7.9	0	-	12.7	18.9	8.5	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.6	0	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2	1	449	287	1
Future Vol, veh/h	0	2	1	449	287	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	38	38	38	38	38	38
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	3	1182	755	3
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1943	757	758	0	-	0
Stage 1	757	-	-	-	-	-
Stage 2	1187	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	71	408	853	-	-	-
Stage 1	463	-	-	-	-	-
Stage 2	290	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	71	408	853	-	-	-
Mov Cap-2 Maneuver	71	-	-	-	-	-
Stage 1	459	-	-	-	-	-
Stage 2	290	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	13.94	0.02		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	4	-	408	-	-	
HCM Lane V/C Ratio	0.003	-	0.013	-	-	
HCM Ctrl Dly (s/v)	9.2	0	13.9	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

HCM 7th TWSC

8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnabar Ln (South) Project PM Peak Hour

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	9	22	0	3	14	342	35	3	283	0
Future Vol, veh/h	0	0	9	22	0	3	14	342	35	3	283	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	43	43	43	43	43	43	43	43	43	43	43	43
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	21	51	0	7	33	795	81	7	658	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1533	1614	658	1573	1573	836	658	0	0	877	0	0
Stage 1	672	672	-	901	901	-	-	-	-	-	-	-
Stage 2	860	942	-	672	672	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	95	104	464	89	110	367	930	-	-	770	-	-
Stage 1	445	454	-	333	357	-	-	-	-	-	-	-
Stage 2	350	342	-	445	454	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	86	95	464	78	101	367	930	-	-	770	-	-
Mov Cap-2 Maneuver	86	95	-	78	101	-	-	-	-	-	-	-
Stage 1	439	448	-	310	332	-	-	-	-	-	-	-
Stage 2	320	318	-	419	448	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	13.12		107.56		0.32		0.1	
HCM LOS	B		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	63	-	-	464	86	19	-	-
HCM Lane V/C Ratio	0.035	-	-	0.045	0.674	0.009	-	-
HCM Ctrl Dly (s/v)	9	0	-	13.1	107.6	9.7	0	-
HCM Lane LOS	A	A	-	B	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	3.2	0	-	-

HCM 7th TWSC

9: Wingfield Springs Rd & Eagle Wing Cir (North)

Cumulative Plus Project PM Peak Hour

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	11	6	339	276	5
Future Vol, veh/h	7	11	6	339	276	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	22	12	678	552	10
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1259	557	562	0	-	0
Stage 1	557	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	188	530	1009	-	-	-
Stage 1	574	-	-	-	-	-
Stage 2	491	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	185	530	1009	-	-	-
Mov Cap-2 Maneuver	185	-	-	-	-	-
Stage 1	563	-	-	-	-	-
Stage 2	491	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	18.28	0.15		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	31	-	307	-	-	
HCM Lane V/C Ratio	0.012	-	0.117	-	-	
HCM Ctrl Dly (s/v)	8.6	0	18.3	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.4	-	-	

HCM 7th TWSC

10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North) Alternative Plus Project PM Peak Hour

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	2	14	5	0	6	16	266	9	9	228	4
Future Vol, veh/h	1	2	14	5	0	6	16	266	9	9	228	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	3	23	8	0	10	26	436	15	15	374	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	895	910	377	901	906	443	380	0	0	451	0	0
Stage 1	407	407	-	496	496	-	-	-	-	-	-	-
Stage 2	489	503	-	405	410	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	261	275	670	259	276	614	1178	-	-	1110	-	-
Stage 1	621	598	-	556	545	-	-	-	-	-	-	-
Stage 2	561	541	-	623	596	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	245	262	670	236	263	614	1178	-	-	1110	-	-
Mov Cap-2 Maneuver	245	262	-	236	263	-	-	-	-	-	-	-
Stage 1	611	587	-	539	529	-	-	-	-	-	-	-
Stage 2	535	525	-	588	586	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	12.3		15.68		0.45		0.31	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	98	-	-	521	355	67	-	-
HCM Lane V/C Ratio	0.022	-	-	0.053	0.051	0.013	-	-
HCM Ctrl Dly (s/v)	8.1	0	-	12.3	15.7	8.3	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.2	0	-	-

HCM 7th TWSC

11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr Cumulative Plus Project PM Peak Hour

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	6	12	4	6	4	15	160	5	11	173	62
Future Vol, veh/h	55	6	12	4	6	4	15	160	5	11	173	62
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	8	16	5	8	5	20	213	7	15	231	83

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	559	561	272	521	599	217	313	0	0	220	0	0
Stage 1	301	301	-	257	257	-	-	-	-	-	-	-
Stage 2	257	260	-	264	343	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	440	436	767	466	415	823	1247	-	-	1349	-	-
Stage 1	708	665	-	748	695	-	-	-	-	-	-	-
Stage 2	747	693	-	741	638	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	415	423	767	434	402	823	1247	-	-	1349	-	-
Mov Cap-2 Maneuver	415	423	-	434	402	-	-	-	-	-	-	-
Stage 1	698	656	-	734	682	-	-	-	-	-	-	-
Stage 2	720	680	-	707	629	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	15.2	12.76	0.66	0.34
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	149	-	-	450	483	76	-	-
HCM Lane V/C Ratio	0.016	-	-	0.216	0.039	0.011	-	-
HCM Ctrl Dly (s/v)	7.9	0	-	15.2	12.8	7.7	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.1	0	-	-

Intersection						
Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	19	0	7	32	1	5
Future Vol, veh/h	19	0	7	32	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	0	9	42	1	6

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	25
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.31	8.54
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1025	-	-	323	-
HCM Lane V/C Ratio	0.008	-	-	0.006	-
HCM Ctrl Dly (s/v)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	37	1	21	40	1	20
Future Vol, veh/h	37	1	21	40	1	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	1	26	49	1	25
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	47	0	148	46
Stage 1	-	-	-	-	46	-
Stage 2	-	-	-	-	101	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1561	-	845	1023
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	923	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1561	-	830	1023
Mov Cap-2 Maneuver	-	-	-	-	830	-
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	907	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		2.53		8.65	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1012	-	-	620	-	
HCM Lane V/C Ratio	0.026	-	-	0.017	-	
HCM Ctrl Dly (s/v)	8.7	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	

HCM 7th TWSC

14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr Cumulative Plus Project PM Peak Hour

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	16	0	11	18	12	0	0	7	15	0	1
Future Vol, veh/h	1	16	0	11	18	12	0	0	7	15	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	32	0	22	36	24	0	0	14	30	0	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	32	0	0	116	140	32	128	128	48
Stage 1	-	-	-	-	-	-	36	36	-	92	92	-
Stage 2	-	-	-	-	-	-	80	104	-	36	36	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1544	-	-	1580	-	-	861	751	1042	845	763	1021
Stage 1	-	-	-	-	-	-	980	865	-	915	819	-
Stage 2	-	-	-	-	-	-	929	809	-	980	865	-
Platoon blocked, %		-	-		-	-				-	-	
Mov Cap-1 Maneuver	1544	-	-	1580	-	-	845	739	1042	821	751	1021
Mov Cap-2 Maneuver	-	-	-	-	-	-	845	739	-	821	751	-
Stage 1	-	-	-	-	-	-	978	864	-	902	807	-
Stage 2	-	-	-	-	-	-	913	797	-	965	864	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.43			1.96			8.5			9.51		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1042	106	-	-	447	-	-	831				
HCM Lane V/C Ratio	0.013	0.001	-	-	0.014	-	-	0.039				
HCM Ctrl Dly (s/v)	8.5	7.3	0	-	7.3	0	-	9.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

Intersection

Int Delay, s/veh 5.2

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 22 15 10 7 7 17

Future Vol, veh/h 22 15 10 7 7 17

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 61 61 61 61 61 61

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 36 25 16 11 11 28

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 70 25 39 0 - 0

Stage 1 25 - - - - -

Stage 2 44 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 935 1051 1571 - - -

Stage 1 997 - - - - -

Stage 2 978 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 925 1051 1571 - - -

Mov Cap-2 Maneuver 925 - - - - -

Stage 1 987 - - - - -

Stage 2 978 - - - - -

Approach EB NB SB

HCM Ctrl Dly, s/v 8.95 4.3 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1059 - 972 - -

HCM Lane V/C Ratio 0.01 - 0.062 - -

HCM Ctrl Dly (s/v) 7.3 0 8.9 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.2 - -

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	49	80	50	0	0	18
Future Vol, veh/h	49	80	50	0	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	84	53	0	0	19
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	53	0	-	0	240	53
Stage 1	-	-	-	-	53	-
Stage 2	-	-	-	-	187	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1553	-	-	-	748	1015
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	845	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1553	-	-	-	722	1015
Mov Cap-2 Maneuver	-	-	-	-	722	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	845	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	2.81	0		8.61		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	684	-	-	-	1015	
HCM Lane V/C Ratio	0.033	-	-	-	0.019	
HCM Ctrl Dly (s/v)	7.4	0	-	-	8.6	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	16	70	71	0	0	99	0	150	0	0	0
Future Vol, veh/h	0	16	70	71	0	0	99	0	150	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	71	71	71	71	71	71	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	99	100	0	0	139	0	211	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	121	0	0	272	272	72	223	321	0
Stage 1	-	-	-	-	-	-	72	72	-	200	200	-
Stage 2	-	-	-	-	-	-	200	200	-	23	121	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1466	-	-	681	635	990	733	596	-
Stage 1	-	-	-	-	-	-	938	835	-	802	736	-
Stage 2	-	-	-	-	-	-	802	736	-	996	796	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1466	-	-	-	592	990	537	555	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	592	-	537	555	-
Stage 1	-	-	-	-	-	-	938	835	-	747	685	-
Stage 2	-	-	-	-	-	-	747	685	-	783	796	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			7.63						0		
HCM LOS							-			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	-	-	-	1466	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.068	-	-	-				
HCM Ctrl Dly (s/v)	-	0	-	-	7.6	0	-	0				
HCM Lane LOS	-	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	-	-	-	-	0.2	-	-	-				

HCM 7th Signalized Intersection Summary

18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd Cumulative Plus Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	748	258	39	424	7	160	2	49	5	0	6
Future Volume (veh/h)	1	748	258	39	424	7	160	2	49	5	0	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	779	269	41	442	7	168	0	51	5	0	6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	4	1206	538	81	1374	22	404	0	180	11	0	13
Arrive On Green	0.00	0.34	0.34	0.05	0.38	0.38	0.11	0.00	0.11	0.01	0.00	0.01
Sat Flow, veh/h	1781	3554	1585	1781	3580	57	3563	0	1585	758	0	910
Grp Volume(v), veh/h	1	779	269	41	219	230	168	0	51	11	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1860	1781	0	1585	1669	0	0
Q Serve(g_s), s	0.0	7.5	5.4	0.9	3.5	3.5	1.8	0.0	1.2	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	7.5	5.4	0.9	3.5	3.5	1.8	0.0	1.2	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	0.45		0.55
Lane Grp Cap(c), veh/h	4	1206	538	81	682	714	404	0	180	24	0	0
V/C Ratio(X)	0.23	0.65	0.50	0.50	0.32	0.32	0.42	0.00	0.28	0.46	0.00	0.00
Avail Cap(c_a), veh/h	221	1669	744	221	834	874	2523	0	1122	746	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.1	11.2	10.6	18.8	8.7	8.7	16.6	0.0	16.3	19.7	0.0	0.0
Incr Delay (d2), s/veh	24.0	0.6	0.7	4.8	0.3	0.3	0.7	0.0	0.9	13.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.2	1.5	0.4	1.0	1.0	0.7	0.0	0.4	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.1	11.8	11.3	23.5	9.0	9.0	17.3	0.0	17.2	32.7	0.0	0.0
LnGrp LOS	D	B	B	C	A	A	B		B	C		
Approach Vol, veh/h	1049			490			219			11		
Approach Delay, s/veh	11.7			10.2			17.3			32.7		
Approach LOS	B			B			B			C		
Timer - Assigned Phs		2	3	4	6		7	8				
Phs Duration (G+Y+Rc), s		9.3	6.9	18.8	5.3		5.2	20.5				
Change Period (Y+Rc), s		4.7	5.1	5.1	4.7		5.1	5.1				
Max Green Setting (Gmax), s		28.5	5.0	18.9	18.0		5.0	18.9				
Max Q Clear Time (g_c+I1), s		3.8	2.9	9.5	2.3		2.0	5.5				
Green Ext Time (p_c), s		0.7	0.0	4.2	0.0		0.0	2.1				
Intersection Summary												
HCM 7th Control Delay, s/veh			12.1									
HCM 7th LOS			B									
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 7th Signalized Intersection Summary

19: Fire Station Access & Vista Blvd

Cumulative Plus Project PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Volume (veh/h)	802	0	0	456	2	0
Future Volume (veh/h)	802	0	0	456	2	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	862	0	0	490	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2287	0	546	2287	0	0
Arrive On Green	0.64	0.00	0.00	0.64	0.00	0.00
Sat Flow, veh/h	3741	0	641	3647	0	0
Grp Volume(v), veh/h	862	0	0	490	0	0
Grp Sat Flow(s), veh/h/ln	1777	0	641	1777	0	0
Q Serve(g_s), s	1.5	0.0	0.0	0.8	0.0	0.0
Cycle Q Clear(g_c), s	1.5	0.0	0.0	0.8	0.0	0.0
Prop In Lane		0.00	1.00		0.00	0.00
Lane Grp Cap(c), veh/h	2287	0	546	2287	0	0
V/C Ratio(X)	0.38	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	4798	0	999	4798	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.1	0.0	0.0	1.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	1.2	0.0	0.0	1.0	0.0	0.0
LnGrp LOS	A			A		
Approach Vol, veh/h	862			490	0	
Approach Delay, s/veh	1.2			1.0	0.0	
Approach LOS	A			A		
Timer - Assigned Phs	2			4		8
Phs Duration (G+Y+Rc), s	0.0			13.2		13.2
Change Period (Y+Rc), s	4.7			4.7		4.7
Max Green Setting (Gmax), s	17.8			17.8		17.8
Max Q Clear Time (g_c+I1), s	0.0			3.5		2.8
Green Ext Time (p_c), s	0.0			5.0		2.7
Intersection Summary						
HCM 7th Control Delay, s/veh			1.1			
HCM 7th LOS			A			

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	2	757	45	2	417
Future Vol, veh/h	31	2	757	45	2	417
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	2	797	47	2	439
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1021	398	0	0	844	0
Stage 1	797	-	-	-	-	-
Stage 2	224	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	233	601	-	-	788	-
Stage 1	404	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	232	601	-	-	788	-
Mov Cap-2 Maneuver	232	-	-	-	-	-
Stage 1	404	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Approach	WB	NB	SB			
HCM Ctrl Dly, s/v	22.45	0	0.05			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	241	788	-	
HCM Lane V/C Ratio	-	-	0.144	0.003	-	
HCM Ctrl Dly (s/v)	-	-	22.4	9.6	-	
HCM Lane LOS	-	-	C	A	-	
HCM 95th %tile Q(veh)	-	-	0.5	0	-	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	827	451	5	0	19
Future Vol, veh/h	0	827	451	5	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	899	490	5	0	21
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	248
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	752
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	752
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		9.92		
HCM LOS	A					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	752		
HCM Lane V/C Ratio	-	-	-	0.027		
HCM Ctrl Dly (s/v)	-	-	-	9.9		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.1		

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	0	802	77	11
Future Vol, veh/h	0	17	0	802	77	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	18	0	872	84	12
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	48	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	1011	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	1011	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	8.63	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 1011		-	-		
HCM Lane V/C Ratio	- 0.018		-	-		
HCM Ctrl Dly (s/v)	- 8.6		-	-		
HCM Lane LOS	- A		-	-		
HCM 95th %tile Q(veh)	- 0.1		-	-		

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1	0	-	0	1	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	1022	1083
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	1022	1083
Mov Cap-2 Maneuver	-	-	-	-	1022	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1622	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	0	-	-	-	0	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	-	

HCM 7th Signalized Intersection Summary 3: Wingfield Pkwy & Vista Blvd

Plus Improvements Cumulative Plus Project AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	240	22	9	881	10	65	12	9	43	14	698
Future Volume (veh/h)	251	240	22	9	881	10	65	12	9	43	14	698
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	279	26	10	1024	12	76	14	10	50	0	823
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	395	1204	111	22	1376	16	98	302	216	78	0	1271
Arrive On Green	0.11	0.37	0.37	0.01	0.26	0.26	0.05	0.30	0.30	0.04	0.00	0.29
Sat Flow, veh/h	3456	3288	304	1781	5202	61	1781	1015	725	1781	0	3170
Grp Volume(v), veh/h	292	150	155	10	670	366	76	0	24	50	0	823
Grp Sat Flow(s),veh/h/ln	1728	1777	1816	1781	1702	1859	1781	0	1740	1781	0	1585
Q Serve(g_s), s	5.8	4.2	4.2	0.4	12.9	12.9	3.0	0.0	0.7	2.0	0.0	15.0
Cycle Q Clear(g_c), s	5.8	4.2	4.2	0.4	12.9	12.9	3.0	0.0	0.7	2.0	0.0	15.0
Prop In Lane	1.00		0.17	1.00		0.03	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	395	651	665	22	900	492	98	0	517	78	0	1271
V/C Ratio(X)	0.74	0.23	0.23	0.45	0.74	0.74	0.78	0.00	0.05	0.64	0.00	0.65
Avail Cap(c_a), veh/h	561	746	762	125	1114	609	169	0	803	174	0	1835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.6	15.7	15.7	35.0	24.1	24.1	33.3	0.0	17.9	33.6	0.0	17.3
Incr Delay (d2), s/veh	3.1	0.2	0.2	13.2	2.1	3.9	12.4	0.0	0.0	8.3	0.0	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.5	1.6	0.2	5.0	5.7	1.6	0.0	0.3	1.0	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.7	15.9	15.9	48.3	26.2	27.9	45.8	0.0	17.9	41.9	0.0	17.9
LnGrp LOS	C	B	B	D	C	C	D		B	D		B
Approach Vol, veh/h	597			1046			100			873		
Approach Delay, s/veh	24.6			27.0			39.1			19.3		
Approach LOS	C			C			D			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	25.8	6.3	31.6	8.5	25.1	13.6	24.3				
Change Period (Y+Rc), s	4.6	4.6	5.4	5.4	4.6	4.6	5.4	5.4				
Max Green Setting (Gmax), s	7.0	33.0	5.0	30.0	6.8	33.2	11.6	23.4				
Max Q Clear Time (g_c+l1), s	4.0	2.7	2.4	6.2	5.0	17.0	7.8	14.9				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.6	0.0	3.5	0.4	4.0				

Intersection Summary

HCM 7th Control Delay, s/veh	24.3
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 7th Signalized Intersection Summary

3: Wingfield Pkwy & Vista Blvd

Plus Improvements

Cumulative Plus Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	774	1017	64	7	516	66	31	4	3	44	5	426
Future Volume (veh/h)	774	1017	64	7	516	66	31	4	3	44	5	426
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	806	1059	67	7	538	69	32	4	3	46	0	447
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1006	1531	97	16	775	98	62	146	110	81	0	1424
Arrive On Green	0.29	0.45	0.45	0.01	0.17	0.17	0.03	0.15	0.15	0.05	0.00	0.16
Sat Flow, veh/h	3456	3394	215	1781	4590	580	1781	992	744	1781	0	3170
Grp Volume(v), veh/h	806	554	572	7	397	210	32	0	7	46	0	447
Grp Sat Flow(s),veh/h/ln	1728	1777	1832	1781	1702	1766	1781	0	1736	1781	0	1585
Q Serve(g_s), s	12.4	14.3	14.4	0.2	6.3	6.5	1.0	0.0	0.2	1.5	0.0	5.2
Cycle Q Clear(g_c), s	12.4	14.3	14.4	0.2	6.3	6.5	1.0	0.0	0.2	1.5	0.0	5.2
Prop In Lane	1.00		0.12	1.00		0.33	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	1006	801	826	16	575	298	62	0	256	81	0	1424
V/C Ratio(X)	0.80	0.69	0.69	0.43	0.69	0.70	0.52	0.00	0.03	0.57	0.00	0.31
Avail Cap(c_a), veh/h	1475	980	1011	155	721	374	155	0	949	207	0	2749
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.9	12.6	12.6	28.4	22.5	22.6	27.3	0.0	21.0	27.0	0.0	10.2
Incr Delay (d2), s/veh	2.0	1.6	1.5	16.6	2.0	4.3	6.5	0.0	0.0	6.2	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	4.7	4.9	0.2	2.4	2.7	0.5	0.0	0.1	0.7	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.9	14.2	14.2	45.0	24.6	26.9	33.9	0.0	21.1	33.2	0.0	10.3
LnGrp LOS	C	B	B	D	C	C	C		C	C		B
Approach Vol, veh/h	1932			614			39			493		
Approach Delay, s/veh	17.0			25.6			31.6			12.4		
Approach LOS	B			C			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	13.1	5.9	31.4	6.6	13.7	22.2	15.1				
Change Period (Y+Rc), s	4.6	4.6	5.4	5.4	4.6	4.6	5.4	5.4				
Max Green Setting (Gmax), s	6.7	31.5	5.0	31.8	5.0	33.2	24.6	12.2				
Max Q Clear Time (g_c+l1), s	3.5	2.2	2.2	16.4	3.0	7.2	14.4	8.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	6.3	0.0	1.9	2.4	1.3				
Intersection Summary												
HCM 7th Control Delay, s/veh				18.2								
HCM 7th LOS				B								
Notes												
User approved volume balancing among the lanes for turning movement.												

Queuing and Blocking Report
Existing AM Peak Hour

01/12/2026

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	L	T	T	R	L	L	T	R
Maximum Queue (ft)	132	154	95	60	30	256	263	122	104	135	114	54
Average Queue (ft)	26	80	37	14	5	169	149	25	31	68	43	6
95th Queue (ft)	85	136	80	44	20	249	250	101	72	117	88	32
Link Distance (ft)			1086	1086	247	247	247			1284	1284	
Upstream Blk Time (%)						1	1					
Queuing Penalty (veh)						3	4					
Storage Bay Dist (ft)	620	620						100	275			50
Storage Blk Time (%)							14	0			13	0
Queuing Penalty (veh)							30	1			1	0

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	230	1266	1411
Average Queue (ft)	90	450	690
95th Queue (ft)	182	1417	1599
Link Distance (ft)		1620	1620
Upstream Blk Time (%)		9	11
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)	275		
Storage Blk Time (%)	0	0	
Queuing Penalty (veh)	0	0	

Intersection: 2: Vista Blvd & Village A Access

Movement	WB	WB	WB	B59	B59	SB
Directions Served	T	T	TR	T	T	R
Maximum Queue (ft)	31	77	62	110	154	29
Average Queue (ft)	1	7	6	7	14	6
95th Queue (ft)	17	50	47	67	111	25
Link Distance (ft)	152	152	152	2328	2328	865
Upstream Blk Time (%)		0	0			
Queuing Penalty (veh)		0	1			
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Queuing and Blocking Report
Existing AM Peak Hour

01/12/2026

Intersection: 3: Wingfield Pkwy & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	T	TR	L	T	TR	L	TR	L	T	R
Maximum Queue (ft)	61	84	63	78	35	184	189	93	42	20	388	175
Average Queue (ft)	20	38	16	18	7	86	103	36	12	1	92	136
95th Queue (ft)	50	72	47	56	27	152	167	73	34	11	310	203
Link Distance (ft)			2328	2328		3421	3421		954	439	439	
Upstream Blk Time (%)												1
Queuing Penalty (veh)												2
Storage Bay Dist (ft)	705	705			160			100				150
Storage Blk Time (%)						1		0			0	18
Queuing Penalty (veh)						0		0			0	3

Intersection: 4: Wingfield Pkwy & Village A Dwy/Rey Del Sierra Dr

Movement	WB	SB	SB
Directions Served	LTR	LT	TR
Maximum Queue (ft)	50	11	24
Average Queue (ft)	16	0	1
95th Queue (ft)	37	7	14
Link Distance (ft)	1622	908	908
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs Rd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	94	181	55	67	26
Average Queue (ft)	44	78	24	35	7
95th Queue (ft)	73	133	49	60	23
Link Distance (ft)	442	1022	908	908	632
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Wingfield Springs Rd & Village D Dwy/Poco Rey Dr

Movement	WB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	63	12
Average Queue (ft)	28	1
95th Queue (ft)	52	11
Link Distance (ft)	718	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Wingfield Springs Rd & Diamond Wing Cir

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	27	12
Average Queue (ft)	2	0
95th Queue (ft)	15	10
Link Distance (ft)	648	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	11	44	22	2
Average Queue (ft)	1	16	1	0
95th Queue (ft)	6	41	12	3
Link Distance (ft)	665	598	784	937
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Wingfield Springs Rd & Eagle Wing Cir (North)

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	27	3
Average Queue (ft)	3	0
95th Queue (ft)	17	3
Link Distance (ft)	835	937
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	25	32	5
Average Queue (ft)	12	7	3	0
95th Queue (ft)	32	26	21	5
Link Distance (ft)	639	573	411	624
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	48	30	20	40
Average Queue (ft)	15	7	1	1
95th Queue (ft)	35	20	11	13
Link Distance (ft)	519	882	1266	2071
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Silver King Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	9	23
Average Queue (ft)	0	4
95th Queue (ft)	6	17
Link Distance (ft)	519	1010
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Island Queen Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	9	32
Average Queue (ft)	0	8
95th Queue (ft)	5	28
Link Distance (ft)	451	2202
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr

Movement	SB
Directions Served	LTR
Maximum Queue (ft)	35
Average Queue (ft)	13
95th Queue (ft)	39
Link Distance (ft)	1003
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 15: Island Queen Dr & Decoy Dr

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	36	3
Average Queue (ft)	8	0
95th Queue (ft)	30	3
Link Distance (ft)	760	958
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Decoy Dr & Little Easy St

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	9	42
Average Queue (ft)	0	15
95th Queue (ft)	6	35
Link Distance (ft)	159	1074
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Wingfield Springs Rd & Poco Bueno Cir

Movement	WB	NB
Directions Served	LTR	LTR
Maximum Queue (ft)	29	51
Average Queue (ft)	2	22
95th Queue (ft)	15	48
Link Distance (ft)	303	1520
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	LTR
Maximum Queue (ft)	15	41	60	36	30	89	92	31	55	28	37
Average Queue (ft)	1	9	12	9	10	33	29	3	22	6	10
95th Queue (ft)	8	31	39	29	32	72	69	17	48	23	34
Link Distance (ft)		3421	3421			790	790		1990		951
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			545	200			200		200	
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 19: Fire Station Access & Vista Blvd

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	T	LR
Maximum Queue (ft)	32	26	18	38	34	21
Average Queue (ft)	4	3	1	8	5	1
95th Queue (ft)	19	15	10	28	23	9
Link Distance (ft)	48	48		343	343	659
Upstream Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)			140			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 20: Vista Blvd /Vista Blvd & Black Hills Rd

Movement	WB	NB	SB
Directions Served	LR	T	L
Maximum Queue (ft)	77	3	24
Average Queue (ft)	26	0	1
95th Queue (ft)	56	3	10
Link Distance (ft)	2110	168	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			175
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 21: Vista Blvd & Village I Access (South)

Movement	WB
Directions Served	T
Maximum Queue (ft)	3
Average Queue (ft)	0
95th Queue (ft)	3
Link Distance (ft)	48
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Vista Blvd & Village I Access (North)

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 53: Poco Bueno Cir & Decoy Dr

Movement	EB
Directions Served	LR
Maximum Queue (ft)	53
Average Queue (ft)	26
95th Queue (ft)	47
Link Distance (ft)	612
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 54: Wingfield Springs Rd & School Dwy

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 44

Queuing and Blocking Report
Existing PM Peak Hour

01/12/2026

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	L	T	T	R	L	L	T	R
Maximum Queue (ft)	252	294	266	237	30	177	174	46	50	95	55	54
Average Queue (ft)	126	179	128	100	5	100	91	2	13	40	17	5
95th Queue (ft)	231	257	217	184	20	148	144	20	39	79	46	32
Link Distance (ft)			1086	1086	247	247	247			1284	1284	
Upstream Blk Time (%)							0					
Queuing Penalty (veh)							0					
Storage Bay Dist (ft)	620	620						100	275			50
Storage Blk Time (%)							5				1	0
Queuing Penalty (veh)							6				0	0

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	234	114	27
Average Queue (ft)	116	38	1
95th Queue (ft)	194	85	20
Link Distance (ft)		1620	1620
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	275		
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 2: Vista Blvd & Village A Access

Movement	B59	SB
Directions Served	T	R
Maximum Queue (ft)	14	30
Average Queue (ft)	1	9
95th Queue (ft)	7	31
Link Distance (ft)	2338	866
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report
Existing PM Peak Hour

01/12/2026

Intersection: 3: Wingfield Pkwy & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	T	TR	L	T	TR	L	TR	L	T	R
Maximum Queue (ft)	118	138	134	150	31	105	138	56	27	45	31	98
Average Queue (ft)	55	74	32	50	4	48	70	17	5	12	5	50
95th Queue (ft)	97	118	91	114	20	89	114	45	21	37	22	87
Link Distance (ft)			2338	2338		3421	3421		954	439	439	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	705	705			160			100				150
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: Wingfield Pkwy & Village A Dwy/Rey Del Sierra Dr

Movement	WB	NB	NB	SB
Directions Served	LTR	LT	TR	LT
Maximum Queue (ft)	27	10	20	11
Average Queue (ft)	7	0	0	1
95th Queue (ft)	21	0	6	5
Link Distance (ft)	1622	439	439	908
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs Rd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	73	95	105	120	34
Average Queue (ft)	37	49	53	63	12
95th Queue (ft)	63	80	87	100	30
Link Distance (ft)	442	1022	908	908	632
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Wingfield Springs Rd & Village D Dwy/Poco Rey Dr

Movement	WB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	65	41
Average Queue (ft)	27	3
95th Queue (ft)	52	20
Link Distance (ft)	718	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Wingfield Springs Rd & Diamond Wing Cir

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	24	11
Average Queue (ft)	1	0
95th Queue (ft)	12	8
Link Distance (ft)	648	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	13	55	69	34
Average Queue (ft)	3	15	4	1
95th Queue (ft)	11	43	34	13
Link Distance (ft)	665	598	784	937
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Wingfield Springs Rd & Eagle Wing Cir (North)

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	26	3
Average Queue (ft)	4	0
95th Queue (ft)	18	4
Link Distance (ft)	835	937
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	27	25	27	25
Average Queue (ft)	8	7	2	1
95th Queue (ft)	27	25	16	12
Link Distance (ft)	639	573	411	624
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	38	14	40	31
Average Queue (ft)	12	3	3	2
95th Queue (ft)	27	12	18	14
Link Distance (ft)	519	882	1266	2071
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Silver King Dr & General Thatcher Dr

Movement	NB
Directions Served	LR
Maximum Queue (ft)	23
Average Queue (ft)	5
95th Queue (ft)	21
Link Distance (ft)	1010
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 13: Island Queen Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	3	32
Average Queue (ft)	0	6
95th Queue (ft)	3	26
Link Distance (ft)	451	2202
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr

Movement	SB
Directions Served	LTR
Maximum Queue (ft)	44
Average Queue (ft)	12
95th Queue (ft)	38
Link Distance (ft)	1003
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 15: Island Queen Dr & Decoy Dr

Movement	EB
Directions Served	LR
Maximum Queue (ft)	44
Average Queue (ft)	16
95th Queue (ft)	41
Link Distance (ft)	760
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 16: Decoy Dr & Little Easy St

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	12	30
Average Queue (ft)	0	10
95th Queue (ft)	6	29
Link Distance (ft)	159	1074
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Wingfield Springs Rd & Poco Bueno Cir

Movement	WB	NB
Directions Served	LTR	LTR
Maximum Queue (ft)	44	85
Average Queue (ft)	4	48
95th Queue (ft)	23	74
Link Distance (ft)	303	1520
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	LTR
Maximum Queue (ft)	18	144	156	71	58	63	64	42	64	55	34
Average Queue (ft)	1	53	67	24	20	26	20	7	35	20	7
95th Queue (ft)	8	109	124	51	48	55	50	29	58	45	28
Link Distance (ft)		3421	3421			780	780		1991		951
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			545	200			200		200	
Storage Blk Time (%)		0									
Queuing Penalty (veh)		0									

Intersection: 19: Fire Station Access & Vista Blvd

Movement	EB	EB	WB	WB	NB
Directions Served	T	TR	T	T	LR
Maximum Queue (ft)	44	40	32	35	30
Average Queue (ft)	5	7	5	3	2
95th Queue (ft)	25	29	21	18	15
Link Distance (ft)	48	48	347	347	659
Upstream Blk Time (%)	0	0			
Queuing Penalty (veh)	0	0			
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 20: Vista Blvd /Vista Blvd & Black Hills Rd

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	60	6
Average Queue (ft)	22	0
95th Queue (ft)	51	4
Link Distance (ft)	2087	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		175
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 21: Vista Blvd & Village I Access (South)

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 22: Vista Blvd & Village I Access (North)

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 53: Poco Bueno Cir & Decoy Dr

Movement	EB	NB	SW

Directions Served	LR	LR	LR

Maximum Queue (ft)	27	3	16

Average Queue (ft)	2	0	1

95th Queue (ft)	14	3	8

Link Distance (ft)	612	1017	159

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 54: Wingfield Springs Rd & School Dwy

Movement	SB
Directions Served	LR
Maximum Queue (ft)	59
Average Queue (ft)	25
95th Queue (ft)	54
Link Distance (ft)	810
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 6

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	L	T	T	R	L	L	T	R
Maximum Queue (ft)	121	154	118	76	25	269	272	122	107	142	112	56
Average Queue (ft)	24	84	49	19	3	200	182	39	31	71	47	7
95th Queue (ft)	80	138	99	56	16	276	285	124	74	124	93	39
Link Distance (ft)			1086	1086	247	247	247			1284	1284	
Upstream Blk Time (%)						2	2					
Queuing Penalty (veh)						13	12					
Storage Bay Dist (ft)	620	620						100	275			50
Storage Blk Time (%)							19	0			16	0
Queuing Penalty (veh)							55	1			1	0

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	289	1587	1610
Average Queue (ft)	113	588	819
95th Queue (ft)	229	1620	1735
Link Distance (ft)		1620	1620
Upstream Blk Time (%)		9	11
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)	275		
Storage Blk Time (%)	0	1	
Queuing Penalty (veh)	0	1	

Intersection: 2: Vista Blvd & Village A Access

Movement	WB	WB	WB	B59	B59	SB
Directions Served	T	T	TR	T	T	R
Maximum Queue (ft)	16	130	144	149	150	79
Average Queue (ft)	1	18	17	11	18	26
95th Queue (ft)	12	82	80	70	87	61
Link Distance (ft)	152	152	152	2328	2328	865
Upstream Blk Time (%)		0	0			
Queuing Penalty (veh)		1	1			
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 3: Wingfield Pkwy & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	T	TR	L	T	TR	L	TR	L	T	R
Maximum Queue (ft)	96	110	57	71	34	189	211	87	47	170	486	175
Average Queue (ft)	35	56	14	21	7	94	114	36	13	27	352	170
95th Queue (ft)	73	94	43	57	25	156	180	71	36	116	632	196
Link Distance (ft)			2328	2328		3421	3421		954	439	439	
Upstream Blk Time (%)										0	29	
Queuing Penalty (veh)										0	109	
Storage Bay Dist (ft)	705	705			160			100				150
Storage Blk Time (%)						1		0			1	65
Queuing Penalty (veh)						0		0			6	9

Intersection: 4: Wingfield Pkwy & Village A Dwy/Rey Del Sierra Dr

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	331	718	49	10	362	573
Average Queue (ft)	99	217	8	0	50	160
95th Queue (ft)	378	697	30	8	321	574
Link Distance (ft)	1252	1622	439	439	908	908
Upstream Blk Time (%)					0	1
Queuing Penalty (veh)					0	2
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs Rd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	138	291	66	93	26
Average Queue (ft)	60	111	31	47	8
95th Queue (ft)	103	244	56	77	24
Link Distance (ft)	442	1022	908	908	632
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Wingfield Springs Rd & Village D Dwy/Poco Rey Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	44	69	8	30
Average Queue (ft)	14	31	0	2
95th Queue (ft)	40	56	5	16
Link Distance (ft)	787	718	1022	316
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Wingfield Springs Rd & Diamond Wing Cir

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	27	23
Average Queue (ft)	3	1
95th Queue (ft)	17	17
Link Distance (ft)	648	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	12	53	27	5
Average Queue (ft)	1	18	1	0
95th Queue (ft)	6	44	12	4
Link Distance (ft)	665	598	784	937
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Wingfield Springs Rd & Eagle Wing Cir (North)

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	24	3
Average Queue (ft)	5	0
95th Queue (ft)	22	3
Link Distance (ft)	835	937
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	44	25	34	31
Average Queue (ft)	12	5	2	1
95th Queue (ft)	35	22	16	12
Link Distance (ft)	639	573	411	624
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	68	34	19	39
Average Queue (ft)	21	7	1	2
95th Queue (ft)	48	23	9	19
Link Distance (ft)	519	882	1266	2071
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Silver King Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	3	26
Average Queue (ft)	0	4
95th Queue (ft)	3	18
Link Distance (ft)	519	1010
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Island Queen Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	19	36
Average Queue (ft)	1	15
95th Queue (ft)	9	37
Link Distance (ft)	451	2202
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr

Movement	NB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	20	31
Average Queue (ft)	6	14
95th Queue (ft)	20	39
Link Distance (ft)	1044	1003
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15: Island Queen Dr & Decoy Dr

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	44	15
Average Queue (ft)	14	1
95th Queue (ft)	39	10
Link Distance (ft)	760	958
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Decoy Dr & Little Easy St

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	24	43
Average Queue (ft)	1	16
95th Queue (ft)	12	35
Link Distance (ft)	159	1074
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Wingfield Springs Rd & Poco Bueno Cir

Movement	WB	NB
Directions Served	LTR	LTR
Maximum Queue (ft)	33	52
Average Queue (ft)	3	24
95th Queue (ft)	19	49
Link Distance (ft)	303	1520
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	LTR
Maximum Queue (ft)	15	46	62	36	34	85	87	23	52	26	47
Average Queue (ft)	1	11	15	9	10	32	31	2	23	6	11
95th Queue (ft)	7	36	44	28	31	69	70	15	48	23	37
Link Distance (ft)		3421	3421			790	790		1990		951
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			545	200			200		200	
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 19: Fire Station Access & Vista Blvd

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	T	LR
Maximum Queue (ft)	38	28	21	40	51	21
Average Queue (ft)	5	2	1	8	8	1
95th Queue (ft)	23	13	9	28	31	9
Link Distance (ft)	48	48		343	343	659
Upstream Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)			140			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 20: Vista Blvd /Vista Blvd & Black Hills Rd

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	51	18
Average Queue (ft)	24	1
95th Queue (ft)	47	10
Link Distance (ft)	2110	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		175
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 21: Vista Blvd & Village I Access (South)

Movement	WB	WB	SB
Directions Served	T	TR	R
Maximum Queue (ft)	3	6	52
Average Queue (ft)	0	0	19
95th Queue (ft)	3	5	46
Link Distance (ft)	48	48	655
Upstream Blk Time (%)	0	0	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 22: Vista Blvd & Village I Access (North)

Movement	EB
Directions Served	R
Maximum Queue (ft)	42
Average Queue (ft)	18
95th Queue (ft)	43
Link Distance (ft)	563
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 53: Poco Bueno Cir & Decoy Dr

Movement	EB
Directions Served	LR
Maximum Queue (ft)	29
Average Queue (ft)	7
95th Queue (ft)	27
Link Distance (ft)	612
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 54: Wingfield Springs Rd & School Dwy

Movement	SB
Directions Served	LR
Maximum Queue (ft)	28
Average Queue (ft)	3
95th Queue (ft)	17
Link Distance (ft)	810
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 210

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	L	T	T	R	L	L	T	R
Maximum Queue (ft)	238	278	379	342	33	223	229	121	63	98	54	49
Average Queue (ft)	137	187	182	147	7	128	122	12	15	45	17	4
95th Queue (ft)	229	259	301	269	24	190	192	68	46	85	46	27
Link Distance (ft)			1086	1086	247	247	247			1284	1284	
Upstream Blk Time (%)					0	0						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)	620	620						100	275			50
Storage Blk Time (%)							12	0			2	0
Queuing Penalty (veh)							20	0			0	0

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	281	157	53
Average Queue (ft)	159	44	2
95th Queue (ft)	257	117	33
Link Distance (ft)		1620	1620
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	275		
Storage Blk Time (%)	1	0	
Queuing Penalty (veh)	0	0	

Intersection: 2: Vista Blvd & Village A Access

Movement	WB	WB	B59	B59	SB
Directions Served	T	TR	T	T	R
Maximum Queue (ft)	16	5	5	13	61
Average Queue (ft)	1	0	0	1	20
95th Queue (ft)	10	6	5	7	50
Link Distance (ft)	142	142	2338	2338	866
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Wingfield Pkwy & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	T	TR	L	T	TR	L	TR	L	T	R
Maximum Queue (ft)	154	175	176	187	30	129	155	58	31	60	31	150
Average Queue (ft)	83	100	41	62	4	61	86	17	6	21	5	71
95th Queue (ft)	135	149	115	137	20	107	136	45	23	49	22	125
Link Distance (ft)			2338	2338		3421	3421		954	439	439	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	705	705			160			100				150
Storage Blk Time (%)						0						0
Queuing Penalty (veh)						0						0

Intersection: 4: Wingfield Pkwy & Village A Dwy/Rey Del Sierra Dr

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	54	74	97	96	12	4
Average Queue (ft)	11	19	26	8	1	0
95th Queue (ft)	30	49	73	49	5	4
Link Distance (ft)	1252	1622	439	439	908	908
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs Rd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	82	140	144	185	36
Average Queue (ft)	43	68	68	82	12
95th Queue (ft)	68	109	114	137	30
Link Distance (ft)	442	1022	908	908	632
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Wingfield Springs Rd & Village D Dwy/Poco Rey Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	33	53	46	51
Average Queue (ft)	7	25	3	4
95th Queue (ft)	27	51	21	25
Link Distance (ft)	787	718	1022	316
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Wingfield Springs Rd & Diamond Wing Cir

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	31	17
Average Queue (ft)	2	1
95th Queue (ft)	15	10
Link Distance (ft)	648	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	14	80	143	55
Average Queue (ft)	3	20	11	4
95th Queue (ft)	11	57	80	49
Link Distance (ft)	665	598	784	937
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Wingfield Springs Rd & Eagle Wing Cir (North)

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	24	24
Average Queue (ft)	4	1
95th Queue (ft)	18	13
Link Distance (ft)	835	937
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	30	29	50	58
Average Queue (ft)	9	7	4	3
95th Queue (ft)	28	25	26	32
Link Distance (ft)	639	573	411	624
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	69	16	41	50
Average Queue (ft)	25	4	3	3
95th Queue (ft)	52	14	21	23
Link Distance (ft)	519	882	1266	2071
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Silver King Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	17	26
Average Queue (ft)	1	5
95th Queue (ft)	10	21
Link Distance (ft)	519	1010
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Island Queen Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	9	67
Average Queue (ft)	0	30
95th Queue (ft)	6	54
Link Distance (ft)	451	2202
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	6	20	45
Average Queue (ft)	0	3	12
95th Queue (ft)	4	16	38
Link Distance (ft)	217	1044	1003
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 15: Island Queen Dr & Decoy Dr

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	62	20
Average Queue (ft)	31	1
95th Queue (ft)	55	10
Link Distance (ft)	760	958
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Decoy Dr & Little Easy St

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	30	27
Average Queue (ft)	3	9
95th Queue (ft)	18	29
Link Distance (ft)	159	1074
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Wingfield Springs Rd & Poco Bueno Cir

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	3	50	95
Average Queue (ft)	0	6	51
95th Queue (ft)	2	29	78
Link Distance (ft)	513	303	1520
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	LTR
Maximum Queue (ft)	8	171	189	66	51	73	71	40	64	61	32
Average Queue (ft)	0	62	75	22	20	31	22	8	37	22	8
95th Queue (ft)	4	130	146	49	46	61	54	31	60	48	29
Link Distance (ft)		3421	3421			780	780		1991		951
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			545	200			200		200	
Storage Blk Time (%)		0									
Queuing Penalty (veh)		0									

Intersection: 19: Fire Station Access & Vista Blvd

Movement	EB	EB	WB	WB	NB
Directions Served	T	TR	T	T	LR
Maximum Queue (ft)	39	47	27	26	22
Average Queue (ft)	4	8	4	3	1
95th Queue (ft)	22	32	18	16	12
Link Distance (ft)	48	48	347	347	659
Upstream Blk Time (%)	0	0			
Queuing Penalty (veh)	0	0			
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 20: Vista Blvd /Vista Blvd & Black Hills Rd

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	61	15
Average Queue (ft)	24	1
95th Queue (ft)	52	10
Link Distance (ft)	2087	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		175
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 21: Vista Blvd & Village I Access (South)

Movement	EB	WB	SB
Directions Served	T	TR	R
Maximum Queue (ft)	6	3	38
Average Queue (ft)	0	0	14
95th Queue (ft)	5	3	39
Link Distance (ft)	780	48	687
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 22: Vista Blvd & Village I Access (North)

Movement	EB
Directions Served	R
Maximum Queue (ft)	33
Average Queue (ft)	12
95th Queue (ft)	36
Link Distance (ft)	474
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 53: Poco Bueno Cir & Decoy Dr

Movement	EB	NB	SW
Directions Served	LR	LR	LR
Maximum Queue (ft)	22	8	23
Average Queue (ft)	2	0	1
95th Queue (ft)	13	3	10
Link Distance (ft)	612	1017	159
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 54: Wingfield Springs Rd & School Dwy

Movement	SB
Directions Served	LR
Maximum Queue (ft)	65
Average Queue (ft)	26
95th Queue (ft)	54
Link Distance (ft)	810
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 22

Queuing and Blocking Report
Cumulative AM Peak Hour

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Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	L	T	T	R	L	L	T	R
Maximum Queue (ft)	150	177	159	132	29	269	266	122	116	153	126	53
Average Queue (ft)	31	90	68	41	4	191	166	37	34	76	53	5
95th Queue (ft)	99	155	129	98	18	267	274	121	86	133	102	32
Link Distance (ft)			1086	1086	247	247	247			1284	1284	
Upstream Blk Time (%)						2	2					
Queuing Penalty (veh)						9	9					
Storage Bay Dist (ft)	620	620						100	275			50
Storage Blk Time (%)							17	0			20	0
Queuing Penalty (veh)							51	1			1	0

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	300	1565	1608
Average Queue (ft)	130	585	784
95th Queue (ft)	257	1605	1719
Link Distance (ft)		1620	1620
Upstream Blk Time (%)		12	13
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)	275		
Storage Blk Time (%)	1	1	
Queuing Penalty (veh)	0	2	

Intersection: 2: Vista Blvd & Village A Access

Movement	WB	WB	WB	B59	B59	SB
Directions Served	T	T	TR	T	T	R
Maximum Queue (ft)	22	112	127	97	109	34
Average Queue (ft)	1	12	13	6	12	6
95th Queue (ft)	11	63	68	53	66	26
Link Distance (ft)	152	152	152	2328	2328	865
Upstream Blk Time (%)		0	0			
Queuing Penalty (veh)		0	0			
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Queuing and Blocking Report
Cumulative AM Peak Hour

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Intersection: 3: Wingfield Pkwy & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	T	TR	L	T	TR	L	TR	L	T	R
Maximum Queue (ft)	82	96	92	112	92	301	318	85	42	58	482	175
Average Queue (ft)	34	51	30	40	8	129	165	38	12	3	271	162
95th Queue (ft)	66	85	74	92	43	249	273	72	35	39	594	208
Link Distance (ft)			2328	2328		3421	3421		954	439	439	
Upstream Blk Time (%)												24
Queuing Penalty (veh)												66
Storage Bay Dist (ft)	705	705			160			100				150
Storage Blk Time (%)						3		0			1	61
Queuing Penalty (veh)						0		0			4	8

Intersection: 4: Wingfield Pkwy & Village A Dwy/Rey Del Sierra Dr

Movement	WB	SB	SB
Directions Served	LTR	LT	TR
Maximum Queue (ft)	253	97	387
Average Queue (ft)	69	5	73
95th Queue (ft)	231	48	285
Link Distance (ft)	1622	908	908
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs Rd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	86	194	71	186	24
Average Queue (ft)	46	80	31	76	8
95th Queue (ft)	73	143	59	131	24
Link Distance (ft)	442	1022	908	908	632
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Queuing and Blocking Report
Cumulative AM Peak Hour

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Intersection: 6: Wingfield Springs Rd & Village D Dwy/Poco Rey Dr

Movement	WB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	66	53
Average Queue (ft)	28	3
95th Queue (ft)	57	23
Link Distance (ft)	718	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Wingfield Springs Rd & Diamond Wing Cir

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	30	12
Average Queue (ft)	1	1
95th Queue (ft)	11	8
Link Distance (ft)	648	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South)

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	9	60	17
Average Queue (ft)	1	20	1
95th Queue (ft)	5	47	8
Link Distance (ft)	665	598	784
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report
Cumulative AM Peak Hour

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Intersection: 9: Wingfield Springs Rd & Eagle Wing Cir (North)

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	27	50	2
Average Queue (ft)	7	3	0
95th Queue (ft)	24	22	2
Link Distance (ft)	835	937	779
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	36	27	57	38
Average Queue (ft)	11	6	4	1
95th Queue (ft)	32	23	27	16
Link Distance (ft)	639	573	411	624
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	60	34	33	21
Average Queue (ft)	18	7	3	1
95th Queue (ft)	41	20	17	9
Link Distance (ft)	519	882	1266	2071
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Silver King Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	9	26
Average Queue (ft)	0	3
95th Queue (ft)	6	17
Link Distance (ft)	519	1010
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Island Queen Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	3	36
Average Queue (ft)	0	11
95th Queue (ft)	3	33
Link Distance (ft)	451	2202
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr

Movement	SB
Directions Served	LTR
Maximum Queue (ft)	35
Average Queue (ft)	12
95th Queue (ft)	37
Link Distance (ft)	1003
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report
Cumulative AM Peak Hour

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Intersection: 15: Island Queen Dr & Decoy Dr

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	36	6
Average Queue (ft)	11	0
95th Queue (ft)	34	4
Link Distance (ft)	760	958
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Decoy Dr & Little Easy St

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	9	43
Average Queue (ft)	0	15
95th Queue (ft)	6	35
Link Distance (ft)	159	1074
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Wingfield Springs Rd & Poco Bueno Cir

Movement	WB	NB
Directions Served	LTR	LTR
Maximum Queue (ft)	33	56
Average Queue (ft)	2	26
95th Queue (ft)	16	49
Link Distance (ft)	303	1520
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	LTR
Maximum Queue (ft)	8	99	125	65	46	134	146	58	86	28	41
Average Queue (ft)	0	35	42	17	13	69	70	19	45	8	13
95th Queue (ft)	5	79	90	45	38	119	126	49	73	27	38
Link Distance (ft)		3421	3421			790	790		1990		951
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			545	200			200		200	
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 19: Fire Station Access & Vista Blvd

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	T	LR
Maximum Queue (ft)	37	34	30	46	38	14
Average Queue (ft)	7	5	2	9	9	1
95th Queue (ft)	27	23	15	30	30	9
Link Distance (ft)	48	48		343	343	659
Upstream Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)			140			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 20: Vista Blvd /Vista Blvd & Black Hills Rd

Movement	WB	NB	SB
Directions Served	LR	T	L
Maximum Queue (ft)	92	3	24
Average Queue (ft)	28	0	1
95th Queue (ft)	63	3	11
Link Distance (ft)	2110	168	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			175
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report
Cumulative AM Peak Hour

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Intersection: 21: Vista Blvd & Village I Access (South)

Movement	WB	WB
Directions Served	T	TR
Maximum Queue (ft)	9	7
Average Queue (ft)	0	0
95th Queue (ft)	6	4
Link Distance (ft)	48	48
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Vista Blvd & Village I Access (North)

Movement		
Directions Served		
Maximum Queue (ft)		
Average Queue (ft)		
95th Queue (ft)		
Link Distance (ft)		
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 53: Poco Bueno Cir & Decoy Dr

Movement	EB	SW
Directions Served	LR	LR
Maximum Queue (ft)	30	9
Average Queue (ft)	7	0
95th Queue (ft)	26	6
Link Distance (ft)	612	159
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 54: Wingfield Springs Rd & School Dwy

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	130	11	27
Average Queue (ft)	20	0	4
95th Queue (ft)	78	6	22
Link Distance (ft)	1266	624	810
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 154

Queuing and Blocking Report
Cumulative PM Peak Hour

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Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	L	T	T	R	L	L	T	R
Maximum Queue (ft)	297	332	312	278	52	271	272	123	60	107	80	54
Average Queue (ft)	178	220	154	134	6	197	197	41	15	43	28	8
95th Queue (ft)	265	299	265	233	31	280	289	132	44	86	63	39
Link Distance (ft)			1086	1086	247	247	247			1284	1284	
Upstream Blk Time (%)						4	4					
Queuing Penalty (veh)						15	15					
Storage Bay Dist (ft)	620	620						100	275			50
Storage Blk Time (%)							30	0			6	0
Queuing Penalty (veh)							65	1			0	0

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	298	554	356
Average Queue (ft)	228	191	31
95th Queue (ft)	348	590	204
Link Distance (ft)		1620	1620
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	275		
Storage Blk Time (%)	22	0	
Queuing Penalty (veh)	16	1	

Intersection: 2: Vista Blvd & Village A Access

Movement	EB	EB	WB	WB	WB	B59	B59	SB
Directions Served	T	T	T	T	TR	T	T	R
Maximum Queue (ft)	6	10	57	136	128	114	94	41
Average Queue (ft)	0	0	2	19	18	5	9	10
95th Queue (ft)	6	10	24	88	87	51	62	34
Link Distance (ft)	247	247	142	142	142	2338	2338	866
Upstream Blk Time (%)				1	1			
Queuing Penalty (veh)				2	3			
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Queuing and Blocking Report
Cumulative PM Peak Hour

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Intersection: 3: Wingfield Pkwy & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	T	TR	L	T	TR	L	TR	L	T	R
Maximum Queue (ft)	138	155	237	282	32	216	243	64	26	49	91	154
Average Queue (ft)	67	93	68	95	5	97	121	23	5	13	9	75
95th Queue (ft)	114	141	168	210	22	172	199	54	20	39	65	132
Link Distance (ft)			2338	2338		3421	3421		954	439	439	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	705	705			160			100				150
Storage Blk Time (%)						1		0				1
Queuing Penalty (veh)						0		0				0

Intersection: 4: Wingfield Pkwy & Village A Dwy/Rey Del Sierra Dr

Movement	WB	NB	NB	SB
Directions Served	LTR	LT	TR	LT
Maximum Queue (ft)	26	7	11	9
Average Queue (ft)	8	0	0	0
95th Queue (ft)	22	7	7	6
Link Distance (ft)	1622	439	439	908
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs Rd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	77	111	111	126	43
Average Queue (ft)	41	54	57	66	14
95th Queue (ft)	65	88	91	102	32
Link Distance (ft)	442	1022	908	908	632
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Wingfield Springs Rd & Village D Dwy/Poco Rey Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	58	2	42
Average Queue (ft)	27	0	4
95th Queue (ft)	51	2	24
Link Distance (ft)	718	1022	316
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Wingfield Springs Rd & Diamond Wing Cir

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	20	12
Average Queue (ft)	1	0
95th Queue (ft)	11	7
Link Distance (ft)	648	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	13	60	68	35
Average Queue (ft)	2	16	6	2
95th Queue (ft)	10	45	35	14
Link Distance (ft)	665	598	784	937
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report
Cumulative PM Peak Hour

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Intersection: 9: Wingfield Springs Rd & Eagle Wing Cir (North)

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	34	32
Average Queue (ft)	11	2
95th Queue (ft)	32	16
Link Distance (ft)	835	937
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	24	30	43	41
Average Queue (ft)	10	8	3	3
95th Queue (ft)	29	28	22	19
Link Distance (ft)	639	573	411	624
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	52	12	41	56
Average Queue (ft)	17	3	4	5
95th Queue (ft)	38	12	24	29
Link Distance (ft)	519	882	1266	2071
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Silver King Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	12	23
Average Queue (ft)	0	4
95th Queue (ft)	5	17
Link Distance (ft)	519	1010
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Island Queen Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	22	43
Average Queue (ft)	1	17
95th Queue (ft)	10	41
Link Distance (ft)	451	2202
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr

Movement	SB
Directions Served	LTR
Maximum Queue (ft)	41
Average Queue (ft)	12
95th Queue (ft)	38
Link Distance (ft)	1003
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 15: Island Queen Dr & Decoy Dr

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	53	9
Average Queue (ft)	23	0
95th Queue (ft)	50	6
Link Distance (ft)	760	958
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Decoy Dr & Little Easy St

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	15	29
Average Queue (ft)	1	11
95th Queue (ft)	10	30
Link Distance (ft)	159	1074
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Wingfield Springs Rd & Poco Bueno Cir

Movement	WB	NB
Directions Served	LTR	LTR
Maximum Queue (ft)	41	85
Average Queue (ft)	6	52
95th Queue (ft)	28	77
Link Distance (ft)	303	1520
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report
Cumulative PM Peak Hour

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Intersection: 18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	LTR
Maximum Queue (ft)	13	299	312	122	64	108	104	58	85	61	39
Average Queue (ft)	1	133	149	42	23	45	44	18	48	23	8
95th Queue (ft)	6	245	265	83	50	86	88	49	74	50	30
Link Distance (ft)		3421	3421			780	780		1991		951
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			545	200			200		200	
Storage Blk Time (%)		2									
Queuing Penalty (veh)		0									

Intersection: 19: Fire Station Access & Vista Blvd

Movement	EB	EB	WB	WB	NB
Directions Served	T	TR	T	T	LR
Maximum Queue (ft)	58	57	43	42	24
Average Queue (ft)	10	13	8	5	2
95th Queue (ft)	36	39	30	25	13
Link Distance (ft)	48	48	347	347	659
Upstream Blk Time (%)	0	0			
Queuing Penalty (veh)	1	1			
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 20: Vista Blvd /Vista Blvd & Black Hills Rd

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	79	22
Average Queue (ft)	26	2
95th Queue (ft)	61	13
Link Distance (ft)	2087	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		175
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 21: Vista Blvd & Village I Access (South)

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	6	4
Average Queue (ft)	0	0
95th Queue (ft)	8	6
Link Distance (ft)	780	780
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Vista Blvd & Village I Access (North)

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 53: Poco Bueno Cir & Decoy Dr

Movement	EB	NB	SW
Directions Served	LR	LR	LR
Maximum Queue (ft)	24	12	21
Average Queue (ft)	2	0	1
95th Queue (ft)	13	9	8
Link Distance (ft)	612	1017	159
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 54: Wingfield Springs Rd & School Dwy

Movement	SB
Directions Served	LR
Maximum Queue (ft)	66
Average Queue (ft)	30
95th Queue (ft)	56
Link Distance (ft)	810
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 121

Queuing and Blocking Report
Cumulative Plus Project AM Peak Hour

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Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	L	T	T	R	L	L	T	R
Maximum Queue (ft)	162	185	187	141	30	263	271	123	142	165	154	54
Average Queue (ft)	41	98	71	35	4	202	172	42	52	92	63	6
95th Queue (ft)	120	165	139	95	18	272	280	125	119	156	122	35
Link Distance (ft)			1086	1086	247	247	247			1284	1284	
Upstream Blk Time (%)						1	1					
Queuing Penalty (veh)						8	9					
Storage Bay Dist (ft)	620	620						100	275			50
Storage Blk Time (%)							14	0			28	0
Queuing Penalty (veh)							52	1			1	0

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	300	1646	1648
Average Queue (ft)	294	964	967
95th Queue (ft)	327	1884	1883
Link Distance (ft)		1620	1620
Upstream Blk Time (%)		24	22
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)	275		
Storage Blk Time (%)	87	1	
Queuing Penalty (veh)	34	2	

Intersection: 2: Vista Blvd & Village A Access

Movement	WB	WB	WB	B59	B59	SB
Directions Served	T	T	TR	T	T	R
Maximum Queue (ft)	23	84	124	200	270	78
Average Queue (ft)	1	12	14	29	50	26
95th Queue (ft)	13	51	61	132	187	59
Link Distance (ft)	152	152	152	2328	2328	865
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			0			
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Queuing and Blocking Report
Cumulative Plus Project AM Peak Hour

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Intersection: 3: Wingfield Pkwy & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	T	TR	L	T	TR	L	TR	L	T	R
Maximum Queue (ft)	123	142	129	148	122	790	811	112	61	120	483	175
Average Queue (ft)	59	71	32	44	12	375	414	49	16	34	396	173
95th Queue (ft)	105	122	91	111	66	784	820	96	45	85	596	192
Link Distance (ft)			2328	2328		3421	3421		954	439	439	
Upstream Blk Time (%)												26
Queuing Penalty (veh)												102
Storage Bay Dist (ft)	705	705			160			100				150
Storage Blk Time (%)						25		1	0		1	65
Queuing Penalty (veh)						2		0	0		6	9

Intersection: 4: Wingfield Pkwy & Village A Dwy/Rey Del Sierra Dr

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	292	840	51	27	267	513
Average Queue (ft)	75	272	7	1	25	140
95th Queue (ft)	265	761	30	12	197	492
Link Distance (ft)	1252	1622	439	439	908	908
Upstream Blk Time (%)					0	0
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs Rd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	124	347	96	182	31
Average Queue (ft)	57	118	40	87	8
95th Queue (ft)	95	281	74	142	25
Link Distance (ft)	442	1022	908	908	632
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Wingfield Springs Rd & Village D Dwy/Poco Rey Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	33	87	32	46
Average Queue (ft)	8	34	1	3
95th Queue (ft)	30	66	13	24
Link Distance (ft)	787	718	1022	316
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Wingfield Springs Rd & Diamond Wing Cir

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	27	13
Average Queue (ft)	3	0
95th Queue (ft)	17	8
Link Distance (ft)	648	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	11	66	24	5
Average Queue (ft)	1	21	1	0
95th Queue (ft)	6	53	15	5
Link Distance (ft)	665	598	784	937
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Wingfield Springs Rd & Eagle Wing Cir (North)

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	27	60
Average Queue (ft)	7	5
95th Queue (ft)	25	34
Link Distance (ft)	835	937
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	38	27	75	13
Average Queue (ft)	11	6	6	1
95th Queue (ft)	32	23	37	10
Link Distance (ft)	639	573	411	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	65	27	40	54
Average Queue (ft)	23	7	3	3
95th Queue (ft)	49	19	20	26
Link Distance (ft)	519	882		2071
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Silver King Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	9	23
Average Queue (ft)	0	4
95th Queue (ft)	5	18
Link Distance (ft)	519	1010
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Island Queen Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	27	42
Average Queue (ft)	2	14
95th Queue (ft)	14	38
Link Distance (ft)	451	2202
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	12	25	36
Average Queue (ft)	0	6	13
95th Queue (ft)	6	21	38
Link Distance (ft)	217	1044	1003
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 15: Island Queen Dr & Decoy Dr

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	46	6
Average Queue (ft)	13	0
95th Queue (ft)	39	5
Link Distance (ft)	760	958
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Decoy Dr & Little Easy St

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	23	40
Average Queue (ft)	2	14
95th Queue (ft)	14	35
Link Distance (ft)		1074
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Wingfield Springs Rd & Poco Bueno Cir

Movement	WB	NB
Directions Served	LTR	LTR
Maximum Queue (ft)	33	56
Average Queue (ft)	2	28
95th Queue (ft)	16	52
Link Distance (ft)		1520
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	LTR
Maximum Queue (ft)	5	108	115	42	42	170	180	56	78	33	43
Average Queue (ft)	0	33	42	14	13	73	79	21	43	9	15
95th Queue (ft)	4	76	86	35	37	135	148	51	68	29	42
Link Distance (ft)		3421	3421			790	790		1990		951
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			545	200			200		200	
Storage Blk Time (%)		0				0					
Queuing Penalty (veh)		0				0					

Intersection: 19: Fire Station Access & Vista Blvd

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	T	LR
Maximum Queue (ft)	40	41	24	41	51	21
Average Queue (ft)	7	4	1	10	10	1
95th Queue (ft)	29	22	11	31	34	12
Link Distance (ft)	48	48		343	343	659
Upstream Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)			140			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 20: Vista Blvd /Vista Blvd & Black Hills Rd

Movement	WB	NB	SB	SB	SB
Directions Served	LR	T	L	T	T
Maximum Queue (ft)	82	3	27	5	5
Average Queue (ft)	28	0	2	0	0
95th Queue (ft)	62	3	16	5	5
Link Distance (ft)	2110	168		1842	1842
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			175		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 21: Vista Blvd & Village I Access (South)

Movement	WB	WB	SB
Directions Served	T	TR	R
Maximum Queue (ft)	10	13	55
Average Queue (ft)	0	1	18
95th Queue (ft)	7	8	45
Link Distance (ft)	48	48	655
Upstream Blk Time (%)	0	0	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 22: Vista Blvd & Village I Access (North)

Movement	EB	SB
Directions Served	R	TR
Maximum Queue (ft)	50	3
Average Queue (ft)	17	0
95th Queue (ft)	44	4
Link Distance (ft)	563	168
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 53: Poco Bueno Cir & Decoy Dr

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 54: Wingfield Springs Rd & School Dwy

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 229

Queuing and Blocking Report
Cumulative Plus Project PM Peak Hour

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Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	L	T	T	L	T	T	R	L	L	T	L
Maximum Queue (ft)	317	579	1000	842	34	266	276	124	54	110	103	300
Average Queue (ft)	202	279	354	299	5	203	209	52	15	53	35	300
95th Queue (ft)	293	487	771	656	22	289	303	145	43	98	79	301
Link Distance (ft)			1086	1086	247	247	247			1284	1284	
Upstream Blk Time (%)			1	0		3	5					
Queuing Penalty (veh)			0	0		15	21					
Storage Bay Dist (ft)	620	620						100	275			275
Storage Blk Time (%)		0	2	1			25	0			1	97
Queuing Penalty (veh)		0	13	0			66	1			0	68

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	1654	1643
Average Queue (ft)	1601	1458
95th Queue (ft)	1822	2187
Link Distance (ft)	1620	1620
Upstream Blk Time (%)	86	35
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)	1	
Queuing Penalty (veh)	3	

Intersection: 2: Vista Blvd & Village A Access

Movement	WB	WB	WB	B59	B59	SB
Directions Served	T	T	TR	T	T	R
Maximum Queue (ft)	30	145	150	179	190	60
Average Queue (ft)	1	25	28	21	30	22
95th Queue (ft)	19	100	99	106	122	52
Link Distance (ft)	142	142	142	2338	2338	866
Upstream Blk Time (%)		0	0			
Queuing Penalty (veh)		1	1			
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Queuing and Blocking Report
Cumulative Plus Project PM Peak Hour

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Intersection: 3: Wingfield Pkwy & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	T	TR	L	T	TR	L	TR	L	T	R
Maximum Queue (ft)	230	256	388	450	78	296	315	73	31	85	242	175
Average Queue (ft)	132	151	96	120	8	157	185	25	6	29	23	109
95th Queue (ft)	208	226	254	290	43	258	282	58	25	66	125	178
Link Distance (ft)			2338	2338		3421	3421		954	439	439	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	705	705			160			100				150
Storage Blk Time (%)			0			7		0			0	4
Queuing Penalty (veh)			0			0		0			0	0

Intersection: 4: Wingfield Pkwy & Village A Dwy/Rey Del Sierra Dr

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	TR	LT
Maximum Queue (ft)	41	64	130	124	11
Average Queue (ft)	10	20	35	12	1
95th Queue (ft)	27	48	97	66	6
Link Distance (ft)	1252	1622	439	439	908
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs Rd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	97	149	201	229	41
Average Queue (ft)	49	66	84	107	14
95th Queue (ft)	79	112	156	178	32
Link Distance (ft)	442	1022	908	908	632
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Wingfield Springs Rd & Village D Dwy/Poco Rey Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	31	59	47	53
Average Queue (ft)	4	26	4	4
95th Queue (ft)	20	53	26	27
Link Distance (ft)	787	718	1022	316
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Wingfield Springs Rd & Diamond Wing Cir

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	27	13
Average Queue (ft)	2	0
95th Queue (ft)	13	8
Link Distance (ft)	648	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	15	70	116	63
Average Queue (ft)	3	20	9	3
95th Queue (ft)	11	59	53	32
Link Distance (ft)	665	598	784	937
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Wingfield Springs Rd & Eagle Wing Cir (North)

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	48	62
Average Queue (ft)	11	4
95th Queue (ft)	36	30
Link Distance (ft)	835	937
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	33	28	56	34
Average Queue (ft)	11	9	6	3
95th Queue (ft)	31	28	32	18
Link Distance (ft)	639	573	411	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	59	25	65	83
Average Queue (ft)	20	4	5	7
95th Queue (ft)	42	16	32	39
Link Distance (ft)	519	882		2071
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Silver King Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	18	23
Average Queue (ft)	1	4
95th Queue (ft)	10	18
Link Distance (ft)	519	1010
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Island Queen Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	24	47
Average Queue (ft)	1	18
95th Queue (ft)	10	43
Link Distance (ft)	451	2202
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	3	6	22	44
Average Queue (ft)	0	0	4	13
95th Queue (ft)	3	4	18	39
Link Distance (ft)	894	217	1044	1003
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Island Queen Dr & Decoy Dr

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	49	6
Average Queue (ft)	21	0
95th Queue (ft)	45	3
Link Distance (ft)	760	958
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Decoy Dr & Little Easy St

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	30	29
Average Queue (ft)	2	11
95th Queue (ft)	15	30
Link Distance (ft)		1074
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Wingfield Springs Rd & Poco Bueno Cir

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	4	48	94
Average Queue (ft)	0	8	54
95th Queue (ft)	3	33	83
Link Distance (ft)			1520
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	LTR
Maximum Queue (ft)	13	268	293	119	67	119	118	54	82	56	39
Average Queue (ft)	1	118	137	40	24	51	50	20	47	22	9
95th Queue (ft)	8	226	241	83	55	95	100	48	73	48	31
Link Distance (ft)		3421	3421			780	780		1991		951
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			545	200			200		200	
Storage Blk Time (%)		2									
Queuing Penalty (veh)		0									

Intersection: 19: Fire Station Access & Vista Blvd

Movement	EB	EB	WB	WB	NB
Directions Served	T	TR	T	T	LR
Maximum Queue (ft)	41	51	41	40	24
Average Queue (ft)	8	11	9	6	2
95th Queue (ft)	28	36	30	28	15
Link Distance (ft)	48	48	347	347	659
Upstream Blk Time (%)	0	0			
Queuing Penalty (veh)	0	1			
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 20: Vista Blvd /Vista Blvd & Black Hills Rd

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	70	20
Average Queue (ft)	27	1
95th Queue (ft)	58	10
Link Distance (ft)	2087	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		175
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 21: Vista Blvd & Village I Access (South)

Movement	EB	EB	SB
Directions Served	T	T	R
Maximum Queue (ft)	2	3	38
Average Queue (ft)	0	0	14
95th Queue (ft)	2	3	39
Link Distance (ft)	780	780	687
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 22: Vista Blvd & Village I Access (North)

Movement	EB	SB
Directions Served	R	TR
Maximum Queue (ft)	37	6
Average Queue (ft)	14	0
95th Queue (ft)	38	3
Link Distance (ft)	474	161
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 53: Poco Bueno Cir & Decoy Dr

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 54: Wingfield Springs Rd & School Dwy

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 191

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	L	T	T	R	L	L	T	R
Maximum Queue (ft)	155	177	152	126	26	267	275	122	144	170	131	64
Average Queue (ft)	39	99	69	36	3	205	181	41	48	87	58	9
95th Queue (ft)	118	165	131	84	15	276	291	125	115	149	111	42
Link Distance (ft)			1086	1086	247	247	247			1284	1284	
Upstream Blk Time (%)						2	2					
Queuing Penalty (veh)						11	11					
Storage Bay Dist (ft)	620	620						100	275			50
Storage Blk Time (%)							15	0			25	0
Queuing Penalty (veh)							56	1			1	0

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	300	1645	1652
Average Queue (ft)	283	914	959
95th Queue (ft)	349	1920	1899
Link Distance (ft)		1620	1620
Upstream Blk Time (%)		25	24
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)	275		
Storage Blk Time (%)	74	0	
Queuing Penalty (veh)	30	1	

Intersection: 2: Vista Blvd & Village A Access

Movement	WB	WB	WB	B59	B59	B64	B64	B64	SB
Directions Served	T	T	TR	T	T	T	T		R
Maximum Queue (ft)	30	125	123	946	1059	7	84	36	79
Average Queue (ft)	1	17	18	226	308	0	5	2	27
95th Queue (ft)	19	75	75	793	978	7	39	21	63
Link Distance (ft)	152	152	152	1638	1638	634	634	634	865
Upstream Blk Time (%)	0	0	0						
Queuing Penalty (veh)	0	0	0						
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 3: Wingfield Pkwy & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	127	152	139	172	135	358	390	380	107	73	127	316
Average Queue (ft)	62	82	66	84	11	183	214	196	53	19	33	147
95th Queue (ft)	112	132	119	144	63	313	348	340	104	67	86	262
Link Distance (ft)			634	634		3419	3419	3419		950	427	427
Upstream Blk Time (%)												0
Queuing Penalty (veh)												0
Storage Bay Dist (ft)	705	705			160				100			
Storage Blk Time (%)						14			4			6
Queuing Penalty (veh)						1			1			23

Intersection: 3: Wingfield Pkwy & Vista Blvd

Movement	SB
Directions Served	R
Maximum Queue (ft)	175
Average Queue (ft)	100
95th Queue (ft)	203
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	150
Storage Blk Time (%)	2
Queuing Penalty (veh)	6

Intersection: 4: Wingfield Pkwy & Village A Dwy/Rey Del Sierra Dr

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	70	207	53	16	5	32
Average Queue (ft)	19	59	9	1	0	2
95th Queue (ft)	56	160	34	9	4	17
Link Distance (ft)	1252	1622	427	427	908	908
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs Rd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	107	228	133	234	31
Average Queue (ft)	53	92	46	101	10
95th Queue (ft)	88	176	99	184	27
Link Distance (ft)	442	1022	908	908	632
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Wingfield Springs Rd & Village D Dwy/Poco Rey Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	80	8	45
Average Queue (ft)	9	32	0	3
95th Queue (ft)	32	61	5	25
Link Distance (ft)	787	718	1022	316
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Wingfield Springs Rd & Diamond Wing Cir

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	29	16
Average Queue (ft)	2	1
95th Queue (ft)	15	11
Link Distance (ft)	648	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	13	66	19	16
Average Queue (ft)	1	20	1	1
95th Queue (ft)	6	49	13	10
Link Distance (ft)	665	598	784	937
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Wingfield Springs Rd & Eagle Wing Cir (North)

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	27	59
Average Queue (ft)	7	4
95th Queue (ft)	26	31
Link Distance (ft)	835	937
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	34	56	20
Average Queue (ft)	12	7	4	1
95th Queue (ft)	32	27	33	12
Link Distance (ft)	639	573	411	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	60	32	31	38
Average Queue (ft)	21	8	2	2
95th Queue (ft)	44	22	16	19
Link Distance (ft)	519	882		2071
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Silver King Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	6	23
Average Queue (ft)	0	4
95th Queue (ft)	4	18
Link Distance (ft)	519	1010
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Island Queen Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	18	40
Average Queue (ft)	1	12
95th Queue (ft)	10	36
Link Distance (ft)	451	2202
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr

Movement	NB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	20	33
Average Queue (ft)	5	13
95th Queue (ft)	19	37
Link Distance (ft)	1044	1003
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15: Island Queen Dr & Decoy Dr

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	41	3
Average Queue (ft)	12	0
95th Queue (ft)	37	3
Link Distance (ft)	760	958
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Decoy Dr & Little Easy St

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	22	42
Average Queue (ft)	1	15
95th Queue (ft)	13	36
Link Distance (ft)		1074
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Wingfield Springs Rd & Poco Bueno Cir

Movement	WB	NB
Directions Served	LTR	LTR
Maximum Queue (ft)	39	56
Average Queue (ft)	3	29
95th Queue (ft)	21	49
Link Distance (ft)	1520	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	LT	R	LTR
Maximum Queue (ft)	14	102	94	97	44	108	110	103	60	88	37	47
Average Queue (ft)	1	31	28	35	12	54	53	41	19	49	9	16
95th Queue (ft)	8	74	67	77	35	94	92	82	49	78	32	43
Link Distance (ft)	3419		3419	3419	793		793	793	1984		939	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				200				200		200	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 19: Fire Station Access & Vista Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	T	T	TR	L	T	T	T	LR
Maximum Queue (ft)	44	27	26	21	38	48	31	15
Average Queue (ft)	7	3	2	1	9	7	4	1
95th Queue (ft)	29	15	14	10	30	28	18	9
Link Distance (ft)	50	50	50		343	343	343	647
Upstream Blk Time (%)	0		0					
Queuing Penalty (veh)	0		0					
Storage Bay Dist (ft)				140				
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 20: Vista Blvd /Vista Blvd & Black Hills Rd

Movement	WB	NB	NB	SB
Directions Served	LR	T	TR	L
Maximum Queue (ft)	79	3	2	28
Average Queue (ft)	34	0	0	2
95th Queue (ft)	65	3	2	15
Link Distance (ft)	2108	169	169	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				175
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 21: Vista Blvd & Village I Access (South)

Movement	WB	WB	SB
Directions Served	T	TR	R
Maximum Queue (ft)	4	3	53
Average Queue (ft)	0	0	18
95th Queue (ft)	4	3	46
Link Distance (ft)	50	50	643
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 22: Vista Blvd & Village I Access (North)

Movement	EB	SB	SB
Directions Served	R	T	TR
Maximum Queue (ft)	44	5	8
Average Queue (ft)	18	0	0
95th Queue (ft)	44	5	6
Link Distance (ft)	551	169	169
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 53: Poco Bueno Cir & Decoy Dr

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 54: Wingfield Springs Rd & School Dwy

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 142

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	L	T	T	R	L	L	T	R
Maximum Queue (ft)	310	611	974	894	28	268	278	123	79	122	96	49
Average Queue (ft)	198	271	346	305	5	204	208	50	15	50	34	5
95th Queue (ft)	287	469	731	663	21	289	302	143	50	96	76	31
Link Distance (ft)			1086	1086	247	247	247			1284	1284	
Upstream Blk Time (%)			1	0		4	5					
Queuing Penalty (veh)			0	0		16	20					
Storage Bay Dist (ft)	620	620						100	275			50
Storage Blk Time (%)		0	2	1			24	0			13	0
Queuing Penalty (veh)		0	11	0			63	1			1	0

Intersection: 1: Wingfield Hills Rd & Vista Blvd

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	300	1659	1640
Average Queue (ft)	300	1609	1492
95th Queue (ft)	300	1785	2165
Link Distance (ft)		1620	1620
Upstream Blk Time (%)		88	39
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)	275		
Storage Blk Time (%)	97	1	
Queuing Penalty (veh)	68	3	

Intersection: 2: Vista Blvd & Village A Access

Movement	WB	WB	WB	B59	B59	B64	B64	B64	SB
Directions Served	T	T	TR	T	T	T	T		R
Maximum Queue (ft)	30	145	159	162	359	8	75	33	76
Average Queue (ft)	1	25	30	12	28	0	6	2	21
95th Queue (ft)	16	92	108	77	215	8	40	22	55
Link Distance (ft)	142	142	142	1635	1635	648	648	648	866
Upstream Blk Time (%)		0	0						
Queuing Penalty (veh)		1	1						
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 3: Wingfield Pkwy & Vista Blvd

Movement	EB	EB	EB	EB	B64	B64	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	TR	T	T	L	T	T	TR	L	TR
Maximum Queue (ft)	270	274	378	419	2	6	61	254	270	244	80	42
Average Queue (ft)	158	170	142	187	0	0	6	134	157	118	27	8
95th Queue (ft)	243	249	303	350	2	6	30	217	238	219	64	31
Link Distance (ft)			648	648	1635	1635		3419	3419	3419		950
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	705	705					160				100	
Storage Blk Time (%)								5			0	
Queuing Penalty (veh)								0			0	

Intersection: 3: Wingfield Pkwy & Vista Blvd

Movement	SB	SB	SB
Directions Served	L	TR	R
Maximum Queue (ft)	86	154	142
Average Queue (ft)	31	72	37
95th Queue (ft)	69	123	90
Link Distance (ft)	427	427	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			150
Storage Blk Time (%)		0	0
Queuing Penalty (veh)		0	0

Intersection: 4: Wingfield Pkwy & Village A Dwy/Rey Del Sierra Dr

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	46	76	137	120	20	17
Average Queue (ft)	11	21	33	14	1	1
95th Queue (ft)	31	55	100	73	10	9
Link Distance (ft)	1252	1622	427	427	908	908
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 5: Wingfield Pkwy/Red Hawk Dwy/Village J Dwy & Wingfield Springs Rd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	91	139	226	229	40
Average Queue (ft)	47	66	90	116	15
95th Queue (ft)	77	107	170	190	32
Link Distance (ft)	442	1022	908	908	632
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Wingfield Springs Rd & Village D Dwy/Poco Rey Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	31	66	44	54
Average Queue (ft)	6	28	3	5
95th Queue (ft)	25	57	21	27
Link Distance (ft)	787	718	1022	316
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Wingfield Springs Rd & Diamond Wing Cir

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	24	11
Average Queue (ft)	2	0
95th Queue (ft)	12	9
Link Distance (ft)	648	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Wingfield Springs Rd & Eagle Wing Cir (South)/Cinnamon Dr (South)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	15	74	155	50
Average Queue (ft)	3	18	12	3
95th Queue (ft)	11	54	71	24
Link Distance (ft)	665	598	784	937
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Wingfield Springs Rd & Eagle Wing Cir (North)

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	35	90
Average Queue (ft)	10	4
95th Queue (ft)	30	36
Link Distance (ft)	835	937
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Wingfield Springs Rd & Silver King Dr/Cinnamon Dr (North)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	33	27	54	42
Average Queue (ft)	11	8	5	4
95th Queue (ft)	31	27	30	22
Link Distance (ft)	639	573	411	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Wingfield Springs Rd & General Thatcher Dr/Florentine Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	63	22	62	56
Average Queue (ft)	22	5	8	5
95th Queue (ft)	46	16	37	27
Link Distance (ft)	519	882		2071
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Silver King Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	15	25
Average Queue (ft)	1	4
95th Queue (ft)	8	18
Link Distance (ft)	519	1010
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Island Queen Dr & General Thatcher Dr

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	9	52
Average Queue (ft)	1	18
95th Queue (ft)	9	44
Link Distance (ft)	451	2202
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Village F Dwy/Arrow Smith Dr & General Thatcher Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	13	20	45
Average Queue (ft)	0	3	12
95th Queue (ft)	11	15	38
Link Distance (ft)	217	1044	1003
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 15: Island Queen Dr & Decoy Dr

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	47	6
Average Queue (ft)	21	0
95th Queue (ft)	45	5
Link Distance (ft)	760	958
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Decoy Dr & Little Easy St

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	32	27
Average Queue (ft)	3	10
95th Queue (ft)	18	28
Link Distance (ft)		1074
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Wingfield Springs Rd & Poco Bueno Cir

Movement	WB	NB
Directions Served	LTR	LTR
Maximum Queue (ft)	39	97
Average Queue (ft)	7	54
95th Queue (ft)	29	82
Link Distance (ft)	1520	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Homerun Dr/Scorpius Dr & Vista Blvd/Vista Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	LT	R	LTR
Maximum Queue (ft)	14	212	246	258	63	95	90	74	57	84	61	39
Average Queue (ft)	1	78	101	124	24	40	35	25	17	48	26	9
95th Queue (ft)	9	161	189	219	52	78	74	54	47	75	54	33
Link Distance (ft)	3419		3419	3419	780		780	780	1984		939	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200				200				200		200	
Storage Blk Time (%)			0									
Queuing Penalty (veh)												

Intersection: 19: Fire Station Access & Vista Blvd

Movement	EB	EB	EB	WB	WB	WB	NB
Directions Served	T	T	TR	T	T	T	LR
Maximum Queue (ft)	48	42	43	38	37	26	31
Average Queue (ft)	5	5	8	6	7	2	2
95th Queue (ft)	26	25	30	27	26	15	14
Link Distance (ft)	49	49	49	347	347	347	647
Upstream Blk Time (%)	0	0	0				
Queuing Penalty (veh)	0	0	0				
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 20: Vista Blvd /Vista Blvd & Black Hills Rd

Movement	WB	NB	NB	SB
Directions Served	LR	T	TR	L
Maximum Queue (ft)	85	3	7	17
Average Queue (ft)	24	0	0	1
95th Queue (ft)	60	0	7	10
Link Distance (ft)	2070	164	164	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				175
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 21: Vista Blvd & Village I Access (South)

Movement	EB	SB
Directions Served	T	R
Maximum Queue (ft)	2	35
Average Queue (ft)	0	13
95th Queue (ft)	2	37
Link Distance (ft)	780	675
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Vista Blvd & Village I Access (North)

Movement	EB	NB	SB
Directions Served	R	T	TR
Maximum Queue (ft)	32	6	5
Average Queue (ft)	13	0	0
95th Queue (ft)	37	4	5
Link Distance (ft)	462	347	164
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 53: Poco Bueno Cir & Decoy Dr

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 54: Wingfield Springs Rd & School Dwy

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 187

MOVEMENT SUMMARY

 **Site: Intx 4 [C+P PM Wingfield Spring Road & Village A/Rey Del Sierra Dr (Site Folder: Cumulative Plus Project with Roundabout Improvements)]**

Roundabout
Site Category: Cumulative Plus Project With RAB Improvements
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
						v/c	sec							mph
South: Wingfield Springs Road														
3	L2	61	3.0	66	3.0	0.337	5.7	LOS A	1.9	47.5	0.09	0.02	0.09	34.5
8	T1	709	3.0	771	3.0	0.337	5.7	LOS A	1.9	47.5	0.09	0.02	0.09	34.7
18	R2	73	3.0	79	3.0	0.337	5.7	LOS A	1.9	47.5	0.09	0.02	0.09	33.8
Approach		843	3.0	916	3.0	0.337	5.7	LOS A	1.9	47.5	0.09	0.02	0.09	34.6
East: Rey Del Sierra Drive														
1	L2	46	3.0	50	3.0	0.105	7.8	LOS A	0.4	9.9	0.64	0.64	0.64	31.6
6	T1	1	3.0	1	3.0	0.105	7.8	LOS A	0.4	9.9	0.64	0.64	0.64	31.5
16	R2	6	3.0	7	3.0	0.105	7.8	LOS A	0.4	9.9	0.64	0.64	0.64	30.7
Approach		53	3.0	58	3.0	0.105	7.8	LOS A	0.4	9.9	0.64	0.64	0.64	31.5
North: Wingfield Springs Road														
7	L2	3	3.0	3	3.0	0.183	4.5	LOS A	0.8	20.6	0.26	0.14	0.26	35.6
4	T1	400	3.0	435	3.0	0.183	4.5	LOS A	0.8	20.6	0.26	0.14	0.26	35.5
14	R2	13	3.0	14	3.0	0.183	4.5	LOS A	0.8	20.6	0.26	0.14	0.26	34.4
Approach		416	3.0	452	3.0	0.183	4.5	LOS A	0.8	20.6	0.26	0.14	0.26	35.5
West: Village A Access														
5	L2	9	3.0	10	3.0	0.051	5.0	LOS A	0.2	5.1	0.52	0.41	0.52	34.5
2	T1	1	3.0	1	3.0	0.051	5.0	LOS A	0.2	5.1	0.52	0.41	0.52	34.4
12	R2	28	3.0	30	3.0	0.051	5.0	LOS A	0.2	5.1	0.52	0.41	0.52	33.4
Approach		38	3.0	41	3.0	0.051	5.0	LOS A	0.2	5.1	0.52	0.41	0.52	33.7
All Vehicles		1350	3.0	1467	3.0	0.337	5.4	LOS A	1.9	47.5	0.18	0.09	0.18	34.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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SITE LAYOUT

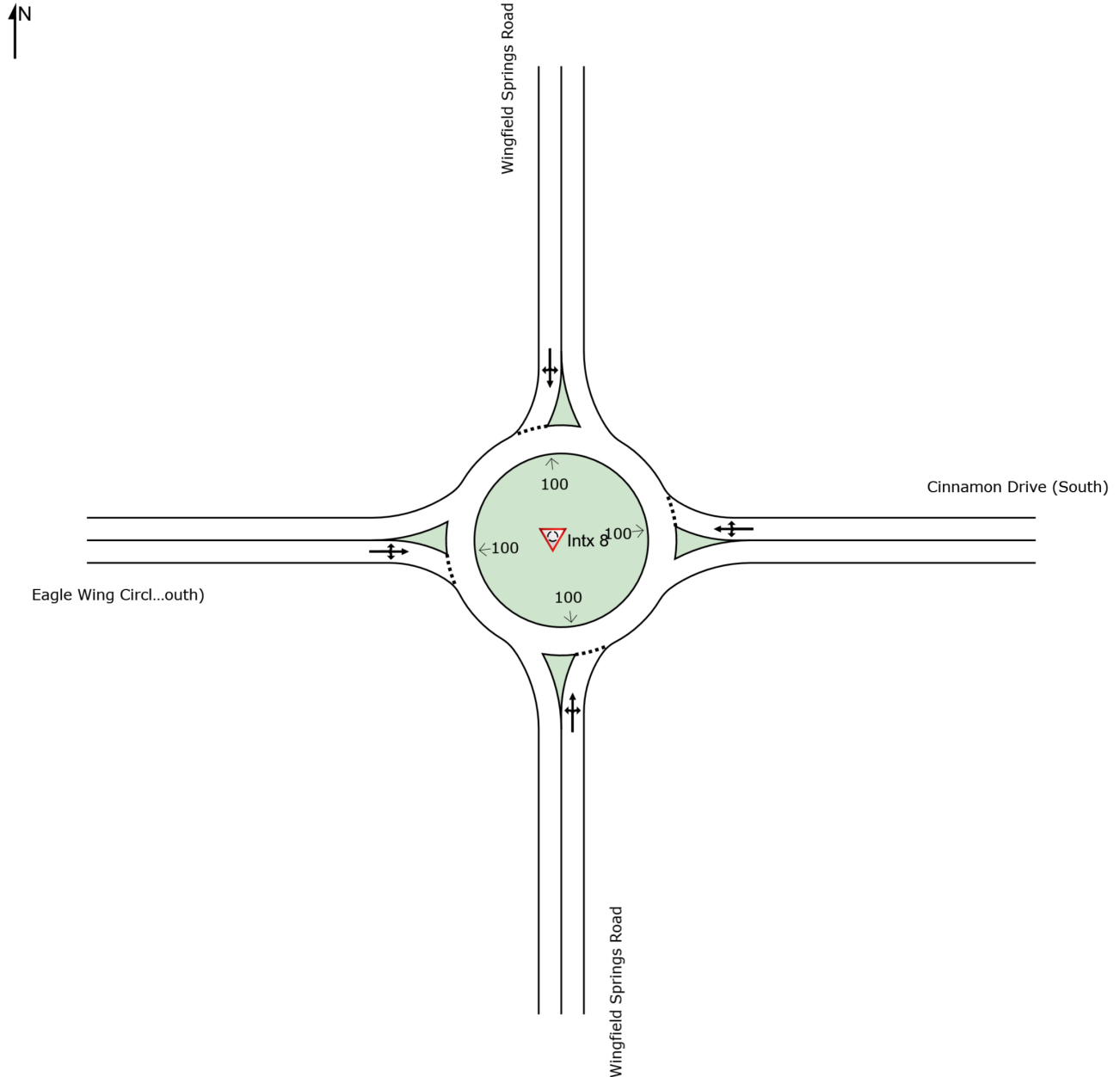
 **Site: Intx 8 [C+P AM Wingfield Spring Road & Eagle Wing Cir (S)/Cinnamon Dr (S) (Site Folder: Cumulative Plus Project with Roundabout Improvements)]**

Roundabout

Site Category: Cumulative Plus Project With RAB Improvements

Roundabout

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MOVEMENT SUMMARY

 **Site: Intx 8 [C+P AM Wingfield Spring Road & Eagle Wing Cir (S)/Cinnamon Dr (S) (Site Folder: Cumulative Plus Project with Roundabout Improvements)]**

Roundabout
Site Category: Cumulative Plus Project With RAB Improvements
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
South: Wingfield Springs Road														
3	L2	2	3.0	2	3.0	0.162	4.0	LOS A	0.8	20.0	0.04	0.00	0.04	35.8
8	T1	188	3.0	204	3.0	0.162	4.0	LOS A	0.8	20.0	0.04	0.00	0.04	35.8
18	R2	9	3.0	10	3.0	0.162	4.0	LOS A	0.8	20.0	0.04	0.00	0.04	34.7
Approach		199	3.0	216	3.0	0.162	4.0	LOS A	0.8	20.0	0.04	0.00	0.04	35.7
East: Cinnamon Drive (South)														
1	L2	27	3.0	29	3.0	0.032	3.6	LOS A	0.1	3.3	0.34	0.19	0.34	33.5
6	T1	1	3.0	1	3.0	0.032	3.6	LOS A	0.1	3.3	0.34	0.19	0.34	33.5
16	R2	4	3.0	4	3.0	0.032	3.6	LOS A	0.1	3.3	0.34	0.19	0.34	32.6
Approach		32	3.0	35	3.0	0.032	3.6	LOS A	0.1	3.3	0.34	0.19	0.34	33.4
North: Wingfield Springs Road														
7	L2	1	3.0	1	3.0	0.310	5.6	LOS A	1.8	45.3	0.16	0.06	0.16	35.0
4	T1	367	3.0	399	3.0	0.310	5.6	LOS A	1.8	45.3	0.16	0.06	0.16	34.9
14	R2	1	3.0	1	3.0	0.310	5.6	LOS A	1.8	45.3	0.16	0.06	0.16	33.9
Approach		369	3.0	401	3.0	0.310	5.6	LOS A	1.8	45.3	0.16	0.06	0.16	34.9
West: Eagle Wing Circle (South)														
5	L2	1	3.0	1	3.0	0.004	4.3	LOS A	0.0	0.4	0.47	0.28	0.47	34.7
2	T1	1	3.0	1	3.0	0.004	4.3	LOS A	0.0	0.4	0.47	0.28	0.47	34.6
12	R2	1	3.0	1	3.0	0.004	4.3	LOS A	0.0	0.4	0.47	0.28	0.47	33.6
Approach		3	3.0	3	3.0	0.004	4.3	LOS A	0.0	0.4	0.47	0.28	0.47	34.3
All Vehicles		603	3.0	655	3.0	0.310	5.0	LOS A	1.8	45.3	0.13	0.05	0.13	35.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 **Site: Intx 8 [C+P PM Wingfield Spring Road & Eagle Wing Cir (S)/Cinnamon Dr (S) (Site Folder: Cumulative Plus Project with Roundabout Improvements)]**

Roundabout
Site Category: Cumulative Plus Project With RAB Improvements
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] ft				
						v/c	sec							mph
South: Wingfield Springs Road														
3	L2	14	3.0	15	3.0	0.319	5.6	LOS A	1.9	48.1	0.06	0.01	0.06	34.9
8	T1	342	3.0	372	3.0	0.319	5.6	LOS A	1.9	48.1	0.06	0.01	0.06	34.8
18	R2	35	3.0	38	3.0	0.319	5.6	LOS A	1.9	48.1	0.06	0.01	0.06	33.8
Approach		391	3.0	425	3.0	0.319	5.6	LOS A	1.9	48.1	0.06	0.01	0.06	34.7
East: Cinnamon Drive (South)														
1	L2	22	3.0	24	3.0	0.032	4.3	LOS A	0.1	3.2	0.46	0.32	0.46	33.2
6	T1	1	3.0	1	3.0	0.032	4.3	LOS A	0.1	3.2	0.46	0.32	0.46	33.1
16	R2	3	3.0	3	3.0	0.032	4.3	LOS A	0.1	3.2	0.46	0.32	0.46	32.2
Approach		26	3.0	28	3.0	0.032	4.3	LOS A	0.1	3.2	0.46	0.32	0.46	33.1
North: Wingfield Springs Road														
7	L2	3	3.0	3	3.0	0.243	4.9	LOS A	1.3	32.5	0.17	0.06	0.17	35.3
4	T1	283	3.0	308	3.0	0.243	4.9	LOS A	1.3	32.5	0.17	0.06	0.17	35.3
14	R2	1	3.0	1	3.0	0.243	4.9	LOS A	1.3	32.5	0.17	0.06	0.17	34.2
Approach		287	3.0	312	3.0	0.243	4.9	LOS A	1.3	32.5	0.17	0.06	0.17	35.3
West: Eagle Wing Circle (South)														
5	L2	1	3.0	1	3.0	0.013	3.9	LOS A	0.0	1.3	0.43	0.26	0.43	35.5
2	T1	1	3.0	1	3.0	0.013	3.9	LOS A	0.0	1.3	0.43	0.26	0.43	35.5
12	R2	9	3.0	10	3.0	0.013	3.9	LOS A	0.0	1.3	0.43	0.26	0.43	34.4
Approach		11	3.0	12	3.0	0.013	3.9	LOS A	0.0	1.3	0.43	0.26	0.43	34.6
All Vehicles		715	3.0	777	3.0	0.319	5.2	LOS A	1.9	48.1	0.12	0.05	0.12	34.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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SITE LAYOUT

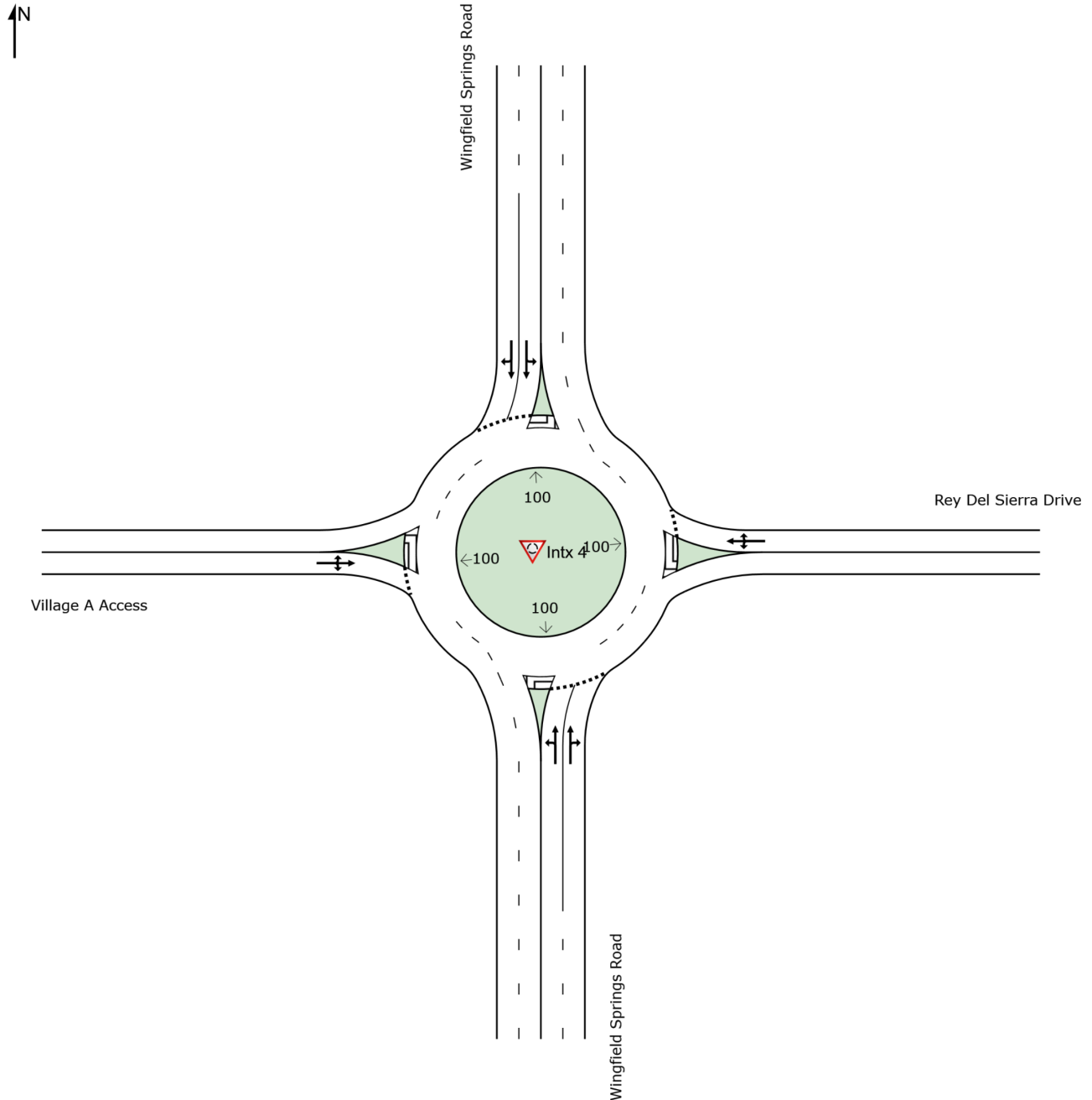
 Site: Intx 4 [C+P AM Wingfield Spring Road & Village A/Rey Del Sierra Dr (Site Folder: Cumulative Plus Project with Roundabout Improvements)]

Roundabout

Site Category: Cumulative Plus Project With RAB Improvements

Roundabout

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MOVEMENT SUMMARY

 **Site: Intx 4 [C+P AM Wingfield Spring Road & Village A/Rey Del Sierra Dr (Site Folder: Cumulative Plus Project with Roundabout Improvements)]**

Roundabout
Site Category: Cumulative Plus Project With RAB Improvements
Roundabout

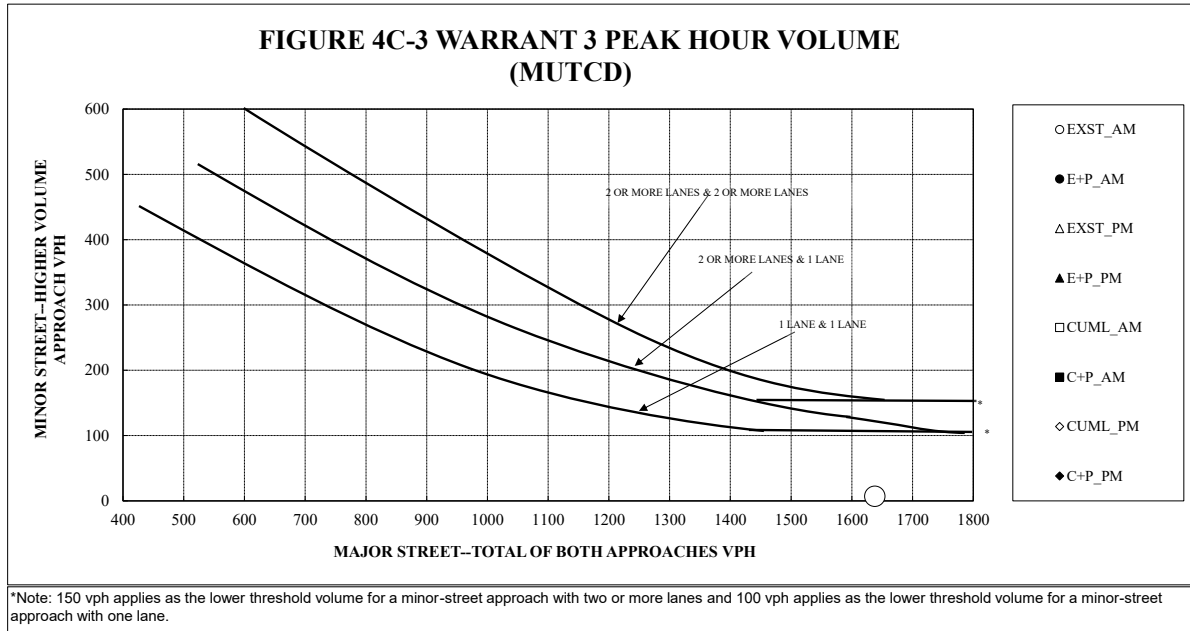
Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Wingfield Springs Road														
3	L2	17	3.0	18	3.0	0.104	3.5	LOS A	0.4	11.0	0.08	0.02	0.08	35.7
8	T1	212	3.0	230	3.0	0.104	3.5	LOS A	0.4	11.0	0.08	0.02	0.08	35.9
18	R2	30	3.0	33	3.0	0.104	3.5	LOS A	0.4	11.0	0.08	0.02	0.08	34.9
Approach		259	3.0	282	3.0	0.104	3.5	LOS A	0.4	11.0	0.08	0.02	0.08	35.7
East: Rey Del Sierra Drive														
1	L2	91	3.0	99	3.0	0.105	4.5	LOS A	0.4	11.4	0.41	0.28	0.41	32.9
6	T1	1	3.0	1	3.0	0.105	4.5	LOS A	0.4	11.4	0.41	0.28	0.41	32.9
16	R2	6	3.0	7	3.0	0.105	4.5	LOS A	0.4	11.4	0.41	0.28	0.41	32.0
Approach		98	3.0	107	3.0	0.105	4.5	LOS A	0.4	11.4	0.41	0.28	0.41	32.9
North: Wingfield Springs Road														
7	L2	3	3.0	3	3.0	0.272	5.4	LOS A	1.3	33.6	0.29	0.16	0.29	35.1
4	T1	610	3.0	663	3.0	0.272	5.4	LOS A	1.3	33.6	0.29	0.16	0.29	35.0
14	R2	4	3.0	4	3.0	0.272	5.4	LOS A	1.3	33.6	0.29	0.16	0.29	34.0
Approach		617	3.0	671	3.0	0.272	5.4	LOS A	1.3	33.6	0.29	0.16	0.29	35.0
West: Village A Access														
5	L2	13	3.0	14	3.0	0.102	7.2	LOS A	0.4	9.8	0.62	0.62	0.62	33.4
2	T1	1	3.0	1	3.0	0.102	7.2	LOS A	0.4	9.8	0.62	0.62	0.62	33.3
12	R2	42	3.0	46	3.0	0.102	7.2	LOS A	0.4	9.8	0.62	0.62	0.62	32.4
Approach		56	3.0	61	3.0	0.102	7.2	LOS A	0.4	9.8	0.62	0.62	0.62	32.6
All Vehicles		1030	3.0	1120	3.0	0.272	4.9	LOS A	1.3	33.6	0.27	0.16	0.27	34.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

APPENDIX C | SIGNAL WARRANTS

SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	1638	7	NO
E+P_AM	1960	32	NO
EXST_PM	1985	10	NO
E+P_PM	2429	26	NO
CUMML_AM	1839	7	NO
C+P_AM	2161	32	NO
CUMML_PM	2324	10	NO
C+P_PM	2768	26	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: 2

Intersection: **Village A Access & Vista Boulevard**

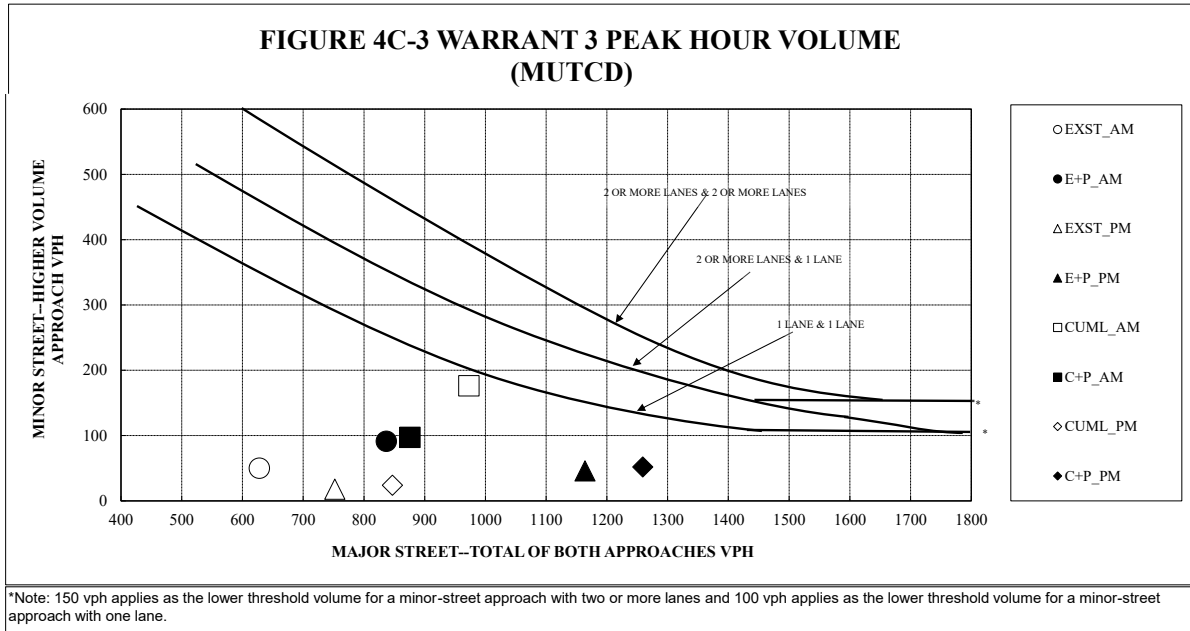
Number of lanes on MAJOR street: 2

Number of lanes on MINOR street: 1



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	628	50	NO
E+P_AM	837	91	NO
EXST_PM	752	18	NO
E+P_PM	1164	46	NO
CUMML_AM	973	176	NO
C+P_AM	876	97	NO
CUMML_PM	847	24	NO
C+P_PM	1259	52	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **4**

Intersection: **Wingfield Parkway & Rey Del Sierra Drive**

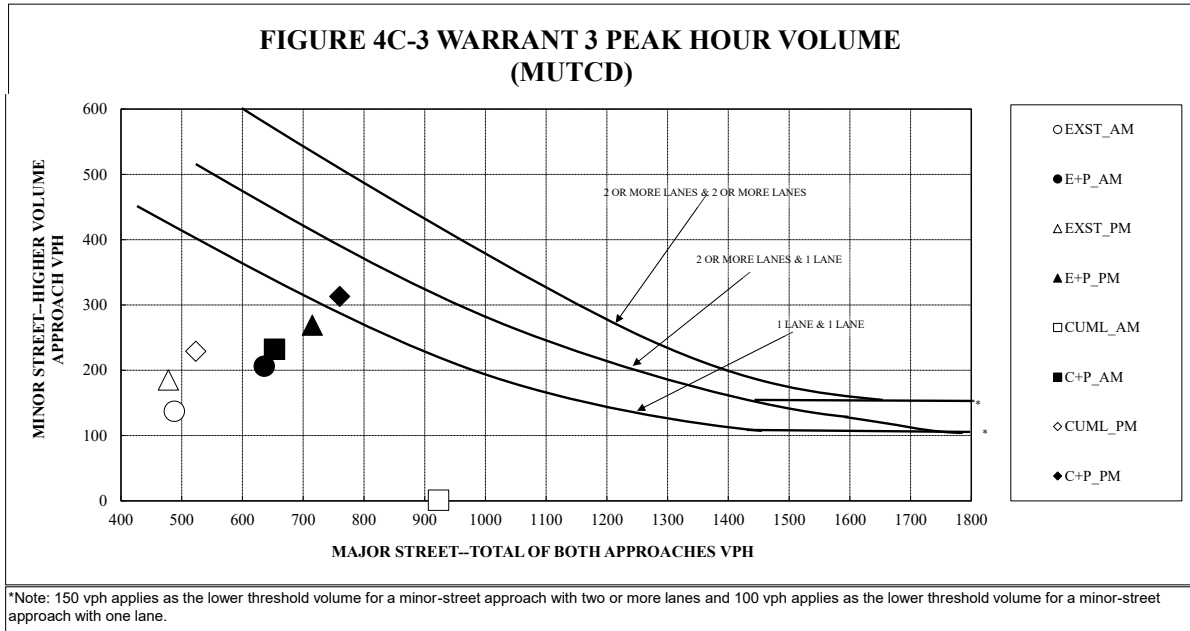
Number of lanes on MAJOR street: **2**

Number of lanes on MINOR street: **1**



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	488	137	NO
E+P_AM	636	206	NO
EXST_PM	478	185	NO
E+P_PM	715	269	NO
CUML_AM	923	1	NO
C+P_AM	653	232	NO
CUML_PM	523	229	NO
C+P_PM	760	313	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **5**

Intersection: **Wingfield Parkway & Wingfield Springs Road**

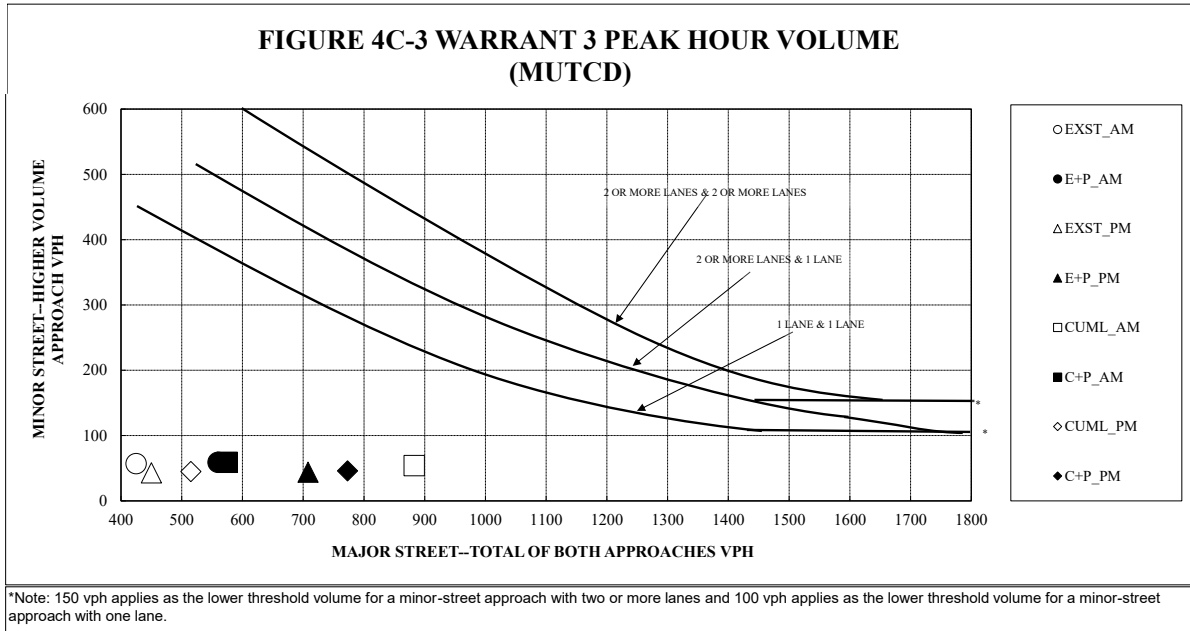
Number of lanes on MAJOR street: **2**

Number of lanes on MINOR street: **1**



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	425	57	NO
E+P_AM	560	59	NO
EXST_PM	450	43	NO
E+P_PM	708	44	NO
CUMML_AM	883	54	NO
C+P_AM	575	59	NO
CUMML_PM	515	45	NO
C+P_PM	773	46	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **6**

Intersection: **Wingfield Springs Road & Poco Rey Drive**

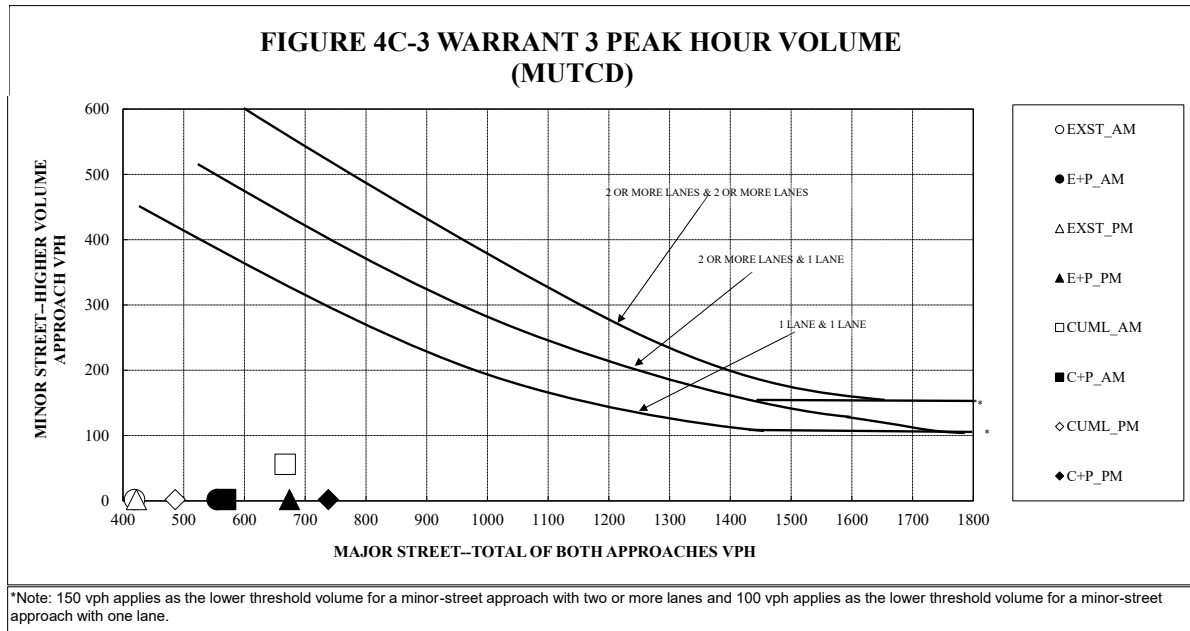
Number of lanes on MAJOR street: **1**

Number of lanes on MINOR street: **1**



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	419	2	NO
E+P_AM	555	2	NO
EXST_PM	422	2	NO
E+P_PM	674	2	NO
CUM_L_AM	667	56	NO
C+P_AM	569	2	NO
CUM_L_PM	486	2	NO
C+P_PM	738	2	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: 7

Intersection: **Wingfield Springs Road & Diamond Wing C**

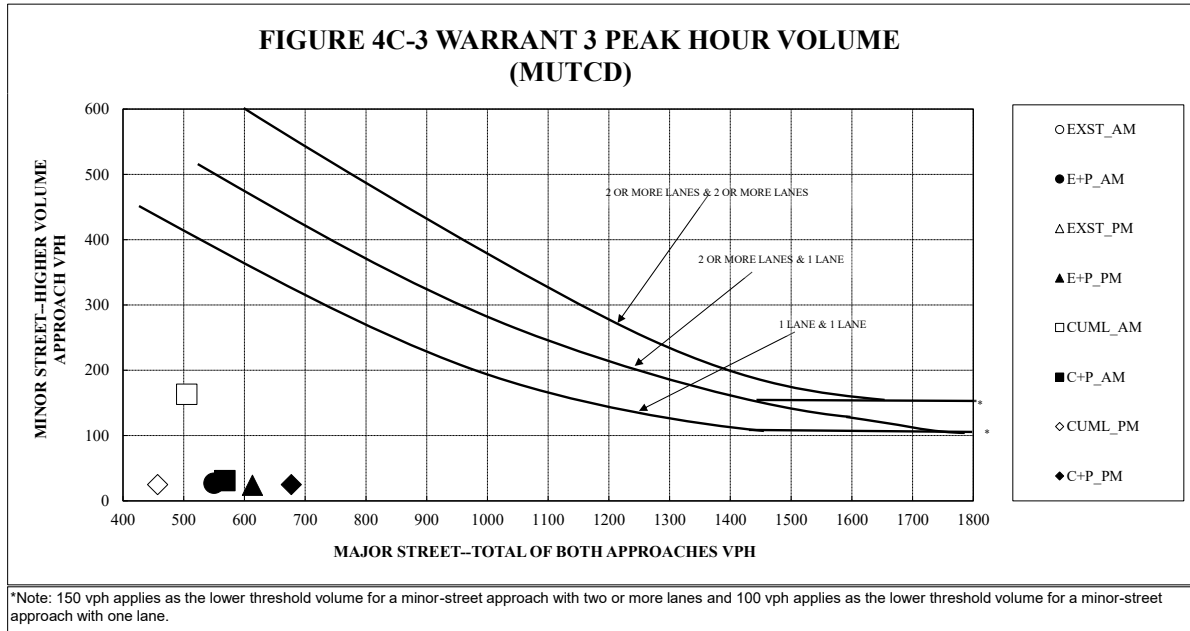
Number of lanes on MAJOR street: 1

Number of lanes on MINOR street: 1



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	389	27	NO
E+P_AM	550	27	NO
EXST_PM	393	24	NO
E+P_PM	613	24	NO
CUMML_AM	505	163	NO
C+P_AM	568	31	NO
CUMML_PM	457	25	NO
C+P_PM	677	25	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **8**

Intersection: **Wingfield Springs Road & Eagle Wing Circle**

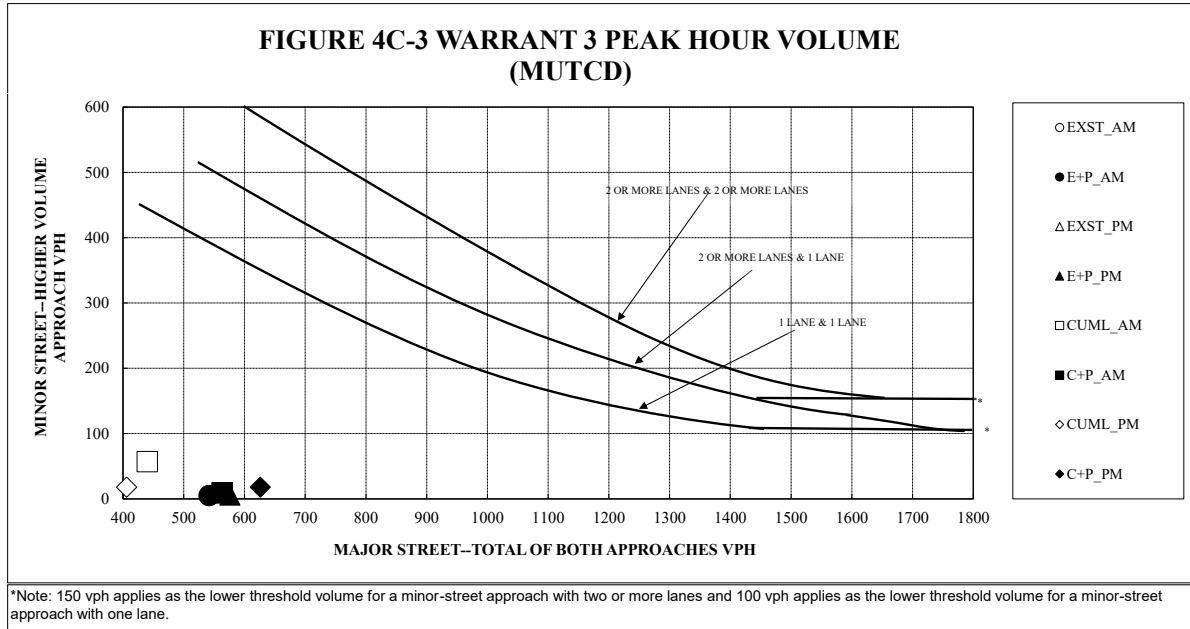
Number of lanes on MAJOR street: **1**

Number of lanes on MINOR street: **1**



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	381	5	NO
E+P_AM	542	5	NO
EXST_PM	356	6	NO
E+P_PM	576	6	NO
CUML_AM	440	57	NO
C+P_AM	563	9	NO
CUML_PM	406	18	NO
C+P_PM	626	18	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **9**

Intersection: **Wingfield Springs Road & Eagle Wing Circle**

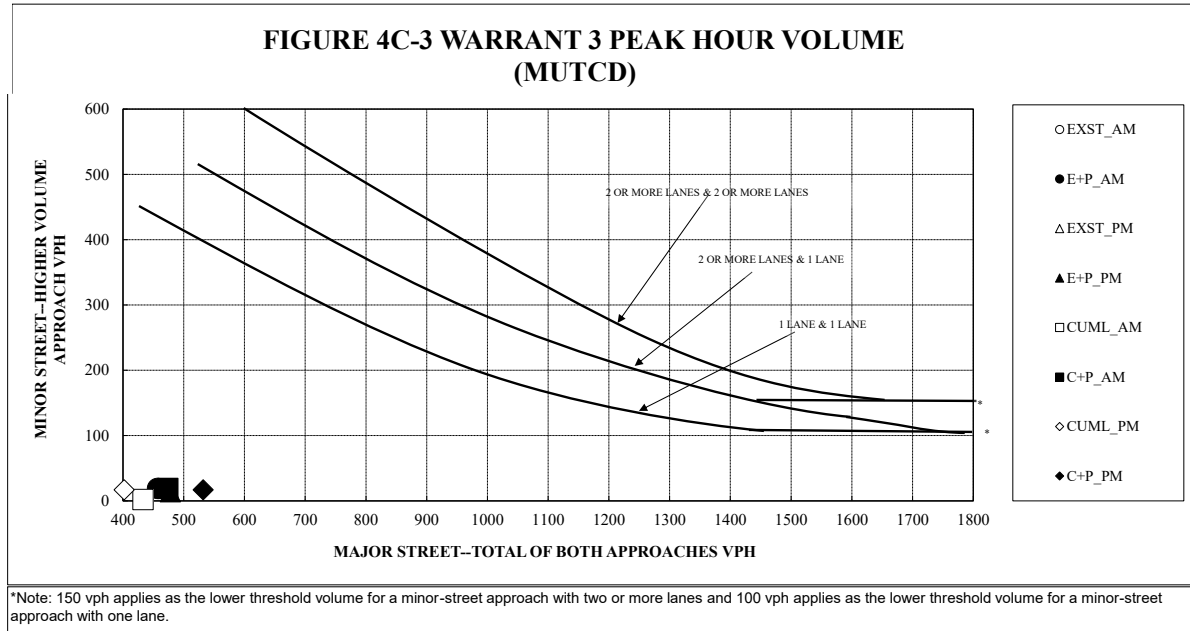
Number of lanes on MAJOR street: **1**

Number of lanes on MINOR street: **1**



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	362	19	NO
E+P_AM	457	19	NO
EXST_PM	348	14	NO
E+P_PM	478	14	NO
CUMML_AM	433	2	NO
C+P_AM	474	19	NO
CUMML_PM	402	17	NO
C+P_PM	532	17	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **10**

Intersection: **Wingfield Springs Road & Silver King Drive**

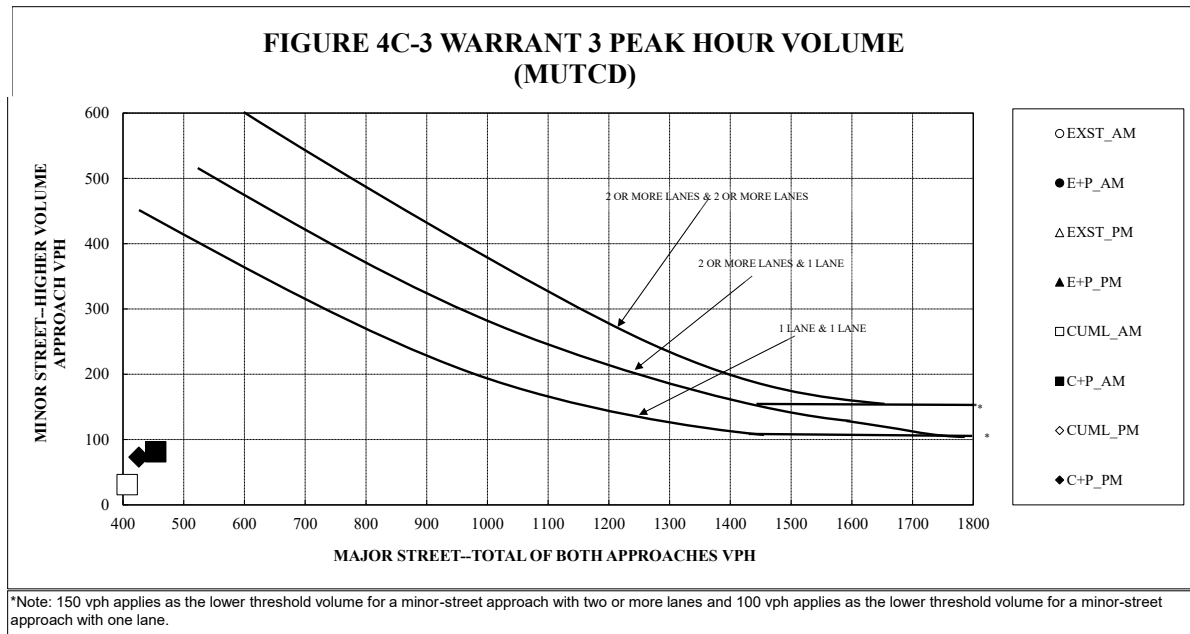
Number of lanes on MAJOR street: **1**

Number of lanes on MINOR street: **1**



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	231	46	NO
E+P_AM	325	77	NO
EXST_PM	234	42	NO
E+P_PM	384	61	NO
CUMML_AM	407	31	NO
C+P_AM	454	81	NO
CUMML_PM	276	54	NO
C+P_PM	426	73	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **11**

Intersection: **Wingfield Springs Road & General Thatcher**

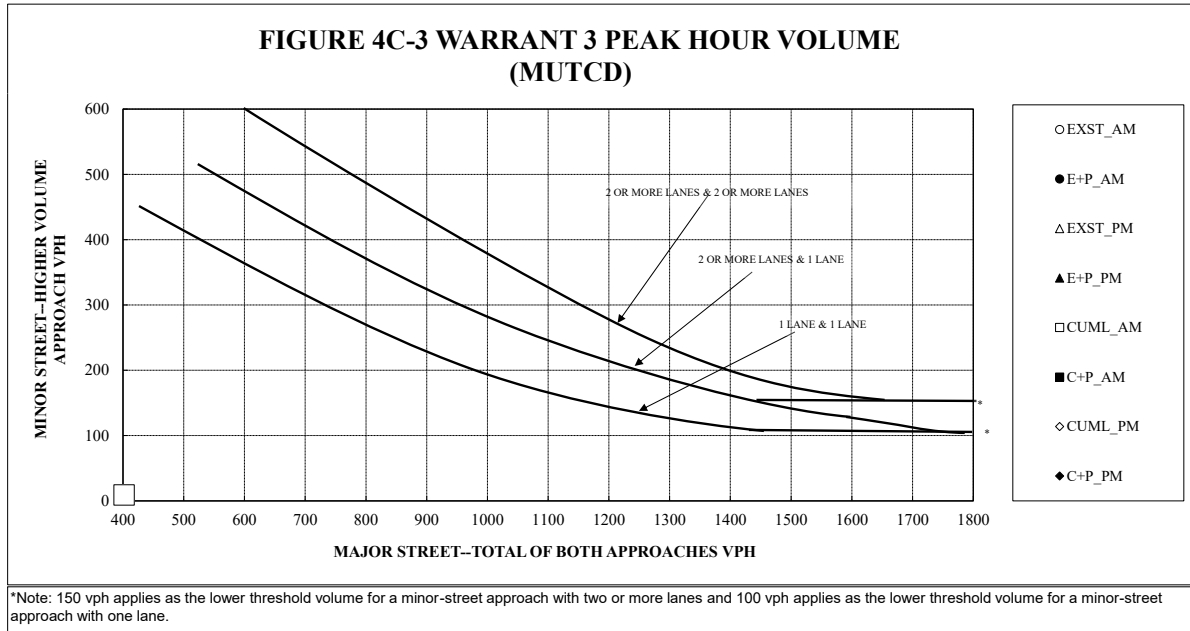
Number of lanes on MAJOR street: **1**

Number of lanes on MINOR street: **1**



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	62	5	NO
E+P_AM	103	5	NO
EXST_PM	76	6	NO
E+P_PM	127	6	NO
CUMML_AM	402	9	NO
C+P_AM	123	5	NO
CUMML_PM	7	6	NO
C+P_PM	58	6	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **12**

Intersection: **Silver King Drive & General Thatcher Drive**

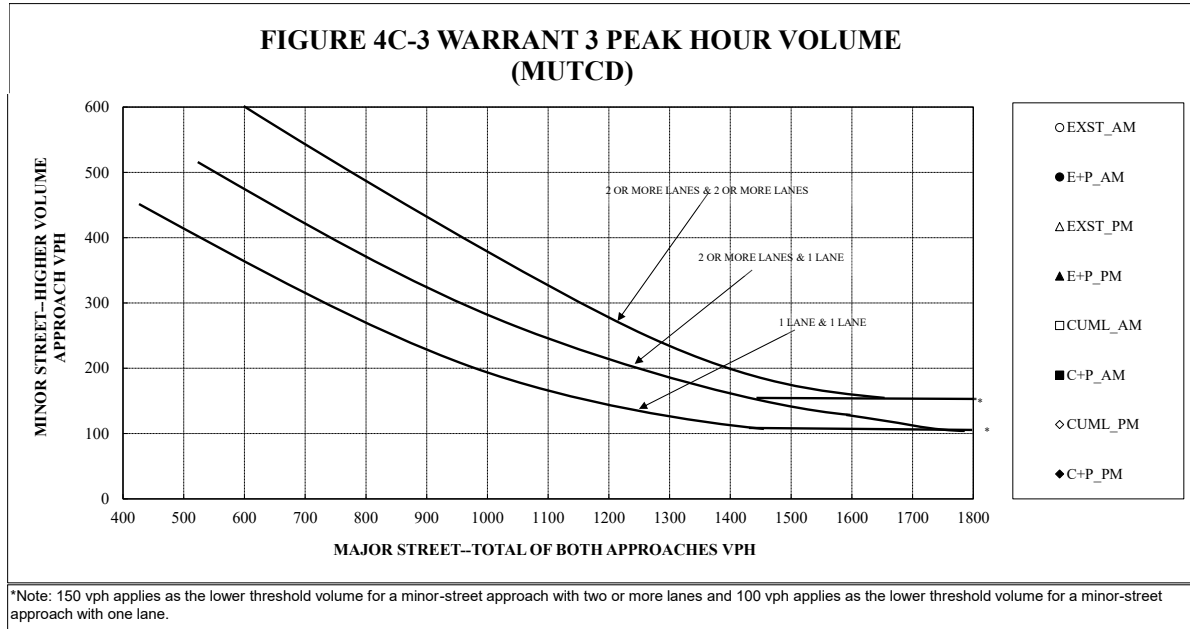
Number of lanes on MAJOR street: **1**

Number of lanes on MINOR street: **1**



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	44	11	NO
E+P_AM	60	14	NO
EXST_PM	60	9	NO
E+P_PM	82	11	NO
CUMML_AM	379	19	NO
C+P_AM	85	18	NO
CUMML_PM	77	19	NO
C+P_PM	99	21	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **13**

Intersection: **Island Queen Drive & General Thatcher Drive**

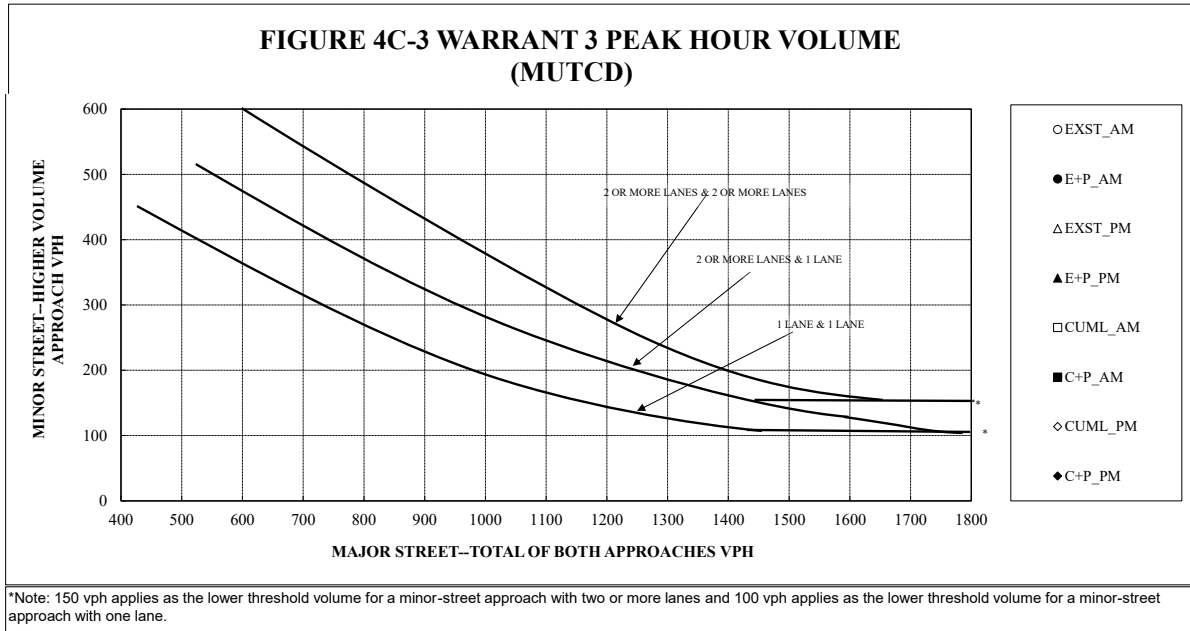
Number of lanes on MAJOR street: **1**

Number of lanes on MINOR street: **1**



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	19	18	NO
E+P_AM	29	18	NO
EXST_PM	36	16	NO
E+P_PM	47	16	NO
CUMML_AM	360	50	NO
C+P_AM	40	18	NO
CUMML_PM	47	16	NO
C+P_PM	58	16	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **14**

Intersection: **Arrow Smith Drive & General Thatcher Drive**

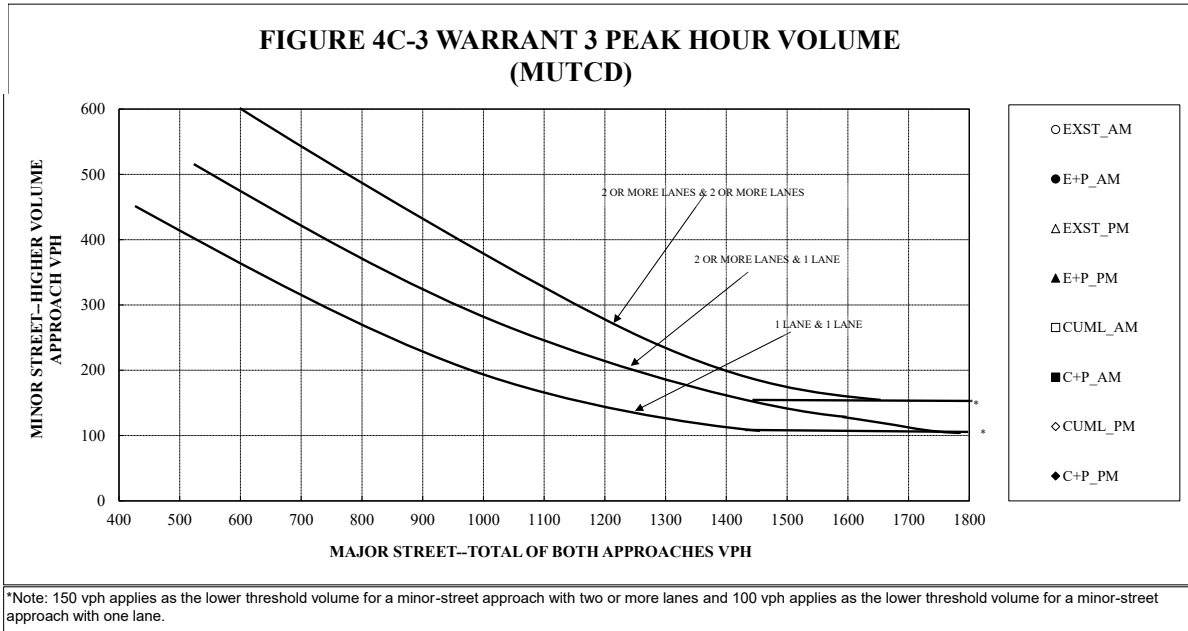
Number of lanes on MAJOR street: **1**

Number of lanes on MINOR street: **1**



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	19	9	NO
E+P_AM	20	12	NO
EXST_PM	22	13	NO
E+P_PM	24	17	NO
CUMML_AM	82	5	NO
C+P_AM	33	16	NO
CUMML_PM	37	35	NO
C+P_PM	41	37	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **15**

Intersection: **Island Queen Drive & Decoy Drive**

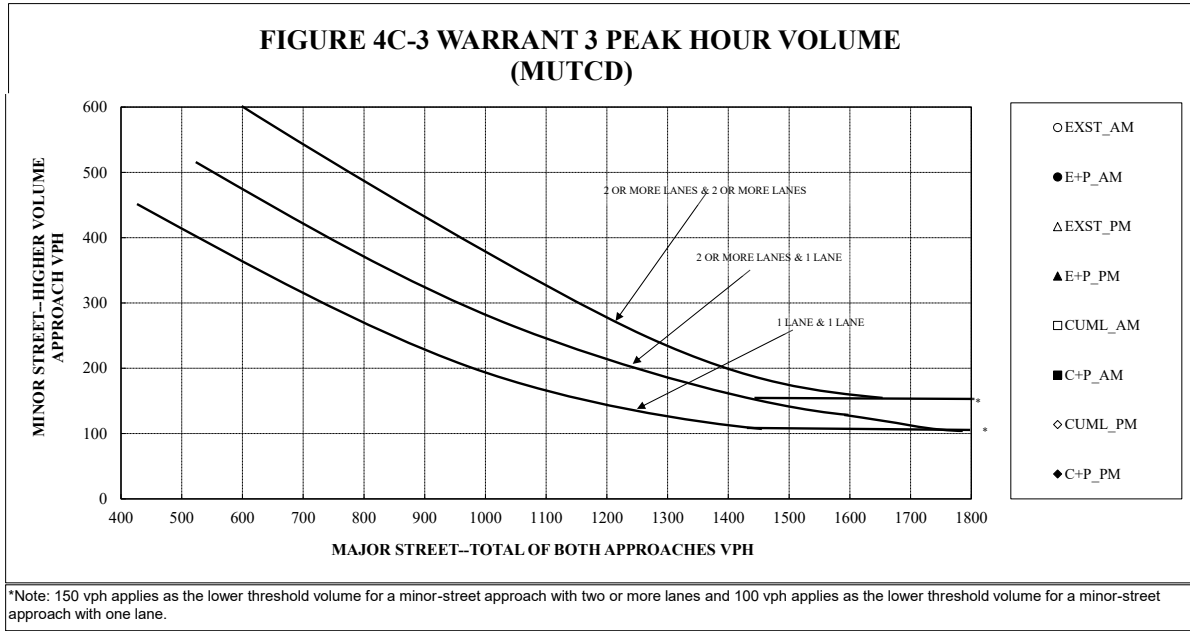
Number of lanes on MAJOR street: **1**

Number of lanes on MINOR street: **1**



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	40	31	NO
E+P_AM	93	31	NO
EXST_PM	84	18	NO
E+P_PM	156	18	NO
CUMML_AM	69	15	NO
C+P_AM	103	31	NO
CUMML_PM	107	18	NO
C+P_PM	179	18	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **16**

Intersection: **Little Easy Street & Decoy Drive**

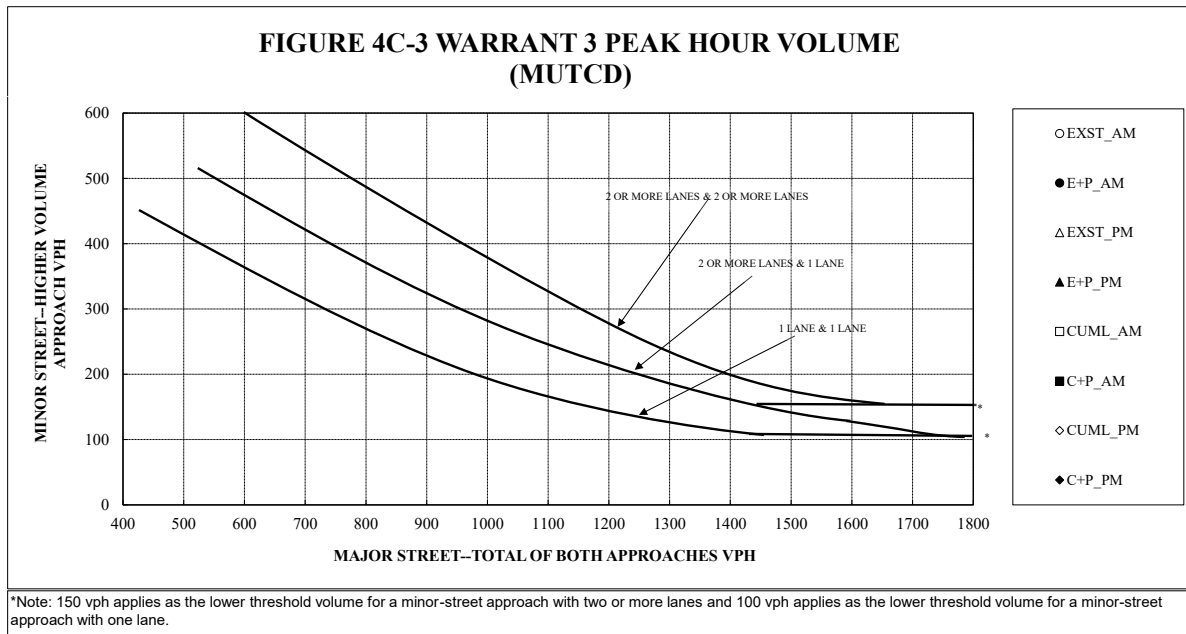
Number of lanes on MAJOR street: **1**

Number of lanes on MINOR street: **1**



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	74	33	NO
E+P_AM	114	46	NO
EXST_PM	106	33	NO
E+P_PM	151	60	NO
CUMML_AM	36	18	NO
C+P_AM	119	50	NO
CUMML_PM	204	86	NO
C+P_PM	249	86	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **17**

Intersection: **Wingfield Springs Road & Poco Bueno Circl**

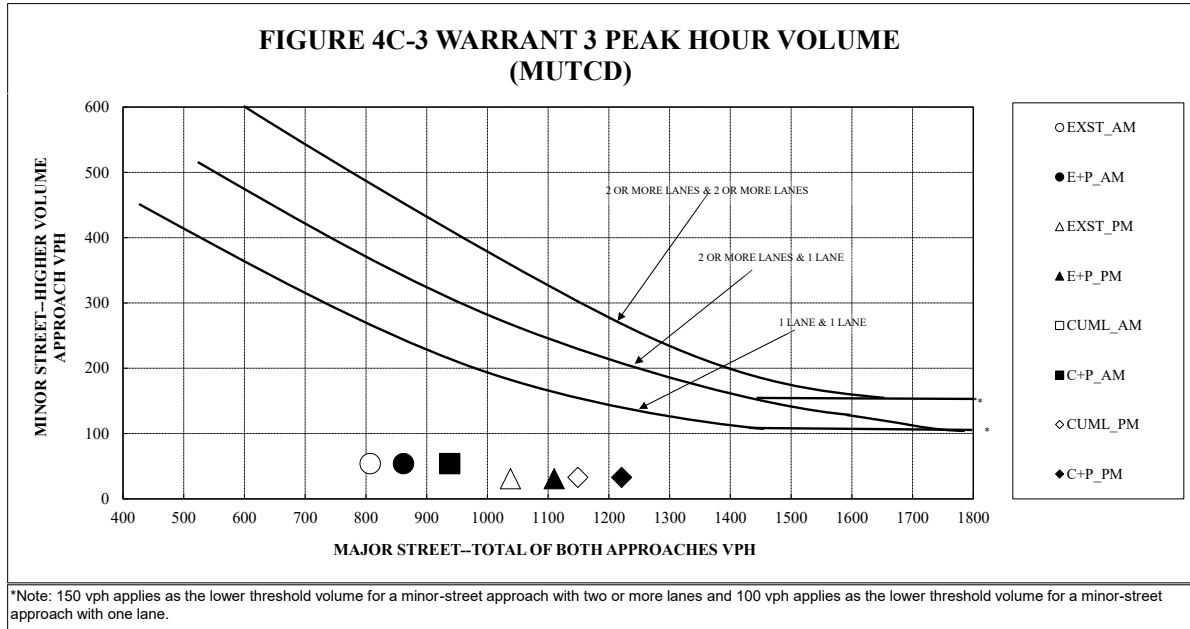
Number of lanes on MAJOR street: **1**

Number of lanes on MINOR street: **1**



SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS



SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	807	54	NO
E+P_AM	862	54	NO
EXST_PM	1038	31	NO
E+P_PM	1110	31	NO
CUMML_AM	79	37	NO
C+P_AM	938	54	NO
CUMML_PM	1149	33	NO
C+P_PM	1221	33	NO

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **January 14, 2026**

Intersection No.: **20**

Intersection: **Vista Boulevard & Black Hills Drive**

Number of lanes on MAJOR street: **2**

Number of lanes on MINOR street: **1**



APPENDIX D | NDOT COLLISION DATA (2019-2024)

OBJECTID *	Crash Severity	County	Crash Date	Crash Year	Crash Time	Primary Street	Distance	Dir	Secondary Street
3021059	INJURY CRASH	WASHOE	1/20/2020	2020	929	N WINGFIELD PW	<Null>	NORTH	REY DEL SIERRA DR
2983902	INJURY CRASH	WASHOE	1/20/2020	2020	9:29:00 AM	WINGFIELD PKWY	20	NORTH	REY DEL SIERRA DR
3022635	PROPERTY DAMAGE ONLY	WASHOE	1/25/2020	2020	2337	VISTA BL	<Null>	WEST	N WINGFIELD PW
2985641	PROPERTY DAMAGE ONLY	WASHOE	1/25/2020	2020	11:37:00 PM	VISTA BLVD	15	WEST	WINGFIELD PKWY
2988895	PROPERTY DAMAGE ONLY	WASHOE	2/25/2020	2020	6:53:00 AM	WINGFIELD HILLS RD	20	NORTH	VISTA BLVD
3025380	PROPERTY DAMAGE ONLY	WASHOE	2/25/2020	2020	653	WINGFIELD HILLS RD	<Null>	NORTH	VISTA BL
3028948	PROPERTY DAMAGE ONLY	WASHOE	4/4/2020	2020	1207	VISTA BL	<Null>	<Null>	WINGFIELD HILLS RD
2993322	PROPERTY DAMAGE ONLY	WASHOE	4/4/2020	2020	12:07:00 PM	VISTA BLVD	<Null>	AT INT	WINGFIELD HILLS RD
3030599	INJURY CRASH	WASHOE	4/21/2020	2020	912	VISTA BL	<Null>	<Null>	S WINGFIELD PW
2993926	INJURY CRASH	WASHOE	4/21/2020	2020	9:12:00 AM	VISTA BLVD	<Null>	AT INT	WINGFIELD PKWY
2995758	PROPERTY DAMAGE ONLY	WASHOE	5/23/2020	2020	2:46:00 PM	VISTA BLVD	<Null>	AT INT	SCORPIUS DR
3033429	PROPERTY DAMAGE ONLY	WASHOE	5/23/2020	2020	1446	VISTA BLVD	<Null>	<Null>	SCORPIUS DR
2998344	PROPERTY DAMAGE ONLY	WASHOE	6/13/2020	2020	9:00:00 PM	WINGFIELD HILLS RD	<Null>	AT INT	VISTA BLVD
3034983	PROPERTY DAMAGE ONLY	WASHOE	6/13/2020	2020	2100	WINGFIELD HILLS RD	<Null>	<Null>	VISTA BLVD
2998134	PROPERTY DAMAGE ONLY	WASHOE	6/16/2020	2020	7:15:00 PM	WINGFIELD HILLS RD	<Null>	AT INT	VISTA BLVD
3034819	PROPERTY DAMAGE ONLY	WASHOE	6/16/2020	2020	1915	WINGFIELD HILLS RD	<Null>	<Null>	VISTA BLVD
3036081	PROPERTY DAMAGE ONLY	WASHOE	6/24/2020	2020	1509	VISTA BL	<Null>	<Null>	WINGFIELD HILLS RD
3036647	INJURY CRASH	WASHOE	6/24/2020	2020	1212	VISTA BL	<Null>	NE	WINGFIELD HILLS RD
2998804	INJURY CRASH	WASHOE	6/24/2020	2020	12:12:00 PM	VISTA BLVD	100	NORTH	WINGFIELD HILLS RD
2999327	PROPERTY DAMAGE ONLY	WASHOE	6/24/2020	2020	3:09:00 PM	VISTA BLVD	<Null>	AT INT	WINGFIELD HILLS RD
3001795	PROPERTY DAMAGE ONLY	WASHOE	7/26/2020	2020	11:06:00 AM	VISTA BLVD	<Null>	AT INT	BLACK HILLS DR
3038193	PROPERTY DAMAGE ONLY	WASHOE	7/26/2020	2020	1106	VISTA BLVD	<Null>	<Null>	BLACK HILLS DR
3002956	PROPERTY DAMAGE ONLY	WASHOE	8/4/2020	2020	5:13:00 PM	WINGFIELD SPRINGS RD	45	SOUTH	POCO REY DR
3039532	PROPERTY DAMAGE ONLY	WASHOE	8/4/2020	2020	1713	WINGFIELD SPRINGS RD	<Null>	SOUTH	POCO REY DR
3045495	INJURY CRASH	WASHOE	9/22/2020	2020	1820	VISTA BL	<Null>	<Null>	N WINGFIELD PW
3008097	INJURY CRASH	WASHOE	9/22/2020	2020	6:20:00 PM	VISTA BLVD	<Null>	AT INT	N WINGFIELD PKWY
3202075	PROPERTY DAMAGE ONLY	WASHOE	1/9/2021	2021	54	SILVER KING DR	<Null>	NORTH	GLADIOLA CT
3202777	PROPERTY DAMAGE ONLY	WASHOE	1/15/2021	2021	1817	VISTA BLVD	<Null>	WEST	N WINGFIELD PKWY
3203428	PROPERTY DAMAGE ONLY	WASHOE	1/15/2021	2021	1745	VISTA DR	<Null>	SOUTH	WINGFIELD HILLS RD
3204126	PROPERTY DAMAGE ONLY	WASHOE	1/23/2021	2021	416	WINGFIELD HILLS RD	<Null>	SOUTH	VISTA BLVD
3205083	PROPERTY DAMAGE ONLY	WASHOE	2/7/2021	2021	1232	VISTA BLVD	<Null>	NORTH	WINGFIELD HILLS RD
3196090	INJURY CRASH	WASHOE	5/19/2021	2021	1259	GENERAL THATCHER DR	<Null>	<Null>	WINGFIELD SPRINGS RD
3198784	PROPERTY DAMAGE ONLY	WASHOE	6/15/2021	2021	716	VISTA BLVD	<Null>	<Null>	N WINGFIELD PKWY
3183521	INJURY CRASH	WASHOE	11/4/2021	2021	858	VISTA BLVD	<Null>	EAST	WINGFIELD HILLS RD
3150989	PROPERTY DAMAGE ONLY	WASHOE	1/27/2022	2022	731	VISTA BLVD	<Null>	<Null>	N WINGFIELD PKWY
3153700	PROPERTY DAMAGE ONLY	WASHOE	2/23/2022	2022	1746	VISTA BLVD	<Null>	EAST	S WINGFIELD PKWY
3154664	PROPERTY DAMAGE ONLY	WASHOE	3/7/2022	2022	1730	VISTA BLVD	<Null>	AT INT	WINGFIELD HILLS RD
3179508	PROPERTY DAMAGE ONLY	WASHOE	5/18/2022	2022	237	VISTA BLVD	<Null>	<Null>	HOMERUN DR
3180000	PROPERTY DAMAGE ONLY	WASHOE	6/1/2022	2022	1606	WINGFIELD SPRINGS RD	<Null>	<Null>	GENERAL THATCHER DR
3180177	PROPERTY DAMAGE ONLY	WASHOE	6/2/2022	2022	728	WINGFIELD HILLS RD	<Null>	<Null>	VISTA BLVD
3181344	PROPERTY DAMAGE ONLY	WASHOE	6/12/2022	2022	1756	VISTA BLVD	<Null>	SOUTH	HOMERUN DR
3158924	PROPERTY DAMAGE ONLY	WASHOE	8/1/2022	2022	2344	WINGFIELD SPRINGS RD	<Null>	AT INT	CINNAMON DR
3166455	INJURY CRASH	WASHOE	10/4/2022	2022	1321	N WINGFIELD PKWY	<Null>	AT INT	REY DEL SIERRA DR
3168060	INJURY CRASH	WASHOE	10/13/2022	2022	1747	SCORPIUS DR	<Null>	<Null>	VISTA BLVD
3169004	PROPERTY DAMAGE ONLY	WASHOE	11/4/2022	2022	1450	VISTA BLVD	<Null>	<Null>	BLACK HILLS DR
3172992	PROPERTY DAMAGE ONLY	WASHOE	12/2/2022	2022	2258	VISTA BLVD	<Null>	AT INT	WINGFIELD HILLS RD
3175039	PROPERTY DAMAGE ONLY	WASHOE	12/24/2022	2022	1637	VISTA BLVD	<Null>	NORTH	N WINGFIELD PKWY
3177202	INJURY CRASH	WASHOE	3/27/2023	2023	1859	WINGFIELD HILLS RD	<Null>	<Null>	VISTA BLVD
3210947	PROPERTY DAMAGE ONLY	WASHOE	3/31/2023	2023	431	S WINGFIELD PKWY	<Null>	AT INT	VISTA BLVD
3209135	INJURY CRASH	WASHOE	4/27/2023	2023	2018	VISTA BLVD	<Null>	SOUTH	WINGFIELD HILLS RD
3212164	PROPERTY DAMAGE ONLY	WASHOE	4/28/2023	2023	726	VISTA BLVD	<Null>	WEST	WINGFIELD PKWY
3215080	PROPERTY DAMAGE ONLY	WASHOE	5/25/2023	2023	710	VISTA BLVD	<Null>	<Null>	WINGFIELD HILLS RD
3255776	PROPERTY DAMAGE ONLY	WASHOE	11/7/2023	2023	1740	VISTA BLVD	<Null>	SOUTH	WINGFIELD HILLS RD
3267103	PROPERTY DAMAGE ONLY	WASHOE	11/16/2023	2023	2143	N WINGFIELD PKWY	<Null>	<Null>	VISTA BLVD
3267225	FATAL CRASH	WASHOE	8/29/2024	2024	1906	POCO REY DR	<Null>	<Null>	WINGFIELD SPRINGS RD
3269199	PROPERTY DAMAGE ONLY	WASHOE	9/19/2024	2024	743	VISTA BLVD	<Null>	<Null>	S WINGFIELD PKWY
3271201	PROPERTY DAMAGE ONLY	WASHOE	11/30/2024	2024	827	WINGFIELD HILLS RD	<Null>	SOUTH	VISTA BLVD
3271446	INJURY CRASH	WASHOE	1/21/2025	2025	1643	WINGFIELD HILLS RD	<Null>	SOUTH	VISTA BLVD

Weather	Fatalities	Injured	Property Damage Only	Injury Type	Crash Type	Total Vehicles	V1 Type
CLOUDY	0	1		C	REAR END	2	SEDAN 4-DOOR
CLOUDY	0	1		C	REAR END	2	SEDAN, 4 DOOR
CLEAR	0	0	PDO	O	REAR END	2	UTILITY
CLEAR	0	0	PDO	<Null>	REAR END	2	UTILITY
CLEAR	0	0	PDO	<Null>	REAR END	2	CARRY-ALL
CLEAR	0	0	PDO	O	REAR END	2	SUV/CARRY-ALL
CLOUDY	0	0	PDO	O	REAR END	3	VAN
CLOUDY	0	0	PDO	<Null>	REAR END	3	VAN
CLEAR	0	1		B	ANGLE	2	SUV/CARRY-ALL
CLEAR	0	1		B	ANGLE	2	CARRY-ALL
CLEAR	0	0	PDO	<Null>	ANGLE	2	SEDAN, 4 DOOR
CLEAR	0	0	PDO	O	ANGLE	2	SEDAN 4-DOOR
BLOWING SNOW	0	0	PDO	<Null>	REAR END	2	
UNKNOWN	0	0	PDO	O	REAR END	2	<Null>
CLEAR	0	0	PDO	<Null>	REAR END	2	PICKUP
CLEAR	0	0	PDO	<Null>	REAR END	2	PICKUP
RAIN	0	0	PDO	O	REAR END	2	HATCHBACK 4-DOOR
CLEAR	0	2		C	REAR END	2	SEDAN 4-DOOR
CLEAR	0	2		C	REAR END	2	SEDAN, 4 DOOR
RAIN	0	0	PDO	<Null>	REAR END	2	HATCHBACK, 4 DOOR
CLEAR	0	0	PDO	<Null>	REAR END	2	CARRY-ALL
CLEAR	0	0	PDO	N	REAR END	2	SUV/CARRY-ALL
CLEAR	0	0	PDO	<Null>	NON-COLLISION	1	SEDAN, 4 DOOR
CLEAR	0	0	PDO	O	NON-COLLISION	1	SEDAN 4-DOOR
CLEAR	0	1		C	REAR END	2	SUV/CARRY-ALL
CLEAR	0	1		C	REAR END	2	CARRY-ALL
CLEAR	0	0	PDO	O	NON-COLLISION	1	HATCHBACK 4-DOOR
CLEAR	0	0	PDO	O	REAR END	3	HATCHBACK 4-DOOR
CLEAR	0	0	PDO	O	REAR END	2	SEDAN 4-DOOR
SNOW	0	0	PDO	N	<Null>	1	SEDAN 4-DOOR
CLEAR	0	0	PDO	O	REAR END	2	HATCHBACK 2-DOOR
CLEAR	0	1		B	ANGLE	2	SEDAN 4-DOOR
CLEAR	0	0	PDO	O	ANGLE	2	SEDAN 4-DOOR
CLEAR	0	1		C	REAR END	2	SEDAN 4-DOOR
CLEAR	0	0	PDO	O	REAR END	2	UTILITY
CLEAR	0	0	PDO	O	REAR END	2	SEDAN 4-DOOR
UNKNOWN	0	0	PDO	O	SIDESWIPE - OVERTAKING	2	<Null>
CLEAR	0	0	PDO	O	NON-COLLISION	1	UTILITY
CLEAR	0	0	PDO	O	ANGLE	2	WAGON
CLEAR	0	0	PDO	O	ANGLE	2	SUV/CARRY-ALL
CLEAR	0	0	PDO	O	NON-COLLISION	1	SEDAN 4-DOOR
<Null>	0	0	PDO	O	SIDESWIPE - MEETING	2	<Null>
<Null>	0	1		C	REAR END	2	MOTORCYCLE
CLEAR	0	1		C	ANGLE	1	SUV/CARRY-ALL
CLEAR	0	0	PDO	O	NON-COLLISION	1	UTILITY
<Null>	0	0	PDO	O	NON-COLLISION	1	SUV/CARRY-ALL
CLEAR	0	0	PDO	O	ANGLE	2	SEDAN 4-DOOR
CLEAR	0	2		C	ANGLE	2	SEDAN 4-DOOR
SLEET/HAIL	0	0	PDO	O	ANGLE	2	<Null>
CLEAR	0	2		B	REAR END	3	PICKUP
CLEAR	0	0	PDO	O	REAR END	2	HATCHBACK 4-DOOR
CLEAR	0	0	PDO	O	ANGLE	2	PICKUP
CLEAR	0	0	PDO	O	REAR END	2	SUV/CARRY-ALL
CLEAR	0	0	PDO	O	REAR END	2	SEDAN 4-DOOR
CLEAR	1	1		K	ANGLE	2	MOTORCYCLE
CLEAR	0	0	PDO	O	ANGLE	2	SEDAN 4-DOOR
CLOUDY FOG, SMOG, SMOKE, ASH	0	0	PDO	O	NON-COLLISION	1	SEDAN 4-DOOR
CLEAR	0	1		A	REAR END	2	SUV/CARRY-ALL

V1 Dir	V1 Driver Age	V1 Lane Num	V1 Action	V1 Driver Factors	V1 Driver Distracted	V1 Vehicle Factors
SOUTH	23		2 STRAIGHT	DRIVER INATTENTION/DISTRACTED	PERSONAL HYGIENE	OTHER
SOUTH	23		2 GOING STRAIGHT	INATTENTION/DISTRACTED	PERSONAL HYGIENE	OTHER
EAST	48	L1	STRAIGHT	<Null>	<Null>	HIT AND RUN
EAST	48	L1	GOING STRAIGHT			HIT AND RUN
SOUTH	64	R1	GOING STRAIGHT	APPARENTLY NORMAL		OTHER
SOUTH	64	R1	STRAIGHT	APPARENTLY NORMAL	<Null>	OTHER
SOUTH	33		2 STOPPED	DRIVER INATTENTION/DISTRACTED	OTHER INSIDE THE VEHICLE	OTH IMPROPER DRIVING
SOUTH	33		2 STOPPED	INATTENTION/DISTRACTED	OTHER INSIDE THE VEHICLE	OTHER IMPROPER DRIVING
EAST	16		1 STRAIGHT	APPARENTLY NORMAL	<Null>	DISREGARD CONTROL DEVICE
EAST	16		1 GOING STRAIGHT	APPARENTLY NORMAL		DISREGARDED TRAFFIC SIGNS, SIGNALS, ROAD MARKINGS
WEST	35		1 GOING STRAIGHT	APPARENTLY NORMAL		FAILED TO YIELD RIGHT OF WAY
WEST	<Null>		1 STRAIGHT	APPARENTLY NORMAL	<Null>	FAILED TO YIELD ROW
WEST	<Null>		GOING STRAIGHT	UNKNOWN		HIT AND RUN
WEST	<Null>	<Null>	STRAIGHT	UNKNOWN	<Null>	HIT AND RUN
NORTH	<Null>		GOING STRAIGHT	UNKNOWN		HIT AND RUN
NORTH	<Null>	<Null>	STRAIGHT	<Null>	<Null>	HIT AND RUN
WEST	41		2 PASSING	APPARENTLY NORMAL	<Null>	FOLLOWING TOO CLOSE UNSAFE LANE CHANGE HIT AND RUN AGGRESSIVE
NORTH	<Null>	<Null>	STOPPED	APPARENTLY NORMAL	<Null>	UNKNOWN
NORTH	<Null>		STOPPED	APPARENTLY NORMAL		UNKNOWN
WEST	41		2 PASSING OTHER VEHICLE	APPARENTLY NORMAL		FOLLOWED TOO CLOSELY
NORTH	61		1 GOING STRAIGHT	INATTENTION/DISTRACTED	OTHER INSIDE THE VEHICLE	FOLLOWED TOO CLOSELY
NORTH	<Null>		1 STRAIGHT	DRIVER INATTENTION/DISTRACTED	<Null>	FOLLOWING TOO CLOSE
NORTH	51		1 GOING STRAIGHT	APPARENTLY NORMAL		
NORTH	51		1 STRAIGHT	APPARENTLY NORMAL	<Null>	<Null>
WEST	36		2 STRAIGHT	APPARENTLY NORMAL	<Null>	FOLLOWING TOO CLOSE
WEST	36		2 GOING STRAIGHT	APPARENTLY NORMAL		FOLLOWED TOO CLOSELY
NORTH	35		1 STRAIGHT	DRUG INVOLVEMENT	<Null>	HIT AND RUN
EAST	<Null>	L2	STRAIGHT	APPARENTLY NORMAL	<Null>	TOO FAST FOR CONDITIONS
EAST	<Null>	L2	LEAVING LANE	APPARENTLY NORMAL	<Null>	UNSAFE LANE CHANGE
EAST	<Null>		2 RIGHT TURN	APPARENTLY NORMAL	<Null>	UNKNOWN
SOUTH	<Null>		2 STRAIGHT	APPARENTLY NORMAL	<Null>	OTHER
EAST	56		1 STRAIGHT	UNKNOWN	<Null>	FAILED TO YIELD ROW
SOUTH	<Null>		2 STRAIGHT	APPARENTLY NORMAL	<Null>	FAILED TO YIELD ROW DISREGARD CONTROL DEVICE
EAST	30		1 STRAIGHT	APPARENTLY NORMAL	<Null>	FOLLOWING TOO CLOSE
WEST	<Null>		2 STRAIGHT	APPARENTLY NORMAL	<Null>	OTH IMPROPER DRIVING
EAST	71		2 STRAIGHT	HAD BEEN DRINKING	<Null>	OTHER
NORTH	<Null>		1 ENTERING LANE	APPARENTLY NORMAL	<Null>	FAILED TO MAINTAIN LANE HIT AND RUN
NORTH	35	<Null>	STRAIGHT	APPARENTLY NORMAL	<Null>	FAILED TO MAINTAIN LANE
EAST	49	<Null>	LEFT TURN	UNKNOWN	<Null>	UNSAFE LANE CHANGE
SOUTH	54		1 ENTERING LANE	OTHER IMPROPER DRIVING	<Null>	FAILED TO YIELD ROW
SOUTH	<Null>		2 STRAIGHT	APPARENTLY NORMAL	<Null>	OTHER
SOUTH	51		1 LEAVING LANE	HAD BEEN DRINKING	<Null>	<Null>
NORTH	67		2 STRAIGHT	APPARENTLY NORMAL	<Null>	<Null>
EAST	<Null>		1 STRAIGHT	UNKNOWN	<Null>	UNKNOWN
NORTH	<Null>		1 LEAVING LANE	APPARENTLY FATIGUED/ASLEEP	<Null>	<Null>
NORTH	<Null>	<Null>	RIGHT TURN	APPARENTLY NORMAL	<Null>	OVER CORRECT/STEERING
NORTH	37		2 LEAVING LANE	APPARENTLY FATIGUED/ASLEEP	<Null>	RAN OFF ROAD
WEST	<Null>		1 STRAIGHT	APPARENTLY NORMAL	<Null>	DISREGARD CONTROL DEVICE
<Null>	<Null>	<Null>	STRAIGHT	APPARENTLY NORMAL	<Null>	HIT AND RUN
SOUTH	<Null>		2 STRAIGHT	APPARENTLY NORMAL	<Null>	FOLLOWING TOO CLOSE
WEST	21		2 STRAIGHT	APPARENTLY NORMAL	<Null>	FOLLOWING TOO CLOSE
SOUTH	75		2 STRAIGHT	OTHER IMPROPER DRIVING	<Null>	DISREGARD CONTROL DEVICE
NORTH	<Null>		2 STRAIGHT	APPARENTLY NORMAL;	<Null>	HIT AND RUN
EAST	20		1 STRAIGHT	HAD BEEN DRINKING;	<Null>	FOLLOWING TOO CLOSE
NORTH	26		1 STRAIGHT	APPARENTLY NORMAL;OTHER IMPROPER DRIVING;	<Null>	EXCEEDING SPEED LIMIT
WEST	72	L1	LANE CHANGE	APPARENTLY NORMAL;	<Null>	UNSAFE LANE CHANGE
SOUTH	36	R1	RIGHT TURN	APPARENTLY NORMAL;	<Null>	OTHER
SOUTH	<Null>		1 STRAIGHT	UNKNOWN;	<Null>	<Null>

V1 Most Harmful Event	V1 All Events	V2 Type	V2 Dir	V2 Driver Age	V2 Lane Num	V2 Action	V2 Driver Factors	V2 Driver Distracted	V2 Vehicle Factors
SLOW/STOPPED VEHICLE	<Null>	SEDAN 4-DOOR	SOUTH	53	2	STOPPED	APPARENTLY NORMAL	<Null>	<Null>
SLOW/STOPPED VEHICLE	SLOW/STOPPED VEHICLE	SEDAN, 4 DOOR	S	53	2	STOPPED	APPARENTLY NORMAL		
MOTOR VEHICLE IN TRANSPORT	SLOW/STOPPED VEHICLE	VAN	EAST	53	L1	STOPPED	APPARENTLY NORMAL	<Null>	<Null>
SLOW/STOPPED VEHICLE	SLOW/STOPPED VEHICLE	VAN	E	53	L1	STOPPED	APPARENTLY NORMAL		
SLOW/STOPPED VEHICLE	SLOW/STOPPED VEHICLE	VANETTE	S	39	R1	TURNING RIGHT	APPARENTLY NORMAL		
SLOW/STOPPED VEHICLE	<Null>	VANETTE	SOUTH	39	R1	RIGHT TURN	APPARENTLY NORMAL	<Null>	<Null>
SLOW/STOPPED VEHICLE	<Null>	SUV/CARRY-ALL	SOUTH	<Null>	2	STOPPED	APPARENTLY NORMAL	<Null>	<Null>
SLOW/STOPPED VEHICLE	SLOW/STOPPED VEHICLE	CARRY-ALL	S	30	2	STOPPED	APPARENTLY NORMAL		
MOTOR VEHICLE IN TRANSPORT	<Null>	PICKUP	NORTH	56	1	STRAIGHT	APPARENTLY NORMAL	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT		PICKUP	N	56	1	GOING STRAIGHT	APPARENTLY NORMAL		
MOTOR VEHICLE IN TRANSPORT		PICKUP	S	30	1	GOING STRAIGHT	APPARENTLY NORMAL		OTHER
MOTOR VEHICLE IN TRANSPORT	<Null>	PICKUP	SOUTH	<Null>	1	STRAIGHT	<Null>	<Null>	OTHER
MOTOR VEHICLE IN TRANSPORT	PARKED MOTOR VEHICLE	CARRY-ALL	W	33		STOPPED	UNKNOWN		
MOTOR VEHICLE IN TRANSPORT	PARKED MOTOR VEHICLE	SUV/CARRY-ALL	WEST	<Null>	<Null>	STOPPED	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT		PICKUP	N	<Null>		STOPPED			
MOTOR VEHICLE IN TRANSPORT	<Null>	PICKUP	NORTH	<Null>	<Null>	STOPPED	<Null>	<Null>	<Null>
SLOW/STOPPED VEHICLE	MOTOR VEHICLE IN TRANSPORT	HATCHBACK 4-DOOR	WEST	59	2	STRAIGHT	APPARENTLY NORMAL	<Null>	UNKNOWN
MOTOR VEHICLE IN TRANSPORT	<Null>	SEDAN 4-DOOR	NORTH	<Null>	<Null>	STRAIGHT	APPARENTLY NORMAL	<Null>	FOLLOWING TOO CLOSE
MOTOR VEHICLE IN TRANSPORT		SEDAN, 4 DOOR	N	<Null>		GOING STRAIGHT	APPARENTLY NORMAL		FOLLOWED TOO CLOSELY
MOTOR VEHICLE IN TRANSPORT	SLOW/STOPPED VEHICLE	HATCHBACK, 4 DOOR	W	59	2	GOING STRAIGHT	APPARENTLY NORMAL		UNKNOWN
MOTOR VEHICLE IN TRANSPORT		SEDAN, 4 DOOR	X	23	1	STOPPED	APPARENTLY NORMAL		
MOTOR VEHICLE IN TRANSPORT	<Null>	SEDAN 4-DOOR	<Null>	<Null>	1	STOPPED	<Null>	<Null>	<Null>
PEDAL CYCLE	PEDAL CYCLE		<Null>	<Null>					
PEDAL CYCLIST	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
SLOW/STOPPED VEHICLE	<Null>	HATCHBACK 4-DOOR	WEST	23	2	STOPPED	APPARENTLY NORMAL	<Null>	<Null>
SLOW/STOPPED VEHICLE	SLOW/STOPPED VEHICLE	HATCHBACK, 4 DOOR	W	23	2	STOPPED	APPARENTLY NORMAL		
MOTOR VEHICLE IN TRANSPORT	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	HATCHBACK 4-DOOR	EAST	<Null>	L2	STRAIGHT	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	SLOW/STOPPED VEHICLE	SEDAN 4-DOOR	EAST	<Null>	<Null>	LEFT TURN	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	PARKED MOTOR VEHICLE	HATCHBACK 4-DOOR	SOUTH	<Null>	2	STOPPED	<Null>	<Null>	OTHER
MOTOR VEHICLE IN TRANSPORT	<Null>	VAN	NORTH	31	1	STRAIGHT	UNKNOWN	<Null>	UNKNOWN
MOTOR VEHICLE IN TRANSPORT	OTHER MOVABLE OBJECT	SUV/CARRY-ALL	NORTH	<Null>	1	LEFT TURN	<Null>	<Null>	UNKNOWN
SLOW/STOPPED VEHICLE	<Null>	SEDAN 4-DOOR	WEST	69	1	STOPPED	APPARENTLY NORMAL	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	UTILITY	WEST	<Null>	2	STRAIGHT	<Null>	<Null>	<Null>
SLOW/STOPPED VEHICLE	<Null>	PICKUP	EAST	<Null>	2	PARKED	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	SUV/CARRY-ALL	NORTH	<Null>	2	STRAIGHT	<Null>	<Null>	UNKNOWN
RAN OFF ROAD RIGHT	OTHER POST, POLE OR SUPPORT	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	WAGON	NORTH	40	<Null>	STRAIGHT	APPARENTLY NORMAL	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	SEDAN 4-DOOR	WEST	30	1	STRAIGHT	APPARENTLY NORMAL	<Null>	<Null>
TREE/SHRUB	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	CROSS CENTERLINE	<Null>	NORTH	26	1	STRAIGHT	APPARENTLY NORMAL	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	SUV/CARRY-ALL	NORTH	<Null>	2	STOPPED	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	RAN OFF ROAD RIGHT	PICKUP	NORTH	<Null>	<Null>	PARKED	<Null>	<Null>	OTHER
MOTOR VEHICLE IN TRANSPORT	<Null>	SEDAN 4-DOOR	EAST	<Null>	L1	LEFT TURN	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	SEDAN 4-DOOR	SOUTH	<Null>	<Null>	STRAIGHT	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	PICKUP	SOUTH	<Null>	2	STRAIGHT	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	HATCHBACK 4-DOOR	WEST	69	2	STRAIGHT	APPARENTLY NORMAL	<Null>	UNKNOWN
SLOW/STOPPED VEHICLE	<Null>	HATCHBACK 4-DOOR	EAST	25	2	STOPPED	APPARENTLY NORMAL	<Null>	<Null>
SLOW/STOPPED VEHICLE	<Null>	SUV/CARRY-ALL	NORTH	44	2	STOPPED	APPARENTLY NORMAL;	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	SUV/CARRY-ALL	EAST	44	1	STOPPED	APPARENTLY NORMAL;	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	SUV/CARRY-ALL	WEST	17	1	ENTERING LANE	APPARENTLY NORMAL;	<Null>	UNKNOWN
MOTOR VEHICLE IN TRANSPORT	<Null>	UTILITY	WEST	87	2	STRAIGHT	APPARENTLY NORMAL;	<Null>	<Null>
OTHER MOVABLE OBJECT	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
MOTOR VEHICLE IN TRANSPORT	<Null>	MOTORCYCLE	SOUTH	75	1	STRAIGHT	APPARENTLY NORMAL;	<Null>	UNKNOWN

V2 Most Harmful Event
SLOW/STOPPED VEHICLE
SLOW/STOPPED VEHICLE
SLOW/STOPPED VEHICLE
MOTOR VEHICLE IN TRANSPORT
SLOW/STOPPED VEHICLE
SLOW/STOPPED VEHICLE
MOTOR VEHICLE IN TRANSPORT
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MOTOR VEHICLE IN TRANSPORT
MOTOR VEHICLE IN TRANSPORT
PARKED MOTOR VEHICLE
SLOW/STOPPED VEHICLE
SLOW/STOPPED VEHICLE
SLOW/STOPPED VEHICLE
MOTOR VEHICLE IN TRANSPORT
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PARKED MOTOR VEHICLE
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SLOW/STOPPED VEHICLE
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<Null>
MOTOR VEHICLE IN TRANSPORT

V2 All Events	First Harmful Event	Nonmotorist Factors	Factors Roadway	Lighting	HWY Factors	Agency	Accident Rec Num
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	700809
SLOW/STOPPED VEHICLE	SLOW/STOPPED VEHICLE		DRY	DAYLIGHT	NONE	SPPD	3036046
MOTOR VEHICLE IN TRANSPORT	<Null>	<Null>	NONE	DARK - SPOT ROADWAY LIGHTING	NONE	Sparks PD	700715
SLOW/STOPPED VEHICLE	MOTOR VEHICLE IN TRANSPORT		DRY	DARK - SPOT LIGHTING	NONE	SPPD	3036070
SLOW/STOPPED VEHICLE	SLOW/STOPPED VEHICLE		DRY	DAWN	NONE	SPPD	3045699
<Null>	<Null>	<Null>	NONE	DAWN	NONE	Sparks PD	700607
SLOW/STOPPED VEHICLE	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	707884
SLOW/STOPPED VEHICLE	SLOW/STOPPED VEHICLE		DRY	DAYLIGHT	NONE	SPPD	3050262
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	707924
	MOTOR VEHICLE IN TRANSPORT		DRY	DAYLIGHT	NONE	SPPD	3051747
	MOTOR VEHICLE IN TRANSPORT		DRY	DAYLIGHT	NONE	SPPD	3052868
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	804691
PARKED MOTOR VEHICLE	MOTOR VEHICLE IN TRANSPORT		UNKNOWN	DARK - UNKNOWN LIGHTING	UNKNOWN	SPPD	3054845
MOTOR VEHICLE IN TRANSPORT	<Null>	<Null>	UNKNOWN	DARK - UNKNOWN ROADWAY LIGHTING	UNKNOWN	Sparks PD	813292
SLOW/STOPPED VEHICLE	MOTOR VEHICLE IN TRANSPORT		DRY	DAYLIGHT	NONE	SPPD	3057707
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	816262
MOTOR VEHICLE IN TRANSPORT	<Null>	<Null>	WET, ICY, SNOW, SLUSH	DAYLIGHT	WET, ICY, SNOW, SLUSH	Sparks PD	813832
<Null>	<Null>	<Null>	BACKUP DUE TO REGULAR CONGESTION	DAYLIGHT	BACKUP DUE TO REGULAR CONGESTION	Sparks PD	813710
	MOTOR VEHICLE IN TRANSPORT		DRY	DAYLIGHT	BACKUP DUE TO REGULAR CONGESTION	SPPD	3057725
SLOW/STOPPED VEHICLE	MOTOR VEHICLE IN TRANSPORT		WET	DAYLIGHT	WET, ICY, SNOW, SLUSH	SPPD	3057727
SLOW/STOPPED VEHICLE	MOTOR VEHICLE IN TRANSPORT		DRY	DAYLIGHT	NONE	SPPD	3075746
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	823176
	MOTOR VEHICLE IN TRANSPORT		DRY	DAYLIGHT	NONE	SPPD	3077004
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	826361
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	842583
	MOTOR VEHICLE IN TRANSPORT		DRY	DAYLIGHT	NONE	SPPD	3131865
<Null>	<Null>	<Null>	NONE	DARK - SPOT ROADWAY LIGHTING	NONE	Sparks PD	879705
<Null>	<Null>	<Null>	NONE	DARK - SPOT ROADWAY LIGHTING	NONE	SPARKS PD	882313
MOTOR VEHICLE IN TRANSPORT	<Null>	<Null>	NONE	DARK - SPOT ROADWAY LIGHTING	NONE	SPARKS PD	882118
<Null>	<Null>	<Null>	WEATHERWET, ICY, SNOW, SLUSH	DARK - SPOT ROADWAY LIGHTING	WEATHERWET, ICY, SNOW, SLUSH	Sparks PD	884231
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	889874
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	926571
SLOW/STOPPED VEHICLE	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	937310
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	998558
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	1035165
<Null>	<Null>	<Null>	NONE	DARK - SPOT ROADWAY LIGHTING	NONE	Sparks PD	1048253
<Null>	<Null>	<Null>	UNKNOWN	DAYLIGHT	UNKNOWN	Sparks PD	1055508
<Null>	Ran off Road Right	<Null>	NONE	DARK - CONT ROADWAY LIGHTING	NONE	Sparks PD	1086215
<Null>	<Null>	<Null>	UNKNOWN	DAYLIGHT	UNKNOWN	Sparks PD	1092834
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	1093374
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	1097451
CROSS CENTERLINE	Cross Centertine	<Null>	NONE	DARK - SPOT ROADWAY LIGHTING	NONE	Sparks PD	1119084
MOTOR VEHICLE IN TRANSPORT	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	1148937
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	1155643
<Null>	<Null>	<Null>	NONE	DAYLIGHT	NONE	Sparks PD	1186816
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PRELIMINARY DRAINAGE MASTER PLAN

FOR

THE FOOTHILLS AT WINGFIELD SPRINGS

Prepared for:

**Red Hawk Land Company, LLC,
A Nevada Limited Liability Company
4021 Port Chicago Hwy
Concord, California 94520**

January 20, 2026

Prepared by:

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01/21/2026



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

EXECUTIVE SUMMARY

The Foothills at Wingfield Springs redevelopment project is located in Sparks, Nevada, and involves redevelopment of the undeveloped Foothills area into a single-family residential community with associated roadway and drainage infrastructure. This Preliminary Drainage Master Plan evaluates existing drainage conditions and presents planning-level concepts to manage runoff, mitigate flood risk, and maintain downstream hydraulic performance.

The project area receives substantial off-site runoff, including flows from the Golden Eagle Regional Park (GERP) Channel and Reach 7, which convey upstream neighborhood and foothill drainage through the site. Under existing conditions, runoff is conveyed through a network of channels, ponds, culverts, and weirs before discharging to Reach 9 and the downstream regional drainage system. Portions of the site are located within mapped FEMA Special Flood Hazard Areas (Zones A, AE, and AH).

Hydrologic and hydraulic analyses were completed using hydrographs from the Pioneer Meadows Phase II LOMR HEC-1 model and a new unsteady-flow HEC-RAS (Version 6.5) model developed for this study. Model results were compared to effective FEMA Flood Insurance Rate Maps and Base Flood Elevations and refined to achieve planning-level consistency. Field reconnaissance was conducted to verify existing drainage infrastructure and inform modeling assumptions.

Proposed development was evaluated by updating land cover and runoff characteristics to reflect increased impervious surfaces within the Foothills project area. Existing on-site detention ponds within the Foothills area are proposed to be regraded and developed over and were calculated to provide approximately 3.75 million cubic feet of existing storage. The calculated minimum detention requirement of approximately 98,900 cubic feet for the 100-year storm event, along with the replacement of this existing storage, is addressed through a proposed detention strategy. The proposed approach provides more than 4.0 million cubic feet of detention storage through an engineered drainage channel and three downstream detention ponds located within the Wingfield Springs area. This system incorporates notched weirs to temporarily store peak flows while allowing lower flows to pass, maintaining downstream conditions consistent with existing conditions. Preliminary modeling indicates that the proposed detention strategy can be implemented without increasing downstream flood impacts and while maintaining required freeboard.

This report represents a planning-level evaluation intended to guide future design. Additional analysis, refinement of grading and infrastructure layouts, and coordination with the City of Sparks, FEMA, and the U.S. Army Corps of Engineers will be required as the project advances, and a Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) may be necessary.



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SOIL COVER MAP
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1 INTRODUCTION

The Foothills at Wingfield Springs is located in Sparks, Washoe County, Nevada, redeveloping the existing Foothills open space area into a single-family residential development. The project as planned consists of new paved roadways, drainage culverts, drainage channels, detention ponds, and other associated infrastructure. The storm drain system culverts have been preliminarily designed to the standards of the *Truckee Meadows Regional Drainage Manual (TMRDM)* and City of Sparks standards.

This report analyzes existing drainage conditions and provides alternatives for detention and flood mitigation for the proposed development. Large culverts and channels have been analyzed with this report. Storm drain internal to the proposed villages, however, will be designed and analyzed with final technical drainage reports that accompany those developments individually.

1.1 PROJECT LOCATION

According to the Public Land Survey System, the project area is located in Section 7, Township 20 North, Range 21 East, Mount Diablo Meridian (MDM), in Washoe County, Nevada. The parcel comprising the Foothills development is owned by Red Hawk Land Company and has designated Assessor Parcel Number (APN) 526-010-04. The Foothills parcel encompasses approximately 49 acres, with 39 acres proposed as single family residential and the remaining acreage dedicated to a proposed drainageway. Please see **Appendix A** for the Parcel Exhibit showing the labeled boundary of the above property.

1.2 PROJECT DESCRIPTION

The Foothills at Wingfield Springs (Project) area exhibits generally uniform existing terrain and is occupied primarily by a relatively flat open meadow characterized by native shrubs and natural groundcover. Several ponds and low swale features within the parcel currently provide detention storage and function as part of the local waterway system. Surrounding land use consists predominantly of previously constructed single-family residential neighborhoods, with Vista Boulevard forming the southeastern boundary. The site receives off-site runoff from two main sources: flow from the Golden Eagle Regional Park (GERP) channel, which enters from the southeast and flows northwest across the parcel, and discharge from Reach-7, a previously engineered channel that conveys neighborhood runoff from the north and northeast as well as contributing drainage from the foothill and mountain areas to the northeast. These features collectively govern planning-level hydrologic pathways under existing conditions. Reference **Appendix A** for the Overall Watershed Map, which includes the drainage area that encompasses the Project.

1.3 REGULATORY PERSPECTIVE

The Project site is located entirely on privately owned land. Drainage infrastructure is expected to be owned and maintained privately at this time, while other utilities and streets are expected to be owned publicly.

2 PREVIOUS STUDIES

Previous studies reviewed include the Pioneer Meadows Phase II LOMR (2010, by Wood Rodgers Inc.) and the Reach 9 Modeling Letter Report (2018, by House Moran Consultants), which provided supporting hydrologic and hydraulic context for the preliminary report. An Area Reduction Factor (ARF) of 96 percent was selected and utilized for this analysis, consistent with the City of Sparks instruction in the Reach 9 Modeling Letter Report. The legacy HEC-1 rainfall runoff model utilized in the 2010 study employed Muskingum-Cunge routing methodology to transform and route watershed hydrographs, and the current HEC-RAS model incorporated these previously developed hydrographs at mapped inflow locations. The FEMA flood-zone mapping contained in the applicable FIRM panels was referenced to support planning-level calibration and reasonableness checks of modeled water-surface elevations and base-flood elevation accuracy. Because the present design represents a preliminary stage of development and the underlying HEC-1 model is a legacy tool, all results herein are considered subject to future refinement as the project advances.

Additional previous studies for the area include:

- Pioneer Meadows Reach 9 HEC-RAS analysis (2018, Wood Rodgers Inc.)
- Technical Drainage Report for Foothills at Wingfield Springs Vista Blvd Phase II (2005, Wood Rodgers Inc.)
- Storm Drainage Master Plan for The Foothills at Wingfield Springs (2004, Wood Rodgers Inc.)
- Hydrology and Hydraulics Report, Cimarron East Secondary Access Road (2004, Wood Rodgers Inc.)
- Flood Control Master Plan for Foothills at Wingfield Springs (2003, Nimbus Engineers)
- Letter of Map Revision for Wingfield Springs Development (1999, Stantec)

These previous studies add background information for the hydrologic and hydraulic analysis of this report but were not a basis of design for the Project.

3 METHODS

Past studies were first reviewed to identify the most applicable reference for establishing hydrologic and hydraulic conditions for the project area. The Pioneer Meadows Phase II LOMR (2010, Wood Rodgers, Inc.) was determined to be the most compatible study available for this preliminary evaluation. The HEC-1 file that was used to support the Pioneer Meadows Phase II LOMR was then obtained and reviewed.

Next, inflow locations applicable to the project site were identified. The City of Sparks Civil Utilities feature layer was incorporated into ArcGIS to help confirm drainage pathways, identify existing storm drain features, and evaluate where off-site runoff enters and exits the site. After establishing the major contributing inflow locations, the Pioneer Meadows HEC-1 model was reviewed to determine which junctions corresponded to each required inflow point. Hydrographs were then computed from the selected junctions using HEC-1, with attention to maintaining

consistent storm timing such that peak flows and hydrograph shapes remained synchronized between inflow locations.

A new unsteady-flow HEC-RAS model was developed for the preliminary study using HEC-RAS Version 6.5 software. Initial HEC-RAS results were compared to the effective FEMA flood maps, and the model was iteratively refined to better align with mapped floodplain extents and published flood elevations. Initially, an Area Reduction Factor (ARF) of 96 percent was applied during hydrograph computations, consistent with the value directed by the City of Sparks for use by House Moran Consultants in the Reach 9 Modeling Letter Report (2018). However, comparison of the resulting water surface elevations with FEMA Base Flood Elevations (BFEs) indicated that some hydrographs did not align with the effective FEMA model, requiring additional refinement. Model refinements included adjustments to 2D breaklines, updates to Manning's n roughness values, and evaluation of hydrograph reduction factors. These refinements were applied iteratively until close agreement with the FEMA effective model was achieved. The inflow location at the culvert conveying flow northward under Vista Boulevard's hydrograph was reduced by a reduction factor of 35% and the Reach-6 hydrograph was reduced by a reduction factor of 85%. These reduction factors were selected through iterative comparison of modeled water surface elevations against effective FEMA BFEs.

To further improve model accuracy, a field visit was completed to verify on-site conditions. Existing culverts were measured and evaluated in the field, and the observed culvert sizes and characteristics were incorporated into the HEC-RAS model. Land cover roughness was estimated and delineated in ArcGIS, and Manning's n values were assigned using guidance from the HEC-RAS 2D manual and reference tables correlating Manning's n to NLCD land cover categories (see **Appendix B**).

Required detention volumes for the proposed villages were estimated by delineating drainage areas, flow paths, and land cover in ArcGIS. Soil information from the Soil Survey Geographic (SSURGO) Database was used to define hydrologic soil groups and are presented in the Soils Exhibit in **Appendix A**. Peak flows for existing and proposed conditions utilizing the 100-year storm event were then calculated using the NRCS runoff methodology, with Curve Numbers, lag times, and peak flows summarized in **Appendix C**. These peak flows served as inputs to the Triangular method used to estimate detention volume, as discussed in Section 5.5.

3.1 HYDROLOGIC AND HYDRAULIC ANALYSIS

The hydrologic and hydraulic analysis consists of peak-flow computations and floodplain evaluation for the preliminary proposed buildout. Basin areas, slopes, infiltration parameters, and routing characteristics were defined within the HEC-1 framework to generate developed-condition hydrographs. These hydrographs were incorporated into an unsteady-flow HEC-RAS model to simulate time-varying water-surface elevations and channel response through the project area.

Hydraulic results produced in RAS Mapper were cross verified against the effective FEMA Flood Insurance Rate Maps (FIRMs) to confirm consistency with mapped floodplain extents and

published Base Flood Elevations. This comparison was performed as a planning-level reasonableness check to ensure that the modeled water surface elevation aligns with established FEMA mapping. Because the project design remains preliminary and relies in part on legacy modeling tools, all results are subject to refinement as additional survey data, grading plans, and final drainage improvements are developed.

3.2 LAG TIME

The time of concentration (t_c) is defined as the time required for water to flow from the hydraulically most distant part of the drainage area to the point of consideration. Usually, the point of consideration is the discharge point of the basin or sub-basin. Time of concentration is used in the Rational Method to determine the corresponding rainfall intensity used to calculate the peak runoff rate of a given storm event for the basin or sub-basin. For basins less than one square mile in total area and slope less than 10 percent, the following equations shall be used in determining time of concentration.

$$t_c = t_i + t_t$$

Where:

t_c = time of concentration (minutes)

t_i = initial, overland flow time (minutes)

t_t = travel time in ditch, channel, gutter, pipe etc. (minutes)

$$t_i = \frac{1.8(1.1 - R)L_o^{1/2}}{S^{1/3}}$$

Where:

t_i = initial overland flow time (minutes)

R = flow runoff coefficient (for Rational Method equal to C_s from table 701 of TMRDM)

L_o = length of overland flow (feet, 500 feet max.)

S = average overland basin slope (percent)

$$t_t = \frac{L}{V * 60}$$

Where:

t_t = travel time

L = length of water course

V = average water velocity

URBANIZED BASIN CHECK AND t_c MINIMUM

The final time of concentration shall be the lesser of t_c calculated above and the following subject to a minimum of 5 minutes for paved areas and 10 minutes for landscaped areas.

$$t_c = \frac{L}{180} + 10$$

Where L = watershed length (feet)

LAG TIME

Lag time (T_{lag}) for SCS calculations is defined as:

$$T_{lag} = t_c * 0.6$$

Tables detailing the T_{lag} values for the analyzed basins for existing and proposed conditions are included in **Appendix C**.

FOR BASINS GREATER THAN ONE SQUARE MILE IN TOTAL AREA OR SLOPE GREATER THAN 10 PERCENT

Lag time (T_{lag}) for SCS calculations is defined as:

$$T_{lag} = 22.1K_n(L * \frac{L_c}{S^{0.5}})^{0.33}$$

Where:

K_n = Roughness Factor

L = Length of longest water course (miles)

L_c = Length along longest watercourse measured upstream to basin centroid (miles)

S = Representative slope along watercourse (feet/mile)

3.2.1 Design Rainfall Depths

Precipitation depth estimates were taken from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14, Volume 1, Version 5, which provides rainfall information for latitude and longitude. The site's approximate coordinates are 39.6163° N and 119.6849° W, representing the centroid of the project. Appropriate rainfall intensities were applied for the 100-year storm events taken from these coordinates. Precipitation depth numbers are included in **Appendix B** of this report.

3.2.2 NRCS Runoff Curve Numbers

To characterize runoff behavior, runoff curve numbers (CNs) were assigned to each existing and proposed basin based on land cover and soil type. Curve number categories were selected to best represent existing and proposed site conditions, using classifications from Table 2-2 of *Urban Hydrology for Small Watersheds TR-55* (USDA, 1986). The identified land covers for existing conditions include Open Space (Good), Brush (Fair), Pavement, and Meadow, with soil covers A, C, and D present. The identified land covers for proposed conditions include Residential 1/8 Acre, Pavement, Gravel, and Open Space (Good), with soil covers A, B, C, and D present. Please reference **Appendix A** for existing and proposed land cover maps, and **Appendix B** for Table 702.

3.2.3 HEC-HMS Flow Computations

HEC-HMS version 4.2.1 was used to estimate peak flows for existing and proposed on-site conditions using NRCS infiltration parameters. The HEC-HMS analysis focused solely on changes in on-site land cover and did not include off-site contributing flows. Off-site flows were evaluated separately using HEC-RAS. The HEC-HMS results were used to compare peak discharges between existing and proposed development conditions.

Rainfall depth (P) was obtained from NOAA Atlas 14, infiltration rate (f) was computed using the SCS Method, and basin area (A) was delineated using ArcGIS. The runoff flow rate was then calculated using the following equation, where 1.008 is a unit conversion factor from in/hr·ac to cfs:

$$Q = (P - f) \times A \times 1.008$$

Where:

- Q = runoff flow rate (cfs)
- P = accumulated rainfall (in/hr)
- f = infiltration rate (in/hr)
- A = drainage area (acres)

HEC-HMS applies the computed peak flow and modifies its duration and timing based on the basin's lag time.

3.3 HYDRAULIC COMPUTATIONS

Hydraulic calculations for the proposed storm drain system were completed using Bentley CulvertMaster, CONNECT Edition, Version 3.3. The analysis incorporated estimated best-fit upstream and downstream invert elevations, and culvert lengths, both based on topographic data, existing slopes, preliminary roadway grading, and aerial imagery. Entrance coefficients were selected based on commonly utilized inlet designs. Maximum allowable headwater depths were determined from the roadway grading plans, topographic data, and invert elevations. Tailwater elevations were estimated to be 3 feet at all culverts to maintain inlet control, as all culverts are expected to operate under inlet-controlled conditions in preliminary design. The computed 100-year design flow and computed headwater for each culvert was also included in the analysis. These parameters were used to determine appropriate culvert sizes.

4 HISTORIC DRAINAGE SYSTEM

The Project area is situated within an undeveloped parcel bounded by Vista Boulevard, the Red Hawk "Lakes" Golf Course, and adjacent developed properties. The Project area is characterized by low-slope terrain and receives substantial off-site inflows from surrounding areas.

The Project area contains a defined drainageway that receives flow from the Golden Eagle Regional Park (GERP) Channel, located southeast of the site. This drainageway is mapped as a FEMA Zone AE with established 100-year water surface elevations. Under current conditions,

some detention is provided via ponds for the GERP Channel, prior to flow exiting the Foothills area through an engineered channel.

Reach 6 and Reach 7 convey inflows into the Project area. Wingfield Springs receives inflows from the Foothills area, where all contributing flows ultimately converge at a pond located near Silverton Way before being released to Reach 9 through an outlet weir, as shown in the accompanying photographs. The existing weir is observed to be in good condition. Reach 9 functions as the primary downstream conveyance for the Project area and ultimately conveys flows to the Truckee River via the North Truckee Drain. Inflow locations are shown on the Storm Drain Exhibit provided in **Appendix A**.

According to the National Wetlands Inventory, the Project area contains mapped wetlands. There have been previous Army Corps of Engineers wetland determinations and at least one permit involving modification of the existing pond system at Wingfield Springs (permit 199400795).

Overall, existing drainage conditions are influenced by significant off-site contributions, low channel slopes, and interconnected conveyance paths that direct runoff toward Reach 9 and the downstream regional drainage system. Full hydrographs generated using the HEC-1 model were applied as inflow boundary conditions in HEC-RAS, with the peak flows below extracted from those hydrographs.

Table 1: Existing Peak Flows at Inflow Locations		
Inflow	100-Year Peak Flow (cfs)	Time to Peak
Reach 6	859	13:25
Reach 7	610	12:30

4.1 EXISTING CULVERTS AND DRAINAGE INFRASTRUCTURE

A field visit was performed on 12/18/2025 to identify and measure existing culverts and weirs that affect the Project site. The photographs below were taken on that date:



Vista Culverts, 3 cell 12'x4'



30" dia Pipe Culvert near Cetus Drive



12'x4' RCB culvert near Cetus Drive



30" dia Pipe Culvert near Cetus Drive



3 cell 9'x3' RCB culverts under Silverton Way



2 cell 20' diameter Arch Culverts, North Truckee Drain under Wingfield Springs Road/Silverton Way



12'x4' Box Culvert under Wingfield Springs Rd near Poco Bueno Dr



Wingfield Springs pond weir near Silverton Way



RCB culvert near Little Easy Street and Decoy Dr.



8'x4' RCB Culvert under General Thatcher Dr.



2 cell 20' dia Arch Culverts under Wingfield Springs Rd near Cinnamon Dr.

5 PROPOSED DRAINAGE SYSTEM

Village I is located within the Foothills project area. Within Village I, land cover was updated from existing to proposed conditions to reflect planned development. As a result of increased impervious surface area, peak runoff rates increase under proposed conditions. To mitigate these increases in runoff, detention facilities are proposed within the Project area. Detention

calculations are provided in **Appendix C**. Detention volumes were estimated using the Truckee Meadows Regional Drainage Manual (TMRDM) triangulation method based on differences between existing and proposed peak discharges. Table 2 summarizes the existing and proposed peak runoff flows for the developed areas at their discharge points.

Table 2: Existing and Proposed 100-Year Peak Flows at Village I					
Existing, 100 Year			Proposed, 100 Year		
Village Name	Area (ac)	Peak Flow	Village Name	Area (ac)	Peak Flow
Village I	46.5	25.9	Village I	46.5	73.8

5.1 PROPOSED CULVERTS

A total of two culvert locations were identified, Culverts C and I. The culvert system consists of reinforced concrete box (RCB) and reinforced concrete pipe (RCP) structures. Each culvert was analyzed and sized using an iterative process in Bentley CulvertMaster, Version 3.3, to ensure adequate capacity and hydraulic performance under the specific conditions at each crossing. Outlet protection is recommended at all culvert discharge points to mitigate potential erosion, as elevated velocities are anticipated during major storm events. In accordance with the *Truckee Meadows Regional Drainage Manual (TMRDM)*, culverts with outlet velocities equal to or exceeding 15 feet per second during the 100-year storm event will require enhanced energy dissipation measures, while outlets with velocities below 15 feet per second may be protected using a standard riprap apron. The hydraulic design was developed on a preliminary level to minimize the potential for overloading at any culvert. A culvert layout map is provided in **Appendix A**, along with detailed culvert calculation reports supporting the design within **Appendix C**, and Table 3 below summarizing the selected preliminary design for each culvert location.

Table 3: Preliminary Culvert Sizing at Foothills Project Area					
Culvert Name	Peak Flow (cfs)	Source of Peak Flow	No. Barrels	Shape	Preliminary Size
Culvert C	117	HEC-RAS Profile Line 'C'	1	Reinforced Concrete Pipe	48"
Culvert I	855	HEC-RAS Profile Line 'I'	1	Reinforced Concrete Box	12' x 8'

5.2 DETENTION REQUIREMENTS

Detention requirements for the Project were evaluated using a HEC-HMS hydrologic model comparing existing and proposed conditions for the 100-year storm event. While the detention basins remain the same physical size under proposed conditions, modifications to site grading altered basin flow paths and Curve Numbers, resulting in changes to basin lag times and infiltration rates, which increased under proposed conditions. Detention volumes were therefore calculated to limit post-development peak discharges to existing (allowable) flow rates using the Triangular Method in accordance with the Truckee Meadows Regional Drainage Manual (TMRDM). Based on this analysis, approximately 98,900 cubic feet (3,663 cubic yards) of detention volume is required across the Project to offset increased peak flows during the 100-

year storm event. This volume represents the minimum detention required for the proposed Project, assuming that no existing detention ponds or channels are disturbed. If any existing detention features are impacted, an equivalent volume of detention will need to be provided elsewhere on-site to ensure that post-development conditions do not result in increased downstream impacts compared to existing conditions.

For the Project area, a proposed detention concept was selected for preliminary evaluation, and exhibits illustrating flood extents under existing and proposed conditions are provided in **Appendix A**. The proposed detention concept includes detention for the peak flow increases and additional volume for the replaced pond system on-site. The combined storage volume of the existing ponds was calculated to be approximately 3.75 million cubic feet using digital elevation models (DEMs) and established FEMA water surface elevations. Under proposed conditions, more than 4.0 million cubic feet of detention storage is provided along the northeast side of the Foothills development in a proposed drainage channel and within three new downstream detention ponds, in the Wingfield Springs area, offsetting the loss of existing detention and providing additional storage capacity.

This alternative includes an engineered channel that provides both conveyance and detention and incorporates three detention ponds in-line with the channel. The proposed configuration of the drainage channel and Ponds 1, 2, and 3 can be seen in **Appendix A**. The proposed detention design incorporates notched weirs to manage flow timing and attenuation, allowing the majority of runoff to pass through the system prior to the arrival of peak flows while temporarily storing peak discharges to reduce downstream impacts. This approach enables controlled flow through successive basins and weirs while flattening the critical portion of the hydrograph.

Preliminary modeling indicates that this alternative can be implemented without increasing downstream impacts and while maintaining the minimum required freeboard under both alternatives. This alternative represents a preliminary design concept and would require additional hydraulic analysis to confirm available freeboard, assess potential impacts to adjacent infrastructure and properties, and verify compliance with applicable FEMA, local, and state regulatory requirements. Under the current preliminary plan, detention lost within the Foothills area would be offset through drainage improvements located outside of the Foothills area. Further refinement of the weir configuration and operational characteristics would be required during final design to balance detention performance with long-term maintenance and operational considerations. The final detention configuration would require approval from both FEMA and the Army Corps of Engineers prior to construction.

5.3 PROPOSED DRAINAGE CHANNELS

The proposed design includes a trapezoidal drainage channel originating at the Foothills development. The channel is designed with 4:1 side slopes, a 120-foot top width, a 40-foot bottom width, and a total depth of 10 feet. Downstream, at the Wingfield Springs Development, the channel transitions to a trapezoidal section with 2:1 side slopes, an 80-foot top width, and a depth of 10 feet. The channel alignment passes adjacent to three proposed detention ponds,

each providing additional storage and attenuation. At this time, the channel with a 4:1 side slope is anticipated to remain unarmored, relying primarily on vegetation for stabilization, however we cannot rule out an armored channel section in the development. The figure below shows potential channel sections to pass off-site flows through the Foothills/Wingfield Springs developments:

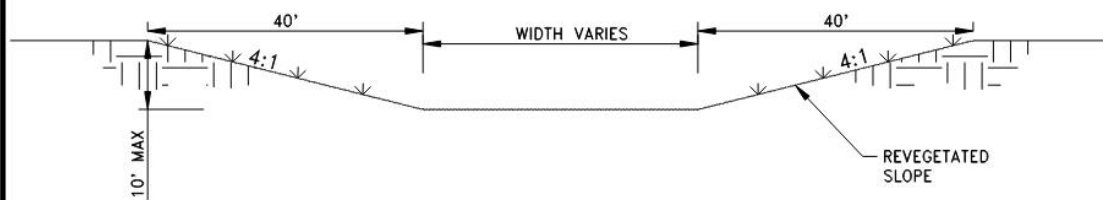
PRELIMINARY CHANNEL SECTION ALTERNATIVES

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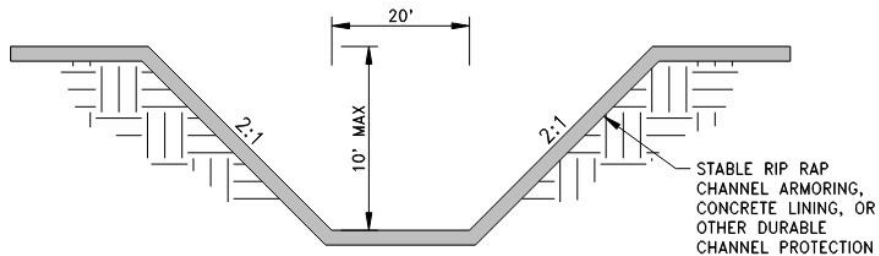
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4:1 SIDE SLOPE REVEGETATED CHANNEL

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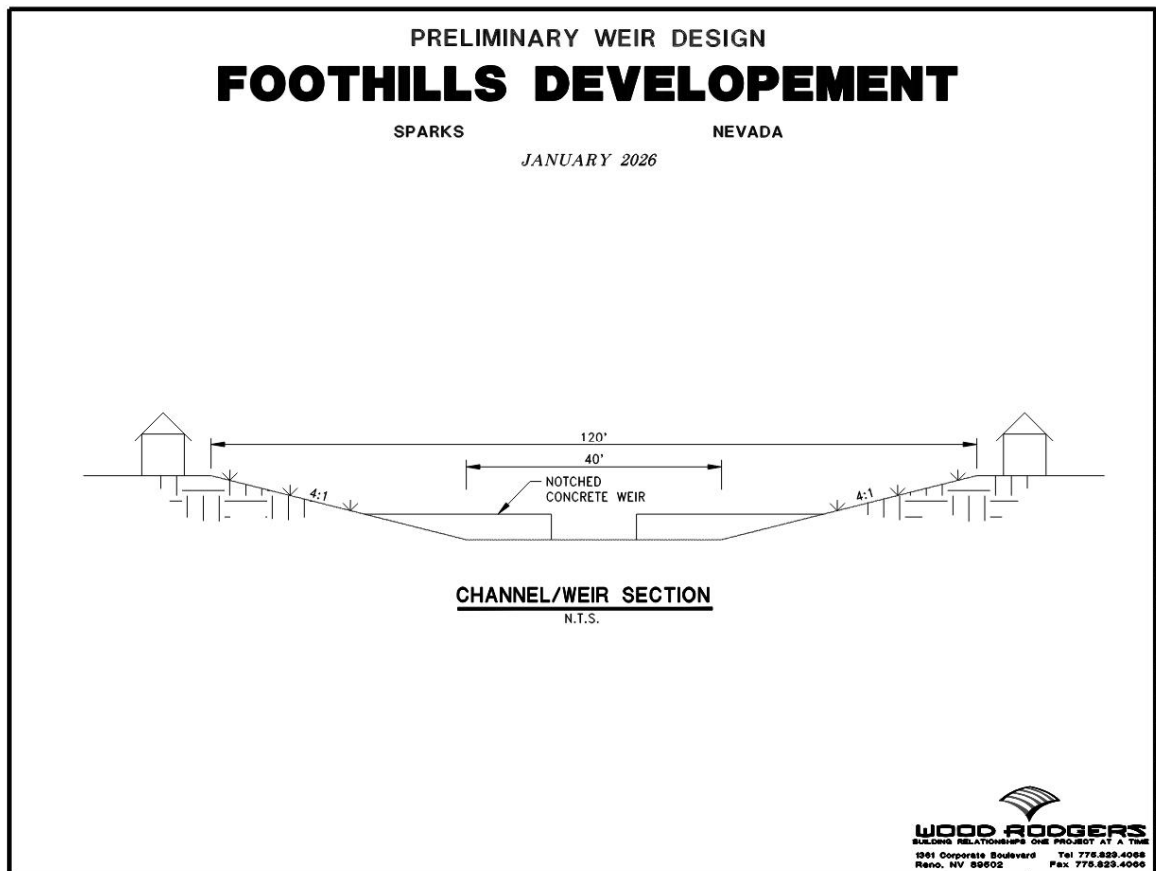
2:1 SIDE SLOPE ARMORED CHANNEL

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In the proposed conditions of the Foothills development, six outlet weirs are incorporated along the channel to promote detention and reduce peak flows. The weirs will be constructed of concrete and include notches to convey low flows prior to peak discharge. The proposed channel ultimately transitions into the existing channel within the Wingfield Springs development, conveying flows while compensating for the detention capacity lost due to the filling of the proposed Foothills ponds. The figure below shows a possible configuration for the channel/weir system in the Foothills development:



The size, depth, and notch configuration of the weir will be determined in final design of the Foothills development as grading is finalized.

5.4 WATER QUALITY CONTROLS

The proposed Project has been designed with consideration for both construction-phase and long-term water-quality protection. The project will comply with applicable Washoe County, NDEP, and Truckee Meadows Regional Drainage Manual (TMRDM) requirements to minimize sedimentation, erosion, and pollutant transport to downstream waterways. Temporary best management practices (BMPs) such as wind, erosion, and sediment controls will be implemented during construction to limit off-site impacts, with permanent measures incorporated in later phases once final grading and drainage alignments are established.

At this stage, no significant water-quality concerns or environmentally sensitive areas have been identified within the project limits. Although, it should be noted that the majority of the project ultimately drains to the Truckee River, which should be carefully considered in future design phases to ensure protection of downstream water quality. The final design will incorporate appropriate storm water treatment measures, such as stabilized outfalls, armored channels, and other best management practices, to maintain natural drainage functions and protect receiving waters. Additional water quality controls will also be implemented during construction in accordance with the site Erosion Control Plan.

6 SPECIAL FLOOD HAZARDS

The Project is located within FEMA FIRM Panel 32031C3056G. FEMA Panel 32031C3056G identifies Special Flood Hazard Areas (SFHAs) designated as Zone A, Zone AE, and Zone AH. The mapped Zone AE represents the 1-percent annual chance (100-year) floodplain with established Base Flood Elevations (BFEs) associated with the on-site drainage feature known as the Golden Eagle Regional Park (GERP) Channel, which traverses the project site. This panel also depicts Zone A areas, which are portions of the SFHA identified using approximate methods where no BFE is provided, indicating known flood risk but without detailed water-surface elevations. In addition, the panel contains Zone AH areas, defined as locations subject to shallow ponding, with a published BFE and very low flow velocities.

6.1 IMPACTS OF PROPOSED DEVELOPMENT ON FLOOD HAZARD AREA

Portions of the proposed development are located within mapped FEMA Special Flood Hazard Areas (SFHAs), and early site planning indicates that some existing floodplain areas may be affected by the proposed improvements. These changes may involve grading within the floodplain, shifting areas that currently provide flood storage, and developing areas identified as SFHAs on the effective FEMA Flood Insurance Rate Maps. Depending on how the final design progresses, coordination with the local floodplain administrator and FEMA may be needed, and future floodplain mapping actions, such as a Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR), may be required.

6.2 FLOODPROOFING MEASURES

Storm drainage culverts have been designed to convey the 100-year flow conditions without overland release of runoff.

6.3 FEMA AND LOCAL CODE COMPLIANCE

Any future development of the Foothills at Wingfield Springs project will be compliant with all federal and local code requirements.

7 CONCLUSION

The Foothills at Wingfield Springs has been designed at a preliminary level to perpetuate off-site generated flows that drain through the project. Preliminary analysis indicates that proposed detention strategies can be implemented to mitigate increased runoff while maintaining downstream hydraulic performance consistent with existing conditions. This analysis is based on available topographic data and legacy modeling information; results may change as final grading, survey, and infrastructure layouts are refined. Storm water quality measures will be installed during construction to reduce probability of sediment being carried off-site by storm runoff. No negative hydrologic or hydraulic impacts are anticipated from the development of the Foothills at Wingfield Springs.

8 REFERENCES

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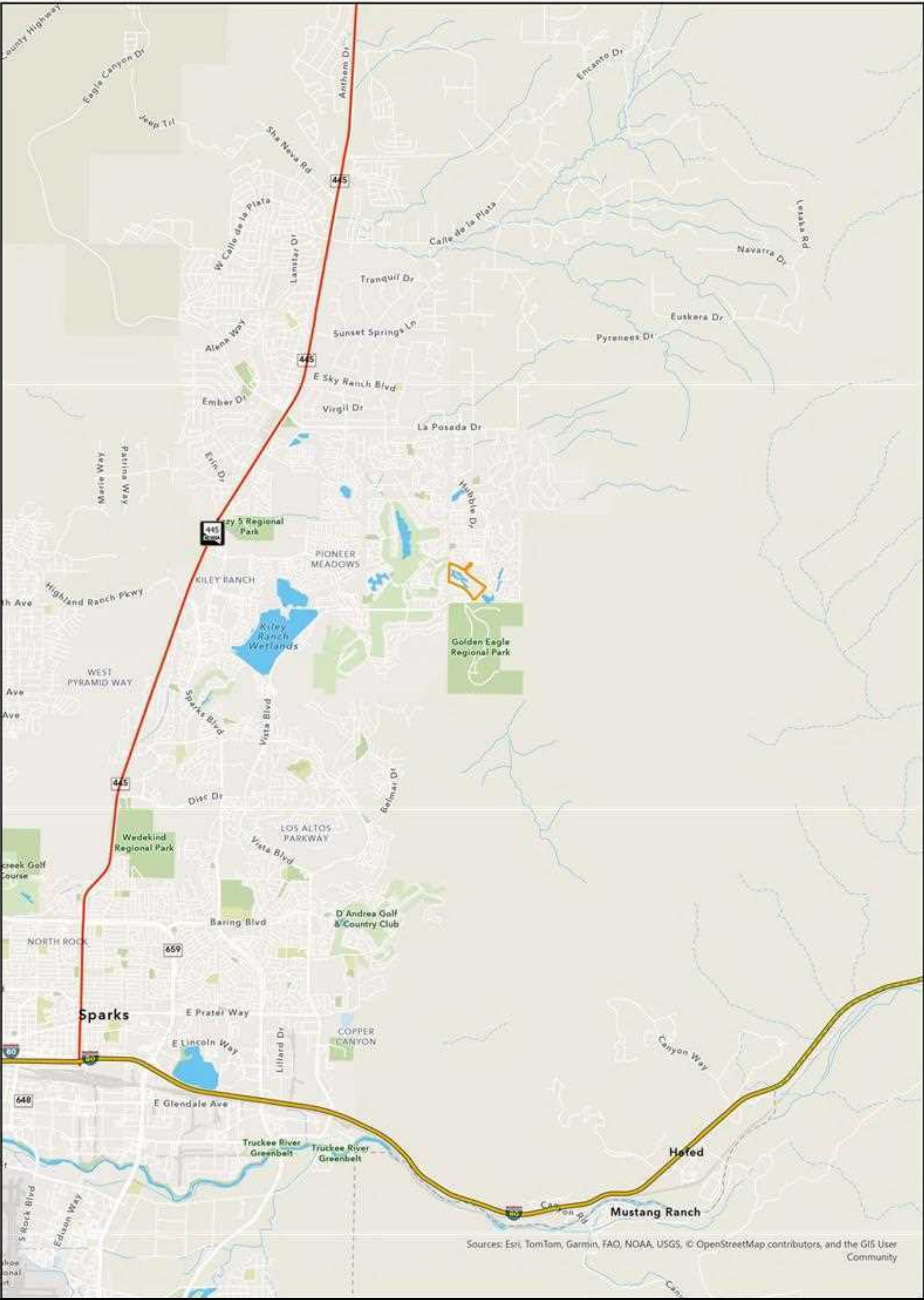
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APPENDIX A

VICINITY MAP AND EXHIBITS



ICINIT MAP

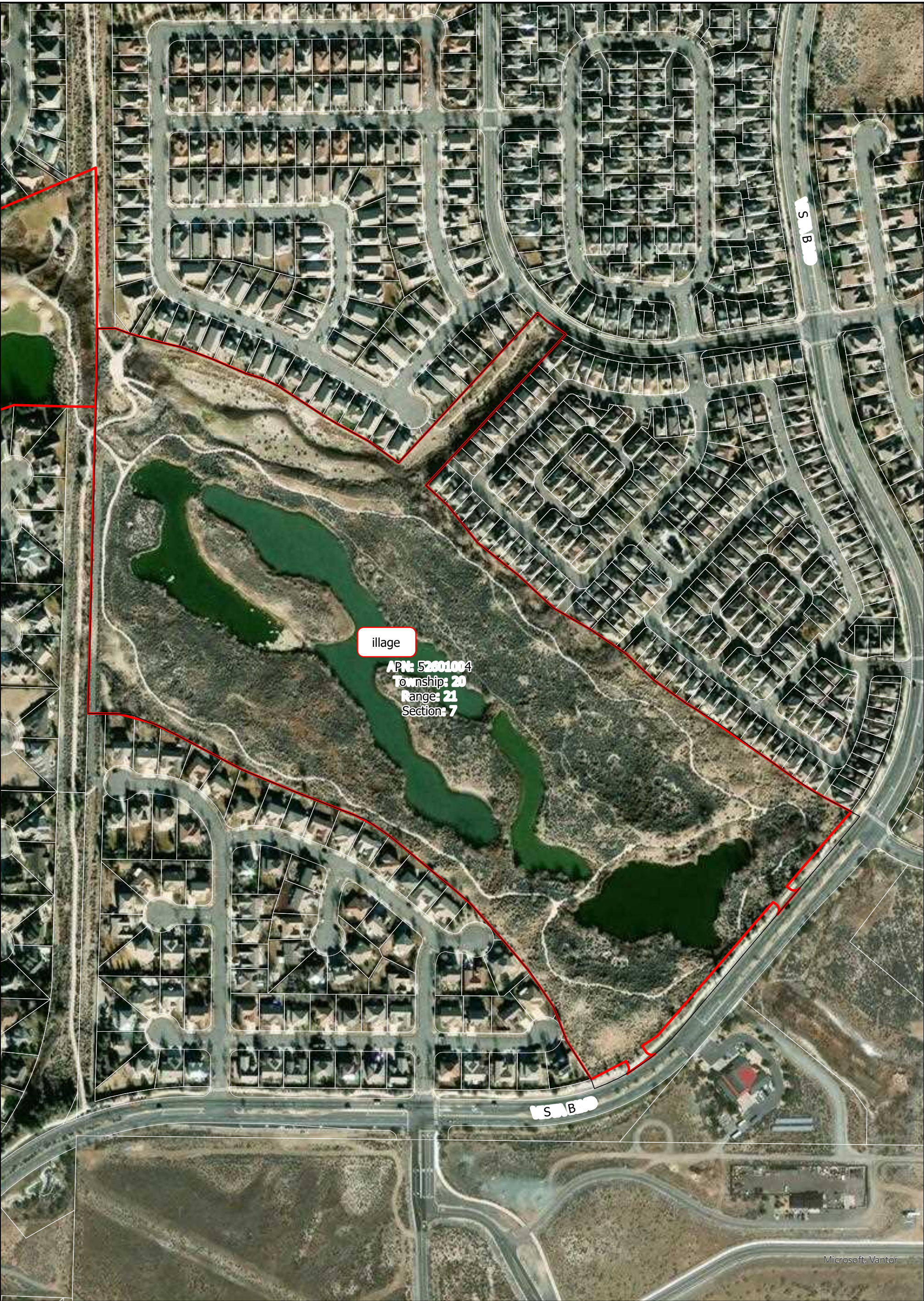
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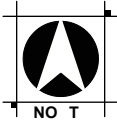
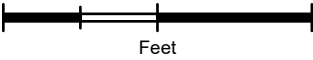


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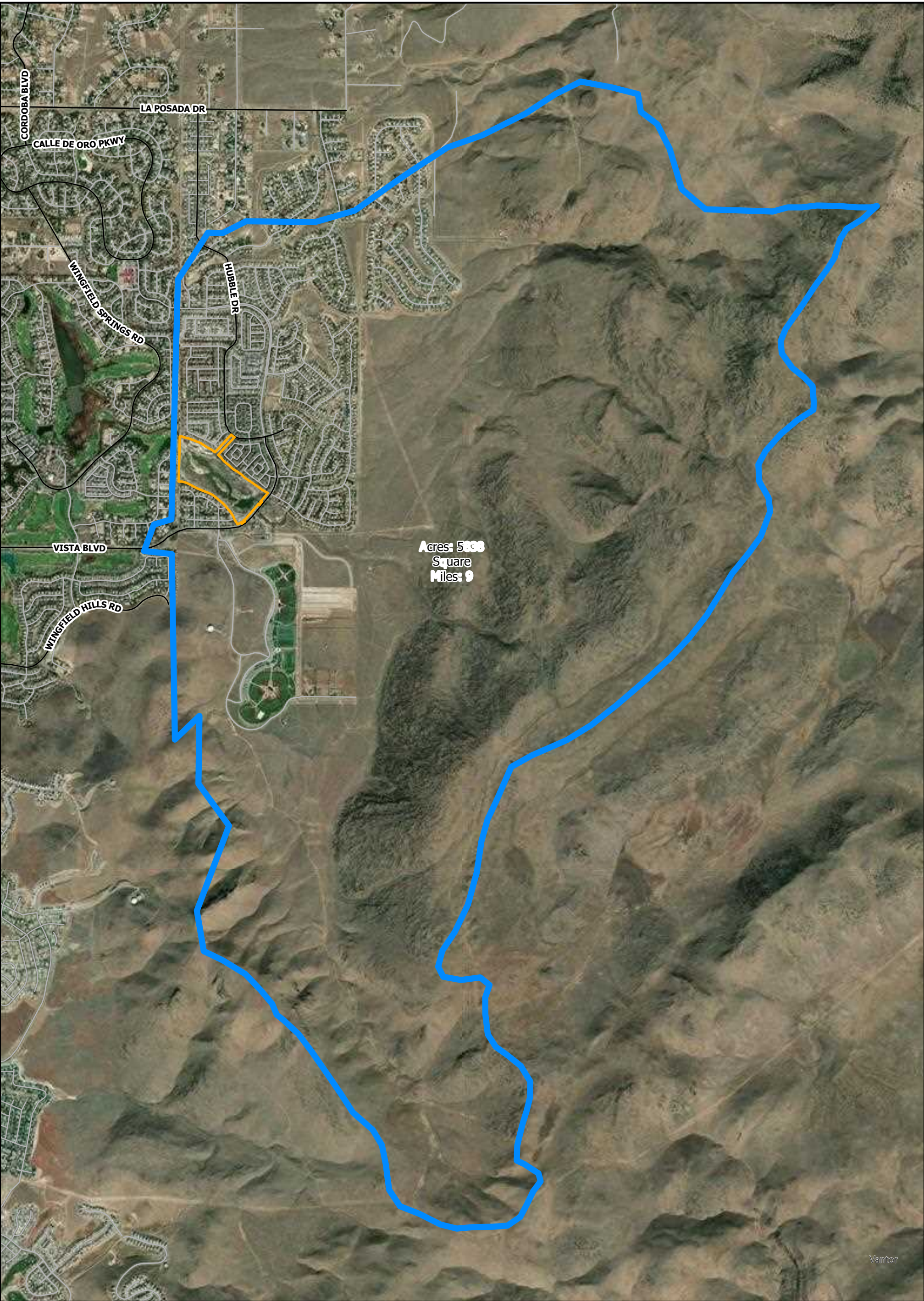
This figure is an aerial photograph overlaid with a map showing wetlands delineations for the San Antonio area. The wetlands are represented by colored polygons: blue for PUBHx, green for PSS1Ax, yellow for R4SBAx, light green for PEM1C, dark green for PUSAx, orange for PUBFx, pink for PSS1A, purple for PUBH, red for PUSA, brown for PSS1A/FO1A, and grey for PEM1Cx. The map includes labels for various wetland types and local landmarks such as Jacinto Park, Van Gorder School, Pelican Park, Red Hawk Golf Club, and Fire 5. A scale bar at the bottom left indicates a scale of 1:20,059, with distances up to 0.6 miles and 1.1 kilometers. The U.S. Fish and Wildlife Service logo and contact information are at the bottom right.

 Estuarine and Marine Deepwater
 Estuarine and Marine Wetland

 Freshwater Emergent Wetland
 Freshwater Forested/Shrub Wetland
 Freshwater Pond

 Lake
 Other
 Riverine

U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov



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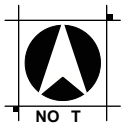
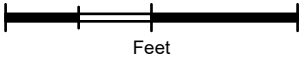
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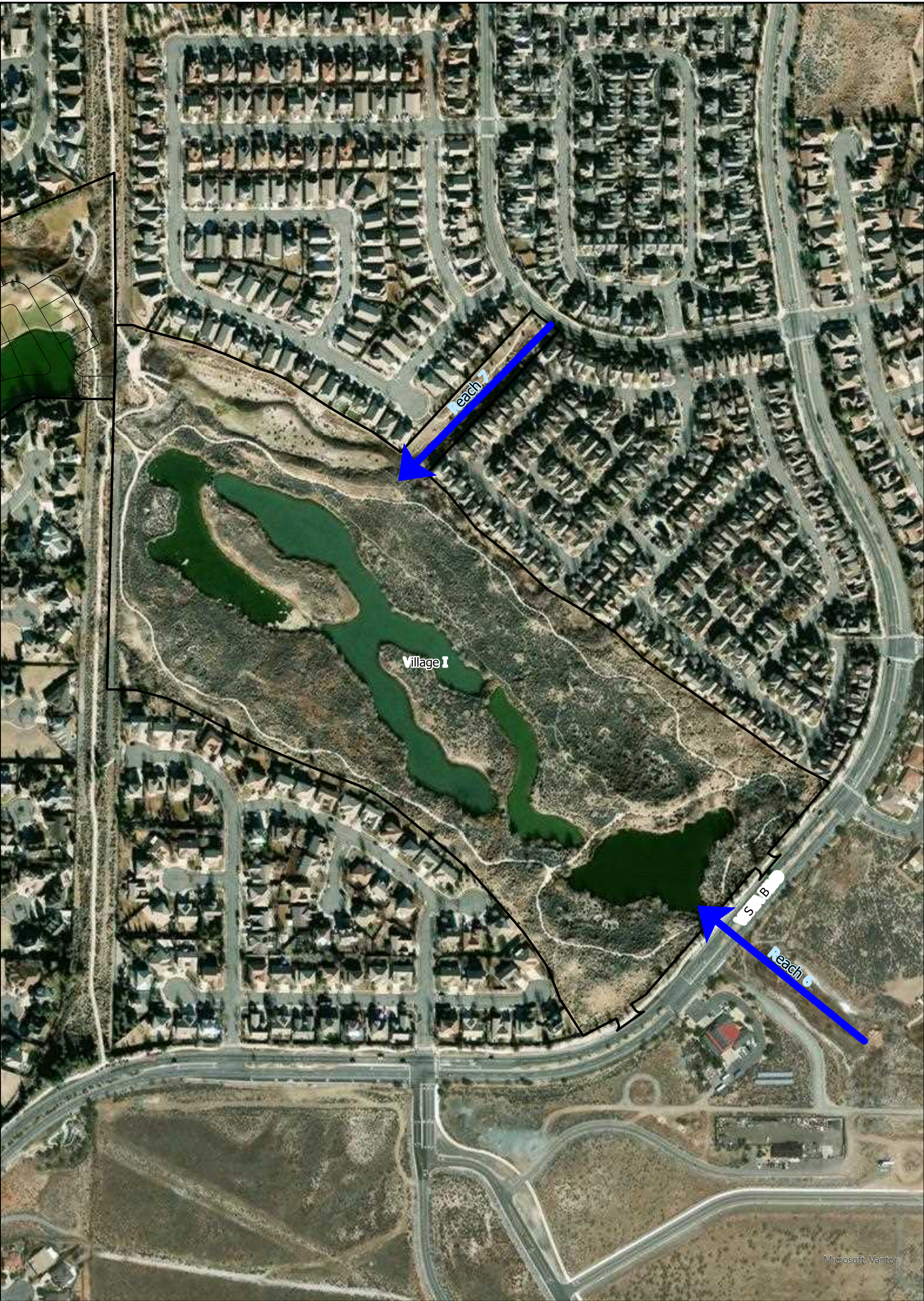


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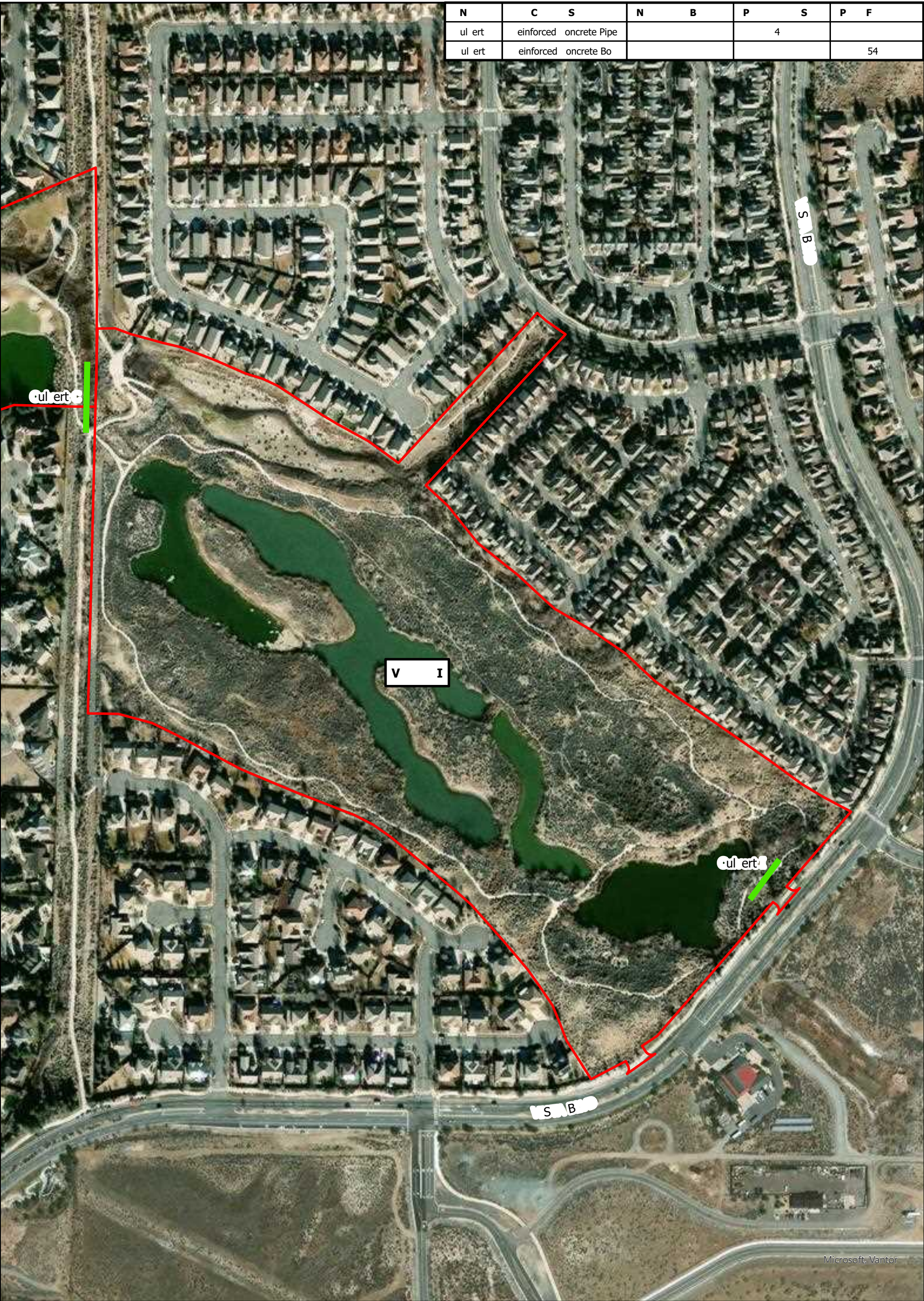
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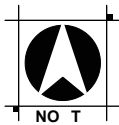
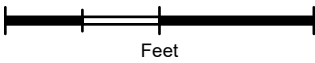


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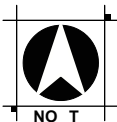
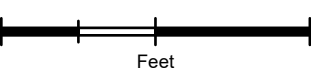
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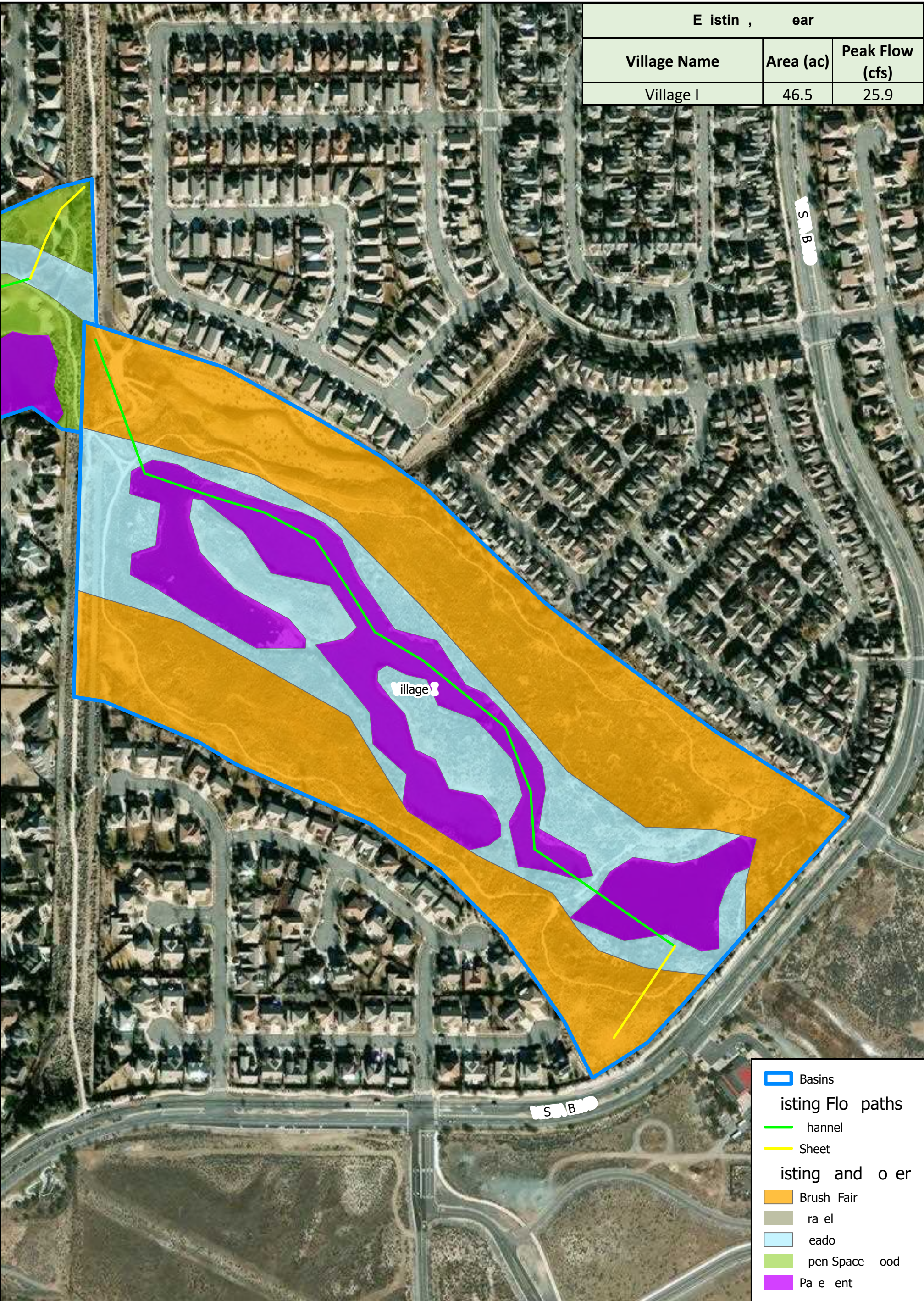




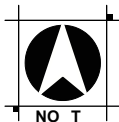
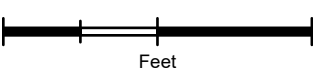
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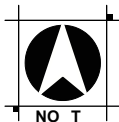
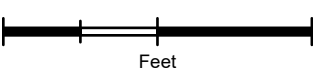


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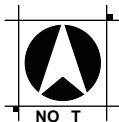
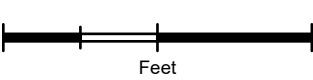




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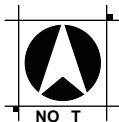
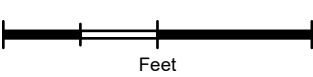
isting Flood tent





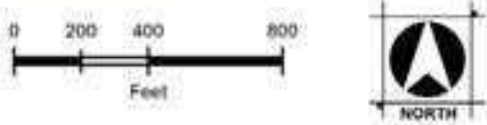
-  Village Basins
-  Proposed Flood tent

PROPOSED FLOOD TENT EC AS MODE
F HLLS GF EL SPR GS
SP R S
U R





PROPOSED ADDITIONAL DETENTION STORAGE
FOOTHILLS AT WINGFIELD SPRINGS
SPARKS, NV
JANUARY 2026





APPENDIX B

SOURCED TABLES



NOAA Atlas 14, Volume 1, Version 5
Location name: Sparks, Nevada, USA*
Latitude: 39.6163°, Longitude: -119.6849°
Elevation: 4485 ft**

* source: ESRI Maps

** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps_&_aerials](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.098 (0.082-0.113)	0.122 (0.102-0.143)	0.164 (0.138-0.193)	0.204 (0.170-0.242)	0.270 (0.221-0.325)	0.333 (0.264-0.405)	0.407 (0.314-0.504)	0.497 (0.369-0.630)	0.645 (0.452-0.846)	0.782 (0.524-1.05)
10-min	0.149 (0.124-0.172)	0.185 (0.155-0.217)	0.249 (0.210-0.294)	0.310 (0.259-0.368)	0.411 (0.337-0.495)	0.506 (0.403-0.617)	0.619 (0.478-0.767)	0.757 (0.562-0.958)	0.982 (0.688-1.29)	1.19 (0.798-1.60)
15-min	0.184 (0.154-0.213)	0.230 (0.193-0.269)	0.309 (0.260-0.365)	0.384 (0.322-0.456)	0.510 (0.418-0.614)	0.627 (0.499-0.765)	0.767 (0.592-0.950)	0.938 (0.696-1.19)	1.22 (0.853-1.60)	1.48 (0.989-1.98)
30-min	0.248 (0.207-0.286)	0.310 (0.259-0.363)	0.416 (0.350-0.491)	0.517 (0.433-0.614)	0.686 (0.563-0.826)	0.844 (0.672-1.03)	1.03 (0.797-1.28)	1.26 (0.938-1.60)	1.64 (1.15-2.15)	1.99 (1.33-2.67)
60-min	0.307 (0.257-0.355)	0.383 (0.321-0.449)	0.515 (0.433-0.608)	0.640 (0.536-0.760)	0.849 (0.696-1.02)	1.04 (0.832-1.28)	1.28 (0.987-1.58)	1.56 (1.16-1.98)	2.03 (1.42-2.66)	2.46 (1.65-3.30)
2-hr	0.406 (0.356-0.472)	0.505 (0.445-0.588)	0.652 (0.567-0.759)	0.778 (0.668-0.905)	0.974 (0.814-1.14)	1.15 (0.939-1.36)	1.36 (1.08-1.63)	1.63 (1.25-1.99)	2.10 (1.55-2.69)	2.55 (1.82-3.33)
3-hr	0.486 (0.431-0.556)	0.606 (0.542-0.696)	0.762 (0.675-0.873)	0.889 (0.780-1.02)	1.07 (0.923-1.24)	1.23 (1.04-1.43)	1.42 (1.18-1.68)	1.69 (1.37-2.03)	2.15 (1.70-2.71)	2.59 (1.99-3.37)
6-hr	0.683 (0.609-0.773)	0.855 (0.761-0.972)	1.06 (0.941-1.21)	1.22 (1.08-1.39)	1.43 (1.24-1.64)	1.59 (1.36-1.83)	1.75 (1.48-2.04)	1.96 (1.63-2.31)	2.34 (1.90-2.80)	2.72 (2.18-3.40)
12-hr	0.901 (0.803-1.01)	1.13 (1.01-1.28)	1.43 (1.27-1.61)	1.66 (1.47-1.88)	1.97 (1.72-2.24)	2.21 (1.90-2.53)	2.45 (2.08-2.85)	2.70 (2.25-3.16)	3.02 (2.45-3.62)	3.31 (2.63-4.02)
24-hr	1.11 (0.998-1.25)	1.40 (1.26-1.58)	1.80 (1.61-2.02)	2.11 (1.88-2.37)	2.56 (2.26-2.88)	2.91 (2.56-3.29)	3.29 (2.86-3.74)	3.68 (3.16-4.21)	4.22 (3.56-4.88)	4.66 (3.86-5.43)
2-day	1.32 (1.18-1.50)	1.68 (1.49-1.90)	2.17 (1.92-2.46)	2.57 (2.26-2.91)	3.14 (2.73-3.57)	3.60 (3.11-4.11)	4.08 (3.48-4.70)	4.59 (3.87-5.33)	5.32 (4.39-6.26)	5.90 (4.78-7.04)
3-day	1.44 (1.28-1.64)	1.83 (1.63-2.08)	2.39 (2.12-2.71)	2.85 (2.51-3.23)	3.51 (3.06-3.99)	4.04 (3.49-4.61)	4.61 (3.93-5.30)	5.21 (4.39-6.04)	6.08 (5.00-7.14)	6.78 (5.48-8.07)
4-day	1.56 (1.39-1.78)	1.99 (1.77-2.26)	2.62 (2.32-2.97)	3.13 (2.76-3.56)	3.88 (3.39-4.41)	4.48 (3.87-5.12)	5.14 (4.38-5.90)	5.83 (4.91-6.75)	6.84 (5.62-8.03)	7.66 (6.19-9.10)
7-day	1.84 (1.61-2.11)	2.35 (2.06-2.70)	3.11 (2.72-3.58)	3.73 (3.25-4.30)	4.62 (3.99-5.34)	5.35 (4.57-6.20)	6.13 (5.18-7.15)	6.96 (5.81-8.18)	8.15 (6.66-9.71)	9.13 (7.34-11.0)
10-day	2.06 (1.81-2.37)	2.65 (2.32-3.04)	3.52 (3.07-4.05)	4.21 (3.66-4.85)	5.19 (4.47-5.99)	5.97 (5.10-6.91)	6.80 (5.75-7.91)	7.67 (6.41-9.00)	8.89 (7.29-10.6)	9.87 (7.97-11.8)
20-day	2.53 (2.23-2.90)	3.25 (2.86-3.72)	4.29 (3.77-4.91)	5.10 (4.46-5.84)	6.20 (5.38-7.11)	7.05 (6.08-8.11)	7.94 (6.78-9.19)	8.86 (7.49-10.3)	10.1 (8.42-12.0)	11.1 (9.13-13.3)
30-day	2.93 (2.58-3.37)	3.77 (3.32-4.32)	4.97 (4.36-5.71)	5.90 (5.15-6.76)	7.15 (6.21-8.21)	8.12 (7.00-9.36)	9.13 (7.80-10.6)	10.2 (8.60-11.8)	11.6 (9.66-13.6)	12.7 (10.5-15.1)
45-day	3.50 (3.08-3.96)	4.50 (3.96-5.09)	5.92 (5.19-6.69)	6.99 (6.11-7.90)	8.41 (7.32-9.53)	9.49 (8.22-10.8)	10.6 (9.10-12.1)	11.7 (9.96-13.5)	13.2 (11.1-15.4)	14.4 (12.0-16.9)
60-day	4.01 (3.52-4.54)	5.18 (4.55-5.86)	6.81 (5.96-7.71)	7.98 (6.97-9.02)	9.48 (8.24-10.7)	10.6 (9.15-12.0)	11.7 (10.0-13.3)	12.7 (10.8-14.6)	14.1 (11.9-16.3)	15.2 (12.7-17.6)

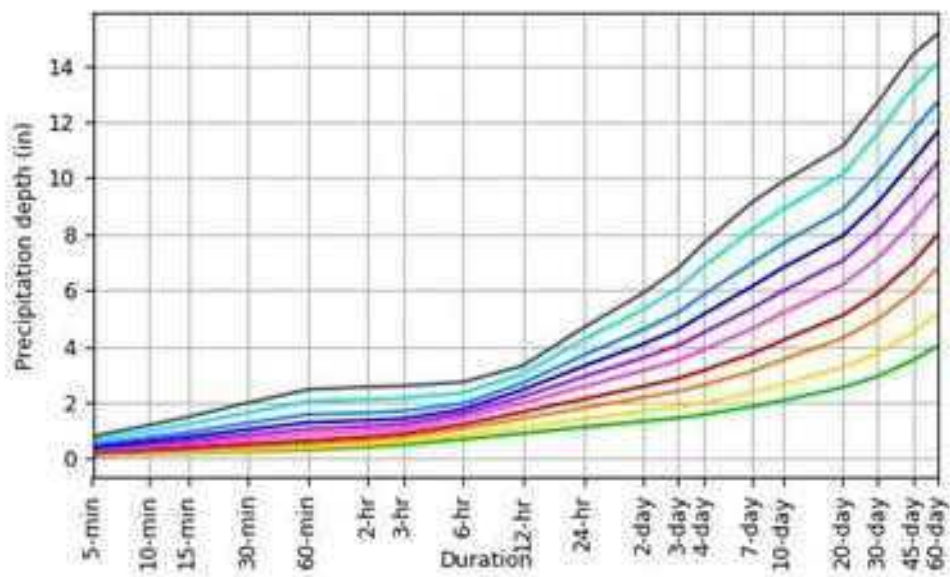
¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.
Please refer to NOAA Atlas 14 document for more information.

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PF graphical

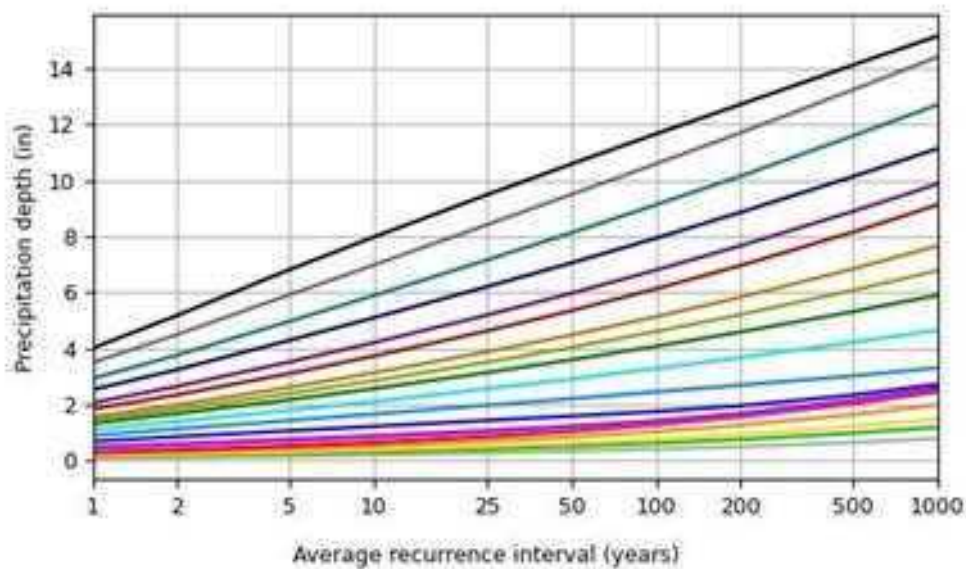
PDS-based depth-duration-frequency (DDF) curves

Latitude: 39.6163°, Longitude: -119.6849°



Average recurrence interval (years)

1
2
5
10
25
50
100
200
500
1000



Duration

5-min 2-day
10-min 3-day
15-min 4-day
30-min 7-day
60-min 10-day
2-hr 20-day
3-hr 30-day
6-hr 45-day
12-hr 60-day
24-hr

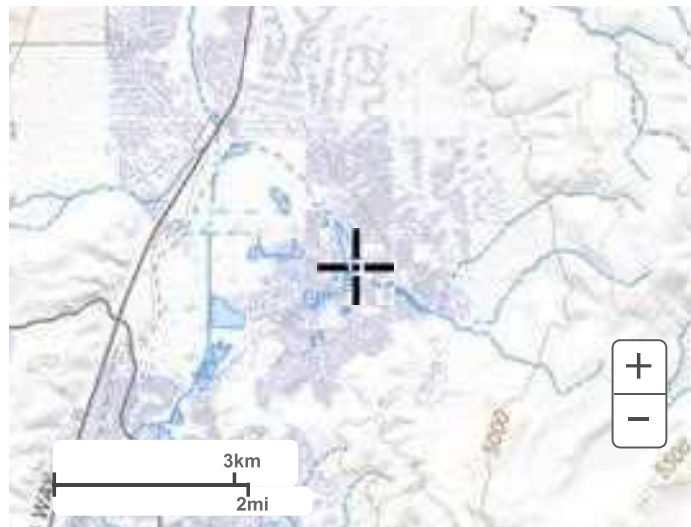
NDAA Atlas 14, Volume 1, Version 5

Created (GMT): Fri Jan 9 22:45:56 2026

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Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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RUNOFF CURVE NUMBERS FOR URBAN AREAS¹

Runoff Curve Numbers

Cover Type and Hydrologic Condition	Aver. % Impervious Area ²	Soil Comp A	Soil Comp B	Soil Comp C	Soil Comp D
<i>Fully developed urban area (vegetation established)</i>					
Open space (lawns, parks, golf courses, cemeteries, etc.) ³					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50 to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) ⁴		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
<i>Developing urban areas</i>					
Newly graded areas (pervious only, no vegetation) ⁵		77	86	91	94
Idle lands (CNs are determined using cover types similar to those Table 702 - 3 of 4)					

¹ Average runoff condition, and $I_a = 0.2S$

² The average percent impervious area shown was used to develop the composite CNs. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CNs for other combinations of conditions may be computed using figure 2-3 or 2-4 in TR-55 (SCS, 1986).

³ CNs shown are equivalent to those of pasture. Composite CNs may be computed for other combinations of open space cover type.

⁴ Composite CNs for natural desert landscaping should be computed using figure 2-3 or 2-4 in TR-55 (SCS, 1986) based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CNs are assumed equivalent to desert shrub in poor hydrologic condition.

⁵ Composite CNs to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 in TR-55 (SCS, 1986) based on the degree of development (impervious area percentage) and the CNs for the newly graded pervious areas.

VERSION: April 30, 2009

REFERENCE:

210-VI-TR-55, Second Edition, June 1986

TABLE

702

1 of 4

WRC ENGINEERING INC

RUNOFF CURVE NUMBERS FOR CULTIVATED AGRICULTURAL LANDS¹

Runoff Curve Numbers

Cover type	Treatment ²	Hydrologic condition ³	Soil Comp A	Soil Comp B	Soil Comp C	Soil Comp D
Fallow	Bare soil Crop residue cover (CR)	-	77	86	91	94
		Poor	76	85	90	93
		Good	74	83	88	90
Row crops	Straight row (SR)	Poor	72	81	88	91
		Good	67	78	85	89
	SR + CR	Poor	71	80	87	90
		Good	64	75	82	85
	Contoured (C)	Poor	70	79	84	88
		Good	65	75	82	86
	C + CR	Poor	69	78	83	87
		Good	64	74	81	85
	Contoured & terraced (C&T)	Poor	66	74	80	82
		Good	62	71	78	81
	C&T + CR	Poor	65	73	79	81
		Good	61	70	77	80
Small grain	SR	Poor	65	76	84	88
		Good	63	75	83	87
	SR + CR	Poor	64	75	83	86
		Good	60	72	80	84
	C	Poor	63	74	82	85
		Good	61	73	81	84
	C + CR	Poor	62	73	81	84
		Good	60	72	80	83
	C&T	Poor	61	72	79	82
		Good	59	70	78	81
	C&T + CR	Poor	60	71	78	81
		Good	58	69	77	80
Close-seeded or broadcast legumes or rotation meadow	SR	Poor	66	77	85	89
		Good	58	72	81	85
	C	Poor	64	75	83	85
		Good	55	69	78	83
	C&T	Poor	63	73	80	83
		Good	51	67	76	80

¹Average runoff condition, and $I_a = 0.2S$

²*Crop residue cover* applies only if residue is on at least 5% of the surface throughout the year.

³Hydrologic condition is based on combination of factors that affect infiltration and runoff, including: (a) density and canopy of vegetative areas, (b) amount of year-round cover, (c) amount of grass or close-seeded legumes in rotations, (d) percent of residue cover on the land surface (good $\geq 20\%$), and (e) degree of surface roughness.

Poor: Factors impair infiltration and tend to increase runoff.

Good: Factors encourage average and better than average infiltration and tend to decrease runoff.

VERSION: April 30, 2009

WFC ENGINEERING INC

REFERENCE:

210-VI-TR-55, Second Edition, June 1986

TABLE

702

2 of 4

RUNOFF CURVE NUMBERS FOR OTHER AGRICULTURAL LANDS¹

Runoff Curve Numbers

Cover Type	Hydrologic Condition	Soil Comp A	Soil Comp B	Soil Comp C	Soil Comp D
Pasture, grassland, or range – continuous forage for grazing ²	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadow – continuous grass, protected from grazing and generally mowed for hay	-	30	58	71	78
Brush – brush-weed-grass mixture with brush the major element ³	Poor	48	67	77	83
	Fair	35	56	70	77
	Good	30 ⁴	48	65	73
Woods – grass combination (orchard or tree farm) ⁵	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods ⁶	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30 ⁴	55	70	77
Farmsteads – buildings, lanes, driveways, and surrounding lots	-	59	74	82	86

¹Average runoff condition, and $I_a = 0.2S$

²*Poor*: < 50% ground cover or heavily grazed with no mulch

Fair: 50 to 75% ground cover and not heavily grazed

Good: > 75% ground cover and lightly or only occasionally grazed

³*Poor*: < 50% ground cover

Fair: 50 to 75% ground cover

Good: >75% ground cover

⁴Actual curve number is less than 30; use CN = 30 for runoff computations.

⁵CNs shown were computed for areas with 50% woods and 50% grass (pasture) cover. Other combinations of conditions may be computed from the CNs for woods and pasture.

⁶*Poor*: Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.

Fair: Woods are grazed but not burned, and some forest litter covers the soil.

Good: Woods are protected from grazing, and litter and brush adequately cover the soil.

VERSION: April 30, 2009

WFC ENGINEERING INC

REFERENCE:

210-VI-TR-55, Second Edition, June 1986

TABLE

702

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RUNOFF CURVE NUMBERS FOR ARID AND SEMIARID RANGELANDS¹

Runoff Curve Numbers

Cover Description	Hydrologic Condition ²	Soil Comp A ³	Soil Comp B	Soil Comp C	Soil Comp D
Herbaceous – mixture of grass, weeds, and low-growing brush, with brush the minor element.	Poor		80	87	93
	Fair		71	81	89
	Good		62	74	85
Oak-aspen – mountain brush mixture of oak brush, aspen, mountain mahogany, bitter brush, maple, and other brush	Poor		66	74	79
	Fair		48	57	63
	Good		30	41	48
Pinyon-juniper – pinyon, juniper, or both; grass understory	Poor		75	85	89
	Fair		58	73	80
	Good		41	61	71
Sagebrush with grass understory	Poor		67	80	85
	Fair		51	63	70
	Good		35	47	55
Desert shrub – major plants include saltbrush, greasewood, creosotebush, blackbrush, bursage, palo verde, mesquite, and cactus	Poor	63	77	85	88
	Fair	55	72	81	86
	Good	49	68	79	84

¹ Average runoff condition, and $I_a = 0.2S$. For range in humid regions, use Table 702 - 3 of 4.

² *Poor*: < 30% ground cover (litter, grass, and brush overstory)

Fair: 30 to 70% ground cover

Good: > 70% ground cover

³ Curve numbers for group A have been developed only for desert shrub.

VERSION: April 30, 2009

WRC ENGINEERING INC

REFERENCE:

210-VI-TR-55, Second Edition, June 1986

TABLE

702

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NLCD Land Cover Types - Obtained from HEC-RAS 2D User's Manual

NLCD Value	n Value Range	Description
11	0.025 - 0.05	Open Water - areas of open water, generally with less than 25% cover of vegetation or soil. This is for natural streams on mild to moderate slopes.
12	n/a	Perennial Ice/Snow - areas characterized by a perennial cover of ice and/or snow, generally greater than 25% of total cover.
21	0.03 - 0.05	Developed, Open Space - areas with a mixture of some constructed materials, but mostly vegetation in the form of lawn grasses. Impervious surfaces account for less than 20% of total cover. These areas most commonly include large-lot single-family housing units, parks, golf courses, and vegetation planted in developed settings for recreation, erosion control, or aesthetic purposes.
22	0.06 - 0.12	Developed, Low Intensity - areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 20% to 49% percent of total cover. These areas most commonly include single-family housing units.
23	0.08 - 0.16	Developed, Medium Intensity -areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 50% to 79% of the total cover. These areas most commonly include single-family housing units.
24	0.12 - 0.20	Developed High Intensity -highly developed areas where people reside or work in high numbers. Examples include apartment complexes, row houses and commercial/industrial. Impervious surfaces account for 80% to 100% of the total cover.
31	0.023 - 0.030	Barren Land (Rock/Sand/Clay) - areas of bedrock, desert pavement, scarps, talus, slides, volcanic material, glacial debris, sand dunes, strip mines, gravel pits and other accumulations of earthen material. Generally, vegetation accounts for less than 15% of total cover.
41	0.10 - 0.20	Deciduous Forest - areas dominated by trees generally greater than 5 meters tall, and greater than 20% of total vegetation cover. More than 75% of the tree species shed foliage simultaneously in response to seasonal change.
42	0.08 - 0.16	Evergreen Forest - areas dominated by trees generally greater than 5 meters tall, and greater than 20% of total vegetation cover. More than 75% of the tree species maintain their leaves all year. Canopy is never without green foliage.
43	0.08 - 0.20	Mixed Forest - areas dominated by trees generally greater than 5 meters tall, and greater than 20% of total vegetation cover. Neither deciduous nor evergreen species are greater than 75% of total tree cover.
51	0.025 - 0.05	Dwarf Scrub - Alaska only areas dominated by shrubs less than 20 centimeters tall with shrub canopy typically greater than 20% of total vegetation. This type is often co-associated with grasses, sedges, herbs, and non-vascular vegetation.
52	0.07 - 0.16	Shrub/Scrub - areas dominated by shrubs; less than 5 meters tall with shrub canopy typically greater than 20% of total vegetation. This class includes true shrubs, young trees in an early successional stage or trees stunted from environmental conditions.
71	0.025 - 0.05	Grassland/Herbaceous - areas dominated by graminoid or herbaceous vegetation, generally greater than 80% of total vegetation. These areas are not subject to intensive management such as tilling, but can be utilized for grazing.
72	0.025 - 0.05	Sedge/Herbaceous - Alaska only areas dominated by sedges and forbs, generally greater than 80% of total vegetation. This type can occur with significant other grasses or other grass like plants, and includes sedge tundra, and sedge tussock tundra.
73	n/a	Lichens - Alaska only areas dominated by fruticose or foliose lichens generally greater than 80% of total vegetation.
74	n/a	Moss - Alaska only areas dominated by mosses, generally greater than 80% of total vegetation.
81	0.025 - 0.05	Pasture/Hay -areas of grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle. Pasture/hay vegetation accounts for greater than 20% of total vegetation.
82	0.020 - 0.05	Cultivated Crops -areas used for the production of annual crops, such as corn, soybeans, vegetables, tobacco, and cotton, and also perennial woody crops such as orchards and vineyards. Crop vegetation accounts for greater than 20% of total vegetation. This class also includes all land being actively tilled.
90	0.045 - 0.15	Woody Wetlands - areas where forest or shrubland vegetation accounts for greater than 20% of vegetative cover and the soil or substrate is periodically saturated with or covered with water.
95	0.05 - 0.085	Emergent Herbaceous Wetlands - Areas where perennial herbaceous vegetation accounts for greater than 80% of vegetative cover and the soil or substrate is periodically saturated with or covered with water.



APPENDIX C

DRAWINGS, CALCULATIONS, AND RESULTS

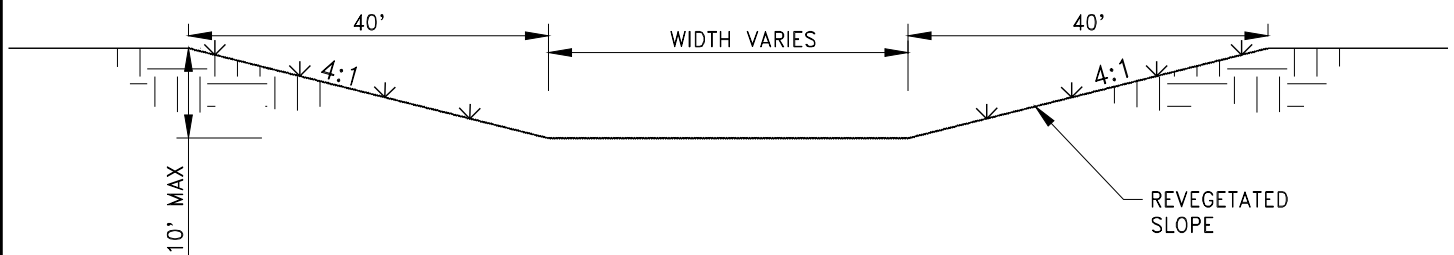
PRELIMINARY CHANNEL SECTION ALTERNATIVES

FOOTHILLS DEVELOPMENT

SPARKS

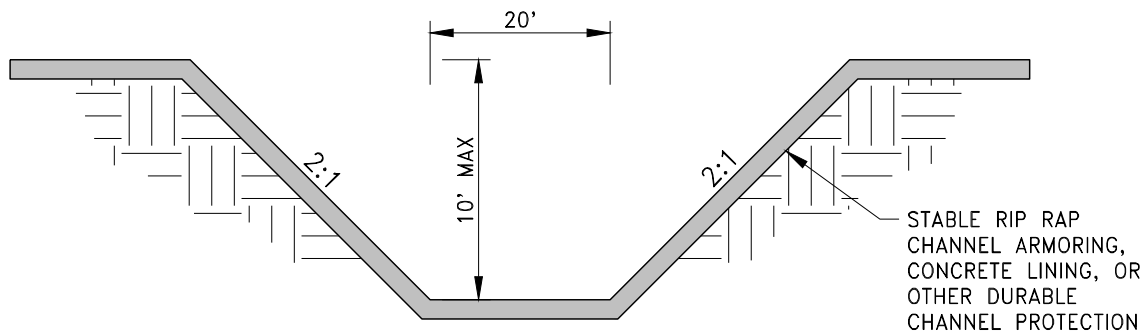
NEVADA

JANUARY 2026



4:1 SIDE SLOPE REVEGETATED CHANNEL

N.T.S.



2:1 SIDE SLOPE ARMORED CHANNEL

N.T.S.



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Reno, NV 89502 Fax 775.823.4066

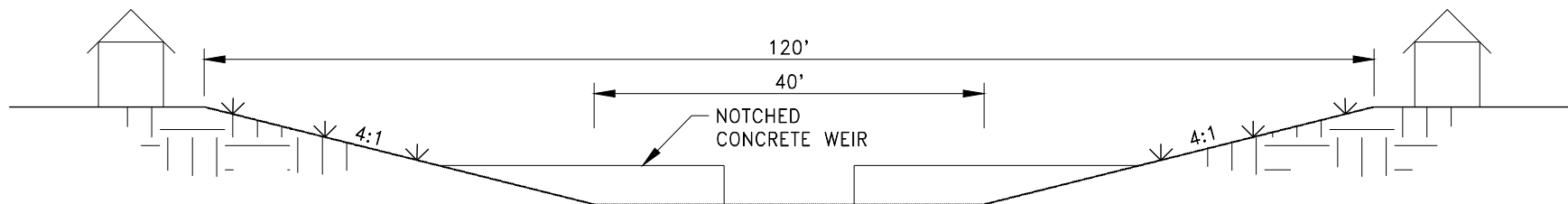
PRELIMINARY WEIR DESIGN

FOOTHILLS DEVELOPEMENT

SPARKS

NEVADA

JANUARY 2026



CHANNEL/WEIR SECTION

N.T.S.



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

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Reno, NV 89502 Fax 775.823.4066

Project: Foothills at Wingfield Springs

Project Location: Sparks, NV

Existing Curve Numbers

Watershed Village I			
Land Use	Soil Group	Area (ac.)	Curve Number
Meadow	A	0.39	30
Meadow	C	10.76	71
Brush, Fair	A	8.13	35
Brush, Fair	C	17.55	70
Pavement	A	0.38	98
Pavement	C	9.3	98
Total Area (ac.)	46.51		
Final Curve Number	69.6		



Project: Foothills at Wingfield Springs

Project Location: Sparks, NV

Existing Curve Numbers

Watershed Village I			
Land Use	Soil Group	Area (ac.)	Curve Number
Residential 1/8 Acre	A	4.17	77
Residential 1/8 Acre	C	33.44	90
Pavement	A	4.73	98
Pavement	C	4.17	98
Total Area (ac.)	46.51		
Final Curve Number	90.4		



Project: Foothills at Wingfield Springs

Project Location: Sparks, NV

Existing Time of Concentration Table



Drainage Basin	Drainage Area (AC)		Initial Flow Time, T _i				Travel Time, T _t				Total (T _i +T _t)	Urbanized Basins Check	Final	
		CN/c	Overland Flow				Channelized Flow							
			L _i (ft)	S (ft/ft)	R	T _i (min)	L _t (ft)	S (ft/ft)	V (ft/s)	T _{t2} (min)	T _c (min)	T _c *(min)	T _c (min)	TLAG
Village I	46.52	70	311	0.016	0.53	15.5	2532	0.006	1.2	34.0	54.0	32.2	32.2	19.3
Village J	1.31	98	258	0.027	0.90	4.1	0	0.000	0.0	0.0	4.1	17.9	4.1	2.4

Project: Foothills at Wingfield Springs

Project Location: Sparks, NV

Existing Curve Numbers

Watershed Village I			
Land Use	Soil Group	Area (ac.)	Curve Number
Residential 1/8 Acre	A	4.17	77
Residential 1/8 Acre	C	33.44	90
Pavement	A	4.73	98
Pavement	C	4.17	98
Total Area (ac.)	46.51		
Final Curve Number	90.4		



Project: Foothills at Wingfield Springs

Project Location: Sparks, NV

Existing vs Proposed Flows, 100 Year



Existing, 100 Year					Proposed, 100 Year				
Village Name	Area (mi)	Peak Flow	Time of Peak	Precip (in)	Village Name	Area (mi)	Peak Flow	Time of Peak	Precip (in)
Village I	0.0726812	25.9	01Jan2026, 12:23	0.85	Village I	0.072681	73.8	01Jan2026, 12:22	2.26



CALCULATIONS

Date:	1/15/2026	Made by:	RDR
Project No.:	1309	Checked by:	JRS
Subject:	Detention Basin Volume Calculation	Reviewed by:	JRS
Project Title:	Foothills at Wingfield Springs		

1.0 Estimate of Detention Basin Volume per TMRDM Triangulation Method

$$\text{Detention Volume} = 60 * t_c * (Q_P - Q_E)$$

Total Detention Needed:
98,900 CF
3663 CY

Village I	
Proposed 100-year t_c	34.4 min
Proposed 100-year Flow (Q_P)	73.80 cfs
Maximum Allowable Release (Existing Flow) (Q_E)	25.90 cfs
Minimum Detention Volume	98,900 cf

Project: Redhawk Redevelopment

Project Location: Sparks, NV

Pond/Channel Sizing Table

Table



Channel 1						
Length	Top Width	Bottom Width	Side Slope	Depth	Flow Area	Avg Depth
3414	120	40	4.00	10	800	6.666667
Channel 2						
Length	Top Width	Bottom Width	Side Slope	Depth	Flow Area	Avg Depth
836	80	0	4.00	10	400	5
Pond 1						
Area	Avg Depth	Volume				
37158	3	111474				
Pond 2						
Area	Avg Depth	Volume				
54712	5	273560				
Pond 3						
Area	Avg Depth	Volume				
111415	5	557075				
CHANNEL 1	2731200.00	cu.ft.				
CHANNEL 2	334400.00	cu. Ft				
CHANNELS	3065600.00	cu.ft.				
PONDS	942109.00	cu.ft.				
RESULT	4007709.00	cu.ft.				
GOAL	3750000.00	cu.ft.				

Culvert Calculator Report

Culvert C

Solve For: Headwater Elevation

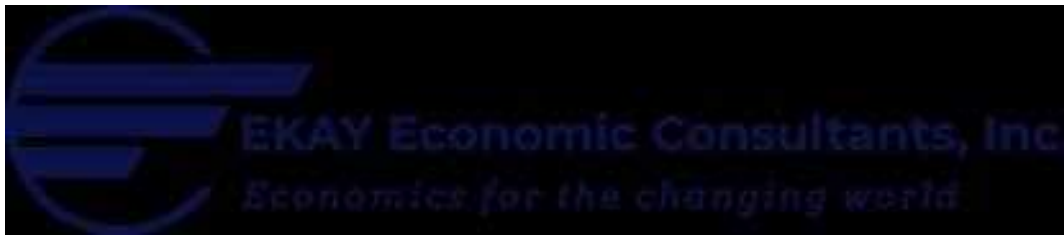
Culvert Summary			
Allowable HW Elevation	4,498.00 ft	Headwater Depth/Height	1.53
Computed Headwater Elevation	4,496.12 ft	Discharge	117.30 cfs
Inlet Control HW Elev.	4,496.12 ft	Tailwater Elevation	2.00 ft
Outlet Control HW Elev.	4,495.92 ft	Control Type	Inlet Control
Grades			
Upstream Invert	4,490.00 ft	Downstream Invert	4,488.00 ft
Length	125.00 ft	Constructed Slope	0.016000 ft/ft
Hydraulic Profile			
Profile	S2	Depth, Downstream	2.49 ft
Slope Type	Steep	Normal Depth	2.34 ft
Flow Regime	Supercritical	Critical Depth	3.27 ft
Velocity Downstream	14.29 ft/s	Critical Slope	0.006718 ft/ft
Section			
Section Shape	Circular	Mannings Coefficient	0.013
Section Material	Concrete	Span	4.00 ft
Section Size	48 inch	Rise	4.00 ft
Number Sections	1		
Outlet Control Properties			
Outlet Control HW Elev.	4,495.92 ft	Upstream Velocity Head	1.77 ft
Ke	0.50	Entrance Loss	0.89 ft
Inlet Control Properties			
Inlet Control HW Elev.	4,496.12 ft	Flow Control	N/A
Inlet Type	Square edge w/headwall	Area Full	12.6 ft²
K	0.00980	HDS 5 Chart	1
M	2.00000	HDS 5 Scale	1
C	0.03980	Equation Form	1
Y	0.67000		

Culvert Calculator Report

Culvert I

Solve For: Headwater Elevation

Culvert Summary			
Allowable HW Elevation	4,506.00 ft	Headwater Depth/Height	1.08
Computed Headwater Elevation	4,505.65 ft	Discharge	854.98 cfs
Inlet Control HW Elev.	4,505.51 ft	Tailwater Elevation	2.00 ft
Outlet Control HW Elev.	4,505.65 ft	Control Type	Entrance Control
Grades			
Upstream Invert	4,497.00 ft	Downstream Invert	4,496.00 ft
Length	150.00 ft	Constructed Slope	0.006667 ft/ft
Hydraulic Profile			
Profile	S2	Depth, Downstream	4.50 ft
Slope Type	Steep	Normal Depth	4.18 ft
Flow Regime	Supercritical	Critical Depth	5.40 ft
Velocity Downstream	15.82 ft/s	Critical Slope	0.003304 ft/ft
Section			
Section Shape	Box	Mannings Coefficient	0.013
Section Material	Concrete	Span	12.00 ft
Section Size	12 x 8 ft	Rise	8.00 ft
Number Sections	1		
Outlet Control Properties			
Outlet Control HW Elev.	4,505.65 ft	Upstream Velocity Head	2.70 ft
Ke	0.20	Entrance Loss	0.54 ft
Inlet Control Properties			
Inlet Control HW Elev.	4,505.51 ft	Flow Control	N/A
Inlet Type	90° headwall w 45° bevels	Area Full	96.0 ft²
K	0.49500	HDS 5 Chart	10
M	0.66700	HDS 5 Scale	2
C	0.03140	Equation Form	2
Y	0.82000		



January 5, 2026

Ms. Stacie Huggins
Wood Rodgers, Inc.
1361 Corporate Blvd
Reno, NV 89502

Re: Fiscal Impact Analysis of The Estates at Wingfield

Ms. Huggins,

Per your request I estimated the fiscal impact of the proposed The Estates at Wingfield development on the City of Sparks.

It is my understanding that the development will include 764 residential units constructed between 2028 and 2043. The development is divided into multiple villages. Villages A-H and J, proposed to include 606 residential units, are expected to be located in the Wingfield Springs portion of the development. The remaining 158 units are proposed for Village I, located in the Foothills portion of the development.

I prepared a separate fiscal impact report for each portion of the development. Combined, over the 20-year analysis period between 2028 and 2047, The Estates at Wingfield project is expected to generate a revenue surplus for the City of Sparks General Fund of \$21.1 million, with a revenue deficit for the Road Fund of \$15.2 million. The net fiscal impact for the entire project is estimated at \$5.9 million over the 20-year analysis period, generating a positive fiscal impact on the City through the individual and the combined development.

Table 1 below shows a summary of the impact of the project on the City's General and Road Funds. For detailed calculations and discussion of methodology and assumptions, please see the fiscal impact reports for the project.

Please contact me with any questions or concerns.

Sincerely,

A handwritten signature in black ink that reads 'Eugenia Larmore'.

Eugenia Larmore, PhD, MBA

Table 1. Estimated Revenue Surplus-City of Sparks General and Road Funds, by Project, by Year

Year	General Fund			Road Fund		
	Wingfield Springs (A-H, J)	Foothills (I)	Project Total	Wingfield Springs (A-H, J)	Foothills (I)	Project Total
2028	\$ 90,949	\$ -	\$ 90,949	\$ (78,761)	\$ -	\$ (78,761)
2029	184,523	-	184,523	(167,818)	-	(167,818)
2030	286,487	-	286,487	(251,141)	-	(251,141)
2031	383,561	-	383,561	(328,564)	-	(328,564)
2032	489,349	-	489,349	(397,456)	-	(397,456)
2033	585,877	-	585,877	(464,364)	-	(464,364)
2034	697,588	-	697,588	(520,796)	-	(520,796)
2035	808,126	-	808,126	(608,603)	-	(608,603)
2036	926,058	-	926,058	(690,673)	-	(690,673)
2037	1,029,383	-	1,029,383	(756,192)	-	(756,192)
2038	1,156,002	-	1,156,002	(820,137)	-	(820,137)
2039	1,290,701	-	1,290,701	(909,285)	-	(909,285)
2040	1,298,005	109,380	1,407,385	(909,285)	(110,135)	(1,019,420)
2041	1,305,344	219,502	1,524,846	(909,285)	(181,349)	(1,090,635)
2042	1,312,721	342,222	1,654,943	(909,285)	(252,105)	(1,161,391)
2043	1,320,134	373,363	1,693,497	(909,285)	(269,613)	(1,178,899)
2044	1,327,585	375,451	1,703,036	(909,285)	(269,613)	(1,178,899)
2045	1,335,073	377,550	1,712,622	(909,285)	(269,613)	(1,178,899)
2046	1,342,598	379,659	1,722,257	(909,285)	(269,613)	(1,178,899)
2047	1,350,161	381,779	1,731,940	(909,285)	(269,613)	(1,178,899)
Total	\$18,520,226	\$ 2,558,905	\$21,079,131	\$(13,268,074)	\$(1,891,656)	\$(15,159,731)

THE ESTATES AT WINGFIELD- FOOTHILLS

Fiscal Impact Analysis

JANUARY 2026

Prepared by:



550 West Plumb Lane
Suite B459
Reno, NV 89509
(775) 232-7203
www.ekayconsultants.com

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EXECUTIVE SUMMARY

Ekay Economic Consultants, Inc. (EEC) of Reno, Nevada was retained to conduct a fiscal impact analysis of a proposed residential development, The Estates at Wingfield, for the City of Sparks. Project buildout information and fiscal impact findings for the General and Road Funds are summarized below:

- The project proposes to add a total of 764 detached residential units within the existing Wingfield Springs development.
- This report considers impacts of 158 residential units proposed for Village I (Foothills) of the project only.
 - These units are expected to be constructed between 2040 and 2043.
- The fiscal impact of the remaining 606 residential units in Villages A-H and J (Wingfield Springs) is considered in a separate report.

General Fund Impacts (20-Year Total)

- Project-related revenue is estimated at \$8.8 million.
- Project-related expenditures are estimated at \$1.5 million.
- The project is expected to generate a revenue surplus of \$7.3 million.

Road Fund Impacts (20-Year Total)

- Project-related revenue is estimated at \$0.2 million.
- Project-related expenditures are estimated at \$5.3 million.
- The project is expected to generate a revenue deficit of \$5.1 million.

The analysis finds the proposed development will have a **positive** fiscal impact on the City of Sparks, resulting in a total net surplus for the City of Sparks General and Road Funds of \$2.2 million over the 20-year analysis period.

INTRODUCTION

Ekey Economic Consultants, Inc. (EEC) of Reno, Nevada was retained to conduct a fiscal impact analysis of a proposed The Estates at Wingfield development for the City of Sparks. The fiscal impact analysis is based on the City of Sparks Fiscal Impact Analysis Guidelines adopted by the City in 2019. The project proposes to add a total of 764 detached residential units within the existing Wingfield Springs development. This report considers impacts of 158 residential units proposed for Village I (Foothills) of the project only. These units are expected to be constructed between 2040 and 2043. The fiscal impact of the 606 residential units in Villages A-H and J (Wingfield Springs) is considered in a separate report.

The “Long-Term Fiscal Health Analysis” report prepared for the City of Sparks by Economic & Planning Systems, Inc. (EPS) in July 2019 provided an estimate of the demand for residential units for the City of Sparks between 2017 and 2038. It should be noted this report is now over six years old and does not consider the significant increase in residential and industrial demand experienced in the region.

The report estimated a housing demand of 581 units per year for the City between 2017 and 2038. This included demand for 273 low to moderate density single family units per year, 145 high density single/low density multi family, and 162 units of moderate to high density multi-family per year. This overall project is expected to add an average of 50 residential units over its buildout period, significantly lower than the 581 units contemplated in the EPS report.

Appendix 1 provides a summary of the project’s buildout, including number of residential units and non-residential square feet constructed each year, estimated taxable value of project’s land and improvements, and project residents and employees. The remainder of the analysis is based on this information.

The fiscal impact analysis is based on the November 2019 City of Sparks Fiscal Impact Analysis Guidelines adopted by the City of Sparks, along with project-related information

Introduction

The Estates at Wingfield-Foothills- Fiscal Impact Analysis

provided by project developers and existing market data. Revenues and costs included in this fiscal impact analysis are estimated for the 20-year analysis period as recommended in the Fiscal Impact Analysis Guidelines (“Guidelines”) for the City of Sparks. Property tax revenue is estimated using taxable value data for similar existing uses surrounding the project.

Appendices at the end of this report present revenue and cost projections on an annual basis over the analysis period. Assumptions used in developing these estimates are presented at the end of each appendix. Those appendices are:

- Appendix 1: Buildout Assumptions
- Appendix 2: City of Sparks Estimated Real Property Tax Revenue
- Appendix 3: City of Sparks Estimated General and Road Fund Revenues
- Appendix 4: City of Sparks Estimated General and Road Fund Expenditures
- Appendix 5: City of Sparks Comparison of Estimated General and Road Fund Revenues and Expenditures

FINDINGS

Findings of the fiscal impact analysis are presented below for each fund. Table 1 summarizes the impact of the project on the City of Sparks General Fund over the 20-year analysis period.

Table 1. Summary of Estimated City of Sparks General Fund Impacts, 20-Year Total

Estimated Revenue	
Property Tax	\$ 8,143,912
Consolidated Tax	342,928
Business/Liquor Licenses	327
Fees, Permits, Charges	277,121
TOTAL	\$ 8,764,289
Estimated Costs	
General Government	\$ 496,825
Police	508,725
Fire	449,225
TOTAL	\$ 1,454,775
Revenue Surplus/(Deficit)	
Estimated Surplus/(Deficit)	\$ 7,309,514

Findings

The Estates at Wingfield-Foothills- Fiscal Impact Analysis

Table 2 shows the estimated impact of the project on the City of Sparks General Fund, by year.

Table 2. Summary of Estimated City of Sparks General Fund Impacts, by Year

Year	Project Revenue	Project Costs	Annual Surplus	Cumul. Surplus
2040	\$ 132,852	\$ 23,472	\$ 109,380	\$ 109,380
2041	265,957	46,455	219,502	328,882
2042	413,616	71,394	342,222	671,104
2043	450,625	77,262	373,363	1,044,466
2044	452,713	77,262	375,451	1,419,917
2045	454,812	77,262	377,550	1,797,467
2046	456,921	77,262	379,659	2,177,126
2047	459,041	77,262	381,779	2,558,905
2048	461,171	77,262	383,909	2,942,814
2049	463,313	77,262	386,051	3,328,865
2050	465,464	77,262	388,202	3,717,067
2051	467,627	77,262	390,365	4,107,432
2052	469,800	77,262	392,538	4,499,970
2053	471,985	77,262	394,723	4,894,693
2054	474,180	77,262	396,918	5,291,611
2055	476,386	77,262	399,124	5,690,735
2056	478,603	77,262	401,341	6,092,076
2057	480,831	77,262	403,569	6,495,645
2058	483,071	77,262	405,809	6,901,454
2059	485,321	77,262	408,059	7,309,514
Total	\$ 8,764,289	\$1,454,775	\$ 7,309,514	

Both tables show the project is estimated to result in a revenue surplus for the City of Sparks General Fund in the amount of \$7.3 million over the 20-year analysis period.

Table 3 shows the 20-year estimated impact of the project on the Road Fund. Table 4 shows this information by year. The project is located between North of Los Altos Parkway, in Road Fund Area #3, and is expected to add 450,306 square feet of roads to the City of Sparks inventory. This is incorporated into the analysis.

The tables show the project is estimated to generate a revenue deficit for the City of Sparks Road Fund in the amount of \$5.1 million over the 20-year analysis period.

Findings

The Estates at Wingfield-Foothills- Fiscal Impact Analysis

Table 3. Summary of Estimated City of Sparks Road Fund Impacts, 20-Year Total

Estimated Revenue	
Fees & Licenses	\$ 197,272
Total Revenue	\$ 197,272
Estimated Costs	
Road Maintenance	\$ 5,324,289
Total Costs	\$ 5,324,289
Revenue Surplus/(Deficit)	
Estimated Surplus/(Deficit)	\$ (5,127,017)

Table 4. Summary of Estimated City of Sparks Road Fund Impacts, by Year

Year	Project Revenue	Project Costs	Annual Surplus	Cumul. Surplus
2040	\$ 3,183	\$ 113,318	\$ (110,135)	\$ (110,135)
2041	6,299	187,649	(181,349)	(291,484)
2042	9,681	261,787	(252,105)	(543,590)
2043	10,477	280,090	(269,613)	(813,203)
2044	10,477	280,090	(269,613)	(1,082,816)
2045	10,477	280,090	(269,613)	(1,352,430)
2046	10,477	280,090	(269,613)	(1,622,043)
2047	10,477	280,090	(269,613)	(1,891,656)
2048	10,477	280,090	(269,613)	(2,161,270)
2049	10,477	280,090	(269,613)	(2,430,883)
2050	10,477	280,090	(269,613)	(2,700,496)
2051	10,477	280,090	(269,613)	(2,970,110)
2052	10,477	280,090	(269,613)	(3,239,723)
2053	10,477	280,090	(269,613)	(3,509,337)
2054	10,477	280,090	(269,613)	(3,778,950)
2055	10,477	280,090	(269,613)	(4,048,563)
2056	10,477	280,090	(269,613)	(4,318,177)
2057	10,477	280,090	(269,613)	(4,587,790)
2058	10,477	280,090	(269,613)	(4,857,403)
2059	10,477	280,090	(269,613)	(5,127,017)
Total	\$ 197,272	\$ 5,324,289	\$ (5,127,017)	

The analysis finds the proposed development will have a **positive** fiscal impact on the City of Sparks with a total net surplus for the City of Sparks General and Road Funds estimated at \$2.2 million over the 20-year analysis period.

LIMITING CONDITIONS & DISCLOSURES

In the preparation of this report, EEC asserts:

- The report is to be used in its entirety, and no part is to be used without the whole.
- In preparing this report, EEC relied on information provided by other individuals or found in previously existing records and/or documents. This information is assumed to be reliable. However, no warranty, either expressed or implied, is given by EEC for the accuracy of such information and EEC assumes no responsibility for information relied upon later found to have been inaccurate.
- EEC may amend this report in the event additional documents and/or other material discovered subsequent to the submission of this report and pertinent to the report and/or the conclusions contained herein are made available.
- EEC assumes no responsibility for economic, physical, or demographic factors, which may affect or alter the opinions of this report if said economic, physical or demographic factors were not present or known as of the date of this report.
- Possession of this report, or a copy of this report, does not carry with it the right of publication. Without the consent of EEC, this report may not be used for any purpose by any person other than the party for whom this report was prepared.

APPENDICES

APPENDIX 1 BUILDOUT ASSUMPTIONS					
<u>YEAR</u>	<u>USE TYPE</u>	<u># OF RESIDENTIAL UNITS BUILT</u>	<u>ADDED LAND VALUE</u>	<u>ADDED IMPROVEMENT VALUE</u>	<u>ESTIMATED PROJECT RESIDENTS</u>
2040	SF Detached	48	\$ 7,950,354	\$ 28,617,622	120
2041	SF Detached	47	7,940,416	28,581,850	118
2042	SF Detached	51	8,788,520	31,634,635	128
2043	SF Detached	12	2,109,245	7,592,312	30
TOTAL		158	\$ 26,788,535	\$ 96,426,421	395

APPENDIX 1, ASSUMPTIONS:

1. The following buildout information represents the Developer's best estimate and market data in 2025-26.

Land Use	# of Units	Land Value/Unit	Improv. Value/Unit
SF Detached	158	\$ 130,600	\$ 470,100

Source: Number of units to be constructed from Developer. Land and improvement values from similar land uses surrounding the development. Source: Washoe County Assessor's Office, taxable values for FY 2025-26. Taxable values are inflated by 2% per year to arrive at the value in the year of construction.

2. Project-related residents are estimated at **2.50** residents per unit, using City of Sparks Fiscal Impact Analysis Guidelines, November 2019.

APPENDIX 2 CITY OF SPARKS ESTIMATED REAL PROPERTY TAX REVENUE						
<u>YEAR</u>	<u>USE TYPE</u>	<u>TAXABLE LAND VALUE</u>	<u>TAXABLE IMPROVE. VALUE</u>	<u>CUMULATIVE ASSESSED</u>		<u>REVENUE-GENERAL FUND</u>
				<u>LAND VALUE</u>	<u>IMPROVE. VALUE</u>	
2040	SF Detached	\$ 7,950,354	\$ 28,617,622	\$ 2,782,624	\$ 10,016,168	\$ 122,843
2041	SF Detached	7,940,416	28,581,850	5,575,683	20,069,896	246,146
2042	SF Detached	8,788,520	31,634,635	8,679,543	31,242,368	383,171
2043	SF Detached	2,109,245	7,592,312	9,461,177	34,055,889	417,677
2044	SF Detached	-	-	9,508,483	34,226,169	419,765
2045	SF Detached	-	-	9,556,025	34,397,300	421,864
2046	SF Detached	-	-	9,603,805	34,569,286	423,973
2047	SF Detached	-	-	9,651,824	34,742,133	426,093
2048	SF Detached	-	-	9,700,083	34,915,843	428,224
2049	SF Detached	-	-	9,748,584	35,090,422	430,365
2050	SF Detached	-	-	9,797,327	35,265,875	432,517
2051	SF Detached	-	-	9,846,313	35,442,204	434,679
2052	SF Detached	-	-	9,895,545	35,619,415	436,853
2053	SF Detached	-	-	9,945,022	35,797,512	439,037
2054	SF Detached	-	-	9,994,748	35,976,500	441,232
2055	SF Detached	-	-	10,044,721	36,156,382	443,438
2056	SF Detached	-	-	10,094,945	36,337,164	445,655
2057	SF Detached	-	-	10,145,420	36,518,850	447,884
2058	SF Detached	-	-	10,196,147	36,701,444	450,123
2059	SF Detached	-	-	10,247,128	36,884,951	452,374
TOTAL		\$ 26,788,535	\$ 96,426,421			\$ 8,143,912

APPENDIX 2, ASSUMPTIONS:

1. Project taxable values are estimated in Appendix 1.
2. Assessed land and improvement values are estimated by adjusting taxable values to 35%.
3. Cumulative assessed values are increased by **0.5%** per year. Source: City of Sparks Fiscal Impact Analysis Guidelines, November 2019.
4. Operating tax rate is assumed to remain constant at FY 2019-20 amount per City of Sparks Fiscal Impact Analysis Guidelines, November 2019 of **\$ 0.9598** per \$100 of assessed value.

APPENDIX 3 CITY OF SPARKS ESTIMATED GENERAL AND ROAD FUND REVENUES								
YEAR	USE TYPE	GENERAL FUND						ROAD FUND
		PROPERTY TAX	CTAX	LICENSES	FEES & PERMITS	TOTAL	FEES & PERMITS	
2040	SF Detached	\$ 122,843	\$ 5,533	\$ 5	\$ 4,471	\$ 132,852	\$ 3,183	
2041	SF Detached	246,146	10,951	10	8,849	265,957	6,299	
2042	SF Detached	383,171	16,829	16	13,600	413,616	9,681	
2043	SF Detached	417,677	18,213	17	14,718	450,625	10,477	
2044	SF Detached	419,765	18,213	17	14,718	452,713	10,477	
2045	SF Detached	421,864	18,213	17	14,718	454,812	10,477	
2046	SF Detached	423,973	18,213	17	14,718	456,921	10,477	
2047	SF Detached	426,093	18,213	17	14,718	459,041	10,477	
2048	SF Detached	428,224	18,213	17	14,718	461,171	10,477	
2049	SF Detached	430,365	18,213	17	14,718	463,313	10,477	
2050	SF Detached	432,517	18,213	17	14,718	465,464	10,477	
2051	SF Detached	434,679	18,213	17	14,718	467,627	10,477	
2052	SF Detached	436,853	18,213	17	14,718	469,800	10,477	
2053	SF Detached	439,037	18,213	17	14,718	471,985	10,477	
2054	SF Detached	441,232	18,213	17	14,718	474,180	10,477	
2055	SF Detached	443,438	18,213	17	14,718	476,386	10,477	
2056	SF Detached	445,655	18,213	17	14,718	478,603	10,477	
2057	SF Detached	447,884	18,213	17	14,718	480,831	10,477	
2058	SF Detached	450,123	18,213	17	14,718	483,071	10,477	
2059	SF Detached	452,374	18,213	17	14,718	485,321	10,477	
TOTAL		\$ 8,143,912	\$ 342,928	\$ 327	\$ 277,121	\$ 8,764,289	\$ 197,272	

APPENDIX 3, ASSUMPTIONS:

1. For property tax revenue see Appendix 2.
2. Other General and Road Fund revenues are estimated using the following factors applied to the project's buildout measurements shown in Appendix 1. Source: City of Sparks Fiscal Impact Analysis Guidelines, November 2019.

General Fund			Road Fund		
Consolidated Tax (Ctax)	\$	115.27 per unit	Fees, Licenses, Permits	\$	66.31 per unit
Business/Liquor Licenses		0.11 per unit			
Fees, Permits, Charges		93.15 per unit			

APPENDIX 4
CITY OF SPARKS
ESTIMATED GENERAL AND ROAD FUND EXPENDITURES

<u>YEAR</u>	<u>USE TYPE</u>	<u>GENERAL FUND</u>				<u>ROAD FUND</u>	
		<u>GENERAL GOVERNMENT</u>	<u>POLICE</u>	<u>FIRE</u>	<u>TOTAL</u>	<u>SQUARE FEET ADDED</u>	<u>MAINTENANCE COST</u>
2040	SF Detached	\$ 8,016	\$ 8,208	\$ 7,248	\$ 23,472	182,183	\$ 113,318
2041	SF Detached	15,865	16,245	14,345	46,455	119,503	187,649
2042	SF Detached	24,382	24,966	22,046	71,394	119,193	261,787
2043	SF Detached	26,386	27,018	23,858	77,262	29,427	280,090
2044	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2045	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2046	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2047	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2048	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2049	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2050	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2051	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2052	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2053	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2054	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2055	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2056	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2057	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2058	SF Detached	26,386	27,018	23,858	77,262	-	280,090
2059	SF Detached	26,386	27,018	23,858	77,262	-	280,090
TOTAL		\$ 496,825	\$ 508,725	\$ 449,225	\$ 1,454,775	450,306	\$ 5,324,289

APPENDIX 4, ASSUMPTIONS:

1. General Fund expenditures are estimated using the following factors applied to the project's buildout measurements shown in Appendix 1.

General Fund

General Government	\$ 167.00	per unit
Police	171.00	per unit
Fire (Citywide)	151.00	per unit

2. Square feet of streets from Developer. Maintenance costs are estimated at **\$ 0.6220** per year, per square foot, for Area 3, North of Los Altos Parkway. Source: City of Sparks Fiscal Impact Analysis Guidelines, November 2019.

APPENDIX 5
CITY OF SPARKS
COMPARISON OF ESTIMATED GENERAL AND ROAD FUND REVENUES AND EXPENDITURES

<u>YEAR</u>	<u>USE TYPE</u>	<u>GENERAL FUND</u>			<u>ROAD FUND</u>		
		<u>EST. REVENUE</u>	<u>EST. COSTS</u>	<u>SURPLUS/ (DEFICIT)</u>	<u>EST. REVENUE</u>	<u>EST. COSTS</u>	<u>SURPLUS/ (DEFICIT)</u>
2040	SF Detached	\$ 132,852	\$ 23,472	\$ 109,380	\$ 3,183	\$ 113,318	\$ (110,135)
2041	SF Detached	265,957	46,455	219,502	6,299	187,649	(181,349)
2042	SF Detached	413,616	71,394	342,222	9,681	261,787	(252,105)
2043	SF Detached	450,625	77,262	373,363	10,477	280,090	(269,613)
2044	SF Detached	452,713	77,262	375,451	10,477	280,090	(269,613)
2045	SF Detached	454,812	77,262	377,550	10,477	280,090	(269,613)
2046	SF Detached	456,921	77,262	379,659	10,477	280,090	(269,613)
2047	SF Detached	459,041	77,262	381,779	10,477	280,090	(269,613)
2048	SF Detached	461,171	77,262	383,909	10,477	280,090	(269,613)
2049	SF Detached	463,313	77,262	386,051	10,477	280,090	(269,613)
2050	SF Detached	465,464	77,262	388,202	10,477	280,090	(269,613)
2051	SF Detached	467,627	77,262	390,365	10,477	280,090	(269,613)
2052	SF Detached	469,800	77,262	392,538	10,477	280,090	(269,613)
2053	SF Detached	471,985	77,262	394,723	10,477	280,090	(269,613)
2054	SF Detached	474,180	77,262	396,918	10,477	280,090	(269,613)
2055	SF Detached	476,386	77,262	399,124	10,477	280,090	(269,613)
2056	SF Detached	478,603	77,262	401,341	10,477	280,090	(269,613)
2057	SF Detached	480,831	77,262	403,569	10,477	280,090	(269,613)
2058	SF Detached	483,071	77,262	405,809	10,477	280,090	(269,613)
2059	SF Detached	485,321	77,262	408,059	10,477	280,090	(269,613)
TOTAL		\$ 8,764,289	\$ 1,454,775	\$ 7,309,514	\$ 197,272	\$ 5,324,289	\$ (5,127,017)

APPENDIX 5, ASSUMPTIONS:

1. See Appendices 2 and 3 for estimated revenues and Appendix 4 for estimated costs.