ORDINANCE NO. 450

AN ORDINANCE OF THE CITY OF BEE CAVE, TEXAS ("CITY") AMENDING ZONING FOR THE DEVELOPMENT KNOWN AS THE EPISCOPAL CHURCH OF THE CROSS FROM NEIGHBORHOOD SERVICES ("NS") TO PUBLIC PLANNED DEVELOPMENT DISTRICT ("P-PDD") FOR APPROXIMATELY 23 ACRES OF LAND LOCATED AT APPROXIMATEY 15900 STATE HIGHWAY 71 WEST AND WHICH PROPERTY IS DESCRIBED IN EXHIBIT "A" ATTACHED HERETO (THE "PROPERTY"); APPROVING A CONCEPT PLAN FOR THE PROJECT, ATTACHED HERETO AS EXIBIT "B" ("CONCEPT PLAN"); APPROVING SPECIAL DEVELOPMENT STANDARDS AND CONDITIONS, ATTACHED HERETO AS EXHIBIT "C" ("DEVELOPMENT STANDARDS"); ACCEPTING A TREE PRESERVATION PLAN, ATTACHED HERETO AS EXHIBIT "D" ("TREE SURVEY"); ACCEPTING A TRAFFIC STUDY, ATTACHED HERETO AS EXHIBIT "E" ("TRAFFIC STUDY"); PROVIDING FOR FINDINGS OF FACT, SEVERABILITY, EFFECTIVE DATE, AND PROPER NOTICE AND MEETING.

WHEREAS, the Planning and Zoning Commission of the City of Bee Cave and the City Council of the City of Bee Cave, have given the requisite notices by publication and otherwise, and have held two hearings and afforded a full and fair hearing to all property owners generally and to all persons interested and situated in the affected area and in the vicinity thereof, and the City Council of the City of Bee Cave is of the opinion and finds that this zoning change should be granted and that the Comprehensive Zoning Ordinance and Map should be amended as set forth herein; and

WHEREAS, the City Zoning Ordinance provides that the purpose of a Planned Development District is to provide for the development of land as an integral unit for single or mixed use in accordance with a Planned Development Concept Plan ("PD Concept Plan") that may include uses, regulations and other requirements that vary from the provisions of other zoning districts, and to encourage flexible and creative planning to ensure the compatibility of land uses, and to allow for the adjustment of changing demands to meet the current needs of the community; and

WHEREAS, any protest made against the proposed change of Zoning Classification has been duly considered by the City Council; and

WHEREAS, the proposed Project supports many of the objectives of the City's Comprehensive Plan and the City finds that the Project meets the objectives of the Comprehensive Plan and that the proposed uses are compatible with adjoining land uses.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BEE CAVE, TEXAS:

SECTION 1. Findings of Fact. All the above premises are hereby found to be true and correct legislative and factual findings of the City of Bee Cave and are hereby approved and incorporated into the body of this Ordinance as if copied in their entirety.

SECTION 2. Amendment. That City Zoning Ordinance and Map of the City of Bee Cave, Texas, be, amended so as to grant a change of zoning for the Property from Neighborhood Services ("NS") to Public Planned Development District ("P-PDD"), which Property is more fully described in Exhibit "A", attached hereto.

SECTION 3. Development Governance. That the Property shall be developed in compliance with this Ordinance, the Concept Plan, attached hereto as Exhibit "B", and the terms and conditions of the City's Code of Ordinances, except as modified by the Planned Development Standards attached hereto as Exhibit "C and in accordance with the Tree Survey included in Exhibit "D" and Traffic Study included in Exhibit "E".

SECTION 4. Concept Plan. The Concept Plan for this Planned Development District, which is attached as Exhibit "B", is made a part hereof for all purposes and is hereby approved for said Planned Development District as required by Chapter 32.03.015 of the City's Code of Ordinances. Any proposed use or development depicted on the Concept Plan shall not be deemed authorized or approved by the City of Bee Cave until a site plan ("Site Plan") is approved for such use and/or development in accordance with the terms and conditions of this Ordinance

SECTION 5. Uses. This Property may be used for church/place of worship, preschool for children up to and including Pre-Kindergarten and associated uses as depicted in the Concept Plan, changes in use or the addition of uses not depicted in the Concept Plan shall require amendment of this Ordinance.

SECTION 6. Severability. That should any sentence, paragraph, subdivision, clause, phrase or section of this ordinance be adjusted or held to be unconstitutional, illegal or invalid, the same shall not affect the validity of this Ordinance as a whole or any part or provision thereof, other than the part so declared to be invalid, illegal or unconstitutional, and shall not affect the validity of the Zoning regulations of the City of Bee Cave Code or Ordinances and the Zoning Map as a whole.

SECTION 7. Repealer. All ordinances or parts of ordinances in force regarding the zoning of this Property when the provision of this Ordinance become effective are hereby repealed.

SECTION 8. Proper Notice and Meeting. It is hereby officially found and determined that the meeting at which this Ordinance was passed was open to the public and that public notice of

the time, place and purpose of said meeting was given as required by the Open Meetings Act, Chapter 551 of the Texas Government Code.

SECTION 9. Effective Date. That this ordinance shall take effect immediately from and after its passage and the publication as required by law.

SECTION 10. Termination. In the event that a Site Plan for Phase 1 of the Project is not submitted within four years of the Effective Date of this Ordinance and approval of the same obtained within five years from the Effective Date of this Ordinance, this Ordinance (and if applicable the Phase 1 Site Plan application) will automatically terminate and be of no further force or effect, unless the deadline is extended by the City Council prior to the expiration date. If no progress towards completion of Phase 1 of the project has occurred within two years from the date of issuance of the Site Development Permit, this Ordinance (and if applicable the Site Plan for Phase 1) will automatically terminate and be of no further force or effect, unless this deadline is extended by City Council prior to the expiration date. In the event that this Ordinance expires, the zoning of the Property that is the subject of this Planned Development District Ordinance shall revert to Neighborhood Services ("NS") and shall be developed in accordance with the City's Code of Ordinance requirements in effect at the time of development.

PASSED AND APPROVED by the City Council of the City of Bee Cave, Texas, on the 9th day of March 2021.

CITY OF BEE CAVE, TEXAS

Kara King, Mayor
City of Bee Cave, Texas

ATTEST:

Kaylynn Holloway, City Secretary
City of Bee Cave, Texas
[SEAL]

APPROVED AS TO FORM:

City Attorney
DENTON NAVARRO ROACHA BERNAL & ZECH, PC

EXHIBIT "A"

Property Description

22.997 acres of land, more or less, situated in the Joseph Reynolds Survey No. 44, Abstract No 664, in Travis County, Texas, and being the same property conveyed in Warranty Deed recorded in Document 2018104077 OPRTCT.

EXHIBIT "B"

Concept Plan

Exhibit B - Concept Plan

A NEW PLANNED DEVELOPMENT DISTRICT FOR

THE EPISCOPAL CHURCH OF THE CROSS, LAKE TRAVIS

HWY 71, BEE CAVE, TX 78738

DATE:	07/24/20
DRAWN:	AB/JD/EL/MK
SCALE:	NTS

No.	Description	Date
	2nd TCEQ COMMENTS	2-9-21
	3rd TCEQ COMMENTS	5-14-21
	4th TCEQ COMMENTS	5-13-21
	5th TCEQ COMMENTS	7-30-21
	6th TCEQ COMMENTS	7-24-21

SHEET X OF X

CONCEPT PLAN

300

Exhibit B - Concept Plan

Buffer Section

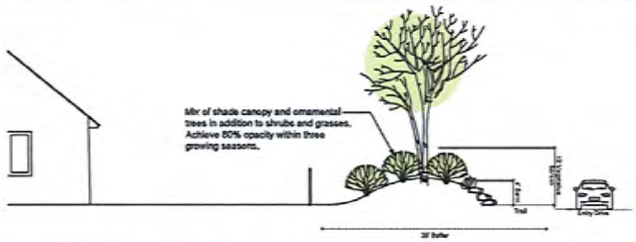


Table of Contents

- **Buildings**
- **Parking and Roads**
- **10' Public Use Trails**
  Stabilized decomposed granite or approved equal
- **5' Walkways**
  Concrete
- **Screening Plants**
  Mix of shade canopy and ornamental trees, shrubs and grasses.
- **Landscape Area**
  Green space within the buildable limits of the site - 310,200 SF.

Vicinity Map

A NEW PLANNED DEVELOPMENT DISTRICT FOR

THE EPISCOPAL CHURCH OF THE CROSS, LAKE TRAVIS

HWY 71, BEE CAVE, TX 78738

VERDI

LJA Engineering, Inc.

studio | steinbomer
ARCHITECTURE & INTERIORS

DATE:	7/24/20
DRAWN:	LR
SCALE:	AS NOTED

No.	Description	Date

SHEET X OF X

CONCEPT PLAN

L-301

EXHIBIT "C"

Development Standards

The following Planned Development Standards ("Development Standards") shall be applicable within this Planned Development District. To the extent that any of the following standards conflict with other City Ordinances, the following shall control. All development activity undertaken on the Property, shall comply with the development standards for the Public Zoning District, except as modified herein. Capitalized terms shall be defined as indicated in these Development Standards, as reflected on the Concept Plan, or as defined in the City of Bee Cave Code of Ordinances, depending upon context.

I. General Project Requirements.

The Property is an approximate 23-acre tract generally located north of Highway 71 between North Joint Access Road and Vail Divide Drive. The Project, the Church campus, includes a worship facility, fellowship hall, education building including a preschool for students aged infant through pre-kindergarten, a youth activities building and a facilities maintenance building. In addition to these buildings, the campus includes a large open space area with a network of pedestrian pathways over the former solid waste disposal site on the northern side of the property and a playfield to the east of the proposed youth building. While the general components of the church campus and their associated uses are depicted in the Concept Plan, the final square footage of building footprints and the location of buildings, parking and landscaped and other uses will be approved at Site Plan in accordance with the development standards contained herein. A high-density landscaped buffer is to be located along the western boundary of the Project as depicted in the Concept Plan to provide compatibility to the adjoining Falconhead West residential neighborhood. The Project also will provide an enhanced degree of tree preservation, maintaining a majority of the existing trees on the Property post development, in particular large trees, with a caliper of 24 inches or greater. Water quality components of the project are likewise intended to contribute to a park-like setting through design and construction that blends into the natural environment.

The Project is to further the City's connectivity goals along the Highway 71 corridor by including a cross- access drive across the front of the property connecting to the commercial developments at Vail Divide Drive and North Joint Access Drive. The eastern driveway, shared with Summit 56, Lot 1, will be constructed at the earlier of the development of the first structures of the Project or development of Summit 56, Lot 1. The Project also contributes to the City's pedestrian network by providing sidewalk connections to adjacent commercial properties along the joint access drive and from the trail within the Project to the Falconhead West neighborhood.

II. Project Phasing

Phase 1 of the Project shall include the cross-access drive and temporary water quality facilities as depicted in the Concept Plan. The development of the remainder of the Project depicted in the

Concept Plan may take place concurrently or follow Phase 1 and may be developed in multiple additional phases as necessary to meet the needs of the Owner. However, the construction of the eastern driveway, shared with Summit 56, Lot, 1 shall be completed prior to issuance of a Certificate of Occupancy for any structure within the Project.

III. Uses.

A. Preschool. The preschool use authorized for development within the Project is limited to a maximum enrollment of eighty full time equivalent students, ages infants though Pre-Kindergarten, and a maximum of twenty staff

IV. Buildings.

A. Design. Elevations for all buildings depicted on the Concept Plan shall conform to the City's Exterior Building Design Standards in effect on January 1, 2019 and may be approved in conjunction with their corresponding Site Plan, unless an amendment to this Ordinance is required or requested, in which case the elevations shall be considered for approval in conjunction with the zoning amendment.

B. Height. Building height shall be limited as follows and as depicted on the Concept Plan.

1. All Project buildings are limited to a maximum of one story, except for the Education building, as labeled on the Concept Plan that is permitted a maximum of two stories.

2. The Worship, Fellowship Hall, and Education buildings as labeled on the Concept Plan are permitted a maximum height of thirty-five feet (35'); all other Project buildings are limited to a maximum of twenty-five feet (25').

C. Tower. The Education Building is allowed a single tower as depicted on the Concept Plan. The tower shall not to exceed a height of 50', as measured from the elevation of the centerline of Hwy 71 at a point directly adjacent to the tower; and shall not be located farther than 200 feet from the southern property boundary or closer than 400 feet from the western property boundary.

V. Inter-site Connectivity.

A. Cross-access drive. The width of the cross-access drive depicted in the Concept Plan shall match the width of the existing joint use thoroughfare as depicted in the Easement Agreement for Access (OPRTCTx Doc. #2017156741). The cross-access drive shall be completed in Phase 1 of the development of the Project.

B. Joint Driveway. A joint driveway shall be constructed within the Access Easement Area at the southeast corner of the subject property and southwest corner of Tract 1, Summit 56 as

depicted in the Common Driveway Easement (OPRTCTx Doc #2012195387) with the construction of Phase 1 or the development of Lot 1, Summit 56 whichever occurs first. The joint driveway shall be completed prior to the issuance of a Certificate of Occupancy for any structure within the Project. The joint access driveway will be limited to right-in / right-out turning movements, only, onto Highway 71.

C. Access easements.

1. Access across Property. In conjunction with Site Plan or Plat approval, whichever occurs first Owner shall provide an easement granting Owners of Lots 1A, 1B, and 1C, Block A of Falconhead West, Phase 1, Section 2, and Phase 2 and Owners of all lots within the Summit 56 Subdivision access to the access drive across the front of the property depicted in the Concept Plan for the purpose of vehicular ingress and egress to the listed properties, Vail Divide Boulevard, and SH 71.

2. Access to light at North Joint Access Drive. In conjunction with Site Plan or Plat approval, whichever occurs first, Owner shall provide a copy of an easement evidencing Owner's right to utilize the 50 ft. joint use access easement on the adjacent properties: Summit 56, Lots 1, 2, and 3, for the purpose of accessing SH 71 via North Joint Access Drive.

D. Pedestrian connections.

1. Connections must be provided from the 10 ft. public use trail depicted in the Concept Plan to the adjacent Falconhead West residential neighborhood and Summit 56, Lots 1 and 2. The specific locations of the trail connections will be determined at Site Plan.

2. A minimum 5 ft. wide pedestrian connection must be provided between the Property and Lot 1C, Block A of Falconhead West, Phase 1, Section 2. This connection shall be in the general vicinity of the access road depicted in the Concept Plan, with the specific location determined at Site Plan.

VI. Parking.

A. Required parking for the project shall be determined based on the Site Plan and shall comply with the Off-Street Parking and Loading Requirements of the City's Code of Ordinances.

1. If shared parking is proposed, a parking study and evidence of shared parking arrangements with applicable adjacent landowners will be required with the Site Plan.

2. In addition to the parking spaces required by Off-Street Parking and Loading Requirements of the City's Code of Ordinances, a parking space must be provided for each of the church and associated preschool's vans, buses, or other vehicles.

VII. Open Space, Landscaping and Tree Preservation.

A. Tree Preservation.

1. Existing trees. A minimum of seventy percent (70%) of the caliper inches of trees existing on the property, as depicted in Exhibit D, Tree Survey, shall be maintained post-development.

2. Total trees. Post-development, the Project shall meet a minimum total tree preservation standard of eighty-five percent (85%) of caliper inches (existing and replacement).

3. Removal of large trees. Except for trees numbers 564, 646, and 769, as notated in Exhibit D, Tree Survey; the removal of trees with a caliper of 24 inches or greater is prohibited.

4. A tree survey completed within the preceding two years must be provided with each Site Plan application for the Project. The Tree Survey provided in Exhibit D shall be deemed adequate for any Site Plan application submitted to the City within two years of the Effective Date of this Ordinance.

B. High Density Landscape Buffer. A High-Density Landscape Buffer as depicted in the Concept Plan shall be located along the western boundary of the Property and shall have a minimum width of thirty-five feet (35'). The buffer shall be planted to provide screening with a minimum of eighty percent (80%) opacity to a height of ten feet (10') within three growing seasons of installation. The buffer shall also include an earthen berm measuring no less than 4 feet (4') in height.

C. Playfields.

1. The use of the Playfields associated with the Project by any sports organization not affiliated with the Episcopal Church shall be prohibited.

2. Playfield lighting shall conform to the standards of Section 32.05.012(c)(4)(C) of City's Code of Ordinances and may not exceed lighting for Class IV level of play per IES RPG-16. Playfield lighting shall also be certified by the International Dark Skies Association (IDA) as meeting the design and installation standards for the Community Friendly Outdoor Sports Lighting Program.

D. Trails and Sidewalks.

1. The location of trails shall be generally as depicted in the Concept Plan, however minor shifts in location may be approved by City Council with the Site Plan.

2. All public use trails depicted in the Concept Plan shall have a minimum width of 10 ft. and be composed of stabilized decomposed granite or materials as otherwise approved by City Council with the Site Plan.

3. All sidewalks depicted in the Concept Plan shall have a minimum width of 5 ft. and be composed of concrete.

4. Owner of the Property shall provide a blanket public access easement for trail and pedestrian access over the 75' landscape buffer required along West State Highway 71. The City may elect, at its sole discretion, to construct the trail, in which case the City will be responsible for the cost to do and subsequent costs to maintain it. After completion of trail construction, the 75' easement will be reduced to 20'. Recordation of the 'Blanket Access Easement Trail Agreement' shall be required prior to issuance of a Site Development Permit for the Project.

VIII. Water Quality.

A. Easements for Phase 1 BMPs. At the time of Site Plan for Phase 1, Owner shall provide an easement, by separate instrument, for the vegetated filter strips providing treatment to the cross-access drive. This easement will be vacated upon recordation of a permanent easement covering all project BMPs.

B. Ponds. Water quality pond(s) within the Project, shall be curvilinear in shape and designed and constructed to create park-like areas that blend into the natural environment. Exposed concrete shall be minimized, and ponds shall be landscaped and screened as depicted in the Concept Plan.

IX. Other Performance Measures.

A. TCEQ access gate. As part of Phase 1 of the Project, the existing gate, limiting access to the former solid waste disposal site area at the rear of the Property, shall be removed and a new gate installed at the end of the access road along the western boundary of the Property as depicted in the Concept Plan. The new gate shall be wrought iron in material and otherwise designed and installed in accordance with all applicable standards and requirements of the City's Code of Ordinances.

B. Cut and fill. The natural grade of the site shall be maintained to the greatest extent possible, except for the minimum amount of fill necessary to provide connection to the cross-access drive/driveways depicted in the Concept Plan.

C. Signage. The Project may be permitted off-premises signage on a monument sign on either of the adjacent properties in accordance with the standards of Section 28.05.005 of the City's Code of Ordinances. The ability of the Project to be included in such signage will be as per agreement between Owner of the Property and the owner of the subject property.

D. Platting required. A Plat for the Subject Property prepared in accordance with Chapter 30 of the City's Code of Ordinances must be approved and recorded prior to the issuance of a Site Development Permit for the Project; either a Development Plat or Preliminary and Final Plats are acceptable.

X. Concept Plan Amendments.

With the exception of the roadways and public improvements associated with Phase 1 of the Project, and in accordance with the following limitations, changes to the layout of the Project as depicted in the Concept Plan, including the location of parking areas, internal circulation, buildings and landscape features, may be approved with Site Plan approval without necessitating Concept Plan amendment(s).

A. Building placement: The placement of buildings may be adjusted as necessary to preserve additional trees; but may not be adjusted so that the minimum tree preservation falls below the project specific standards provided in Section E, above.

B. Building size: The size of buildings depicted in the Concept Plan may be adjusted, so long as changes in square footage do not create changes in trip generation as reflected in Exhibit E (Traffic Study). The total building square footage within the Project may not exceed 49,400 square feet.

C. Building height: The maximum height of buildings shall not exceed the standards of Section IV.B above.

D. Tower. The tower depicted in the Concept Plan shall not be modified except in accordance with the standards of Section IV.C above.

E. Parking location: All parking areas shall be separated from the cross-access drive and no parking space shall take direct access from the cross-access drive as depicted in the Concept Plan. Parking areas are prohibited within the side yard setbacks.

F. Natural design of water quality pond: The location of the water quality pond depicted in the Concept Plan may be adjusted so long as the pond maintains a curvilinear shape.

G. Playfield location: The playfields depicted in the Concept Plan shall not be located less than 400 feet east of the western property boundary or less than 650 feet south of the northern property boundary.

H. Minimum landscape area: The location and shape of landscaped areas depicted in the Concept Plan, excepting the 35 ft. landscape buffer along the western property boundary and 75 ft.SH-71 landscape buffer, may be adjusted, but the minimum greenspace area within the buildable limits of the site shall not be less than 310,200 SF.

XI. Pro-rata Share for Transportation Improvements.

The Concept Plan (Exhibit B) depicts a site configuration consistent with Scenario 1 described in the Traffic Study completed for the Project, attached hereto as Exhibit "E". Scenario 1 assumes that the Project has access to State Highway 71 (SH 71) via two existing signalized intersections: N. Joint Access Rd (Nitro Swim) and Vail Divide. Payment of the Pro-Rata Share of the Total Estimate Cost for the Intersection Improvements listed in Table 20A (Scenario 1) is required prior to the issuance of a Site Development Permit for Phase 1 of the Project.

In the event that Property is not granted right of access across Summit 56 Lots 1, 2, and 3 providing connection to the traffic signal at N. Joint Access Rd (Nitro Swim) a Concept Plan Amendment depicting site access configuration consistent with Scenario 2 as described in the Traffic Study is required and payment of the Pro-Rata Share of the Total Estimated Cost for Intersection Improvements listed in Table 20B (Scenario 2) shall be required prior to the issuance of a Site Development Permit for Phase 1 of the Project.

Exhibit D - Tree Survey

Legend

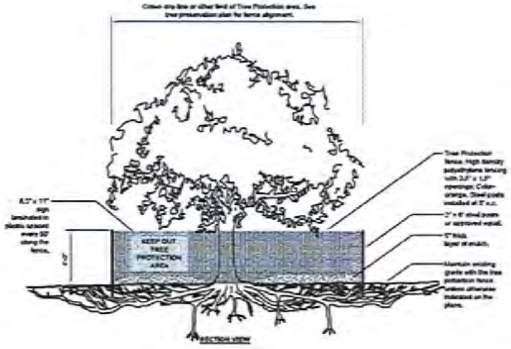
Trees to Remain

Trees to be Removed

General Notes

1. Tree protection shall be installed prior to construction.
2. Site plan shall include written specification for tree protection fence type and location.
3. No pruning shall be performed except by an approved arborist.
4. No equipment shall operate inside the protective fencing including during fence installation and removal.

Tree Protection



A NEW PLANNED DEVELOPMENT DISTRICT FOR

THE EPISCOPAL CHURCH OF THE CROSS, LAKE TRAVIS

HWY 71, BEE CAVE, TX 78738

VERDI

LJA Engineering, Inc.

studio | steinbomer
ARCHITECTURE & INTERIORS

DATE:	1/31/25
DRAWN:	LR
SCALE:	1" = 30'

No.	Description	Date
	No Board Task Requests	

SHEET X OF X
Tree Preservation Plan
L-302

Exhibit D - Tree Survey

TAG	CAL. INCH	DESCRIPTION	CONDITION
453	23	Live Oak	
454	20	10" and 15" Live Oak	
455	13	Live Oak	
456	25	Twin 12" and 13" Live Oak	
457	15	Hackberry	
458	7	Shin Oak	
459	9	Shin Oak	
470	6	Shin Oak	
471	8	Hackberry	
472	5	Shin Oak	
473	17.5	9" and 13" Live Oak	
474	13	Live Oak	
475	10	Live Oak	
476	12	Live Oak	
477	10	Live Oak	
478	13	Live Oak	
479	23	Cedar	
480	14	Live Oak	
481	13	Live Oak	
482	17	Live Oak	Remove
483	30	8", 12" and 20" Spanish Oak	
484	10	Live Oak	
485	19	Live Oak	
486	14	Live Oak	
487	8	Live Oak	
488	9	Live Oak	
489	12	Live Oak	
490	14	Live Oak	
491	4	Live Oak	
492	4	Live Oak	
493	12.5	5" and 10" Live Oak	
494	18	6" and 15" Live Oak	
495	9	Live Oak	
496	10	Live Oak	
497	20	Live Oak	
498	13	4" and 11" Live Oak	
499	11.5	7" and 8" Live Oak	
500	16.5	5", 6" and 11" Live Oak	
501	10	Live Oak	Remove
502	9	Live Oak	Remove
503	10	Live Oak	
504	11	Live Oak	
505	8	Live Oak	
506	8	Live Oak	
507	9	Live Oak	
508	10	Live Oak	
509	16.5	9" and 12" Live Oak	
510	11.5	7" and 8" Live Oak	
511	4	Live Oak	
512	22	16" and 15" Live Oak	Remove
513	13.5	7" and 10" Live Oak	
514	7	Live Oak	
515	13	4" and 11" Live Oak	
516	7	Live Oak	
517	10	Live Oak	
518	18.5	7" and 12" live Oak	
519	12	Live Oak	
520	22	8", 10" and 14" Live Oak	
521	13.5	7" and 10" Live Oak	
522	10	Live Oak	
523	11	Live Oak	
524	19	Live Oak	
525	14	Live Oak	
526	16	Live Oak	
527	15	Live Oak	
528	10	Live Oak	
529	12	Live Oak	
530	15	Live Oak	Remove
531	18	Live Oak	Remove
532	13	Live Oak	Remove
533	7	Live Oak	Remove
534	15	Live Oak	
535	15	Two 4", 6" and 8" Live Oak	
536	16.5	5", 7" and 10" Live Oak	
537	6	Live Oak	
538	8	Live Oak	
539	7	Live Oak	
540	13	Two 8" Live Oaks	
541	17.5	6", 9" and 10" Live Oak	Remove
542	18	Spanish Oak	
543	13	Live Oak	
544	13	Live Oak	
545	12	Two 8" Live Oaks	
546	16	Live Oak	
547	7	Live Oak	
548	17.5	11" and 12" Live Oak	
549	16	Live Oak	
550	9	Live Oak	
551	22	12" and 16" Live Oak	
552	27	11", 13" and 15" Live Oak	
553	13	Live Oak	Remove
554	45	9", 13" 16" and 26" Live Oak	
555	12	Live Oak	Remove
556	8	Live Oak	Remove
557	11.5	Live Oak	
558	26	16" and 18" Spanish Oak	
559	17	Spanish Oak	Remove
560	26	16" and 18" Spanish Oak	
561	29	12" and 13" Spanish Oak	
562	15	Live Oak	Remove
563	29	8", 10" and 20" Live Oak	Remove
564	35.5	9" and 11" Live Oak	Remove
565	18	Spanish Oak	
566	9	Live Oak	Remove
567	8	Live Oak	Remove
568	7.5	Live Oak	Remove
569	17	10" and 12" Live Oak	Remove
570	10	Live Oak	Remove
571	12	Live Oak	Remove
572	7	Live Oak	
573	13.5	4", 5" and Two 6" Live Oak	
574	7	Live Oak	
575	11	Live Oak	
576	12	4" and 10" Live Oak	
577	12	Live Oak	
578	14	4" and 12" Live Oak	
579	11	Live Oak	
580	15	9" and 11" Live Oak	
581	13	8" and 9" Live Oak	
582	9	Live Oak	
583	16.5	Live Oak	
584	9	Live Oak	
585	9	Live Oak	
586	11	Live Oak	
587	11	Live Oak	Remove
588	13.5	10" and 7" Live Oak	
589	9	Live Oak	
590	12	Live Oak	
591	11	Live Oak	
592	14	Live Oak	
593	18	Live Oak	Remove
594	20	Live Oak	Remove
595	15	Live Oak	Remove
596	13	Live Oak	Remove
597	14	Live Oak	
598	26	Live Oak	
599	12	Live Oak	Remove
600	71	Live Oak	Remove
602	9	Live Oak	Remove
603	12	Live Oak	Remove
604	12	Live Oak	
605	21	8" and 17" Live Oak	Remove
606	12	Two 8" Live Oaks	Remove
607	12	Live Oak	
608	13.5	7" and 12" Live Oak	Remove
609	14	Live Oak	
610	11	Live Oak	
611	10	Live Oak	
612	18	Live Oak	
613	9	Live Oak	
614	5	Live Oak	
615	6	Live Oak	
616	8	Live Oak	
618	7	Live Oak	
620	15.5	9" and 12" Live Oak	
620	7	Live Oak	
621	11	Live Oak	
622	8	Live Oak	
623	15	8" and 11" Live Oak	
624	14	8" and 10" Live Oak	
625	13	8" and 9" Live Oak	
626	16	3", 9" and 10" Live Oak	
627	6	Live Oak	
628	20	Live Oak	
629	13	8" and 9" Live Oak	
630	8	4" and 6" Live Oak	
631	9	Live Oak	
632	6	Live Oak	
633	9	Live Oak	
634	9.5	3" and 8" Live Oak	
635	5	Live Oak	
636	8	Live Oak	
637	5	Live Oak	
638	6	Live Oak	
639	7	Live Oak	
640	15	Live Oak	Remove
641	13	Live Oak	
642	15	Live Oak	Remove
643	9	Live Oak	Remove
644	13	Live Oak	
645	17	Spanish Oak	Remove
646	27.5	10" and 20" Live Oak	Remove
647	12	Two 8" Live Oaks	
648	11.5	7" and 8" Live Oak	
649	11	Live Oak	
650	12	4" and 10" Live Oak	
652	8	Live Oak	
653	7	Live Oak	Remove
654	12	Live Oak	Remove
655	8	Live Oak	Remove
656	7	Live Oak	Remove
657	9	Live Oak	Remove
658	23.5	15" and 16" Spanish Oak	
659	23	Spanish Oak	
660	25.5	15" and 16" Live Oak	
661	9	Live Oak	
662	9	Live Oak	
663	9	Live Oak	
664	13	Live Oak	
665	17	Live Oak	
666	17	Live Oak	
667	10	Live Oak	
668	17	Live Oak	
669	12	Live Oak	
670	23.5	11" and 15" Live Oak	
671	8	Live Oak	
672	6	Live Oak	
673	13	Live Oak	
674	20	Elm	
675	7	Elm	
676	15	Elm	
677	14	Elm	Remove
678	20	Post Oak	Remove
679	10	Live Oak	Remove
680	8	4" and 6" Elm	Remove
681	19	Elm	Remove
682	22	Spanish Oak	Remove
683	14	Live Oak	Remove
684	13	Live Oak	Remove
685	15.5	7" and 12" Live Oak	Remove
686	19	Spanish Oak	Remove
687	14	Live Oak	Remove
688	19	Live Oak	
689	5	Live Oak	
690	6	Live Oak	
691	4	Live Oak	
692	21	Live Oak	Remove
693	8	Live Oak	Remove
694	10	Live Oak	Remove
695	11	Live Oak	Remove
696	9	Live Oak	Remove
697	15	Live Oak	Remove
698	23.5	9", 10" and 14" Live Oak	Remove
699	12	Live Oak	Remove
700	8	Live Oak	Remove
701	8	Live Oak	Remove
702	18.5	11" and 13" Live Oak	
703	17	8" and 13" Live Oak	Remove
704	14	Live Oak	Remove
705	25	5", 9", 10" and 13" Live Oak	
706	10	Live Oak	
707	17	10" and 12" Live Oak	
708	11	Live Oak	
709	6	Live Oak	
710	13.5	5" and 11" Live Oak	
711	12.5	5" and 10" Live Oak	
712	10	Live Oak	
714	6	Live Oak	
715	10	Live Oak	
716	13.5	Two 9" Live Oaks	
717	10	Live Oak	
718	13	Live Oak	Remove
719	13	8" and 9" Live Oak	Remove
720	5	Live Oak	Remove
721	10	Live Oak	Remove
722	18.5	9", 9" and 10" Live Oak	Remove
723	14.5	4", 7" and 8" Live Oak	Remove
724	15.5	9" and 11" Live Oak	Remove
725	15.5	7" and 12" Live Oak	
726	18	10" and 13" Live Oak	
727	8	Live Oak	
728	13.5	5" and 11" Live Oak	
729	11.5	7" and 8" Live Oak	Remove
730	9	Live Oak	Remove
731	12.5	7" and 9" Live Oak	Remove
732	13.5	7" and 10" Live Oak	Remove
733	11	Live Oak	Remove
734	14.5	9" and 10" Live Oak	
735	6	Live Oak	
736	14.5	9" and 10" Live Oak	Remove
737	10	Live Oak	Remove
738	10	Live Oak	Remove
739	14.5	9" and 10" Live Oak	Remove
740	9	Live Oak	
741	7	Live Oak	
742	12	Live Oak	
743	20	12" and 14" Live Oak	
744	7	Live Oak	
745	7	Live Oak	
746	12	Live Oak	Remove
747	10	Live Oak	Remove
748	10	Live Oak	Remove
749	20	Live Oak	Remove
750	10	Live Oak	Remove
751	23	Live Oak	Remove
752	13	Live Oak	Remove
753	12	Live Oak	Remove
754	21.5	13" and 15" Live Oak	
755	12.5	5", 6" and 7" Post Oak	
756	10	Live Oak	
757	17	10" and 12" Live Oak	
758	10	Live Oak	
759	20.5	7" and 13" Live Oak	
760	8	Live Oak	
761	11	Live Oak	
762	9	Chinaberry	
763	12	Live Oak	
764	9	Chinaberry	
765	17.5	9" and 12" Live Oak	
766	16.5	9" and 12" Live Oak	Remove
767	8.5	5" and 6" Live Oak	Remove
768	9	Live Oak	Remove
769	30.5	3", 5", 11", 12" and 15" Live Oak	Remove
770	19	4" and Two 10" Live Oak	
771	12	Live Oak	
772	4	Mesquite	
773	11	Live Oak	
774	22	Live Oak	
775	20	Live Oak	
776	24	Cedar	
777	27	Spanish Oak	
778	17	Live Oak	
779	30	18" and 22" Live Oak	
780	31	9", 11" and 21" Live Oak	
781	13	Live Oak	
782	11	Live Oak	
783	19	Live Oak	
784	16	Live Oak	
785	29	Live Oak	
786	17	Live Oak	Remove
787	18	Live Oak	Remove
788	26.5	10", 13" and 15" Live Oak	
789	22	Live Oak	
790	16	8" and 12" Spanish Oak	
791	22	Spanish Oak	
792	16	Cedar	
793	18.5	11" and 12" Spanish Oak	
794	17	Live Oak	
795	15	Live Oak	
796	13	Live Oak	
797	12	Live Oak	
798	6		
799	9	Live Oak	
800	16	Live Oak	
801	10	Live Oak	
802	7	Live Oak	
803	9	Live Oak	
804	12	Elm	
805	12	Elm	Remove
806	9	Live Oak	Remove
807	8	Live Oak	Remove
808	12	Live Oak	Remove
809	16	Live Oak	Remove
810	6	Live Oak	
811	13	8" and 9" Live Oak	
812	22	Elm	Remove
813	13	Live Oak	
814	10	Live Oak	
815	12	Live Oak	
816	9	Live Oak	
817	23.5	4", 10" and Two 11" Live Oak	Remove
818	15	Live Oak	
819	11	Live Oak	
820	14	Live Oak	
821	14	Live Oak	Remove
822	13	Live Oak	
823	16	10" and 11" Live Oak	Remove
824	23.5	10", 11" and 13" Live Oak	Remove
825	31	10" and 25" Live Oak	
826	28	12" and 19" Post Oak	
827	26.5	12", 13" and 14" Spanish Oak	
828	24.5	17" and 20" Live Oak	
829	48.5	11", 13", 17" and 28" Live Oak	
830	14	Live Oak	
831	18	Live Oak	
832	12	Live Oak	
833	34	Post Oak	
834	20	Cedar	
835	13.5	9" and 13" Live Oak	
836	11	Live Oak	
837	8	Live Oak	
838	22	14" and 15" Live Oak	
839	20	Live Oak	
840	7	Live Oak	
841	5	Live Oak	
842	12	Live Oak	
843	14	Live Oak	
844	8	Live Oak	
845	28.5	Two 18" Live Oaks	
846	4	Hackberry	
847	17.5	11" and 12" Mesquite	
848	15	Elm	Remove
850	27	9", 10", 11" and 12" Live Oak	
851	14.5	5" and 12" Live Oak	
852	15	Two 10" Live Oaks	
853	16	Spanish Oak	Remove
854	14	8" and 10" Elm	Remove
855	18	Elm	Remove
856	12	Live Oak	
857	18	10" and 13" Spanish Oak	
859	31	6", 8", 10", 12" and 15" Mesquite	
860	20.5	11" and 15" Live Oak	
861	29	Two 5", Two 9" and 15" Mesquite	
862	12	6" and 9" Mesquite	
863	22	8" and 16" Live Oak	
864	9	Mesquite	
865	22.5	8", 11" and 13" Mesquite	
866	20.5	6", 7", 8" and 10" Mesquite	
867	17	9" and 13" Mesquite	
868	20.5	11" and 15" Live Oak	
869	15	Live Oak	
871	4	Live Oak	

Tree Summary		
	Preserved	Removed
Surveyed Trees Total	3964.5"	1658"
Trees over 12"	3757.5"	1065.5"
Live Oaks - Quercus virginiana	3306"	1310"

Minimum Required Tree Preservation Summary		
Surveyed Trees Total	5622.5"	
Preserved Trees Less Than 12"	1237"	100% = 1237"
Preserved Trees Over 12"	2757.5"	150% = 4136"
Tree Clusters	TBD	115% =
Total		5373"

Preservation Percentages: 60% = 3373.5"
70% = 3868.75"
85% = 4720"

A NEW PLANNED DEVELOPMENT DISTRICT FOR

THE EPISCOPAL CHURCH OF THE CROSS, LAKE TRAVIS

HWY 71, BEE CAVE, TX 78738

VERDI

LJA Engineering, Inc.

studio | steinbomer
ARCHITECTURE & INTERIORS

DATE: 1/31/20
DRAWN: LR
SCALE: NA

No.	Description	Date

SHEET X OF X
Tree List
L-303

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July 24, 2020

City of Bee Cave
4000 Galleria Pkwy
Bee Cave, Texas 78738

Re: Proposed Bee Cave Episcopal Church
Traffic Study

The purpose of this memorandum is to summarize the findings of a detailed traffic study performed by LJA Engineering, Inc. for a proposed Episcopal Church in the City of Bee Cave, Texas. The planned location of the church is north of SH 71 between Vail Divide and Nitro Drive. Anticipated schedule for construction completion is 2022. The traffic study area is shown in **Exhibit 1** and a layout of the roadway network and access to the proposed church is displayed in **Appendix A.**

EXISTING CONDITIONS

Data collection, taken on August 8th, 2017, from the Lake Travis ISD 136 Acre Tract TIA was used for existing traffic counts. Full existing traffic count data can be seen in **Appendix B** and in **Exhibits 2 & 3**. The collected data was increased at a rate of 3.5 percent per year to develop 2022 Background Conditions as shown in **Exhibits 4 & 5**. The Austin District Traffic Map provides Annual Average Daily Traffic (AADT) data. The AADT data location used was SH 71 west of Hamilton Pool Road. This data location is the only data available on SH 71 near the proposed development. **Table 1** summarizes the data collected used to calculate an annual growth factor.

Table 1: Annual Growth Factor

Location	2015 AADT (No. of veh)	2013 AADT (No. of veh)	2011 AADT (No. of veh)
SH 71 west of Hamilton Pool Road	33,013	30,990	29,000
Growth Rates			
Growth Rate (2015-2013)	3.21%		
Growth Rate (2015-2011)	3.29%		
Growth Rate (2013-2011)	3.37%		

Sunday existing traffic counts were not included in the Lake Travis ISD TIA, so a reduction factor of 20% was applied to the AM peak hour counts to establish the needed volumes. Weekend peak hours tend to spike once during a range from 10 AM to 5 PM instead of the typical AM and PM peak hours during weekdays, so the reduction is necessary to represent this. To confirm the reduction along SH 71, recent traffic counts collected for a nearby development, The Village at Spanish Oaks, were analyzed. **Table 2** summarizes the reduction between a typical weekday peak hour and a Saturday peak hour along SH 71.

Table 2: Weekend Traffic Volume Reduction

Location	Weekday Peak Hour Volume (vph)	Saturday Peak Hour Volume (vpd)	Reduction (%)
WB SH 71 at Hamilton Pool	1,740	1,322	24
EB SH 71 at Hamilton Pool	1,538	1,256	18
		Average	**21**

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Other project traffic from five existing TIA's were included in the analysis as shown in **Exhibits 6 & 7**. The included TIA's are listed below:

- Vail Divide at Falconhead West Commercial
- Summit 56
- Canyonside at Falconhead
- Terra Colinas
- LTISD 136 Acre Tract

A reduction factor of 20% was also applied to the other project AM peak hour site traffic to establish the needed volumes for Sunday analysis. A full breakdown of the other project traffic is shown in **Appendix C**.

No-Build traffic volumes including background and other project traffic volumes are displayed in **Exhibits 8 & 9**.

TRIP GENERATION

The anticipated land uses specified for trip generation purposes consists of a church with a combined 32,400 square feet, which includes ancillary buildings of a 12,600 square feet Fellowship Hall with a kitchen, a 6,000 square feet Youth Building, a 1,800 square feet Facilities Building, and the 12,000 square feet Worship Building. The site also includes a separate 17,000 square feet daycare, allocated for a preschool. Weekday AM & PM, Saturday, and Sunday peak hour trips were calculated. The Saturday peak hour was included for special events, such as weddings and/or spiritual retreats. The Sunday peak hour was included for Sunday service at the Worship Building and other church related events. Although the site also proposes a sports field, organized sports are not intended to occur, so it was not included in the trip generation analysis. Weekday trip generation was performed using square footage of the church buildings and the preschool separately. Weekend trips were calculated using the square footage of the church buildings and daycare as a church land use to provide the most conservative trip generation estimation. Trip generation estimates are listed below in **Table 3**:

Table 3: Trip Generation

ITE Code	ITE Name	Units		Weekday						
				Daily	AM Peak Hour	PM Peak Hour	AM In	AM Out	PM In	PM Out
560	Church	32.4	1,000 SF	225	11	16	7	4	7	9
565	Day Care Center	17	1,000 SF	810	187	189	99	88	89	100
			Total	**1,035**	**198**	**205**	**106**	**92**	**96**	**109**

ITE Code	ITE Name	Units		Saturday		
				Peak Hour	Peak In	Peak Out
560	Church	49.4	1,000 SF	137	81	56
			Total	**137**	**81**	**56**

ITE Code	ITE Name	Units		Sunday		
				Peak Hour	Peak In	Peak Out
560	Church	49.4	1,000 SF	494	237	257
			Total	**494**	**237**	**257**

*Trip generation estimated using Trip Generation, 10th Ed., Institute of Transportation Engineers

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PARKING ANALYSIS

An analysis of the parking demand for the Bee Cave Episcopal Church was performed to determine the number of parking spaces needed due to the overlap between the church and daycare land uses. **Table 3A** shows the results for weekday parking demand based on calculations from ITE Parking Manual. The manual does not provide detailed rates for church weekday parking but lists data from 3 sites. The site with the median rate was chosen for the calculation.

Table 3A: Weekday Parking Demand

ITE Code	ITE Name	Size	Units	Weekday	
				85th % Rate	Vehicles
560	Church	32.4	1,000 SF	1.17 veh per 1,000 sqft	38
565	Day Care Center	17	1,000 SF	3.7 veh per 1,000 sqft	63
			Total		**101**

Table 3B shows the results for weekend parking demand. The church parking demand used for the calculation is based off of the number of seats in the proposed worship building. The manual does not provide weekend daycare data and it was assumed that the day care would not anticipate any activities on the weekend.

Table 3B: Weekend Parking Demand

ITE Code	ITE Name	Size	Units	Sunday	
				85th % Rate	Vehicles
560	Church	450	Seats	0.25 veh per seat	113
565	Day Care Center	17	1,000 SF	N/A	N/A
			Total		**113**

The Bee Cave Episcopal Church site plan provides 207 parking spots, which meets the calculated demand for weekday and weekend parking shown in **Tables 3A & 3B**.

TRIP DISTRIBUTION

Vehicle trips generated by the proposed developments were distributed to the surrounding roadway network in accordance with the existing weekday AM/ PM, and Sunday peak hour travel patterns and estimated for proposed intersections. Only the Sunday peak hour trips were used for the weekend analysis as it produces more trips than the Saturday peak hour as shown in the Trip Generation Tables. Two separate trip distributions were performed due to the unknown construction completion of the future connections to Vail Divide and Nitro Drive. The future development that will provide the connection to Vail Divide is currently under construction, so it will be assumed to be constructed in all 2022 scenarios. The future development that will provide the connection to Nitro Drive does not currently have a definite timeline, so two scenarios were performed. The first scenario assumes that SH 71 access will be available via two existing signalized intersections, Nitro Swim and Vail Divide, along with the two proposed SH 71 Driveways B & C allowing right-in/right-out turning movements. The second scenario assumes site traffic will access SH 71 via one existing signalized intersection, Vail Divide, as well as Driveways B & C. In this second scenario, Driveway C

was analyzed to include eastbound SH 71 left turning movements as well as westbound right-in/right-out movements. This is to help mitigate the left turns in the previous scenario at the Nitro Swim intersection that are not permissible in this scenario. **Table 4A and 4B** display the overall breakdown of trip distribution for the study area. **Exhibits 10, 11, 16, & 17** illustrate the trip distribution breakdown for each scenario and **Exhibits 12, 13, 18, & 19** display the trips assigned to the roadway network in accordance with the trip distribution patterns.

Table 4A: Trip Distribution - Scenario 1 (SH 71 Access via Nitro Swim and Vail Divide)

Trip Distribution - AM			Trip Distribution - PM			Trip Distribution - Sunday		
Intersection	**In**	**Out**	**Intersection**	**In**	**Out**	**Intersection**	**In**	**Out**
SH 71 at Vail Divide			**SH 71 at Vail Divide**			**SH 71 at Vail Divide**		
- EB SH 71 - Left	30%		- EB SH 71 - Left	20%		- EB SH 71 - Left	30%	
- NB Vail Divide - Through	5%		- NB Vail Divide - Through	5%		- NB Vail Divide - Through	5%	
- SB Vail Divide - Left		5%	- SB Vail Divide - Left		5%	- SB Vail Divide - Left		5%
- SB Vail Divide - Through		5%	- SB Vail Divide - Through		5%	- SB Vail Divide - Through		5%
Vail Divide at Dwy A			**Vail Divide at Dwy A**			**Vail Divide at Dwy A**		
- NB Vail Divide - Right	35%		- NB Vail Divide - Right	25%		- NB Vail Divide - Right	35%	
- SB Vail Divide - Left	10%		- SB Vail Divide - Left	10%		- SB Vail Divide - Left	10%	
- WB Dwy A - Left		10%	- WB Dwy A - Left		10%	- WB Dwy A - Left		10%
- WB Dwy A - Right		10%	- WB Dwy A - Right		10%	- WB Dwy A - Right		10%
SH 71 at Dwy B			**SH 71 at Dwy B**			**SH 71 at Dwy B**		
- WB SH 71 - Right	10%		- WB SH 71 - Right	20%		- WB SH 71 - Right	15%	
- SB Dwy B - Right		20%	- SB Dwy B - Right		30%	- SB Dwy B - Right		20%
SH 71 at Dwy C			**SH 71 at Dwy C**			**SH 71 at Dwy C**		
- WB SH 71 - Right	20%		- WB SH 71 - Right	25%		- WB SH 71 - Right	20%	
- SB Dwy B - Right		15%	- SB Dwy B - Right		20%	- SB Dwy B - Right		20%
SH 71 at Nitro Drive			**SH 71 at Nitro Drive**			**SH 71 at Nitro Drive**		
- EB SH 71 - Left	15%		- EB SH 71 - Left	10%		- EB SH 71 - Left	10%	
- WB SH 71 - Right	5%		- WB SH 71 - Right	5%		- WB SH 71 - Right	5%	
- NB Nitro Dwy - Through	5%		- NB Nitro Dwy - Through	5%		- NB Nitro Dwy - Through	5%	
- SB Nitro Dwy - Through		5%	- SB Nitro Dwy - Through		5%	- SB Nitro Dwy - Through		5%
- SB Nitro Dwy - Left		40%	- SB Nitro Dwy - Left		25%	- SB Nitro Dwy - Left		35%
Total	**100%**	**100%**	**Total**	**100%**	**100%**	**Total**	**100%**	**100%**

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Table 4B: Trip Distribution - Scenario 2 (SH 71 EB Left Turn Lane at Driveway C)

Trip Distribution - AM			Trip Distribution - PM			Trip Distribution - Sunday		
Intersection	**In**	**Out**	**Intersection**	**In**	**Out**	**Intersection**	**In**	**Out**
SH 71 at Vail Divide			**SH 71 at Vail Divide**			**SH 71 at Vail Divide**		
- EB SH 71 - Left	20%		- EB SH 71 - Left	15%		- EB SH 71 - Left	25%	
- NB Vail Divide - Through	5%		- NB Vail Divide - Through	5%		- NB Vail Divide - Through	5%	
- SB Vail Divide - Left		45%	- SB Vail Divide - Left		35%	- SB Vail Divide - Left		40%
- SB Vail Divide - Through		10%	- SB Vail Divide - Through		5%	- SB Vail Divide - Through		10%
Vail Divide at Dwy A			**Vail Divide at Dwy A**			**Vail Divide at Dwy A**		
- NB Vail Divide - Right	25%		- NB Vail Divide - Right	20%		- NB Vail Divide - Right	30%	
- SB Vail Divide - Left	10%		- SB Vail Divide - Left	10%		- SB Vail Divide - Left	10%	
- WB Dwy A - Left		55%	- WB Dwy A - Left		40%	- WB Dwy A - Left		50%
- WB Dwy A - Right		10%	- WB Dwy A - Right		10%	- WB Dwy A - Right		10%
SH 71 at Dwy B			**SH 71 at Dwy B**			**SH 71 at Dwy B**		
- WB SH 71 - Right	10%		- WB SH 71 - Right	20%		- WB SH 71 - Right	15%	
- SB Dwy B - Right		20%	- SB Dwy B - Right		30%	- SB Dwy B - Right		20%
SH 71 at Dwy C			**SH 71 at Dwy C**			**SH 71 at Dwy C**		
- EB SH 71 - Left	25%		- EB SH 71 - Left	20%		- EB SH 71 - Left	25%	
- WB SH 71 - Right	30%		- WB SH 71 - Right	30%		- WB SH 71 - Right	20%	
- SB Dwy B - Right		15%	- SB Dwy B - Right		20%	- SB Dwy B - Right		20%
SH 71 at Nitro Drive			**SH 71 at Nitro Drive**			**SH 71 at Nitro Drive**		
- EB SH 71 - Left	0%		- EB SH 71 - Left	0%		- EB SH 71 - Left	0%	
- WB SH 71 - Right	0%		- WB SH 71 - Right	0%		- WB SH 71 - Right	0%	
- NB Nitro Dwy - Through	0%		- NB Nitro Dwy - Through	0%		- NB Nitro Dwy - Through	0%	
- SB Nitro Dwy - Through		0%	- SB Nitro Dwy - Through		0%	- SB Nitro Dwy - Through		0%
- SB Nitro Dwy - Left		0%	- SB Nitro Dwy - Left		0%	- SB Nitro Dwy - Left		0%
Total	**100%**	**100%**	**Total**	**100%**	**100%**	**Total**	**100%**	**100%**

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DRIVEWAY ANALYSIS

Driveways B and C provide access to the proposed site from SH 71. Driveway B was recently constructed and consists of a raised curbed median to create a right-in/right-out channelized driveway. Driveway C will have two different configurations depending which build scenario takes place. In Scenario 1 the raised curb median will channelize right turning movements to and from the proposed westbound acceleration/deceleration lanes. This raised median will also prohibit eastbound SH 71 left turns into Driveway C and is displayed in **Figure 1** below. In Scenario 2 the raised curb median will channelize right turning movements leaving the site to prevent left turns from the site. Eastbound SH 71 left turning movements will be allowed with this configuration and can be seen below in **Figure 2**.

Figure 1: Driveway C Configuration (Scenario 1)

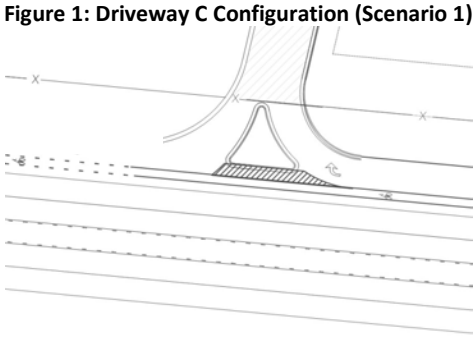
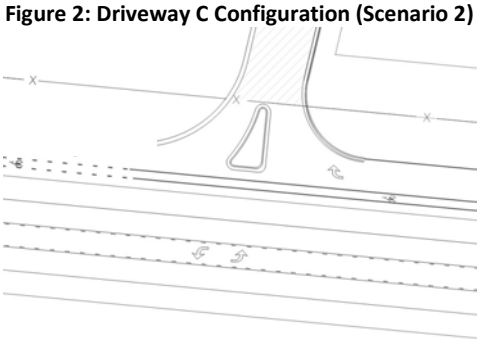


Figure 2: Driveway C Configuration (Scenario 2)



The ***TxDOT Access Management Manual*** provides specific criteria for the requirement of a deceleration lane for right turns into a property. *Table 2-3: Auxiliary Lane Thresholds* lists the number of turning vehicles per hour dependent on the roadway speed limit. SH 71 has a posted speed limit of 55 miles per hour, therefore the following criteria warrants a deceleration lane:

Speed limit higher than 45 miles per hour (mph);

- Traffic volume of 50 vehicles per hour (vph) or more.

The largest number of westbound SH 71 right turns into the site are 47 vph for Driveway C in the Sunday peak hour. As a result, the anticipated peak hour trips entering the proposed driveways will be under the 50 vph threshold. Although Driveway C does not meet this criteria, the manual also states that a deceleration lane should be considered in situations where there is heavy peak flow on the main roadway (SH 71). The proposed deceleration lane for Driveway B is displayed in **Appendix D** for each build scenario.

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INTERSECTION CAPACITY ANALYSIS

Two existing intersections, SH 71/Vail Divide and SH 71/Nitro Drive, and three proposed driveways were analyzed in the traffic study to determine the impacts of the proposed church and the ancillary buildings to the surrounding area. Two separate analyses were performed due to the unknown construction completion of the proposed connections to Vail Divide and Nitro Drive, as described in the Trip Distribution section. The intersection capacity analyses summarize queue lengths, delay, and level of service (LOS) for the intersection or specific controlled movements.

Intersection capacity analysis for Scenario 1 and Scenario 2 were analyzed for 2017 Existing, 2022 No-Build, and 2022 Build Conditions during AM, PM, and Sunday peak hours. 2022 Build traffic volumes used for the analyses of each scenario are displayed in **Exhibits 14, 15, 20, & 21**. Mitigation models for all peak periods were also produced to improve LOS and delay back to No-Build conditions. Results of queue lengths, delay, and level of service (LOS) at each intersection can be found in **Tables 5-18** below. Complete capacity analysis output files are located in **Appendix E**.

Intersection Capacity Analysis – Scenario 1 (Site access via Nitro Drive)

Table 5: AM Peak Hour LOS & Delay - Scenario 1

Intersection	Type of Control	AM Existing		AM No Build		Scenario 1			
						AM Build		AM Mitigated	
		LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
SH 71 and Vail Divide	Signalized	B	19.1	F	88.9	F	89.3	E	77.6
SH 71 and Nitro Drive	Signalized	B	17.1	D	47.8	E	56.5	D	36.8
Vail Divide and Dwy A	One-way stop-controlled (Westbound Approach)	N/A	N/A	B	12.2	B	12.8	B	12.8
SH 71 and Dwy B	Right-in/Right-out (Southbound)	N/A	N/A	C	18.2	C	19.3	N/A	N/A
SH 71 and Dwy C	Right-in/Right-out (Southbound)	N/A	N/A	D	31.3	D	29.0	N/A	N/A

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Table 6: PM Peak Hour LOS & Delay - Scenario 1									
Intersection	Type of Control	PM Existing		PM No Build		Scenario 1			
						PM Build		PM Mitigated	
		LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
SH 71 and Vail Divide	Signalized	C	23.2	E	76.4	F	97.7	E	58.8
SH 71 and Nitro Drive	Signalized	C	22.7	F	148.4	F	156.3	F	122.1
Vail Divide and Dwy A	One-way stop-controlled (Westbound Approach)	N/A	N/A	B	11.3	B	11.8	B	11.8
SH 71 and Dwy B	Right-in/Right-out (Southbound)	N/A	N/A	F	106.7	F	194.7	N/A	N/A
SH 71 and Dwy C	Right-in/Right-out (Southbound)	N/A	N/A	F	506.3	F	526.6	N/A	N/A

Table 7: Sunday Peak Hour LOS & Delay - Scenario 1									
Intersection	Type of Control	Sunday Existing		Sunday No Build		Scenario 1			
						Sunday Build		Sunday Mitigated	
		LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
SH 71 and Vail Divide	Signalized	B	18.7	C	28.0	C	30.2	C	27.8
SH 71 and Nitro Drive	Signalized	B	17.0	C	20.7	C	31.7	C	23.2
Vail Divide and Dwy A	One-way stop-controlled (Westbound Approach)	N/A	N/A	B	10.8	B	11.6	B	11.6
SH 71 and Dwy B	Right-in/Right-out (Southbound)	N/A	N/A	B	14.2	C	15.9	N/A	N/A
SH 71 and Dwy C	Right-in/Right-out (Southbound)	N/A	N/A	C	17.5	C	19.2	N/A	N/A

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Table 8: Intersection Capacity Analysis Summary – Queue Length (ft)												
SH 71 / Vail Divide - Scenario 1												
Intersection	AM Peak				PM Peak				Sunday Peak			
	Existing	2022 No-Build	2022 Build	2022 Mitigated	Existing	2022 No-Build	2022 Build	2022 Mitigated	Existing	2022 No-Build	2022 Build	2022 Mitigated
EBL	15	45	60	76	21	41	71	109	15	33	63	69
EBT	481	1127	1137	1162	366	580	594	944	366	661	688	866
EBR	0	44	44	20	0	18	10	16	0	0	0	0
WBL	15	425	428	297	32	676	718	278	15	98	102	83
WBT	265	466	490	223	683	1200	1284	678	216	310	363	458
WBR	0	0	0	1	18	44	46	3	0	0	0	6
NBL	23	171	170	246	30	217	208	329	18	73	74	75
NBT	24	109	115	115	19	62	69	81	22	64	81	84
NBR	0	77	76	110	0	14	0	43	0	0	0	3
SBL	151	424	428	236	51	158	166	107	95	406	440	164
SBT/R	42	116	124	125	48	116	132	196	37	51	67	69

Table 9: Intersection Capacity Analysis Summary – Queue Length (ft)												
SH 71 / Nitro Drive- Scenario 1												
Intersection	AM Peak				PM Peak				Sunday Peak			
	Existing	2022 No-Build	2022 Build	2022 Mitigated	Existing	2022 No-Build	2022 Build	2022 Mitigated	Existing	2022 No-Build	2022 Build	2022 Mitigated
EBL	2	423	471	172	21	395	414	309	2	133	202	173
EBT	495	1097	1112	154	357	657	664	59	350	595	627	122
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	6	73	74	65	5	116	116	64	6	38	42	45
WBT	275	553	583	855	775	1697	1736	2005	209	333	384	473
WBR	0	0	0	0	16	46	43	27	0	0	0	0
NBL	5	74	74	80	5	254	256	308	5	63	63	65
NBT	6	16	27	29	6	25	34	40	6	14	35	38
NBR	0	0	0	0	0	0	0	9	0	0	0	0
SBL	5	335	405	134	87	331	401	195	5	251	424	137
SBT/R	9	44	52	54	31	210	222	274	8	39	57	59

Table 10: Intersection Capacity Analysis Summary – Queue Length (ft)						
Vail Divide / Driveway A- Scenario 1						
Intersection	AM Peak		PM Peak		Sunday Peak	
	2022 No-Build	2022 Build	2022 No-Build	2022 Build	2022 No-Build	2022 Build
WBL	15	15	7.5	10	7.5	12.5
SBL	2.5	2.5	0	2.5	2.5	2.5

Table 11: Intersection Capacity Analysis Summary – Queue Length (ft)						
SH 71/ Driveway B- Scenario 1						
Intersection	AM Peak		PM Peak		Sunday Peak	
	2022 No-Build	2022 Build	2022 No-Build	2022 Build	2022 No-Build	2022 Build
SBR	5	12.5	95	175	2.5	15

Table 11A: Intersection Capacity Analysis Summary – Queue Length (ft)						
SH 71/ Driveway C- Scenario 1						
Intersection	AM Peak		PM Peak		Sunday Peak	
	2022 No-Build	2022 Build	2022 No-Build	2022 Build	2022 No-Build	2022 Build
SBR	75	77.5	372.5	420	32.5	50

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Intersection Capacity Analysis – Scenario 2 (No site access via Nitro Drive, SH 71 EB Left Turn at Driveway C permitted)

Table 12: AM Peak Hour LOS & Delay - Scenario 2

Intersection	Type of Control	AM Existing		AM No Build		Scenario 2			
						AM Build		AM Mitigated	
		LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
SH 71 and Vail Divide	Signalized	B	19.1	F	88.9	F	99.6	F	80.3
SH 71 and Nitro Drive	Signalized	B	17.1	D	47.8	D	52.1	D	39.9
Vail Divide and Dwy A	One-way stop-controlled (Westbound Approach)	N/A	N/A	B	12.2	B	13.6	B	13.6
SH 71 and Dwy B	Right-in/Right-out (Southbound)	N/A	N/A	C	18.2	C	19.7	N/A	N/A
SH 71 and Dwy C	Right-in/Right-out (Southbound)	N/A	N/A	D	31.3	D	29.0	N/A	N/A
	Left Turning Movement (Eastbound)	N/A	N/A	N/A	N/A	B	14.9	N/A	N/A

Table 13: PM Peak Hour LOS & Delay - Scenario 2

Intersection	Type of Control	PM Existing		PM No Build		Scenario 2			
						PM Build		PM Mitigated	
		LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
SH 71 and Vail Divide	Signalized	C	23.2	E	76.4	F	94.1	E	70.4
SH 71 and Nitro Drive	Signalized	C	22.7	F	148.4	F	154.4	E	55.8
Vail Divide and Dwy A	One-way stop-controlled (Westbound Approach)	N/A	N/A	B	11.3	B	12.4	B	12.4
SH 71 and Dwy B	Right-in/Right-out (Southbound)	N/A	N/A	F	106.7	F	194.7	N/A	N/A
SH 71 and Dwy C	Right-in/Right-out (Southbound)	N/A	N/A	F	506.3	F	522.1	N/A	N/A
	Left Turning Movement (Eastbound)	N/A	N/A	N/A	N/A	E	47.5	N/A	N/A

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Table 14: Sunday Peak Hour LOS & Delay - Scenario 2									
Intersection	Type of Control	Sunday Existing		Sunday No Build		Scenario 2			
						Sunday Build		Sunday Mitigated	
		LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
SH 71 and Vail Divide	Signalized	B	18.7	C	28.0	D	49.8	C	31.7
SH 71 and Nitro Drive	Signalized	B	17.0	C	20.7	C	21.9	C	20.4
Vail Divide and Dwy A	One-way stop-controlled (Westbound Approach)	N/A	N/A	B	10.8	B	13.4	B	13.4
SH 71 and Dwy B	Right-in/Right-out (Southbound)	N/A	N/A	B	14.2	C	15.9	N/A	N/A
SH 71 and Dwy C	Right-in/Right-out (Southbound)	N/A	N/A	C	17.5	C	19.2	N/A	N/A
	Left Turning Movement (Eastbound)	N/A	N/A	N/A	N/A	B	12.2	N/A	N/A

Table 15: Intersection Capacity Analysis Summary – Queue Length (ft)												
SH 71 / Vail Divide - Scenario 2												
Intersection	AM Peak				PM Peak				Sunday Peak			
	Existing	2022 No-Build	2022 Build	2022 Mitigation	Existing	2022 No-Build	2022 Build	2022 Mitigation	Existing	2022 No-Build	2022 Build	2022 Mitigation
EBL	15	45	56	53	21	41	63	99	15	33	60	66
EBT	481	1127	1173	1159	366	580	608	953	366	661	797	924
EBR	0	44	45	21	0	18	10	21	0	0	0	0
WBL	15	425	431	326	32	676	725	281	15	98	108	88
WBT	265	466	497	374	683	1200	1236	907	216	310	371	422
WBR	0	0	0	5	18	44	46	10	0	0	0	5
NBL	23	171	170	293	30	217	208	329	18	73	71	75
NBT	24	109	115	118	19	62	69	82	22	64	78	81
NBR	0	77	76	112	0	14	0	45	0	0	0	2
SBL	151	424	494	273	51	158	203	127	95	406	548	220
SBT/R	42	116	134	135	48	116	132	198	37	51	84	85

Table 16: Intersection Capacity Analysis Summary – Queue Length (ft)												
SH 71 / Nitro Drive - Scenario 2												
Intersection	AM Peak				PM Peak				Sunday Peak			
	Existing	2022 No-Build	2022 Build	2022 Mitigation	Existing	2022 No-Build	2022 Build	2022 Mitigation	Existing	2022 No-Build	2022 Build	2022 Mitigation
EBL	0	423	435	165	21	395	395	323	2	133	152	121
EBT	495	1097	1133	233	357	657	689	74	350	595	674	154
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	6	73	73	65	5	116	116	80	6	38	42	46
WBT	275	553	581	691	775	1697	1741	2024	209	333	369	463
WBR	0	0	0	0	16	46	43	48	0	0	0	0
NBL	5	74	74	79	5	254	253	296	5	63	63	68
NBT	6	16	16	17	6	25	25	31	6	14	14	15
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	5	335	335	116	87	331	331	153	5	251	251	95
SBT/R	9	44	44	46	31	210	210	252	8	39	39	41

Table 17: Intersection Capacity Analysis Summary – Queue Length (ft)						
Vail Divide / Driveway A - Scenario 2						
Intersection	AM Peak		PM Peak		Sunday Peak	
	2022	2022	2022	2022	2022	2022
	No-Build	Build	No-Build	Build	No-Build	Build
WBL	15	28	8	18	8	38
SBL	3	3	0	3	3	3

Table 18: Intersection Capacity Analysis Summary – Queue Length (ft)						
SH 71/ Driveway B - Scenario 2						
Intersection	AM Peak		PM Peak		Sunday Peak	
	2022	2022	2022	2022	2022	2022
	No-Build	Build	No-Build	Build	No-Build	Build
SBR	5	13	95	175	3	15

Table 19: Intersection Capacity Analysis Summary – Queue Length (ft)						
SH 71/ Driveway C - Scenario 2						
Intersection	AM Peak		PM Peak		Sunday Peak	
	2022	2022	2022	2022	2022	2022
	No-Build	Build	No-Build	Build	No-Build	Build
SBR	75	78	373	418	33	50
EBL	0	5	0	18	0	10

RECOMMENDATIONS

Scenario 1:

1. Construct an additional southbound left turn lane on Vail Divide at SH 71 and revise lane configuration to (L,L,Th/R)
2. Construct an additional southbound left turn lane on Nitro Swim at SH 71 and revise lane configuration to (L,L,Th/R)
3. Construct raised curb/island at Driveway C to prohibit eastbound SH 71 left turning movements
4. Construct a westbound SH 71 deceleration lane for Driveway C
5. Provide channelized right-in/right-out movements for Driveway C for free flowing movement
6. Adjust signal timings for SH 71/Vail Divide and SH 71/Nitro Drive intersections

Scenario 2:

1. Construct an additional southbound left turn lane on Vail Divide at SH 71 and revise lane configuration to (L,L,Th/R)
2. Construct raised curb/island at Driveway C which allows eastbound SH 71 left turning movements
3. Construct a westbound SH 71 deceleration lane for Driveway C
4. Provide channelized right-in/right-out movements for Driveway C for free flowing movement
5. Adjust signal timings for SH 71/Vail Divide and SH 71/Nitro Drive intersections

FISCAL CONTRIBUTION

Tables 20A and 20B below provide a summary of recommended improvements, cost estimates for each improvement, and the Bee Cave Episcopal pro-rata share contribution for each scenario dependent on Nitro Swim access. A full pro-rata calculation summary can be seen in **Appendix F** and the roadway improvement cost estimates are located in **Appendix G**.

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TABLE 20A: BEE CAVE EPISCOPAL CHURCH
SUMMARY OF INTERSECTION IMPROVEMENTS AND PRO-RATA SHARE
(SCENARIO 1)

Location	Recommendation	Total Estimated Cost	Pro-Rata Calculation Method	Bee Cave Episcopal Pro-Rata Share	Bee Cave Episcopal Fiscal Contribution
SH 71 and Vail Divide	Construct additional 150 foot southbound lane to allow L-L-T/R lane configuration	$80,000.00	Intersection Volume	5.89%	$4,720.00
SH 71 and Nitro Swim	Construct additional 150 foot southbound lane to allow L-L-T/R lane configuration	$60,000.00	SB Left Turn Movement	35.57%	$21,350.00
SH 71	Construct deceleration lane for Driveway C	Constructed With Site Plan	-	-	-
SH 71 and Driveway C	Construct raised curb island to provide westbound SH 71 right-in and southbound Driveway C right-out movements only	Constructed With Site Plan	-	-	-
SH 71	Signal Timing Adjustment	$5,000.00	-	100.00%	$5,000.00
				REQUIRED FISCAL (SCENARIO 1)	**$31,070.00**

TABLE 20B: BEE CAVE EPISCOPAL CHURCH
SUMMARY OF INTERSECTION IMPROVEMENTS AND PRO-RATA SHARE
(SCENARIO 2)

Location	Recommendation	Total Estimated Cost	Pro-Rata Calculation Method	Bee Cave Episcopal Pro-Rata Share	Bee Cave Episcopal Fiscal Contribution
SH 71 and Vail Divide	Construct additional 150 foot southbound lane to allow L-L-T/R lane configuration	$80,000.00	Intersection Volume	9.76%	$7,810.00
SH 71	Construct deceleration lane for Driveway C	Constructed With Site Plan	-	-	-
SH 71 and Driveway C	Construct raised curb island to provide westbound SH 71 right-in, southbound Driveway C right-out, and eastbound left turning movements only	Constructed With Site Plan	-	-	-
SH 71	Signal Timing Adjustment	$5,000.00	-	100.00%	$5,000.00
				REQUIRED FISCAL (SCENARIO 2)	**$12,810.00**

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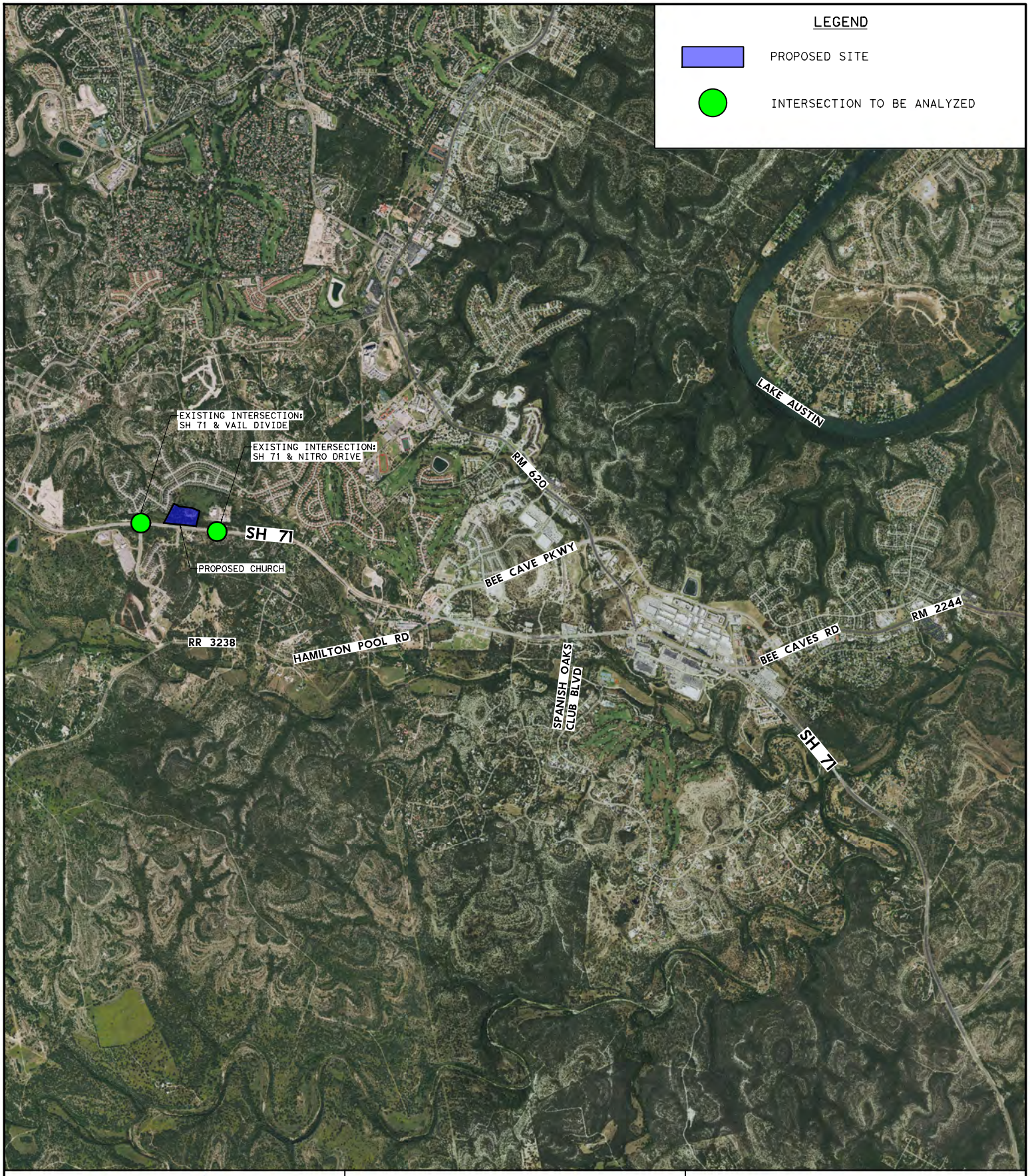
Should you have any questions or require any additional information, please contact me at 512.439.4738 or rsladek@lja.com.

Sincerely,

Riley Sladek, P.E.

Appendices:
A – Roadway Network & Site Access
B – Existing Traffic Counts
C – Background Traffic
D – Proposed Driveway Exhibit
E – Synchro Reports
F – Pro-Rata Calculations
G – Roadway Improvement Cost Estimates

Cc: Danny Miller, P.E.



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THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH

STUDY AREA

EXHIBIT 1

LJA Engineering, Inc.
FRN - F-1386

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SCALE: 1"=4,000′

1/9/2018
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LEGEND

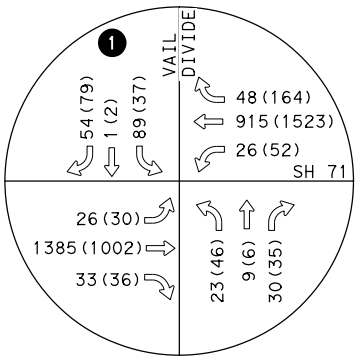
PROPOSED DEVELOPMENT SITE

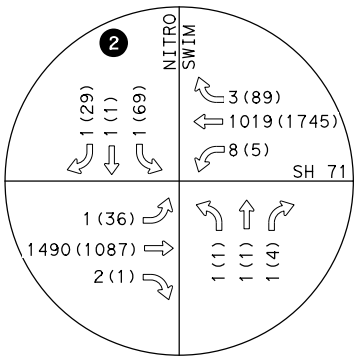
SIGNALIZED INTERSECTION

STOP CONTROLLED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





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THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
AM & PM PEAK HOUR
2017 EXISTING TRAFFIC VOLUMES

EXHIBIT 2

LJA Engineering, Inc.
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SCALE: 1"=100'

6/13/2019
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LEGEND

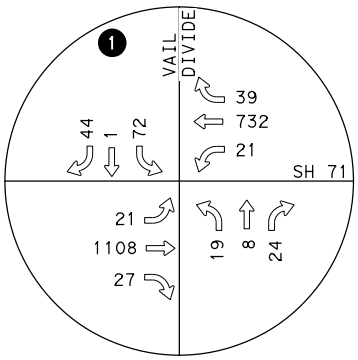
PROPOSED DEVELOPMENT SITE

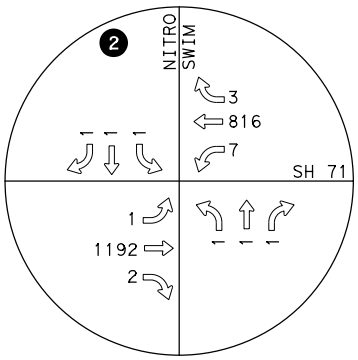
SIGNALIZED INTERSECTION

STOP CONTROLLED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





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BEE CAVE EPISCOPAL CHURCH
SUNDAY PEAK
2017 EXISTING TRAFFIC VOLUMES

EXHIBIT 3

LJA Engineering, Inc.
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0' 25' 50' 100'
SCALE: 1"=100'

6/13/2019
5:31:39 PM...\03+A359+SUN EXISTING VOLUMES.dgn

LEGEND

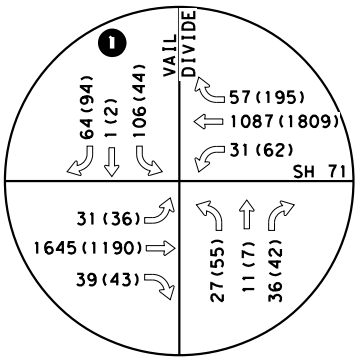
PROPOSED DEVELOPMENT SITE

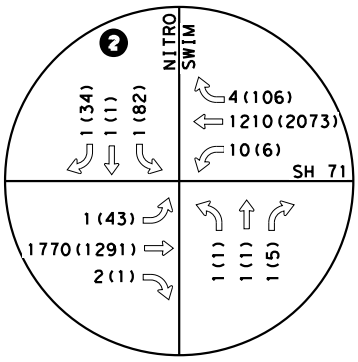
SIGNALIZED INTERSECTION

STOP CONTROLLED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





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THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH

AM & PM PEAK HOUR 2022 BACKGROUND TRAFFIC VOLUMES

EXHIBIT 4

LJA Engineering, Inc.
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0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:07:01 PM ...\04+A359+2022 BACKGROUND AM & PM VOLUMES.dgn

LEGEND

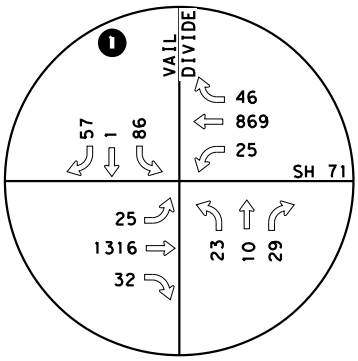
PROPOSED DEVELOPMENT SITE

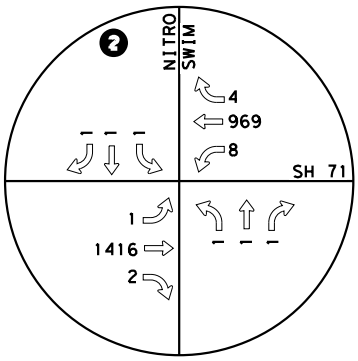
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





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THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH

SUNDAY PEAK 2022 BACKGROUND TRAFFIC VOLUMES

EXHIBIT 5

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0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:24:34 PM ...\05+A359+SUN 2022 BACKGROUND VOLUMES.dgn

LEGEND

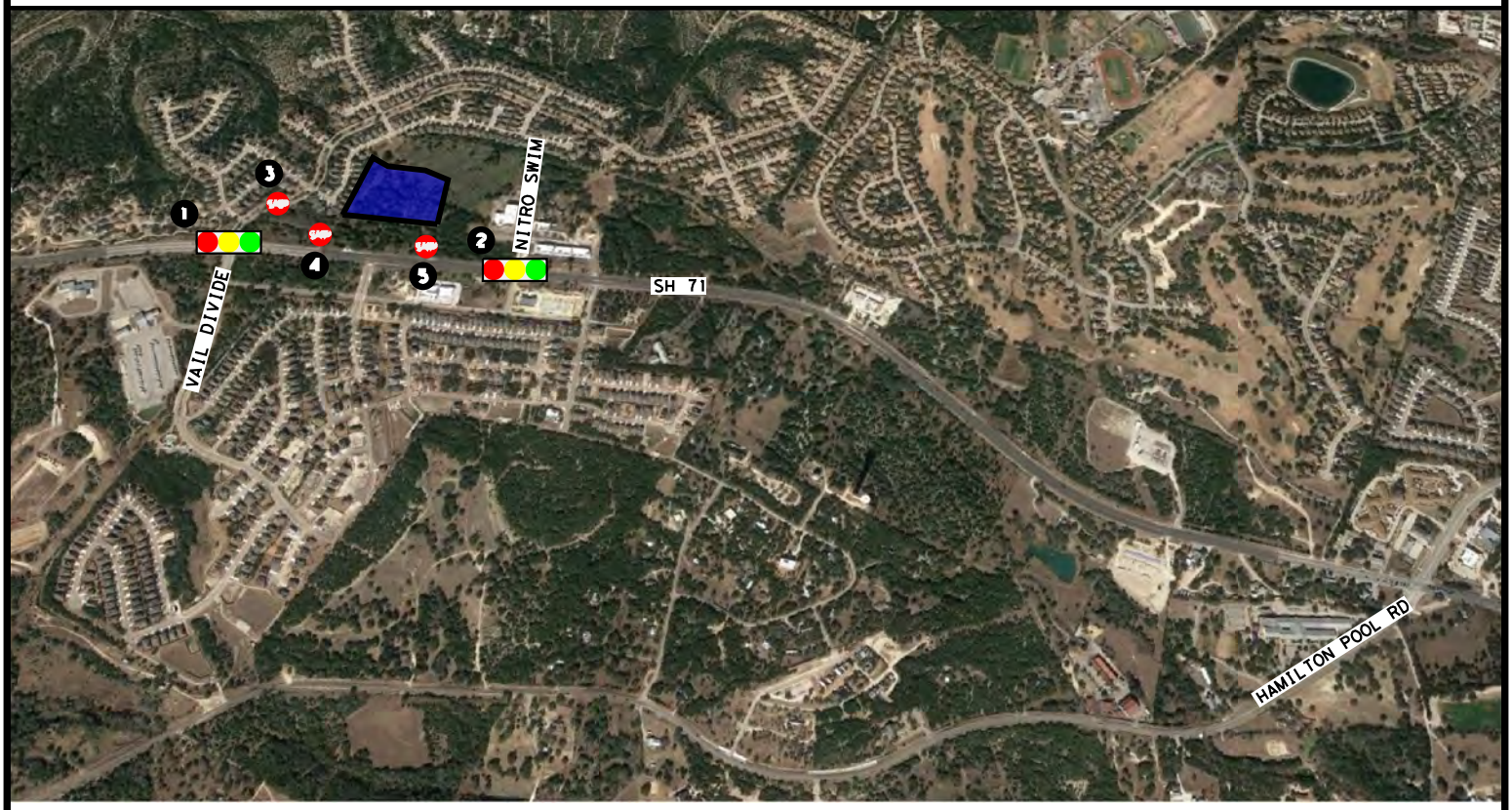
PROPOSED DEVELOPMENT SITE

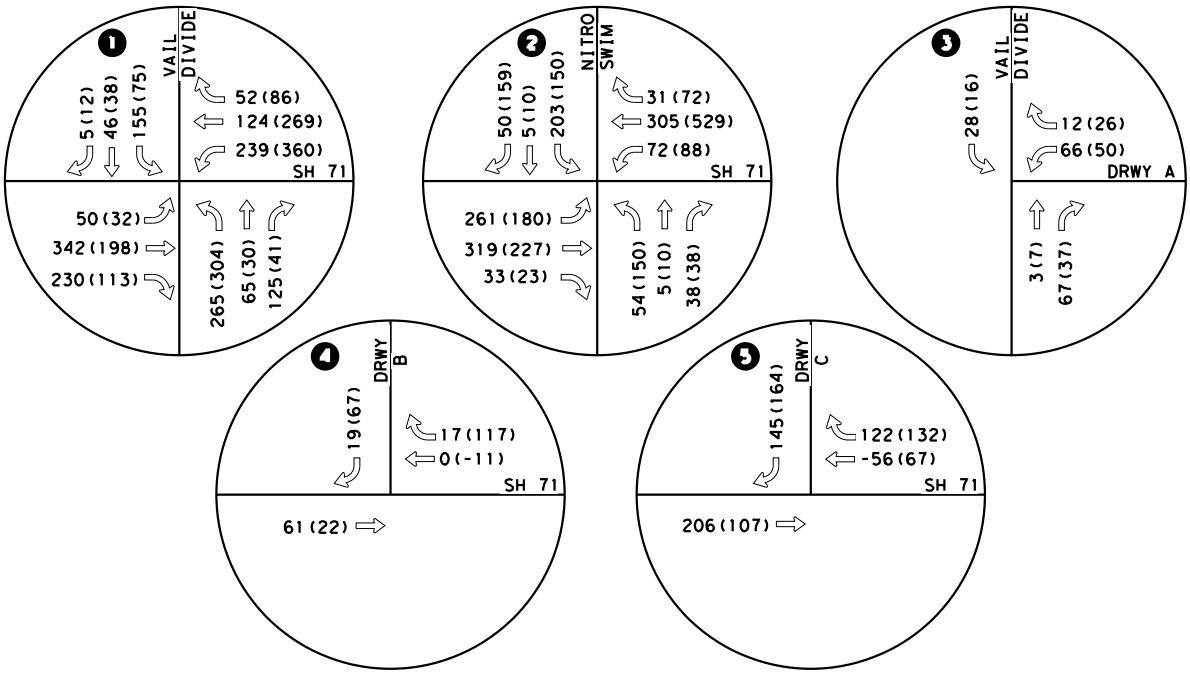
SIGNALIZED INTERSECTION

STOP CONTROLLED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





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THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
AM & PM PEAK HOUR
OTHER PROJECT TRAFFIC VOLUMES

EXHIBIT 6

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:39:00 PM ...\06+A359+AM & PM OTHER PROJECTS VOLUMES.dgn

LEGEND

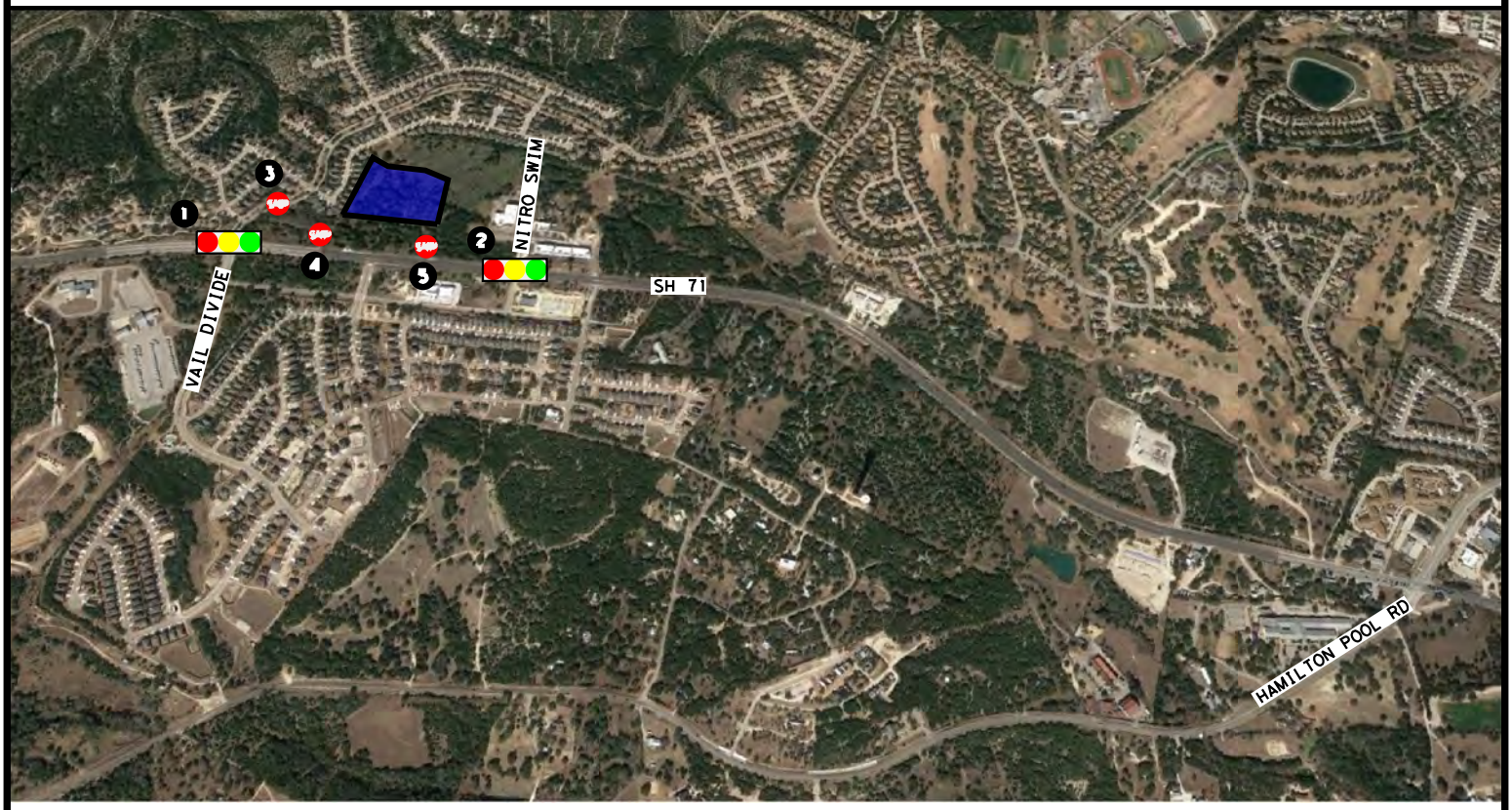
PROPOSED DEVELOPMENT SITE

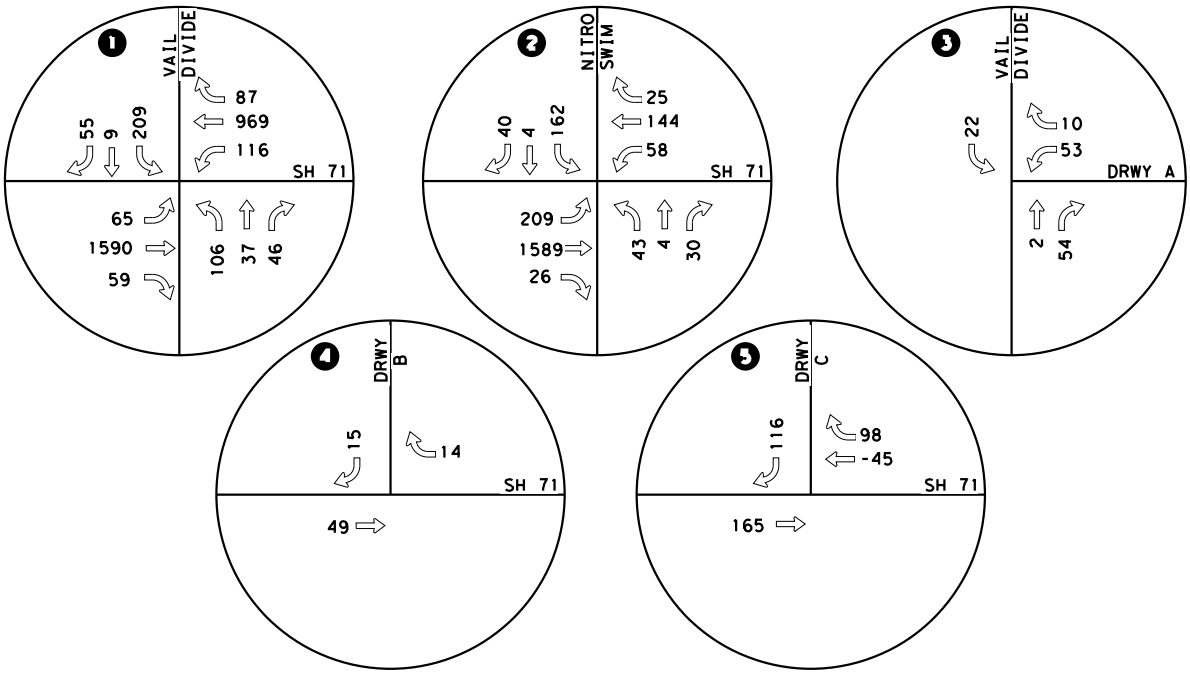
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
SUNDAY PEAK HOUR
OTHER PROJECT TRAFFIC VOLUMES

EXHIBIT 7

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:36:39 PM ...\07+A359+SUN OTHER PROJECTS VOLUMES.dgn

LEGEND

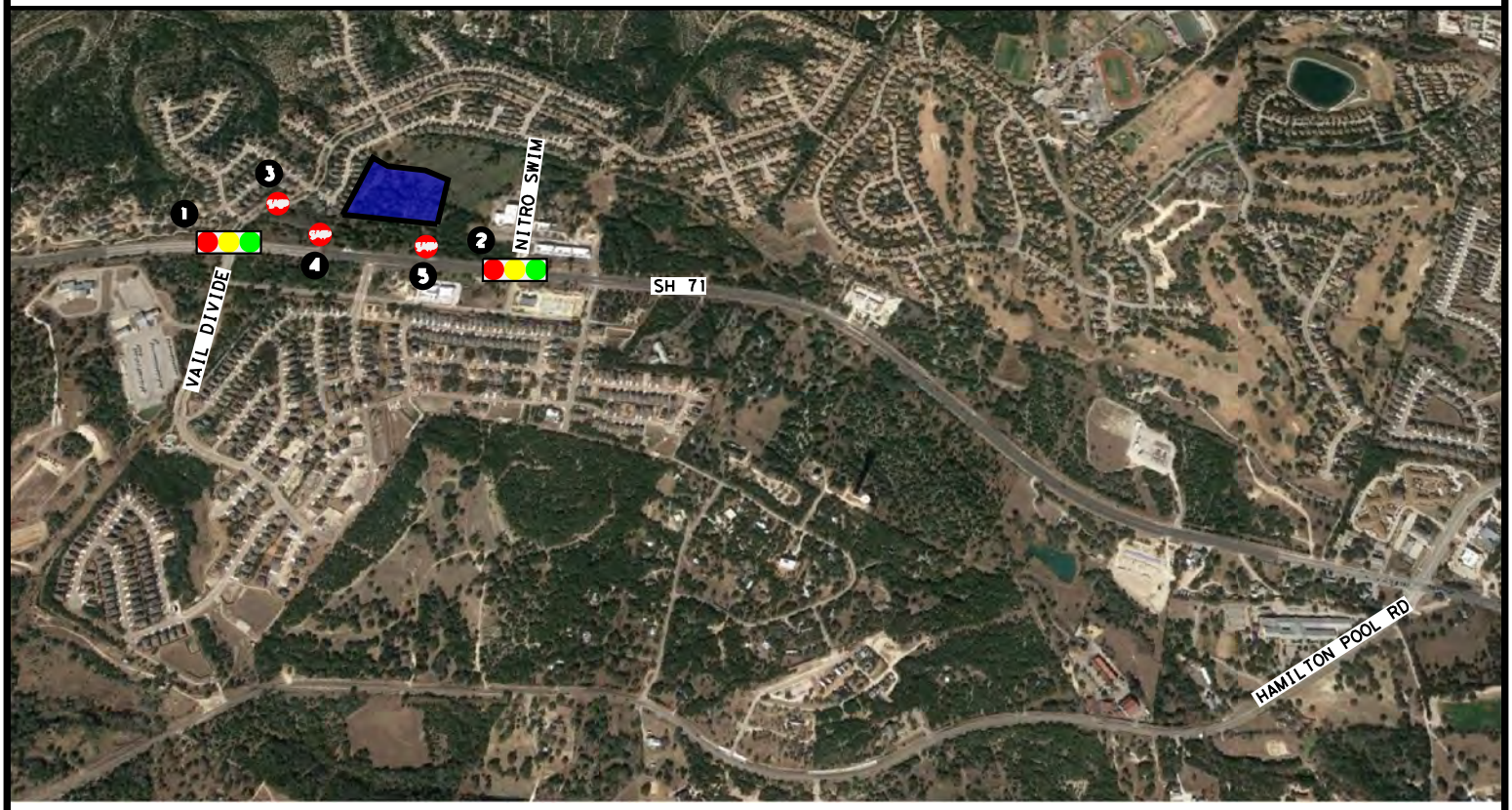
PROPOSED DEVELOPMENT SITE

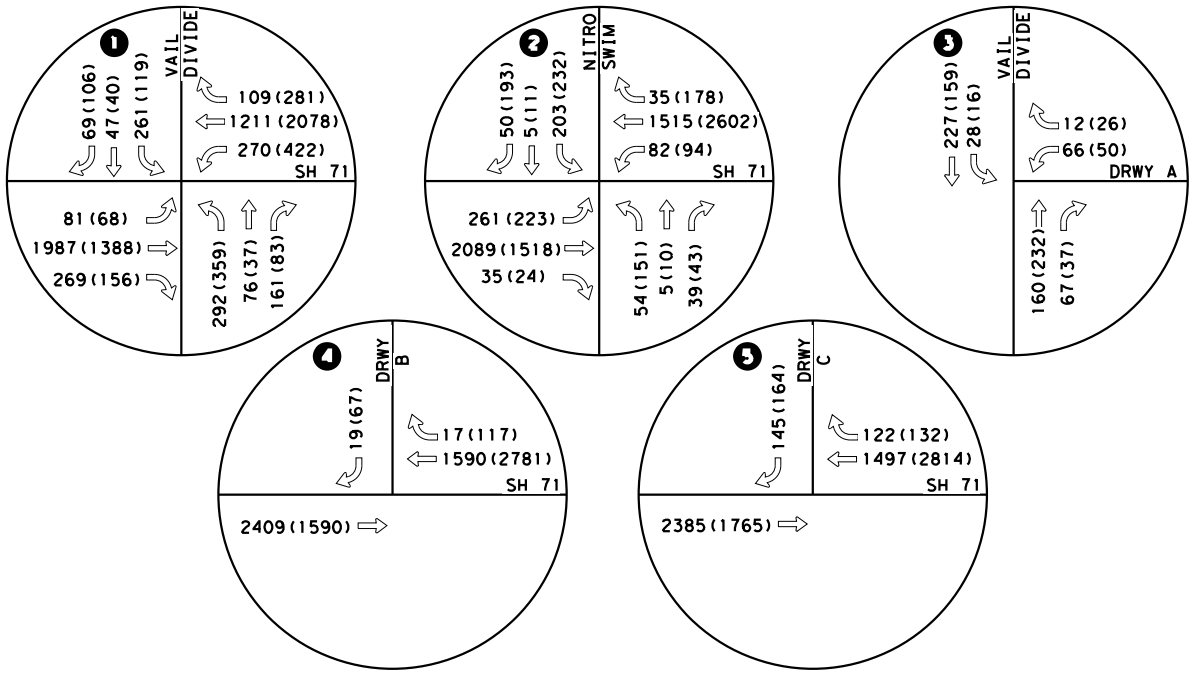
SIGNALIZED INTERSECTION

STOP CONTROLLED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
AM & PM PEAK HOUR
NO-BUILD TRAFFIC VOLUMES

EXHIBIT 8

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:38:09 PM ...\08+A359+AM & PM NO-BUILD VOLUMES.dgn

LEGEND

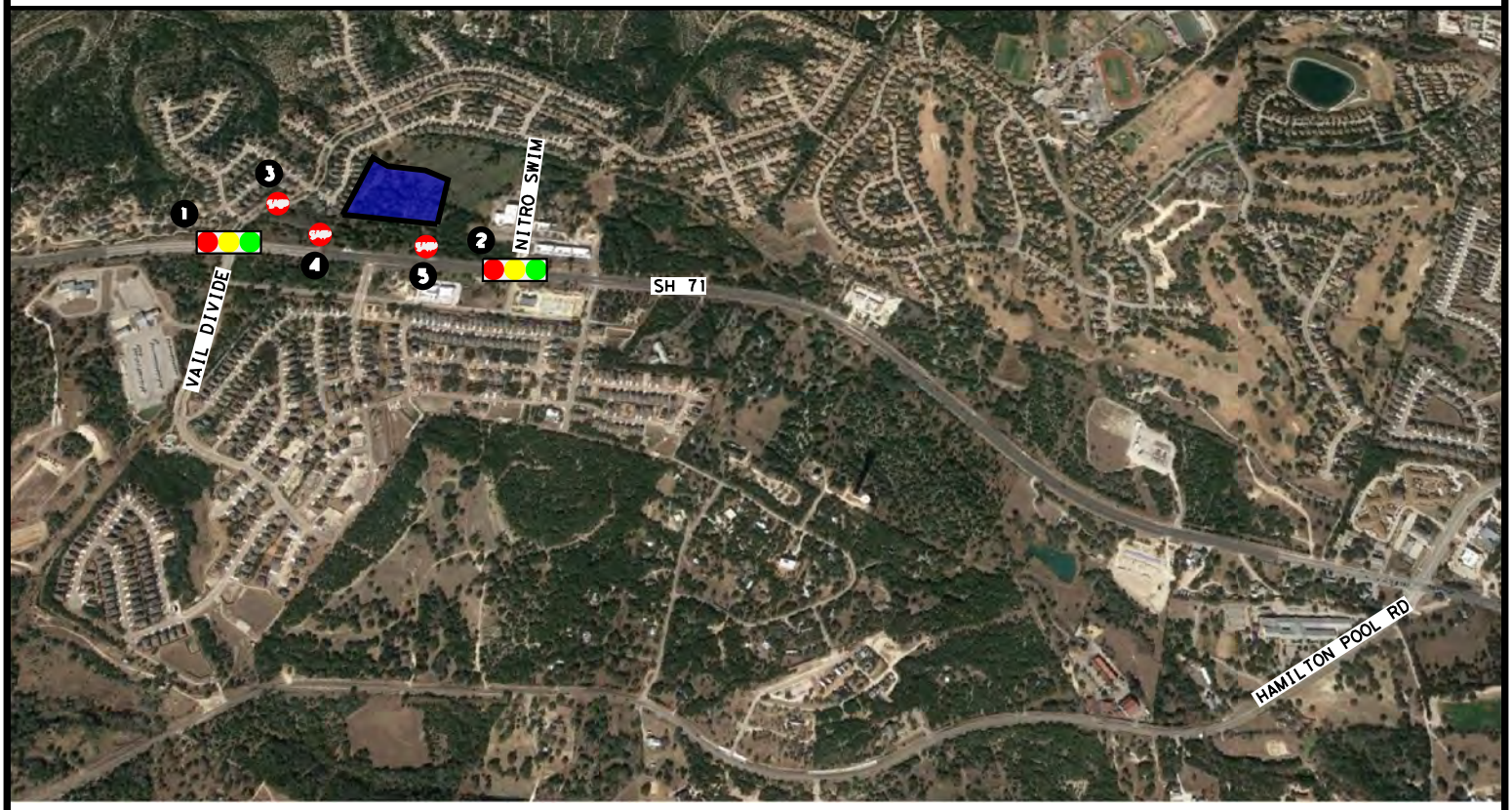
PROPOSED DEVELOPMENT SITE

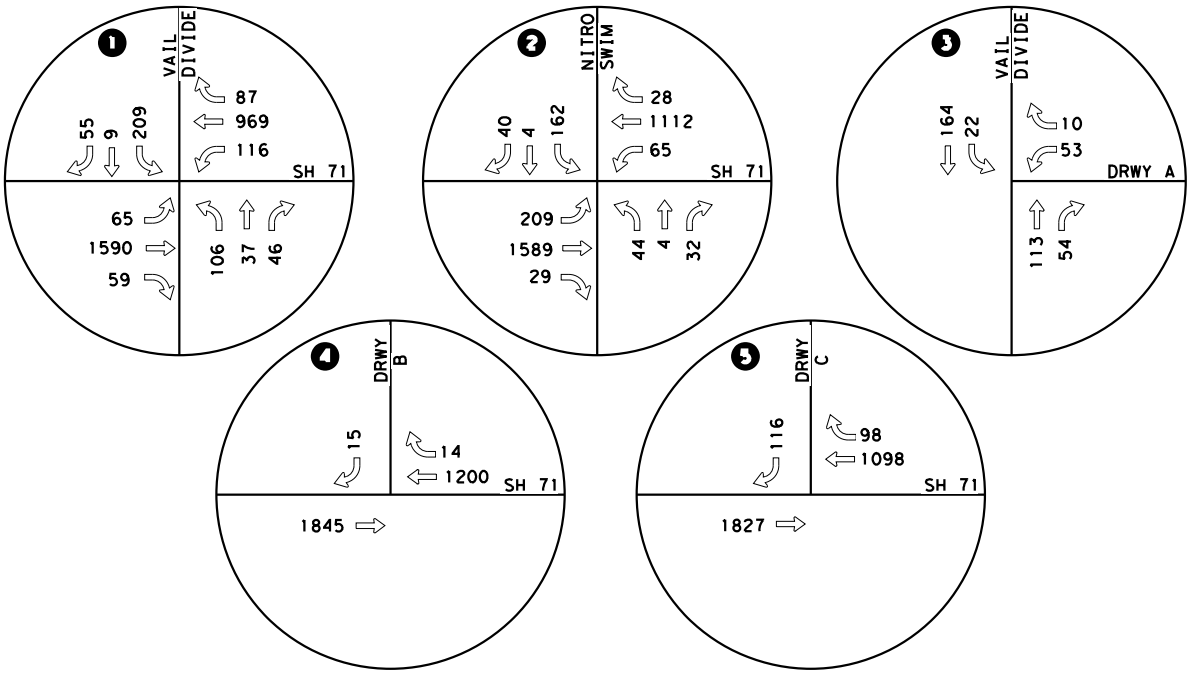
SIGNALIZED INTERSECTION

STOP CONTROLLED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
SUNDAY PEAK HOUR
NO-BUILD TRAFFIC VOLUMES

EXHIBIT 9

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:38:56 PM ...\09+A359+SUN NO-BUILD VOLUMES.dgn

LEGEND

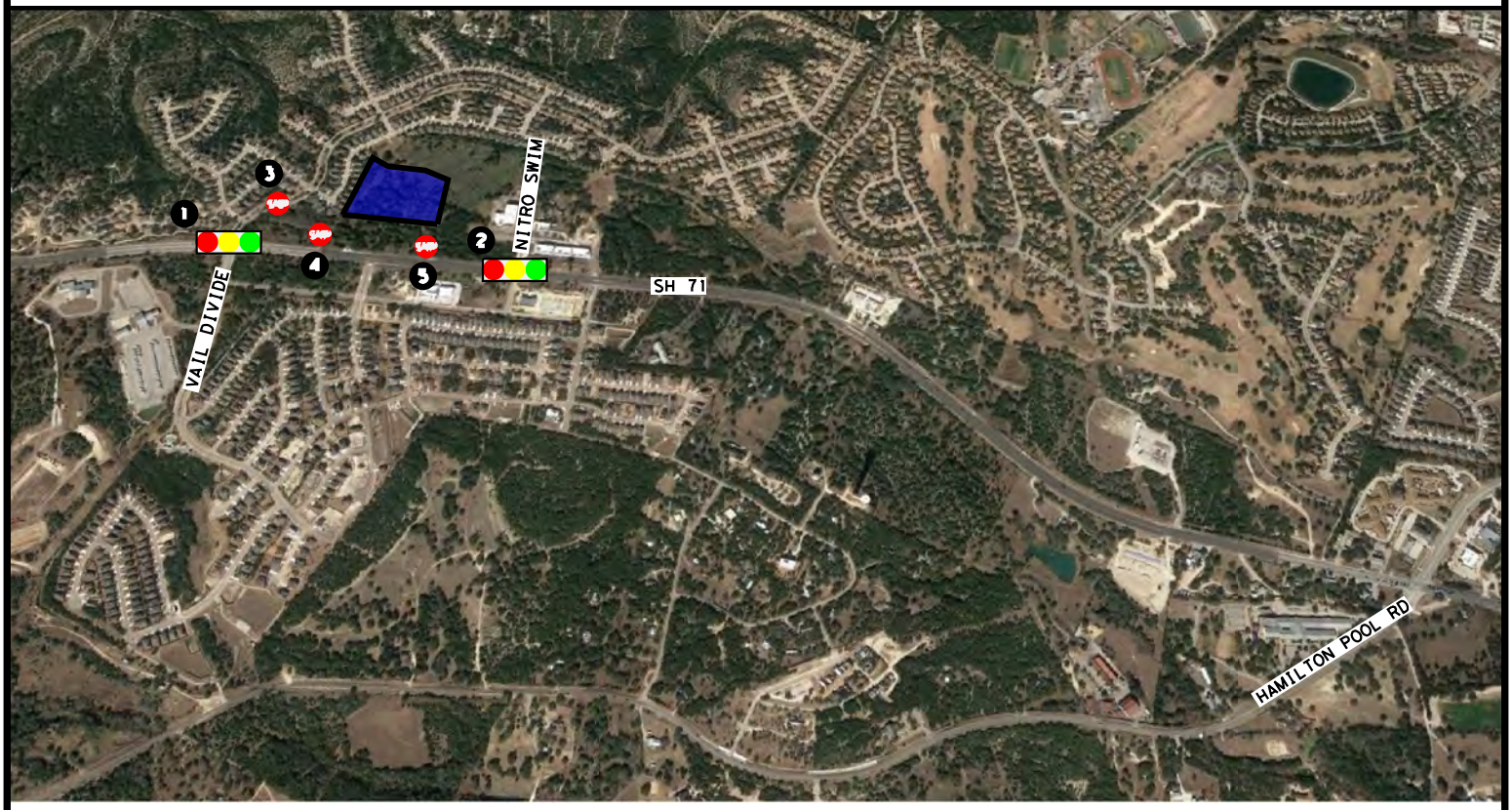
PROPOSED DEVELOPMENT SITE

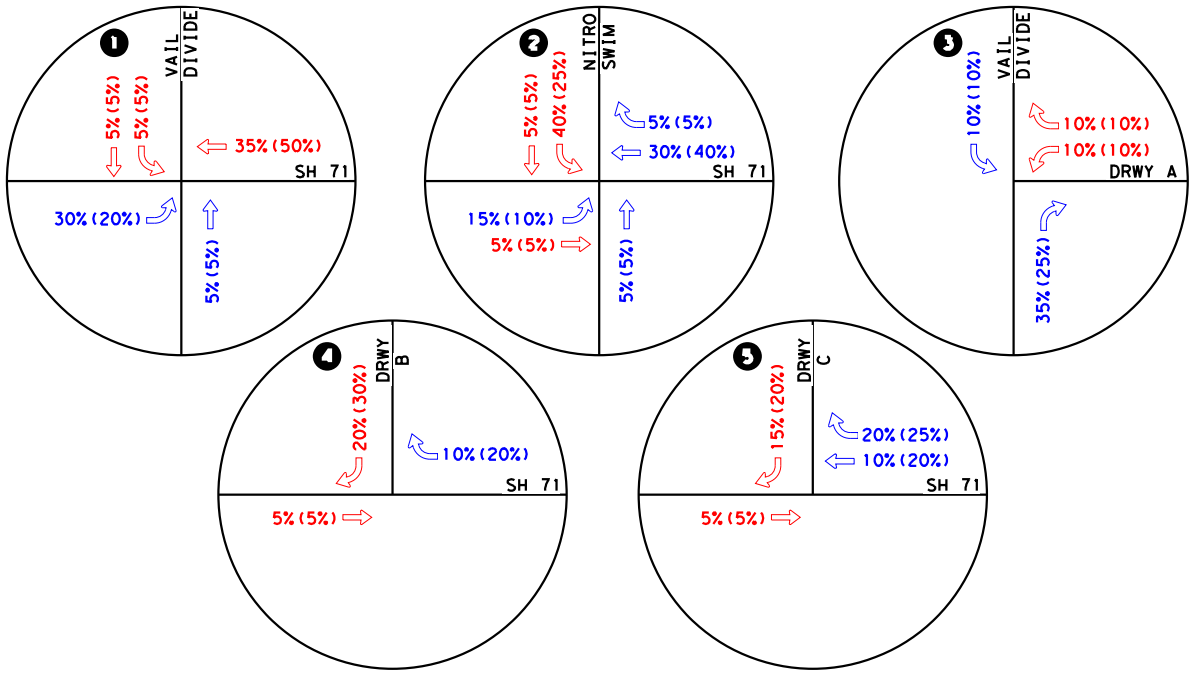
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
AM & PM PEAK HOUR TRIP DISTRIBUTION
SCENARIO 1

EXHIBIT 10

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:49:43 PM ...\10xA359xAM & PM TRIP DISTRIBUTION.dgn

LEGEND

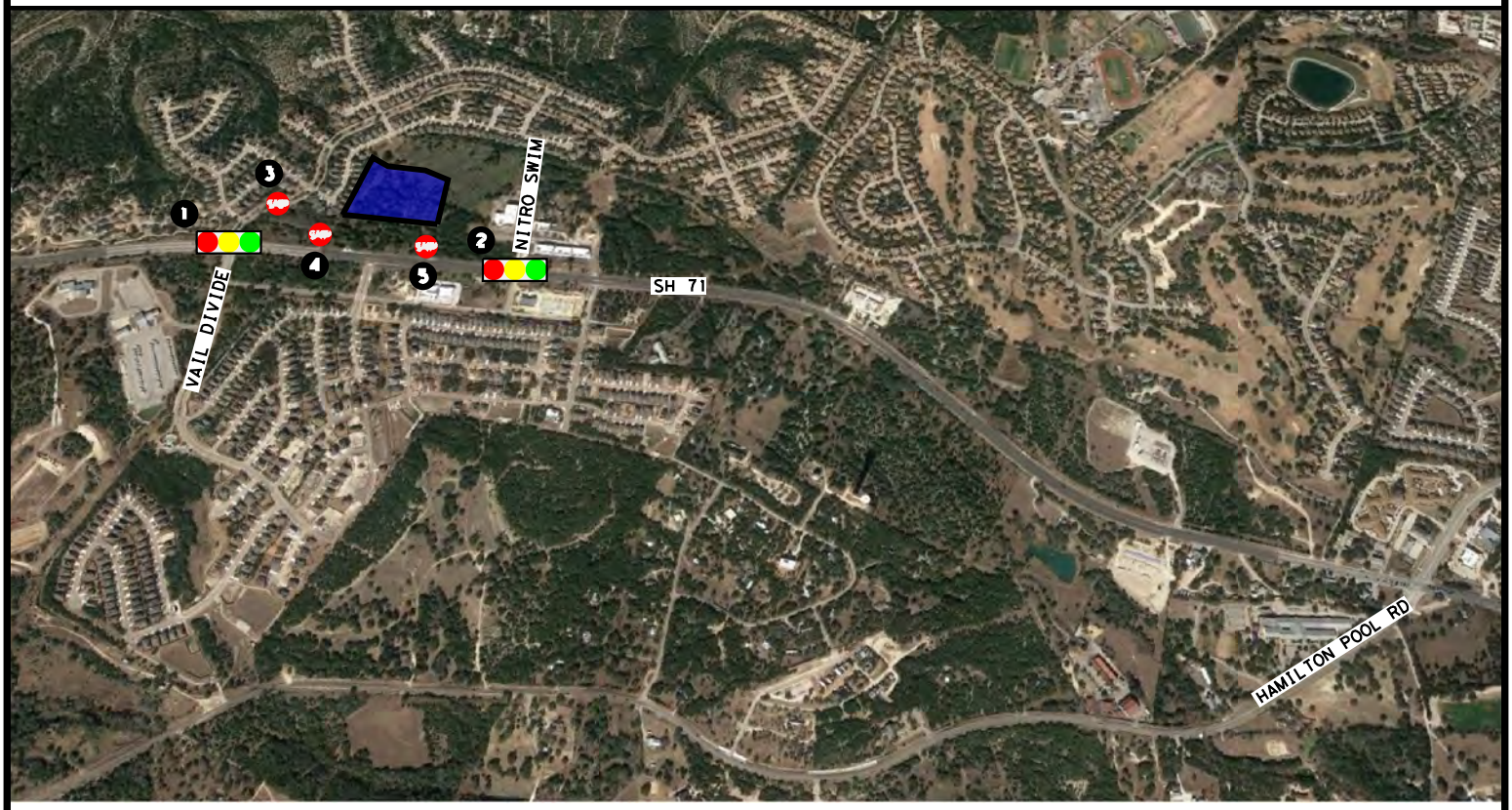
PROPOSED DEVELOPMENT SITE

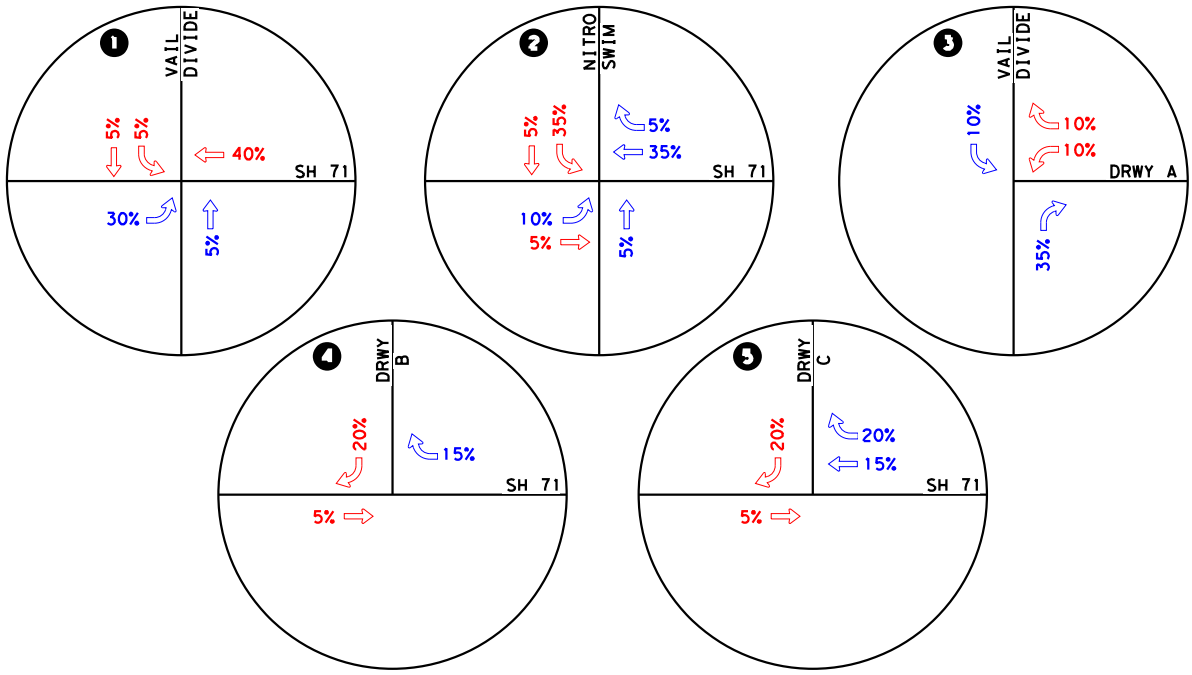
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
SUNDAY PEAK HOUR
TRIP DISTRIBUTION
SCENARIO 1

EXHIBIT 11

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:30:55 PM ...\11\A359\SUN TRIP DISTRIBUTION.dgn

LEGEND

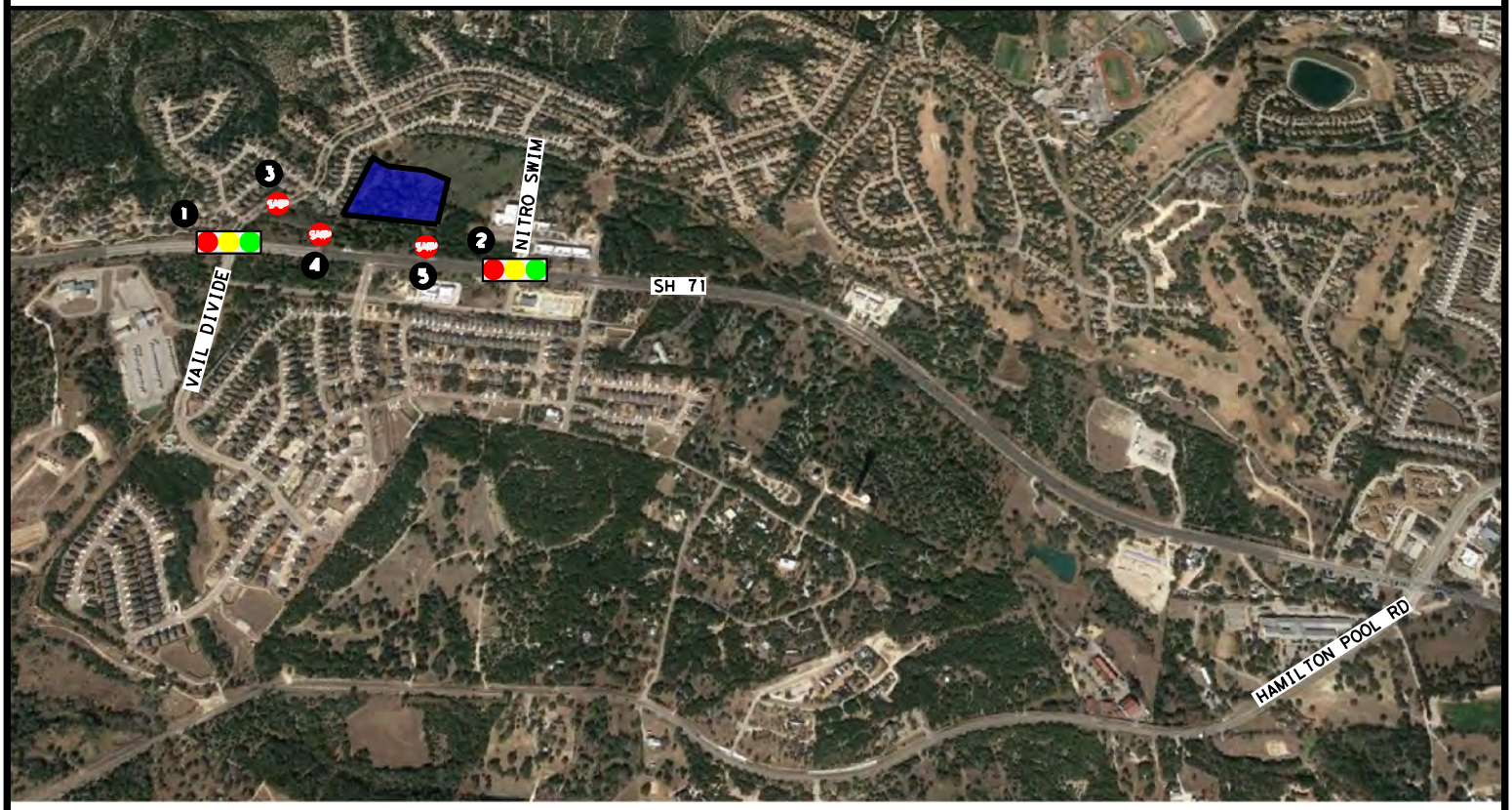
PROPOSED DEVELOPMENT SITE

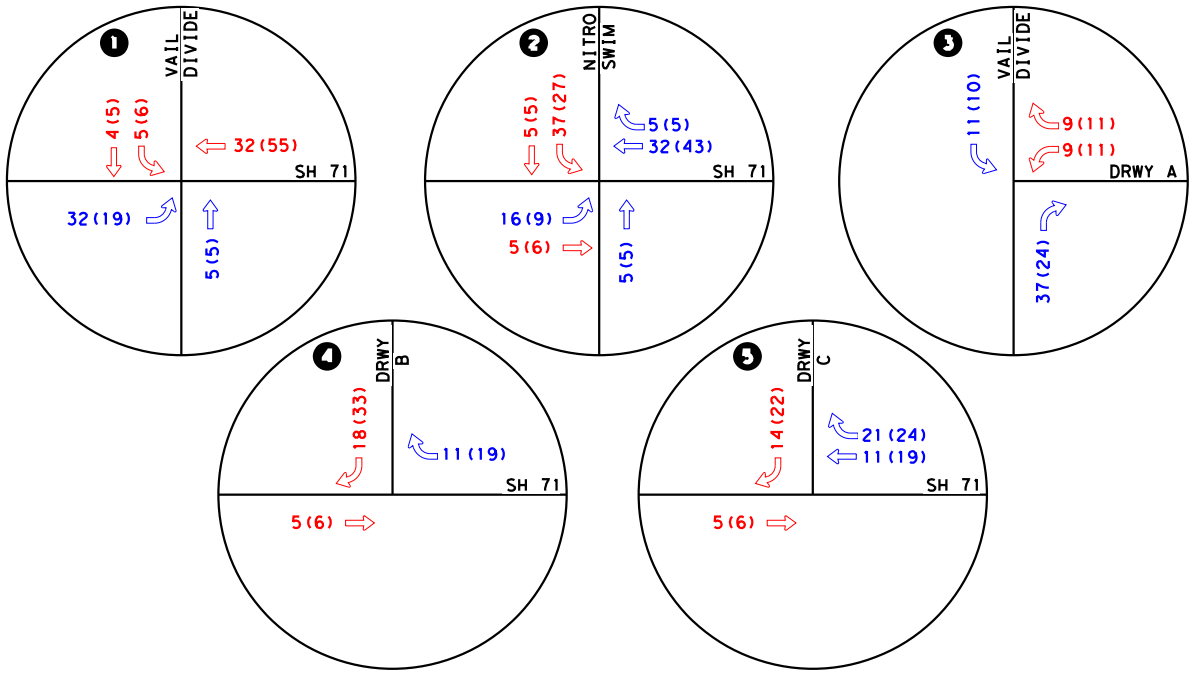
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
AM & PM PEAK HOUR SITE VOLUMES
SCENARIO 1

EXHIBIT 12

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:13:06 PM ...\12+A359+AM & PM SITE VOLUMES.dgn

LEGEND

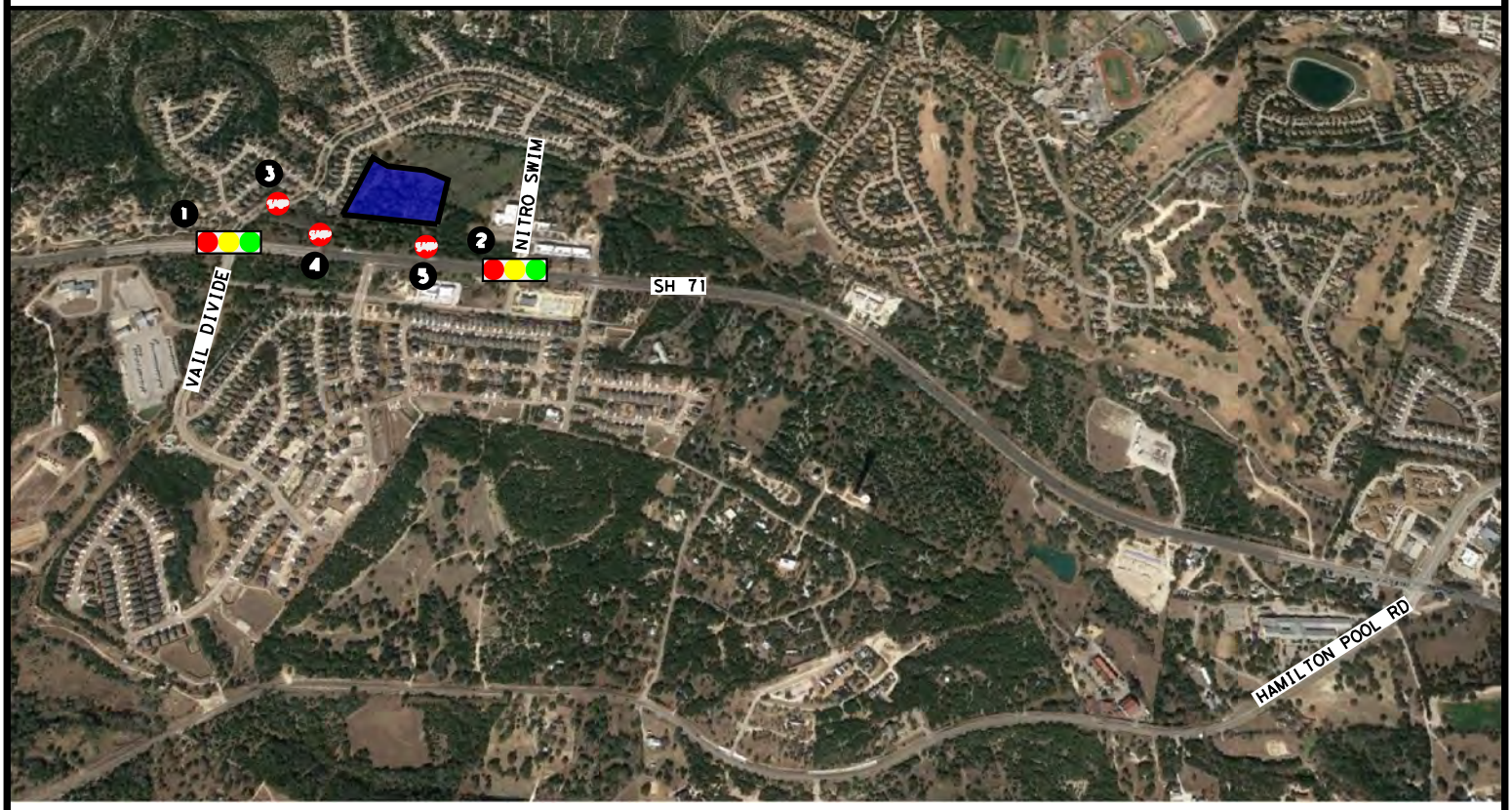
PROPOSED DEVELOPMENT SITE

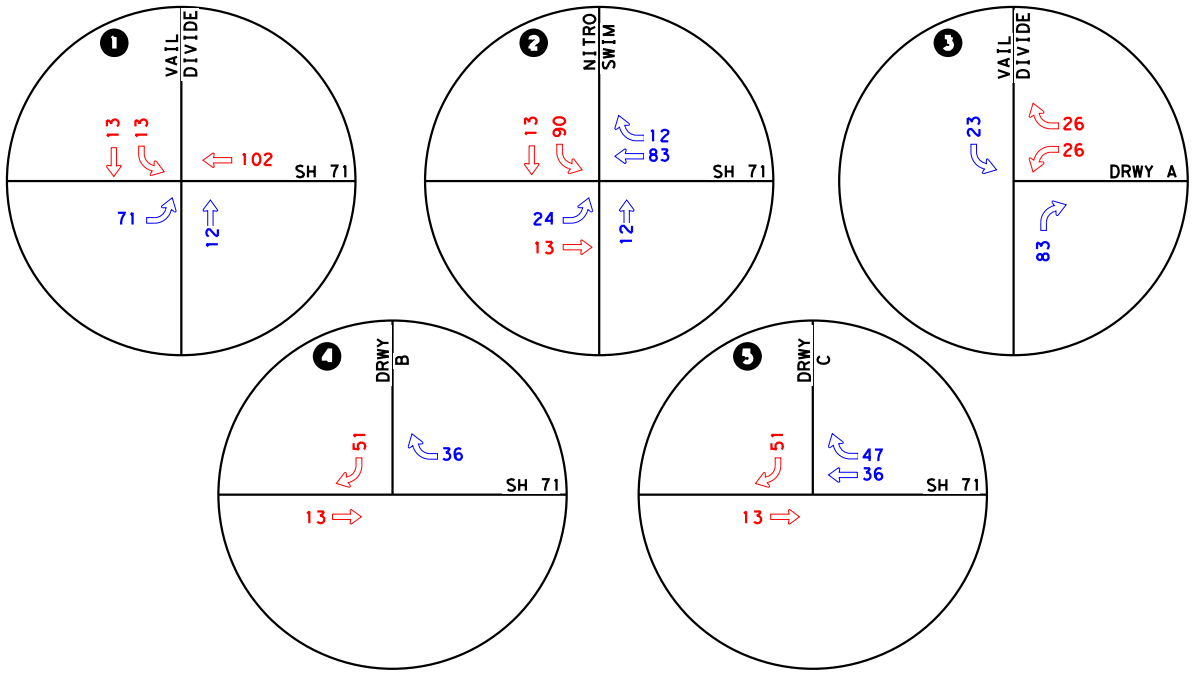
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
SUNDAY PEAK HOUR SITE VOLUMES SCENARIO 1

EXHIBIT 13

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:34:52 PM ...\13+A359+SUN SITE VOLUMES.dgn

LEGEND

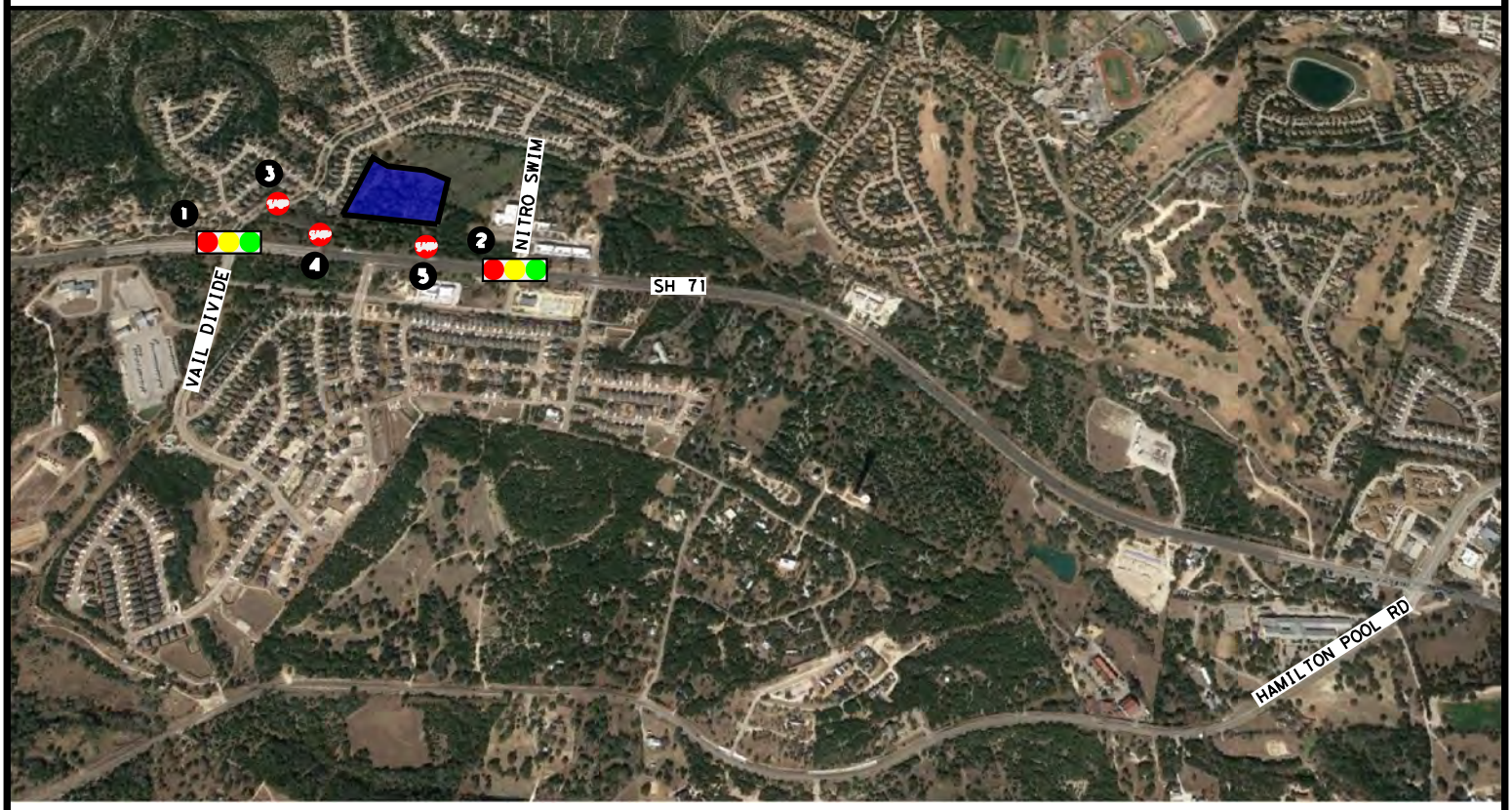
PROPOSED DEVELOPMENT SITE

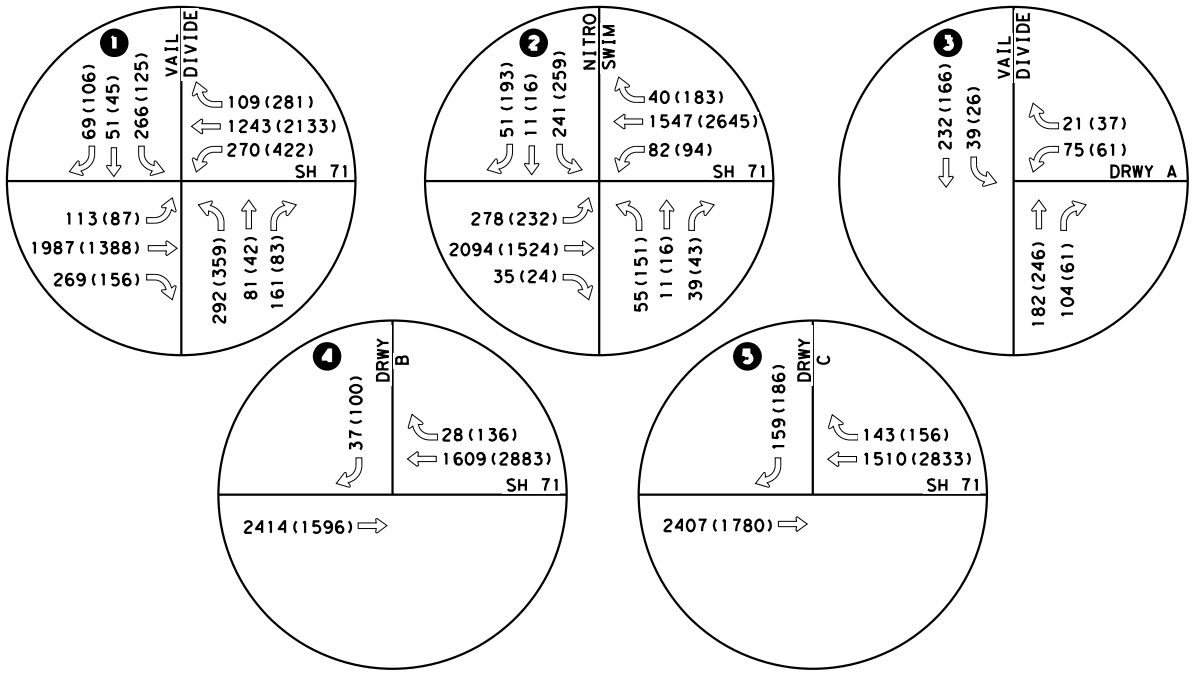
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
AM & PM PEAK HOUR
2022 BUILD TRAFFIC VOLUMES
SCENARIO 1

EXHIBIT 14

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:34:12 PM ...\14+A359+AM & PM 2022 BUILD VOLUMES.dgn

LEGEND

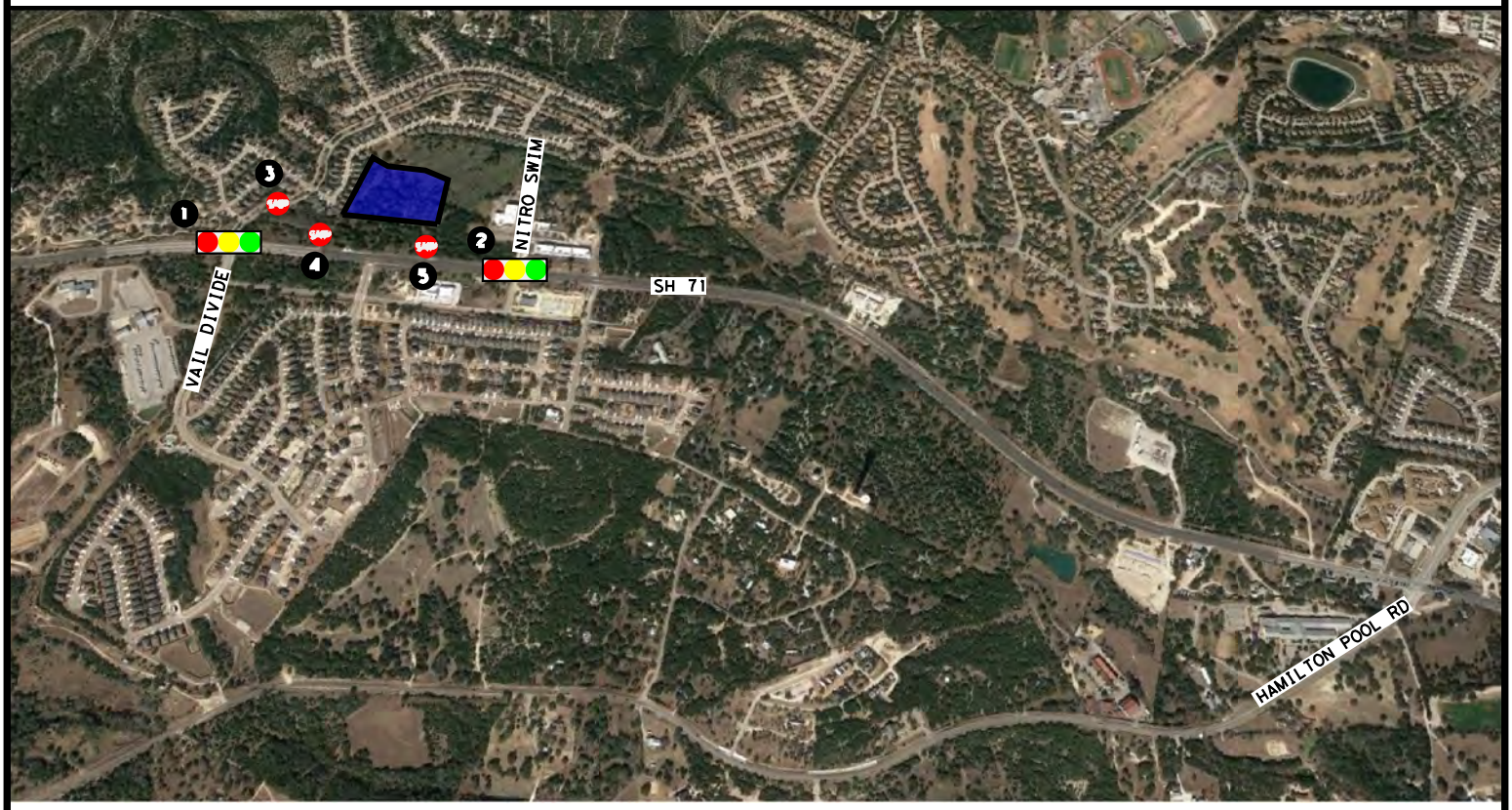
PROPOSED DEVELOPMENT SITE

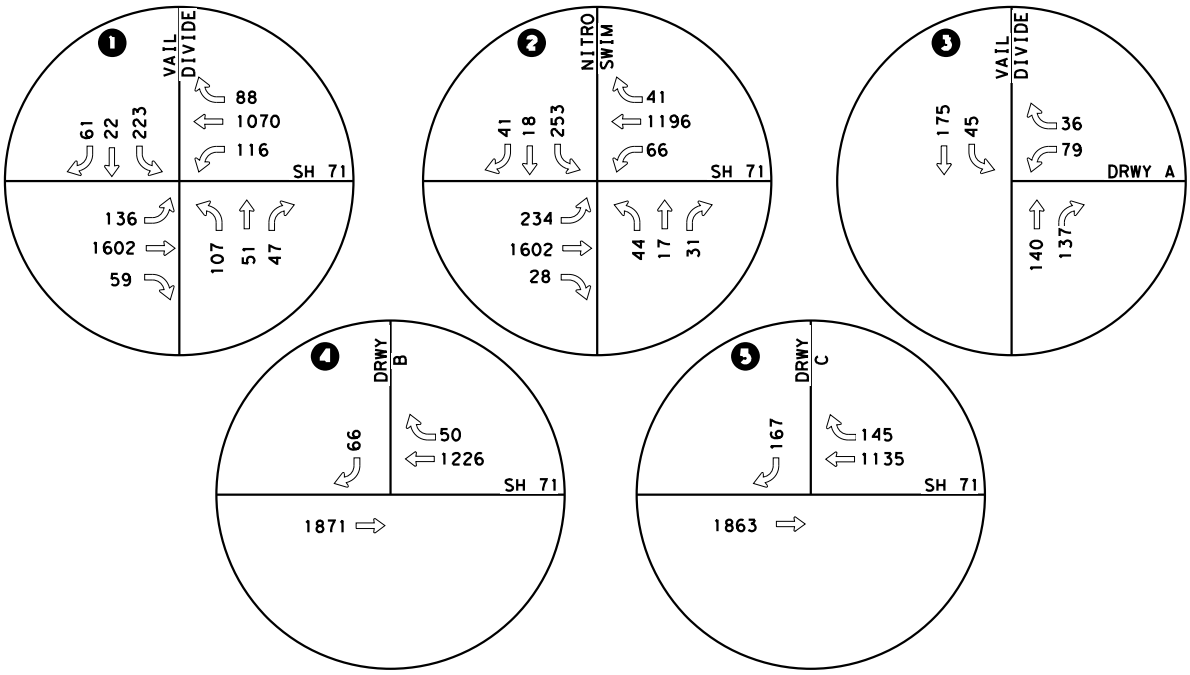
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
SUNDAY PEAK HOUR
2022 BUILD TRAFFIC VOLUMES
SCENARIO 1

EXHIBIT 15

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:36:10 PM ...\15xA359\SUN_2022_BUILD_VOLUMES.dgn

LEGEND

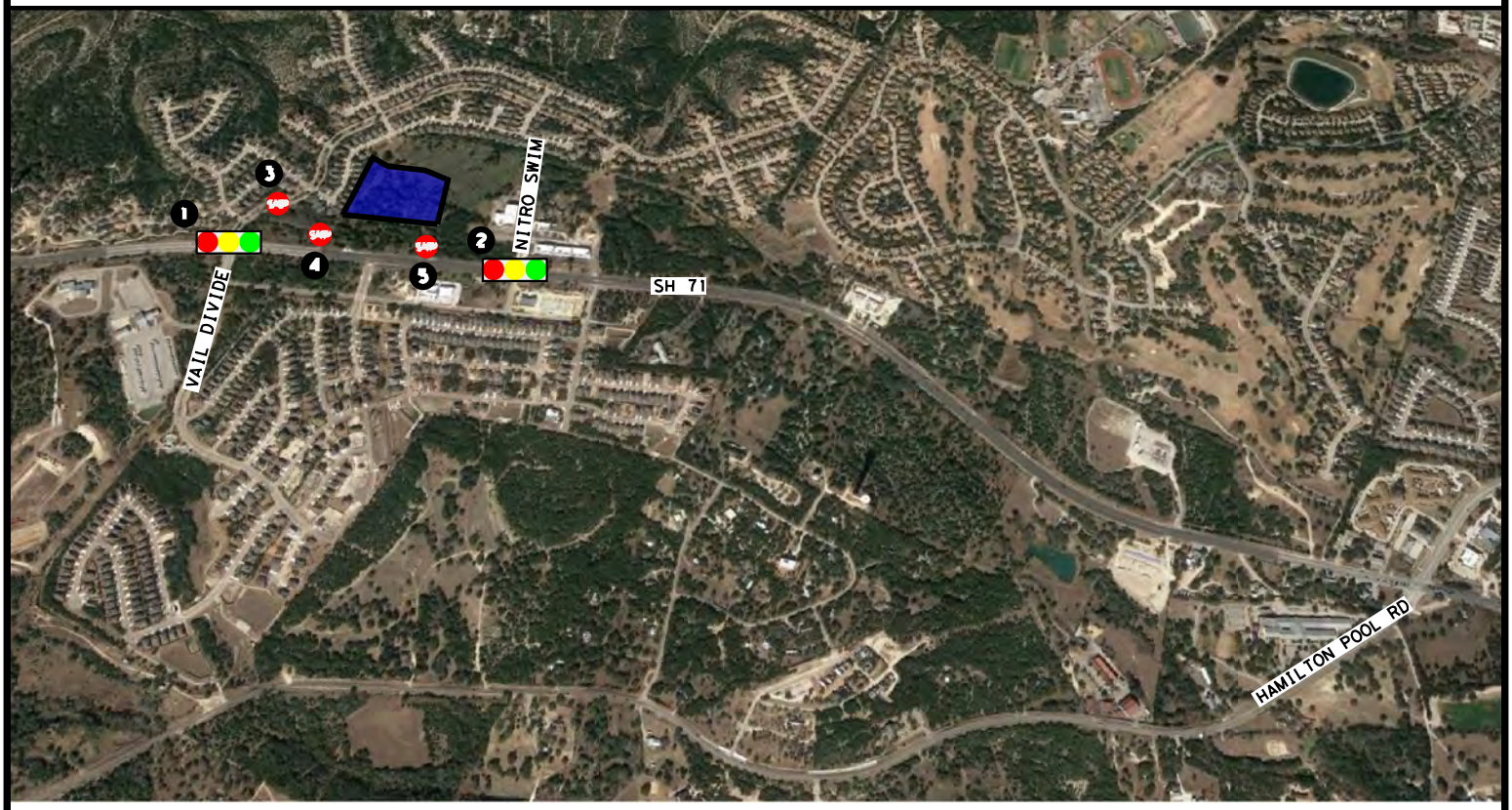
PROPOSED DEVELOPMENT SITE

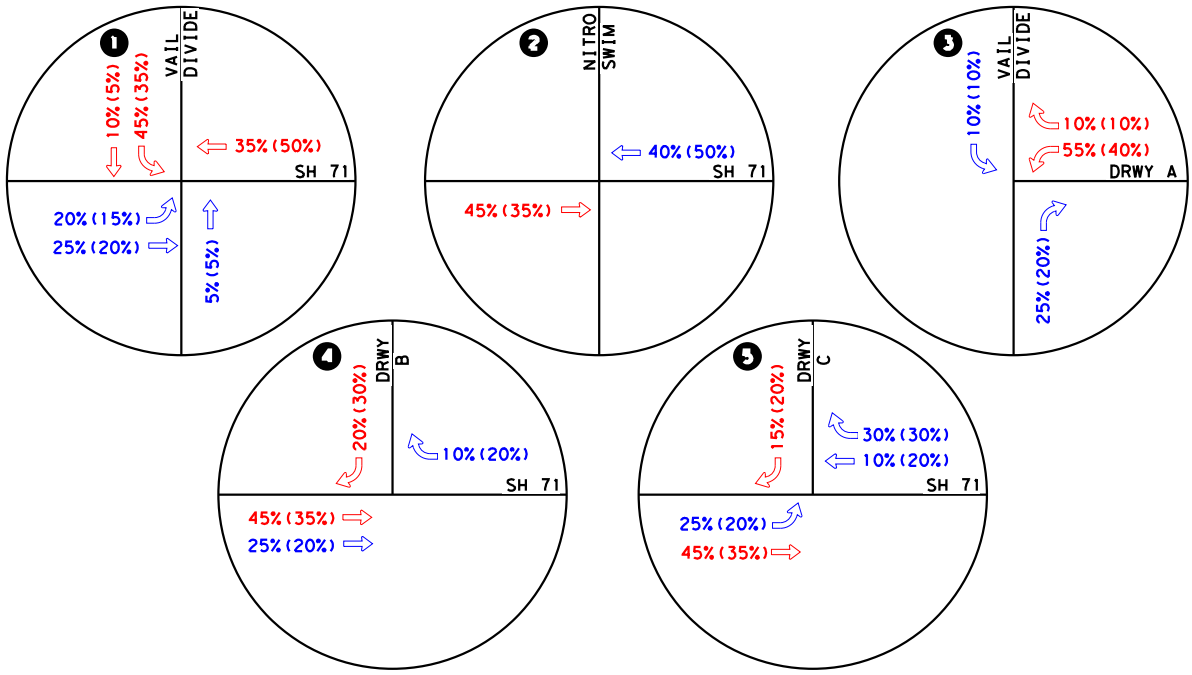
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
AM & PM PEAK HOUR TRIP DISTRIBUTION SCENARIO 2

EXHIBIT 16

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:36:57 PM ...\16xA359xAM & PM TRIP DISTRIBUTION+Scenario2.dgn

LEGEND

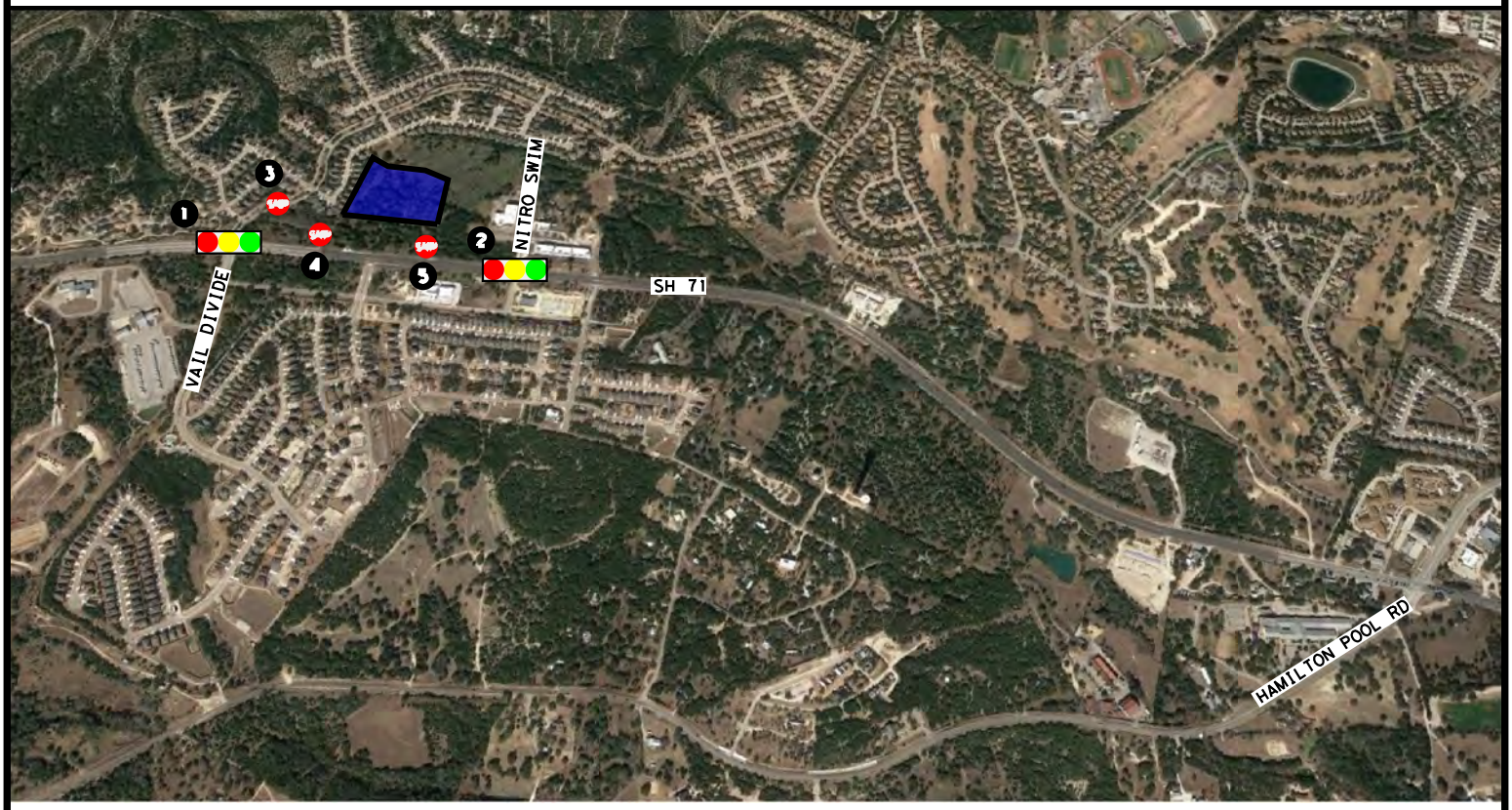
PROPOSED DEVELOPMENT SITE

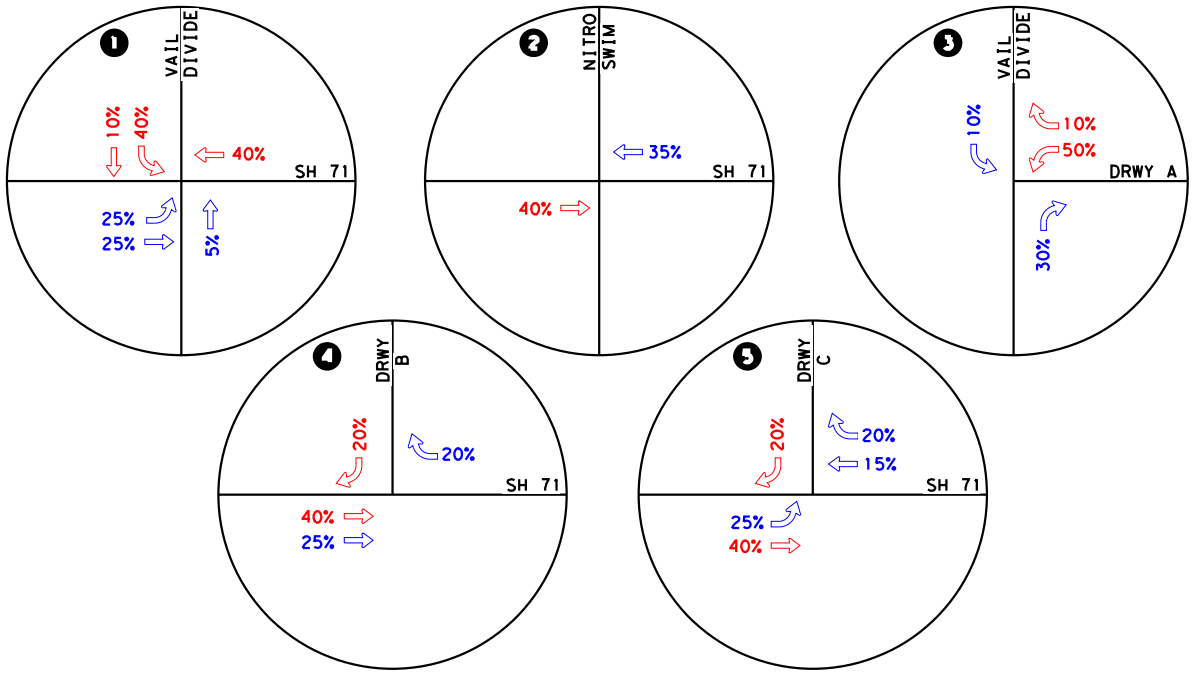
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
SUNDAY PEAK HOUR
TRIP DISTRIBUTION
SCENARIO 2

EXHIBIT 17

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:37:47 PM ...\17xA359xSUN TRIP DISTRIBUTION+Scenario2.dgn

LEGEND

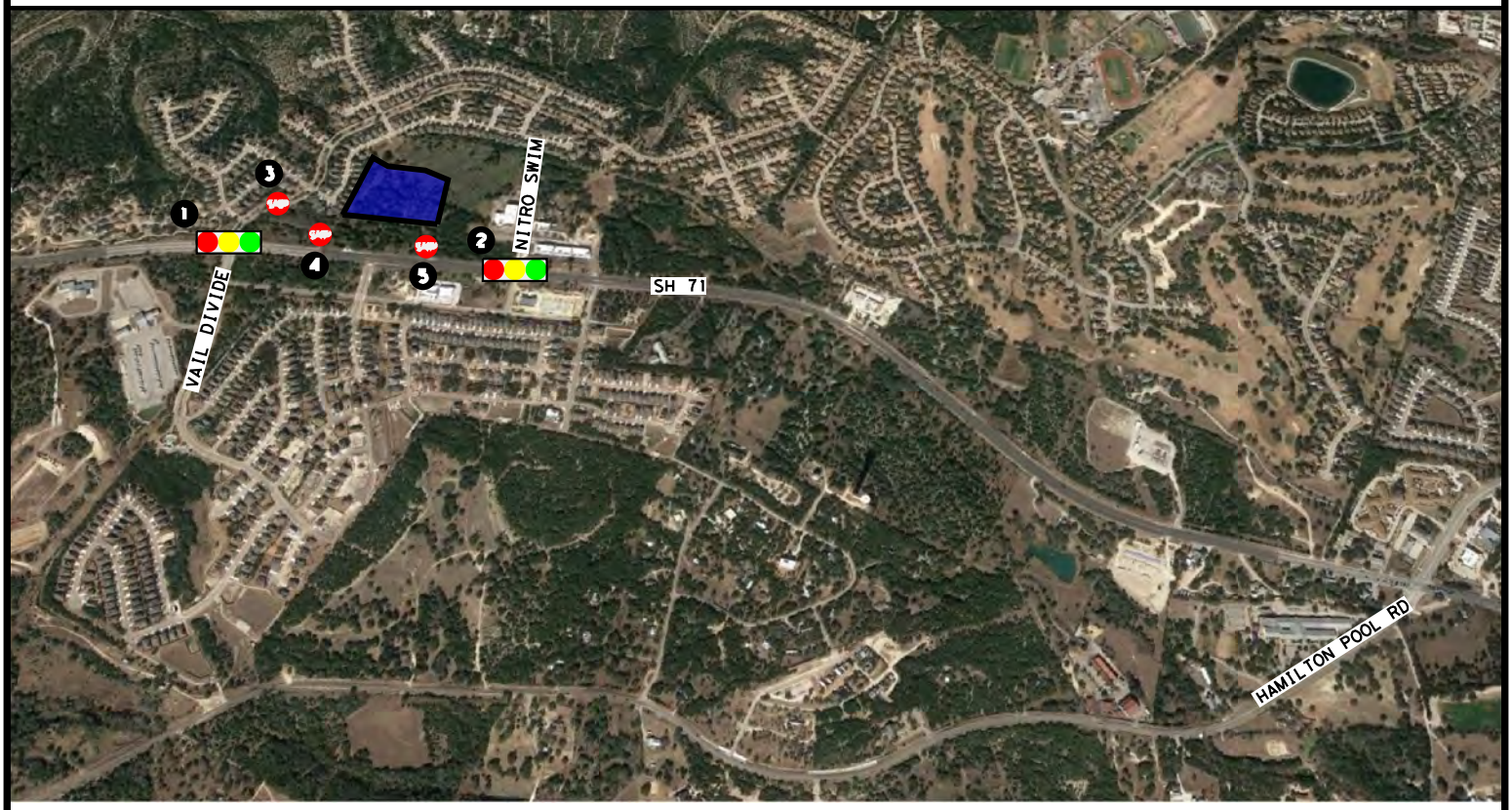
PROPOSED DEVELOPMENT SITE

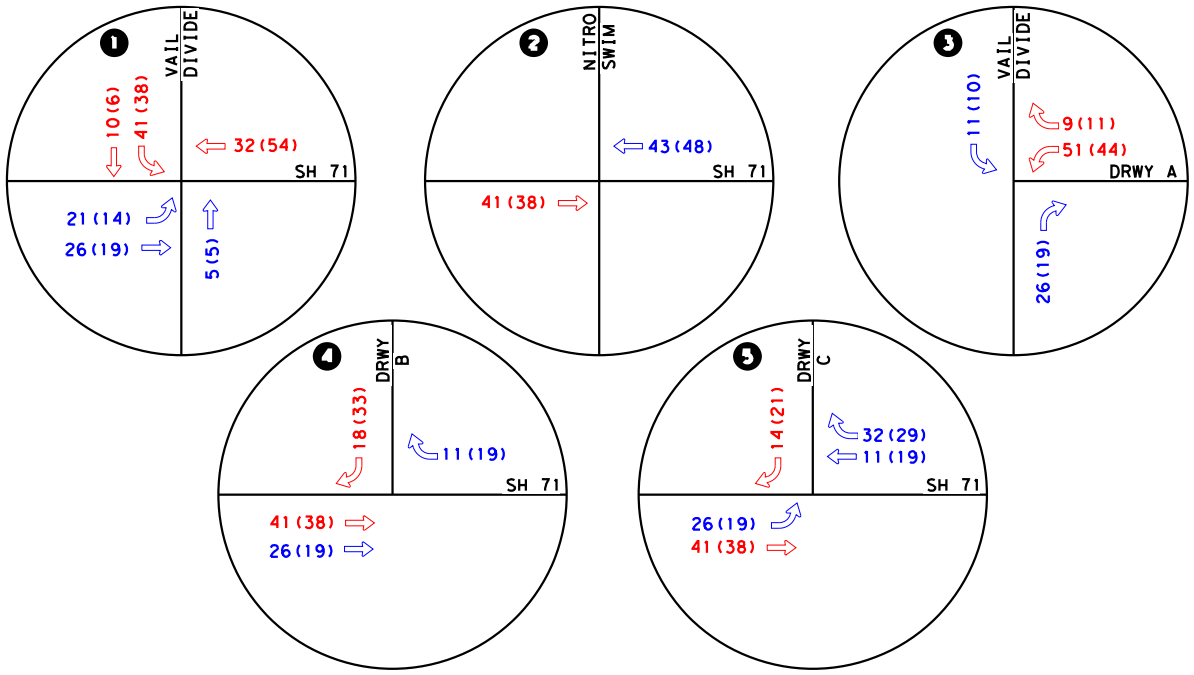
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
AM & PM PEAK HOUR SITE VOLUMES
SCENARIO 2

EXHIBIT 18

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:38:31 PM ...\18xA359xAM & PM SITE VOLUMES+Scenario2.dgn

LEGEND

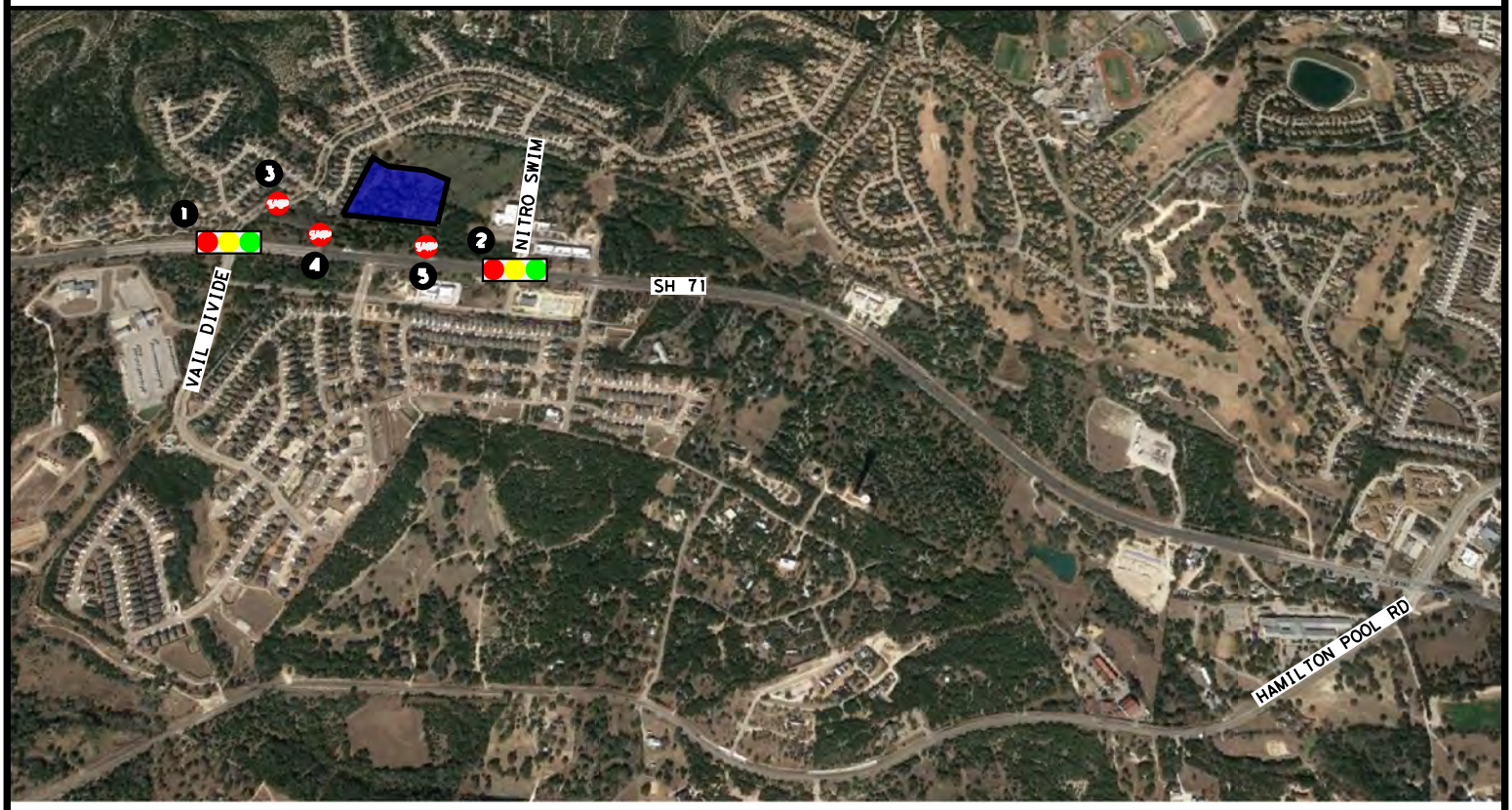
PROPOSED DEVELOPMENT SITE

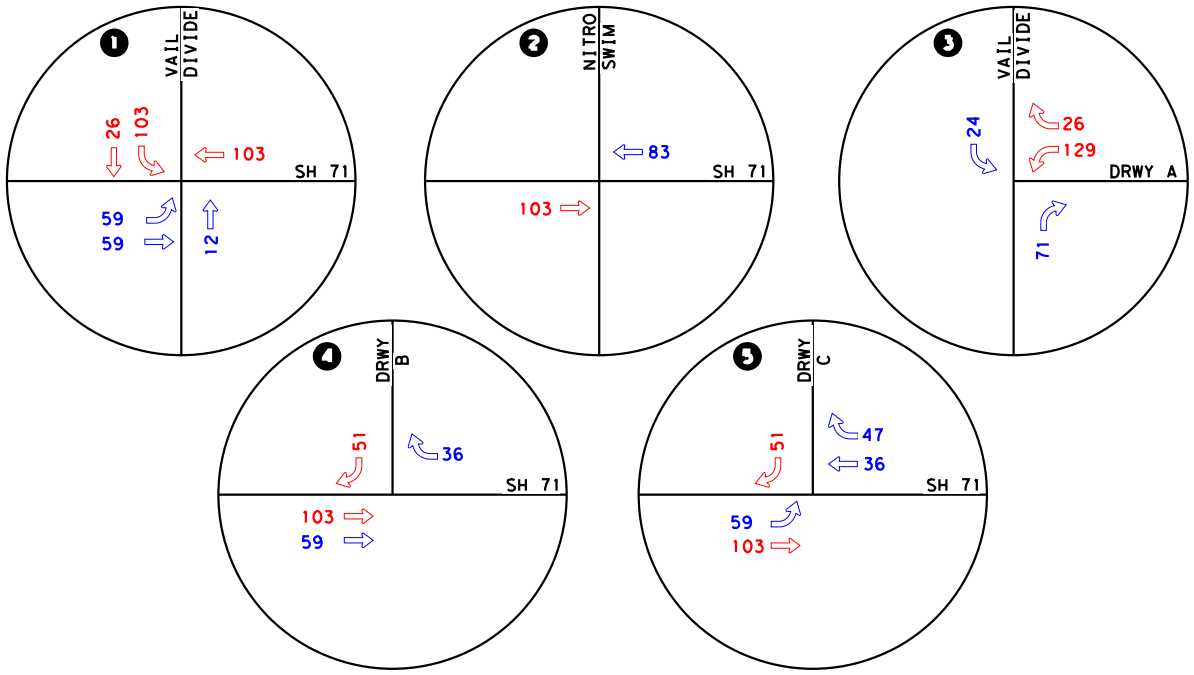
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
SUNDAY PEAK HOUR
SITE VOLUMES
SCENARIO 2

EXHIBIT 19

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
5:39:16 PM ...\19xA359xSUN SITE VOLUMES\Scenario2.dgn

LEGEND

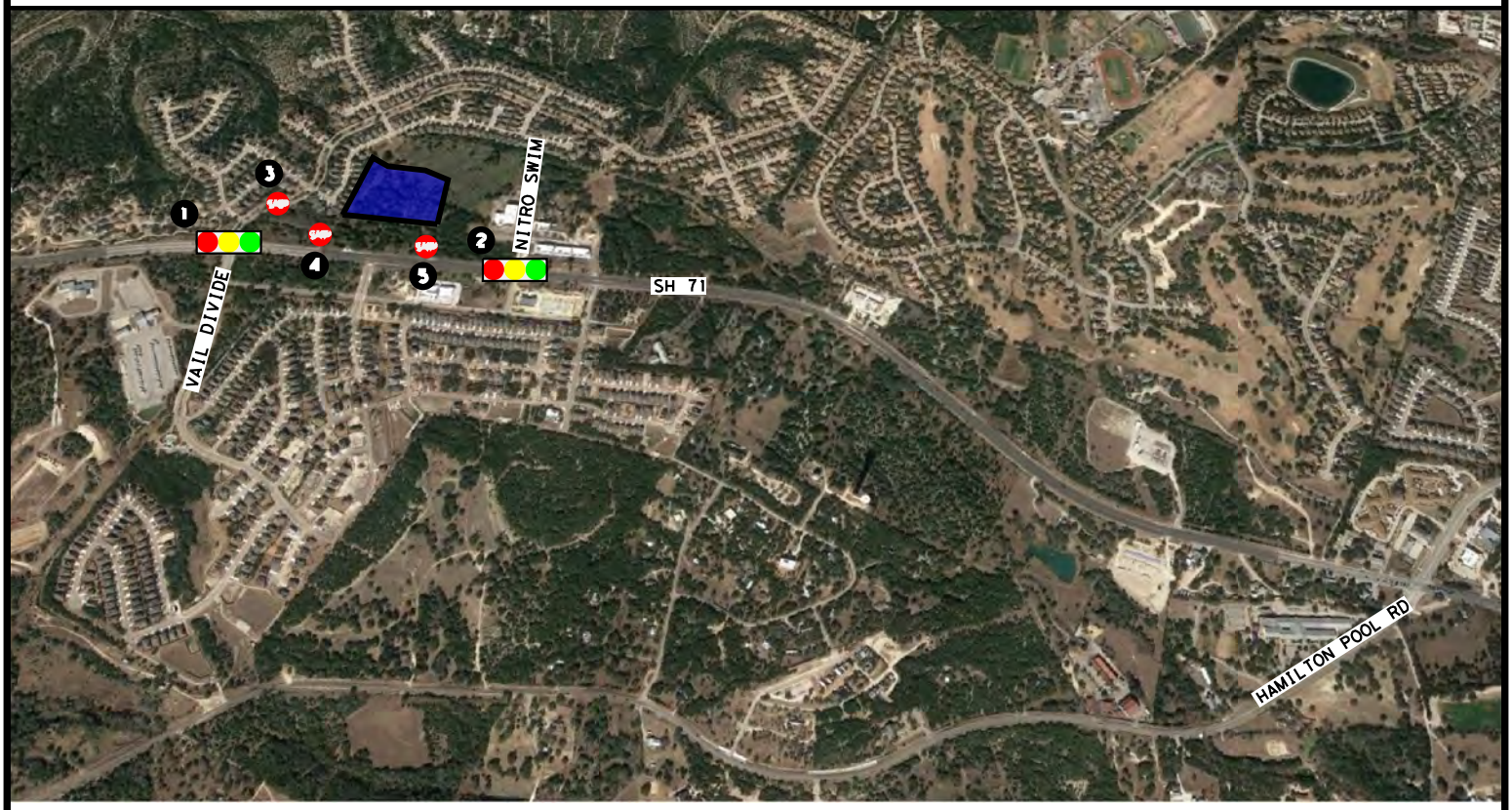
PROPOSED DEVELOPMENT SITE

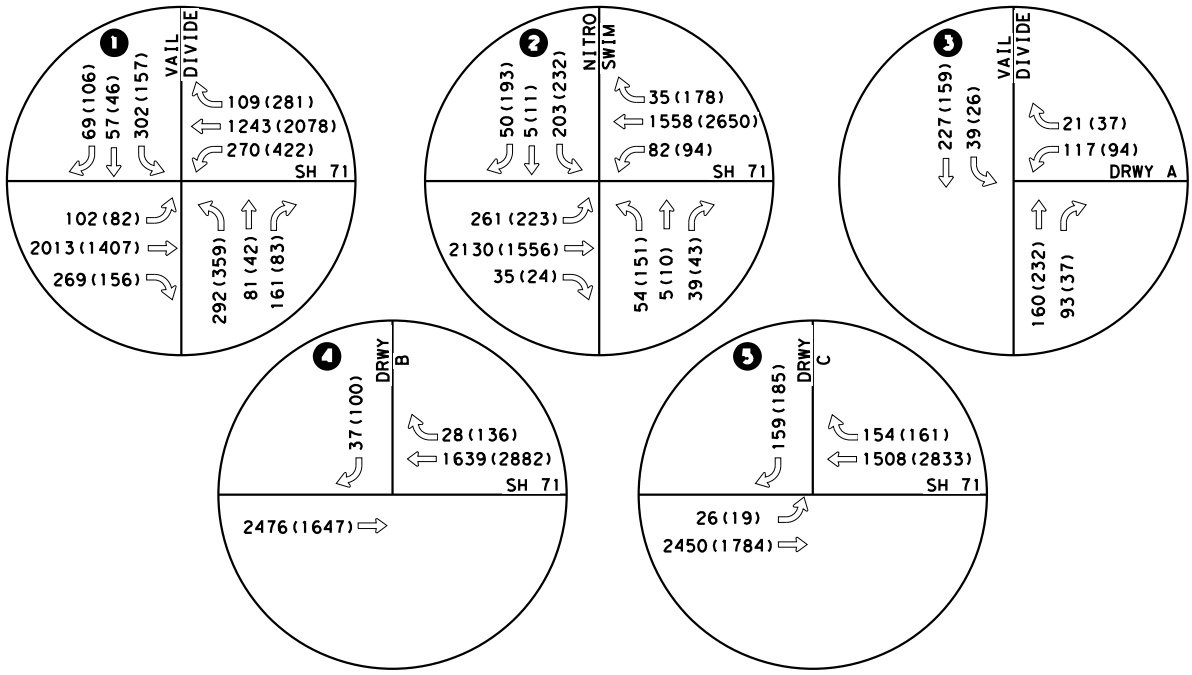
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





Texas Department of Transportation

THE CITY OF BEE CAVE

BEE CAVE EPISCOPAL CHURCH
AM & PM PEAK HOUR
2022 BUILD TRAFFIC VOLUMES
SCENARIO 2

EXHIBIT 20

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
8:00:04 PM ...\20xA359xAM & PM 2022 BUILD VOLUMES\Scenario2.dgn

LEGEND

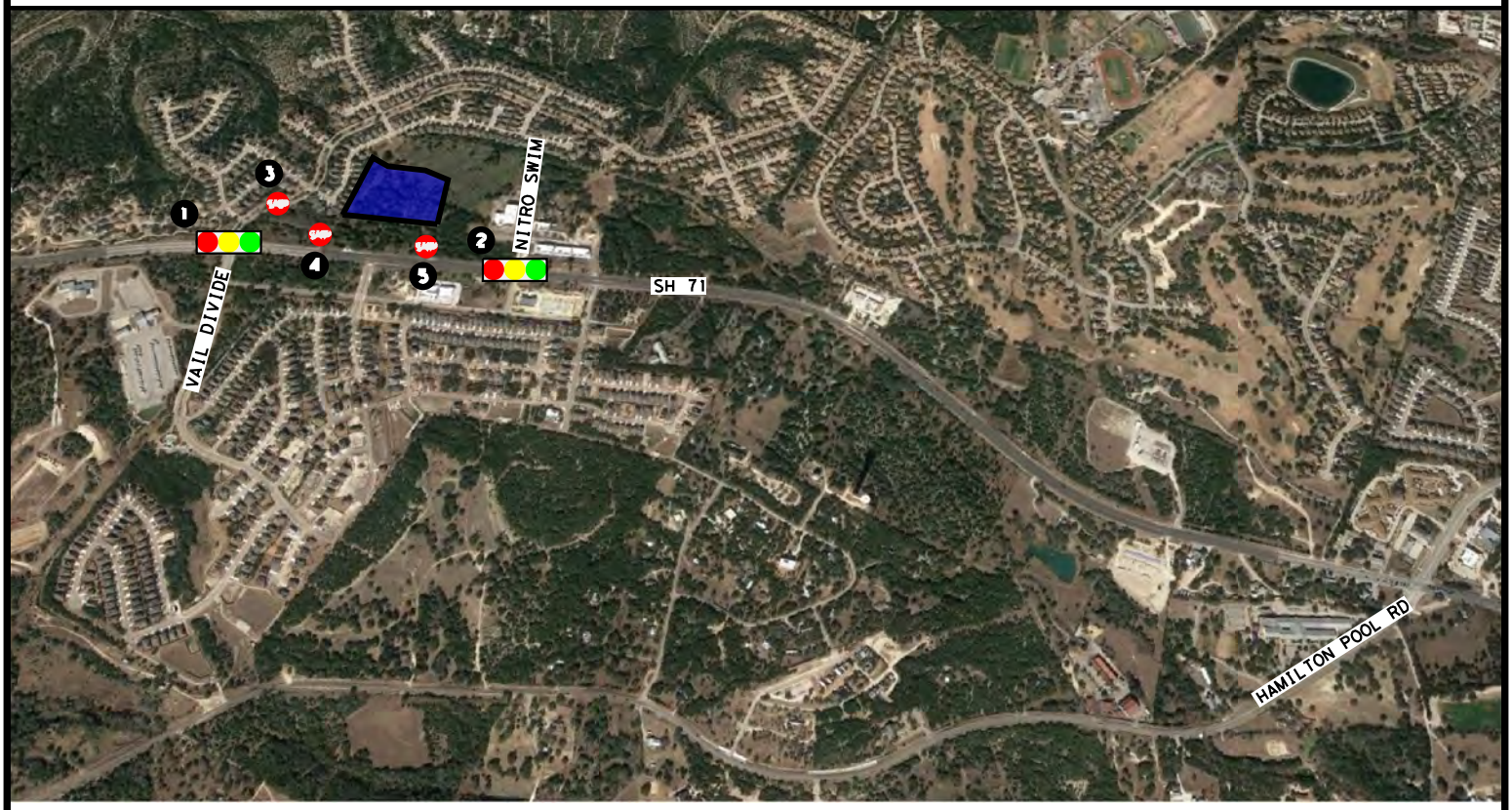
PROPOSED DEVELOPMENT SITE

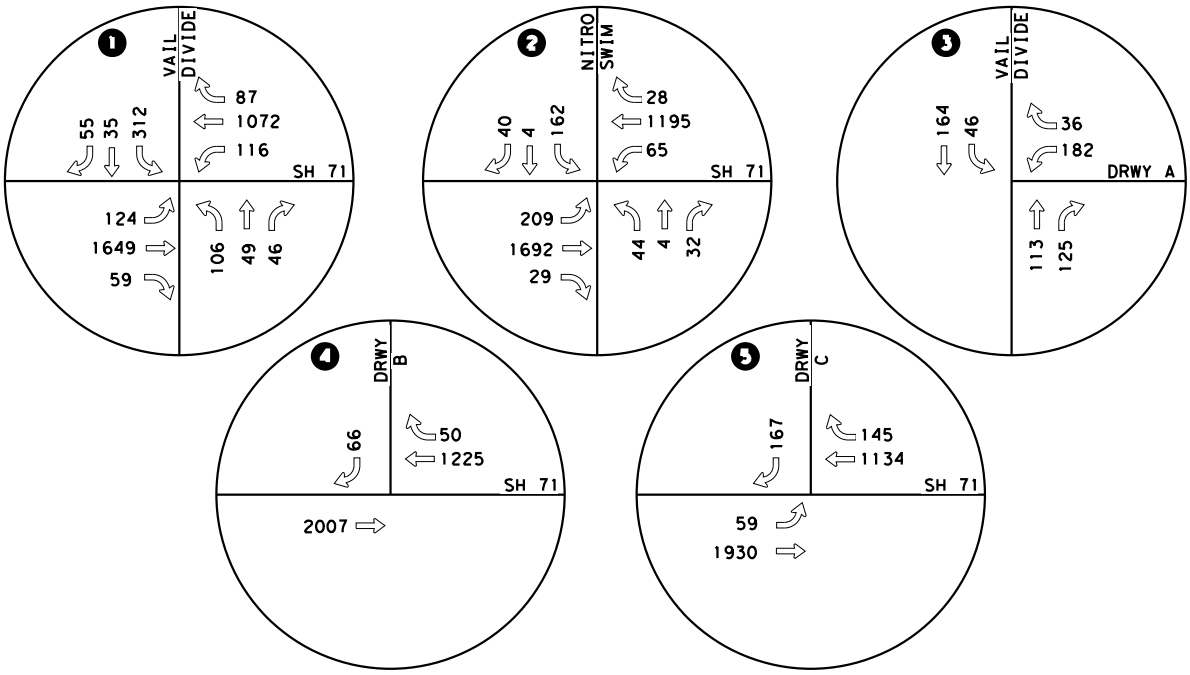
STOP CONTROLLED INTERSECTION

SIGNALIZED INTERSECTION

DIRECTION OF TRAFFIC

XX(XX) AM(PM) TRAFFIC VOLUMES





BEE CAVE EPISCOPAL CHURCH
SUNDAY PEAK HOUR
2022 BUILD TRAFFIC VOLUMES
SCENARIO 2

EXHIBIT 21

LJA Engineering, Inc.
FRN - F-1386

0' 25' 50' 100'
SCALE: 1"=100'

5/19/2020
8:00:50 PM ...\21\A359\SUN_2022_BUILD_VOLUMES\Scenario2.dgn

APPENDIX A
ROADWAY NETWORK & SITE ACCESS

ATTACHMENT 2

LJA Engineering, Inc.
5316 Highway 290 West
Suite 150
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

EPISCOPAL CHURCH
PROPOSED DRIVEWAY
EXHIBIT

APPENDIX B
EXISTING TRAFFIC COUNTS

ATTACHMENT 3

Study Name 1 - SH 71 @ Vail Divide
Start Date 08/23/2017
Start Time 7:00 AM
Site Code 1

	Vail Divide Southbound				SH 71 Westbound				Vail Divide Northbound				SH 71 Eastbound			
Start Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00 AM	36	0	3	0	4	160	5	0	3	0	7	0	1	287	2	0
7:15 AM	55	1	4	0	4	198	9	0	1	1	14	0	1	336	2	0
7:30 AM	23	0	4	0	6	185	21	0	3	1	10	0	5	318	1	1
7:45 AM	20	0	9	0	6	225	13	0	3	1	5	0	1	364	3	0
8:00 AM	29	1	8	0	5	231	18	0	6	3	6	0	4	343	1	0
8:15 AM	21	0	26	0	7	251	7	0	7	3	9	0	9	346	5	0
8:30 AM	19	0	11	0	8	208	10	0	7	2	10	0	12	332	24	0
8:45 AM	16	0	6	0	23	212	12	0	5	0	5	0	2	286	19	0
3:00 PM	13	0	6	0	8	246	30	0	2	0	4	0	3	212	1	0
3:15 PM	13	0	13	0	1	294	23	1	1	2	12	0	5	273	4	0
3:30 PM	10	0	12	0	7	289	21	0	8	1	3	0	2	234	2	0
3:45 PM	10	1	8	0	5	288	19	1	5	1	4	0	3	249	3	0
4:00 PM	10	0	7	0	4	323	14	0	6	1	6	0	5	207	1	0
4:15 PM	17	0	7	0	7	323	24	0	5	1	7	0	22	311	9	0
4:30 PM	12	1	2	0	8	377	15	0	7	1	9	0	7	248	4	0
4:45 PM	15	3	10	0	9	339	20	0	3	3	10	0	6	250	2	0
5:00 PM	29	0	5	0	18	354	29	0	13	0	10	0	4	249	8	0
5:15 PM	12	0	4	0	14	328	37	0	13	2	8	0	6	229	11	0
5:30 PM	19	2	11	0	11	436	51	0	10	2	12	0	10	253	9	0
5:45 PM	19	0	7	0	9	405	47	0	10	2	5	0	10	271	8	0

ATTACHMENT 3

Study Name 10 - SH 71 @ Bella Colinas Commercial / Nitro Swim
Start Date
Start Time
Site Code

	Nitro Swim Southbound				SH 71 Westbound				Bella Colinas Commercial Northbound				SH 71 Eastbound			
Start Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00 AM	3	0	1	0	3	168	0	0	0	0	1	0	0	325	0	0
7:15 AM	1	0	1	0	1	216	1	0	0	0	1	0	1	424	0	0
7:30 AM	1	0	0	0	2	221	0	0	0	0	0	0	0	371	1	0
7:45 AM	0	0	0	0	3	255	0	0	0	0	0	0	0	396	0	0
8:00 AM	0	0	0	0	2	252	0	0	0	0	0	0	0	375	1	0
8:15 AM	0	0	0	0	1	281	1	0	0	0	0	0	0	372	0	0
8:30 AM	0	0	0	0	2	231	2	0	0	0	1	0	0	347	1	0
8:45 AM	0	0	2	0	4	241	2	0	0	0	0	0	0	308	1	0
3:00 PM	0	0	0	0	0	304	6	0	0	0	6	0	3	244	0	0
3:15 PM	0	0	1	0	0	308	5	0	1	1	1	0	3	281	0	0
3:30 PM	5	0	2	0	0	319	36	1	0	0	2	0	6	263	0	0
3:45 PM	6	0	0	0	0	321	8	0	0	0	0	0	1	253	1	0
4:00 PM	2	0	0	0	0	347	12	0	0	0	1	0	3	228	0	0
4:15 PM	10	0	10	0	0	354	22	0	1	0	0	0	15	303	0	0
4:30 PM	12	0	7	0	1	392	29	0	0	0	2	0	6	309	0	2
4:45 PM	14	0	5	0	1	365	8	0	0	0	0	0	2	273	0	0
5:00 PM	11	0	4	0	2	403	28	0	1	0	4	0	13	265	0	0
5:15 PM	26	0	11	0	2	402	12	0	0	0	0	0	6	275	0	0
5:30 PM	10	0	2	0	0	478	26	0	0	0	0	0	10	260	0	0
5:45 PM	22	1	12	0	1	462	23	0	0	0	0	0	7	287	1	0

APPENDIX C
BACKGROUND TRAFFIC

Bee Cave Episcopal Church - Background Traffic (AM Peak)

SH 71 at Vail Divide

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2017	26	1385	33	26	915	48	23	9	30	89	1	54
2022	31	1645	39	31	1087	57	27	11	36	106	1	64

Background Traffic

Falconhead	50	0	0	0	16	3	0	17	0	61	1	4
Summit 56	0	124	0	5	48	36	0	0	14	41	0	0
Canyonside	0	0	0	0	4	3	0	0	0	29	0	1
Terra Colinas	0	218	34	109	56	10	105	19	8	24	9	0
LTISD	0	0	196	125	0	0	160	29	103	0	36	0
Background Total	50	342	230	239	124	52	265	65	125	155	46	5
Sunday	40	274	27	91	99	42	84	29	18	124	8	4
Intersection Total	**81**	**1987**	**269**	**270**	**1211**	**109**	**292**	**76**	**161**	**261**	**47**	**69**
Sunday Total	65	1590	59	116	969	87	106	37	46	209	9	55

SH 71 at Nitro Swim

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2017	0	1490	2	8	1019	3	0	0	1	0	0	0
2022	0	1770	2	10	1210	4	0	0	1	0	0	0

Background Traffic

Falconhead												
Summit 56	261	-55	0	0	16	31	0	0	0	203	0	50
Canyonside												
Terra Colinas	0	271	33	72	164	0	54	5	38	0	5	0
LTISD	0	103	0	0	125	0	0	0	0	0	0	0
Background Total	261	319	33	72	305	31	54	5	38	203	5	50
Sunday	209	173	26	58	144	25	43	4	30	162	4	40
Intersection Total	**261**	**2089**	**35**	**82**	**1515**	**35**	**54**	**5**	**39**	**203**	**5**	**50**
Sunday Total	209	1589	28	65	1112	28	43	4	31	162	4	40

Bee Cave Episcopal Church - Background Traffic (AM Peak)

Vail at Driveway A

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
					Background Traffic							
Falconhead				66	0	12	0	3	67	28	0	0
Summit 56												
Canyonside												
Terra Colinas												
LTISD												
Background Total	0	0	0	66	0	12	0	3	67	28	0	0
Sunday	0	0	0	53	0	10	0	2	54	22	0	0
Intersection Total	**0**	**0**	**0**	**66**	**0**	**12**	**0**	**3**	**67**	**28**	**0**	**0**
Sunday Total	0	0	0	53	0	10	0	2	54	22	0	0

SH 71 at Driveway B

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
					Background Traffic							
Falconhead		61			0	17						19
Summit 56												
Canyonside												
Terra Colinas												
LTISD												
Background Total	0	61	0	0	0	17	0	0	0	0	0	19
Sunday	0	49	0	0	0	14	0	0	0	0	0	15
Intersection Total	**0**	**61**	**0**	**0**	**0**	**17**	**0**	**0**	**0**	**0**	**0**	**19**
Sunday Total	0	49	0	0	0	14	0	0	0	0	0	15

Bee Cave Episcopal Church - Background Traffic (AM Peak)

	SH 71 at Driveway C											
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Background Traffic											
Falconhead												
Summit 56		206			-56	122						145
Canyonside												
Terra Colinas												
LTISD												
Background Total	0	206	0	0	-56	122	0	0	0	0	0	145
Sunday	0	165	0	0	-45	98	0	0	0	0	0	116
Intersection Total	**0**	**206**	**0**	**0**	**-56**	**122**	**0**	**0**	**0**	**0**	**0**	**145**
Sunday Total	0	165	0	0	-45	98	0	0	0	0	0	116

Bee Cave Episcopal Church - Background Traffic (PM Peak)

SH 71 at Vail Divide

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2017	30	1002	36	52	1523	164	46	6	35	37	2	79
2022	36	1190	43	62	1809	195	55	7	42	44	2	94

Background Traffic

Falconhead	32	0	0	4	46	7	0	2	0	22	14	11
Summit 56	0	73	0	46	130	55	0	0	2	29	0	0
Canyonside	0	0	0	0	18	18	0	0	0	17	0	1
Terra Colinas	0	125	61	277	75	6	250	18	5	7	15	0
LTISD	0	0	52	33	0	0	54	10	34	0	9	0
Background Total	32	198	113	360	269	86	304	30	41	75	38	12
Intersection Total	**68**	**1388**	**156**	**422**	**2078**	**281**	**359**	**37**	**83**	**119**	**40**	**106**

SH 71 at Nitro Swim

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2017	36	1087	1	5	1745	89	1	0	4	69	1	29
2022	43	1291	1	6	2073	106	1	0	5	82	1	34

Background Traffic

Falconhead												
Summit 56	180	-73	0	0	39	72	0	0	0	150	0	159
Canyonside												
Terra Colinas	0	266	23	88	457	0	150	10	38	0	10	0
LTISD	0	34	0	0	33	0	0	0	0	0	0	0
Background Total	180	227	23	88	529	72	150	10	38	150	10	159
Intersection Total	**223**	**1518**	**24**	**94**	**2602**	**178**	**151**	**10**	**43**	**232**	**11**	**193**

Bee Cave Episcopal Church - Background Traffic (PM Peak)

Vail at Driveway A

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
					Background Traffic							
Falconhead				50	0	26	0	7	37	16	0	0
Summit 56												
Canyonside												
Terra Colinas												
LTISD												
Background Total	0	0	0	50	0	26	0	7	37	16	0	0
Intersection Total	**0**	**0**	**0**	**50**	**0**	**26**	**0**	**7**	**37**	**16**	**0**	**0**

SH 71 at Driveway B

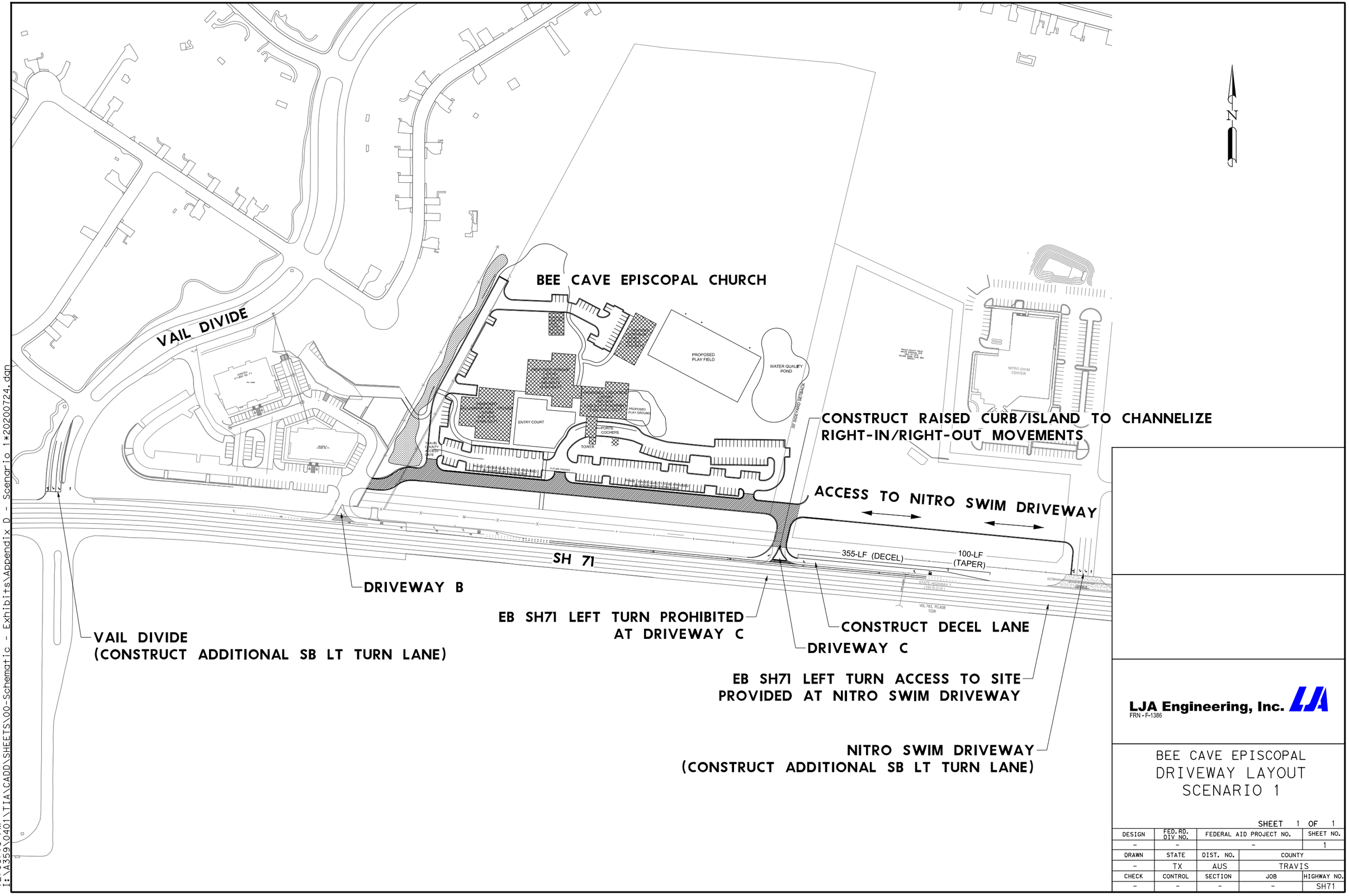
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
					Background Traffic							
Falconhead		22			-11	117						67
Summit 56												
Canyonside												
Terra Colinas												
LTISD												
Background Total	0	22	0	0	-11	117	0	0	0	0	0	67
Intersection Total	**0**	**22**	**0**	**0**	**-11**	**117**	**0**	**0**	**0**	**0**	**0**	**67**

Bee Cave Episcopal Church - Background Traffic (PM Peak)

SH 71 at Driveway C

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
					Background Traffic							
Falconhead												
Summit 56		107			67	132						164
Canyonside												
Terra Colinas												
LTISD												
Background Total	0	107	0	0	67	132	0	0	0	0	0	164
Intersection Total	**0**	**107**	**0**	**0**	**67**	**132**	**0**	**0**	**0**	**0**	**0**	**164**

APPENDIX D
PROPOSED DRIVEWAY EXHIBIT



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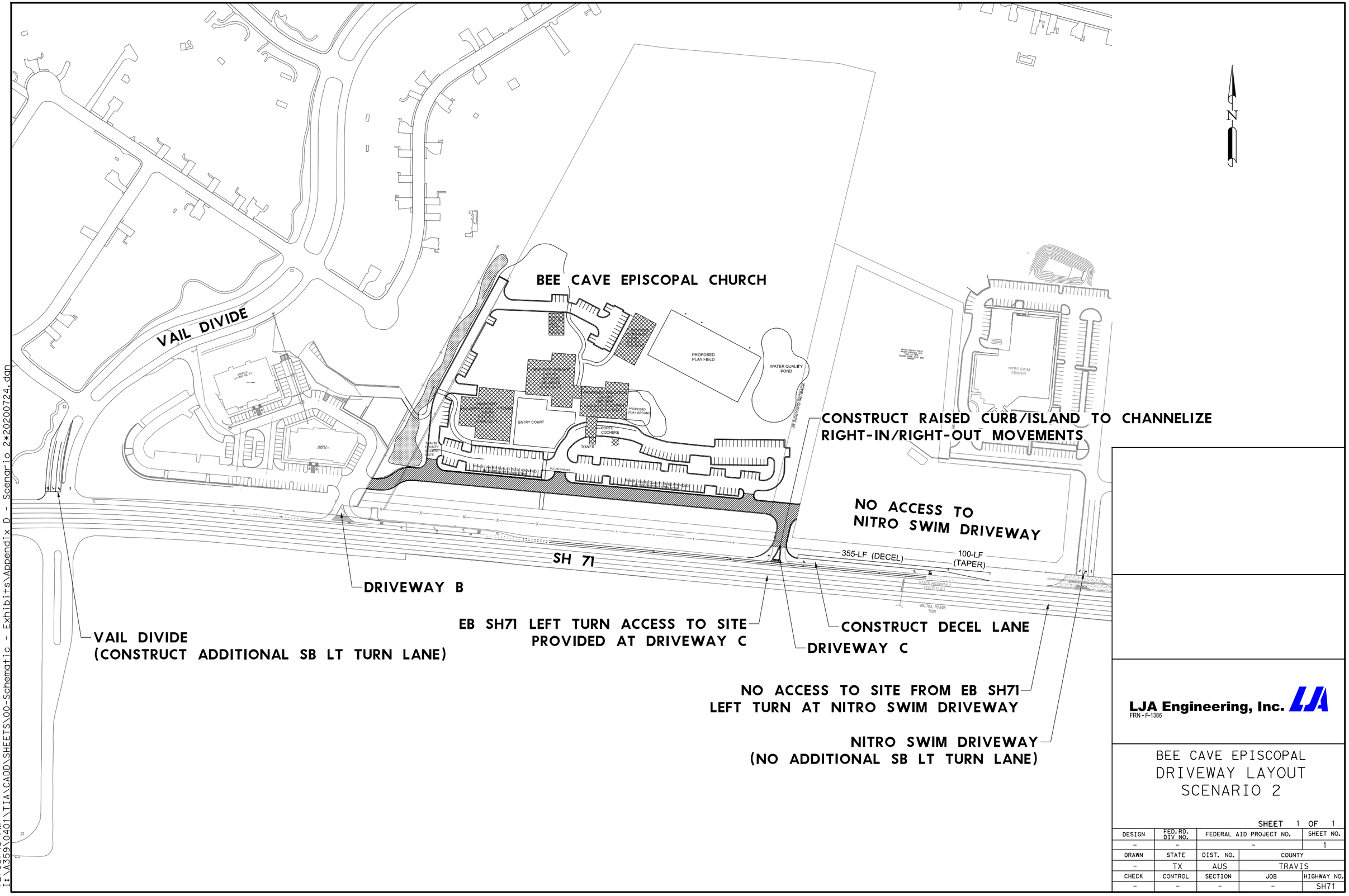
LJA Engineering, Inc.
FRN - F-1386

BEE CAVE EPISCOPAL DRIVEWAY LAYOUT SCENARIO 1

SHEET 1 OF 1

DESIGN	FED. RD. DIV NO.	FEDERAL AID PROJECT NO.		SHEET NO.
-	-	-		1
DRAWN	STATE	DIST. NO.	COUNTY	
-	TX	AUS	TRAVIS	
CHECK	CONTROL	SECTION	JOB	HIGHWAY NO.
-	-	-	-	SH71



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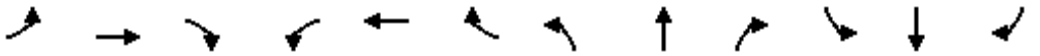
LJA Engineering, Inc.
FRN - F-1386

BEE CAVE EPISCOPAL
DRIVEWAY LAYOUT
SCENARIO 2

SHEET 1 OF 1

DESIGN	FED. RD. DIV NO.	FEDERAL AID PROJECT NO.		SHEET NO.
-	-	-		1
DRAWN	STATE	DIST. NO.	COUNTY	
-	TX	AUS	TRAVIS	
CHECK	CONTROL	SECTION	JOB	HIGHWAY NO.
-	-	-	-	SH71

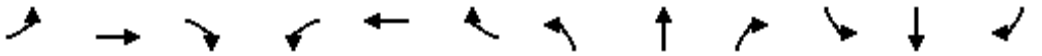
APPENDIX E
SYNCHRO REPORTS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	1385	33	26	915	48	23	9	30	89	1	54
Future Volume (veh/h)	26	1385	33	26	915	48	23	9	30	89	1	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	27	1458	35	27	963	51	26	10	33	99	1	60
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	377	1860	829	253	1860	829	380	89	75	221	2	99
Arrive On Green	0.06	0.50	0.50	0.06	0.50	0.50	0.06	0.05	0.05	0.08	0.06	0.06
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	1853	27	1625
Grp Volume(v), veh/h	27	1458	35	27	963	51	26	10	33	99	0	61
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1853	0	1653
Q Serve(g_s), s	0.6	28.4	0.5	0.6	15.4	1.4	0.0	0.4	1.7	4.6	0.0	3.2
Cycle Q Clear(g_c), s	0.6	28.4	0.5	0.6	15.4	1.4	0.0	0.4	1.7	4.6	0.0	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Lane Grp Cap(c), veh/h	377	1860	829	253	1860	829	380	89	75	221	0	101
V/C Ratio(X)	0.07	0.78	0.04	0.11	0.52	0.06	0.07	0.11	0.44	0.45	0.00	0.61
Avail Cap(c_a), veh/h	441	2442	1089	317	2442	1089	492	399	338	251	0	339
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.0	17.9	3.4	13.6	14.6	11.2	38.8	40.2	40.8	39.5	0.0	40.2
Incr Delay (d2), s/veh	0.1	1.3	0.0	0.2	0.2	0.0	0.1	0.6	4.0	1.4	0.0	5.8
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	0.2	11.4	0.3	0.2	6.1	0.5	0.3	0.2	0.8	2.1	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	19.2	3.5	13.8	14.9	11.2	38.9	40.7	44.8	41.0	0.0	46.0
LnGrp LOS	B	B	A	B	B	B	D	D	D	D	A	D
Approach Vol, veh/h		1520			1041			69			160	
Approach Delay, s/veh		18.6			14.7			42.0			42.9	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	11.0	12.0	51.2	12.3	12.3	12.0	51.2
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	18.0	8.0	58.0	8.0	18.0	8.0	58.0
Max Q Clear Time (g_c+I1), s	6.6	3.7	2.6	30.4	2.0	5.2	2.6	17.4
Green Ext Time (p_c), s	0.0	0.1	0.0	13.8	0.0	0.2	0.0	8.9

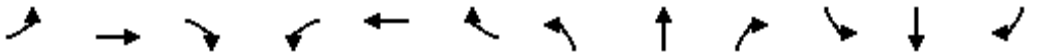
Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	1987	269	270	1211	109	292	76	161	261	47	69
Future Volume (veh/h)	81	1987	269	270	1211	109	292	76	161	261	47	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	85	2092	283	284	1275	115	324	84	179	290	52	77
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	1836	819	189	1931	861	493	246	208	189	65	96
Arrive On Green	0.04	0.50	0.50	0.07	0.52	0.52	0.10	0.13	0.13	0.07	0.09	0.09
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	1853	708	1048
Grp Volume(v), veh/h	85	2092	283	284	1275	115	324	84	179	290	0	129
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1853	0	1756
Q Serve(g_s), s	2.6	58.0	6.8	8.0	29.4	4.2	6.0	4.6	12.4	8.0	0.0	8.4
Cycle Q Clear(g_c), s	2.6	58.0	6.8	8.0	29.4	4.2	6.0	4.6	12.4	8.0	0.0	8.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.60
Lane Grp Cap(c), veh/h	251	1836	819	189	1931	861	493	246	208	189	0	162
V/C Ratio(X)	0.34	1.14	0.35	1.51	0.66	0.13	0.66	0.34	0.86	1.54	0.00	0.80
Avail Cap(c_a), veh/h	298	1836	819	189	1931	861	493	300	254	189	0	271
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	29.4	5.5	36.5	20.3	14.3	48.5	46.6	50.0	55.6	0.0	51.9
Incr Delay (d2), s/veh	0.8	70.0	0.3	253.2	0.8	0.1	3.2	0.8	21.1	266.8	0.0	8.7
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	1.1	42.3	4.2	15.8	12.5	1.6	4.7	2.3	6.3	19.5	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	99.4	5.8	289.7	21.2	14.4	51.7	47.4	71.1	322.4	0.0	60.6
LnGrp LOS	B	F	A	F	C	B	D	D	E	F	A	E
Approach Vol, veh/h		2460			1674			587			419	
Approach Delay, s/veh		85.8			66.3			57.0			241.8	
Approach LOS		F			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	21.8	15.0	65.0	19.0	17.7	12.0	68.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	18.0	8.0	58.0	8.0	18.0	8.0	58.0
Max Q Clear Time (g_c+I1), s	10.0	14.4	10.0	60.0	8.0	10.4	4.6	31.4
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.0	0.3	0.0	11.7

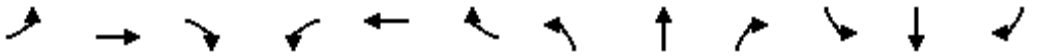
Intersection Summary	
HCM 6th Ctrl Delay	88.9
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	1987	269	270	1243	109	292	81	161	266	51	69
Future Volume (veh/h)	113	1987	269	270	1243	109	292	81	161	266	51	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	119	2092	283	284	1308	115	324	90	179	296	57	77
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	1836	819	189	1908	851	484	246	209	189	71	96
Arrive On Green	0.05	0.50	0.50	0.07	0.52	0.52	0.10	0.13	0.13	0.07	0.09	0.09
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	1853	750	1013
Grp Volume(v), veh/h	119	2092	283	284	1308	115	324	90	179	296	0	134
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1853	0	1763
Q Serve(g_s), s	3.6	58.0	6.8	8.0	30.9	4.2	6.0	4.9	12.4	8.0	0.0	8.7
Cycle Q Clear(g_c), s	3.6	58.0	6.8	8.0	30.9	4.2	6.0	4.9	12.4	8.0	0.0	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	251	1836	819	189	1908	851	484	246	209	189	0	167
V/C Ratio(X)	0.47	1.14	0.35	1.51	0.69	0.14	0.67	0.37	0.86	1.57	0.00	0.80
Avail Cap(c_a), veh/h	287	1836	819	189	1908	851	484	300	254	189	0	272
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.9	29.4	5.6	36.5	21.1	14.7	48.8	46.7	50.0	55.6	0.0	51.8
Incr Delay (d2), s/veh	1.4	70.0	0.3	253.3	1.0	0.1	3.5	0.9	21.0	280.4	0.0	8.7
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	42.4	4.2	15.8	13.2	1.6	4.7	2.5	6.3	20.3	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	99.4	5.9	289.8	22.2	14.8	52.3	47.6	71.0	336.1	0.0	60.5
LnGrp LOS	B	F	A	F	C	B	D	D	E	F	A	E
Approach Vol, veh/h		2494			1707			593			430	
Approach Delay, s/veh		85.0			66.2			57.3			250.2	
Approach LOS		F			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	21.8	15.0	65.0	18.7	18.0	12.7	67.3
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	18.0	8.0	58.0	8.0	18.0	8.0	58.0
Max Q Clear Time (g_c+I1), s	10.0	14.4	10.0	60.0	8.0	10.7	5.6	32.9
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	0.3	0.1	11.8

Intersection Summary	
HCM 6th Ctrl Delay	89.3
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	1987	269	270	1243	109	292	81	161	266	51	69
Future Volume (veh/h)	113	1987	269	270	1243	109	292	81	161	266	51	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	119	2092	283	284	1308	115	324	90	179	296	57	77
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	1900	999	184	1972	989	330	232	306	240	71	95
Arrive On Green	0.05	0.51	0.51	0.07	0.53	0.53	0.09	0.12	0.12	0.07	0.09	0.09
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	3594	750	1013
Grp Volume(v), veh/h	119	2092	283	284	1308	115	324	90	179	296	0	134
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1797	0	1763
Q Serve(g_s), s	3.6	61.7	3.1	8.0	30.7	3.6	10.8	5.1	11.9	8.0	0.0	8.9
Cycle Q Clear(g_c), s	3.6	61.7	3.1	8.0	30.7	3.6	10.8	5.1	11.9	8.0	0.0	8.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	257	1900	999	184	1972	989	330	232	306	240	0	166
V/C Ratio(X)	0.46	1.10	0.28	1.55	0.66	0.12	0.98	0.39	0.58	1.24	0.00	0.81
Avail Cap(c_a), veh/h	292	1900	999	184	1972	989	330	292	357	240	0	264
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.1	29.1	2.8	38.2	20.2	10.3	54.4	48.8	44.6	56.0	0.0	53.3
Incr Delay (d2), s/veh	1.3	54.1	0.7	271.6	1.8	0.2	44.6	1.1	1.8	136.5	0.0	9.4
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	40.3	1.7	19.4	13.3	1.4	6.9	2.6	5.0	8.2	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	83.2	3.5	309.8	22.0	10.5	98.9	49.9	46.4	192.5	0.0	62.7
LnGrp LOS	B	F	A	F	C	B	F	D	D	F	A	E
Approach Vol, veh/h		2494			1707			593			430	
Approach Delay, s/veh		71.1			69.1			75.6			152.1	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	21.3	15.0	68.7	18.0	18.3	12.7	71.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	18.0	8.0	58.0	8.0	18.0	8.0	58.0
Max Q Clear Time (g_c+I1), s	10.0	13.9	10.0	63.7	12.8	10.9	5.6	32.7
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	0.3	0.1	11.8

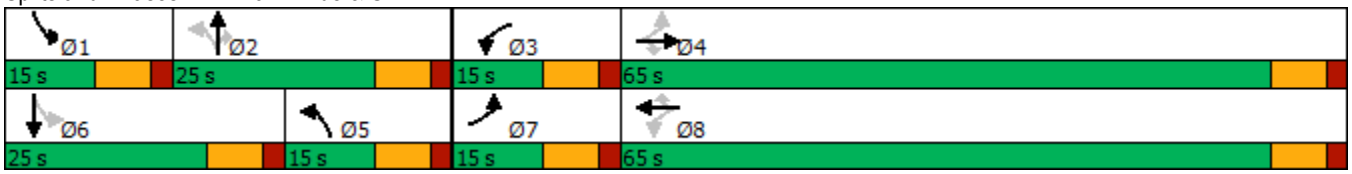
Intersection Summary	
HCM 6th Ctrl Delay	77.6
HCM 6th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	26	1385	33	26	915	48	23	9	30	89	1
Future Volume (vph)	26	1385	33	26	915	48	23	9	30	89	1
Lane Group Flow (vph)	27	1458	35	27	963	51	26	10	33	99	61
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	4.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	11.0	25.0	25.0	11.0	25.0
Total Split (s)	15.0	65.0	65.0	15.0	65.0	65.0	15.0	25.0	25.0	15.0	25.0
Total Split (%)	12.5%	54.2%	54.2%	12.5%	54.2%	54.2%	12.5%	20.8%	20.8%	12.5%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.08	0.79	0.04	0.14	0.52	0.05	0.09	0.08	0.13	0.66	0.36
Control Delay	7.0	23.6	0.1	8.1	17.3	0.1	46.8	48.3	1.0	67.4	19.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.0	23.6	0.1	8.1	17.3	0.1	46.8	48.3	1.0	67.4	19.3
Queue Length 50th (ft)	6	372	0	6	201	0	7	6	0	62	1
Queue Length 95th (ft)	15	481	0	15	265	0	23	24	0	#151	42
Internal Link Dist (ft)		1292			2328			591			314
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	369	2205	1076	231	2205	1076	298	360	439	157	365
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.66	0.03	0.12	0.44	0.05	0.09	0.03	0.08	0.63	0.17

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 97.3
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Vail Divide & SH 71

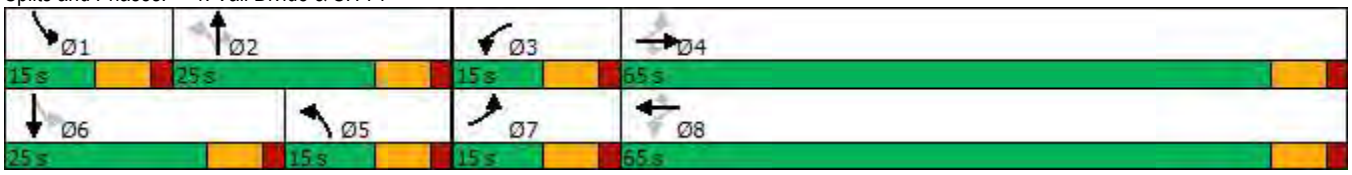


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	81	1987	269	270	1211	109	292	76	161	261	47
Future Volume (vph)	81	1987	269	270	1211	109	292	76	161	261	47
Lane Group Flow (vph)	85	2092	283	284	1275	115	324	84	179	290	129
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	15.0	65.0	65.0	15.0	65.0	65.0	15.0	25.0	25.0	15.0	25.0
Total Split (%)	12.5%	54.2%	54.2%	12.5%	54.2%	54.2%	12.5%	20.8%	20.8%	12.5%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.35	1.11	0.29	1.43	0.67	0.12	0.88	0.46	0.59	1.53	0.61
Control Delay	12.4	85.8	2.7	248.4	22.5	0.3	75.0	56.5	17.8	296.4	41.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.4	85.8	2.7	248.4	22.5	0.3	75.0	56.5	17.8	296.4	41.6
Queue Length 50th (ft)	21	~907	0	~227	340	0	121	59	10	~300	54
Queue Length 95th (ft)	45	#1127	44	#425	466	0	171	109	77	#424	116
Internal Link Dist (ft)		1292			884			591			307
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	255	1883	979	198	1910	963	368	307	399	190	332
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	1.11	0.29	1.43	0.67	0.12	0.88	0.27	0.45	1.53	0.39

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 112.7
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Vail Divide & SH 71

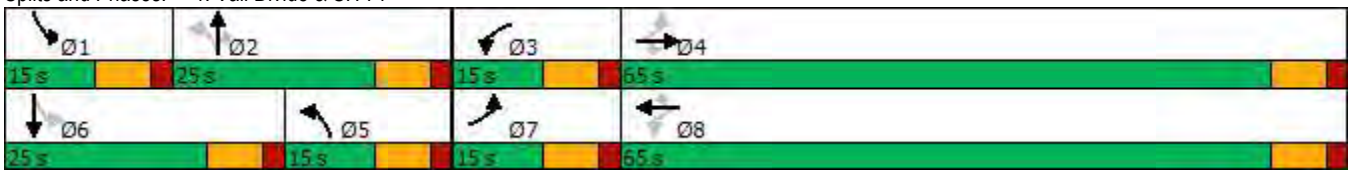


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	113	1987	269	270	1243	109	292	81	161	266	51
Future Volume (vph)	113	1987	269	270	1243	109	292	81	161	266	51
Lane Group Flow (vph)	119	2092	283	284	1308	115	324	90	179	296	134
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	25.0	25.0
Total Split (s)	15.0	65.0	65.0	15.0	65.0	65.0	15.0	25.0	25.0	15.0	25.0
Total Split (%)	12.5%	54.2%	54.2%	12.5%	54.2%	54.2%	12.5%	20.8%	20.8%	12.5%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.51	1.12	0.29	1.44	0.69	0.12	0.85	0.48	0.58	1.49	0.62
Control Delay	16.9	87.9	2.7	252.3	23.5	0.3	70.7	56.6	17.3	284.7	43.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	87.9	2.7	252.3	23.5	0.3	70.7	56.6	17.3	284.7	43.6
Queue Length 50th (ft)	30	~916	0	~230	363	0	121	63	10	~304	60
Queue Length 95th (ft)	60	#1137	44	#428	490	0	170	115	76	#428	124
Internal Link Dist (ft)		1292			637			591			413
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	242	1875	976	197	1891	955	381	306	398	198	329
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	1.12	0.29	1.44	0.69	0.12	0.85	0.29	0.45	1.49	0.41

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 113.2
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Vail Divide & SH 71

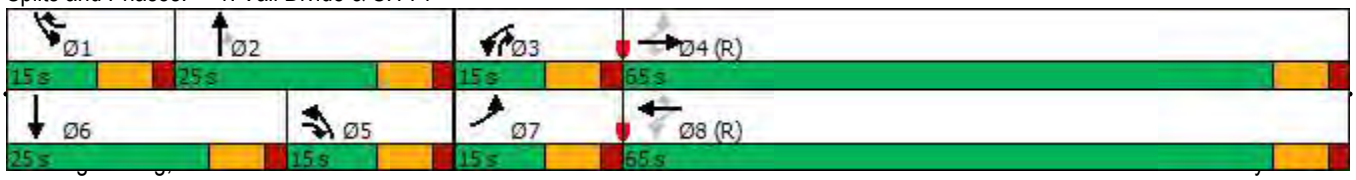


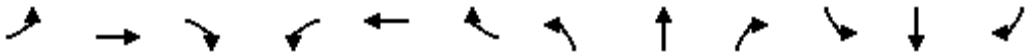
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	113	1987	269	270	1243	109	292	81	161	266	51
Future Volume (vph)	113	1987	269	270	1243	109	292	81	161	266	51
Lane Group Flow (vph)	119	2092	283	284	1308	115	324	90	179	296	134
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8	1	5	2	3	1	6
Permitted Phases	4		4	8		8			2		
Detector Phase	7	4	5	3	8	1	5	2	3	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	12.0	12.0	25.0	25.0	12.0	25.0	12.0	25.0	25.0
Total Split (s)	15.0	65.0	15.0	15.0	65.0	15.0	15.0	25.0	15.0	15.0	25.0
Total Split (%)	12.5%	54.2%	12.5%	12.5%	54.2%	12.5%	12.5%	20.8%	12.5%	12.5%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.57	1.18	0.26	1.53	0.74	0.11	0.74	0.31	0.34	1.21	0.63
Control Delay	24.0	118.8	1.3	286.9	8.4	0.3	62.6	48.9	17.5	174.3	45.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	118.8	1.3	286.9	8.4	0.3	62.6	48.9	17.5	174.3	45.9
Queue Length 50th (ft)	36	~1024	0	~260	192	1	126	63	47	~144	64
Queue Length 95th (ft)	76	#1162	20	m#297	m223	m1	#246	115	110	#236	125
Internal Link Dist (ft)		1292			637			591			413
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	213	1767	1104	186	1777	1063	438	288	522	244	313
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	1.18	0.26	1.53	0.74	0.11	0.74	0.31	0.34	1.21	0.43

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Vail Divide & SH 71

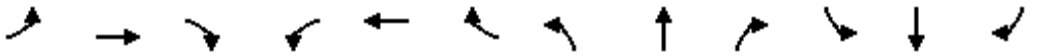




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1490	2	8	1019	3	1	1	1	1	1	1
Future Volume (veh/h)	1	1490	2	8	1019	3	1	1	1	1	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	1620	2	9	1108	3	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	359	2013	898	236	2013	898	244	99	84	245	45	45
Arrive On Green	0.05	0.54	0.54	0.05	0.54	0.54	0.05	0.05	0.05	0.05	0.05	0.05
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	1781	858	858
Grp Volume(v), veh/h	1	1620	2	9	1108	3	1	1	1	1	0	2
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1781	0	1716
Q Serve(g_s), s	0.0	33.6	0.1	0.2	18.4	0.1	0.0	0.0	0.1	0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.0	33.6	0.1	0.2	18.4	0.1	0.0	0.0	0.1	0.0	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	359	2013	898	236	2013	898	244	99	84	245	0	91
V/C Ratio(X)	0.00	0.80	0.00	0.04	0.55	0.00	0.00	0.01	0.01	0.00	0.00	0.02
Avail Cap(c_a), veh/h	359	2505	1117	236	2505	1117	244	357	302	245	0	327
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.5	17.4	9.8	13.8	14.0	9.8	37.8	42.4	42.4	37.8	0.0	42.4
Incr Delay (d2), s/veh	0.0	1.6	0.0	0.1	0.2	0.0	0.0	0.0	0.1	0.0	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	0.0	13.5	0.0	0.1	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.5	19.1	9.8	13.9	14.2	9.8	37.8	42.4	42.4	37.8	0.0	42.5
LnGrp LOS	A	B	A	B	B	A	D	D	D	D	A	D
Approach Vol, veh/h		1623			1120			3			3	
Approach Delay, s/veh		19.0			14.2			40.9			40.9	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	12.0	12.0	58.4	12.0	12.0	12.0	58.4
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	64.0	5.0	18.0	5.0	64.0
Max Q Clear Time (g_c+I1), s	2.0	2.1	2.2	35.6	2.0	2.1	2.0	20.4
Green Ext Time (p_c), s	0.0	0.0	0.0	15.9	0.0	0.0	0.0	10.7

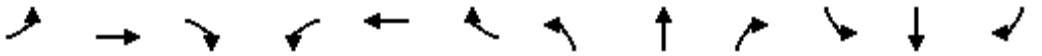
Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	261	2089	35	82	1515	35	54	5	39	203	5	50
Future Volume (veh/h)	261	2089	35	82	1515	35	54	5	39	203	5	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	284	2271	38	89	1647	38	59	5	42	221	5	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	233	2189	976	152	2189	976	176	105	89	222	8	82
Arrive On Green	0.05	0.59	0.59	0.05	0.59	0.59	0.05	0.06	0.06	0.05	0.06	0.06
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	1781	136	1470
Grp Volume(v), veh/h	284	2271	38	89	1647	38	59	5	42	221	0	59
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1781	0	1606
Q Serve(g_s), s	5.0	64.0	1.0	2.0	35.4	1.0	3.3	0.3	2.8	5.0	0.0	3.9
Cycle Q Clear(g_c), s	5.0	64.0	1.0	2.0	35.4	1.0	3.3	0.3	2.8	5.0	0.0	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.92
Lane Grp Cap(c), veh/h	233	2189	976	152	2189	976	176	105	89	222	0	90
V/C Ratio(X)	1.22	1.04	0.04	0.58	0.75	0.04	0.34	0.05	0.47	1.00	0.00	0.66
Avail Cap(c_a), veh/h	233	2189	976	152	2189	976	176	312	264	222	0	268
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.6	22.0	9.2	26.4	16.2	9.2	45.1	48.3	49.5	49.9	0.0	50.0
Incr Delay (d2), s/veh	131.1	29.7	0.0	5.6	1.5	0.0	1.1	0.2	3.9	59.5	0.0	7.8
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	12.2	34.2	0.4	1.6	14.3	0.4	1.5	0.1	1.2	7.2	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	155.7	51.8	9.2	32.0	17.7	9.2	46.2	48.5	53.3	109.3	0.0	57.8
LnGrp LOS	F	F	A	C	B	A	D	D	D	F	A	E
Approach Vol, veh/h		2593			1774			106			280	
Approach Delay, s/veh		62.5			18.2			49.1			98.5	
Approach LOS		E			B			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	13.1	12.0	71.0	12.0	13.1	12.0	71.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	64.0	5.0	18.0	5.0	64.0
Max Q Clear Time (g_c+I1), s	7.0	4.8	4.0	66.0	5.3	5.9	7.0	37.4
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.2	0.0	15.7

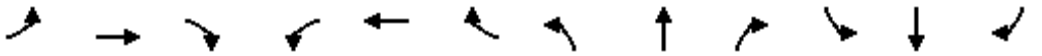
Intersection Summary	
HCM 6th Ctrl Delay	47.8
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	278	2094	35	82	1547	40	55	11	39	241	11	51
Future Volume (veh/h)	278	2094	35	82	1547	40	55	11	39	241	11	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	2276	38	89	1682	43	60	12	42	262	12	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	2179	972	152	2179	972	175	113	96	222	18	81
Arrive On Green	0.05	0.59	0.59	0.05	0.59	0.59	0.05	0.06	0.06	0.05	0.06	0.06
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	1781	292	1338
Grp Volume(v), veh/h	302	2276	38	89	1682	43	60	12	42	262	0	67
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1781	0	1630
Q Serve(g_s), s	5.0	64.0	1.1	2.0	37.2	1.2	3.4	0.7	2.8	5.0	0.0	4.4
Cycle Q Clear(g_c), s	5.0	64.0	1.1	2.0	37.2	1.2	3.4	0.7	2.8	5.0	0.0	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.82
Lane Grp Cap(c), veh/h	224	2179	972	152	2179	972	175	113	96	222	0	98
V/C Ratio(X)	1.35	1.04	0.04	0.59	0.77	0.04	0.34	0.11	0.44	1.18	0.00	0.68
Avail Cap(c_a), veh/h	224	2179	972	152	2179	972	175	310	263	222	0	270
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.6	22.3	9.4	26.4	16.8	9.4	44.9	48.2	49.2	50.0	0.0	50.0
Incr Delay (d2), s/veh	183.6	32.2	0.0	5.8	1.8	0.0	1.2	0.4	3.1	118.2	0.0	8.0
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	14.9	34.9	0.4	1.6	15.2	0.4	1.5	0.3	1.2	10.9	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	208.2	54.4	9.4	32.2	18.6	9.4	46.1	48.6	52.4	168.1	0.0	57.9
LnGrp LOS	F	F	A	C	B	A	D	D	D	F	A	E
Approach Vol, veh/h		2616			1814			114			329	
Approach Delay, s/veh		71.5			19.0			48.7			145.7	
Approach LOS		E			B			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	13.6	12.0	71.0	12.0	13.6	12.0	71.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	64.0	5.0	18.0	5.0	64.0
Max Q Clear Time (g_c+I1), s	7.0	4.8	4.0	66.0	5.4	6.4	7.0	39.2
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.2	0.0	15.4

Intersection Summary	
HCM 6th Ctrl Delay	56.5
HCM 6th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	278	2094	35	82	1547	40	55	11	39	241	11	51
Future Volume (veh/h)	278	2094	35	82	1547	40	55	11	39	241	11	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	2276	38	89	1682	43	60	12	42	262	12	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	327	2309	1030	141	2032	906	158	110	93	401	17	78
Arrive On Green	0.12	0.62	0.62	0.04	0.55	0.55	0.04	0.06	0.06	0.04	0.06	0.06
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	3456	292	1338
Grp Volume(v), veh/h	302	2276	38	89	1682	43	60	12	42	262	0	67
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1728	0	1630
Q Serve(g_s), s	12.1	72.2	1.1	2.5	45.1	1.4	3.8	0.7	3.1	5.0	0.0	4.8
Cycle Q Clear(g_c), s	12.1	72.2	1.1	2.5	45.1	1.4	3.8	0.7	3.1	5.0	0.0	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.82
Lane Grp Cap(c), veh/h	327	2309	1030	141	2032	906	158	110	93	401	0	95
V/C Ratio(X)	0.92	0.99	0.04	0.63	0.83	0.05	0.38	0.11	0.45	0.65	0.00	0.70
Avail Cap(c_a), veh/h	327	2309	1030	141	2032	906	158	281	238	401	0	244
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.2	22.0	8.6	28.6	22.3	12.5	50.4	53.5	54.6	53.2	0.0	55.5
Incr Delay (d2), s/veh	30.9	15.6	0.1	8.7	4.0	0.1	1.5	0.4	3.4	3.7	0.0	9.0
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	11.7	33.6	0.4	1.7	19.9	0.6	1.7	0.4	1.3	4.1	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.1	37.6	8.7	37.3	26.4	12.6	51.9	54.0	58.0	56.9	0.0	64.5
LnGrp LOS	E	D	A	D	C	B	D	D	E	E	A	E
Approach Vol, veh/h		2616			1814			114			329	
Approach Delay, s/veh		40.4			26.6			54.4			58.4	
Approach LOS		D			C			D			E	

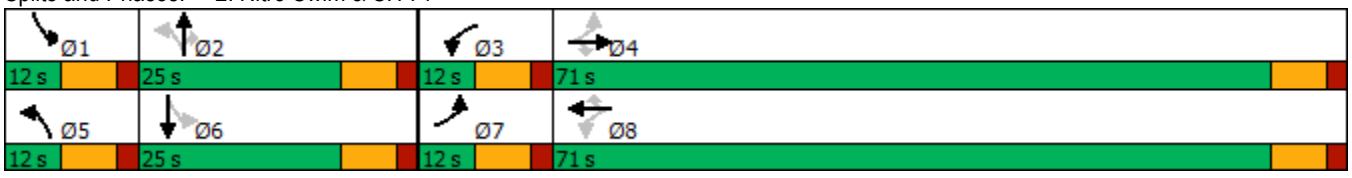
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	14.0	12.0	82.0	12.0	14.0	21.0	73.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	64.0	5.0	18.0	14.0	55.0
Max Q Clear Time (g_c+I1), s	7.0	5.1	4.5	74.2	5.8	6.8	14.1	47.1
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.2	0.0	6.3

Intersection Summary	
HCM 6th Ctrl Delay	36.8
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	1	1490	2	8	1019	3	1	1	1	1	1
Future Volume (vph)	1	1490	2	8	1019	3	1	1	1	1	1
Lane Group Flow (vph)	1	1620	2	9	1108	3	1	1	1	1	2
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	12.0	71.0	71.0	12.0	71.0	71.0	12.0	25.0	25.0	12.0	25.0
Total Split (%)	10.0%	59.2%	59.2%	10.0%	59.2%	59.2%	10.0%	20.8%	20.8%	10.0%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.00	0.80	0.00	0.05	0.55	0.00	0.01	0.01	0.00	0.01	0.02
Control Delay	5.0	20.9	0.0	5.6	14.9	0.0	38.0	48.0	0.0	38.0	41.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	20.9	0.0	5.6	14.9	0.0	38.0	48.0	0.0	38.0	41.5
Queue Length 50th (ft)	0	398	0	2	217	0	1	1	0	1	1
Queue Length 95th (ft)	2	495	0	6	275	0	5	6	0	5	9
Internal Link Dist (ft)		2328			1504			219			254
Turn Bay Length (ft)	175		490	175		375				100	
Base Capacity (vph)	298	2389	1125	171	2389	1125	171	342	424	171	317
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.68	0.00	0.05	0.46	0.00	0.01	0.00	0.00	0.01	0.01

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 98.8
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Nitro Swim & SH 71

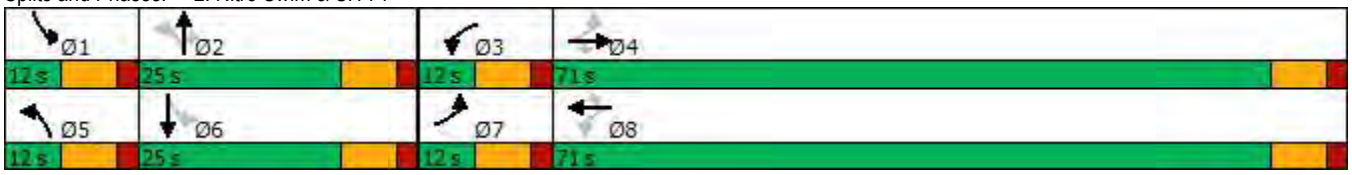


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	261	2089	35	82	1515	35	54	5	39	203	5
Future Volume (vph)	261	2089	35	82	1515	35	54	5	39	203	5
Lane Group Flow (vph)	284	2271	38	89	1647	38	59	5	42	221	59
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	12.0	71.0	71.0	12.0	71.0	71.0	12.0	25.0	25.0	12.0	25.0
Total Split (%)	10.0%	59.2%	59.2%	10.0%	59.2%	59.2%	10.0%	20.8%	20.8%	10.0%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	1.75	1.05	0.04	0.58	0.76	0.04	0.36	0.04	0.17	1.32	0.40
Control Delay	384.0	59.2	0.1	28.4	20.0	0.1	45.6	48.2	1.4	215.3	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	384.0	59.2	0.1	28.4	20.0	0.1	45.6	48.2	1.4	215.3	23.1
Queue Length 50th (ft)	~236	~900	0	17	413	0	36	3	0	~150	3
Queue Length 95th (ft)	#423	#1097	0	#73	553	0	74	16	0	#335	44
Internal Link Dist (ft)		651			1504			219			254
Turn Bay Length (ft)	175		490	175		500				100	
Base Capacity (vph)	162	2153	1030	154	2153	1030	164	308	398	168	311
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.75	1.05	0.04	0.58	0.76	0.04	0.36	0.02	0.11	1.32	0.19

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.7
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Nitro Swim & SH 71

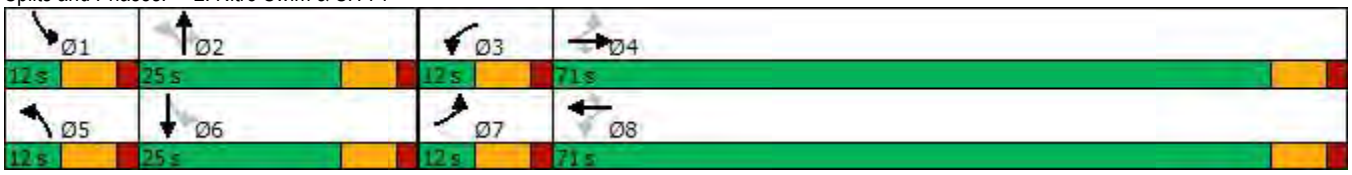


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	278	2094	35	82	1547	40	55	11	39	241	11
Future Volume (vph)	278	2094	35	82	1547	40	55	11	39	241	11
Lane Group Flow (vph)	302	2276	38	89	1682	43	60	12	42	262	67
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	12.0	71.0	71.0	12.0	71.0	71.0	12.0	25.0	25.0	12.0	25.0
Total Split (%)	10.0%	59.2%	59.2%	10.0%	59.2%	59.2%	10.0%	20.8%	20.8%	10.0%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	1.97	1.06	0.04	0.58	0.78	0.04	0.36	0.10	0.16	1.53	0.43
Control Delay	481.3	61.5	0.1	28.7	20.9	0.1	45.3	49.3	1.4	300.2	25.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	481.3	61.5	0.1	28.7	20.9	0.1	45.3	49.3	1.4	300.2	25.8
Queue Length 50th (ft)	~277	~912	0	17	436	0	36	8	0	~202	8
Queue Length 95th (ft)	#471	#1112	0	#74	583	0	74	27	0	#405	52
Internal Link Dist (ft)		645			1504			219			254
Turn Bay Length (ft)	175		490	175		375				100	
Base Capacity (vph)	153	2145	1027	153	2145	1027	167	307	398	171	315
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.97	1.06	0.04	0.58	0.78	0.04	0.36	0.04	0.11	1.53	0.21

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 109.1
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Nitro Swim & SH 71

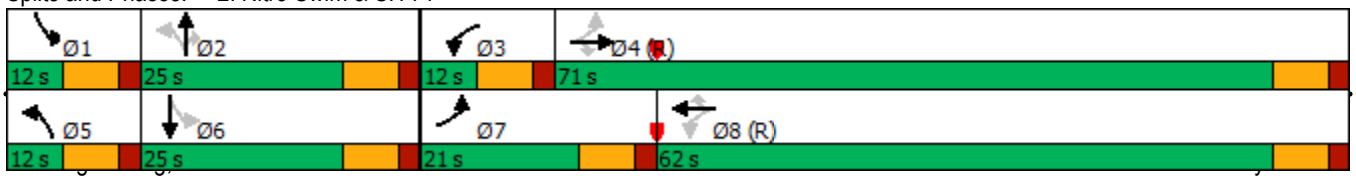


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	278	2094	35	82	1547	40	55	11	39	241	11
Future Volume (vph)	278	2094	35	82	1547	40	55	11	39	241	11
Lane Group Flow (vph)	302	2276	38	89	1682	43	60	12	42	262	67
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	21.0	71.0	71.0	12.0	62.0	62.0	12.0	25.0	25.0	12.0	25.0
Total Split (%)	17.5%	59.2%	59.2%	10.0%	51.7%	51.7%	10.0%	20.8%	20.8%	10.0%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	C-Min	C-Min	Min	C-Min	C-Min	Min	Min	Min	Min	Min
v/c Ratio	0.69	1.04	0.04	0.48	1.00	0.05	0.39	0.11	0.14	0.86	0.45
Control Delay	50.2	31.8	0.0	25.8	53.7	0.1	51.6	54.0	0.9	74.2	27.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	31.8	0.0	25.8	53.7	0.1	51.6	54.0	0.9	74.2	27.9
Queue Length 50th (ft)	199	~237	0	17	665	0	41	9	0	97	9
Queue Length 95th (ft)	m172	m154	m0	65	#855	0	80	29	0	134	54
Internal Link Dist (ft)		645			1504			219			254
Turn Bay Length (ft)	300		490	175		375				100	
Base Capacity (vph)	435	2185	1043	186	1687	877	153	279	430	306	291
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	1.04	0.04	0.48	1.00	0.05	0.39	0.04	0.10	0.86	0.23

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 58 (48%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Nitro Swim & SH 71



Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	66	12	160	67	28	227
Future Vol, veh/h	66	12	160	67	28	227
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	50	-	100	100	-
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	72	13	174	73	30	247

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	481	174	0	0	247	0
Stage 1	174	-	-	-	-	-
Stage 2	307	-	-	-	-	-
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	544	869	-	-	1319	-
Stage 1	856	-	-	-	-	-
Stage 2	746	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	531	869	-	-	1319	-
Mov Cap-2 Maneuver	531	-	-	-	-	-
Stage 1	836	-	-	-	-	-
Stage 2	746	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	531	869	1319	-
HCM Lane V/C Ratio	-	-	0.135	0.015	0.023	-
HCM Control Delay (s)	-	-	12.8	9.2	7.8	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0	0.1	-

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	75	21	182	104	39	232
Future Vol, veh/h	75	21	182	104	39	232
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	50	-	100	100	-
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	82	23	198	113	42	252

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	534	198	0	0	311	0
Stage 1	198	-	-	-	-	-
Stage 2	336	-	-	-	-	-
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	507	843	-	-	1249	-
Stage 1	835	-	-	-	-	-
Stage 2	724	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	490	843	-	-	1249	-
Mov Cap-2 Maneuver	490	-	-	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	724	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	490	843	1249	-
HCM Lane V/C Ratio	-	-	0.166	0.027	0.034	-
HCM Control Delay (s)	-	-	13.8	9.4	8	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.1	0.1	-

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	75	21	182	104	39	232
Future Vol, veh/h	75	21	182	104	39	232
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	50	-	100	100	-
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	82	23	198	113	42	252

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	534	198	0	0	311	0
Stage 1	198	-	-	-	-	-
Stage 2	336	-	-	-	-	-
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	507	843	-	-	1249	-
Stage 1	835	-	-	-	-	-
Stage 2	724	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	490	843	-	-	1249	-
Mov Cap-2 Maneuver	490	-	-	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	724	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	490	843	1249	-
HCM Lane V/C Ratio	-	-	0.166	0.027	0.034	-
HCM Control Delay (s)	-	-	13.8	9.4	8	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱
Traffic Vol, veh/h	0	2409	1590	17	0	19
Future Vol, veh/h	0	2409	1590	17	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
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	2618	1728	18	0	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	873
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	293
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	293
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	293
HCM Lane V/C Ratio	-	-	-	0.07
HCM Control Delay (s)	-	-	-	18.2
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	2414	1609	28	0	37
Future Vol, veh/h	0	2414	1609	28	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	0	-	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	2624	1749	30	0	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	875
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	0	292
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	292
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	19.3
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	292
HCM Lane V/C Ratio	-	-	0.138
HCM Control Delay (s)	-	-	19.3
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.5

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱
Traffic Vol, veh/h	0	2385	1497	122	0	145
Future Vol, veh/h	0	2385	1497	122	0	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
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	2592	1627	133	0	158

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	880
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	290
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	290
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	31.3
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	290
HCM Lane V/C Ratio	-	-	-	0.543
HCM Control Delay (s)	-	-	-	31.3
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	3

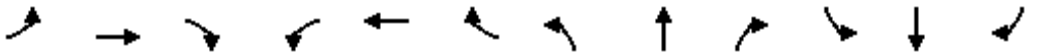
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	2407	1510	143	0	159
Future Vol, veh/h	0	2407	1510	143	0	159
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	-	-	-	235	-	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	2616	1641	155	0	173

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	821
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	0	318
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	318
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	29
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	318
HCM Lane V/C Ratio	-	-	0.543
HCM Control Delay (s)	-	-	29
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	3.1



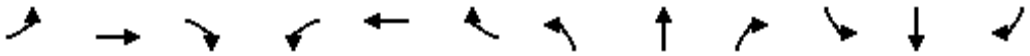
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1002	36	52	1523	164	46	6	35	37	2	79
Future Volume (veh/h)	30	1002	36	52	1523	164	46	6	35	37	2	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	32	1055	38	55	1603	173	51	7	39	41	2	88
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	160	1839	820	300	1874	836	583	329	279	366	6	268
Arrive On Green	0.03	0.50	0.50	0.04	0.51	0.51	0.04	0.17	0.17	0.03	0.17	0.17
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	1853	37	1617
Grp Volume(v), veh/h	32	1055	38	55	1603	173	51	7	39	41	0	90
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1853	0	1654
Q Serve(g_s), s	0.9	20.7	1.2	1.5	39.0	6.0	1.2	0.3	2.1	1.9	0.0	5.0
Cycle Q Clear(g_c), s	0.9	20.7	1.2	1.5	39.0	6.0	1.2	0.3	2.1	1.9	0.0	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Lane Grp Cap(c), veh/h	160	1839	820	300	1874	836	583	329	279	366	0	274
V/C Ratio(X)	0.20	0.57	0.05	0.18	0.86	0.21	0.09	0.02	0.14	0.11	0.00	0.33
Avail Cap(c_a), veh/h	294	2056	917	417	2056	917	1058	329	279	438	0	274
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.7	18.3	13.4	13.8	22.2	14.0	33.4	35.8	36.5	33.9	0.0	38.1
Incr Delay (d2), s/veh	0.6	0.3	0.0	0.3	3.5	0.1	0.1	0.1	1.0	0.1	0.0	3.2
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	0.4	8.6	0.5	0.6	16.9	2.2	0.5	0.2	0.9	0.9	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	18.6	13.4	14.1	25.7	14.2	33.5	35.9	37.6	34.0	0.0	41.2
LnGrp LOS	C	B	B	B	C	B	C	D	D	C	A	D
Approach Vol, veh/h		1125			1831			97			131	
Approach Delay, s/veh		18.4			24.3			35.3			39.0	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	25.0	8.5	58.9	11.3	24.6	7.5	59.9
Change Period (Y+Rc), s	7.5	7.5	4.5	7.5	7.5	7.5	4.5	7.5
Max Green Setting (Gmax), s	7.5	17.5	10.5	57.5	17.5	7.5	10.5	57.5
Max Q Clear Time (g_c+I1), s	3.9	4.1	3.5	22.7	3.2	7.0	2.9	41.0
Green Ext Time (p_c), s	0.0	0.1	0.0	9.7	0.1	0.0	0.0	11.4

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

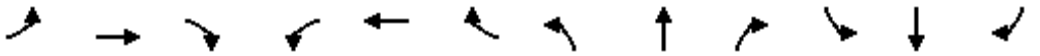
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	1388	156	422	2078	281	359	37	83	119	40	106
Future Volume (veh/h)	68	1388	156	422	2078	281	359	37	83	119	40	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	72	1461	164	444	2187	296	399	41	92	132	44	118
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	1781	794	291	1968	878	396	222	188	202	53	143
Arrive On Green	0.05	0.48	0.48	0.10	0.53	0.53	0.07	0.11	0.11	0.07	0.11	0.11
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	1853	467	1253
Grp Volume(v), veh/h	72	1461	164	444	2187	296	399	41	92	132	0	162
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1853	0	1720
Q Serve(g_s), s	2.1	36.9	3.8	10.5	58.0	11.1	8.0	2.1	5.7	7.7	0.0	10.0
Cycle Q Clear(g_c), s	2.1	36.9	3.8	10.5	58.0	11.1	8.0	2.1	5.7	7.7	0.0	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.73
Lane Grp Cap(c), veh/h	151	1781	794	291	1968	878	396	222	188	202	0	196
V/C Ratio(X)	0.48	0.82	0.21	1.53	1.11	0.34	1.01	0.18	0.49	0.65	0.00	0.83
Avail Cap(c_a), veh/h	245	1968	878	291	1968	878	396	321	272	202	0	284
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	24.2	6.0	29.0	25.5	14.5	49.1	43.7	45.3	50.2	0.0	47.2
Incr Delay (d2), s/veh	2.3	2.7	0.1	253.6	58.0	0.2	47.0	0.4	2.0	7.3	0.0	12.2
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	0.9	16.1	2.2	24.1	39.6	4.1	7.9	1.0	2.4	4.0	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	26.8	6.2	282.6	83.5	14.7	96.2	44.1	47.2	57.5	0.0	59.4
LnGrp LOS	C	C	A	F	F	B	F	D	D	E	A	E
Approach Vol, veh/h		1697			2927			532			294	
Approach Delay, s/veh		24.9			106.7			83.7			58.6	
Approach LOS		C			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	19.4	15.0	59.5	15.0	19.4	9.5	65.0
Change Period (Y+Rc), s	7.0	7.0	4.5	7.0	7.0	7.0	4.5	7.0
Max Green Setting (Gmax), s	8.0	18.0	10.5	58.0	8.0	18.0	10.5	58.0
Max Q Clear Time (g_c+I1), s	9.7	7.7	12.5	38.9	10.0	12.0	4.1	60.0
Green Ext Time (p_c), s	0.0	0.3	0.0	11.6	0.0	0.4	0.1	0.0

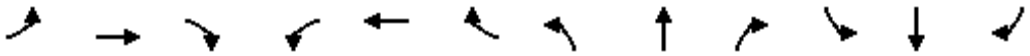
Intersection Summary	
HCM 6th Ctrl Delay	76.4
HCM 6th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	1388	156	422	2133	281	359	42	83	125	45	106
Future Volume (veh/h)	87	1388	156	422	2133	281	359	42	83	125	45	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	92	1461	164	444	2245	296	399	47	92	139	50	118
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	1814	809	247	1913	853	385	227	192	197	60	141
Arrive On Green	0.04	0.49	0.49	0.07	0.52	0.52	0.07	0.12	0.12	0.07	0.12	0.12
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	1853	514	1213
Grp Volume(v), veh/h	92	1461	164	444	2245	296	399	47	92	139	0	168
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1853	0	1727
Q Serve(g_s), s	2.7	37.3	3.9	8.0	58.0	11.8	8.0	2.5	5.9	8.0	0.0	10.7
Cycle Q Clear(g_c), s	2.7	37.3	3.9	8.0	58.0	11.8	8.0	2.5	5.9	8.0	0.0	10.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	147	1814	809	247	1913	853	385	227	192	197	0	201
V/C Ratio(X)	0.63	0.81	0.20	1.79	1.17	0.35	1.04	0.21	0.48	0.71	0.00	0.84
Avail Cap(c_a), veh/h	197	1913	853	247	1913	853	385	312	265	197	0	277
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	24.0	6.1	25.5	27.0	15.9	50.7	44.8	46.3	52.1	0.0	48.4
Incr Delay (d2), s/veh	4.3	2.5	0.1	373.0	84.0	0.2	55.5	0.4	1.8	11.0	0.0	14.5
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	1.3	16.3	2.3	28.7	46.4	4.4	8.3	1.2	0.1	4.5	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.5	26.5	6.2	398.5	111.0	16.1	106.2	45.3	48.2	63.2	0.0	62.9
LnGrp LOS	C	C	A	F	F	B	F	D	D	E	A	E
Approach Vol, veh/h		1717			2985			538			307	
Approach Delay, s/veh		24.8			144.4			90.9			63.0	
Approach LOS		C			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	20.0	15.0	62.0	15.0	20.0	12.0	65.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	18.0	8.0	58.0	8.0	18.0	8.0	58.0
Max Q Clear Time (g_c+I1), s	10.0	7.9	10.0	39.3	10.0	12.7	4.7	60.0
Green Ext Time (p_c), s	0.0	0.3	0.0	11.4	0.0	0.4	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	97.7
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	1388	156	422	2133	281	359	42	83	125	45	106
Future Volume (veh/h)	87	1388	156	422	2133	281	359	42	83	125	45	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	92	1461	164	444	2245	296	399	47	92	139	50	118
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	1466	830	419	2106	1025	383	320	601	187	57	134
Arrive On Green	0.03	0.40	0.40	0.40	1.00	1.00	0.11	0.16	0.16	0.05	0.11	0.11
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	3594	514	1213
Grp Volume(v), veh/h	92	1461	164	444	2245	296	399	47	92	139	0	168
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1797	0	1727
Q Serve(g_s), s	4.0	59.2	4.1	30.0	85.5	0.0	16.0	3.1	5.6	5.7	0.0	14.4
Cycle Q Clear(g_c), s	4.0	59.2	4.1	30.0	85.5	0.0	16.0	3.1	5.6	5.7	0.0	14.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	97	1466	830	419	2106	1025	383	320	601	187	0	190
V/C Ratio(X)	0.94	1.00	0.20	1.06	1.07	0.29	1.04	0.15	0.15	0.74	0.00	0.88
Avail Cap(c_a), veh/h	97	1466	830	419	2106	1025	383	320	601	240	0	207
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.0	45.2	7.1	36.5	0.0	0.0	67.0	53.6	32.1	70.1	0.0	65.8
Incr Delay (d2), s/veh	73.1	22.8	0.5	60.5	39.9	0.7	57.0	0.2	0.1	8.9	0.0	31.5
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	4.0	31.5	2.1	20.1	11.7	0.2	10.4	1.6	2.3	2.9	0.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	115.1	67.9	7.6	97.0	39.9	0.7	124.0	53.8	32.2	79.0	0.0	97.3
LnGrp LOS	F	E	A	F	F	A	F	D	C	E	A	F
Approach Vol, veh/h		1717			2985			538			307	
Approach Delay, s/veh		64.7			44.5			102.1			89.0	
Approach LOS		E			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	31.7	37.0	66.5	23.0	23.5	11.0	92.5
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	10.0	24.0	30.0	58.0	16.0	18.0	4.0	84.0
Max Q Clear Time (g_c+I1), s	7.7	7.6	32.0	61.2	18.0	16.4	6.0	87.5
Green Ext Time (p_c), s	0.1	0.4	0.0	0.0	0.0	0.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	58.8
HCM 6th LOS	E

Notes

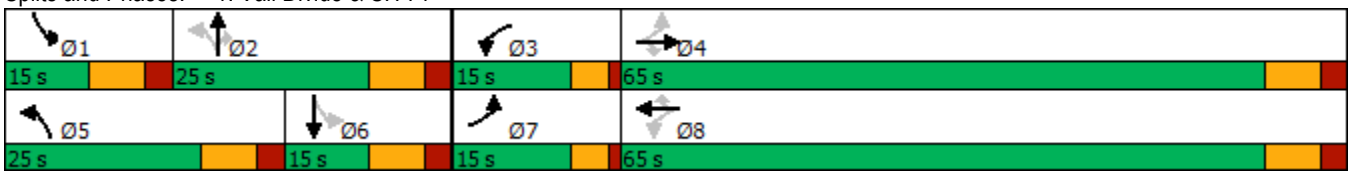
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	30	1002	36	52	1523	164	46	6	35	37	2
Future Volume (vph)	30	1002	36	52	1523	164	46	6	35	37	2
Lane Group Flow (vph)	32	1055	38	55	1603	173	51	7	39	41	90
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	25.5	25.5	9.5	25.5	25.5	15.5	25.5	25.5	12.5	25.5
Total Split (s)	15.0	65.0	65.0	15.0	65.0	65.0	25.0	25.0	25.0	15.0	15.0
Total Split (%)	12.5%	54.2%	54.2%	12.5%	54.2%	54.2%	20.8%	20.8%	20.8%	12.5%	12.5%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	2.5	2.5	1.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	7.5	7.5	4.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max
v/c Ratio	0.17	0.59	0.04	0.19	0.86	0.18	0.08	0.02	0.09	0.11	0.24
Control Delay	11.1	22.1	0.1	10.7	29.8	1.4	30.7	42.3	0.4	31.5	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	22.1	0.1	10.7	29.8	1.4	30.7	42.3	0.4	31.5	11.8
Queue Length 50th (ft)	9	287	0	15	552	0	14	5	0	23	1
Queue Length 95th (ft)	21	366	0	32	683	18	30	19	0	51	48
Internal Link Dist (ft)		1292			2328			591			314
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	262	2084	1026	351	2084	1026	883	396	455	377	377
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.51	0.04	0.16	0.77	0.17	0.06	0.02	0.09	0.11	0.24

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 104.9
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Vail Divide & SH 71

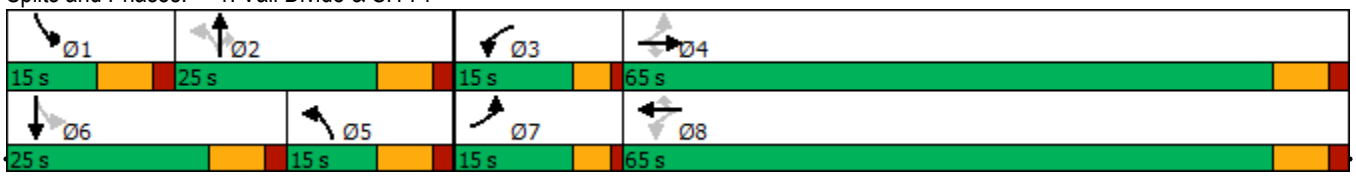


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	68	1388	156	422	2078	281	359	37	83	119	40
Future Volume (vph)	68	1388	156	422	2078	281	359	37	83	119	40
Lane Group Flow (vph)	72	1461	164	444	2187	296	399	41	92	132	162
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	25.0	25.0	9.5	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	15.0	65.0	65.0	15.0	65.0	65.0	15.0	25.0	25.0	15.0	25.0
Total Split (%)	12.5%	54.2%	54.2%	12.5%	54.2%	54.2%	12.5%	20.8%	20.8%	12.5%	20.8%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	7.0	7.0	4.5	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.38	0.78	0.18	1.79	1.11	0.29	1.10	0.23	0.33	0.68	0.66
Control Delay	14.4	26.4	1.4	393.6	83.0	2.5	124.1	49.7	5.1	66.9	34.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.4	26.4	1.4	393.6	83.0	2.5	124.1	49.7	5.1	66.9	34.3
Queue Length 50th (ft)	16	425	0	~425	~929	0	~181	28	0	94	46
Queue Length 95th (ft)	41	580	18	#676	#1200	44	#217	62	14	158	116
Internal Link Dist (ft)		1292			885			591			314
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	247	1925	958	248	1973	1019	362	314	385	193	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.76	0.17	1.79	1.11	0.29	1.10	0.13	0.24	0.68	0.44

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.5
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Vail Divide & SH 71

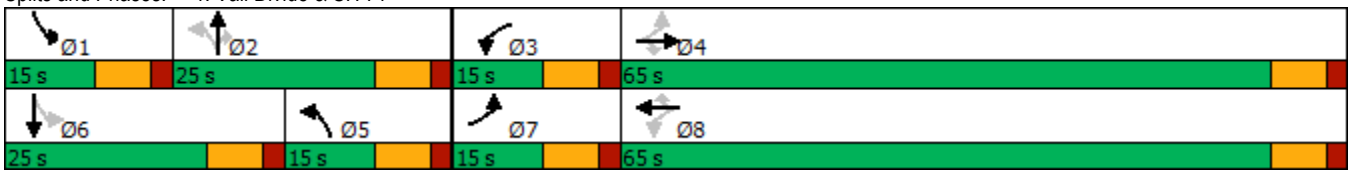


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	87	1388	156	422	2133	281	359	42	83	125	45
Future Volume (vph)	87	1388	156	422	2133	281	359	42	83	125	45
Lane Group Flow (vph)	92	1461	164	444	2245	296	399	47	92	139	168
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	15.0	65.0	65.0	15.0	65.0	65.0	15.0	25.0	25.0	15.0	25.0
Total Split (%)	12.5%	54.2%	54.2%	12.5%	54.2%	54.2%	12.5%	20.8%	20.8%	12.5%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.49	0.78	0.17	2.20	1.19	0.30	1.04	0.25	0.30	0.68	0.67
Control Delay	22.8	26.8	0.9	573.3	118.2	2.7	105.8	49.5	2.5	65.9	38.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	26.8	0.9	573.3	118.2	2.7	105.8	49.5	2.5	65.9	38.6
Queue Length 50th (ft)	23	435	0	~469	~1036	0	~169	32	0	100	60
Queue Length 95th (ft)	71	594	10	#718	#1284	46	208	69	0	166	132
Internal Link Dist (ft)		1292			637			591			413
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	197	1885	953	202	1887	987	384	307	399	204	354
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.78	0.17	2.20	1.19	0.30	1.04	0.15	0.23	0.68	0.47

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 112.7
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Vail Divide & SH 71

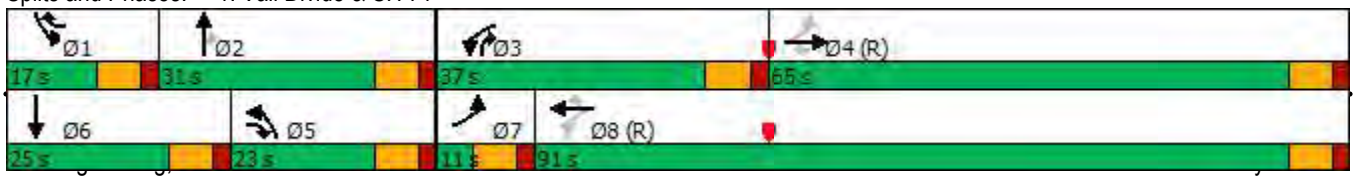


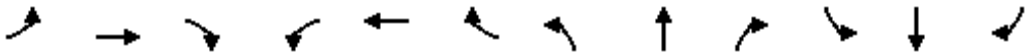
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	87	1388	156	422	2133	281	359	42	83	125	45
Future Volume (vph)	87	1388	156	422	2133	281	359	42	83	125	45
Lane Group Flow (vph)	92	1461	164	444	2245	296	399	47	92	139	168
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8	1	5	2	3	1	6
Permitted Phases	4		4	8		8			2		
Detector Phase	7	4	5	3	8	1	5	2	3	1	6
Switch Phase											
Minimum Initial (s)	2.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	5.0	3.0	5.0
Minimum Split (s)	9.0	25.0	12.0	12.0	25.0	10.0	12.0	25.0	12.0	10.0	25.0
Total Split (s)	11.0	65.0	23.0	37.0	91.0	17.0	23.0	31.0	37.0	17.0	25.0
Total Split (%)	7.3%	43.3%	15.3%	24.7%	60.7%	11.3%	15.3%	20.7%	24.7%	11.3%	16.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.92	1.03	0.18	1.06	1.10	0.25	0.87	0.15	0.13	0.59	0.77
Control Delay	100.3	77.5	1.4	84.7	65.2	0.4	83.1	55.7	7.6	79.2	69.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.3	77.5	1.4	84.7	65.2	0.4	83.1	55.7	7.6	79.2	69.3
Queue Length 50th (ft)	37	~804	0	~418	~1335	7	202	40	7	69	115
Queue Length 95th (ft)	#109	#944	16	m278	m678	m3	#329	81	43	107	196
Internal Link Dist (ft)		1292			637			591			413
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	100	1414	932	417	2047	1198	458	313	716	244	256
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	1.03	0.18	1.06	1.10	0.25	0.87	0.15	0.13	0.57	0.66

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Vail Divide & SH 71





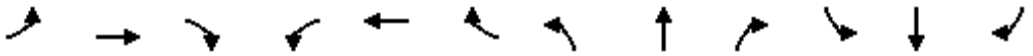
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	1087	1	5	1745	89	1	1	4	69	1	29
Future Volume (veh/h)	36	1087	1	5	1745	89	1	1	4	69	1	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	1182	1	5	1897	97	1	1	4	75	1	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	2195	979	272	2104	939	278	290	246	364	10	310
Arrive On Green	0.03	0.59	0.59	0.01	0.57	0.57	0.00	0.15	0.15	0.05	0.20	0.20
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	1781	48	1544
Grp Volume(v), veh/h	39	1182	1	5	1897	97	1	1	4	75	0	33
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1781	0	1592
Q Serve(g_s), s	1.0	22.2	0.0	0.1	52.8	3.1	0.1	0.1	0.2	4.0	0.0	2.0
Cycle Q Clear(g_c), s	1.0	22.2	0.0	0.1	52.8	3.1	0.1	0.1	0.2	4.0	0.0	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Lane Grp Cap(c), veh/h	145	2195	979	272	2104	939	278	290	246	364	0	319
V/C Ratio(X)	0.27	0.54	0.00	0.02	0.90	0.10	0.00	0.00	0.02	0.21	0.00	0.10
Avail Cap(c_a), veh/h	176	2195	979	348	2195	979	359	290	246	364	0	319
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.0	14.1	9.6	12.1	22.1	11.4	41.4	41.5	41.6	37.0	0.0	37.9
Incr Delay (d2), s/veh	1.0	0.3	0.0	0.0	5.5	0.0	0.0	0.0	0.1	0.3	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	0.6	9.0	0.0	0.1	23.1	1.1	0.0	0.0	0.1	1.8	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	14.4	9.6	12.1	27.6	11.5	41.4	41.5	41.7	37.3	0.0	38.6
LnGrp LOS	C	B	A	B	C	B	D	D	D	D	A	D
Approach Vol, veh/h		1222			1999			6			108	
Approach Delay, s/veh		14.7			26.8			41.6			37.7	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	25.0	5.2	76.0	4.7	30.3	8.1	73.2
Change Period (Y+Rc), s	4.5	7.0	4.5	7.0	4.5	7.0	4.5	* 7
Max Green Setting (Gmax), s	5.5	18.0	5.5	68.0	5.5	18.0	5.5	* 69
Max Q Clear Time (g_c+I1), s	6.0	2.2	2.1	24.2	2.1	4.0	3.0	54.8
Green Ext Time (p_c), s	0.0	0.0	0.0	11.9	0.0	0.1	0.0	11.4

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

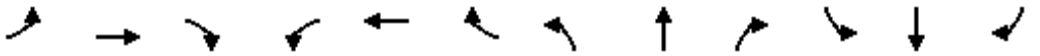
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	223	1518	24	94	2602	178	151	10	43	232	11	193
Future Volume (veh/h)	223	1518	24	94	2602	178	151	10	43	232	11	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	242	1650	26	102	2828	193	164	11	47	252	12	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	1971	879	185	1971	879	149	281	238	329	13	227
Arrive On Green	0.04	0.53	0.53	0.04	0.53	0.53	0.04	0.15	0.15	0.04	0.15	0.15
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	1781	86	1512
Grp Volume(v), veh/h	242	1650	26	102	2828	193	164	11	47	252	0	222
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1781	0	1598
Q Serve(g_s), s	5.0	45.2	0.9	3.0	64.0	7.4	5.0	0.6	3.1	5.0	0.0	16.5
Cycle Q Clear(g_c), s	5.0	45.2	0.9	3.0	64.0	7.4	5.0	0.6	3.1	5.0	0.0	16.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	137	1971	879	185	1971	879	149	281	238	329	0	240
V/C Ratio(X)	1.76	0.84	0.03	0.55	1.43	0.22	1.10	0.04	0.20	0.77	0.00	0.93
Avail Cap(c_a), veh/h	137	1971	879	185	1971	879	149	281	238	329	0	240
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.1	23.6	13.3	24.1	28.0	14.8	49.7	43.6	44.7	47.3	0.0	50.3
Incr Delay (d2), s/veh	371.8	3.3	0.0	3.4	198.6	0.1	102.8	0.1	0.4	10.3	0.0	38.5
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	16.2	19.8	0.3	1.7	81.1	2.8	6.3	0.3	1.3	5.8	0.0	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	405.9	26.9	13.3	27.5	226.6	14.9	152.6	43.7	45.1	57.6	0.0	88.9
LnGrp LOS	F	C	B	C	F	B	F	D	D	E	A	F
Approach Vol, veh/h		1918			3123			222			474	
Approach Delay, s/veh		74.6			207.0			124.4			72.2	
Approach LOS		E			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	25.0	12.0	71.0	12.0	25.0	12.0	71.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	64.0	5.0	18.0	5.0	64.0
Max Q Clear Time (g_c+I1), s	7.0	5.1	5.0	47.2	7.0	18.5	7.0	66.0
Green Ext Time (p_c), s	0.0	0.1	0.0	11.5	0.0	0.0	0.0	0.0

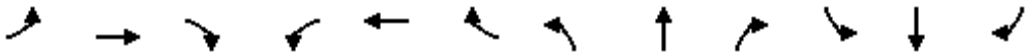
Intersection Summary	
HCM 6th Ctrl Delay	148.4
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	1524	24	94	2645	183	151	16	43	259	16	193
Future Volume (veh/h)	232	1524	24	94	2645	183	151	16	43	259	16	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	252	1657	26	102	2875	199	164	17	47	282	17	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	1971	879	184	1971	879	146	281	238	324	18	222
Arrive On Green	0.04	0.53	0.53	0.04	0.53	0.53	0.04	0.15	0.15	0.04	0.15	0.15
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	1781	120	1483
Grp Volume(v), veh/h	252	1657	26	102	2875	199	164	17	47	282	0	227
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1781	0	1603
Q Serve(g_s), s	5.0	45.5	0.9	3.0	64.0	7.7	5.0	0.9	3.1	5.0	0.0	16.8
Cycle Q Clear(g_c), s	5.0	45.5	0.9	3.0	64.0	7.7	5.0	0.9	3.1	5.0	0.0	16.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.93
Lane Grp Cap(c), veh/h	137	1971	879	184	1971	879	146	281	238	324	0	241
V/C Ratio(X)	1.84	0.84	0.03	0.55	1.46	0.23	1.13	0.06	0.20	0.87	0.00	0.94
Avail Cap(c_a), veh/h	137	1971	879	184	1971	879	146	281	238	324	0	241
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.1	23.7	13.3	24.3	28.0	14.9	49.5	43.7	44.7	48.8	0.0	50.5
Incr Delay (d2), s/veh	403.5	3.4	0.0	3.6	209.2	0.1	112.7	0.1	0.4	21.5	0.0	42.7
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	17.4	20.0	0.3	1.7	84.0	2.9	6.5	0.4	1.3	8.0	0.0	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	437.6	27.1	13.3	27.9	237.2	15.0	162.2	43.8	45.1	70.3	0.0	93.2
LnGrp LOS	F	C	B	C	F	B	F	D	D	E	A	F
Approach Vol, veh/h		1935			3176			228			509	
Approach Delay, s/veh		80.4			216.6			129.2			80.5	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	25.0	12.0	71.0	12.0	25.0	12.0	71.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	64.0	5.0	18.0	5.0	64.0
Max Q Clear Time (g_c+I1), s	7.0	5.1	5.0	47.5	7.0	18.8	7.0	66.0
Green Ext Time (p_c), s	0.0	0.1	0.0	11.4	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	156.3
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	1524	24	94	2645	183	151	16	43	259	16	193
Future Volume (veh/h)	232	1524	24	94	2645	183	151	16	43	259	16	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	252	1657	26	102	2875	199	164	17	47	282	17	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	2359	1118	218	2217	1022	119	224	246	425	12	148
Arrive On Green	0.07	0.64	0.64	0.04	0.60	0.60	0.04	0.12	0.12	0.02	0.10	0.10
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	3456	120	1483
Grp Volume(v), veh/h	252	1657	26	102	2875	199	164	17	47	282	0	227
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1728	0	1603
Q Serve(g_s), s	11.0	44.1	0.8	3.2	90.0	7.8	6.0	1.2	3.9	3.0	0.0	15.0
Cycle Q Clear(g_c), s	11.0	44.1	0.8	3.2	90.0	7.8	6.0	1.2	3.9	3.0	0.0	15.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.93
Lane Grp Cap(c), veh/h	184	2359	1118	218	2217	1022	119	224	246	425	0	160
V/C Ratio(X)	1.37	0.70	0.02	0.47	1.30	0.19	1.38	0.08	0.19	0.66	0.00	1.42
Avail Cap(c_a), veh/h	184	2359	1118	276	2217	1022	119	224	246	425	0	160
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.5	17.8	7.9	17.9	30.0	12.3	64.2	58.6	55.2	64.3	0.0	67.5
Incr Delay (d2), s/veh	197.4	1.8	0.0	1.6	136.9	0.4	212.8	0.1	0.4	3.9	0.0	219.7
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	17.1	18.9	0.3	1.4	80.3	3.0	8.7	0.6	1.6	4.1	0.0	15.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	252.9	19.6	7.9	19.5	166.9	12.7	277.0	58.8	55.5	68.2	0.0	287.2
LnGrp LOS	F	B	A	B	F	B	F	E	E	E	A	F
Approach Vol, veh/h		1935			3176			228			509	
Approach Delay, s/veh		49.8			152.5			215.1			165.8	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	25.0	12.3	102.7	13.0	22.0	18.0	97.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	3.0	18.0	10.0	91.0	6.0	15.0	11.0	90.0
Max Q Clear Time (g_c+I1), s	5.0	5.9	5.2	46.1	8.0	17.0	13.0	92.0
Green Ext Time (p_c), s	0.0	0.1	0.1	20.8	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	122.1
HCM 6th LOS	F

Notes

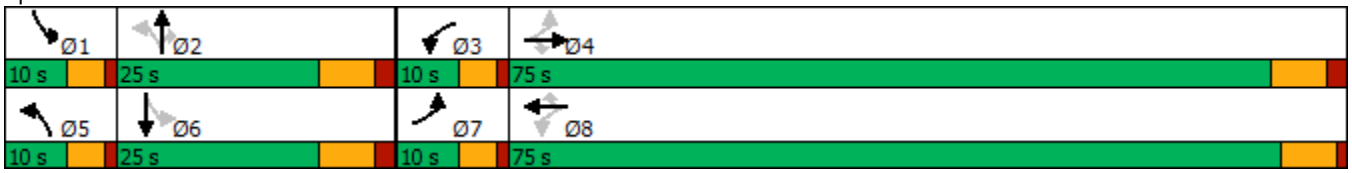
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	36	1087	1	5	1745	89	1	1	4	69	1
Future Volume (vph)	36	1087	1	5	1745	89	1	1	4	69	1
Lane Group Flow (vph)	39	1182	1	5	1897	97	1	1	4	75	33
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	25.0	25.0	9.5	24.0	24.0	9.5	25.0	25.0	9.5	25.0
Total Split (s)	10.0	75.0	75.0	10.0	75.0	75.0	10.0	25.0	25.0	10.0	25.0
Total Split (%)	8.3%	62.5%	62.5%	8.3%	62.5%	62.5%	8.3%	20.8%	20.8%	8.3%	20.8%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	2.0	2.0	1.0	1.0	1.0	1.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	7.0	7.0	4.5	6.0	6.0	4.5	7.0	7.0	4.5	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max
v/c Ratio	0.24	0.53	0.00	0.02	0.88	0.10	0.00	0.00	0.01	0.22	0.09
Control Delay	10.4	13.4	0.0	6.8	26.0	1.5	34.0	43.0	0.0	36.7	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	13.4	0.0	6.8	26.0	1.5	34.0	43.0	0.0	36.7	15.0
Queue Length 50th (ft)	9	230	0	1	648	0	1	1	0	45	1
Queue Length 95th (ft)	21	357	0	5	775	16	5	6	0	87	31
Internal Link Dist (ft)		2328			1504			219			254
Turn Bay Length (ft)	175		490	175		375				100	
Base Capacity (vph)	162	2449	1134	293	2362	1098	335	314	364	338	375
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.48	0.00	0.02	0.80	0.09	0.00	0.00	0.01	0.22	0.09

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 109.7
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Nitro Swim & SH 71

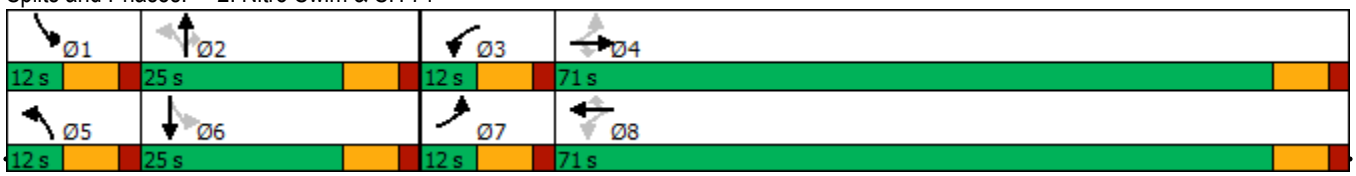


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	223	1518	24	94	2602	178	151	10	43	232	11
Future Volume (vph)	223	1518	24	94	2602	178	151	10	43	232	11
Lane Group Flow (vph)	242	1650	26	102	2828	193	164	11	47	252	222
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	12.0	71.0	71.0	12.0	71.0	71.0	12.0	25.0	25.0	12.0	25.0
Total Split (%)	10.0%	59.2%	59.2%	10.0%	59.2%	59.2%	10.0%	20.8%	20.8%	10.0%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	1.69	0.82	0.03	0.71	1.41	0.20	1.12	0.05	0.14	1.01	0.82
Control Delay	360.7	26.6	0.0	44.2	212.7	3.7	149.4	44.4	0.8	104.7	55.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	360.7	26.6	0.0	44.2	212.7	3.7	149.4	44.4	0.8	104.7	55.2
Queue Length 50th (ft)	~222	532	0	27	~1538	10	~114	7	0	171	105
Queue Length 95th (ft)	#395	657	0	#116	#1697	46	#254	25	0	#331	#210
Internal Link Dist (ft)		651			1504			219			254
Turn Bay Length (ft)	175		490	175		375				100	
Base Capacity (vph)	143	2007	972	143	2007	972	147	287	382	250	315
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.69	0.82	0.03	0.71	1.41	0.20	1.12	0.04	0.12	1.01	0.70

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 116.7
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Nitro Swim & SH 71

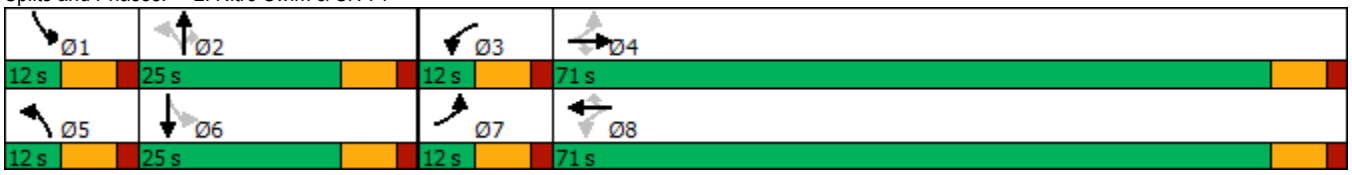


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	232	1524	24	94	2645	183	151	16	43	259	16
Future Volume (vph)	232	1524	24	94	2645	183	151	16	43	259	16
Lane Group Flow (vph)	252	1657	26	102	2875	199	164	17	47	282	227
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	25.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	12.0	71.0	71.0	12.0	71.0	71.0	12.0	25.0	25.0	12.0	25.0
Total Split (%)	10.0%	59.2%	59.2%	10.0%	59.2%	59.2%	10.0%	20.8%	20.8%	10.0%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	1.76	0.83	0.03	0.71	1.44	0.20	1.12	0.07	0.14	1.11	0.83
Control Delay	392.7	27.0	0.0	44.5	224.8	3.3	152.5	44.9	0.8	134.0	56.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	392.7	27.0	0.0	44.5	224.8	3.3	152.5	44.9	0.8	134.0	56.5
Queue Length 50th (ft)	~240	543	0	28	~1591	7	~115	11	0	~204	110
Queue Length 95th (ft)	#414	664	0	#116	#1736	43	#256	34	0	#401	#222
Internal Link Dist (ft)		645			1504			219			254
Turn Bay Length (ft)	175		490	175		500				100	
Base Capacity (vph)	143	2002	970	143	2002	976	146	286	382	253	314
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.76	0.83	0.03	0.71	1.44	0.20	1.12	0.06	0.12	1.11	0.72

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Nitro Swim & SH 71

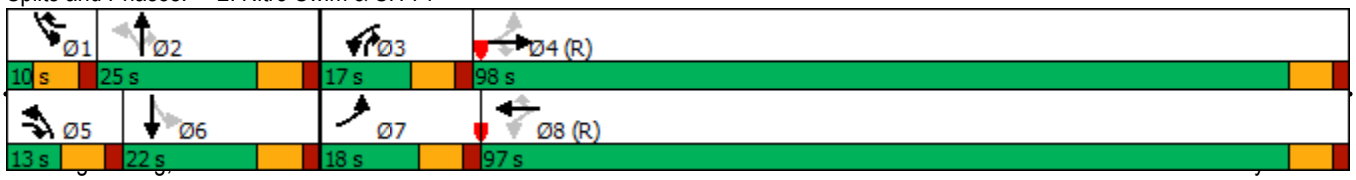


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	232	1524	24	94	2645	183	151	16	43	259	16
Future Volume (vph)	232	1524	24	94	2645	183	151	16	43	259	16
Lane Group Flow (vph)	252	1657	26	102	2875	199	164	17	47	282	227
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	3	1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	5	3	8	1	5	2	3	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	3.0	5.0	5.0	3.0	3.0	5.0	5.0	3.0	5.0
Minimum Split (s)	13.0	25.0	10.0	12.0	25.0	10.0	10.0	25.0	12.0	10.0	22.0
Total Split (s)	18.0	98.0	13.0	17.0	97.0	10.0	13.0	25.0	17.0	10.0	22.0
Total Split (%)	12.0%	65.3%	8.7%	11.3%	64.7%	6.7%	8.7%	16.7%	11.3%	6.7%	14.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
v/c Ratio	1.28	0.72	0.02	0.54	1.31	0.17	1.37	0.08	0.12	0.88	0.92
Control Delay	200.0	5.9	0.0	21.3	171.4	1.4	250.4	59.8	2.5	89.3	73.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	200.0	5.9	0.0	21.3	171.4	1.4	250.4	59.8	2.5	89.3	73.6
Queue Length 50th (ft)	~276	57	0	27	~1897	0	~154	15	0	127	119
Queue Length 95th (ft)	m#309	m59	m0	64	#2005	27	#308	40	9	#195	#274
Internal Link Dist (ft)		645			1504			219			254
Turn Bay Length (ft)	300		490	175		500					
Base Capacity (vph)	197	2287	1187	213	2194	1157	120	223	421	321	257
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.28	0.72	0.02	0.48	1.31	0.17	1.37	0.08	0.11	0.88	0.88

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 56 (37%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Nitro Swim & SH 71



Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	50	26	232	37	16	159
Future Vol, veh/h	50	26	232	37	16	159
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	50	-	100	100	-
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	54	28	252	40	17	173

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	459	252	0	0	292	0
Stage 1	252	-	-	-	-	-
Stage 2	207	-	-	-	-	-
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	560	787	-	-	1270	-
Stage 1	790	-	-	-	-	-
Stage 2	828	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	553	787	-	-	1270	-
Mov Cap-2 Maneuver	553	-	-	-	-	-
Stage 1	780	-	-	-	-	-
Stage 2	828	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	553	787	1270	-
HCM Lane V/C Ratio	-	-	0.098	0.036	0.014	-
HCM Control Delay (s)	-	-	12.2	9.7	7.9	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.1	0	-

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	61	37	246	61	26	166
Future Vol, veh/h	61	37	246	61	26	166
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	50	-	100	100	-
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	66	40	267	66	28	180

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	503	267	0	0	333	0
Stage 1	267	-	-	-	-	-
Stage 2	236	-	-	-	-	-
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	528	772	-	-	1226	-
Stage 1	778	-	-	-	-	-
Stage 2	803	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	516	772	-	-	1226	-
Mov Cap-2 Maneuver	516	-	-	-	-	-
Stage 1	760	-	-	-	-	-
Stage 2	803	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	516	772	1226	-
HCM Lane V/C Ratio	-	-	0.128	0.052	0.023	-
HCM Control Delay (s)	-	-	13	9.9	8	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.2	0.1	-

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	61	37	246	61	26	166
Future Vol, veh/h	61	37	246	61	26	166
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	50	-	100	100	-
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	66	40	267	66	28	180

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	503	267	0	0	333	0
Stage 1	267	-	-	-	-	-
Stage 2	236	-	-	-	-	-
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	528	772	-	-	1226	-
Stage 1	778	-	-	-	-	-
Stage 2	803	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	516	772	-	-	1226	-
Mov Cap-2 Maneuver	516	-	-	-	-	-
Stage 1	760	-	-	-	-	-
Stage 2	803	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	516	772	1226	-
HCM Lane V/C Ratio	-	-	0.128	0.052	0.023	-
HCM Control Delay (s)	-	-	13	9.9	8	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.2	0.1	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱
Traffic Vol, veh/h	0	1590	2781	117	0	67
Future Vol, veh/h	0	1590	2781	117	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
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	1728	3023	127	0	73

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1575
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	99
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	99
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	106.7
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	99
HCM Lane V/C Ratio	-	-	-	0.736
HCM Control Delay (s)	-	-	-	106.7
HCM Lane LOS	-	-	-	F
HCM 95th %tile Q(veh)	-	-	-	3.8

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	1596	2883	136	0	100
Future Vol, veh/h	0	1596	2883	136	0	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	0	-	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	1735	3134	148	0	109

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1567
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	0	~ 100
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	~ 100
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	194.7
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	100
HCM Lane V/C Ratio	-	-	1.087
HCM Control Delay (s)	-	-	194.7
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	17

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱
Traffic Vol, veh/h	0	1765	2814	132	0	164
Future Vol, veh/h	0	1765	2814	132	0	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
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	1918	3059	143	0	178

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1601
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	~ 95
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	~ 95
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	$ 506.3
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	95
HCM Lane V/C Ratio	-	-	-	1.876
HCM Control Delay (s)	-	-	-	$ 506.3
HCM Lane LOS	-	-	-	F
HCM 95th %tile Q(veh)	-	-	-	14.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	20.4

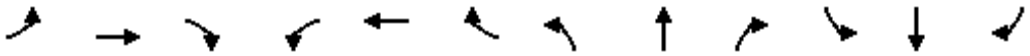
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	1780	2833	156	0	186
Future Vol, veh/h	0	1780	2833	156	0	186
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	-	-	-	235	-	0
Veh in Median 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	1935	3079	170	0	202

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1540
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	0	~ 104
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	~ 104
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	$ 526.6
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	104
HCM Lane V/C Ratio	-	-	1.944
HCM Control Delay (s)	-	-	$ 526.6
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	16.8

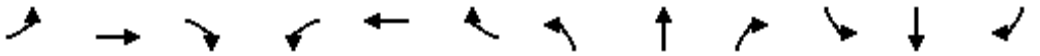
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	1108	27	21	732	39	19	8	24	72	1	44
Future Volume (veh/h)	21	1108	27	21	732	39	19	8	24	72	1	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	22	1166	28	22	771	41	21	9	27	80	1	49
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	411	1578	704	297	1578	704	442	129	109	225	2	107
Arrive On Green	0.07	0.43	0.43	0.07	0.43	0.43	0.07	0.07	0.07	0.07	0.07	0.07
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	1853	33	1620
Grp Volume(v), veh/h	22	1166	28	22	771	41	21	9	27	80	0	50
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1853	0	1653
Q Serve(g_s), s	0.5	20.0	0.4	0.5	11.4	1.1	0.0	0.3	1.2	3.2	0.0	2.2
Cycle Q Clear(g_c), s	0.5	20.0	0.4	0.5	11.4	1.1	0.0	0.3	1.2	3.2	0.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Lane Grp Cap(c), veh/h	411	1578	704	297	1578	704	442	129	109	225	0	109
V/C Ratio(X)	0.05	0.74	0.04	0.07	0.49	0.06	0.05	0.07	0.25	0.36	0.00	0.46
Avail Cap(c_a), veh/h	411	2446	1091	297	2446	1091	442	489	415	537	0	700
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.7	18.1	3.9	12.6	15.7	12.7	32.7	33.1	33.5	34.1	0.0	34.0
Incr Delay (d2), s/veh	0.1	0.7	0.0	0.1	0.2	0.0	0.0	0.2	1.2	1.0	0.0	3.0
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	0.2	7.9	0.3	0.2	4.5	0.4	0.2	0.2	0.5	1.4	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.8	18.8	3.9	12.7	15.9	12.8	32.7	33.3	34.7	35.0	0.0	36.9
LnGrp LOS	B	B	A	B	B	B	C	C	C	D	A	D
Approach Vol, veh/h		1216			834			57			130	
Approach Delay, s/veh		18.3			15.7			33.7			35.7	
Approach LOS		B			B			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	12.0	12.0	39.3	12.3	12.0	12.0	39.3
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	18.0	19.0	5.0	50.0	5.0	32.0	5.0	50.0
Max Q Clear Time (g_c+I1), s	5.2	3.2	2.5	22.0	2.0	4.2	2.5	13.4
Green Ext Time (p_c), s	0.1	0.1	0.0	10.3	0.0	0.2	0.0	6.5

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	1590	59	116	969	87	106	37	46	209	9	55
Future Volume (veh/h)	65	1590	59	116	969	87	106	37	46	209	9	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	68	1674	62	122	1020	92	118	41	51	232	10	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	1965	876	209	1965	876	398	103	87	223	15	92
Arrive On Green	0.05	0.53	0.53	0.05	0.53	0.53	0.07	0.05	0.05	0.08	0.06	0.06
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	1853	237	1447
Grp Volume(v), veh/h	68	1674	62	122	1020	92	118	41	51	232	0	71
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1853	0	1685
Q Serve(g_s), s	1.6	38.3	1.0	2.9	17.6	2.7	0.0	2.0	3.0	8.0	0.0	4.1
Cycle Q Clear(g_c), s	1.6	38.3	1.0	2.9	17.6	2.7	0.0	2.0	3.0	8.0	0.0	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.86
Lane Grp Cap(c), veh/h	353	1965	876	209	1965	876	398	103	87	223	0	107
V/C Ratio(X)	0.19	0.85	0.07	0.58	0.52	0.10	0.30	0.40	0.59	1.04	0.00	0.66
Avail Cap(c_a), veh/h	409	2173	969	265	2173	969	437	355	301	223	0	307
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.7	19.8	3.4	20.7	14.9	11.5	42.6	45.2	45.7	46.6	0.0	45.2
Incr Delay (d2), s/veh	0.3	3.2	0.0	2.6	0.2	0.1	0.4	2.5	6.1	70.9	0.0	6.8
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	0.6	16.1	0.6	1.6	7.1	1.0	1.4	1.0	1.4	9.9	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.0	23.0	3.4	23.3	15.2	11.5	43.1	47.7	51.8	117.5	0.0	52.0
LnGrp LOS	B	C	A	C	B	B	D	D	D	F	A	D
Approach Vol, veh/h		1804			1234			210			303	
Approach Delay, s/veh		21.9			15.7			46.1			102.1	
Approach LOS		C			B			D			F	

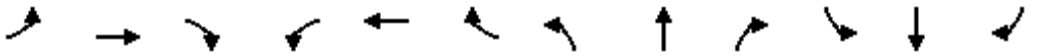
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	12.2	12.0	59.5	13.9	13.3	12.0	59.5
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	18.0	8.0	58.0	8.0	18.0	8.0	58.0
Max Q Clear Time (g_c+I1), s	10.0	5.0	4.9	40.3	2.0	6.1	3.6	19.6
Green Ext Time (p_c), s	0.0	0.2	0.1	12.2	0.1	0.2	0.0	9.7

Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	1602	59	116	1070	88	107	51	47	223	22	61
Future Volume (veh/h)	136	1602	59	116	1070	88	107	51	47	223	22	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	143	1686	62	122	1126	93	119	57	52	248	24	68
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	329	1968	878	207	1949	869	358	105	89	222	34	96
Arrive On Green	0.06	0.53	0.53	0.05	0.53	0.53	0.06	0.05	0.05	0.08	0.08	0.08
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	1853	448	1269
Grp Volume(v), veh/h	143	1686	62	122	1126	93	119	57	52	248	0	92
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1853	0	1717
Q Serve(g_s), s	3.5	38.9	1.0	3.0	20.5	2.8	0.0	2.8	3.1	8.0	0.0	5.2
Cycle Q Clear(g_c), s	3.5	38.9	1.0	3.0	20.5	2.8	0.0	2.8	3.1	8.0	0.0	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.74
Lane Grp Cap(c), veh/h	329	1968	878	207	1949	869	358	105	89	222	0	129
V/C Ratio(X)	0.44	0.86	0.07	0.59	0.58	0.11	0.33	0.54	0.59	1.12	0.00	0.71
Avail Cap(c_a), veh/h	374	2160	964	262	2160	964	435	353	299	222	0	311
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.4	19.9	3.7	21.0	15.9	11.7	43.9	45.7	45.9	46.8	0.0	44.8
Incr Delay (d2), s/veh	0.9	3.4	0.0	2.7	0.3	0.1	0.5	4.3	6.0	95.5	0.0	7.0
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	1.4	16.4	0.6	1.6	8.3	1.0	1.4	1.5	1.4	11.4	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.3	23.3	3.7	23.6	16.2	11.8	44.4	50.1	51.8	142.4	0.0	51.8
LnGrp LOS	B	C	A	C	B	B	D	D	D	F	A	D
Approach Vol, veh/h		1891			1341			228			340	
Approach Delay, s/veh		21.9			16.6			47.5			117.9	
Approach LOS		C			B			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	12.3	12.0	59.8	12.9	14.5	12.5	59.3
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	18.0	8.0	58.0	8.0	18.0	8.0	58.0
Max Q Clear Time (g_c+I1), s	10.0	5.1	5.0	40.9	2.0	7.2	5.5	22.5
Green Ext Time (p_c), s	0.0	0.3	0.1	11.9	0.2	0.3	0.1	11.0

Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	1602	59	116	1070	88	107	51	47	223	22	61
Future Volume (veh/h)	136	1602	59	116	1070	88	107	51	47	223	22	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	143	1686	62	122	1126	93	119	57	52	248	24	68
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	317	2185	1075	211	2168	1104	219	95	152	299	32	91
Arrive On Green	0.05	0.59	0.59	0.03	0.39	0.39	0.06	0.05	0.05	0.08	0.07	0.07
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	3594	448	1269
Grp Volume(v), veh/h	143	1686	62	122	1126	93	119	57	52	248	0	92
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1797	0	1717
Q Serve(g_s), s	3.7	41.1	0.5	3.1	27.9	3.4	3.9	3.4	3.5	8.2	0.0	6.3
Cycle Q Clear(g_c), s	3.7	41.1	0.5	3.1	27.9	3.4	3.9	3.4	3.5	8.2	0.0	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.74
Lane Grp Cap(c), veh/h	317	2185	1075	211	2168	1104	219	95	152	299	0	123
V/C Ratio(X)	0.45	0.77	0.06	0.58	0.52	0.08	0.54	0.60	0.34	0.83	0.00	0.75
Avail Cap(c_a), veh/h	352	2185	1075	255	2168	1104	389	340	360	299	0	258
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.3	18.4	1.7	21.2	23.5	10.4	54.7	55.9	51.1	54.2	0.0	54.7
Incr Delay (d2), s/veh	1.0	2.7	0.1	2.5	0.9	0.1	2.1	5.9	1.3	17.3	0.0	8.9
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	1.5	17.5	0.3	2.0	13.2	1.3	1.8	1.8	1.5	4.4	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.3	21.1	1.8	23.7	24.4	10.6	56.8	61.8	52.4	71.4	0.0	63.5
LnGrp LOS	B	C	A	C	C	B	E	E	D	E	A	E
Approach Vol, veh/h		1891			1341			228			340	
Approach Delay, s/veh		20.0			23.4			57.1			69.3	
Approach LOS		B			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	12.9	12.2	77.9	14.3	15.6	12.7	77.4
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	10.0	21.0	8.0	53.0	13.0	18.0	8.0	53.0
Max Q Clear Time (g_c+I1), s	10.2	5.5	5.1	43.1	5.9	8.3	5.7	29.9
Green Ext Time (p_c), s	0.0	0.3	0.1	7.7	0.2	0.3	0.1	9.4

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

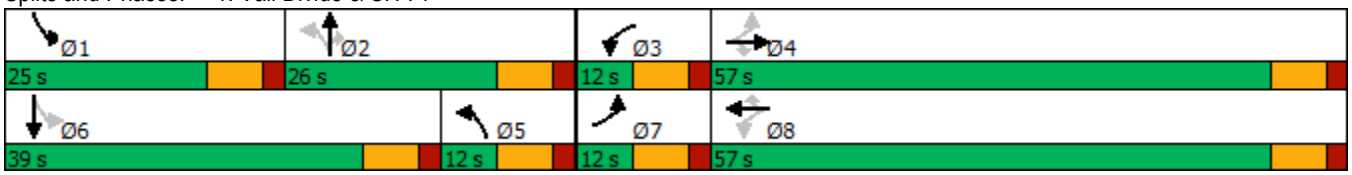
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	21	1108	27	21	732	39	19	8	24	72	1
Future Volume (vph)	21	1108	27	21	732	39	19	8	24	72	1
Lane Group Flow (vph)	22	1166	28	22	771	41	21	9	27	80	50
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	25.0	25.0
Total Split (s)	12.0	57.0	57.0	12.0	57.0	57.0	12.0	26.0	26.0	25.0	39.0
Total Split (%)	10.0%	47.5%	47.5%	10.0%	47.5%	47.5%	10.0%	21.7%	21.7%	20.8%	32.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.06	0.75	0.03	0.11	0.50	0.05	0.06	0.07	0.10	0.39	0.29
Control Delay	8.9	23.9	0.1	9.6	18.8	0.1	38.2	43.4	0.8	43.8	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	23.9	0.1	9.6	18.8	0.1	38.2	43.4	0.8	43.8	18.0
Queue Length 50th (ft)	5	264	0	5	150	0	5	5	0	40	1
Queue Length 95th (ft)	15	366	0	15	216	0	18	22	0	95	37
Internal Link Dist (ft)		1292			2328			591			314
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	345	2184	1068	208	2184	1068	375	437	498	405	678
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.53	0.03	0.11	0.35	0.04	0.06	0.02	0.05	0.20	0.07

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 85.2
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Vail Divide & SH 71

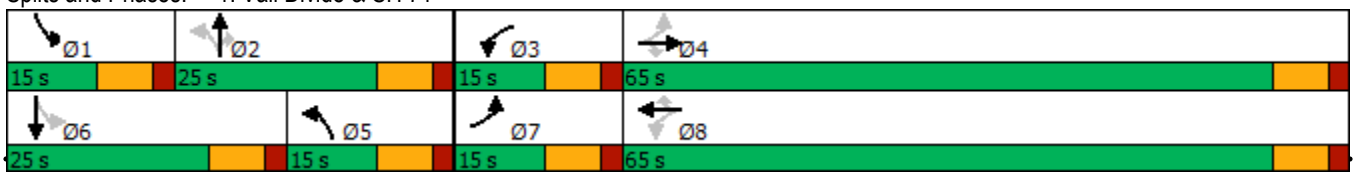


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	65	1590	59	116	969	87	106	37	46	209	9
Future Volume (vph)	65	1590	59	116	969	87	106	37	46	209	9
Lane Group Flow (vph)	68	1674	62	122	1020	92	118	41	51	232	71
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	15.0	65.0	65.0	15.0	65.0	65.0	15.0	25.0	25.0	15.0	25.0
Total Split (%)	12.5%	54.2%	54.2%	12.5%	54.2%	54.2%	12.5%	20.8%	20.8%	12.5%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.21	0.88	0.06	0.61	0.53	0.09	0.41	0.30	0.19	1.66	0.43
Control Delay	8.6	29.3	0.1	29.8	18.0	0.2	52.6	53.9	1.5	358.9	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	29.3	0.1	29.8	18.0	0.2	52.6	53.9	1.5	358.9	23.9
Queue Length 50th (ft)	15	516	0	28	230	0	41	28	0	~240	7
Queue Length 95th (ft)	33	661	0	#98	310	0	73	64	0	#406	51
Internal Link Dist (ft)		1292			876			591			314
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	349	1971	986	207	1989	993	291	321	410	140	340
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.85	0.06	0.59	0.51	0.09	0.41	0.13	0.12	1.66	0.21

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.8
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Vail Divide & SH 71

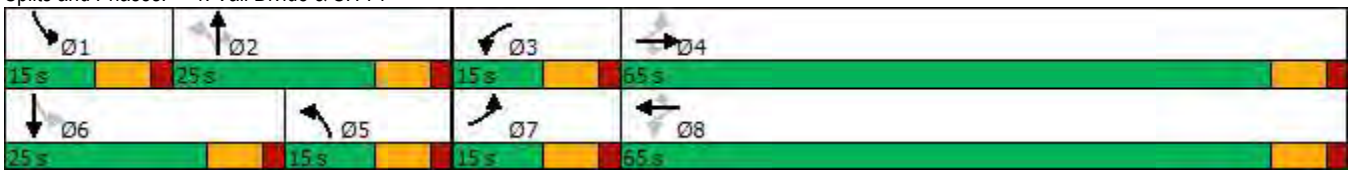


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	136	1602	59	116	1070	88	107	51	47	223	22
Future Volume (vph)	136	1602	59	116	1070	88	107	51	47	223	22
Lane Group Flow (vph)	143	1686	62	122	1126	93	119	57	52	248	92
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	15.0	65.0	65.0	15.0	65.0	65.0	15.0	25.0	25.0	15.0	25.0
Total Split (%)	12.5%	54.2%	54.2%	12.5%	54.2%	54.2%	12.5%	20.8%	20.8%	12.5%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.48	0.89	0.06	0.62	0.59	0.10	0.40	0.38	0.19	1.80	0.49
Control Delay	13.4	30.7	0.1	30.5	20.0	0.2	53.0	55.4	1.5	415.4	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	30.7	0.1	30.5	20.0	0.2	53.0	55.4	1.5	415.4	27.4
Queue Length 50th (ft)	34	532	0	29	277	0	41	39	0	~266	17
Queue Length 95th (ft)	63	688	0	#102	363	0	74	81	0	#440	67
Internal Link Dist (ft)		1292			637			591			413
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	303	1951	978	205	1951	978	294	318	407	138	349
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.86	0.06	0.60	0.58	0.10	0.40	0.18	0.13	1.80	0.26

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.9
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Vail Divide & SH 71

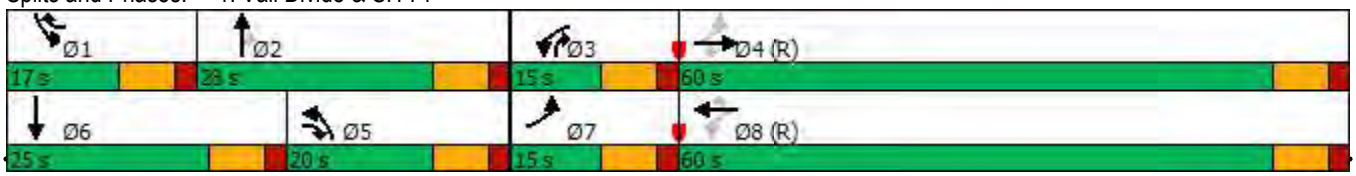


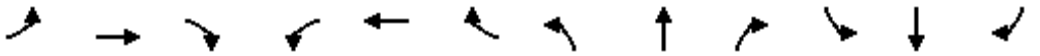
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	136	1602	59	116	1070	88	107	51	47	223	22
Future Volume (vph)	136	1602	59	116	1070	88	107	51	47	223	22
Lane Group Flow (vph)	143	1686	62	122	1126	93	119	57	52	248	92
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8	1	5	2	3	1	6
Permitted Phases	4		4	8		8			2		
Detector Phase	7	4	5	3	8	1	5	2	3	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	12.0	12.0	25.0	12.0	12.0	25.0	12.0	12.0	25.0
Total Split (s)	15.0	60.0	20.0	15.0	60.0	17.0	20.0	28.0	15.0	17.0	25.0
Total Split (%)	12.5%	50.0%	16.7%	12.5%	50.0%	14.2%	16.7%	23.3%	12.5%	14.2%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.46	0.88	0.06	0.57	0.58	0.08	0.35	0.39	0.12	0.81	0.52
Control Delay	13.2	32.6	0.1	47.8	9.4	0.5	53.8	59.2	0.9	75.0	29.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.2	32.6	0.1	47.8	9.4	0.5	53.8	59.2	0.9	75.0	29.5
Queue Length 50th (ft)	36	574	0	45	157	0	44	43	0	98	18
Queue Length 95th (ft)	69	#866	0	m83	458	m6	75	84	3	#164	69
Internal Link Dist (ft)		1292			637			591			413
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	317	1919	1096	218	1938	1153	384	336	437	305	322
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.88	0.06	0.56	0.58	0.08	0.31	0.17	0.12	0.81	0.29

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Vail Divide & SH 71

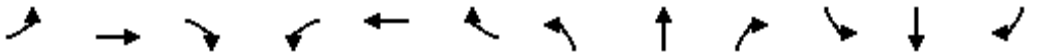




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1192	2	7	816	3	1	1	1	1	1	1
Future Volume (veh/h)	1	1192	2	7	816	3	1	1	1	1	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking 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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	1296	2	8	887	3	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	400	1737	775	284	1737	775	284	115	98	285	53	53
Arrive On Green	0.06	0.47	0.47	0.06	0.47	0.47	0.06	0.06	0.06	0.06	0.06	0.06
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	1781	858	858
Grp Volume(v), veh/h	1	1296	2	8	887	3	1	1	1	1	0	2
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1781	0	1716
Q Serve(g_s), s	0.0	23.2	0.1	0.2	13.6	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.0	23.2	0.1	0.2	13.6	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	400	1737	775	284	1737	775	284	115	98	285	0	106
V/C Ratio(X)	0.00	0.75	0.00	0.03	0.51	0.00	0.00	0.01	0.01	0.00	0.00	0.02
Avail Cap(c_a), veh/h	400	2779	1240	284	2779	1240	284	484	410	285	0	444
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.0	17.6	11.4	12.3	15.0	11.4	31.2	35.7	35.7	31.2	0.0	35.8
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	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	0.0	9.2	0.0	0.1	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.0	18.2	11.4	12.4	15.2	11.4	31.2	35.8	35.8	31.2	0.0	35.8
LnGrp LOS	B	B	B	B	B	B	C	D	D	C	A	D
Approach Vol, veh/h		1299			898			3			3	
Approach Delay, s/veh		18.2			15.2			34.2			34.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	12.0	12.0	45.1	12.0	12.0	12.0	45.1
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	5.0	21.0	5.0	61.0	5.0	21.0	5.0	61.0
Max Q Clear Time (g_c+I1), s	2.0	2.0	2.2	25.2	2.0	2.1	2.0	15.6
Green Ext Time (p_c), s	0.0	0.0	0.0	12.9	0.0	0.0	0.0	7.8

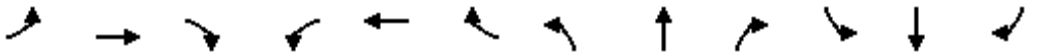
Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	1589	29	65	1112	28	44	4	32	162	4	40
Future Volume (veh/h)	209	1589	29	65	1112	28	44	4	32	162	4	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	227	1727	32	71	1209	30	48	4	35	176	4	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	331	2080	928	218	2080	928	194	95	81	231	7	75
Arrive On Green	0.05	0.56	0.56	0.05	0.56	0.56	0.05	0.05	0.05	0.05	0.05	0.05
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	1781	137	1469
Grp Volume(v), veh/h	227	1727	32	71	1209	30	48	4	35	176	0	47
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1781	0	1606
Q Serve(g_s), s	5.0	37.7	0.9	1.5	20.9	0.8	2.4	0.2	2.1	5.0	0.0	2.8
Cycle Q Clear(g_c), s	5.0	37.7	0.9	1.5	20.9	0.8	2.4	0.2	2.1	5.0	0.0	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.91
Lane Grp Cap(c), veh/h	331	2080	928	218	2080	928	194	95	81	231	0	82
V/C Ratio(X)	0.69	0.83	0.03	0.33	0.58	0.03	0.25	0.04	0.43	0.76	0.00	0.58
Avail Cap(c_a), veh/h	331	2405	1073	218	2405	1073	194	342	290	231	0	294
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.6	17.6	9.6	17.3	14.0	9.6	40.8	44.4	45.3	44.4	0.0	45.6
Incr Delay (d2), s/veh	5.8	2.3	0.0	0.9	0.3	0.0	0.7	0.2	3.7	14.0	0.0	6.3
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	15.3	0.3	0.8	8.2	0.3	1.1	0.1	0.9	5.2	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	19.9	9.6	18.1	14.2	9.6	41.5	44.6	48.9	58.4	0.0	51.9
LnGrp LOS	B	B	A	B	B	A	D	D	D	E	A	D
Approach Vol, veh/h		1986			1310			87			223	
Approach Delay, s/veh		19.7			14.3			44.6			57.0	
Approach LOS		B			B			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	12.0	12.0	62.3	12.0	12.0	12.0	62.3
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	64.0	5.0	18.0	5.0	64.0
Max Q Clear Time (g_c+I1), s	7.0	4.1	3.5	39.7	4.4	4.8	7.0	22.9
Green Ext Time (p_c), s	0.0	0.1	0.0	15.6	0.0	0.1	0.0	12.3

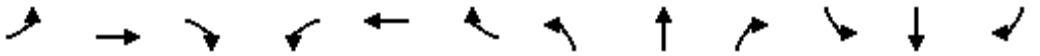
Intersection Summary	
HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	1602	28	66	1196	41	44	17	31	253	18	41
Future Volume (veh/h)	234	1602	28	66	1196	41	44	17	31	253	18	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	254	1741	30	72	1300	45	48	18	34	275	20	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	301	2074	925	212	2074	925	190	112	95	229	31	69
Arrive On Green	0.05	0.56	0.56	0.05	0.56	0.56	0.05	0.06	0.06	0.05	0.06	0.06
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	1781	512	1151
Grp Volume(v), veh/h	254	1741	30	72	1300	45	48	18	34	275	0	65
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1781	0	1663
Q Serve(g_s), s	5.0	39.2	0.8	1.6	23.9	1.2	2.5	0.9	2.1	5.0	0.0	3.8
Cycle Q Clear(g_c), s	5.0	39.2	0.8	1.6	23.9	1.2	2.5	0.9	2.1	5.0	0.0	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	301	2074	925	212	2074	925	190	112	95	229	0	100
V/C Ratio(X)	0.85	0.84	0.03	0.34	0.63	0.05	0.25	0.16	0.36	1.20	0.00	0.65
Avail Cap(c_a), veh/h	301	2358	1052	212	2358	1052	190	336	284	229	0	298
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.1	18.3	9.8	18.2	14.9	9.9	40.9	44.7	45.3	46.1	0.0	46.1
Incr Delay (d2), s/veh	19.4	2.6	0.0	0.9	0.4	0.0	0.7	0.7	2.3	123.7	0.0	7.0
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	5.3	16.1	0.3	0.8	9.5	0.4	1.1	0.4	0.9	11.1	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	20.8	9.9	19.2	15.3	10.0	41.6	45.4	47.5	169.8	0.0	53.1
LnGrp LOS	D	C	A	B	B	A	D	D	D	F	A	D
Approach Vol, veh/h		2025			1417			100			340	
Approach Delay, s/veh		23.0			15.4			44.3			147.5	
Approach LOS		C			B			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	13.0	12.0	63.3	12.0	13.0	12.0	63.3
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	64.0	5.0	18.0	5.0	64.0
Max Q Clear Time (g_c+I1), s	7.0	4.1	3.6	41.2	4.5	5.8	7.0	25.9
Green Ext Time (p_c), s	0.0	0.1	0.0	15.1	0.0	0.2	0.0	13.5

Intersection Summary	
HCM 6th Ctrl Delay	31.7
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	1602	28	66	1196	41	44	17	31	253	18	41
Future Volume (veh/h)	234	1602	28	66	1196	41	44	17	31	253	18	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	254	1741	30	72	1300	45	48	18	34	275	20	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	304	2248	1072	210	2248	1126	184	78	132	464	38	86
Arrive On Green	0.04	0.61	0.61	0.04	0.61	0.61	0.04	0.04	0.04	0.08	0.07	0.07
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	3456	512	1151
Grp Volume(v), veh/h	254	1741	30	72	1300	45	48	18	34	275	0	65
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1728	0	1663
Q Serve(g_s), s	5.0	41.9	0.8	1.7	25.5	1.1	3.0	1.1	2.4	9.0	0.0	4.5
Cycle Q Clear(g_c), s	5.0	41.9	0.8	1.7	25.5	1.1	3.0	1.1	2.4	9.0	0.0	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	304	2248	1072	210	2248	1126	184	78	132	464	0	124
V/C Ratio(X)	0.83	0.77	0.03	0.34	0.58	0.04	0.26	0.23	0.26	0.59	0.00	0.52
Avail Cap(c_a), veh/h	304	2248	1072	210	2248	1126	213	265	291	464	0	263
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.4	17.4	7.5	17.5	14.2	6.2	51.8	55.6	51.5	50.9	0.0	53.5
Incr Delay (d2), s/veh	17.8	2.7	0.0	1.0	1.1	0.1	0.7	1.5	1.0	2.0	0.0	3.4
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	6.1	17.5	0.3	0.9	10.5	0.4	1.4	0.6	1.0	4.1	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	20.1	7.5	18.4	15.3	6.3	52.5	57.1	52.5	52.9	0.0	56.9
LnGrp LOS	D	C	A	B	B	A	D	E	D	D	A	E
Approach Vol, veh/h		2025			1417			100			340	
Approach Delay, s/veh		22.3			15.2			53.3			53.7	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	12.0	12.0	80.0	12.1	15.9	12.0	80.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	9.0	17.0	5.0	61.0	7.0	19.0	5.0	61.0
Max Q Clear Time (g_c+I1), s	11.0	4.4	3.7	43.9	5.0	6.5	7.0	27.5
Green Ext Time (p_c), s	0.0	0.1	0.0	12.2	0.0	0.2	0.0	12.9

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

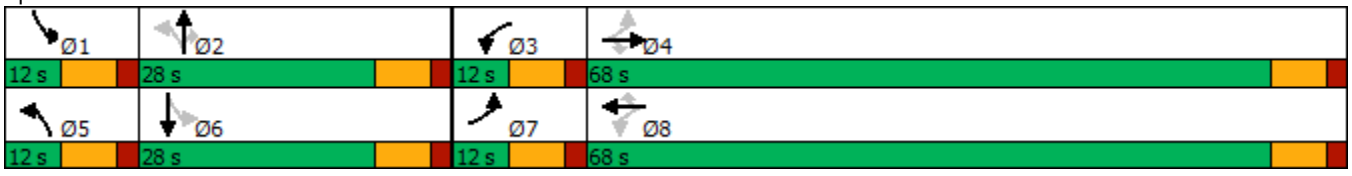
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	1	1192	2	7	816	3	1	1	1	1	1
Future Volume (vph)	1	1192	2	7	816	3	1	1	1	1	1
Lane Group Flow (vph)	1	1296	2	8	887	3	1	1	1	1	2
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	12.0	68.0	68.0	12.0	68.0	68.0	12.0	28.0	28.0	12.0	28.0
Total Split (%)	10.0%	56.7%	56.7%	10.0%	56.7%	56.7%	10.0%	23.3%	23.3%	10.0%	23.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.00	0.75	0.00	0.04	0.51	0.00	0.00	0.01	0.00	0.00	0.02
Control Delay	6.0	20.8	0.0	6.3	16.1	0.0	31.0	41.0	0.0	31.0	35.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.0	20.8	0.0	6.3	16.1	0.0	31.0	41.0	0.0	31.0	35.5
Queue Length 50th (ft)	0	275	0	1	160	0	0	1	0	0	1
Queue Length 95th (ft)	2	350	0	6	209	0	5	6	0	5	8
Internal Link Dist (ft)		2328			1504			219			254
Turn Bay Length (ft)	175		490	175		375				100	
Base Capacity (vph)	340	2699	1250	207	2699	1250	203	473	524	203	438
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.48	0.00	0.04	0.33	0.00	0.00	0.00	0.00	0.00	0.00

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 83.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Nitro Swim & SH 71

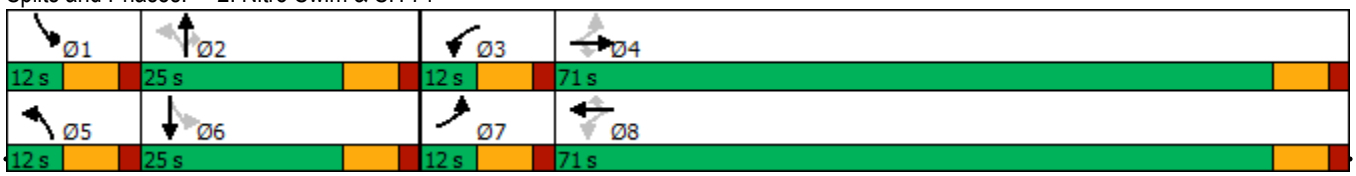


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	209	1589	29	65	1112	28	44	4	32	162	4
Future Volume (vph)	209	1589	29	65	1112	28	44	4	32	162	4
Lane Group Flow (vph)	227	1727	32	71	1209	30	48	4	35	176	47
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	12.0	71.0	71.0	12.0	71.0	71.0	12.0	25.0	25.0	12.0	25.0
Total Split (%)	10.0%	59.2%	59.2%	10.0%	59.2%	59.2%	10.0%	20.8%	20.8%	10.0%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.85	0.83	0.03	0.44	0.58	0.03	0.28	0.03	0.14	1.01	0.33
Control Delay	38.4	22.5	0.1	16.9	15.7	0.1	42.8	48.2	1.1	116.8	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	22.5	0.1	16.9	15.7	0.1	42.8	48.2	1.1	116.8	23.2
Queue Length 50th (ft)	46	451	0	13	248	0	29	3	0	~129	3
Queue Length 95th (ft)	#133	595	0	38	333	0	63	14	0	#251	39
Internal Link Dist (ft)		651			1504			219			254
Turn Bay Length (ft)	175		490	175		500				100	
Base Capacity (vph)	268	2265	1075	163	2265	1075	170	324	411	174	315
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.76	0.03	0.44	0.53	0.03	0.28	0.01	0.09	1.01	0.15

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 103.9
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Nitro Swim & SH 71

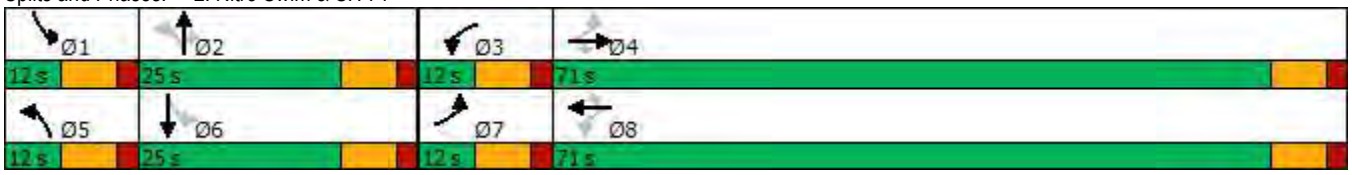


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	234	1602	28	66	1196	41	44	17	31	253	18
Future Volume (vph)	234	1602	28	66	1196	41	44	17	31	253	18
Lane Group Flow (vph)	254	1741	30	72	1300	45	48	18	34	275	65
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	12.0	71.0	71.0	12.0	71.0	71.0	12.0	25.0	25.0	12.0	25.0
Total Split (%)	10.0%	59.2%	59.2%	10.0%	59.2%	59.2%	10.0%	20.8%	20.8%	10.0%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	1.07	0.84	0.03	0.45	0.63	0.05	0.27	0.14	0.13	1.52	0.41
Control Delay	93.5	23.6	0.1	18.0	17.0	0.1	41.9	49.8	1.0	290.7	29.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.5	23.6	0.1	18.0	17.0	0.1	41.9	49.8	1.0	290.7	29.4
Queue Length 50th (ft)	~65	471	0	14	286	0	29	12	0	~278	14
Queue Length 95th (ft)	#202	627	0	42	384	0	63	35	0	#424	57
Internal Link Dist (ft)		645			1504			219			254
Turn Bay Length (ft)	175		490	175		500				100	
Base Capacity (vph)	238	2240	1065	160	2240	1065	177	321	408	181	324
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.78	0.03	0.45	0.58	0.04	0.27	0.06	0.08	1.52	0.20

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Nitro Swim & SH 71

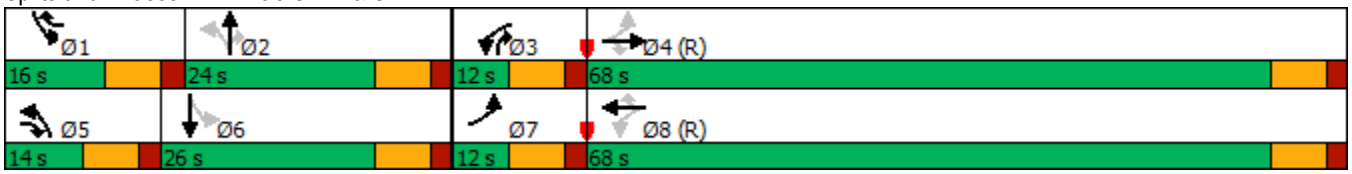


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	234	1602	28	66	1196	41	44	17	31	253	18
Future Volume (vph)	234	1602	28	66	1196	41	44	17	31	253	18
Lane Group Flow (vph)	254	1741	30	72	1300	45	48	18	34	275	65
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	3	1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	5	3	8	1	5	2	3	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	12.0	12.0	25.0	12.0	12.0	25.0	12.0	12.0	25.0
Total Split (s)	12.0	68.0	14.0	12.0	68.0	16.0	14.0	24.0	12.0	16.0	26.0
Total Split (%)	10.0%	56.7%	11.7%	10.0%	56.7%	13.3%	11.7%	20.0%	10.0%	13.3%	21.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes		Yes		Yes
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.72	0.83	0.03	0.42	0.72	0.04	0.28	0.17	0.09	0.66	0.38
Control Delay	48.5	10.4	0.0	18.8	26.2	0.1	44.5	56.8	0.5	51.5	28.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.5	10.4	0.0	18.8	26.2	0.1	44.5	56.8	0.5	51.5	28.8
Queue Length 50th (ft)	128	110	0	16	391	0	31	14	0	97	15
Queue Length 95th (ft)	m173	122	m0	45	473	0	65	38	0	137	59
Internal Link Dist (ft)		645			1504			219			254
Turn Bay Length (ft)	300		490	175		500				100	
Base Capacity (vph)	351	2095	1159	173	1858	1068	179	263	360	415	302
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.83	0.03	0.42	0.70	0.04	0.27	0.07	0.09	0.66	0.22

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 49 (41%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Nitro Swim & SH 71



Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	53	10	113	54	22	164
Future Vol, veh/h	53	10	113	54	22	164
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	50	-	100	100	-
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	58	11	123	59	24	178

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	349	123	0	0	182	0
Stage 1	123	-	-	-	-	-
Stage 2	226	-	-	-	-	-
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	648	928	-	-	1393	-
Stage 1	902	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	637	928	-	-	1393	-
Mov Cap-2 Maneuver	637	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	812	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	10.8	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	WBLn2	SWL	SWT
Capacity (veh/h)	-	-	637	928	1393	-
HCM Lane V/C Ratio	-	-	0.09	0.012	0.017	-
HCM Control Delay (s)	-	-	11.2	8.9	7.6	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	0.1	-

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	79	36	140	137	45	175
Future Vol, veh/h	79	36	140	137	45	175
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	50	-	100	100	-
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	86	39	152	149	49	190

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	440	152	0	0	301	0
Stage 1	152	-	-	-	-	-
Stage 2	288	-	-	-	-	-
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	574	894	-	-	1260	-
Stage 1	876	-	-	-	-	-
Stage 2	761	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	552	894	-	-	1260	-
Mov Cap-2 Maneuver	552	-	-	-	-	-
Stage 1	842	-	-	-	-	-
Stage 2	761	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	552	894	1260	-
HCM Lane V/C Ratio	-	-	0.156	0.044	0.039	-
HCM Control Delay (s)	-	-	12.7	9.2	8	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	0.1	-

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	79	36	140	137	45	175
Future Vol, veh/h	79	36	140	137	45	175
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	50	-	100	100	-
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	86	39	152	149	49	190

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	440	152	0	0	301	0
Stage 1	152	-	-	-	-	-
Stage 2	288	-	-	-	-	-
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	574	894	-	-	1260	-
Stage 1	876	-	-	-	-	-
Stage 2	761	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	552	894	-	-	1260	-
Mov Cap-2 Maneuver	552	-	-	-	-	-
Stage 1	842	-	-	-	-	-
Stage 2	761	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	552	894	1260	-
HCM Lane V/C Ratio	-	-	0.156	0.044	0.039	-
HCM Control Delay (s)	-	-	12.7	9.2	8	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱
Traffic Vol, veh/h	0	1845	1200	14	0	15
Future Vol, veh/h	0	1845	1200	14	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
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	2005	1304	15	0	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	660
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	406
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	406
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	406
HCM Lane V/C Ratio	-	-	-	0.04
HCM Control Delay (s)	-	-	-	14.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	1871	1226	50	0	66
Future Vol, veh/h	0	1871	1226	50	0	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	0	-	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	2034	1333	54	0	72

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	667
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	0	401
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	401
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.9
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	401
HCM Lane V/C Ratio	-	-	0.179
HCM Control Delay (s)	-	-	15.9
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.6

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱
Traffic Vol, veh/h	0	1827	1098	98	0	116
Future Vol, veh/h	0	1827	1098	98	0	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
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	1986	1193	107	0	126

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	650
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	412
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	412
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.5
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	412
HCM Lane V/C Ratio	-	-	-	0.306
HCM Control Delay (s)	-	-	-	17.5
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.3

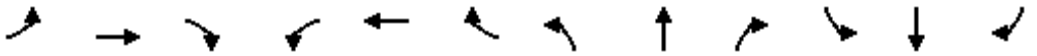
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	1863	1135	145	0	167
Future Vol, veh/h	0	1863	1135	145	0	167
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	-	-	-	235	-	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	2025	1234	158	0	182

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	617
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	0	433
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	433
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	19.2
HCM LOS			C

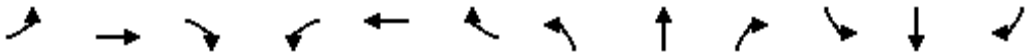
Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	433
HCM Lane V/C Ratio	-	-	0.419
HCM Control Delay (s)	-	-	19.2
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	2013	269	270	1243	109	292	81	161	302	57	69
Future Volume (veh/h)	102	2013	269	270	1243	109	292	81	161	302	57	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	107	2119	283	284	1308	115	324	90	179	336	63	77
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	1836	819	189	1920	856	473	246	209	189	78	95
Arrive On Green	0.05	0.50	0.50	0.07	0.52	0.52	0.10	0.13	0.13	0.07	0.10	0.10
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	1853	796	973
Grp Volume(v), veh/h	107	2119	283	284	1308	115	324	90	179	336	0	140
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1853	0	1770
Q Serve(g_s), s	3.3	58.0	6.9	8.0	30.7	4.2	6.0	4.9	12.4	8.0	0.0	9.1
Cycle Q Clear(g_c), s	3.3	58.0	6.9	8.0	30.7	4.2	6.0	4.9	12.4	8.0	0.0	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	247	1836	819	189	1920	856	473	246	209	189	0	173
V/C Ratio(X)	0.43	1.15	0.35	1.51	0.68	0.13	0.68	0.37	0.86	1.78	0.00	0.81
Avail Cap(c_a), veh/h	289	1836	819	189	1920	856	473	300	254	189	0	273
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.6	29.4	5.8	36.5	20.9	14.5	49.1	46.7	50.0	55.6	0.0	51.6
Incr Delay (d2), s/veh	1.2	76.2	0.3	253.3	1.0	0.1	4.1	0.9	21.0	372.4	0.0	9.4
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	1.4	43.9	4.2	15.8	13.1	1.6	4.8	2.5	6.3	25.1	0.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	105.6	6.0	289.8	21.9	14.6	53.2	47.6	71.0	428.0	0.0	61.1
LnGrp LOS	B	F	A	F	C	B	D	D	E	F	A	E
Approach Vol, veh/h		2509			1707			593			476	
Approach Delay, s/veh		90.6			65.9			57.7			320.1	
Approach LOS		F			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	21.8	15.0	65.0	18.4	18.4	12.3	67.7
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	18.0	8.0	58.0	8.0	18.0	8.0	58.0
Max Q Clear Time (g_c+I1), s	10.0	14.4	10.0	60.0	8.0	11.1	5.3	32.7
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	0.4	0.1	11.8

Intersection Summary	
HCM 6th Ctrl Delay	99.6
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	2013	269	270	1243	109	292	81	161	302	57	69
Future Volume (veh/h)	102	2013	269	270	1243	109	292	81	161	302	57	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	107	2119	283	284	1308	115	324	90	179	336	63	77
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	342	1880	980	199	1993	999	309	226	315	240	77	95
Arrive On Green	0.04	0.51	0.51	0.15	1.00	1.00	0.09	0.12	0.12	0.07	0.10	0.10
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	3594	796	973
Grp Volume(v), veh/h	107	2119	283	284	1308	115	324	90	179	336	0	140
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1797	0	1770
Q Serve(g_s), s	3.3	61.0	3.3	9.0	0.0	0.0	10.3	5.1	11.8	8.0	0.0	9.3
Cycle Q Clear(g_c), s	3.3	61.0	3.3	9.0	0.0	0.0	10.3	5.1	11.8	8.0	0.0	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	342	1880	980	199	1993	999	309	226	315	240	0	172
V/C Ratio(X)	0.31	1.13	0.29	1.43	0.66	0.12	1.05	0.40	0.57	1.40	0.00	0.81
Avail Cap(c_a), veh/h	367	1880	980	199	1993	999	309	243	330	240	0	265
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.7	29.5	3.0	34.6	0.0	0.0	54.8	49.1	44.0	56.0	0.0	53.1
Incr Delay (d2), s/veh	0.5	64.7	0.7	218.9	1.7	0.2	65.0	1.1	2.1	204.3	0.0	10.6
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	1.4	42.7	1.8	17.5	0.5	0.1	7.4	2.6	5.0	10.4	0.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.2	94.2	3.8	253.5	1.7	0.2	119.9	50.3	46.1	260.3	0.0	63.7
LnGrp LOS	B	F	A	F	A	A	F	D	D	F	A	E
Approach Vol, veh/h		2509			1707			593			476	
Approach Delay, s/veh		80.5			43.5			87.0			202.5	
Approach LOS		F			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	21.0	16.0	68.0	17.3	18.7	12.3	71.7
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	15.0	9.0	60.0	5.0	18.0	7.0	62.0
Max Q Clear Time (g_c+I1), s	10.0	13.8	11.0	63.0	12.3	11.3	5.3	2.0
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.3	0.0	15.6

Intersection Summary	
HCM 6th Ctrl Delay	80.3
HCM 6th LOS	F

Notes

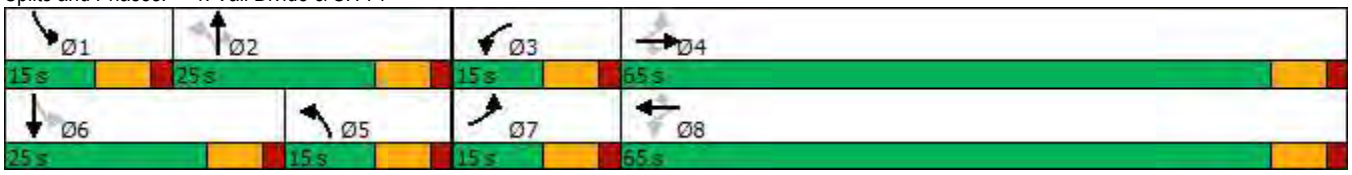
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	102	2013	269	270	1243	109	292	81	161	302	57
Future Volume (vph)	102	2013	269	270	1243	109	292	81	161	302	57
Lane Group Flow (vph)	107	2119	283	284	1308	115	324	90	179	336	140
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	25.0	25.0
Total Split (s)	15.0	65.0	65.0	15.0	65.0	65.0	15.0	25.0	25.0	15.0	25.0
Total Split (%)	12.5%	54.2%	54.2%	12.5%	54.2%	54.2%	12.5%	20.8%	20.8%	12.5%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.46	1.13	0.29	1.45	0.69	0.12	0.83	0.46	0.57	1.62	0.63
Control Delay	15.6	96.0	2.7	255.5	23.8	0.3	67.8	55.4	16.7	336.3	46.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	96.0	2.7	255.5	23.8	0.3	67.8	55.4	16.7	336.3	46.2
Queue Length 50th (ft)	27	~948	0	~233	368	0	121	63	10	~358	68
Queue Length 95th (ft)	56	#1173	45	#431	497	0	170	115	76	#494	134
Internal Link Dist (ft)		1292			637			591			413
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	241	1867	973	196	1886	953	391	305	397	207	324
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	1.13	0.29	1.45	0.69	0.12	0.83	0.30	0.45	1.62	0.43

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 113.7
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Vail Divide & SH 71

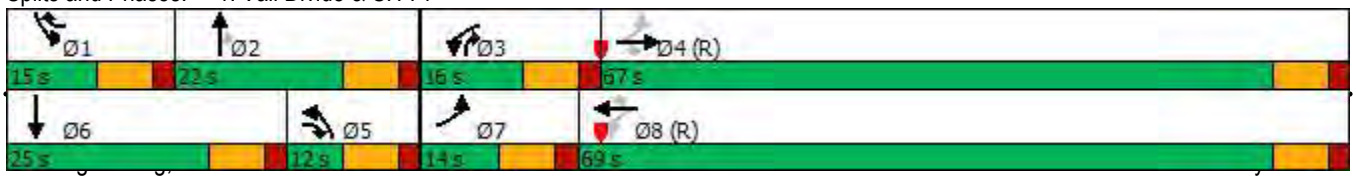


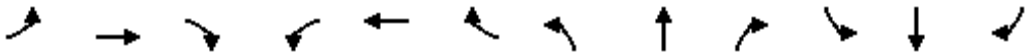
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	102	2013	269	270	1243	109	292	81	161	302	57
Future Volume (vph)	102	2013	269	270	1243	109	292	81	161	302	57
Lane Group Flow (vph)	107	2119	283	284	1308	115	324	90	179	336	140
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8	1	5	2	3	1	6
Permitted Phases	4		4	8		8			2		
Detector Phase	7	4	5	3	8	1	5	2	3	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	12.0	12.0	25.0	25.0	12.0	25.0	12.0	25.0	25.0
Total Split (s)	14.0	67.0	12.0	16.0	69.0	15.0	12.0	22.0	16.0	15.0	25.0
Total Split (%)	11.7%	55.8%	10.0%	13.3%	57.5%	12.5%	10.0%	18.3%	13.3%	12.5%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.49	1.16	0.26	1.42	0.69	0.10	0.98	0.38	0.36	1.38	0.64
Control Delay	17.5	107.6	1.3	242.2	11.0	0.6	100.7	53.2	18.5	234.8	48.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	107.6	1.3	242.2	11.0	0.6	100.7	53.2	18.5	234.8	48.5
Queue Length 50th (ft)	30	~1022	0	~239	350	4	131	65	48	~177	73
Queue Length 95th (ft)	53	#1159	21	m#326	374	m5	#293	118	112	#273	135
Internal Link Dist (ft)		1292			637			591			413
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	219	1828	1084	200	1893	1110	329	240	496	244	309
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	1.16	0.26	1.42	0.69	0.10	0.98	0.38	0.36	1.38	0.45

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Vail Divide & SH 71

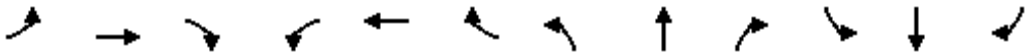




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	261	2130	35	82	1558	35	54	5	39	203	5	50
Future Volume (veh/h)	261	2130	35	82	1558	35	54	5	39	203	5	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	284	2315	38	89	1693	38	59	5	42	221	5	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	2189	976	152	2189	976	176	105	89	222	8	82
Arrive On Green	0.05	0.59	0.59	0.05	0.59	0.59	0.05	0.06	0.06	0.05	0.06	0.06
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	1781	136	1470
Grp Volume(v), veh/h	284	2315	38	89	1693	38	59	5	42	221	0	59
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1781	0	1606
Q Serve(g_s), s	5.0	64.0	1.0	2.0	37.2	1.0	3.3	0.3	2.8	5.0	0.0	3.9
Cycle Q Clear(g_c), s	5.0	64.0	1.0	2.0	37.2	1.0	3.3	0.3	2.8	5.0	0.0	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.92
Lane Grp Cap(c), veh/h	224	2189	976	152	2189	976	176	105	89	222	0	90
V/C Ratio(X)	1.27	1.06	0.04	0.58	0.77	0.04	0.34	0.05	0.47	1.00	0.00	0.66
Avail Cap(c_a), veh/h	224	2189	976	152	2189	976	176	312	264	222	0	268
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	22.0	9.2	26.4	16.6	9.2	45.1	48.3	49.5	49.9	0.0	50.0
Incr Delay (d2), s/veh	149.8	36.6	0.0	5.6	1.8	0.0	1.1	0.2	3.9	59.5	0.0	7.8
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	12.9	36.2	0.4	1.6	15.1	0.4	1.5	0.1	1.2	7.2	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	174.2	58.6	9.2	32.0	18.3	9.2	46.2	48.5	53.3	109.3	0.0	57.8
LnGrp LOS	F	F	A	C	B	A	D	D	D	F	A	E
Approach Vol, veh/h		2637			1820			106			280	
Approach Delay, s/veh		70.3			18.8			49.1			98.5	
Approach LOS		E			B			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	13.1	12.0	71.0	12.0	13.1	12.0	71.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	64.0	5.0	18.0	5.0	64.0
Max Q Clear Time (g_c+I1), s	7.0	4.8	4.0	66.0	5.3	5.9	7.0	39.2
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.2	0.0	15.5

Intersection Summary	
HCM 6th Ctrl Delay	52.1
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	261	2130	35	82	1558	35	54	5	39	203	5	50
Future Volume (veh/h)	261	2130	35	82	1558	35	54	5	39	203	5	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	284	2315	38	89	1693	38	59	5	42	221	5	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	229	2326	1106	138	2326	1106	158	101	152	400	7	79
Arrive On Green	0.04	0.63	0.63	0.04	0.63	0.63	0.04	0.05	0.05	0.04	0.05	0.05
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	3456	136	1470
Grp Volume(v), veh/h	284	2315	38	89	1693	38	59	5	42	221	0	59
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1728	0	1606
Q Serve(g_s), s	5.0	74.6	0.9	2.0	37.6	0.9	3.7	0.3	3.0	5.0	0.0	4.3
Cycle Q Clear(g_c), s	5.0	74.6	0.9	2.0	37.6	0.9	3.7	0.3	3.0	5.0	0.0	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.92
Lane Grp Cap(c), veh/h	229	2326	1106	138	2326	1106	158	101	152	400	0	87
V/C Ratio(X)	1.24	1.00	0.03	0.64	0.73	0.03	0.37	0.05	0.28	0.55	0.00	0.68
Avail Cap(c_a), veh/h	229	2326	1106	138	2326	1106	158	281	304	400	0	241
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.1	22.1	6.7	30.6	15.2	6.7	50.8	53.8	50.4	52.6	0.0	55.7
Incr Delay (d2), s/veh	139.2	17.6	0.1	9.7	2.0	0.1	1.5	0.2	1.0	1.6	0.0	8.9
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	13.3	35.0	0.3	2.0	15.4	0.3	1.7	0.1	1.2	3.3	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	165.3	39.7	6.7	40.3	17.3	6.7	52.3	54.0	51.4	54.3	0.0	64.7
LnGrp LOS	F	D	A	D	B	A	D	D	D	D	A	E
Approach Vol, veh/h		2637			1820			106			280	
Approach Delay, s/veh		52.7			18.2			52.0			56.5	
Approach LOS		D			B			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	13.5	12.0	82.5	12.0	13.5	12.0	82.5
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	64.0	5.0	18.0	5.0	64.0
Max Q Clear Time (g_c+I1), s	7.0	5.0	4.0	76.6	5.7	6.3	7.0	39.6
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.2	0.0	15.3

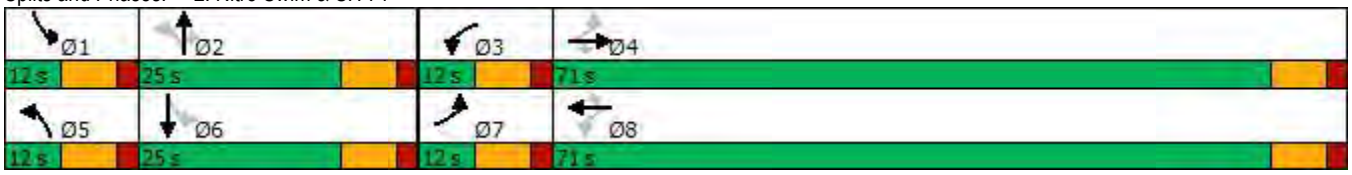
Intersection Summary	
HCM 6th Ctrl Delay	39.9
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	261	2130	35	82	1558	35	54	5	39	203	5
Future Volume (vph)	261	2130	35	82	1558	35	54	5	39	203	5
Lane Group Flow (vph)	284	2315	38	89	1693	38	59	5	42	221	59
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	12.0	71.0	71.0	12.0	71.0	71.0	12.0	25.0	25.0	12.0	25.0
Total Split (%)	10.0%	59.2%	59.2%	10.0%	59.2%	59.2%	10.0%	20.8%	20.8%	10.0%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	1.84	1.08	0.04	0.58	0.79	0.04	0.36	0.04	0.17	1.32	0.40
Control Delay	427.1	66.7	0.1	28.4	20.7	0.1	45.6	48.2	1.4	215.3	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	427.1	66.7	0.1	28.4	20.7	0.1	45.6	48.2	1.4	215.3	23.1
Queue Length 50th (ft)	~248	~933	0	17	435	0	36	3	0	~150	3
Queue Length 95th (ft)	#435	#1133	0	#73	581	0	74	16	0	#335	44
Internal Link Dist (ft)		645			1504			219			254
Turn Bay Length (ft)	175		490	175		375				100	
Base Capacity (vph)	154	2153	1030	154	2153	1030	164	308	398	168	311
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.84	1.08	0.04	0.58	0.79	0.04	0.36	0.02	0.11	1.32	0.19

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.7
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Nitro Swim & SH 71

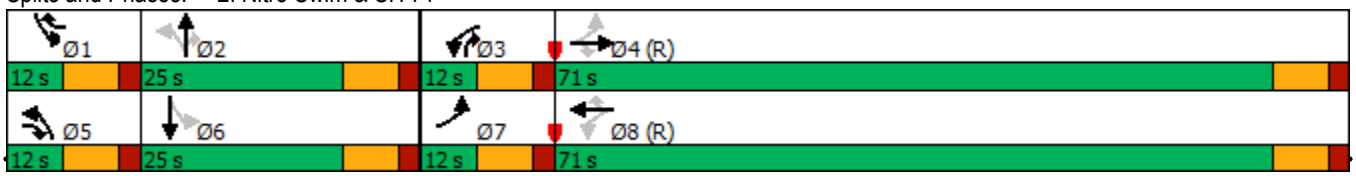


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	261	2130	35	82	1558	35	54	5	39	203	5
Future Volume (vph)	261	2130	35	82	1558	35	54	5	39	203	5
Lane Group Flow (vph)	284	2315	38	89	1693	38	59	5	42	221	59
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	3	1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	5	3	8	1	5	2	3	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	12.0	12.0	25.0	12.0	12.0	25.0	12.0	12.0	25.0
Total Split (s)	12.0	71.0	12.0	12.0	71.0	12.0	12.0	25.0	12.0	12.0	25.0
Total Split (%)	10.0%	59.2%	10.0%	10.0%	59.2%	10.0%	10.0%	20.8%	10.0%	10.0%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.92	1.05	0.03	0.48	0.87	0.04	0.39	0.05	0.11	0.74	0.42
Control Delay	52.3	38.3	0.1	23.8	30.4	0.1	52.3	53.0	0.6	63.3	25.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	38.3	0.1	23.8	30.4	0.1	52.3	53.0	0.6	63.3	25.0
Queue Length 50th (ft)	190	~990	0	17	576	0	41	4	0	81	4
Queue Length 95th (ft)	m165	m233	m0	65	691	0	79	17	0	116	46
Internal Link Dist (ft)		645			1504			219			254
Turn Bay Length (ft)	300		490	175		375				100	
Base Capacity (vph)	309	2196	1176	187	1950	1072	150	279	371	298	287
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	1.05	0.03	0.48	0.87	0.04	0.39	0.02	0.11	0.74	0.21

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 49 (41%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Nitro Swim & SH 71



Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	117	21	160	93	39	227
Future Vol, veh/h	117	21	160	93	39	227
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	50	-	100	100	-
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	127	23	174	101	42	247

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	505	174	0	0	275	0
Stage 1	174	-	-	-	-	-
Stage 2	331	-	-	-	-	-
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	527	869	-	-	1288	-
Stage 1	856	-	-	-	-	-
Stage 2	728	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	510	869	-	-	1288	-
Mov Cap-2 Maneuver	510	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	728	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	510	869	1288	-
HCM Lane V/C Ratio	-	-	0.249	0.026	0.033	-
HCM Control Delay (s)	-	-	14.4	9.3	7.9	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	1	0.1	0.1	-

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	117	21	160	93	39	227
Future Vol, veh/h	117	21	160	93	39	227
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	50	-	100	100	-
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	127	23	174	101	42	247

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	505	174	0	0	275	0
Stage 1	174	-	-	-	-	-
Stage 2	331	-	-	-	-	-
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	527	869	-	-	1288	-
Stage 1	856	-	-	-	-	-
Stage 2	728	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	510	869	-	-	1288	-
Mov Cap-2 Maneuver	510	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	728	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	510	869	1288	-
HCM Lane V/C Ratio	-	-	0.249	0.026	0.033	-
HCM Control Delay (s)	-	-	14.4	9.3	7.9	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	1	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	2476	1639	28	0	37
Future Vol, veh/h	0	2476	1639	28	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	0	-	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	2691	1782	30	0	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	891
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	0	285
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	285
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	285
HCM Lane V/C Ratio	-	-	0.141
HCM Control Delay (s)	-	-	19.7
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.5

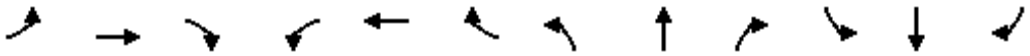
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	26	2450	1508	154	0	159
Future Vol, veh/h	26	2450	1508	154	0	159
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	-	-	-	235	-	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	28	2663	1639	167	0	173

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1639	0	-	0	-	820
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	391	-	-	0	0	318
Stage 1	-	-	-	0	0	-
Stage 2	-	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	391	-	-	-	-	318
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	29
HCM LOS			D

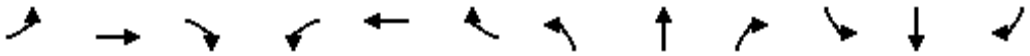
Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	391	-	-	318
HCM Lane V/C Ratio	0.072	-	-	0.543
HCM Control Delay (s)	14.9	-	-	29
HCM Lane LOS	B	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	3.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	1407	156	422	2078	281	359	42	83	157	46	106
Future Volume (veh/h)	82	1407	156	422	2078	281	359	42	83	157	46	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	86	1481	164	444	2187	296	399	47	92	174	51	118
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	1813	809	244	1912	853	385	227	193	196	61	141
Arrive On Green	0.04	0.49	0.49	0.07	0.52	0.52	0.07	0.12	0.12	0.07	0.12	0.12
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	1853	521	1207
Grp Volume(v), veh/h	86	1481	164	444	2187	296	399	47	92	174	0	169
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1853	0	1728
Q Serve(g_s), s	2.5	38.2	3.9	8.0	58.0	11.8	8.0	2.5	5.9	8.0	0.0	10.7
Cycle Q Clear(g_c), s	2.5	38.2	3.9	8.0	58.0	11.8	8.0	2.5	5.9	8.0	0.0	10.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	147	1813	809	244	1912	853	385	227	193	196	0	202
V/C Ratio(X)	0.59	0.82	0.20	1.82	1.14	0.35	1.04	0.21	0.48	0.89	0.00	0.84
Avail Cap(c_a), veh/h	196	1912	853	244	1912	853	385	312	265	196	0	277
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	24.3	6.1	26.1	27.1	15.9	50.7	44.8	46.3	52.9	0.0	48.4
Incr Delay (d2), s/veh	3.7	2.8	0.1	385.0	71.5	0.2	55.7	0.4	1.8	34.8	0.0	14.7
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	1.2	16.7	2.3	29.1	43.1	4.4	8.3	1.2	0.1	6.8	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	27.0	6.2	411.1	98.5	16.2	106.4	45.2	48.1	87.7	0.0	63.1
LnGrp LOS	C	C	A	F	F	B	F	D	D	F	A	E
Approach Vol, veh/h		1731			2927			538			343	
Approach Delay, s/veh		25.2			137.6			91.1			75.6	
Approach LOS		C			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	20.1	15.0	62.0	15.0	20.1	12.0	65.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	18.0	8.0	58.0	8.0	18.0	8.0	58.0
Max Q Clear Time (g_c+I1), s	10.0	7.9	10.0	40.2	10.0	12.7	4.5	60.0
Green Ext Time (p_c), s	0.0	0.3	0.0	11.2	0.0	0.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	94.1
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	1407	156	422	2078	281	359	42	83	157	46	106
Future Volume (veh/h)	82	1407	156	422	2078	281	359	42	83	157	46	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	86	1481	164	444	2187	296	399	47	92	174	51	118
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	1488	840	407	2104	1041	383	302	575	223	58	133
Arrive On Green	0.03	0.40	0.40	0.39	1.00	1.00	0.11	0.16	0.16	0.06	0.11	0.11
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	3594	521	1207
Grp Volume(v), veh/h	86	1481	164	444	2187	296	399	47	92	174	0	169
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1797	0	1728
Q Serve(g_s), s	4.0	59.9	4.0	29.0	85.4	0.0	16.0	3.1	5.8	7.2	0.0	14.5
Cycle Q Clear(g_c), s	4.0	59.9	4.0	29.0	85.4	0.0	16.0	3.1	5.8	7.2	0.0	14.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	97	1488	840	407	2104	1041	383	302	575	223	0	191
V/C Ratio(X)	0.88	0.99	0.20	1.09	1.04	0.28	1.04	0.16	0.16	0.78	0.00	0.88
Avail Cap(c_a), veh/h	97	1488	840	407	2104	1041	383	302	575	288	0	207
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.1	44.6	6.9	37.2	0.0	0.0	67.0	54.8	33.7	69.3	0.0	65.8
Incr Delay (d2), s/veh	55.4	22.2	0.5	71.1	30.7	0.7	57.0	0.2	0.1	10.0	0.0	31.8
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	3.4	31.8	2.0	20.8	9.0	0.2	10.4	1.6	2.4	3.6	0.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	94.6	66.8	7.4	108.3	30.7	0.7	124.0	55.1	33.8	79.3	0.0	97.5
LnGrp LOS	F	E	A	F	F	A	F	E	C	E	A	F
Approach Vol, veh/h		1731			2927			538			343	
Approach Delay, s/veh		62.6			39.4			102.5			88.3	
Approach LOS		E			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	30.3	36.0	67.4	23.0	23.6	11.0	92.4
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	12.0	22.0	29.0	59.0	16.0	18.0	4.0	84.0
Max Q Clear Time (g_c+I1), s	9.2	7.8	31.0	61.9	18.0	16.5	6.0	87.4
Green Ext Time (p_c), s	0.1	0.4	0.0	0.0	0.0	0.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	55.8
HCM 6th LOS	E

Notes

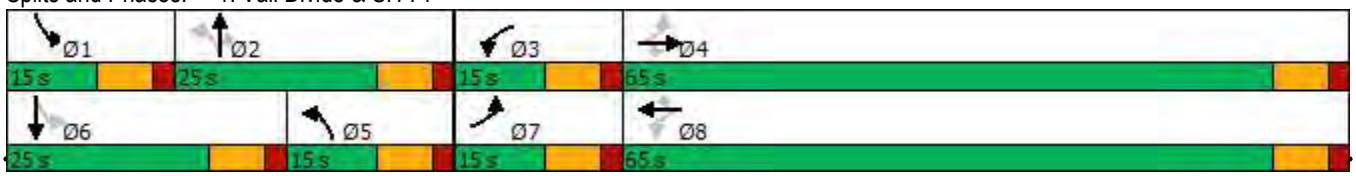
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	82	1407	156	422	2078	281	359	42	83	157	46
Future Volume (vph)	82	1407	156	422	2078	281	359	42	83	157	46
Lane Group Flow (vph)	86	1481	164	444	2187	296	399	47	92	174	169
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	15.0	65.0	65.0	15.0	65.0	65.0	15.0	25.0	25.0	15.0	25.0
Total Split (%)	12.5%	54.2%	54.2%	12.5%	54.2%	54.2%	12.5%	20.8%	20.8%	12.5%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.46	0.79	0.17	2.24	1.16	0.30	1.03	0.25	0.30	0.85	0.68
Control Delay	20.9	27.4	0.9	593.2	104.8	2.7	103.9	49.5	2.4	82.8	39.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	27.4	0.9	593.2	104.8	2.7	103.9	49.5	2.4	82.8	39.2
Queue Length 50th (ft)	21	447	0	~475	~988	0	~168	32	0	127	61
Queue Length 95th (ft)	63	608	10	#725	#1236	46	208	69	0	203	132
Internal Link Dist (ft)		1292			637			591			413
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	198	1885	953	198	1889	988	386	308	399	205	353
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.79	0.17	2.24	1.16	0.30	1.03	0.15	0.23	0.85	0.48

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 112.7
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Vail Divide & SH 71

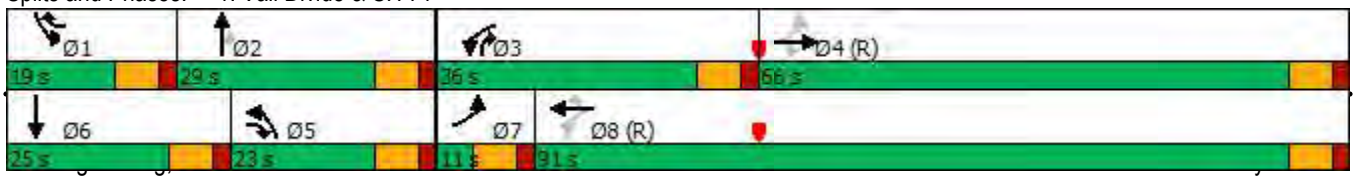


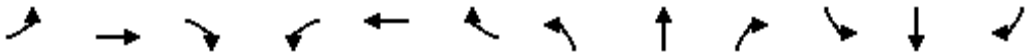
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	82	1407	156	422	2078	281	359	42	83	157	46
Future Volume (vph)	82	1407	156	422	2078	281	359	42	83	157	46
Lane Group Flow (vph)	86	1481	164	444	2187	296	399	47	92	174	169
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8	1	5	2	3	1	6
Permitted Phases	4		4	8		8			2		
Detector Phase	7	4	5	3	8	1	5	2	3	1	6
Switch Phase											
Minimum Initial (s)	3.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	5.0	3.0	5.0
Minimum Split (s)	10.0	25.0	12.0	12.0	25.0	10.0	12.0	25.0	12.0	10.0	25.0
Total Split (s)	11.0	66.0	23.0	36.0	91.0	19.0	23.0	29.0	36.0	19.0	25.0
Total Split (%)	7.3%	44.0%	15.3%	24.0%	60.7%	12.7%	15.3%	19.3%	24.0%	12.7%	16.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.86	1.03	0.18	1.10	1.07	0.24	0.87	0.16	0.13	0.64	0.78
Control Delay	86.0	76.0	1.8	92.1	58.6	1.4	83.0	57.6	8.1	78.2	69.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.0	76.0	1.8	92.1	58.6	1.4	83.0	57.6	8.1	78.2	69.1
Queue Length 50th (ft)	31	~813	0	~432	~1268	22	202	41	7	86	115
Queue Length 95th (ft)	#99	#953	21	m281	m907	m10	#329	82	45	127	198
Internal Link Dist (ft)		1292			637			591			413
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	100	1438	933	405	2047	1216	458	292	689	292	257
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	1.03	0.18	1.10	1.07	0.24	0.87	0.16	0.13	0.60	0.66

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Vail Divide & SH 71

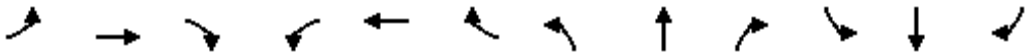




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	223	1556	24	94	2650	178	151	10	43	232	11	193
Future Volume (veh/h)	223	1556	24	94	2650	178	151	10	43	232	11	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	242	1691	26	102	2880	193	164	11	47	252	12	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	1971	879	178	1971	879	149	281	238	329	13	227
Arrive On Green	0.04	0.53	0.53	0.04	0.53	0.53	0.04	0.15	0.15	0.04	0.15	0.15
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	1781	86	1512
Grp Volume(v), veh/h	242	1691	26	102	2880	193	164	11	47	252	0	222
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1781	0	1598
Q Serve(g_s), s	5.0	47.2	0.9	3.0	64.0	7.4	5.0	0.6	3.1	5.0	0.0	16.5
Cycle Q Clear(g_c), s	5.0	47.2	0.9	3.0	64.0	7.4	5.0	0.6	3.1	5.0	0.0	16.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	137	1971	879	178	1971	879	149	281	238	329	0	240
V/C Ratio(X)	1.76	0.86	0.03	0.57	1.46	0.22	1.10	0.04	0.20	0.77	0.00	0.93
Avail Cap(c_a), veh/h	137	1971	879	178	1971	879	149	281	238	329	0	240
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.1	24.1	13.3	25.1	28.0	14.8	49.7	43.6	44.7	47.3	0.0	50.3
Incr Delay (d2), s/veh	371.8	4.0	0.0	4.3	210.4	0.1	102.8	0.1	0.4	10.3	0.0	38.5
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	16.2	20.8	0.3	1.7	84.3	2.8	6.3	0.3	1.3	5.8	0.0	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	405.9	28.1	13.3	29.5	238.4	14.9	152.6	43.7	45.1	57.6	0.0	88.9
LnGrp LOS	F	C	B	C	F	B	F	D	D	E	A	F
Approach Vol, veh/h		1959			3175			222			474	
Approach Delay, s/veh		74.6			218.1			124.4			72.2	
Approach LOS		E			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	25.0	12.0	71.0	12.0	25.0	12.0	71.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	64.0	5.0	18.0	5.0	64.0
Max Q Clear Time (g_c+I1), s	7.0	5.1	5.0	49.2	7.0	18.5	7.0	66.0
Green Ext Time (p_c), s	0.0	0.1	0.0	10.6	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	154.4
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	223	1556	24	94	2650	178	151	10	43	232	11	193
Future Volume (veh/h)	223	1556	24	94	2650	178	151	10	43	232	11	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	242	1691	26	102	2880	193	164	11	47	252	12	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	2283	1018	201	2193	978	119	212	180	539	10	181
Arrive On Green	0.06	0.62	0.62	0.04	0.59	0.59	0.04	0.11	0.11	0.05	0.12	0.12
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	3456	86	1512
Grp Volume(v), veh/h	242	1691	26	102	2880	193	164	11	47	252	0	222
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1728	0	1598
Q Serve(g_s), s	9.0	48.4	0.9	3.2	89.0	8.1	6.0	0.8	4.1	7.0	0.0	18.0
Cycle Q Clear(g_c), s	9.0	48.4	0.9	3.2	89.0	8.1	6.0	0.8	4.1	7.0	0.0	18.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	159	2283	1018	201	2193	978	119	212	180	539	0	192
V/C Ratio(X)	1.52	0.74	0.03	0.51	1.31	0.20	1.38	0.05	0.26	0.47	0.00	1.16
Avail Cap(c_a), veh/h	159	2283	1018	259	2193	978	119	212	180	539	0	192
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.5	20.2	11.1	21.1	30.5	14.0	63.1	59.3	60.8	57.4	0.0	66.0
Incr Delay (d2), s/veh	263.6	2.2	0.0	2.0	144.4	0.5	212.8	0.1	0.8	0.6	0.0	113.8
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	15.1	21.0	0.4	1.6	81.9	3.2	8.7	0.4	1.7	4.5	0.0	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	317.1	22.4	11.2	23.1	174.9	14.5	275.8	59.4	61.5	58.1	0.0	179.8
LnGrp LOS	F	C	B	C	F	B	F	E	E	E	A	F
Approach Vol, veh/h		1959			3175			222			474	
Approach Delay, s/veh		58.7			160.2			219.7			115.1	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	24.0	12.3	99.7	13.0	25.0	16.0	96.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	7.0	17.0	10.0	88.0	6.0	18.0	9.0	89.0
Max Q Clear Time (g_c+I1), s	9.0	6.1	5.2	50.4	8.0	20.0	11.0	91.0
Green Ext Time (p_c), s	0.0	0.1	0.1	19.7	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	124.7
HCM 6th LOS	F

Notes

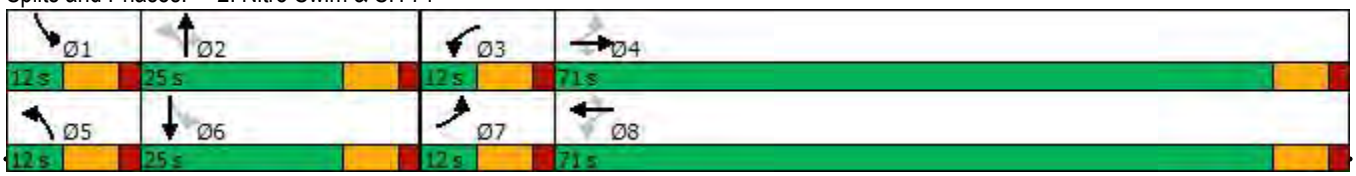
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	223	1556	24	94	2650	178	151	10	43	232	11
Future Volume (vph)	223	1556	24	94	2650	178	151	10	43	232	11
Lane Group Flow (vph)	242	1691	26	102	2880	193	164	11	47	252	222
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	25.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	12.0	71.0	71.0	12.0	71.0	71.0	12.0	25.0	25.0	12.0	25.0
Total Split (%)	10.0%	59.2%	59.2%	10.0%	59.2%	59.2%	10.0%	20.8%	20.8%	10.0%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	1.69	0.84	0.03	0.71	1.44	0.20	1.11	0.05	0.14	1.00	0.82
Control Delay	361.8	27.7	0.0	44.3	224.3	3.4	146.9	44.4	0.8	104.1	54.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	361.8	27.7	0.0	44.3	224.3	3.4	146.9	44.4	0.8	104.1	54.9
Queue Length 50th (ft)	~222	557	0	28	~1584	7	~113	7	0	171	105
Queue Length 95th (ft)	#395	689	0	#116	#1741	43	#253	25	0	#331	#210
Internal Link Dist (ft)		645			1504			219			254
Turn Bay Length (ft)	175		490	175		500				100	
Base Capacity (vph)	143	2006	972	143	2006	975	148	287	382	251	315
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.69	0.84	0.03	0.71	1.44	0.20	1.11	0.04	0.12	1.00	0.70

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 116.8
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Nitro Swim & SH 71

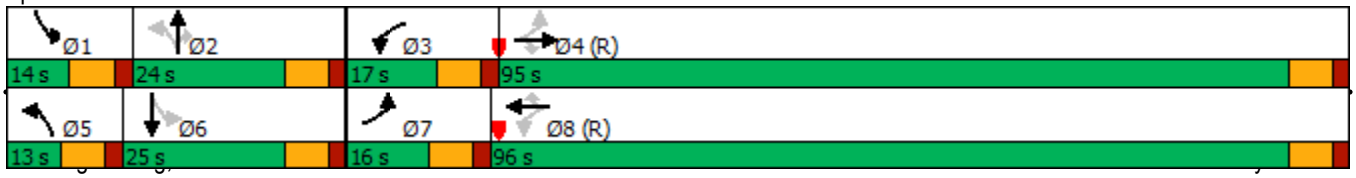


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	223	1556	24	94	2650	178	151	10	43	232	11
Future Volume (vph)	223	1556	24	94	2650	178	151	10	43	232	11
Lane Group Flow (vph)	242	1691	26	102	2880	193	164	11	47	252	222
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	3.0	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	4.0	5.0
Minimum Split (s)	10.0	25.0	25.0	12.0	25.0	25.0	10.0	23.0	23.0	11.0	25.0
Total Split (s)	16.0	95.0	95.0	17.0	96.0	96.0	13.0	24.0	24.0	14.0	25.0
Total Split (%)	10.7%	63.3%	63.3%	11.3%	64.0%	64.0%	8.7%	16.0%	16.0%	9.3%	16.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	C-Min	C-Min	Min	C-Min	C-Min	Min	Min	Min	Min	Min
v/c Ratio	1.28	0.75	0.02	0.57	1.33	0.19	1.37	0.06	0.17	0.60	0.87
Control Delay	195.0	4.2	0.0	26.4	179.2	3.5	252.0	60.4	1.4	60.6	67.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	195.0	4.2	0.0	26.4	179.2	3.5	252.0	60.4	1.4	60.6	67.4
Queue Length 50th (ft)	~287	63	0	29	~1916	14	~143	10	0	109	120
Queue Length 95th (ft)	m#323	m74	m0	80	#2024	48	#296	31	0	153	#252
Internal Link Dist (ft)		645			1504			219			254
Turn Bay Length (ft)	300		490	175		500					
Base Capacity (vph)	189	2243	1053	199	2169	1034	120	211	295	423	278
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.28	0.75	0.02	0.51	1.33	0.19	1.37	0.05	0.16	0.60	0.80

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 45 (30%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Nitro Swim & SH 71



Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	94	37	232	37	26	159
Future Vol, veh/h	94	37	232	37	26	159
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	50	-	100	100	-
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	102	40	252	40	28	173

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	481	252	0	0	292	0
Stage 1	252	-	-	-	-	-
Stage 2	229	-	-	-	-	-
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	544	787	-	-	1270	-
Stage 1	790	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	532	787	-	-	1270	-
Mov Cap-2 Maneuver	532	-	-	-	-	-
Stage 1	773	-	-	-	-	-
Stage 2	809	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	532	787	1270	-
HCM Lane V/C Ratio	-	-	0.192	0.051	0.022	-
HCM Control Delay (s)	-	-	13.4	9.8	7.9	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.2	0.1	-

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	94	37	232	37	26	159
Future Vol, veh/h	94	37	232	37	26	159
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	50	-	100	100	-
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	102	40	252	40	28	173

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	481	252	0	0	292	0
Stage 1	252	-	-	-	-	-
Stage 2	229	-	-	-	-	-
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	544	787	-	-	1270	-
Stage 1	790	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	532	787	-	-	1270	-
Mov Cap-2 Maneuver	532	-	-	-	-	-
Stage 1	773	-	-	-	-	-
Stage 2	809	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	532	787	1270	-
HCM Lane V/C Ratio	-	-	0.192	0.051	0.022	-
HCM Control Delay (s)	-	-	13.4	9.8	7.9	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.2	0.1	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	1647	2882	136	0	100
Future Vol, veh/h	0	1647	2882	136	0	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	0	-	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	1790	3133	148	0	109

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1567
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	0	~ 100
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	~ 100
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	194.7
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	100
HCM Lane V/C Ratio	-	-	1.087
HCM Control Delay (s)	-	-	194.7
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	20.2

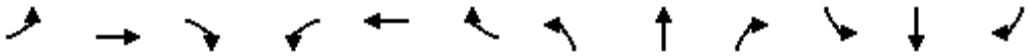
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	19	1784	2833	161	0	185
Future Vol, veh/h	19	1784	2833	161	0	185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	-	-	-	235	-	0
Veh in Median 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	21	1939	3079	175	0	201

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	3079	0	-	0	-	1540
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	105	-	-	0	0	~ 104
Stage 1	-	-	-	0	0	-
Stage 2	-	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	105	-	-	-	-	~ 104
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	$ 522.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	105	-	-	104
HCM Lane V/C Ratio	0.197	-	-	1.934
HCM Control Delay (s)	47.5	-	-	$ 522.1
HCM Lane LOS	E	-	-	F
HCM 95th %tile Q(veh)	0.7	-	-	16.7

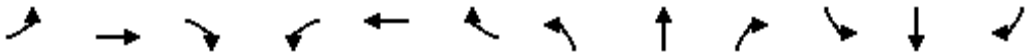
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	1649	59	116	1072	87	106	49	46	312	35	55
Future Volume (veh/h)	124	1649	59	116	1072	87	106	49	46	312	35	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	131	1736	62	122	1128	92	118	54	51	347	39	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	326	1991	888	200	1983	884	337	103	87	219	54	84
Arrive On Green	0.05	0.54	0.54	0.05	0.54	0.54	0.05	0.05	0.05	0.08	0.08	0.08
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	1853	684	1069
Grp Volume(v), veh/h	131	1736	62	122	1128	92	118	54	51	347	0	100
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1853	0	1753
Q Serve(g_s), s	3.1	41.0	1.1	2.9	20.4	2.8	0.0	2.7	3.0	8.0	0.0	5.6
Cycle Q Clear(g_c), s	3.1	41.0	1.1	2.9	20.4	2.8	0.0	2.7	3.0	8.0	0.0	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	326	1991	888	200	1983	884	337	103	87	219	0	138
V/C Ratio(X)	0.40	0.87	0.07	0.61	0.57	0.10	0.35	0.52	0.58	1.58	0.00	0.73
Avail Cap(c_a), veh/h	378	2135	952	255	2135	952	430	349	296	219	0	314
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	20.1	3.7	21.7	15.5	11.4	44.9	46.3	46.5	47.4	0.0	45.2
Incr Delay (d2), s/veh	0.8	4.1	0.0	3.0	0.3	0.1	0.6	4.1	6.1	282.5	0.0	7.0
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	1.3	17.5	0.6	1.6	8.2	1.0	1.4	1.4	1.4	22.7	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.8	24.2	3.8	24.8	15.8	11.5	45.5	50.4	52.5	330.0	0.0	52.2
LnGrp LOS	B	C	A	C	B	B	D	D	D	F	A	D
Approach Vol, veh/h		1929			1342			223			447	
Approach Delay, s/veh		22.8			16.3			48.3			267.8	
Approach LOS		C			B			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	12.3	12.0	61.1	12.4	14.9	12.2	60.9
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	18.0	8.0	58.0	8.0	18.0	8.0	58.0
Max Q Clear Time (g_c+I1), s	10.0	5.0	4.9	43.0	2.0	7.6	5.1	22.4
Green Ext Time (p_c), s	0.0	0.3	0.1	11.1	0.1	0.3	0.1	11.0

Intersection Summary	
HCM 6th Ctrl Delay	49.8
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	1649	59	116	1072	87	106	49	46	312	35	55
Future Volume (veh/h)	124	1649	59	116	1072	87	106	49	46	312	35	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	131	1736	62	122	1128	92	118	54	51	347	39	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	301	2091	1066	191	2083	1107	291	94	153	389	52	81
Arrive On Green	0.05	0.57	0.57	0.03	0.38	0.38	0.08	0.05	0.05	0.11	0.08	0.08
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	3594	1945	1648	3594	684	1069
Grp Volume(v), veh/h	131	1736	62	122	1128	92	118	54	51	347	0	100
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1797	1945	1648	1797	0	1753
Q Serve(g_s), s	3.6	46.2	0.5	3.3	28.7	3.3	3.7	3.3	3.5	11.4	0.0	6.7
Cycle Q Clear(g_c), s	3.6	46.2	0.5	3.3	28.7	3.3	3.7	3.3	3.5	11.4	0.0	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	301	2091	1066	191	2083	1107	291	94	153	389	0	133
V/C Ratio(X)	0.44	0.83	0.06	0.64	0.54	0.08	0.41	0.57	0.33	0.89	0.00	0.75
Avail Cap(c_a), veh/h	307	2091	1066	202	2083	1107	389	373	389	389	0	336
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	21.3	1.8	25.0	25.2	10.0	52.4	55.9	51.0	52.8	0.0	54.4
Incr Delay (d2), s/veh	1.0	4.0	0.1	6.0	1.0	0.1	0.9	5.4	1.3	21.8	0.0	8.3
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	20.2	0.3	2.3	13.6	1.2	1.7	1.7	1.5	6.3	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.5	25.3	1.9	31.0	26.2	10.1	53.3	61.3	52.2	74.6	0.0	62.7
LnGrp LOS	B	C	A	C	C	B	D	E	D	E	A	E
Approach Vol, veh/h		1929			1342			223			447	
Approach Delay, s/veh		23.9			25.6			55.0			71.9	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	12.8	12.3	74.9	16.7	16.1	12.6	74.6
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	13.0	23.0	6.0	50.0	13.0	23.0	6.0	50.0
Max Q Clear Time (g_c+I1), s	13.4	5.5	5.3	48.2	5.7	8.7	5.6	30.7
Green Ext Time (p_c), s	0.0	0.3	0.0	1.6	0.2	0.4	0.0	8.6

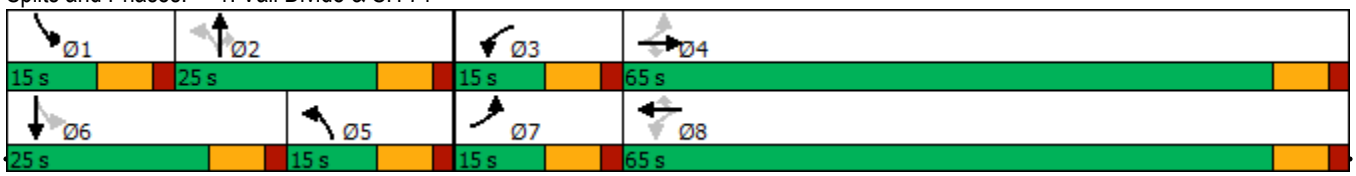
Intersection Summary	
HCM 6th Ctrl Delay	31.7
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	124	1649	59	116	1072	87	106	49	46	312	35
Future Volume (vph)	124	1649	59	116	1072	87	106	49	46	312	35
Lane Group Flow (vph)	131	1736	62	122	1128	92	118	54	51	347	100
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	15.0	65.0	65.0	15.0	65.0	65.0	15.0	25.0	25.0	15.0	25.0
Total Split (%)	12.5%	54.2%	54.2%	12.5%	54.2%	54.2%	12.5%	20.8%	20.8%	12.5%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.44	0.90	0.06	0.63	0.59	0.10	0.36	0.35	0.18	2.07	0.53
Control Delay	12.5	32.2	0.1	32.0	19.9	0.2	51.0	54.4	1.4	528.4	34.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	32.2	0.1	32.0	19.9	0.2	51.0	54.4	1.4	528.4	34.7
Queue Length 50th (ft)	31	562	0	30	277	0	41	37	0	~404	31
Queue Length 95th (ft)	60	#797	0	#108	371	0	71	78	0	#548	84
Internal Link Dist (ft)		1292			637			591			413
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	305	1921	967	202	1922	967	324	313	403	168	340
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.90	0.06	0.60	0.59	0.10	0.36	0.17	0.13	2.07	0.29

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.5
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Vail Divide & SH 71

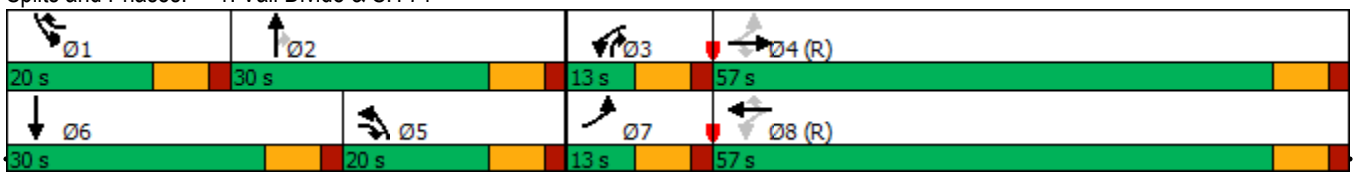


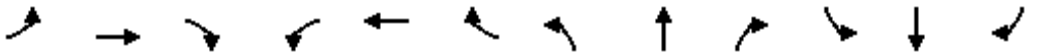
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	124	1649	59	116	1072	87	106	49	46	312	35
Future Volume (vph)	124	1649	59	116	1072	87	106	49	46	312	35
Lane Group Flow (vph)	131	1736	62	122	1128	92	118	54	51	347	100
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	5	3	8	1	5	2	3	1	6
Permitted Phases	4		4	8		8			2		
Detector Phase	7	4	5	3	8	1	5	2	3	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	12.0	12.0	25.0	12.0	12.0	25.0	12.0	12.0	25.0
Total Split (s)	13.0	57.0	20.0	13.0	57.0	20.0	20.0	30.0	13.0	20.0	30.0
Total Split (%)	10.8%	47.5%	16.7%	10.8%	47.5%	16.7%	16.7%	25.0%	10.8%	16.7%	25.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.44	0.95	0.06	0.55	0.61	0.08	0.31	0.39	0.12	0.88	0.54
Control Delay	13.9	41.9	0.1	46.6	10.5	0.4	51.8	60.3	0.7	75.8	35.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.9	41.9	0.1	46.6	10.5	0.4	51.8	60.3	0.7	75.8	35.9
Queue Length 50th (ft)	36	648	0	46	232	0	43	41	0	138	32
Queue Length 95th (ft)	66	#924	0	m88	422	m5	75	81	2	#220	85
Internal Link Dist (ft)		1292			637			591			413
Turn Bay Length (ft)	515		530	470		530			100		
Base Capacity (vph)	300	1826	1062	221	1852	1154	394	368	433	396	392
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.95	0.06	0.55	0.61	0.08	0.30	0.15	0.12	0.88	0.26

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection
Natural Cycle: 110
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Vail Divide & SH 71

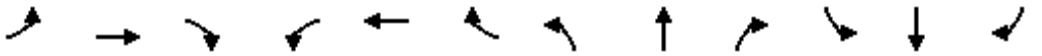




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	1692	29	65	1195	28	44	4	32	162	4	40
Future Volume (veh/h)	209	1692	29	65	1195	28	44	4	32	162	4	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	227	1839	32	71	1299	30	48	4	35	176	4	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	311	2133	951	202	2133	951	187	93	78	223	7	73
Arrive On Green	0.05	0.58	0.58	0.05	0.58	0.58	0.05	0.05	0.05	0.05	0.05	0.05
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	1781	137	1469
Grp Volume(v), veh/h	227	1839	32	71	1299	30	48	4	35	176	0	47
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1781	0	1606
Q Serve(g_s), s	5.0	42.6	0.9	1.5	23.3	0.8	2.5	0.2	2.2	5.0	0.0	2.9
Cycle Q Clear(g_c), s	5.0	42.6	0.9	1.5	23.3	0.8	2.5	0.2	2.2	5.0	0.0	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.91
Lane Grp Cap(c), veh/h	311	2133	951	202	2133	951	187	93	78	223	0	80
V/C Ratio(X)	0.73	0.86	0.03	0.35	0.61	0.03	0.26	0.04	0.45	0.79	0.00	0.59
Avail Cap(c_a), veh/h	311	2324	1036	202	2324	1036	187	331	280	223	0	284
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.9	18.1	9.3	19.8	14.0	9.3	42.5	46.1	47.0	46.3	0.0	47.4
Incr Delay (d2), s/veh	8.4	3.4	0.0	1.0	0.4	0.0	0.7	0.2	3.9	17.0	0.0	6.8
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	17.6	0.3	0.9	9.2	0.3	1.1	0.1	0.9	5.5	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	21.5	9.3	20.8	14.4	9.3	43.3	46.3	50.9	63.3	0.0	54.2
LnGrp LOS	C	C	A	C	B	A	D	D	D	E	A	D
Approach Vol, veh/h		2098			1400			87			223	
Approach Delay, s/veh		21.5			14.6			46.5			61.4	
Approach LOS		C			B			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	12.0	12.0	65.7	12.0	12.0	12.0	65.7
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	64.0	5.0	18.0	5.0	64.0
Max Q Clear Time (g_c+I1), s	7.0	4.2	3.5	44.6	4.5	4.9	7.0	25.3
Green Ext Time (p_c), s	0.0	0.1	0.0	14.1	0.0	0.1	0.0	13.4

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	1692	29	65	1195	28	44	4	32	162	4	40
Future Volume (veh/h)	209	1692	29	65	1195	28	44	4	32	162	4	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1945	1945	1945	1945	1945	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	227	1839	32	71	1299	30	48	4	35	176	4	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	318	2310	1099	202	2310	1126	175	78	132	427	8	86
Arrive On Green	0.04	0.63	0.63	0.04	0.63	0.63	0.04	0.04	0.04	0.06	0.06	0.06
Sat Flow, veh/h	1853	3696	1648	1853	3696	1648	1781	1870	1585	3456	137	1469
Grp Volume(v), veh/h	227	1839	32	71	1299	30	48	4	35	176	0	47
Grp Sat Flow(s),veh/h/ln	1853	1848	1648	1853	1848	1648	1781	1870	1585	1728	0	1606
Q Serve(g_s), s	5.0	44.6	0.8	1.6	24.4	0.7	3.0	0.2	2.5	5.8	0.0	3.4
Cycle Q Clear(g_c), s	5.0	44.6	0.8	1.6	24.4	0.7	3.0	0.2	2.5	5.8	0.0	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.91
Lane Grp Cap(c), veh/h	318	2310	1099	202	2310	1126	175	78	132	427	0	94
V/C Ratio(X)	0.71	0.80	0.03	0.35	0.56	0.03	0.27	0.05	0.26	0.41	0.00	0.50
Avail Cap(c_a), veh/h	318	2310	1099	202	2310	1126	175	281	304	427	0	268
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.7	16.8	6.8	18.4	13.0	6.1	51.8	55.2	51.6	51.2	0.0	54.8
Incr Delay (d2), s/veh	7.4	2.9	0.0	1.0	1.0	0.0	0.8	0.3	1.1	0.6	0.0	4.1
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	3.1	18.5	0.3	1.0	9.9	0.2	1.4	0.1	1.0	2.5	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.1	19.7	6.8	19.5	14.0	6.2	52.7	55.5	52.6	51.8	0.0	58.9
LnGrp LOS	C	B	A	B	B	A	D	E	D	D	A	E
Approach Vol, veh/h		2098			1400			87			223	
Approach Delay, s/veh		19.8			14.1			52.8			53.3	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	12.0	12.0	82.0	12.0	14.0	12.0	82.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	7.0	18.0	5.0	62.0	5.0	20.0	5.0	62.0
Max Q Clear Time (g_c+I1), s	7.8	4.5	3.6	46.6	5.0	5.4	7.0	26.4
Green Ext Time (p_c), s	0.0	0.1	0.0	11.8	0.0	0.1	0.0	13.1

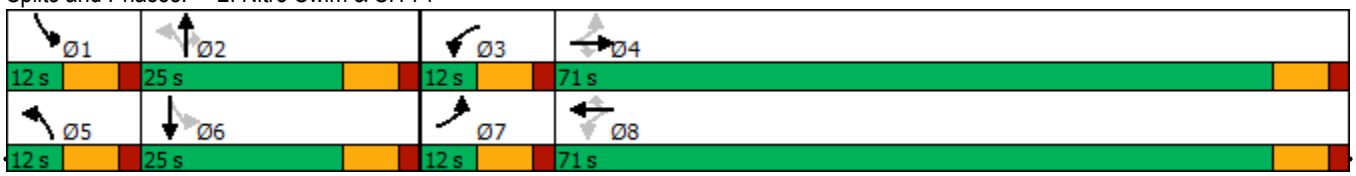
Intersection Summary	
HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	209	1692	29	65	1195	28	44	4	32	162	4
Future Volume (vph)	209	1692	29	65	1195	28	44	4	32	162	4
Lane Group Flow (vph)	227	1839	32	71	1299	30	48	4	35	176	47
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0	25.0	12.0	25.0
Total Split (s)	12.0	71.0	71.0	12.0	71.0	71.0	12.0	25.0	25.0	12.0	25.0
Total Split (%)	10.0%	59.2%	59.2%	10.0%	59.2%	59.2%	10.0%	20.8%	20.8%	10.0%	20.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.93	0.86	0.03	0.45	0.61	0.03	0.29	0.04	0.14	1.05	0.34
Control Delay	54.1	24.2	0.1	18.6	16.0	0.0	43.4	48.2	1.2	126.1	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	24.2	0.1	18.6	16.0	0.0	43.4	48.2	1.2	126.1	23.5
Queue Length 50th (ft)	46	510	0	13	277	0	29	3	0	~129	3
Queue Length 95th (ft)	#152	674	0	42	369	0	63	14	0	#251	39
Internal Link Dist (ft)		645			1504			219			254
Turn Bay Length (ft)	175		490	175		500				100	
Base Capacity (vph)	245	2192	1046	157	2192	1046	165	314	403	168	306
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.84	0.03	0.45	0.59	0.03	0.29	0.01	0.09	1.05	0.15

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 106.9
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Nitro Swim & SH 71

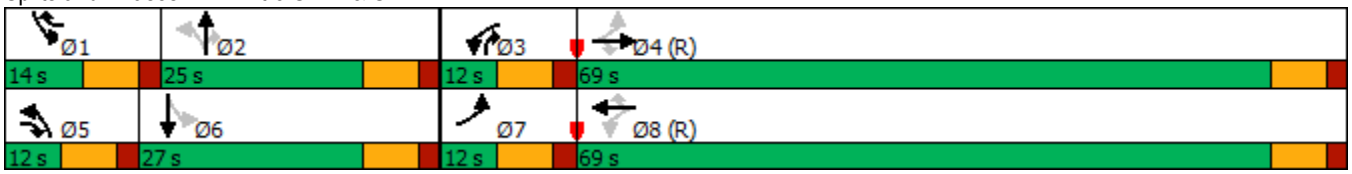


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	209	1692	29	65	1195	28	44	4	32	162	4
Future Volume (vph)	209	1692	29	65	1195	28	44	4	32	162	4
Lane Group Flow (vph)	227	1839	32	71	1299	30	48	4	35	176	47
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	3	1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	5	3	8	1	5	2	3	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.0	25.0	12.0	12.0	25.0	12.0	12.0	25.0	12.0	12.0	25.0
Total Split (s)	12.0	69.0	12.0	12.0	69.0	14.0	12.0	25.0	12.0	14.0	27.0
Total Split (%)	10.0%	57.5%	10.0%	10.0%	57.5%	11.7%	10.0%	20.8%	10.0%	11.7%	22.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes		Yes		Yes
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
v/c Ratio	0.62	0.84	0.03	0.41	0.68	0.03	0.34	0.04	0.10	0.52	0.32
Control Delay	37.3	12.5	0.0	19.5	23.9	0.0	50.0	54.5	0.6	49.9	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	12.5	0.0	19.5	23.9	0.0	50.0	54.5	0.6	49.9	23.5
Queue Length 50th (ft)	96	144	0	14	373	0	32	3	0	62	3
Queue Length 95th (ft)	m121	m154	m0	46	463	0	68	15	0	95	41
Internal Link Dist (ft)		645			1504			219			254
Turn Bay Length (ft)	300		490	175		500					
Base Capacity (vph)	368	2186	1173	172	1899	1077	142	279	349	339	303
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.84	0.03	0.41	0.68	0.03	0.34	0.01	0.10	0.52	0.16

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 49 (41%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Nitro Swim & SH 71



Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	182	36	113	125	46	164
Future Vol, veh/h	182	36	113	125	46	164
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	50	-	100	100	-
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	198	39	123	136	50	178

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	401	123	0	0	259	0
Stage 1	123	-	-	-	-	-
Stage 2	278	-	-	-	-	-
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	605	928	-	-	1306	-
Stage 1	902	-	-	-	-	-
Stage 2	769	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	582	928	-	-	1306	-
Mov Cap-2 Maneuver	582	-	-	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	769	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.4	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	582	928	1306	-
HCM Lane V/C Ratio	-	-	0.34	0.042	0.038	-
HCM Control Delay (s)	-	-	14.3	9.1	7.9	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	1.5	0.1	0.1	-

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	182	36	113	125	46	164
Future Vol, veh/h	182	36	113	125	46	164
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	50	-	100	100	-
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	198	39	123	136	50	178

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	401	123	0	0	259	0
Stage 1	123	-	-	-	-	-
Stage 2	278	-	-	-	-	-
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	605	928	-	-	1306	-
Stage 1	902	-	-	-	-	-
Stage 2	769	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	582	928	-	-	1306	-
Mov Cap-2 Maneuver	582	-	-	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	769	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.4	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	582	928	1306	-
HCM Lane V/C Ratio	-	-	0.34	0.042	0.038	-
HCM Control Delay (s)	-	-	14.3	9.1	7.9	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	1.5	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	2007	1225	50	0	66
Future Vol, veh/h	0	2007	1225	50	0	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	0	-	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	2182	1332	54	0	72

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	666
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	0	402
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	402
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.9
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	402
HCM Lane V/C Ratio	-	-	0.178
HCM Control Delay (s)	-	-	15.9
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.6

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	59	1930	1134	145	0	167
Future Vol, veh/h	59	1930	1134	145	0	167
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	-	-	-	235	-	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	64	2098	1233	158	0	182

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1233	0	-	0	-	617
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	561	-	-	0	0	433
Stage 1	-	-	-	0	0	-
Stage 2	-	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	561	-	-	-	-	433
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	19.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	561	-	-	433
HCM Lane V/C Ratio	0.114	-	-	0.419
HCM Control Delay (s)	12.2	-	-	19.2
HCM Lane LOS	B	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	2

APPENDIX F
PRO-RATA CALCULATIONS

Bee Cave Episcopal - Pro-Rata Share Calculations										
Intersection	**AM Pro-Rata Share Calculation**			**PM Pro-Rata Share Calculation**			**SUN Pro-Rata Share Calculation**			**Max Percentage**
	2022 Site	**2022 Build**	**Percentage**	**2022 Site**	**2022 Build**	**Percentage**	**2022 Site**	**2022 Build**	**Percentage**	
SH 71 and Vail Divide (intersection) Scenario 1	78	4911	1.59%	90	5227	1.72%	211	3582	5.89%	5.89%
SH 71 and Nitro Swim (left turn movement) Scenario 1	37	241	15.35%	27	259	10.42%	90	253	35.57%	35.57%
SH 71 and Vail Divide (intersection) Scenario 2	135	4968	2.72%	136	5219	2.61%	362	3710	9.76%	9.76%

APPENDIX G
ROADWAY IMPROVEMENT COST ESTIMATES

A359 - Bee Cave Episcopal Church		LJA Engineering, Inc.		
SH 71 at Vail Divide - SB Left Turn Lane		COST ESTIMATE		
LJA Engineering				
4/24/2020				
DESCRIPTION	**UNITS**	**EST. QTY.**	**UNIT COST**	**AMOUNT**
PREP ROW	STA	2	$1,500.00	$3,000.00
BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	2	$8,000.00	$16,000.00
REMOVING CONC (RIPRAP)	SY	50	$10.00	$500.00
EMBANKMENT	CY	50	$40.00	$2,000.00
EXCAVATION	CY	100	$20.00	$2,000.00
HMAC	TON	75	$90.00	$6,750.00
FLEXIBLE BASE	CY	100	$70.00	$7,000.00
RELOCATE SMALL SIGN	EA	3	$700.00	$2,100.00
RAMP RECONFIG	LS	1	$5,000.00	$5,000.00
PAVEMENT MARKINGS	LS	1	$5,000.00	$5,000.00
INSPECTION (7%)		1	$3,455.00	$3,455.00
ENGINEERING (15%)		1	$7,403.00	$7,403.00
EROSION CONTROL (3%)		1	$1,481.00	$1,481.00
MOBILIZATION (10%)	LS	1	$4,935.00	$4,935.00
			Subtotal	**$66,600.00**
CONTINGENCY (20%)	LS	1	$13,320.00	$13,300.00
			PROJECT TOTAL	**$79,900.00**

Utility Adjustments Not Included
ROW Acquisition Not Included

A359 - Bee Cave Episcopal Church	LJA Engineering, Inc.
SH 71 at Nitro Driveway - SB Left Turn Lane	**COST ESTIMATE**
LJA Engineering	
4/24/2020	

DESCRIPTION	UNITS	EST. QTY.	UNIT COST	AMOUNT
PREP ROW	STA	2	$1,500.00	$3,000.00
BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	1.50	$8,000.00	$12,000.00
EMBANKMENT	CY	25	$40.00	$1,000.00
EXCAVATION	CY	50	$20.00	$1,000.00
HMAC	TON	75	$90.00	$6,750.00
FLEXIBLE BASE	CY	100	$70.00	$7,000.00
RELOCATE SMALL SIGN	EA	2	$700.00	$1,400.00
PAVEMENT MARKINGS	LS	1	$5,000.00	$5,000.00
INSPECTION (7%)		1	$2,601.00	$2,601.00
ENGINEERING (15%)		1	$5,573.00	$5,573.00
EROSION CONTROL (3%)		1	$1,115.00	$1,115.00
MOBILIZATION (10%)	LS	1	$3,715.00	$3,715.00
			Subtotal	**$50,200.00**
CONTINGENCY (20%)	LS	1	$10,040.00	$10,000.00
			PROJECT TOTAL	**$60,200.00**

Utility Adjustments Not Included
ROW Acquisition Not Included