

Transportation Impact Assessment – Step 4: Analysis

South Keys Phase 1





Prepared for SmartCentres Real Estate Investment Trust by IBI Group

October 22, 2021

TIA Plan Reports - Certification

On 14 June 2017, the Council of the City of Ottawa adopted new Transportation Impact Assessment (TIA) Guidelines. In adopting the guidelines, Council established a requirement for those preparing and delivering transportation impact assessments and reports to sign a letter of certification.

Individuals submitting TIA reports will be responsible for all aspects of developmentrelated transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines.

By submitting the attached TIA report (and any associate documents) and signing this document, the individual acknowledges that s/he meets the four criteria listed below:

CERTIFICATION

- 1. I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines;
- 2. I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;
- 3. I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and
- I am either a licensed¹ or registered¹ professional in good standing, whose field of expertise [check √ appropriate field(s)] is either transportation engineering □ or transportation planning □.

¹ License or registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.

Dated at Ottawa this 22nd day of October, 2021. (City)

Name: David Hook, P.Eng.

Professional Title: Project Engineer

ook

Signature of Individual certifier that she/he meets the above four criteria

Office Contact Information (Please Print)
Address: 400-333 Preston Street
City / Postal Code: K1S 5N4
Telephone / Extension: 613-225-1311 ext. 64029
E-Mail Address: dhook@ibigroup.com

Stamp



Document Control Page

IBI GROUP CLIENT:	SmartCentres Real Estate Investment Trust	
PROJECT NAME:	South Keys Phase 1	
REPORT TITLE:	Transportation Impact Assessment	
IBI REFERENCE:	134569	
VERSION: Draft		
DIGITAL MASTER: SOUTH KEYS PHASE 1 (EP2020-079) - 6.0 Technical\6.23 Traffic\03 Tech-Reports\Step 3 - Forecasting		
ORIGINATOR: Isabel Loewen		
REVIEWER: David Hook/Ben Pascolo-Neveu		
AUTHORIZATION:	David Hook	
CIRCULATION LIST:	Patrick McMahon - City of Ottawa Transportation Project Manager Heather Jenkins - SmartCentres	
HISTORY:	TIA Step 1 Submitted for Pre-Consultation – June 10, 2021 TIA Step 2 Submitted for City Review – June 23, 2021 TIA Step 3 Submitted for City Review – August 9, 2021 TIA Step 4 Issued to Client for Submission – October 22, 2021	

Executive Summary

IBI Group (IBI) was retained by SmartCentres Real Estate Investment Trust (REIT) on behalf of the Joint Venture Applicant, Calloway REIT (South Keys) Inc. and Canadian Property Holdings (South Keys) Inc., to undertake a Transportation Impact Assessment (TIA) in support of a Site Plan Control application and a Zoning By-Law Amendment application for a proposed high-rise residential development to be located at 2200 Bank Street and 1131 Hunt Club Road, Ottawa.

The proposed development is located within an existing Transit-Oriented Development (TOD) zone and immediately adjacent to the South Keys Transitway Station, which is planned to incorporate LRT service in tandem with its existing BRT service by the end of 2022. This high-density residential development is well suited in this context, given its proximity to high quality transit service and the numerous amenities offered at South Keys Shopping Centre. A Transit Plaza is located immediately adjacent to the site which provides direct access to South Keys Station from both the site and Dazé Street.

The development is anticipated to be constructed in four phases with full build-out of Phase 1 in 2026 and full build-out of the Master Plan in 2041. The horizon year of the study was therefore taken as 2031 for Phase 1 and 2041 for Phases 2 to 4. Direct access to the proposed development will be provided on Dazé Street through a proposed right-in/right-out driveway and an existing '3/4' movements driveway. There will be no left-turns permitted for vehicles leaving the development through these two access driveways.

A functional design Roadway Modification Application (RMA) was carried out to identify minor alterations required to relocate the existing '3/4' access driveway approximately 3.5m metres south which would accommodate a fire truck/heavy single unit (HSU) design vehicle by standardizing the width of the northbound left-turn and help to ensure that outbound left-turns from the site are physically restricted.

There were 3 known developments of significance in the vicinity of the subject site that are either in the development application approval process, are in pre-construction or are in varying stages of construction. For these developments, all unoccupied units are accounted for in the development of background traffic volumes using consistent trip generation assumptions.

The proposed development is expected to generate up to 67 and 210 two-way weekday peak hour vehicular trips upon full build-out of Phase 1 and the long-term Master Plan, respectively. Site-generated traffic was assigned to the adjacent road network based on the morning peak period commuter travel patterns for the Hunt Club Traffic Assessment Zone (TAZ) from the 2011 TRANS Origin-Destination Survey, as well as the distribution of relevant employment nodes throughout the City.

This study has identified deficiencies in the Level of Service across all transportation modes, with limited options available to achieve acceptable standards. The arterial intersections within the study area are expected to operate above their theoretical capacities based on existing and future conditions. The performance of these intersections is not expected to be largely impacted by the site-generated traffic, as it is the case for Future Background and Future Total Traffic conditions. The intersections along Dazé Street are expected to operate well under their theoretical capacities beyond the 2041 study horizon year. As indicated through queueing analysis, all right and left-turn auxiliary lanes impacted by the new development are expected to provide adequate storage for vehicles within the study area.

Based on the findings of this study, it is the overall opinion of IBI Group that the proposed development will integrate well with and can be safely accommodated by the adjacent transportation network with the recommended actions and modifications in place.

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- Appendix J Intersection Capacity Analysis
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1 Introduction

IBI Group (IBI) was retained by SmartCentres Real Estate Investment Trust (REIT) on behalf of the Joint Venture Applicant, Calloway REIT (South Keys) Inc. and Canadian Property Holdings (South Keys) Inc., to undertake a Transportation Impact Assessment (TIA) in support of a Site Plan Control application and a Zoning By-Law Amendment application for a proposed high-rise residential development to be located at 2200 Bank Street and 1131 Hunt Club Road, Ottawa.

In accordance with the City of Ottawa's Transportation Impact Assessment Guidelines, published in June 2017, the following report is divided into four major components:

- Screening Prior to the commencement of a TIA, an initial assessment of the proposed development is undertaken to establish the need for a comprehensive review of the site based on three triggers: Trip Generation, Location and Safety.
- **Scoping** This component of the TIA report describes both the existing and planned conditions in the vicinity of the development and defines study parameters such as the study area, analysis periods and analysis years of the development. It also provides an opportunity to identify any scope exemptions that would eliminate elements of scope described in the TIA Guidelines that are not relevant to the development proposal, based on consultation with City staff.
- **Forecasting** The Forecasting component of the TIA is intended to review both the development-generated travel demand and the background network travel demand and provides an opportunity to rationalize this demand to ensure projections are within the capacity constraints of the transportation network.
- Analysis This component documents the results of any analyses undertaken to ensure that the transportation related features of the proposed development are in conformance with prescribed technical standards and that its impacts on the transportation network are both sustainable and effectively managed. It also identifies a development strategy to ensure that what is being proposed is aligned with the City of Ottawa's city-building objectives, targets and policies.

Throughout the development of a TIA report, each of the four study components above are submitted in draft form to the City of Ottawa and undergo a review by a designated Transportation Project Manager. Any comments received are addressed to the satisfaction of the City's Transportation Project Manager before proceeding with subsequent components of the study. All technical comments and responses throughout this process are included in **Appendix A**.

Dependent on the findings of this report, the complete submission of this Transportation Impact Assessment may also require Functional Design Drawings of recommended roadway improvements to support a Roadway Modification Application (RMA). The submission may also require a post-development Monitoring Plan to track performance of the planned TIA Strategy. The need for these two elements will be confirmed through the analysis undertaken for this report.

2 TIA Screening

An initial screening was completed to confirm the need for a Transportation Impact Assessment by reviewing the following three triggers:

- **Trip Generation**: Based on the proposed number of apartment dwelling units, the minimum development size threshold has been exceeded and therefore the Trip Generation trigger is satisfied.
- **Location**: The proposed development is located within a Transit-oriented Development zone (TOD) and, as such, the Location trigger is satisfied.
- **Safety**: Boundary street conditions were reviewed to determine if there is an elevated potential for safety concerns adjacent the site. Due to the proximity of the proposed site access to an existing signalized intersection and potential visibility constraints on Dazé Street, the Safety Trigger is satisfied.

As the proposed development meets the Trip Generation, Location and Safety triggers, the need to undertake a Transportation Impact Assessment is confirmed.

A copy of the Screening Form is provided in **Appendix B**.

3 Project Scoping

3.1 Description of Proposed Development

3.1.1 Site Location

The proposed development is located within the South Keys Shopping Centre and is approximately 1.2 hectares in size. It is bound by Dazé Street to the east, the Transitway to the west and abuts the future South Keys LRT Station.

The site location and its surrounding context is illustrated in **Exhibit 1**.

3.1.2 Land Use Details

Table 1 - Land Use Statistics (Phase 1)

The subject site is currently a commercial area including parking and is zoned as a Mixed-Use Centre, based on GeoOttawa. The site is presently occupied by three adjoining commercial retail units and will be demolished to accommodate the proposed Phase 1 development. Two existing commercial units will remain as part of the Phase 1 development plan. The subject development includes two 21-storey towers joined by a 6-storey podium in Phase 1. **Table 1** summarizes the proposed land uses included in this development.

	LAND USE	

LAND USE	SIZE
Apartments	481 dwelling units
Commercial (Service Retail)	5,019 ft²/ 466 m²

The site will provide 314 structured vehicle parking spaces (including 30 visitor parking spaces) and 225 bicycle parking spaces. In addition to this, 94 surface parking spaces will be retained for the existing restaurant and 126 surface spaces will be retained for the movie theatre as part of the Phase 1 development. The configuration of the proposed development is illustrated in **Exhibit 2**.

The parking facility will occupy five levels within the above grade podium as well as one level below grade.

The proposed development forms part of a 4-Phase Master Plan. The full Master Plan is expected to be built out no sooner than 15 years after Phase 1 occupancy and will ultimately accommodate a total of approximately 1,710 residential units and a nominal amount of service retail to support the needs of future residents. The Master Plan is found in **Exhibit 3**.

3.1.3 Development Phasing & Date of Occupancy

It is expected that the Phase 1 towers will be constructed in series with full occupancy anticipated for 2026. For the purposes of this study, it is assumed the development represents a single phase, however any improvements triggered by the development may be required as early as 2024 to accommodate the initial occupancy. If applicable, the specific timeline of any required infrastructure improvements will be identified in the Analysis section of this report.



B South Keys Phase 1 Transportation Impact Assessment

Exhibit 1: Site Location PROJECT No. SCALE:

134569 <u>0m 100m 200</u>m





3.2 Existing Conditions

3.2.1 Existing Road Network

3.2.1.1 Roadways

The proposed development is bound by the following street(s):

• **Dazé Street** is an urban collector road under the jurisdiction of the City of Ottawa that connects Hunt Club Road with Bank Street while providing access to several commercial areas in the vicinity along with direct access to the proposed site. Dazé Street has a fourlane divided cross-section with a posted speed limit of 50 km/h and a right-of-way of approximately 33.5 metres along the frontage of the proposed development site.

Other streets within the context area of the proposed development are as follows:

- **Bank Street** is an urban arterial road under the jurisdiction of the City of Ottawa that extends north-south from Wellington Street to City Limits where it becomes Highway 31. It has a posted speed limit of 60 km/h and typically consists of a four-lane cross-section with a right-of-way of 37.5m.
- **Hunt Club Road** is an urban arterial road under the jurisdiction of the City of Ottawa that extends east-west from Riverside Drive to the Trans-Canada Highway. Further west, Hunt Club Road becomes West Hunt Club Road. Within the context area, it generally has a four-lane divided cross-section, a posted speed limit of 60 km/h, and a right-of-way of 44.5m.
- **Airport Parkway** is a rural arterial road under the jurisdiction of the City of Ottawa that extends south from Heron Road until Uplands Drive and Lester Road. It consists of a twolane cross-section along with a posted speed limit of 80 km/h and there is an existing protected corridor for this roadway.

3.2.1.2 Driveways Adjacent to Development Access

There are three existing driveways along Dazé Street within 200m of the proposed site that service commercial properties:

- One all movement access driveway located approximately 140m north of the Hunt Club Road and Dazé Street intersection providing access to the site as well as the adjacent office tower at 1145 Hunt Club Road,
- One right-turn exit-only driveway located approximately 60m south of the Dazé Street & South Keys Shopping Centre intersection,
- A "3/4 Access" located 80m south of the Dazé & South Keys intersection that serves the proposed development site.

3.2.1.3 Intersections

The following major intersections exist within the vicinity of the proposed development:









- Bank Street & Dazé Street is a four-legged signalized intersection. The south leg consists of a single auxiliary left-turn lane, a single through lane, and a shared through-right lane. The north leg consists of a single auxiliary leftturn lane, two through lanes, and a channelized right-turn lane. There is a through traffic restriction on both sidestreet approaches. The west leg has a single dedicated left- and rightturn auxiliary lanes, while the east leg consists of a single dedicated left- turn lane and a channelized right-turn lane. Zebra crosswalks are present on all approaches and a bike lane exists on both eh east and west legs and in the southbound direction on Bank Street.
- **Dazé Street & South Keys Shopping Centre** is a four-legged signalized intersection that provides access to the South Keys Shopping Centre surface parking facilities through both the east and west legs. The east leg consists of a single shared lane and the west leg consists of an auxiliary left-turn lane along with a shared through-right lane. The north and south legs both consist of single auxiliary leftturn lanes, one through lane, and single shared through-right turn lanes. Crosswalks exist on all approaches.
- Bank Street & Hunt Club Road is a fourlegged signalized intersection. The north and south legs both consist of two auxiliary left-turn lanes and two dedicated through lanes. The west leg consists of two dedicated through lanes and two auxiliary left-turn lanes, whereas the east leg consists of two dedicated through lanes but only one auxiliary left-turn lane. All approaches of this intersection have channelized right-turn lanes and crosswalks.
- Hunt Club Road & Dazé Street is a fourlegged signalized intersection. The west leg has two auxiliary left-turn lanes, two dedicated through lanes and one auxiliary right-turn lane that can be used as a through lane by transit and bicycles. The east leg consists of two designated through lanes and one auxiliary leftturn lane along with an auxiliary right-turn lane. The north leg has one designated channelized right-turn lane, one designated through lane, and one auxiliary left-turn lane. The south leg



consists of two auxiliary left-turn lanes, one auxiliary transit through lane, one dedicated through lane, and one channelized auxiliary right-turn lane. All legs consist of a bike lane with the exception of the north leg and all approaches include a crosswalk.

Hunt Club Road & Airport Parkway is a signalized intersection with two off-ramps and two on-ramps for both directions of Airport Parkway. Both off-ramps, the north and south legs, have one dedicated right-turn lane and the northbound off-ramp has only one dedicated left-turn lane whereas the southbound off-ramp has 2 dedicated left-turn lanes. Both the west and the east legs of the intersection consists of one auxiliary left-turn lane, two through lanes, and a channelized right-turn lane onto an on-ramp along with a bike lane. U-turns are not permitted in the eastbound and westbound directions and all legs include a zebra crosswalk with the exception of the east leq.

The intersection control and lane configurations for the intersections described above are shown in **Exhibit 4**.

3.2.1.4 Traffic Management Measures

There are no significant traffic calming measures in effect within the context area.

3.2.1.5 Existing Traffic Volumes

As the proposed development will primarily consist of residential land uses, the weekday peak hour traffic conditions will be most affected by the increase in traffic. Weekday morning and afternoon peak hour turning movement counts were therefore obtained from the City of Ottawa at the following intersections and can be found in **Appendix C**:

- Bank Street & Hunt Club Road (City of Ottawa, November 2019)
- Airport Parkway & Hunt Club Road (City of Ottawa, November 2019)
- Bank Street & Cahill Drive/ Dazé Street (City of Ottawa, September 2015)
- Dazé Street & South Keys Shopping Centre (City of Ottawa, April 2018)
- Hunt Club Road & Bridle Path Drive/ Dazé Street (City of Ottawa, March 2019)

Peak hour traffic volumes representative of existing conditions are shown in **Exhibit 5**. It is acknowledged that some traffic data referenced above is more than 3 years old. Due to the COVID-19 pandemic, however, it was not possible to conduct updated turning movement counts at any of the above noted intersections which would be representative of typical weekday conditions. A growth rate was therefore applied to approximate existing (2021) traffic volumes. Justification of background growth rates is discussed further in the Forecasting section of this TIA.









Cahill Drive







PROJECT No. 134569 SCALE: NTS



South Keys Phase 1 Transportation Impact Assessment

B

Exhibit 5 - Exising (2021) Traffic

PROJECT No. 134569 SCALE: N.T.S.

3.2.2 Existing Bicycle and Pedestrian Facilities

Pedestrian facilities are provided on most roads within the context area including concrete sidewalks on both sides of Dazé Street, Hunt Club Road and Bank Street.

There are bicycle lanes provided on Hunt Club Road in both directions throughout the context area as well as on Bank Street travelling south in some sections.

Sawmill Creek Pathway extends north from Hunt Club Road along Airport Parkway and connects to the existing South Keys Station.

3.2.3 Existing Transit Facilities and Service

An existing Bus Rapid Transit (BRT) station is located immediately adjacent to the proposed Phase 1 towers at the northwest corner of the site. This station provides rapid transit connectivity to the city-wide network and is one stop south of the existing O-Train Trillium Line (line 2) terminus.

The following transit routes, operated by OC Transpo, exist within the vicinity of the site:

- **Route #2** provides regular, all-day service between South Keys and Bayview Station and operates on 12-minute headways during peak periods and weekends.
- **Route #6** provides regular, all day service between Greenboro Station and Maple Lane/Springfield on 15-minute headways during peak periods. On weekends service is reduced to 30-minute headways.
- **Route #40** provides regular, all day service between Greenboro Station and St-Laurent Station on 15- to 30- minute headways. On weekends service is reduced to 30-minute headways.
- **Route #90** provides regular, all-day service between Greenboro Station and Hurdman Station on 15-minute headways during peak periods. On weekends service is reduced to 30-minute headways.
- **Route #92** provides regular, all-day service between Greenboro Station and Hurdman Station on 15-minute headways during peak periods and weekends.
- **Route #93** provides regular, all-day service between Greenboro Station and Leitrim Station on 30-minute headways during peak hours and weekends.
- **Route #96** provides regular, all day service from Merivale Mall to Greenboro Station with 60-minute headways and provides service to Hurdman Station in the afternoon peak period with 20-minute headways
- **Route #97** provides regular, all-day service between Airport Stop and Hurdman Station on 30-minute headways during peak periods and weekends. Service to Hurdman station and Rideau Station is also available during the early morning hours.
- **Route #98** provides regular, all-day service between Hurdman Station and near the Hunt Club Road and Hawthorne Road intersection on 30-minute headways during peak periods and weekends.
- **Route #99** provides regular all-day service from Greenboro Station to Barrhaven Centre with 15- and 30-minute headways during peak periods and weekends and provides service to Hurdman Station during weekday morning and afternoon peak periods with 15- mintue headways.
- **Route #197** provides regular, all-day service between Greenboro Station and Uplands following a loop that encompasses the EY Centre with 30-minute headways.

- **Route #198** provides service from Greenboro Station to Riverview Station during the peak morning period with 45-minute headways.
- **Route #199** provides weekday peak period service from Hurdman Station to Leikin with 60-minute intervals in the morning peak period.
- **Route #294** provides weekday morning peak service from Findlay Creek/Willowmere to Hurdman Station on 30-minute headways and weekday evening peak service from Hurdman Station to Findlay Creek/Willowmere on 20-minute headways. This route does not provide service on weekends.
- **Route #299** provides weekday peak period service from Hurdman Station to Manotick with 60-minute intervals in the morning peak period.

Transit service maps for the individual routes above are provided in **Appendix D**. Bus stops serving local transit routes are also located within closest proximity to the site at either end of Dazé Street at Bank Street and at Hunt Club Road, as shown in **Figure 1**. It is important to note also that the proposed development is located entirely within a Transit-Oriented Development (TOD) zone, which is defined as being within 600 metre radial distance of a rapid transit station.

Figure 1 - Bus Stops



Source: plan.octranspo.com/plan

3.2.4 Collision History

A review of historical collision data has been undertaken for the boundary streets with the vicinity of the proposed development. The TIA Guidelines require a safety review if at least six collisions for any one movement or of a discernible pattern, over a five-year period have occurred. **Table 2** summarizes all reported collisions between January 1, 2015 and December 31, 2019.

Table 2 – Reported Collisions within Vicinity of Proposed Development

LOCATION	# OF REPORTED COLLISIONS
INTERSECTIONS	
Bank Street & Hunt Club Road	139
Airport Parkway & Hunt Club Road	80
Bank Street & Cahill Drive/Dazé Street	47
Dazé Street & South Keys Shopping Centre	5
Hunt Club Road & Bridle Path Drive/Dazé Street	80
SEGMENTS	
Dazé Street – 200 W of Bank Street & Bank Street	3
Dazé Street – Hunt Club Road & 200 W of Bank Street	7

Based on a preliminary review of the collision history within the context area of the site, the above noted intersection and road segments with more than six collisions over the five-year period would require further review in the Analysis component of this report.

Another method of evaluating the relative magnitude of collision frequency at one intersection compared to another is to quantify the average historical number of collisions against the daily volume of traffic entering the intersection. This is commonly expressed in terms of Million Vehicles Entering (MVE) and a rate of greater than 1.0 is considered significant. Daily intersection volumes are based on the Average 24-hour Traffic volumes provided with City turning movement counts.

The above noted intersections are therefore calculated as having average collision frequencies per MVE values:

- Bank Street & Hunt Club Road 1.48
- Airport Parkway & Hunt Club Road 0.86
- Bank Street & Cahill Drive/Dazé Street 0.77
- Dazé Street & South Keys Shopping Centre 0.24
- Hunt Club Road & Bridle Path Drive/Dazé Street 0.91

Of the five intersections evaluated above, one has a frequency in excess of 1.0 and may be considered significant. Detailed collision records are provided in **Appendix E**.

3.3 Planned Conditions

3.3.1 Transportation Network

3.3.1.1 Future Road Network Projects

The 2013 Transportation Master Plan (TMP) outlines future road network modifications required in the 2031 'Affordable Network'. A review of the TMP Affordable Plan indicates that there are planned changes to the arterial road network within the broader study area.

The TMP lists several phases in which Airport Parkway is to undergo widening. In Phase 1 (2014-2019) of the TMP, the section of Airport Parkway north of Hunt Club Road was scheduled to be widened and in Phase 3 (2026-2031), the section of Airport Parkway south of Hunt Club Road is scheduled to be widened. No modifications have been made to Airport Parkway within the context area to date.

The 2019 City-Wide Development Charges Background Study (March 2019) lists several scheduled road network projects within the context area. Airport Parkway is set to undergo a realignment south of Hunt Club Road in 2030-2031 and Hunt Club Road is scheduled for work in 2032 from Riverside Drive to Bank Street.

The South Keys to Blossom Park Bank Street Community Design Plan (CDP) (*September* 2015) also outlines several potential road modifications that would be significant to the context area if they were to occur. These include a possible realignment of Dazé Street that would connect to a new local road, oriented north-south through the South Keys Shopping Centre shown in **Figure 2** below.



Figure 2 - Dazé Street Realignment

Source: https://ottawa.ca/en/south-keys-blossom-park-bank-street-community-design-plan

3.3.1.2 Future Transit Facilities and Services

The 2013 TMP outlines the future rapid transit and transit priority (RTTP) network. The following project was noted in the 'Affordable RTTP Network' that may have a future impact on study area traffic:

• Stage 2 Light Rail Transit Project O-Train South Extension – Extension of the Trillium Line from its current terminus at Greenboro Station to Bowesville Station. The Trillium Line Extension Planning and Environmental Assessment (EA) Study (January 2016) and the Trillium Line Light Rail



Source: Stage 2 LRT Website

Transit Extension Addendum (September 2018) both expand upon the TMP. The Trillium Line will now extend to Limebank Road with a spur line to the Ottawa International Airport. Based on the official City of Ottawa Stage 2 LRT website, the Trillium Line South Extension is expected to begin revenue service by the end of 2022. This extension will accommodate the planned widening of Airport Parkway and Lester Road and allow for the use of high-capacity transit vehicles. It is understood that the line will have a single-track configuration with segments of twinned track and service will be limited to 12-minute frequency during peak periods. As part of LRT Stage 2, there will be 5 stations located south of the South Keys Station and connections to the BRT network, beyond providing service to/from Barrhaven and Riverside South.

Figure 3 shows the transit infrastructure projects in the vicinity of the proposed development that are part of the TMP's 2031 Affordable Network. **Figure 4** below illustrates the proposed O-Train Trillium Line Extension.

Figure 3 - Future 'Affordable RTTP Network Projects'



Source: 2013 Transportation Master Plan – Map 5 '2031 Affordable Network'



Figure 4 - Stage 2 LRT - Trillium Line Extension

Source: Stage 2 LRT Website – Trillium Line South Highlight Summary

3.3.1.3 Future Cycling and Pedestrian Facilities

The 2013 Ottawa Cycling Plan (OCP) designates Bank Street and Hunt Club Road as 'Spine Routes', which form part of a system linking the commercial, employment, institutional, residential and educational nodes throughout the City of Ottawa. Portions of Airport Parkway are considered both "Spine Routes" and "Major Pathways". As shown in **Figure 5**, Dazé Street is designated as a 'Local Route', providing connections between 'Spine Routes' and 'Major Pathways' that are available on both Hunt Club Road and Bank Street.

The 2031 Affordable Cycling Project List from the OCP mentions the Hunt Club Neighbourhood Bikeway Extension to Airport Parkway Bridge that is included in Phase 2 of the Cycling Plan. This extension of the bikeway will tie into the proposed transit plaza using shared use lanes.





Source: GeoOttawa

At the time of this study, no planned improvements to pedestrian facilities are known for any streets located within the context area.

3.3.2 Future Adjacent Developments

The City of Ottawa Transportation Impact Assessment (TIA) Guidelines specify that all significant developments proposed within the surrounding area which are likely to occur within the study's horizon year must be identified and taken into consideration in the development of future background traffic projections.

All current development applications of significance within the context area have been identified and are summarized in **Table 3** below.

Table 3 – Future Adjacent Developments

DEVELOPMENT	LAND USE	EXPECTED BUILD- OUT YEAR
12370 Hunt Club Rental	Residential – 77 units	2021
20 Mountain Crescent	Residential – 151 units	2022
2425-2431 Bank Street	Residential – 144 units	2021

All known developments of significance in the vicinity of the proposed development that are either in the development application approval process, are in pre-construction or are in varying stages of construction are shown in **Exhibit 6** below.



South Keys Phase 1 Transportation Impact Assessment

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Exhibit 6: Adjacent Developments PROJECT No. 134569 SCALE: 0m 100m 200m

3.3.3 Network Concept Screenline

A screenline is an artificial boundary between areas of major traffic generation that captures all significant points of entry from one area to another to compare crossing demand with the available roadway capacity. Screenlines are typically located along geographical barriers such as rivers, rail lines or within the greenbelt. To capture existing flow and model future demand, count stations are established by the City of Ottawa at each crossing point along the screenline.

The nearest strategic planning screenlines adjacent to the development have been identified:

- SL13 CNR East This is the nearest east/west screenline to the proposed development, and it follows the Canadian National Railroad (CNR) rail line from the Rideau River to the TransCanada Highway. This screenline has six crossing points: Riverside Drive, McCarthy Road, Airport Parkway, Bank Street, Conroy Road and Hawthorne Road.
- SL20 Rideau River South This is the nearest north/south screenline to the proposed development, and it follows the Rideau River from Carleton University to Black Rapids Lockstation. This screenline has three crossing points: Hunt Club Bridge, Hogs Back Bridge and Heron Road Bridge.

SL13 and SL20 are shown in **Figure 6**, as determined from the City of Ottawa's Road Network Development Report (2013), a supporting document to the 2013 Transportation Master Plan (TMP).



Figure 6 - Screenlines

Source: TRANS Screenline System (2010)

3.4 Study Area

With consideration of the information presented thus far, the following intersections have been identified as being most impacted by the proposed development and will be assessed for vehicular capacity as part of this study:

- Bank Street & Hunt Club Road
- Airport Parkway & Hunt Club Road
- Bank Street & Cahill Drive/ Dazé Street
- Dazé Street & South Keys Shopping Centre
- Hunt Club Road & Bridle Path Drive/ Dazé Street
- Proposed Site Access Driveway on Dazé Street

Beyond the bounds of the above noted study area intersections, site-generated traffic impacts are expected to be minimal. Motorists have a variety of options to access the broader arterial road network surrounding the site, resulting in a dispersion of vehicular demand within the periphery of the context area. Furthermore, sustainable transportation modes are expected to represent a significant proportion of the overall site generation due to the proximity of this development to an existing bus rapid transit station that is slated for an upgrade to light rail prior to the proposed development's full build-out.

Multi-Modal Level of Service (MMLOS) will be conducted for all intersections with the exception of the proposed site access driveway which is expected to remain unsignalized. This assumption will be verified during the Analysis component of this study. Segment-based MMLOS analysis will be limited to Dazé Street along the proposed development's frontage.

3.5 Time Periods

As a primarily residential development, traffic generated during the weekday morning and afternoon peak hour is expected to result in the most significant impact to traffic operations on the adjacent road network in terms of combined development-generated and background traffic. These two time periods will therefore be considered for operational analysis in this study.

3.6 Analysis Years

The following analysis years will be assessed in this study:

- Year 2021 Existing Conditions
- Year 2026 Phase 1 Occupancy
- Year 2031 5 years Beyond Occupancy of Phase 1
- Year 2041 Full build-out / Occupancy of Phases 1-4 in Master plan

3.7 Exemptions Review

The TIA Guidelines provide exemption considerations for elements of the Design Review and Network Impact components. **Table 4** summarizes the TIA modules that are not applicable to this study.

Table 4 - Exemptions Review

TIA MODULE	ELEMENT	EXEMPTION CONISDERATIONS	REQUIRED					
DESIGN REVIEW COMPONENT								
4.1 Development Design	4.1.2 Circulation and Access	Only required for site plans	\checkmark					
	4.1.3 New Street Networks	 Only required for plans of subdivision 	×					
4.2 Parking	4.2.1 Parking Supply	Only required for site plans	1					
	4.2.2 Spillover Parking	 Only required for site plans where parking supply is 15% below unconstrained demand 	×					
NETWORK IMPACT COMPONENT								
4.5 Transportation Demand Management	All Elements	 Not required for site plans expected to have fewer than 60 employees and/or students on location at any given time 	~					
4.6 Neighbourhood Traffic Management	4.6.1 Adjacent Neighbourhoods	 Only required when the development relies on local or collector streets for access and total volumes exceed ATM capacity thresholds 	*					
4.8 Network Concept	n/a	Only required when proposed development generates more than 200 person-trips during the peak hour in excess of the equivalent volume permitted by established zoning	~					

4 Forecasting

4.1 Development Generated Traffic

4.1.1 Trip Generation Methodology

Peak hour site-generated traffic volumes were developed using the 2020 TRANS Trip Generation Manual Summary Report. The TRANS trip generation rates are based on findings from three sources: 49 local generator surveys, the 2011 TRANS Origin-Destination (OD) Survey and the ITE Trip Generation Manual (10th Edition).

There are specified person-trip rates for three primary residential land use categories in the 2020 TRANS Trip Generation Summary Report and a specific person-trip conversion factor to allow for other vehicle-trip rates to be used from the ITE Trip Generation Manual for non-residential land uses. The specified residential rates are applied for either the peak AM or PM period.

The person-trips were then subdivided based on representative mode share distributions applicable to the study area to determine the number of auto driver, auto passenger, transit, pedestrian and cycling trip types. A conversion factor is applied to determine the peak AM or PM hour person-trips.

Estimated mode share distributions for existing conditions representing 26 districts in the Ottawa-Gatineau area were developed using the 2011 O-D Survey. They are available for several land uses including residential, schools, employment generators and commercial generators. As the 2011 O-D Survey data considers a large geographical area, it likely represents a larger share of auto driver trips than would be expected for a development directly adjacent to a rapid transit station.

4.1.2 Trip Generation Results

4.1.2.1 Peak Period Person-Trip Generation

Peak period person-trip volumes associated with the South Keys Phase 1 High-Rise development were derived using the peak period trip generation rates in the 2020 TRANS Trip Generation Summary Report.

The ground floor commercial area included in the proposed development is not explicitly accounted for in the trip generation due to its small footprint and, by extension, the low number of trips that these uses would be expected to generate which would have negligible traffic impacts on the study area intersections. This will be explained in more detail in Section 4.1.2.5 of this report. The peak period person-trip generation results for the proposed development have been summarized in **Table 5**. Relevant sections of the 2020 TRANS Trip Generation Manual can be found in **Appendix F**.

Table 5 – Peak Period Person-Trip Generation Results

	SIZE	PERIOD	GENERATED TRIPS		
LAND USE			IN	OUT	TOTAL
Multi-Unit (High-Rise)	481 units	AM	119	266	385
Residential – Phase 1		PM	251	182	433
Multi-Unit (High-Rise)	1,710 units	AM	424	944	1368
Residential – Phases 1-4		PM	893	646	1539

4.1.2.2 Mode Share Proportions

The 2020 TRANS Trip Generation Summary Report details existing mode share distributions for several residential land uses for both weekday AM and PM peak hour periods. These are provided from the 2011 TRANS OD Survey and are representative of the area within the Hunt Club Traffic Assessment Zone (TAZ). The data used to determine these distributions includes only the outbound trips for the AM peak period and only the inbound trips for the PM peak period to ensure that only the residential trips are being represented by the mode share proportions.

Relevant extracts from the 2011 O-D Survey are provided in Appendix F.

Mode share targets for the 2026 and 2031 analysis years were developed using the existing mode share distributions in conjunction with influencing factors and other recent studies completed in the area. The City of Ottawa typically cites 65% as the target mode share for Transit Oriented Development (TOD) zones. As the proposed development will be located in an area with a limited range of services beyond retail land uses, a lower (12-minute) transit frequency on the Trillium Line as compared to TOD zones along the Confederation line, and a marketable need for on-site parking (0.6 spaces per unit), a reduced transit mode share target of 50% has been assumed for this study and can be considered realistic for this site while providing a more conservative assessment of traffic impacts within the study area. Transit mode share for the analysis years in this study have been linearly interpolated, resulting in a target of 45% by 2026 and 50% by 2031. The linear increase in the transit mode share is consistent with the assumptions made in the recently completed 20 Mountain Crescent TIA which has a similar study area and scope. The mode share distribution for 2041 is assumed to be the same as the 2031 targets.

It has been assumed that any growth in transit mode share would result in a corresponding decrease in auto driver and auto passenger mode share and that all other mode shares would remain constant through to 2031. **Table 6** summarizes the 2020 TRANS mode share distributions as well as the 2026, 2031 and 2041 target mode share distributions.
TRAVEL MODE	2020 T MODE TAR(2020 TRANS MODE SHARE 2026 MODE TARGETS SHARE TARGETS		2031 MODE SHARE	2041 MODE SHARE	
	AM	PM	TARGETS	TARGETS	TARGETS	
Auto Driver	39%	44%	35%	31%	31%	
Auto Passenger	6%	11%	9%	8%	8%	
Transit	44%	35%	45%	50%	50%	
Cycling	1%	2%	2%	2%	2%	
Walking	9%	9%	9%	9%	9%	

Table 6 – 2020 TRANS Mode Shares and Proposed Mode Share Targets

4.1.2.3 Trip Generation by Mode

The 2026 and 2031 mode share targets (**Table 6**) were applied to the number of developmentgenerated person-trips to determine the number of trips per travel mode for the peak periods, as summarized in **Table 7**.

Table 7 - Peak Period Person-Trips by Mode

	2026			2031				2041				
MODE	A	M	PM		4	AM		PM		Μ	РМ	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Auto Driver	42	93	88	64	37	82	78	56	131	293	277	200
Auto Passenger	11	24	23	16	10	21	20	15	34	76	71	52
Transit	54	119	113	82	60	133	126	91	212	472	446	323
Cycling	2	5	5	4	2	5	5	4	8	19	18	13
Walking	11	24	23	16	11	24	23	16	38	85	80	58
Total	3	85	4:	34	3	85	43	34	13	68	15	38

4.1.2.4 Peak Hour Trip Generation

The peak period to peak hour conversion factors for TRANS trip generation rates vary by trip type and are applied to the peak period trips resulting from the mode share distribution.

The results after applying the appropriate conversion factors have been summarized in Table 8.

	2026			2031				2041				
MODE		AM	L.	M	Ą	M	Р.	M	Α	М	P	M
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Auto Driver	20	45	39	28	18	39	34	25	63	140	122	88
Auto Passenger	5	11	10	7	5	10	9	6	16	36	31	23
Transit	30	66	53	38	32	73	59	43	117	260	210	152
Cycling	1	3	2	2	1	3	2	2	5	11	9	6
Walking	6	14	12	9	6	14	12	9	22	49	42	30
Total	2	201	2	00	2	01	2	00	72	20	7	12

Table 8 – Peak Hour Person-Trips by Mode

4.1.2.5 Trip Reduction Factors

Deduction of Existing Development Trips

Phase 1 of the proposed development will replace an existing commercial area made up of two vacant and one occupied commercial retail units. The occupied retail unit has a total area of 455 m² (4,900 ft²) which is associated with a total of just 6 two-way vehicle trips according to ITE trip rates for the "Shopping Centre" land use, and therefore the downstream impact of the deduction of these trips will have a negligible effect on the study area intersections.

By 2041, it is expected that the movie theatre and restaurant located within the subject lands will be replaced by Phases 2 to 4 of the Master Plan. The person trips associated with each land use were developed using ITE trip generation rates and appropriate conversion factors. The 2041 mode share targets outlined in **Table 6** were used to split the person trips into the appropriate modes. The total vehicle trips after the mode share associated with the movie theatre and the restaurant are shown in **Table 9**. These trips are to be deducted with the full Phases 1-4 buildout in 2041.

Table 9 - Existing Development Generated Vehicle Trips

	017E	DEDIOD	GENERATED VEHICLE TRIPS			
LAND USE	SIZE	PERIOD	IN	OUT	TOTAL	
Shopping Centre (Movie Theatre) 820	40,000 ft ²	AM	7	7	14	
		PM	30	30	60	
Restaurant	6 160 ft ²	AM	1	1	2	
931	0,100 ft	PM	13	6	19	

The existing development generated trips presented in **Table 9** above were deducted from the adjacent road network based on existing traffic patterns derived from weekday peak hour traffic count data at each of the study area intersections.

Pass-by Traffic

Not Applicable - The residential land use for the proposed development does not generate passby trips, therefore the trip reduction factor is not applicable for this land use type.

Synergy/ Internalization

Not Applicable - The residential land use for the proposed development does not require internalization reduction factors. Internalization between the proposed Phase 1 development and existing on-site commercial land uses can be considered negligible.

4.1.3 Trip Distribution and Assignment

Trips generated by the proposed development were distributed to the adjacent road network, as shown below. Site-generated traffic was assigned to the adjacent road network based on the morning peak period commuter travel patterns for the Hunt Club Traffic Assessment Zone (TAZ) from the 2011 TRANS Origin-Destination Survey as well as the distribution of relevant employment nodes throughout the City.

- 50% to/from North
 - o 60% on Airport Parkway
 - o 40% on Bank Street
- 15% to/from South
 - o 50% on Bank Street
 - o 25% on Airport Parkway
 - o 25% on Albion Road (via Bridle Path Drive)
- 15% to/from East
 - o 60% on Hunt Club Road
 - o 40% on Walkley Road (via Bank Street)
- 20% to/from West
 - o 100% on Hunt Club Road

Utilizing the estimated number of new auto trips and applying the above distribution, future sitegenerated traffic volumes for the 2026 and 2031 analysis years are illustrated for each of the study area intersections in **Exhibit 7** and **Exhibit 8**, respectively. The future site-generated traffic volumes for the full Phases 1-4 build-out year, 2041, can be found in **Exhibit 9**.



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Exhibit 7 - 2026 Site Generated AM & PM Peak Hour Traffic Volumes



Exhibit 8 - 2031 Site Generated AM & PM Peak Hour Traffic Volumes



Exhibit 9 - 2041 Site Generated AM & PM Peak Hour Traffic Volumes

4.2 Background Network Traffic

4.2.1 Changes to the Background Transportation Network

To properly assess future traffic conditions, planned modifications to the transportation network that may impact travel patterns or demand within the study area must be considered. The scoping section of this TIA reviewed the anticipated network modifications within the study area and determined that the most notable network changes planned within the vicinity of the site are the widening of the Airport Parkway from two to four lanes, the implementation of bus lanes on Hunt Club Road between Uplands Drive and Albion Road South, and the Trillium Line extension.

As part of Stage 2 of the Ottawa LRT construction, South Keys Station will be converted from only Bus Rapid Transit (BRT) to Light Rail Transit (LRT) in parallel with BRT and is expected to greatly improve transit service as a result.

4.2.2 General Background Growth Rates

The background growth rate is intended to represent regional growth from outside the study area that will travel along the adjacent road network. Consistent with the adjacent development studies conducted with similar study areas, a 0.5% rate of linear growth per annum was applied to through movements on Bank Street, the Airport Parkway and Hunt Club Road within the study area for the calculation of future background traffic. The background growth rate was also applied to all movements at arterial-to-arterial intersections.

4.2.3 Other Area Development

Background traffic volume projections for this study area were refined to include the relevant adjacent developments that were discussed previously in this report. All developments were assumed to be fully built-out and operational by the 2026 analysis year. The future background traffic volumes for the study area are shown in **Exhibit 10, Exhibit 11** and **Exhibit 12** in Section 4.4.1.

4.3 Demand Rationalization

The purpose of this section is to rationalize future travel demands within the study area to account for potential capacity limitations in the transportation network and its ability to effectively accommodate the additional demand generated by a new development.

4.3.1 Description of Capacity Issues

4.3.1.1 Bank Street/Hunt Club Road

The Bank Street and Hunt Club Road intersection is identified as having capacity issues within two of the adjacent development TIAs. An optimized signal timing plan is recommended to ensure the intersection is operating at the best possible LOS. As indicated previously, the impacts of site-generated traffic is not expected to be significant at this intersection given the relative magnitude of the proposed development.

4.3.2 Adjustment to Development Generated Demands

Development-generated demands were determined based on data from the 2020 TRANS Trip Generation Manual and on travel patterns for the Hunt Club TAZ in the O-D Survey. The combined impact of the Trillium Line extension and of the other notable network changes on existing traffic volumes is accounted for in the adjustments made to the mode share targets for each analysis year. As indicated previously, the impacts of site-generated traffic are not expected to be significant at this intersection given the relative magnitude of the proposed development.

4.3.3 Adjustment to Background Network Demands

As prescribed in the TIA Guidelines, the effects of peak-hour spreading have been considered in in future analysis years of this study. It is anticipated that as traffic volumes continue to gradually increase, trips will have a natural tendency to be more evenly distributed across the peak hour (PHF = 1.0) and eventually increase demands in the shoulders of the peak as well. The impacts of peak hour spreading are accounted for in the Synchro modelling, completed as part of the Analysis component of this study.

As there are identified capacity issues present at the Bank & Hunt Club intersection, changes to the signal timing plan at this intersection may be required to ensure it is operating at peak efficiency.

4.4 Traffic Volume Summary

4.4.1 Future Background Traffic Volumes

Future background traffic volumes were derived by applying a growth rate to existing traffic and superimposing these volumes with future adjacent development volumes.

Exhibit 10, **Exhibit 11** and **Exhibit 12** below present the future background traffic volumes anticipated for the 2026, 2031 and 2041 analysis years, respectively.



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Exhibit 10 - Future (2026) Background Traffic



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Exhibit 11 - Future (2031) Background Traffic



Exhibit 12 - Future (2041) Background Traffic

4.4.2 Future Total Traffic Volumes

As discussed previously, the 2026 and 2031 analysis years for this study were selected based on the year of Phase 1 occupancy and a 5-year horizon after occupancy. The year 2041 is also included as the build-out year for Phases 1-4 of the new development. For the 2041 analysis year, the number of vehicle trips associated with the existing movie theatre and restaurant were deducted from the background traffic as the new development will replace these existing uses.

Exhibit 13, Exhibit 14 and **Exhibit 15** present the Future (2026), Future (2031) and Future (2041) Total Traffic Volumes, respectively.



Exhibit 13 - Future (2026) Total Traffic



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Exhibit 14 - Future (2031) Total Traffic



Exhibit 15 - Future (2041) Total Traffic

5 Analysis

5.1 Development Design

5.1.1 Design for Sustainable Modes

For consistency with the City of Ottawa's Urban Design Guidelines and transportation policies, new developments shall provide safe and efficient access for all users, while creating an environment that encourages walking, cycling and transit use.

The proposed development is located within an existing Transit-Oriented Development (TOD) zone and immediately adjacent to the South Keys Transitway Station, which is planned to incorporate LRT service in tandem with its existing BRT service by the end of 2022. This high-density residential development is well suited in this context, given its proximity to high quality transit service and the numerous amenities offered at South Keys Shopping Centre. The development conforms to city policies that encourage dense development within TOD zones.

A Transit Plaza is located immediately adjacent to the site which provides direct access to South Keys Station from both the site and Dazé Street. This plaza will allow residents to access the BRT and LRT services available at the station with a walking distance of approximately 170 metres from the center of the proposed development.

As indicated previously in **Exhibit 3**, concrete sidewalks are located throughout the proposed development with convenient connections to Dazé Street and the adjacent Transit Plaza.

The above design and infrastructure elements contribute to a development that significantly reduces dependence on private automobile usage by integrating well with the existing and proposed sustainable transportation infrastructure.

The TDM-Supportive Development Design and Infrastructure Checklist was completed and is provided in **Appendix G**. This checklist identifies anticipated measures that are being considered in association with the proposed development to offset the vehicular impact on the adjacent road network. Some notable measures are listed below:

- Providing direct pedestrian access to the buildings to and from the public sidewalks along with the Transit Plaza;
- Designing access and circulation roads for cycling use with a target operating speed of no more than 30km/h;
- Providing secure bicycle parking spaces equivalent to at least the number of units as well as a permanent bike repair station with commonly used tools; and
- Providing separate areas for short-term and long-term parking to permit access controls and simplify enforcement.

5.1.2 Circulation and Access

All site-generated traffic will access the proposed development via two access driveways on Dazé Street: one proposed right-in/right-out driveway and one existing '3/4 access' driveway. These driveways will provide access to all four proposed phases and the podium parking at the base of each one with a maximum 6.7m drive aisle for the parking garage driveways. All access driveways and drive aisles will have the minimum required width of 6.0m. There is a turn-around circle in the southeast corner of the site to allow for vehicles to circulate through the site without requiring access to the parking garages.

A swept-path analysis was undertaken which confirms the ability of the three design vehicles including the delivery truck, fire truck and a front-loading waste collection vehicle to access the

site, circulate within the internal drive aisle and egress back onto Dazé Street. Swept path analyses for each design vehicle can be found in **Appendix H**.

5.1.3 New Street Networks

The New Street Networks element is exempt from this TIA, as defined in the study scope. This element is not required for Site Plan applications. It should be noted, however, that the internal private streets have been designed with City-standard cross-section elements, including 2.0m sidewalks, 7.0m pavement width offering two 3.5m lanes, as well as on-street parking bays and street trees. The road network layout has been designed for potential expansion as adjacent lands are redeveloped.

5.2 Parking

5.2.1 Parking Supply

Based on the location and size of the proposed development, the Zoning Bylaw requirements for visitor parking are a minimum of 0.1 spaces per unit beyond the first twelve units and a maximum of 1.75 spaces per unit, as the proposed development is within Area 'Z'. The parking ratio for residents will be 0.64 spaces/unit. Phase 1 of the proposed Master Plan includes a total of 284 parking spaces within the podium levels of the development, including the maximum permitted 30 parking spaces for visitors. In addition to this, 94 surface parking spaces will be retained for the existing restaurant and 126 surface spaces retained for the movie theatre. Therefore, the proposed parking supply is within the permissible range.

According to the bylaw, the proposed development must provide a minimum of 0.5 spaces per unit for bicycle parking. The proposed parking supply in Phase 1 will meet this minimum requirement.

5.2.2 Spillover Parking

The proposed development is expected to provide a sufficient supply of on-site parking to meet the market demand while acknowledging the proximity to rapid transit. No spillover parking demand is expected and rates will be refined for subsequent phases.

5.3 Boundary Streets

The proposed development is located adjacent to only one boundary street: Dazé Street.

5.3.1 Mobility

Segment-based Multi-Modal Level of Service (MMLOS) results for the portion of Dazé Street adjacent to the site are provided in **Table 10** below. Details of the segment-based MMLOS analysis are provided in **Appendix H**.

Table 10 - Segment-based MMLOS Results

	LEVEL OF SERVICE BY MODE						
LOCATION	PEDESTRIAN (PLOS)	BICYCLE (BLOS)	TRANSIT (TLOS)	TRUCK (TkLOS)			
Existing Conditions							
Dazé Street ¹	<mark>E</mark> (Target: A)	<mark>E</mark> (Target: B)	N/A ²	A (Target: A)			

Notes:

¹ – It is assumed the road cross-section for Dazé Street does not change under Existing and Future conditions.

² – There is no existing or known future transit service proposed on Dazé Street adjacent to the site.

The results of the Segment-based MMLOS indicate that Dazé Street does not currently meet its PLOS or BLOS targets. Sensitivity analysis indicates that increasing the boulevard width, providing on-street bike lanes and reducing operating speeds to 40 km/h (i.e. speed limit reduction and passive traffic calming measures) are all measures that could improve the PLOS and BLOS.

It should be noted that the measures listed above are intended only as suggestions to the City on how the MMLOS within the study area could be improved and do not identify measures to be implemented as a direct consequence of this development. The MMLOS analysis identifies existing deficiencies in the study area and these deficiencies are not expected to be exacerbated by the proposed development.

5.3.2 Road Safety

A summary of all reported collisions within the study period over the past five years was presented in the Scoping section of this TIA. The City requires a safety review if at least six collisions for any one movement or of a discernible pattern have occurred over a five-year period. Preliminary analyses identified that all study area intersections may be of potential concern. Further review was therefore conducted, as summarized below:

5.3.2.1 Intersections

Table 11 summarizes the number of collisions recorded at each study intersection in the five-year period, subdivided by collision type.

	COLLISION TYPE								
INTERSECTION	Angle	Rear End	Sideswipe	Turning Mvmt	Single Motor Vehicle	Other			
Hunt Club Rd & Airport Parkway	5	51	13	2	5	4			
Hunt Club Rd & Dazé St	10	43	15	10	1	1			
Bank St & Hunt Club Rd	20	70	31	7	8	3			
Bank St & Dazé St	3	12	7	22	3	0			
Dazé St & South Keys SC	0	2	0	3	0	0			

Table 11 - Intersection Collisions by Type

Based on the above, it is important to note that no significant collision patterns were observed at the Dazé Street and South Keys Shopping Centre (SC) intersection.

Table 12 summarizes the above intersection collisions and subdivides them by the approach direction of the at-fault vehicle. The 'other' collision type as well as the Dazé Street and South Keys Shopping Centre intersection have been excluded from this analysis.

		COLLISION TYPE							
INTERSECTION	VEHICLE 1 DIRECTION	Angle	Rear End	Sideswipe	Turning Movement	Single Motor Vehicle			
	Northbound	2	2	1	0	0			
Hunt Club Rd &	Southbound	2	7	1	0	1			
	Eastbound	0	19	3	2	2			
	Westbound	1	23	8	0	2			
	Northbound	2	5	2	3	0			
Hunt Club Rd &	Southbound	2	7	2	2	0			
Daze St	Eastbound	6	13	7	4	1			
	Westbound	0	16	4	0	0			
	Northbound	11	21	17	3	0			
Bank St & Hunt	Southbound	2	9	6	2	3			
Club Rd	Eastbound	4	19	10	1	3			
	Westbound	2	21	3	0	2			
	Northbound	1	4	2	13	0			
Bank St & Dazé	Southbound	0	4	4	7	0			
St	Eastbound	2	1	1	0	2			
	Westbound	0	2	0	2	1			

Table 12 - Intersection Collisions by Direction and Type

The significant collision patterns identified above have been analysed below in order to identify potential contributing factors:

Hunt Club Road & Airport Parkway:

Based on the collision records provided, the majority of the south, east and westbound rear-end collisions involved vehicles slowing or stopping throughout all lanes of traffic, either to perform turning movements or as a result of weekday peak period congestion. The eastbound left-turn volumes and westbound right-turn volumes at this intersection are also significant during the weekday morning peak hour which may result in long delays and contribute to driver impatience and/or more dangerous behaviour. The vast majority of rear-end collisions caused property damage only or resulted in only minor injuries and therefore can be considered minor in nature.

The majority of sideswipe collisions occurred on the westbound approach and involved vehicles stopping or slowing with the addition of inclement weather conditions such as rain, ice and snow. All reported sideswipe collisions resulted in property damage only.

Hunt Club Road & Dazé Street:

A high frequency of east and westbound rear-end collisions were observed at the Hunt Club & Dazé intersection, the majority of which involved collisions with a stopped vehicle. This may be an indication of excessive speeding on these approaches, which are straight with few site access connections, or may be the result of vehicles stopping sooner than expected to turn into the commercial area to the north.

The eastbound approach also has an excess of angle and sideswipe collisions with vehicles travelling in both the north and southbound directions. Based on the collision records, the majority of these collisions involved eastbound vehicles failing to obey the traffic signals resulting in a collision with either south or northbound vehicles.

Bank Street & Hunt Club Road:

A number of sideswipe collisions on the north, south and eastbound approaches were recorded at this intersection along with some angle collisions on the northbound approach. The majority of these collisions occurred due to vehicles changing lanes and other turning movements.

A large number of rear-end collisions were recorded on all approaches at the Bank Street & Hunt Club Road intersection. The majority of these collisions involved stopped vehicles which may be an indication of speeding on both Bank Street and Hunt Club Road. High volumes of traffic could also be an influencing factor in the high number of collisions present at this intersection.

Bank Street & Dazé Street:

The collision records for this intersection indicate that the majority of northbound and southbound turning movement collisions involved vehicles turning left and failing to yield to vehicles travelling in the opposite direction. The signal timing plan should be reviewed to ensure sufficient cycle length is provided to the left-turn movements.

5.3.2.2 Roadway Segments

Table 13 summarizes the number of collisions recorded along each roadway segment within the study area in the five-year period, subdivided by collision type. As the segment of Dazé Street between 200 metres west of Bank Street and Bank Street experienced less than six collisions in the five-year period, it has been excluded from further analysis.

ROADWAY SEGMENT	COLLISION TYPE							
	Angle	Rear End	Sideswipe	Turning Mvmt	Single Motor Vehicle	Other		
Dazé St – Hunt Club to 200m west of Bank St	1	0	0	4	2	0		

Table 13 - Roadway Segment Collisions by Type

As indicated above, no significant collision patterns (i.e. 6 collisions or more) have been noted within the five-year period along the site frontage. As such, no further analysis is required.

5.4 Access Intersections

5.4.1 Location and Design of Access

The proposed development will be accessed via Dazé Street through a proposed right-in/right-out driveway and an existing '3/4' movements driveway. Phase 1 of the proposed development may also continue to be accessed via a third access driveway at the southeast corner of the site. It should be noted that, for the purposes of this analysis, all traffic volume projections have been consolidated to the two access points described above. The proposed site access is in

conformance with the City of Ottawa Private Approach By-law 2003-447, with particular confirmation of the following items:

- <u>Width</u>: A private approach will have a minimum width of 2.4m and a maximum width of 9.0m.
 - ➤ The proposed site access will be 7.0m wide. ✓
- <u>Distance from Intersecting Road</u>: For a residential development with 300 or more parking spaces, the proposed private approach must be at least 60 metres from the nearest intersecting street line.
 - The proposed right-in/right-out access on Dazé Street is approximately 35m from the nearest intersecting street line which is less than the required 60m, however due to the magnitude of the new development, a secondary access is required at this site.
 - ➤ The existing '3/4' access on Dazé Street is approximately 85m from the nearest intersecting street line and is therefore in conformance with the by-law. ✓
- <u>Quantity and Spacing of Private Approaches</u>: For sites with frontage between 46 and 150 metres, one (1) two-way and two (2) one-way, or two (2) two-way private approaches are permitted. Any two private approaches must be separated by at least 9.0m and can be reduced to 2.0m in the case of two one-way driveways. On lots that abut more than one roadway, these provisions apply to each frontage separately.
 - ➤ The frontage of the subject site on Dazé Street is approximately 150m and therefore two (2) two-way private approaches are compliant with the by-law. ✓
- <u>Distance from Property Line</u>: Private approaches must be at least 3.0m from the abutting property line, however this requirement can be reduced to 0.3m provided that the access is a safe distance from the access serving the adjacent property, sight lines are adequate and that it does not create a traffic hazard.
 - Both the proposed and existing private approaches exceed the minimum distance required.

Based on the Transportation Association of Canada's (TAC) Geometric Design Guide for Canadian Roads (June 2017), for a residential development of more than 200 units a minimum clear throat length of 25m is suggested for site access driveways on collector roadways. The clear throat length is provided to mitigate the potential for queue spillback onto the collector road. A clear throat length of approximately 110m is proposed for the right-in/right-out Dazé Street access for Phase 1 and a clear throat length of approximately 45m is proposed for the long-term Master Plan, both of which are well above the suggested minimum clear throat length.

For the existing '3/4' movement access on Dazé Street the clear throat length for Phase 1 as well as Phases 2 to 4 is approximately 35 m which meets the minimum requirements according to the TAC Design Guide for Canadian Roads.

5.4.2 Access Intersection Control

Both proposed site access driveways will be unsignalized and are expected to operate acceptably, as confirmed through intersection capacity analyses presented in subsequent sections of this report.

5.4.3 Access Intersection Design

Both proposed site access driveways will be unsignalized therefore MMLOS analysis is not required. As a result of the proposed internal street alignment, it is proposed that the existing '3/4

access be modified and shifted east by approximately 3.5 metres. Figures supporting a Roadway Modification Applications (RMA) have therefore been prepared and provided in **Appendix L**. The design of this intersection modification has taken into consideration minimum vehicle storage requirements and turning radii for the site's design vehicles, including an emergency vehicle (fire truck). Curb radii have also been reduced to minimum requirements and the access will include continuous sidewalk and depressed curb per City standards.

5.5 Transportation Demand Management (TDM)

The City of Ottawa is committed to implementing Transportation Demand Management (TDM) measures on a City-wide basis in an effort to reduce automobile dependence, particularly during the weekday peak travel periods. TDM initiatives are aimed at encouraging individuals to use non-auto modes of travel during the peak periods.

5.5.1 Context for TDM

As discussed previously, the proposed development is located immediately adjacent to South Keys BRT and future LRT Station and is within the TOD zone. The site is also surrounded by numerous services and amenities, therefore this level of density and compact growth is appropriate in this context.

As described in the Forecasting section of this report, the transit mode share targets have been refined to account for the significant improvements to the transit system which are expected to occur within the timeframe of this study.

The proposed development aligns with the South Keys Community Design Plan (CDP) but is not located within a Design Priority Area (DPA). The proposed development offers a diversity of units with a variety of layouts from 1 bedroom to 3 bedrooms.

5.5.2 Need and Opportunity

The existing site is currently within close proximity to South Keys BRT Station but is also surrounded by a significant amount of surface parking and is challenging for pedestrians to navigate. High quality transit service is expected to be fully operational prior to full build-out of Phase 1 and therefore an opportunity exists to encourage residents to use this service upon move-in.

A well-connected pathway network is planned within the surrounding community and the planned Transit Plaza that is adjacent to the site will help shift the environment from auto-oriented to more pedestrian friendly.

5.5.3 TDM Program

The proposed development conforms to the City's TDM principles by providing convenient and direct connections to adjacent pedestrian, cycling and transit facilities where available. The proposed on-site pedestrian facilities will provide direct and convenient connections to adjacent roadways and commercial developments.

The City of Ottawa's TDM Measures Checklist was completed for the proposed development, and the results are provided in **Appendix G**. Notable measures that are being considered include:

- Ensuring maps and OC Transpo brochures are available for residents;
- Offering PRESTO cards preloaded with one monthly transit pass upon resident move-in (first year of development);
- Providing multimodal travel option information package to new residents; and

• Unbundling parking costs from monthly rent.

5.6 Neighbourhood Traffic Management

5.6.1 Adjacent Neighbourhoods

Not Applicable: The proposed development is not within a residential neighbourhood and is accessed via Dazé Street which consists of a multi-lane cross-section, therefore the Neighborhood Traffic Management section is not required in this context.

5.7 Transit

5.7.1 Route Capacity

The estimated future total transit passenger demand within the study area was provided in Section 4.1.2.4. The results have been summarized in **Table 14**.

	PEAK PERIOD DEMAND (PERSON TRIPS)							
PERIOD	2026 (P	hase 1)	2041 (Phases 1 to 4)					
	IN	OUT	IN	OUT				
AM	30	66	117	260				
PM	53	38	210	152				

Table 14 - Future Development Generated Transit Demand

Overall transit demand of the site is expected to be easily accommodated by the BRT and LRT service which are planned to operate in tandem at South Keys Station, as well as the other local transit routes operating nearby on Bank Street or Hunt Club Road that were discussed previously in the Scoping component of this study.

5.7.2 Transit Priority Measures

Not Applicable - Transit service for new residents will be provided by the LRT/BRT network.

5.8 Review of Network Concept

As discussed in the Scoping section of this TIA, the following screenlines are applicable to this study: SL13 – CNR East; and SL20 – Rideau River (South). A summary comparison of the City 2031 Network Concept demand and capacity has been provided in **Table 15** below.

	AM 2031 PREFERRED INBOUND					
SCREENLINE	DEMAND	CAPACITY	V/C RATIO			
SL13 – CNR East	7,934	9,000	0.88			
SL42 – Rideau River (Manotick)	4,536	7,400	0.61			

Table 15 – 2031 Network Concept

Source: Road Network Development Report: Final Report (December 2013)

Based on **Table 15** above, it is expected that site-generated traffic will not trigger any deficiencies across either screenline. Traffic generated exclusively by the proposed development is expected to contribute less than the required inbound weekday morning and afternoon peak hour trips for the screenlines to be operating above capacity. Further, it is important to note that since the publication of the TMP, the City has significantly increased investment in local transit infrastructure with the planned extension of the Trillium LRT Line into the Riverside South Community Core, which is expected to help reduce overall reliance on auto trips during the weekday peak periods across both screenlines.

5.9 Intersection Design

The following sections summarize the methodology and results of the multi-modal intersection capacity analysis conducted within the study area.

5.9.1 Intersection Control

5.9.1.1 Traffic Signal Warrants

Traffic signal warrants for site access intersections were discussed previously in Section 5.4. All other study Intersections are currently signalized, therefore no further signal warrant analysis is required.

5.9.1.2 Roundabout Analysis

Due to urban fabric surrounding the site, roundabouts are not able to be easily accommodated easily as a form of traffic control. Roundabouts typically require a larger footprint in comparison with traffic signals and are not envisioned as part of the City's long-term vision for this area in the CDP. As such, no further analysis on the feasibility of roundabouts at the study intersections was conducted.

5.9.2 Intersection Analysis Criteria (Automobile)

The following section outlines the City of Ottawa's methodology for determining motor vehicle Level-of-Service (LOS) at signalized and unsignalized intersections.

5.9.2.1 Signalized Intersections

In qualitative terms, the Level-of-Service (LOS) defines operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of such factors as delay, speed and travel time, freedom to manoeuvre, traffic interruptions, safety, comfort and convenience. LOS can also be related to the ratio of the volume to capacity (v/c) which is simply the relationship of the traffic volume (either measured or forecast) to the capability of the intersection or road section to accommodate a given traffic volume. This capability varies depending on the factors described above. LOS are given letter designations from 'A' to 'F'. LOS 'A' represents the best operating conditions and LOS 'E' represents the level at which the intersection or an approach to the intersection is carrying the maximum traffic volume that can, practicably, be accommodated. LOS 'F' indicates that the intersection is operating beyond its theoretical capacity.

The City of Ottawa has developed criteria as part of the Transportation Impact Assessment Guidelines, which directly relate the volume to capacity (v/c) ratio of a signalized intersection to a LOS designation. These criteria are as follows:

LOS	VOLUME TO CAPACITY RATIO (v/c)
A	0 to 0.60
В	0.61 to 0.70
С	0.71 to 0.80
D	0.81 to 0.90
E	0.91 to 1.00
F	> 1.00

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Tahle	16 -	LOS	Criteria	f∩r	Signalized	Intersections
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The intersection capacity analysis technique provides an indication of the LOS for each movement at the intersection under consideration and for the intersection as a whole. The overall v/c ratio for an intersection is defined as the sum of equivalent volumes for all deficient movements at the intersection divided by the sum of capacities for all deficient movements.

The Level of Service calculation is based on locally-specific parameters as described in the TIA Guidelines and incorporates existing signal timing plans obtained from the City of Ottawa. The analysis existing conditions utilized a Peak Hour Factor (PHF) of 0.90, while future conditions consider optimized signal timing plans and use of a Peak Hour Factor (PHF) of 1.0 to recognize peak spreading beyond a 15-minute period in congested conditions.

5.9.2.2 Unsignalized Intersections

The capacity of an unsignalized intersection can also be expressed in terms of the LOS it provides. For an unsignalized intersection, the Level of Service is defined in terms of the average movement delays at the intersection. This is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line; this includes the time required for a vehicle to travel from the last-in-queue position to the first-in-queue position. The average delay for any particular minor movement at the un-signalized intersection is a function of the capacity of the approach and the degree of saturation.

The Highway Capacity Manual 2010 (HCM), prepared by the Transportation Research Board, includes the following Levels of Service criteria for un-signalized intersections, related to average movement delays at the intersection, as indicated in **Table 17** below.

LOS	DELAY (seconds)					
A	<10					
В	>10 and <15					
С	>15 and <25					
D	>25 and <35					
E	>35 and <50					
F	>50					

Table 17 - LOS Criteria for Unsignalized Intersections

The unsignalized intersection capacity analysis technique included in the HCM and used in the current study provides an indication of the Level of Service for each movement of the intersection under consideration. By this technique, the performance of the unsignalized intersection can be compared under varying traffic scenarios, using the Level of Service concept in a qualitative sense. One unsignalized intersection can be compared with another unsignalized intersection using this concept. Level of Service 'E' represents the capacity of the movement under consideration and generally, in large urban areas, Level of Service 'D' is considered to represent an acceptable operating condition. Level of Service 'E' is considered an acceptable operating condition for planning purposes for intersections located within Ottawa's Urban Core the downtown and its vicinity). Level of Service 'F' indicates that the movement is operating beyond its design capacity.

5.9.3 Intersection Capacity Analysis

Following the established intersection capacity analysis criteria described above, the existing and future conditions are analyzed during the weekday peak hour traffic volumes derived in this study.

The following section presents the results of the intersection capacity analysis. All tables summarize study area intersection LOS results during the weekday morning and afternoon peak hour periods.

The Synchro output files have been provided in Appendix J.

5.9.3.1 Existing (2021) Traffic

An intersection capacity analysis has been undertaken using the Existing (2021) Traffic volumes presented in **Exhibit 5**, yielding the following results:

Table 18 - Intersection	Capacity Anal	ysis: Existing (2	2021) Traffic

		AM F	PEAK HOUR	PM PEAK HOUR		
INTERSECTION	TRAFFIC CONTROL	OVERALL LOS	MOST DEFICIENT MOVEMENT	OVERALL LOS	MOST DEFICIENT MOVEMENT	
		(V/C OR DELAY)	(V/C OR DELAY)	(V/C OR DELAY)	(V/C OR DELAY)	
Airport Parkway & Hunt Club Rd	Signalized	F (1.13)	WBRT (1.36)	E (0.96)	WBRT (1.10)	
Hunt Club Rd & Dazé St	Signalized	F (1.07)	EBL (1.83)	F (1.13)	EBL (2.84)	
Bank St & Hunt Club Rd	Signalized	D (0.87)	WBT (1.14)	F (1.01)	SBL (2.07)	
Bank St & Dazé St	Signalized	A (0.40)	EBL (0.70)	A (0.55)	EBL (0.79)	
Dazé St & South Keys Shopping Centre	Signalized	A (0.16)	EBRT (0.35)	A (0.30)	EBRT (0.56)	
Dazé St & Existing '3/4' Access	Unsignalized	A (9.1s)	EBR (9.1s)	B (10.4s)	EBR (10.4s)	

Based on the above, several of the study area intersections are presently operating well over capacity during both the weekday morning and afternoon peak hours, while the intersections within the South Keys Shopping Centre are shown to be operating at excellent Levels of Service.

5.9.3.2 Future (2026) Background Traffic

An intersection capacity analysis has been undertaken using the Future (2026) Background Traffic volumes presented in **Exhibit 10**, yielding the following results:

		AM P	EAK HOUR	PM PEAK HOUR	
INTERSECTION	TRAFFIC CONTROL				
Airport Parkway & Hunt Club Rd	Signalized	E (0.95)	WBRT (1.05)	D (0.89)	WBRT (1.00)
Hunt Club Rd & Dazé St	Signalized	F (1.02)	EBL (1.64)	F (1.19)	EBL (2.69)
Bank St & Hunt Club Rd	Signalized	C (0.74)	WBT (0.99)	E (0.91)	SBL (1.92)
Bank St & Dazé St	Signalized	A (0.35)	EBL (0.71)	A (0.50)	EBL (0.81)
Dazé St & South Keys Shopping Centre	Signalized	A (0.10)	EBRT (0.32)	A (0.27)	EBRT (0.54)
Dazé St & Existing '3/4' Access	Unsignalized	A (9.0s)	EBR (9.0s)	B (10.1s)	EBR (10.1s)

Table 19 - Intersection Capacity Analysis: 2026 Background Traffic

Under Future (2026) Background Traffic conditions, the results indicate slight improvements, however this is directly attributable to the use of a Peak Hour Factor of 1.0 suggesting that traffic demands are expected to extend beyond 15-minute periods and be more evenly distributed throughout the hour.

5.9.3.3 Future (2031) Background Traffic

An intersection capacity analysis has been undertaken using the Future (2031) Background Traffic volumes presented in **Exhibit 11**, yielding the following results:

		AM P	EAK HOUR	PM PEAK HOUR	
INTERSECTION	TRAFFIC CONTROL	OVERALL LOS	MOST DEFICIENT MOVEMENT	OVERALL LOS	MOST DEFICIENT MOVEMENT
		(V/C OR DELAY)	(V/C OR DELAY)	(V/C OR DELAY)	(V/C OR DELAY)
Airport Parkway & Hunt Club Rd	Signalized	E (0.98)	WBRT (1.10)	E (0.92)	WBRT (1.04)
Hunt Club Rd & Dazé St	Signalized	F (1.02)	EBL (1.64)	F (1.39)	EBL (2.69)
Bank St & Hunt Club Rd	Signalized	C (0.78)	WBT (1.02)	E (0.93)	SBL (1.96)
Bank St & Dazé St	Signalized	A (0.37)	EBL (0.71)	A (0.51)	EBL (0.81)
Dazé St & South Keys Shopping Centre	Signalized	A (0.10)	EBRT (0.32)	A (0.27)	EBRT (0.54)
Dazé St & Existing '3/4' Access	Unsignalized	A (9.0s)	EBR (9.0s)	B (10.1s)	EBR (10.1s)

Table 20 - Intersection Capacity Analysis: 2031 Background Traffic

By the 2031 horizon year, conditions at the outer study area intersections will continue to be exacerbated as a result of continued background traffic growth.

5.9.3.4 Future (2041) Background Traffic

An intersection capacity analysis has been undertaken using the Future (2041) Background Traffic volumes presented in **Exhibit 12**, yielding the following results:

		AM P	EAK HOUR	PM PEAK HOUR	
INTERSECTION	TRAFFIC CONTROL	OVERALL LOS (V/C OR DELAY)	MOST DEFICIENT MOVEMENT (V/C OR DELAY)	OVERALL LOS (V/C OR DELAY)	MOST DEFICIENT MOVEMENT (V/C OR DELAY)
Airport Parkway & Hunt Club Rd	Signalized	F (1.08)	WBRT (1.21)	E (0.93)	WBRT (1.12)
Hunt Club Rd & Dazé St	Signalized	F (1.02)	EBL (1.64)	F (1.24)	EBL (2.69)
Bank St & Hunt Club Rd	Signalized	D (0.81)	WBT (1.08)	F (1.02)	SBL (2.05)
Bank St & Dazé St	Signalized	A (0.37)	EBL (0.71)	A (0.53)	EBL (0.81)
Dazé St & South Keys Shopping Centre	Signalized	A (0.10)	EBRT (0.32)	A (0.27)	EBRT (0.54)
Dazé St & Existing '3/4' Access	Unsignalized	A (9.0s)	EBR (9.0s)	B (10.1s)	EBR (10.1s)

Table 21 - Intersection Capacity Analysis: 2041 Background Traffic

5.9.3.5 Future (2026) Total Traffic

An intersection capacity analysis has been undertaken using the Future (2026) Total Traffic volumes presented in **Exhibit 13**, yielding the following results:

Table 22 - Intersection Capacity Analysis: 2026 Total Traffic	

		AM P	EAK HOUR	PM PEAK HOUR	
INTERSECTION	TRAFFIC CONTROL	OVERALL LOS	MOST DEFICIENT MOVEMENT	OVERALL LOS	MOST DEFICIENT MOVEMENT
		(V/C OR DELAY)	(V/C OR DELAY)	(V/C OR DELAY)	(V/C OR DELAY)
Airport Parkway & Hunt Club Rd	Signalized	E (0.96)	WBTR (1.06)	D (0.86)	WBRT (1.01)
Hunt Club Rd & Dazé St	Signalized	F (1.04)	EBL (1.71)	F (1.24)	EBL (2.86)
Bank St & Hunt Club Rd	Signalized	C (0.75)	WBT (1.01)	C (0.92)	SBL (1.92)
Bank St & Dazé St	Signalized	A (0.35)	EBL (0.71)	A (0.54)	EBL (0.76)
Dazé St & South Keys Shopping Centre	Signalized	A (0.14)	EBR (0.32)	A (0.27)	EBR (0.54)
Dazé St & proposed Ri/Ro Access	Unsignalized	A (9.0s)	EBR (9.0s)	B (10.1s)	EBR (10.1s)
Dazé St & Existing '3/4' Access	Unsignalized	A (9.1s)	EBR (9.1s)	B (10.3s)	EBR (10.3s)

Based on a comparison with background conditions, the proposed development is expected to have an insignificant impact on study area intersections at the build-out of Phase 1.

5.9.3.6 Future (2031) Total Traffic

An intersection capacity analysis has been undertaken using the Future (2031) Total Traffic volumes presented in **Exhibit 14**, yielding the following results:

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		AM P	EAK HOUR	PM PEAK HOUR	
INTERSECTION	TRAFFIC CONTROL	OVERALL LOS	MOST DEFICIENT MOVEMENT	OVERALL LOS	MOST DEFICIENT MOVEMENT
		(V/C OR DELAY)	(V/C OR DELAY)	(V/C OR DELAY)	(V/C OR DELAY)
Airport Parkway & Hunt Club Rd	Signalized	E (1.00)	WBRT (1.12)	E (0.93)	WBRT (1.05)
Hunt Club Rd & Dazé St	Signalized	F (1.04)	EBL (1.71)	F (1.24)	EBL (2.83)
Bank St & Hunt Club Rd	Signalized	C (0.78)	WBT (1.04)	E (0.94)	SBL (1.96)
Bank St & Dazé St	Signalized	A (0.35)	EBL (0.71)	A (0.51)	EBL (0.81)
Dazé St & South Keys Shopping Centre	Signalized	A (0.14)	EBR (0.32)	A (0.27)	EBR (0.54)
Dazé St & proposed Ri/Ro Access	Unsignalized	A (9.0s)	EBR (9.0s)	B (10.0s)	EBR (10.0s)
Dazé St & Existing '3/4' Access	Unsignalized	A (9.1s)	EBR (9.1s)	B (10.3s)	EBR (10.3s)

5.9.3.7 Future (2041) Total Traffic

An intersection capacity analysis has been undertaken using the Future (2041) Total Traffic volumes presented in **Exhibit 15**, yielding the following results:

Table 24 -	Intersection	Canacit	v Analvsi	is [.] 2041	Total ⁻	Traffic
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		AM P	EAK HOUR	PM PEAK HOUR	
INTERSECTION	TRAFFIC CONTROL	OVERALL LOS	MOST DEFICIENT MOVEMENT	OVERALL LOS	MOST DEFICIENT MOVEMENT
		(V/C OR DELAY)	(V/C OR DELAY)	(V/C OR DELAY)	(V/C OR DELAY)
Airport Parkway & Hunt Club Rd	Signalized	F (1.13)	WBRT (1.27)	E (0.97)	WBRT (1.15)
Hunt Club Rd & Dazé St	Signalized	F (1.06)	EBL (1.87)	F (1.33)	EBL (3.07)
Bank St & Hunt Club Rd	Signalized	D (0.83)	WBT (1.12)	F (1.04)	SBL (2.05)
Bank St & Dazé St	Signalized	A (0.38)	EBL (0.68)	A (0.54)	EBL (0.76)
Dazé St & South Keys Shopping Centre	Signalized	A (0.14)	EBL (0.32)	A (0.28)	EBR (0.54)
Dazé St & Proposed Ri/Ro Access	Unsignalized	A (9.2s)	EBR (9.2s)	B (10.2s)	EBR (10.2s)
Dazé St & Existing '3/4' Access	Unsignalized	A (9.4s)	EBR (9.4s)	B (10.4s)	EBR (10.4s)

Upon full build-out of the Master Plan, impacts to the outer study area intersections are notable, however can be considered insignificant with regards to the projected background operating conditions. Within closer proximity to the site access points along Daze Street, the proposed development is expected to be easily accommodated within the capacity constraints of those intersections.

5.9.4 Multi-Modal Level of Service

An analysis of existing and future conditions for each mode has been conducted based on the methodology prescribed in the 2017 Multi-Modal Level of Service (MMLOS) Guidelines Addendum. The Level of Service (LOS) for each mode has been calculated for each intersection where signals exist or are anticipated, based on the City's standardized spreadsheet that includes different targets for each respective area of the City.

The Future (2041) Total intersection MMLOS results have been summarized in **Table 25**. Detailed analysis results for existing and future conditions are provided **Appendix I**.

	LEVEL OF SERVICE BY MODE			
LOCATION	PEDESTRIAN	BICYCLE	TRANSIT	TRUCK
	(PLOS)	(BLOS)	(TLOS)	(TkLOS)
INTERSECTIONS				
Bank St & Dazé St	F	F	F	<mark>E</mark>
	(Target: A)	(Target: C)	(Target: N/A)	(Target: D)
Bank St & Hunt Club	F	F	F	A
Rd	(Target: A)	(Target: C)	(Target: N/A)	(Target: D)
Dazé St & South Keys	F	F	N/A ¹	F
Shopping Centre	(Target: A)	(Target: D)		(Target: D)
Hunt Club Rd & Dazé	F	F	F	F
St	(Target: A)	(Target: C)	(Target: N/A)	(Target: D)
Airport Parkway & Hunt	F	F	F	C
Club Rd	(Target: A)	(Target: C)	(Target: D)	(Target: D)

Table 25 - Intersection MMLOS - Existing and Future Conditions

¹Not Applicable - No existing or future transit routes are expected at this intersection.

5.9.4.1 Intersection Pedestrian Level of Service (PLOS)

The PLOS at intersections is based on several factors including the number of traffic lanes that pedestrians must cross, corner radii, and whether the crossing allows for permissive or protective right or left turns, among others.

The results of the analysis indicate that all study intersections are expected to operate below their respective PLOS targets. This is primarily due to number of lanes that pedestrians must cross (i.e. crossing distance/3.5m) on each approach. The PLOS could potentially be improved if the following were implemented:

- High-visibility crosswalk markings;
- Median refuges for approaches with a larger number of lanes;
- Leading pedestrian intervals; and
- Removal of channelized right-turn lanes as well as auxiliary right-turn lanes.

It should be noted, however, that implementing these measures could also further exacerbate the poor vehicular LOS at these intersections and therefore careful consideration should be given to implementing any of the above to ensure that an appropriate balance is achieved between various modes at each intersection. Due to its proximity to the transit station and plaza, the intersection of Daze/South Keys Shopping Centre would benefit from improved PLOS and has been shown to have excess vehicular capacity that could be reallocated to active travel modes. This would benefit
the broader area but would not be required to accommodate the development-generated demands.

5.9.4.2 Intersection Bicycle Level of Service (BLOS)

The BLOS at intersections is dependent on several factors: the number of lanes that the cyclist is required to cross to make a left-turn; the presence of a dedicated right-turn lane on the approach; and the operating speed of each approach.

Based on the analysis, no study area intersections meet their BLOS target due to a lack of cycling facilities (i.e. mixed traffic) and/or due to the number of traffic lanes that cyclists must cross to turn left at intersections. Implementing a protected intersection design at all intersections (or bike lanes paired with two-stage left-turn bike boxes) could allow the intersections to meet or exceed the BLOS target with the exception of the intersections of Hunt Club with the Airport Parkway or Bank Street due to the high operating speed along these arterial roadways.

5.9.4.3 Intersection Transit Level of Service (TLOS)

Intersection TLOS is based on the average signal delay experienced by transit vehicles at each study area intersection.

The results of the analysis indicate that the TLOS is not met at any of the study area intersections during the future conditions. This is triggered by the expected increase in background volume along with the site-generated traffic. It should be noted Hunt Club is identified as a Transit Priority Corridor in the TMP and is likely to be one of the most successful tactics for reducing automobile demand at these congested intersections. There are currently no transit priority plans for Bank Street.

5.9.4.4 Intersection Truck Level of Service (TkLOS)

The Truck LOS (TkLOS) is based on the right-turn radii, as well as the number of receiving lanes for vehicles making a right-turn from the traffic lane being analysed.

The intersections Hunt Club with Bank and the Airport Parkway meet the City's target with TkLOS of 'A' and 'C', respectively, while the remaining intersections exceed the targeted TKLOS. This is due to the tighter turning radii and the fewer number of receiving lanes on the approaches at these intersections. The accommodation of trucks is of practical importance but has negative consequences primarily to pedestrian safety. Given that the study area is expected to be a highly-pedestrianized area, substandard TkLOS results for intersections along Daze Street should be considered acceptable.

The recommended measures listed above are intended only as suggestions to the City on how the MMLOS within the study area could be improved and do not identify measures to be implemented as a direct consequence of this development. The MMLOS analysis identifies existing deficiencies in the study area and these deficiencies are not expected to be exacerbated by the proposed development.

5.10 Geometric Review

The following section reviews all geometric requirements for the study area intersections.

5.10.1 Sight Distance and Corner Clearances

The proposed right-in/right-out access driveway is located on Dazé Street approximately 35m south of the intersection of Dazé and South Keys Shopping Centre which is within the minimum

recommended corner clearance of 55m indicated in the Transportation Association of Canada (TAC) Design Guide for Canadian Roads.

This location of the proposed right-in/right-out within relatively close proximity to the signalized intersection is due to the site requiring secondary access to accommodate any emergency vehicles requiring access to the site. As a result of the site's relatively short frontage to a municipal road (Daze Street) the site is constrained and therefore there are limited options for providing a secondary access that meets the recommended standards. Further review indicates that the right-in/right-out access is proposed on the outside edge of a gradual horizontal curve affords sightlines in excess of the 85 metres recommended in TAC for a road with a 60km/h design speed. Also, as the proposed development will be transit-oriented, vehicular demands are expected to be relatively low and primarily concentrated at the '3/4' access to the south. As such, the proposed right-in/right-out access is not expected to be a concern despite its proximity to a signalized intersection.

5.10.2 Auxiliary Lane Analysis

Auxiliary turning lane requirements for all intersections within the study area are described as follows:

5.10.2.1 Unsignalized Auxiliary Left-Turn Lane Requirements

An auxiliary left-turn lane warranted analysis was conducted for the northbound approach associated with the existing '3/4' access driveway on Dazé Street using the multi-lane warrant methodology outline in the Ministry of Transportation (MTO) Design Supplement (2017). Based on advancing and opposing volumes projected at this intersection under Future (2041) Total Traffic conditions, a northbound left-turn lane with 15m of storage is required. The existing left-turn lane satisfies this requirement, providing approximately 23 metres of parallel lane length.

A functional design in support of a Roadway Modification Application (RMA) was carried out to identify minor alterations required to relocate the existing '3/4' access driveway approximately 3.5m metres south to accommodate a fire truck/heavy single unit (HSU) design vehicle, standardize the width of the northbound left-turn auxiliary lane and help to ensure that outbound left-turns from the site are physically restricted at this location. These minor modifications are expected to have a negligible impact on the overall storage capacity of the northbound auxiliary left-turn lane which would remain at approximately 20 metres. A detailed queuing analysis at this location using SimTraffic software indicates that the maximum calculated queue under Future (2041) Total Traffic conditions is 15.7m. As such, this auxiliary lane is expected to sufficiently accommodate the additional left-turning site-generated contributions.

The results of the left-turn lane warrant analysis are provided in **Appendix K**, and the RMA functional design drawings are provided in **Appendix L**.

5.10.2.2 Signalized Auxiliary Left-Turn Requirements

A review of auxiliary left-turn lane storage requirements was completed at all signalized study area intersections under Future (2041) Total Traffic conditions. The review compared the projected 95th percentile queue lengths from Synchro operational results, and the standard queue length calculation based on the following equation:

Storage Length =
$$\frac{NL}{C} \times 1.5$$

Where:

N = number of vehicles per hour

L = Length occupied by a vehicle in the queue = 7 m

C = number of traffic signal cycles per hour

The worst-case scenario between weekday morning and afternoon peak hours was used in the analysis for the 95th percentile queue length. The results of the auxiliary left-turn lane analysis are summarized in **Table 26** below.

INTERSECTION	APPROACH	95TH %ILE QUEUE LENGTH (M)	CALCULATED QUEUE LENGTH (M)	EXISTING PARALLEL LANE LENGTH (M)	STORAGE DEFICIENCY (M)
Airport Parkway &	SB	97	139	150 120 (S) ¹	Existing Storage Adequate
Hunt Club Road	WB	24	34	150	Existing Storage Adequate
Hunt Club Road & Dazé Street	SB	66	47	50	Existing Storage Adequate
	EB	110	65	130 100 (S) ¹	Existing Storage Adequate
Bank Street & Hunt	NB	78	48	60 60 (S) ¹	Existing Storage Adequate
Club Road	EB	57	36	100 95 (S) ¹	Existing Storage Adequate
Bank Street & Dazé Street	EB	56	56	>150	Existing Storage Adequate

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(S)¹ – Inner left-turn lane.

As per the results of the queue length analyses presented above, all left-turn movements affected by the proposed development have adequate storage under Future (2041) Total Traffic conditions.

5.10.2.3 Unsignalized Auxiliary Right-Turn Lane Requirements

The Transportation Association of Canada (TAC) suggests that auxiliary right-turn lanes be considered "when the volume of decelerating or accelerating vehicles compared with through vehicles causes undue hazard." Consideration for auxiliary right-turn lanes is typically given when the right-turning traffic exceeds 10% of the through volume and is at least 60 vehicles per hour, as well as the approach volume which could be impacted by decelerating vehicles.

Neither of the unsignalized access driveways are projected to exceed these thresholds under Future (2041) Total Traffic conditions, therefore auxiliary right-turn lanes were not considered at either location.

5.10.2.4 Signalized Auxiliary Right-Turn Lane Requirements

Similarly for signalized intersections, Section 9.14 of TAC suggests that auxiliary right-turn lanes shall be considered when more than 10% of vehicles on an approach are turning right and when the peak hour demand exceeds 60 vehicles. The purpose of this guideline is to mitigate operational impacts to through-traffic, particularly on high-speed arterial roadways, and may not be applicable in all circumstances.

The worst-case scenario between weekday morning and afternoon peak hours was used in the analysis for the 95th percentile queue length and right-turn volume. The results of the auxiliary right-turn lane analysis are summarized in **Table 27** below.

INTERSECTION	APPROACH	RIGHT TURN VOLUME	APPROACH VEHICLES TURNING RIGHT (%)	95TH %ILE QUEUE LENGTH (M)	EXISTING/ PROPOSED PARALLEL LANE LENGTH (M)	STORAGE DEFICIENCY (M)
Airport Parkway & Hunt Club Road	NB	152	90%	14	40	Existing Storage Adequate
Hunt Club Road	SB	345	55%	84	>150	Existing Storage Adequate
& Dazé Street	WB	95	6%	<10	90	Existing Storage Adequate
Bank Street &	SB	242	16%	31	120	Existing Storage Adequate
Hunt Club Road	EB	398	25%	58	>150	Existing Storage Adequate
Bank Street & Dazé Street	SB	344	20%	20	75	Existing Storage Adequate

Table 27 – Auxiliary Right-Turn Lane Storage Analysis at Signalized Intersections

Based on the above results, no storage deficiencies are expected at any of the study area intersections within the timeframe of this study.

5.11 Summary of Improvements Indicated and Modification Options

Based on the intersection capacity, Multi-Modal Level of Service and auxiliary lane analyses results presented above, off-site improvements to the adjacent road network have been recommended in order to accommodate multi-modal demands of both background traffic and additional traffic generated by the proposed development.

5.11.1 Airport Parkway & Hunt Club Road

The results of the analysis indicate that the Airport Parkway & Hunt Club intersection is presently approaching its theoretical capacity with a LOS 'E' during the weekday afternoon peak hour, and is operating over its theoretical capacity with a LOS 'F' during the morning peak hour. This intersection is expected to continue to operate with poor levels of service throughout the study timeframe with and without the proposed development. The westbound through-right lane is considered the most deficient movement in both the weekday morning and afternoon peak hours. The proposed development is expected to contribute negligible additional traffic to this movement throughout all phases of the development.

Queue length analyses indicates that there are no storage deficiencies present at this intersection during Future (2041) Total Traffic conditions.

As indicated by the MMLOS results, it has also been noted that the intersection is expected to perform poorly for other modes of travel, and a review of potential options indicated that there are no feasible improvements that would not impact vehicular capacity. The only exception is the truck LOS, where the intersection is expected to operate with a TkLOS 'C' under future conditions. The implementation of Transit Priority measures along Hunt Club are identified as one of the most reliable methods for reducing long-term traffic growth along this corridor and should be considered by the City in the near future.

5.11.2 Hunt Club Road & Dazé Street

The results of the analysis indicate that the Hunt Club and Dazé intersection is currently operating above its theoretical capacity with a LOS 'F' during both the weekday morning and afternoon peak hours. This intersection is expected to continue to operate with poor levels of service during these peak periods with and without the proposed development traffic.

The existing left and right-turn auxiliary lanes provide adequate storage for all movements affected by the new development, based on queue length analyses.

The MMLOS analysis for this intersection indicates that it is expected to perform poorly for all other modes. In order to improve the expected PLOS, high visibility crosswalk markings could be implemented without affecting vehicular LOS.

5.11.3 Bank Street & Hunt Club Road

The results of the analysis indicate that the Bank & Hunt Club intersection is currently operating approaching its theoretical capacity with a LOS 'E' during the weekday morning peak hour and is operating over its theoretical capacity with a LOS 'F' during the afternoon peak hour. This is not expected to change through to the Future 2041 Background or Total Traffic conditions. The westbound through and southbound left-turn movements are considered the most deficient movement during the weekday morning and afternoon peak hours, respectively. The site generated traffic for the new development is not expected to contribute a marginal impact on the level-of-service at this intersection.

Synchro results and the City's queue length calculation indicate that the existing right and left-turn lanes are capable of accommodating traffic volumes under Future (2041) Total Traffic conditions.

The MMLOS analysis of this intersection indicates that the PLOS and TLOS are expected to operate poorly due to inadequate walk times and long delays. A possibility for improving the PLOS includes implementing high-visibility crosswalk markings. As indicated previously, Transit Priority measures are recommended to reduce vehicular demand.

5.11.4 Bank Street & Dazé Street

Based on the results of the analysis, the Bank & Dazé intersection is expected to operate at a high level of service (i.e. LOS 'A') for both the weekday morning and afternoon peak hours under the Future (2041) Total Traffic conditions. The eastbound left-turn movement is considered deficient for both weekday peak hours and the new development is expected to contribute negligible impacts to this movement.

Auxiliary lane analyses indicate that all storage lanes are sufficient for the projected traffic volumes under Future (2041) Total Traffic conditions.

5.11.5 Dazé Street & Proposed Right-in/Right-out Access

Based on the results of the analysis, the Dazé and right-in/right-out Access intersection is expected to operate at LOS 'A' and 'B' during all weekday morning peak hour conditions, respectively, beyond the 2041 study horizon year.

The queue length analysis conducted for this study indicates that there is no requirement for a southbound right-turn auxiliary lane and that the proposed eastbound right-turn lane from the Shopping Centre is expected to provide adequate storage.

5.11.6 Dazé Street & Existing '3/4' Access

Based on the results of the analysis, the Dazé and '3/4' Access intersection is expected to operate with negligible delays and a LOS 'A' during all weekday morning peak hour conditions and a LOS 'B' under all afternoon peak hours.

Both Synchro results and the first-principles queue length calculation indicate that there are no requirements for a southbound right-turn lane and the eastbound right-turn lane is expected to provide adequate storage.

A functional design Roadway Modification Application (RMA) was carried out to identify minor alterations required to relocate the existing '3/4' access driveway approximately 3.5m metres south which would accommodate a fire truck/heavy single unit (HSU) design vehicle by standardizing the width of the northbound left-turn auxiliary lane and help to ensure that outbound left-turns from the site are physically restricted at this location. This RMA is expected to have a negligible impact on the overall storage capacity of the intersection which will remain at approximately 20 metres. RMA figures are provided in **Appendix L**.

6 Conclusion

The proposed residential development at 2200 Bank Street and 1131 Hunt Club Road is located within an existing Transit-Oriented Development (TOD) zone and immediately adjacent to the South Keys Transitway Station. A Transit Plaza is proposed to the north of the site and will facilitate direct pedestrian access to South Keys Station from both the subject site and Dazé Street.

The proposed development is expected to generate up to 67 and 210 two-way weekday peak hour vehicular trips upon full build-out of Phase 1 and the long-term Master Plan, respectively. These vehicular travel demands were developed based on mode share targets for the Hunt Club Traffic Assessment Zone (TAZ) from the 2020 TRANS Trip Generation Manual and refined with consideration of the significant improvements to the transit system and the strengthening of active transportation connections which are expected to occur within the timeframe of this study. Site-generated traffic contributions were divided amongst the two site access driveways and assigned to the adjacent road network based on the weekday morning peak period commuter travel patterns from the Hunt Club TAZ as specified in the 2011 O-D Survey, as well as the distribution of relevant employment nodes throughout the City.

A suite of Transportation Demand Management (TDM) measures is proposed to offset the sitegenerated vehicular demand and to support non-auto mode share targets proposed in this study. Some of the TDM measures include offering PRESTO cards preloaded with one monthly transit pass upon resident move-in, providing multimodal travel option information package to new residents and unbundling parking costs from monthly rent.

A multi-modal analysis of each study area intersection and adjacent roadway segment identified deficiencies in the existing road network and potential remediation measures have been suggested in which the City could consider in order to meet the prescribed targets. These remediation measures would improve mobility and comfort for all transportation modes but are not required to safely accommodate the proposed development.

The arterial intersections within the study area are expected to operate above their theoretical capacities based on existing and future conditions. The performance of these intersections is not expected to be largely impacted by the site-generated traffic, as it is the case for Future Background and Future Total Traffic conditions. The intersections along Dazé Street are expected to operate well under their theoretical capacities beyond the 2041 study horizon year. As indicated through queueing analysis, all right and left-turn auxiliary lanes impacted by the new development are expected to provide adequate storage for vehicles within the study area.

A functional design Roadway Modification Application (RMA) was carried out to identify minor alterations required to relocate the existing '3/4' access driveway approximately 3.5m metres south which would accommodate a fire truck/heavy single unit (HSU) design vehicle by standardizing the width of the northbound left-turn and help to ensure that outbound left-turns from the site are physically restricted. Detailed queuing analysis confirmed that proposed modifications can be accommodated.

A Post-Development Monitoring Plan is deemed unnecessary, as the site-generated traffic demand is not expected to exacerbate or trigger any additional traffic operational issues at any of the study area intersections beyond those identified under background traffic conditions.

Based on the findings of this study, it is the overall opinion of IBI Group that the proposed development will integrate well with and can be safely accommodated by the adjacent transportation network with the recommended actions and modifications in place.

Appendix A – City Circulation Comments

2200 Bank Street

Meeting Summary Notes June 10, 2021, Online Teams Meeting

Attendees:

- Heather Jenkins, Smart Centres
- Mauro Pambianchi, Smart Centres
- Nancy Meloshe, Consultant
- Barrett Wagar, Consultant
- Rod Lahey, Architect
- Pat McMahon (Transportation Project Manager, City of Ottawa)
- Golam Sharif (Project Manager, City of Ottawa)
- Bruce Bramah, Engineering Intern, City of Ottawa
- Mark Young (Urban Designer, City of Ottawa)
- Phil Castro, Parks Planner, City of Ottawa
- Claire Lee, Urban Design Student
- Yvonne Mitchell, Planning Student
- Tracey Scaramozzino (File Lead, Planner, City of Ottawa)

Not in Attendance:

- Matthew Hayley, Environmental Planner
- Mark Richardson, Planning Forester
- Jamie Batchelor/Eric Lalonde (RVCA)

Issue of Discussion:

- Phase 1 of re-development of 2200 Bank Street, Former Children's Place/Retail Area abutting movie theatre
- 1 mixed-use building with 6-storey podium, 2 21-storey towers (481 du), 5-storey above ground parking podium and 1 storey u/g (348 parking spaces), 629 m2 ground floor retail, indoor amenity area, Transit Plaza
- Applicant indicated that their understanding of the level of public transit, even at the O-train station, was not sufficient enough to reduce the parking rate.





Overall Concept

Shows animated street frontages

1. Official Plan:

- a. General Urban Area
- b. South Keys to Blossom Park Bank Street Secondary Plan and CDP

2. Zoning Information

a. MC [2284] S349-h

3. Infrastructure/Servicing (Golam Sharif, Bruce Bramah)

Infrastructure

If existing services are to be reused, a CCTV scan is required to verify the absence of any service or structural defects. A stamped and signed memo prepared by a relevant professional is also required that addresses the condition of the service and provides any recommendations.

<u>Please provide water boundary conditions and expected flow rates for both Sanitary and</u> <u>Storm including phase 1 or the complete site to ensure the sewer capacity is available.</u>

Water

Existing public services:

Daze Street. – 305mm PVC

Water redundancy would be required for this development based on the number of proposed units.

• Watermain Frontage Fees to be paid (\$190.00 per metre) □ Yes ⊠ No

Boundary conditions:

Civil consultant must request boundary conditions from the City's assigned Project Manager prior to first submission.

- Water boundary condition requests must include the location of the service(s) and the expected loads required by the proposed developments. Please provide all the following information:
 - o Location of service(s)
 - o Type of development and the amount of fire flow required (as per FUS, 1999).
 - o Average daily demand: _____ l/s.
 - o Maximum daily demand: ____l/s.
 - o Maximum hourly daily demand: ____ l/s.
- Fire protection (Fire demand, Hydrant Locations)
- A water meter sizing questionnaire (water data card) will have to be completed prior to receiving a water permit (water card will be provided post approval)

Sanitary Sewer

Existing public services:

• Daze Street – 375mm PVC

Is a monitoring manhole required on private property? \boxtimes Yes \Box No

• The designer should be aware there may be limited capacity in the downstream sanitary sewer system. The sanitary demand needs to be coordinated with the City Planning Dept. to determine if the existing sanitary sewer system has sufficient capacity to support the proposed rezoning. Provide sanitary demands to the City project manager for coordination.

Storm Sewer

Existing public services:

- Daze Street 450mm PVC (Suggested connection)
- 3000mm STM Trunk north of property
- The Environmental Site Assessment (ESA) may provide recommendations where site contamination may be present. The recommendations from the ESA need to be coordinated with the servicing report to ensure compliance with the Sewer Use By-Law.



Stormwater Management

Quality Control:

 Rideau Valley Conservation Authority to provide quality control requirements for property. (Sawmill Creek)

Quantity Control:

- Allowable Runoff coefficient (C): C = the lesser of the existing pre-development conditions to a maximum of 0.5.
- Time of concentration (Tc): Tc = pre-development; maximum Tc = 10 min
- Allowable flowrate: Control the 100-year storm events to the 5-year storm event.

Ministry of Environment, Conservation and Parks (MECEP)

All development applications should be considered for an Environmental Compliance Approval, under MECP regulations.

- a. The consultants determine if an approval for sewage works under Section 53 of OWRA is required and determines what type of application. The City's project manager may help confirm and coordinate with the MECP as required.
- b. The project will be either transfer of review (standard), transfer of review (additional), direct submission, or exempt as per O. Reg. 525/98.
- c. Pre-consultation is not required if applying for standard or additional works (Schedule A of the Agreement) under Transfer Review.
- d. Pre-consultation with local District office of MECP is recommended for direct submission.
- e. Consultant completes an MECP request form for a pre-consultation. Sends request to <u>moeccottawasewage@ontario.ca</u>
- f. ECA applications are required to be submitted online through the MECP portal. A business account required to submit ECA application. For more information visit https://www.ontario.ca/page/environmental-compliance-approval

g. <u>It is unclear if the proposed development will remain as one property. An ECA will be required where the stormwater management services more than one property parcel.</u>

NOTE: Site Plan Approval, or Draft Approval, is required before any Ministry of the Environment and Climate Change (MOECC) application is sent. General Service Design Comments

- The City of Ottawa requests that all new services be located within the existing service trench to minimize necessary road cuts.
- Monitoring manholes should be located within the property near the property line in an accessible location to City forces and free from obstruction (i.e. not a parking).
- Where service length is greater than 30 m between the building and the first maintenance hole / connection, a cleanout is required.
- The City of Ottawa Standard Detail Drawings should be referenced where possible for all work within the Public Right-of-Way.
- The upstream and downstream manhole top of grate and invert elevations are required for all new sewer connections.
- Services crossing the existing watermain or sewers need to clearly provide the obvert/invert elevations to demonstration minimum separation distances. A watermain crossing table may be provided.

Other

Are there are Capital Works Projects scheduled that will impact the application?

References and Resources

- As per section 53 of the Professional Engineers Act, O. Reg 941/40, R.S.O. 1990, all documents prepared by engineers must be signed and dated on the seal.
- All required plans are to be submitted on standard A1 size sheets (594mm x 841mm) sheets, utilizing a reasonable and appropriate metric scale as per City of Ottawa Servicing and Grading Plan Requirements: title blocks are to be placed on the right of the sheets and not along the bottom. Engineering plans may be combined, but the Site Plans must be provided separately. Plans shall include the survey monument used to confirm datum. Information shall be provided to enable a non-surveyor to locate the survey monument presented by the consultant.
- All required plans & reports are to be provided in *.pdf format (at application submission and for any, and all, re-submissions)
- Please find relevant City of Ottawa Links to Preparing Studies and Plans below: <u>https://ottawa.ca/en/city-hall/planning-and-development/information-</u> <u>developers/development-application-review-process/development-application-</u> <u>submission/guide-preparing-studies-and-plans#standards-policies-and-guidelines</u>
- To request City of Ottawa plan(s) or report information please contact the City of Ottawa Information Centre: <u>InformationCentre@ottawa.ca<mailto:InformationCentre@ottawa.ca</u>> (613) 580-2424 ext. 44455

• geoOttawa http://maps.ottawa.ca/geoOttawa/

4. Initial Planning Comments (Tracey Scaramozzino)

- a. Rezoning is req'd for lifting of the holding provision, and to increase floorplate size
- b. More comments will be provided once more detailed plans are submitted.
- c. Concern over the abundance of vehicular parking that is being provided especially when NO parking is required.
- d. Sidewalks on the east-west road should be on both sides, as detailed in the Secondary Plan. The sidewalks are currently only shown on the south side.
- e. Ensure ample plantings within the site and along perimeter and along the transit plaza along with street furniture
- f. Discuss proposal with local Councillor and Community Associations
- g. Subject to the UDRP
- h. Ensure metric dimensions are on the actual submission drawings.
- i. Provide ped connection out from cul-de-sac out to private road into the medical bldg.
- j. (This site has a drop-off space in front of the 6-storey podium, while none of the other buildings/phases have one because this site has been more detailed)
- k. Show adequate/ample amenity space inside and outside.
- I. As per Applicant's request on projections, please see S. 64 of the Zoning Bylaw which permits projections (with caveats) for "mechanical and service equipment penthouse, elevator or stairway penthouses – bylaw 2014-94)"
- m. Will the transit plaza be conveyed to the City or stay under private ownership?

5. Urban Design Comments (Mark Young)

- 1. The subject site is located in a Design Priority Area. The applications will be subject to the review of the Urban Design Review Panel.
- 2. A Design Brief is required as part of your application submission. A terms of reference is included.
- 3. Thank you for providing concept plans for the entire redevelopment of the subject lands. This is very helpful in understanding how the first phase fits within the larger long-term vision.

Zoning By-law Amendment:

1. Additional information, study and justification are required to support an increase in the floorplate size above the currently required maximum of 750 sq. m. as indicated in the Secondary Plan and Zoning By-law.

Site Plan Application:

- 1. It is understood that the proposed internal streets will be private. They should be designed to look and feel like public streets and be accessible to the general public. Please provide additional cross-sections to provide a better sense of what is proposed within the private streets.
- 2. A private street adjacent to the Transit Plaza may be challenging, given a general desire to use this for drop off and pick up associated with the transit station.
- 3. Layout and access as they relate to this site and the transit station should be included as part of design brief materials.
- 4. Grade related units should be considered where feasible and designed to allow for the appropriate relationship between public and private realm.

6. Parks (Phil Castro)

a. Parkland dedication will be required as a condition of site plan control. The determination of the parkland area to be dedicated will be in accordance with the City's Parkland Dedication By-law and will be capped at 10 percent of the land area under consideration for residential apartment purposes. As discussed during the preapplication consultation meeting, the final parkland area to be dedicated will depend upon the future proposed uses and densities. How this is determined and addressed will require further discussion during the review of a formal submission.

7. Trees (Mark Richardson)

TCR requirements:

- 1. a Tree Conservation Report (TCR) must be supplied for review along with the suite of other plans/reports required by the City
 - a. an approved TCR is a requirement of Site Plan approval.
- 2. As of January 1 2021, any removal of privately-owned trees 10cm or larger in diameter, or publicly (City) owned trees of any diameter requires a tree permit issued under the Tree Protection Bylaw (Bylaw 2020 340); the permit will be based on an approved TCR and made available at or near plan approval.
- 3. The Planning Forester from Planning and Growth Management as well as foresters from Forestry Services will review the submitted TCR
 - a. If tree removal is required, both municipal and privately-owned trees will be addressed in a single permit issued through the Planning Forester
 - b. Compensation may be required for city owned trees if so, it will need to be paid prior to the release of the tree permit
- 4. the TCR must list all trees on site by species, diameter and health condition
- 5. please identify trees by ownership private onsite, private on adjoining site, city owned, co-owned (trees on a property line)

- 6. the TCR must list all trees on adjacent sites if they have a critical root zone that extends onto the development site
- 7. If trees are to be removed, the TCR must clearly show where they are, and document the reason they cannot be retained
- 8. All retained trees must be shown and all retained trees within the area impacted by the development process must be protected as per City guidelines available at <u>Tree Protection Specification</u> or by searching Ottawa.ca
 - a. the location of tree protection fencing must be shown on a plan
 - b. show the critical root zone of the retained trees
 - c. if excavation will occur within the critical root zone, please show the limits of excavation
- 9. the City encourages the retention of healthy trees; if possible, please seek opportunities for retention of trees that will contribute to the design/function of the site.
- 10. For more information on the process or help with tree retention options, contact Mark Richardson <u>mark.richardson@ottawa.ca</u> or on <u>City of Ottawa</u>

LP tree planting requirements:

For additional information on the following please contact tracy.smith@Ottawa.ca

Minimum Setbacks

- Maintain 1.5m from sidewalk or MUP/cycle track.
- Maintain 2.5m from curb
- Coniferous species require a minimum 4.5m setback from curb, sidewalk or MUP/cycle track/pathway.
- Maintain 7.5m between large growing trees, and 4m between small growing trees. Park or open space planting should consider 10m spacing.
- Adhere to Ottawa Hydro's planting guidelines (species and setbacks) when planting around overhead primary conductors.

Tree specifications

- Minimum stock size: 50mm tree caliper for deciduous, 200cm height for coniferous.
- Maximize the use of large deciduous species wherever possible to maximize future canopy coverage
 - Tree planting on city property shall be in accordance with the City of Ottawa's Tree Planting Specification; and include watering and warranty as described in the specification (can be provided by Forestry Services).
 - Plant native trees whenever possible
- No root barriers, dead-man anchor systems, or planters are permitted.
- No tree stakes unless necessary (and only 1 on the prevailing winds side of the tree)

Hard surface planting

- Curb style planter is highly recommended
- No grates are to be used and if guards are required, City of
 - Ottawa standard (which can be provided) shall be used.
 - Trees are to be planted at grade

Soil Volume

Please ensure adequate soil volumes are met:

Tree Type/Size	Single Tree Soil Volume (m3)	Multiple Tree Soil Volume (m3/tree)
Ornamental	15	9
Columnar	15	9
Small	20	12
Medium	25	15
Large	30	18
Conifer	25	15

Sensitive Marine Clay

Please follow the City's 2017 Tree Planting in Sensitive Marine Clay guidelines

8. Environment (Matthew Hayley)

- Sawmill Creek runs along a portion of the eastern boundary of the larger site (visible on page 3 of the Concept Master Plan along Bank Street). That area currently zoned EP will need to continue be zoned EP and set aside. The redevelopment site does not share a boundary with Sawmill Creek, however any servicing and site alterations need to support the redevelopment adjacent to the watercourse will need to be mindful of the impact on the feature and the direction from the RVCA followed.
- 2. Bird Safe Design, Given the height of the proposal (mid to high rise) the proposal will need to review and incorporate bird safe design elements and as part of the site plan a review of elevation drawings will be needed to assess impact due to the proximity of green corridor to the west. Please review the Bird Safe Design Guidelines for details however in brief some items of concern are glass and related design traps such as corner glass and fly-through conditions, ventilation grates and open pipes, some types of landscaping, and light pollution.
- 3. Consider the impact this site has on the urban heat island effect and look for ways to reduce the heat generated through the provision of shade or other approaches (look to the high performance building standards for example).

9. Conservation Authority (Jamie Batchelor, RVCA)

Stormwater Management

Any new development will need to be in accordance with the Samwill Creek Subwatershed Study. This includes water quality treatment of 'enhanced' (80%TSS Removal). The opportunity for the inclusion of LID measures should be considered for the stormwater management plan.

10. Transportation (Pat McMahon)

- Ensure that a Transportation Impact Assessment (TIA) Screening form is included with the application. In this case, a TIA is required and should be started as soon as possible.
 - o Start this process as soon as possible.
 - An update to the TRANS Trip Generation Manual has been completed (October 2020). This manual (and trip calculator) is to be utilized for this TIA and can be provided upon request.
 - Applicant advised that their application will not be deemed complete until the submission of the draft step 1-4, including the functional draft RMA package and/or monitoring report (if applicable). Collaboration and communication between development proponents and City staff are required at the end of every step of the TIA process.
- Noise Impact Studies required for the following:
 - o Road (within 100m of light rail corridor)
 - o Aircraft (within the Airport Vicinity Development Zone)
- Clear throat requirements for residential developments with greater than 200 units and accessing a collector road are 25m.
- As the proposed site is commercial and residential, AODA legislation applies to all areas accessible to the public (i.e. outdoor pathways, parking, etc.).
- On site plan:
 - Show all details of the roads abutting the site up to and including the opposite curb; include such items as pavement markings, accesses and/or sidewalks.
 - o Turning templates will be required for all accesses showing the largest vehicle to access the site; required for internal movements and at all access (entering and exiting and going in both directions).
 - o Show all curb radii measurements; ensure that all curb radii are reduced as much as possible
 - o Show lane/aisle widths.
 - Sidewalk is to be continuous across accesses as per City Specification 7.1.
- Site is within 100m of future South Keys LRT Station therefore TOD measures apply. As per the South Keys to Blossom Park CDP, a site-specific plan as well as a local Transportation Management Association is encouraged. To achieve

target mode shares within TOD zones, we highly recommend developments to provide as many TDM measures as possible. Given the need for sustainable travel modes, providing at least one bicycle space per unit is strongly encouraged. To reduce provided parking costs, car-sharing options would be equitable for the residents and could also save the development in costs for providing and maintaining the parking structure.

- As per the CDP, 30m ROW protection is encouraged along Daze. As the development progresses, be aware that the frontage along Daze may change, and the layout of the plaza as well as a result.
- The plaza forms part of the Hunt Club Neighbourhood Extension, consider working with the cycling group to consolidate efforts.
- Sidewalks are required on both sides of local streets, as per the CDP.

11.OC Transpo/O-train (Erica Springate will comment on future revisions)

- a. There won't be any changes to the OC Transpo Bus station at South Keys. The only changes will be the pedestrian underpass between the Bus Station and O-train and the O-train platform itself (Tracey Scaramozzino, via Mark Antunes-Alves)
- b. The former Trillium Line service operated at a 12-minute headway in all time periods. The timing will remain, once the Trillium Line expansion is complete.
- c. The Confederation Line runs between a 3-5 mine headway. (Tracey via Matthew Wolstenholme)

12. Waste Collection

a. Please see City's Waste Management Guidelines for multi-unit residential: <u>http://ottawa.ca/calendar/ottawa/citycouncil/pec/2012/11-</u> <u>13/Solid%20Waste%20Collection%20Guidelines%20-%20Doc%201.pdf</u>

13. General Information

a. Ensure that all plans and studies are prepared as per City guidelines – as available online...

https://ottawa.ca/en/city-hall/planning-and-development/informationdevelopers/development-application-review-process/developmentapplication-submission/guide-preparing-studies-and-plans

Step 1 & 2 Submission (Screening & Scoping) – Circulation Comments & Response

Report Submitted: June 23, 2021 Comments Received: July 9, 2021 Transportation Project Manager: Patrick McMahon

- Section 3.2.1.3 Intersections: Note the cycling and pedestrian infrastructure in the descriptions (zebra cross-walks, bike lanes, etc.). The descriptions of the east and west legs of the Dazé/South Keys intersection are reversed. At Hunt Club/Dazé, buses and bicycles are permitted to use the right-turn lane as a through lane. No U-turns permitted in the eastbound and westbound directions of Hunt Club at the Airport Parkway.
 - > IBI Response: Noted, Section 3.2.1.3 of the TIA has been updated accordingly.
- 2) Section 3.2.2 Existing Bicycle and Pedestrian Facilities: Include the Sawmill Creek Pathway.
 - > IBI Response: Noted, Section 3.2.2 of the TIA has been updated accordingly.
- 3) Section 3.2.3 Existing Transit Facilities and Service: Note that routes 6, 92, 99, 197, 198, 199 and 299 also operate from South Keys Station.
 - > IBI Response: Noted, Section 3.2.3 of the TIA has been updated accordingly.
- 4) Section 3.3.1.2 Future Transit Facilities and Services: Planned frequency in the future for line 2 is to remain at 12 minutes.
 - > IBI Response: Noted, Section 3.3.1.2 of the TIA has been updated accordingly.
- 5) Section 3.3.1.3 Future Cycling and Pedestrian Facilities: Include project P2-19 of the Ottawa Cycling Plan Hunt Club Neighbourhood Bikeway Extension to Airport Parkway Bridge. This will run through the proposed transit plaza.
 - > IBI Response: Noted, Section 3.3.1.3 of the TIA has been updated accordingly.
- 6) Will the full build-out of the Master Plan be quantified with accompanying trip generation?
 - > IBI Response: Step 3 will include an estimate of trips relating to the full master plan of this development site (Phases 1-4).

Step 3 Submission (Forecasting) – Circulation Comments & Response

Report Submitted: August 9, 2021 Comments Received: August 31, 2021 Transportation Project Manager: Patrick McMahon

- Section 4.1.2.2 Mode Share Proportions: While it is appreciated that the targets given are intended to be conservative, given the proximity to the LRT station as well as continuing BRT Service, a 45% transit mode share upon buildout of Phase 1 is too low, especially for the AM peak where that mode share would likely be exceeded today without the LRT. TDM Measures and/or monitoring may be required within the strategy report to support higher targets, but every incentive should be considered to encourage higher transit mode shares for future residents.
 - IBI Response: The mode share proportions proposed result in a conservative site generatio. TDM measures will be provided in the Analysis section of this report to lessen the impacts of the site generated traffic on the study area intersections. Sustainable mode shares for the South Keys TOD zone shown in the 2020 TRANS Trip Generation Manual: Appendix B indicate that the transit mode share is considerably lower when compared to most other TOD zones, especially along the Confederation Line.
- 2) Section 4.1.3 Trip Distribution and Assignment: Given the known capacity issues at Bank/Hunt Club, consider some rationalization of the to/from north and east demand from Bank Street to Hunt Club. Justify the 20% allocation of to/from west volumes onto Bank from Walkley Road. Reproduce exhibits 6,7,8,12,13, and 14. The existing development trips were not removed.
 - IBI Response: Section 4.1.3 of the TIA has been updated accordingly. Background traffic exhibits assume the existing developments are still present until the new development has been completed. The existing development generated trips are subtracted in the Total Traffic exhibits. These developments are also expected to remain in operation until the later stages of the development (Phases 2 to 4).
- 3) Section 4.2.1 Changes to Background Transportation Network: Adjust or remove mention of the 3,600 person-trips/hour capacity of Line 2. Published capacity of the Stadler FLIRT train is 420 persons, therefore 420x5=2,100/direction/hour. The transitway is not being replaced as part of LRT construction.
 - > IBI Response: Noted, Section 4.2.1 of the TIA has been updated accordingly.

Appendix B – Screening Form



City of Ottawa 2017 TIA Guidelines Screening Form

1. Description of Propos	ed Development
Municipal Address	2200 Bank St and 1131 Hunt Club Road, Ottawa ON
Description of Location	The site is situated southwest of Bank Street with direct frontage on Dazé St. It is adjacent to the South Keys Shopping Centre, the Transitway and the future South Keys LRT Station.
	Note: Orange is overall site Red is redevelopment site Rive is Phase 1
Land Use Classification	Mixed-Use (High-Rise Residential & Commercial)
Development Size (units)	Phase 1: 481 High-Rise Residential units



Transportation Impact Assessment Screening Form

Development Size (m ²)	Phase 1: Commercial Uses – 629.6 m ² (6,777 ft ²)
Number of Accesses and Locations	 Dazé St One (1) New Right-In/Right out access One (1) Existing "3/4" Access
Phase of Development	Phase 1 of a four-phase development
Buildout Year	Phase 1a: 2024 Phase 1b: 2026 Full Buildout of Master Plan: 2041

If available, <u>please attach a sketch of the development or site plan</u> to this form.





2. Trip Generation Trigger

Considering the Development's Land Use type and Size (as filled out in the previous section), please refer to the Trip Generation Trigger checks below.

Land Use Type	Minimum Development Size
Single-family homes	40 units
Townhomes or apartments	90 units 🗸
Office	3,500 m ²
Industrial	5,000 m ²
Fast-food restaurant or coffee shop	100 m ²
Destination retail	1,000 m ²
Gas station or convenience market	75 m ²

* If the development has a land use type other than what is presented in the table above, estimates of person-trip generation may be made based on average trip generation characteristics represented in the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual.

Based on the above, the Trip Generation Trigger is satisfied.

3. Location Triggers

	Yes	No
Does the development propose a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit or Spine Bicycle Networks?		×
Is the development in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone?*	×	

*DPA and TOD are identified in the City of Ottawa Official Plan (DPA in Section 2.5.1 and Schedules A and B; TOD in Annex 6). See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA).

Based on the above, the Location Trigger is satisfied.



4. Safety Triggers

	Yes	No
Are posted speed limits on a boundary street are 80 km/hr or greater?		A A A A A A A A A A A A A A A A A A A
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?	×	
Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions)?	4	
Is the proposed driveway within auxiliary lanes of an intersection?		\checkmark
Does the proposed driveway make use of an existing median break that serves an existing site?	\checkmark	
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?		~
Does the development include a drive-thru facility?		\checkmark

Based on the above, the Safety Trigger is satisfied.

5. Summary

	Yes	No
Does the development satisfy the Trip Generation Trigger?	1	
Does the development satisfy the Location Trigger?	¥	
Does the development satisfy the Safety Trigger?	1	

Based on the results of the TIA Screening Form, the Trip Generation, Location and Safety Triggers are all satisfied. As such, a TIA is required for the proposed South Keys Shopping Centre Phase 1 development at 2200 Bank Street and 1131 Hunt Club Road.

Appendix C – Traffic Count Data



Turning Movement Count - Peak Hour Diagram AIRPORT PKWY @ HUNT CLUB RD





Turning Movement Count - Peak Hour Diagram AIRPORT PKWY @ HUNT CLUB RD





Turning Movement Count - Peak Hour Diagram BANK ST @ HUNT CLUB RD





Turning Movement Count - Peak Hour Diagram BANK ST @ HUNT CLUB RD





Turning Movement Count - Peak Hour Diagram BANK ST @ CAHILL DR/DAZE ST





Turning Movement Count - Peak Hour Diagram BANK ST @ CAHILL DR/DAZE ST





Turning Movement Count - Peak Hour Diagram DAZE ST @ 200 W OF BANK ST/SOUTHKEYS SC





Turning Movement Count - Peak Hour Diagram DAZE ST @ 200 W OF BANK ST/SOUTHKEYS SC





Turning Movement Count - Peak Hour Diagram HUNT CLUB RD @ BRIDLE PATH DR/DAZE ST




Turning Movement Count - Peak Hour Diagram HUNT CLUB RD @ BRIDLE PATH DR/DAZE ST



Comments



Turning Movement Count - Study Results HUNT CLUB RD @ BRIDLE PATH DR/DAZE ST



5473968 - FEB 15, 2020 - 5HRS - LORETTA

Appendix D – OC Transpo Routes



BAYVIEW SOUTH KEYS

Bus service during O-Train Line 2 expansion

Service d'autobus durant le prolongement de la Ligne 2 de l'O-Train



2020.09

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Service Service à la clientèle	613-741-4390
Lost and Found / Objets perdus	613-563-4011
Security / Sécurité	613-741-2478

Effective Fall 2020 En vigueur automne 2020

CC *Transpo* INFO 613-741-4390 octranspo.com







ST-LAURENT GREENBORO HURDMAN

7 days a week / 7 jours par semaine

All day service Service toute la journée



2020.04



plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Service Service à la clientèle	613-741-4390	
Lost and Found / Objets perdus	613-563-4011	
Security / Sécurité	613-741-2478	
Effective May 3, 2020		
En vigueur 3 mai 20	020	

CCTranspo INFO 613-741-4390 octranspo.com





GREENBORO HURDMAN

7 days a week / 7 jours par semaine

All day service Service toute la journée





Transitway & Station

Park & Ride / Parc-o-bus

Timepoint / Heures de passage

2020.04



plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Service	
Service à la clientèle	613-741-4390
Lost and Found / Objets perdus	613-563-4011
Security / Sécurité	613-741-2478

Effective May 3, 2020 En vigueur 3 mai 2020







GREENBORO

HURDMAN

Local

7 days a week / 7 jours par semaine All day service Service toute la journée



2020.04

Schedule / Horaire Text / Texto	613-560-1000
<i>plus</i> your four digit bus stop number /	<i>plus</i> votre numéro d'arrêt à quatre chiffres
Customer Service Service à la clientèle	613-741-4390
Lost and Found / Objets p Security / Sécurité	berdus 613-563-4011
Effective May 3, 2020 En vigueur 3 mai 2020	
C Transpo	INFO 613-741-4390





LEITRIM BLOSSOM PARK

GREENBORO HURDMAN

7 days a week / 7 jours par semaine All day service Service toute la journée



2020.04

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Service	
Service à la clientèle	613-741-4390
Lost and Found / Objets perdus	5 613-563-4011
Security / Sécurité	613-741-2478
	~ ~ ~ ~ ~

Effective May 3, 2020 En vigueur 3 mai 2020

CC *Transpo* INFO 613-741-4390 octranspo.com





7 days a week / 7 jours par semaine



2019.06

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Service Service à la clientèle	613-741-4390
Lost and Found / Objets perdus	613-563-4011
Security / Sécurité	613-741-2478
Effective May 3, 2	2020
En vigueur 3 mai 2	2020

CC Transpo



HURDMAN



AIRPORT / AÉROPORT

7 days a week / 7 jours par semaine All day service and limited overnight Service toute la journée et limité la nuit



En vigueur 3 mai 2020

INFO 613-741-4390 **CC** Transpo octranspo.com





HAWTHORNE HURDMAN

7 days a week / 7 jours par semaine

All day service Service toute la journée









Transitway & Station

Park & Ride | Parc-o-bus

Timepoint | Heures de passage

2020.04

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Service		
Service à la clientèle	613-741-439	0
Lost and Found / Objets perdus	613-563-401	1
Security / Sécurité	613-741-247	78

Effective May 3, 2020 En vigueur 3 mai 2020







BARRHAVEN CENTRE HURDMAN GREENBORO

7 days a week / 7 jours par semaine



	Woods RIDEAUVIEW Comm. Centre
Marking Lon	Beatrice Chapman Mills
Marketplac	Barrhaven Centre Ce BARRHAVEN CENTRE
=0=	Transitway & Station
==0==	Transitway & Station Peak period / Période de pointe
	Saturday & Sunday only / Sam. et dim. seulement
Ð	Saturday & Sunday only / Sam. et dim. seulement Park & Ride / Parc-o-bus

2020.04

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Service Service à la clientèle	613-741-4390
Lost and Found / Objets perdus	613-563-4011
Security / Sécurité	613-741-2478
Effective May 3, 2020	
En vigueur 5 mai 2020	

CC Transpo





GREENBORO UPLANDS

7 days a week / 7 jours par semaine No weekend evening service Aucun service en soirée la fin de semaine



baul Benou Research

UPLANDS



Transitway & Station

Monday to Friday after noon and all day Saturday and Sunday / Lundi au vendredi après 12 h et toute la journée samedi et dimanche



Park & Ride / Parc-o-bus

Timepoint / Heures de passage

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Service	C42 744 4200
Service a la clientele	013-741-4390
Lost and Found / Objets perdus	613-563-4011
Security / Sécurité	613-741-2478

Effective May 3, 2020 En vigueur 3 mai 2020







RIVERVIEW GREENBORO

Monday to Friday / Lundi au vendredi Peak periods only Périodes de pointe seulement





2020.04

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Service Service à la clientèle	613-741-4	1390
Lost and Found / Objets perdus	613-563-4	011
Security / Sécurité	613-741-2	478

Effective May 3, 2020 En vigueur 3 mai 2020

CC Transpo





LEIKIN HURDMAN

Local Monday to Friday / Lundi au vendredi Peak periods only Périodes de pointe seulement



2020.04

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Service Service à la clientèle	613-741-4390
Lost and Found / Objets perdus	613-563-4011
Security / Sécurité	613-741-2478

Effective May 3, 2020 En vigueur 3 mai 2020

CE Transpo INFO 613-741-4390 octranspo.com





HURDMAN FINDLAY CREEK

Monday to Friday / Lundi au vendredi

Peak periods only Périodes de pointe seulement





Transitway & Station

Park & Ride / Parc-o-bus

2020.04

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Relations	
Service à la clientèle	613-842-3600
Lost and Found / Objets perdus	613-563-4011
Security / Sécurité	613-741-2478

Effective May 3, 2020 En vigueur 3 mai 2020







MANOTICK HURDMAN

Connexion

Monday to Friday / Lundi au vendredi

Peak periods only Périodes de pointe seulement



2020.04

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Service		
Service à la clientèle	613-741	-4390
Lost and Found / Objets perdus	613-563	-4011
Security / Sécurité	613-741	-2478

Effective May 3, 2020 En vigueur 3 mai 2020





Appendix E – Collision Data



Location: AIRPO	RT PKWY @ F	IUNT CLUB RD							
Traffic Control: Trat	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Jan-04, Sun,03:14	Freezing Rain	Sideswipe	P.D. only	Slush	West	Slowing or stopping	Pick-up truck	Skidding/sliding	0
					West	Slowing or stopping	Pick-up truck	Other motor vehicle	
2015-Jan-26, Mon,14:35	Clear	Rear end	P.D. only	Dry	West	Changing lanes	Unknown	Other motor vehicle	0
					West	Stopped	Passenger van	Other motor vehicle	
2015-Feb-04, Wed,17:10	Snow	Rear end	P.D. only	Slush	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2015-Feb-07, Sat,21:14	Snow	Turning movement	P.D. only	Loose snow	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Feb-17, Tue,17:19	Clear	SMV other	P.D. only	Dry	West	Going ahead	Unknown	Pole (utility, power)	0
2015-Feb-27, Fri,00:49	Snow	Other	P.D. only	Loose snow	West	Reversing	Construction equipment	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Aug-23, Sun,20:00	Clear	Angle	P.D. only	Dry	North	Unknown	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	
2015-Sep-22, Tue,16:45	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Dec-21, Mon,00:20	Clear	Angle	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2015-Dec-23, Wed, 15:23	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Dec-24, Thu,02:19	Clear	SMV other	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Curb	0
2015-Dec-28, Mon,15:59	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	



Location: AIRPO	RT PKWY @ I	HUNT CLUB RE)						
Traffic Control: Tra	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Feb-17, Wed,06:55	Clear	Sideswipe	P.D. only	Wet	West	Overtaking	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Municipal transit bus	Other motor vehicle	
2016-Feb-25, Thu,07:41	Freezing Rain	Rear end	P.D. only	Ice	East	Turning left	Pick-up truck	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2016-Apr-01, Fri,22:07	Rain	Rear end	P.D. only	Wet	East	Going ahead	Passenger van	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-May-27, Fri,12:06	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2016-Jul-22, Fri,14:15	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Oct-18, Tue,16:20	Rain	Rear end	P.D. only	Wet	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Nov-17, Thu, 19:38	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	j Unknown	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Dec-29, Thu,13:59	Snow	Rear end	P.D. only	Loose snow	East	Slowing or stopping	Automobile, station wagon	Skidding/sliding	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2017-Jan-05, Thu,08:20	Clear	Sideswipe	P.D. only	Ice	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	
2017-Jan-05, Thu,14:22	Clear	Sideswipe	P.D. only	Ice	West	Going ahead	Automobile, station wagon	Skidding/sliding	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Jan-05, Thu,14:42	Clear	SMV other	P.D. only	lce	East	Going ahead	Pick-up truck	Skidding/sliding	0
2017-Jan-13, Fri,14:48	Clear	Sideswipe	P.D. only	Dry	West	Unknown	Unknown	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	



Location: AIRPO	RT PKWY @	HUNT CLUB RD)					
Traffic Control: Tra	fic signal					Total Collision	s: 80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver Vehicle type	First Event	No. Ped
2017-Feb-10, Fri,14:26	Clear	Rear end	P.D. only	Dry	South	Going ahead Pick-up truck	Other motor vehicle	0
					South	Slowing or stopping Automobile, station wagor	Other motor vehicle	
2017-Feb-12, Sun,00:03	Snow	Other	P.D. only	Packed snow	South	Reversing Snow plow	Other motor vehicle	0
					North	Stopped Automobile, station wagor	Other motor vehicle	
2017-Feb-15, Wed,09:12	Snow	Rear end	Non-fatal injury	Loose snow	West	Slowing or stopping Pick-up truck	Skidding/sliding	0
					West	Stopped Pick-up truck	Other motor vehicle	
2017-Mar-15, Wed,07:51	Snow	Rear end	P.D. only	Slush	East	Turning left Automobile, station wagor	Other motor vehicle	0
					East	Turning left Pick-up truck	Other motor vehicle	
2017-Apr-19, Wed,13:31	Rain	Sideswipe	P.D. only	Wet	East	Changing lanes Pick-up truck	Other motor vehicle	0
					East	Turning left Pick-up truck	Other motor vehicle	
2017-May-05, Fri,16:14	Rain	Rear end	Non-fatal injury	Wet	West	Slowing or stopping Automobile, station wagor	Other motor vehicle	0
					West	Stopped Automobile, station wagor	Other motor vehicle	
2017-May-25, Thu, 19:23	Rain	Sideswipe	P.D. only	Wet	West	Changing lanes Municipal transit bus	Other motor vehicle	0
					West	Going ahead Automobile, station wagor	Other motor vehicle	
2017-Jun-13, Tue,09:15	Clear	Rear end	P.D. only	Dry	North	Going ahead Automobile, station wagor	Other motor vehicle	0
					North	Slowing or stopping Pick-up truck	Other motor vehicle	
2017-Aug-13, Sun,12:35	Clear	Rear end	Non-fatal injury	Dry	East	Slowing or stopping Pick-up truck	Other motor vehicle	0
					East	Stopped Automobile, station wagor	Other motor vehicle	
2017-Sep-16, Sat,19:00	Clear	Sideswipe	P.D. only	Dry	North	Going ahead Automobile, station wagor	Other motor vehicle	0
					North	Merging Automobile, station wagor	Other motor vehicle	
2017-Sep-20, Wed, 15:30	Clear	Rear end	P.D. only	Dry	West	Going ahead Pick-up truck	Other motor vehicle	0
					West	Going ahead Automobile, station wagor	Other motor vehicle	



Location: AIRPO	RT PKWY @	HUNT CLUB RD)						
Traffic Control: Tra	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Oct-07, Sat, 20:07	Clear	Approaching	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Oct-12, Thu,06:44	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Nov-15, Wed, 13:28	Clear	Rear end	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Nov-22, Wed, 20:07	Clear	Rear end	Non-fatal injury	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Dec-11, Mon,17:14	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	y Unknown	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Dec-21, Thu,08:38	Clear	Rear end	P.D. only	lce	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2018-Jan-08, Mon,00:23	Snow	SMV other	P.D. only	Packed snow	East	Going ahead	Automobile, station wagon	Pole (sign, parking me	ter) 0
2018-Jan-08, Mon,16:45	Snow	Rear end	P.D. only	Packed snow	West	Slowing or stopping	Automobile, station wagon	Skidding/sliding	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					West	Slowing or stopping	Automobile, station wagon	Skidding/sliding	
2018-Jan-16, Tue,08:01	Snow	Sideswipe	P.D. only	Slush	West	Slowing or stopping	Passenger van	Skidding/sliding	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	



Location: AIRPO	RT PKWY @	HUNT CLUB RE)						
Traffic Control: Tra	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-May-19, Sat,16:56	Rain	Rear end	Non-fatal injury	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Municipal transit bus	Other motor vehicle	
2018-May-27, Sun,20:40	Clear	Angle	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Truck - closed	Other motor vehicle	
2018-Jun-26, Tue,07:10	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jun-26, Tue, 17:36	Clear	Other	P.D. only	Dry	East	Reversing	Passenger van	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Aug-21, Tue,16:58	Rain	Angle	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Aug-23, Thu,13:06	Clear	Rear end	P.D. only	Dry	East	Going ahead	Delivery van	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Oct-17, Wed, 21:28	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Oct-18, Thu,15:18	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Nov-13, Tue, 12:35	Snow	Rear end	P.D. only	Wet	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Unknown	Unknown	Other motor vehicle	
2018-Nov-23, Fri,08:10	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Dec-03, Mon,15:20	Clear	Rear end	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	



Location: AIRPO	RT PKWY @ I	HUNT CLUB RD							
Traffic Control: Tra	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Dec-07, Fri,17:00	Clear	Rear end	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Dec-09, Sun,01:14	Clear	SMV other	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Ran off road	0
2018-Dec-14, Fri,20:22	Rain	Rear end	P.D. only	lce	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Dec-14, Fri,20:30	Freezing Rain	Sideswipe	P.D. only	lce	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Passenger van	Other motor vehicle	
2018-Dec-14, Fri,20:32	Freezing Rain	Rear end	P.D. only	lce	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Pick-up truck	Other motor vehicle	
2018-Dec-14, Fri,20:47	Freezing Rain	Rear end	P.D. only	lce	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Unknown	Automobile, station wagon	Other motor vehicle	
2018-Dec-17, Mon,13:00	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jan-21, Mon,12:45	Clear	Sideswipe	P.D. only	lce	East	Changing lanes	Automobile, station wagon	Skidding/sliding	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Feb-04, Mon,10:46	Clear	Turning movement	P.D. only	Wet	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Turning left	Snow plow	Other motor vehicle	
2019-Feb-19, Tue,14:35	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	



Location: AIRPO	RT PKWY @	HUNT CLUB RD)						
Traffic Control: Tra	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2019-Mar-24, Sun,09:32	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	g Truck and trailer	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Apr-24, Wed,09:21	Clear	Rear end	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Apr-24, Wed, 12:08	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Truck - closed	Other motor vehicle	0
					West	Slowing or stopping	g Automobile, station wagon	Other motor vehicle	
2019-Jun-13, Thu,19:28	Rain	Rear end	P.D. only	Wet	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Jun-14, Fri,17:15	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jun-16, Sun,21:53	Clear	Angle	Non-fatal injury	Dry	South	Turning left	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Turning left	Automobile, station wagon	Debris falling off vehicle	
2019-Aug-08, Thu,11:45	Clear	Sideswipe	P.D. only	Dry	West	Unknown	Unknown	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Aug-11, Sun,18:06	Clear	Rear end	P.D. only	Dry	East	Going ahead	Passenger van	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Sep-17, Tue,20:51	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Sep-26, Thu,11:30	Clear	Rear end	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2019-Oct-18, Fri,14:08	Clear	Rear end	P.D. only	Dry	West	Unknown	Unknown	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	



Location: AIRPO	RT PKWY @ H	HUNT CLUB RD							
Traffic Control: Trat	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2019-Nov-09, Sat,17:39	Snow	Rear end	P.D. only	Wet	East	Unknown	Unknown	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Dec-12, Thu,08:37	Clear	Rear end	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Construction equipment	Other motor vehicle	
					West	Going ahead	Truck - closed	Other motor vehicle	
2019-Dec-18, Wed,21:00	Clear	Rear end	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Dec-28, Sat,11:13	Clear	Rear end	Non-fatal injury	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
Location: BANK	ST @ CAHILL	DR/DAZE ST							
Traffic Control: Trat	ffic signal						Total Collisions:	47	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2015-Jan-06, Tue,18:14	Clear	Turning movement	Non-fatal injury	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Mar-23, Mon,16:54	Clear	Rear end	P.D. only	Dry	West	Turning right	Pick-up truck	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2015-Apr-02, Thu,07:30	Freezing Rain	Sideswipe	P.D. only	lce	North	Going ahead	Passenger van	Other motor vehicle	0
					North	Going ahead	Pick-up truck	Other motor vehicle	
2015-Apr-19, Sun,16:45	Clear	Turning movement	Non-fatal injury	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Pick-up truck	Other motor vehicle	
2015-Jul-11, Sat,14:15	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	



Location: BANK S	ST @ CAHILL	DR/DAZE ST							
Traffic Control: Tra	ffic signal						Total Collisions:	47	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Aug-03, Mon,13:33	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Delivery van	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2015-Dec-13, Sun,12:35	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Passenger van	Other motor vehicle	
2015-Dec-17, Thu,16:30	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Mar-14, Mon,11:10	Rain	Turning movement	P.D. only	Wet	South	Turning left	Pick-up truck	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Aug-01, Mon,16:21	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Passenger van	Other motor vehicle	
2016-Sep-09, Fri,12:10	Clear	Rear end	P.D. only	Dry	West	Turning right	Passenger van	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Nov-18, Fri,13:45	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Jan-05, Thu,08:05	Clear	Rear end	P.D. only	Ice	North	Slowing or stopping	Passenger van	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Jan-22, Sun,14:30	Clear	Turning movement	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Mar-30, Thu,08:45	Clear	Sideswipe	Non-fatal injury	Dry	South	Changing lanes	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2017-Jul-01, Sat,13:37	Rain	Turning movement	Non-fatal injury	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	



Location: BANK	ST @ CAHILL	DR/DAZE ST							
Traffic Control: Tra	ffic signal						Total Collisions:	47	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2017-Aug-08, Tue, 12:58	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	g Automobile, station wagon	Other motor vehicle	
2017-Aug-21, Mon,19:15	Clear	Turning movement	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Aug-30, Wed,15:15	Clear	Angle	Non-fatal injury	Dry	East	Going ahead	Bicycle	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Cyclist	
2017-Sep-02, Sat,15:35	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	g Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	g Automobile, station wagon	Other motor vehicle	
2017-Sep-25, Mon,11:29	Clear	Angle	Non-fatal injury	Dry	North	Unknown	Automobile, station wagon	Other motor vehicle	0
					East	Unknown	Automobile, station wagon	Other motor vehicle	
2018-Jan-11, Thu,14:15	Rain	SMV other	Non-fatal injury	Wet	East	Turning left	Automobile, station wagon	Pedestrian	1
2018-Feb-10, Sat,17:26	Snow	Sideswipe	P.D. only	Loose snow	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Mar-08, Thu,18:35	Snow	Turning movement	Non-fatal injury	Ice	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Mar-23, Fri,14:18	Clear	SMV other	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Pedestrian	1
2018-Apr-29, Sun,17:03	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Jul-16, Mon,21:00	Clear	SMV other	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Ran off road	0
2018-Aug-12, Sun,08:15	Clear	Rear end	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Oct-11, Thu,17:53	Clear	Rear end	Non-fatal injury	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	



Location: BANK	ST @ CAHILL	. DR/DAZE ST								
Traffic Control: Tra	ffic signal				Total Collisions: 47					
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped	
2018-Nov-03, Sat,20:06	Clear	Rear end	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0	
					South	Stopped	Automobile, station wagon	Other motor vehicle		
2018-Dec-24, Mon,18:07	Clear	Turning movement	Non-fatal injury	Loose snow	North	Turning left	Passenger van	Other motor vehicle	0	
					South	Going ahead	Automobile, station wagon	Other motor vehicle		
2019-Jan-14, Mon,17:43	Clear	Turning movement	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0	
					South	Turning left	Automobile, station wagon	Other motor vehicle		
2019-Jan-18, Fri,09:30	Snow	Rear end	P.D. only	Slush	East	Turning left	Automobile, station wagon	Other motor vehicle	0	
					East	Turning left	Automobile, station wagon	Other motor vehicle		
2019-Jan-19, Sat,18:25	Snow	Turning movement	Non-fatal injury	Loose snow	North	Turning left	Automobile, station wagon	Other motor vehicle	0	
					South	Going ahead	Automobile, station wagon	Other motor vehicle		
2019-Feb-02, Sat, 10:40	Snow	Turning movement	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle	0	
					North	Turning left	Automobile, station wagon	Other motor vehicle		
2019-Feb-19, Tue,15:20	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0	
					North	Turning left	Automobile, station wagon	Other motor vehicle		
2019-Feb-22, Fri,11:04	Clear	Sideswipe	P.D. only	Wet	South	Changing lanes	Passenger van	Other motor vehicle	0	
					South	Going ahead	Automobile, station wagon	Other motor vehicle		
2019-Mar-02, Sat,09:37	Clear	Angle	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0	
					South	Going ahead	Automobile, station wagon	Other motor vehicle		
2019-Mar-02, Sat, 19:32	Snow	Turning movement	P.D. only	Loose snow	North	Going ahead	Automobile, station wagon	Other motor vehicle	0	
					South	Turning left	Automobile, station wagon	Other motor vehicle		
2019-Mar-23, Sat, 19:51	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0	
					South	Going ahead	Automobile, station wagon	Other motor vehicle		
2019-May-24, Fri,14:56	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0	
					South	Going ahead	Automobile, station wagon	Other motor vehicle		



Location: BANK S	ST @ CAHILL	DR/DAZE ST							
Traffic Control: Traf	fic signal						Total Collisions:	47	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Jun-19, Wed,11:13	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jul-11, Thu,13:18	Clear	Turning movement	Non-fatal injury	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Motorcycle	Other motor vehicle	
2019-Aug-29, Thu,21:54	Clear	Turning movement	Non-fatal injury	Dry	South	Turning left	Passenger van	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Sep-17, Tue,11:50	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Oct-14, Mon,18:44	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Dec-22, Sun,10:21	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
Location: BANK S	GT @ HUNT C	LUB RD							
Traffic Control: Traf	fic signal						Total Collisions:	139	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Jan-12, Mon,06:21	Snow	Angle	P.D. only	Ice	North	Slowing or stopping	Pick-up truck	Skidding/sliding	0
					West	Going ahead	Passenger van	Other motor vehicle	
2015-Feb-02, Mon,19:45	Snow	Rear end	Non-fatal injury	Packed snow	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2015-Feb-04, Wed,14:12	Clear	Rear end	Non-fatal injury	Slush	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Passenger van	Other motor vehicle	



Location: BANK S	ST @ HUNT (CLUB RD							
Traffic Control: Traf	139								
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Feb-08, Sun,14:08	Snow	Angle	P.D. only	Loose snow	North	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Feb-10, Tue,15:45	Clear	Sideswipe	P.D. only	Wet	North	Changing lanes	Pick-up truck	Other motor vehicle	0
					North	Going ahead	Truck - dump	Other motor vehicle	
2015-Feb-14, Sat,13:49	Clear	Rear end	P.D. only	Ice	South	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Feb-20, Fri,19:06	Snow	Rear end	P.D. only	Loose snow	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2015-Feb-21, Sat,15:50	Snow	Rear end	P.D. only	Loose snow	South	Slowing or stopping	JPick-up truck	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Feb-23, Mon,16:57	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2015-Feb-24, Tue,15:42	Clear	Angle	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2015-Mar-07, Sat,09:29	Clear	Sideswipe	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Truck - closed	Other motor vehicle	
2015-Mar-20, Fri,13:12	Clear	Rear end	Non-fatal injury	Dry	East	Turning right	Pick-up truck	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2015-Mar-25, Wed,08:08	Clear	Rear end	P.D. only	Dry	East	Turning right	Pick-up truck	Other motor vehicle	0
					East	Turning right	Passenger van	Other motor vehicle	
2015-Apr-13, Mon,17:00	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	J Pick-up truck	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	



Location: BANK	SI@HUNI(CLUB RD								
Traffic Control: Tra	ffic signal					Total Collisions: 139				
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped	
2015-May-06, Wed, 13:30	Clear	Rear end	P.D. only	Dry	West	Going ahead	Unknown	Other motor vehicle	0	
					West	Stopped	Automobile, station wagon	Other motor vehicle		
2015-May-07, Thu,20:39	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Passenger van	Other motor vehicle	0	
					East	Turning right	Pick-up truck	Other motor vehicle		
2015-May-12, Tue, 13:52	Clear	Rear end	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0	
					North	Turning left	Automobile, station wagon	Other motor vehicle		
2015-May-22, Fri,23:13	Clear	Angle	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0	
					South	Going ahead	Automobile, station wagon	Other motor vehicle		
2015-May-29, Fri,13:14	Clear	Sideswipe	P.D. only	Dry	North	Slowing or stopping	g Truck - closed	Other motor vehicle	0	
					North	Changing lanes	Automobile, station wagon	Other motor vehicle		
2015-Jun-11, Thu,14:36	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Unknown	Other motor vehicle	0	
					South	Going ahead	Automobile, station wagon	Other motor vehicle		
2015-Jun-14, Sun,01:31	Clear	Angle	Non-fatal injury	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	0	
					North	Going ahead	Passenger van	Other motor vehicle		
2015-Jun-19, Fri,18:06	Clear	Rear end	Non-fatal injury	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0	
					North	Turning right	Automobile, station wagon	Other motor vehicle		
2015-Jun-27, Sat,21:52	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	g Pick-up truck	Other motor vehicle	0	
					North	Stopped	Pick-up truck	Other motor vehicle		
2015-Jul-04, Sat,12:51	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0	
					North	Changing lanes	Automobile, station wagon	Other motor vehicle		
2015-Jul-09, Thu,15:11	Clear	Rear end	P.D. only	Dry	East	Turning right	Unknown	Other motor vehicle	0	
					East	Turning right	Pick-up truck	Other motor vehicle		
2015-Aug-11, Tue,13:47	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	g Pick-up truck	Other motor vehicle	0	
					East	Slowing or stopping	g Pick-up truck	Other motor vehicle		



Location: BANK	ST @ HUNT (LUB RD							
Traffic Control: Tra	ffic signal						Total Collisions:	139	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Sep-04, Fri,12:07	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Sep-15, Tue,14:57	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Truck - dump	Other motor vehicle	
2015-Sep-23, Wed,08:00	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Pick-up truck	Other motor vehicle	
2015-Oct-12, Mon,06:49	Clear	Angle	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Pick-up truck	Other motor vehicle	
2015-Oct-21, Wed,11:00	Clear	Rear end	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Pick-up truck	Other motor vehicle	
2015-Dec-04, Fri,14:07	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Dec-24, Thu,15:52	Clear	Rear end	P.D. only	Wet	East	Turning right	Pick-up truck	Other motor vehicle	0
					East	Turning right	Pick-up truck	Other motor vehicle	
2016-Jan-08, Fri,11:46	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Pick-up truck	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2016-Jan-16, Sat,10:58	Rain	Sideswipe	P.D. only	Wet	West	Overtaking	Pick-up truck	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Jan-18, Mon,08:28	Snow	Rear end	P.D. only	Loose snow	West	Turning right	Delivery van	Other motor vehicle	0
					West	Turning right	Pick-up truck	Other motor vehicle	
2016-Feb-05, Fri,17:13	Clear	Sideswipe	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	



Location: BANK	ST @ HUNT (CLUB RD							
Traffic Control: Tra	139								
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Feb-06, Sat,21:12	Clear	Angle	Non-fatal injury	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Turning left	Passenger van	Other motor vehicle	
					South	Turning left	Passenger van	Other motor vehicle	
2016-Feb-08, Mon,17:08	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Pick-up truck	Other motor vehicle	
2016-Feb-12, Fri,18:12	Snow	Rear end	Non-fatal injury	Ice	East	Turning right	Unknown	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Feb-19, Fri,10:52	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Pick-up truck	Other motor vehicle	
2016-Feb-19, Fri,22:30	Snow	Rear end	P.D. only	Loose snow	East	Changing lanes	Unknown	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Mar-28, Mon,06:40	Rain	Rear end	P.D. only	Wet	West	Turning right	Pick-up truck	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Apr-02, Sat,16:48	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Apr-19, Tue,14:00	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2016-Apr-29, Fri,00:46	Clear	Angle	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-May-03, Tue,17:30	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	


Location: BANK	ST @ HUNT C	LUB RD							
Traffic Control: Tra	ffic signal						Total Collisions:	139	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2016-May-13, Fri,19:43	Clear	Sideswipe	P.D. only	Dry	North	Going ahead	Motorcycle	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Turning left	Bus (other)	Other motor vehicle	
2016-May-19, Thu, 17:39	Clear	Sideswipe	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2016-Jun-03, Fri,17:10	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2016-Jun-23, Thu,15:44	Clear	Angle	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-Jul-19, Tue,14:40	Clear	Rear end	Non-fatal injury	Dry	South	Going ahead	Truck - closed	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Jul-25, Mon,16:10	Clear	SMV other	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Pole (utility, power)	0
2016-Aug-11, Thu,16:06	Clear	Rear end	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Passenger van	Other motor vehicle	
2016-Aug-28, Sun,16:26	Rain	Rear end	P.D. only	Wet	East	Slowing or stopping	g Pick-up truck	Other motor vehicle	0
					East	Slowing or stopping	g Pick-up truck	Other motor vehicle	
2016-Aug-31, Wed, 17:36	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	g Automobile, station wagon	Other motor vehicle	
					West	Slowing or stopping	g Pick-up truck	Other motor vehicle	
2016-Sep-02, Fri,14:38	Clear	Other	P.D. only	Dry	West	Reversing	Truck and trailer	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
2016-Sep-20, Tue,00:25	Clear	Angle	P.D. only	Dry	North	Unknown	Unknown	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	



Location: BANK	ST @ HUNT (CLUB RD							
Traffic Control: Tra	ffic signal						Total Collisions:	139	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2016-Nov-15, Tue, 16:50	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Pick-up truck	Other motor vehicle	
2016-Nov-24, Thu,08:45	Clear	Rear end	P.D. only	Loose snow	North	Slowing or stopping	g Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-Nov-30, Wed, 12:41	Rain	Sideswipe	P.D. only	Wet	North	Going ahead	Pick-up truck	Other motor vehicle	0
					North	Going ahead	Pick-up truck	Other motor vehicle	
2016-Dec-15, Thu, 10:26	Clear	Angle	Non-fatal injury	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2017-Jan-05, Thu,22:29	Rain	Rear end	P.D. only	lce	North	Going ahead	Automobile, station wagon	Skidding/sliding	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2017-Jan-06, Fri,11:04	Clear	Rear end	P.D. only	lce	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Pick-up truck	Other motor vehicle	
2017-Feb-02, Thu,07:10	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Feb-10, Fri,12:40	Clear	Rear end	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Intercity bus	Other motor vehicle	
					East	Stopped	Delivery van	Other motor vehicle	
2017-Feb-14, Tue,00:08	Clear	SMV other	P.D. only	Dry	South	Reversing	Construction equipment	Pole (utility, power)	0
2017-Apr-17, Mon,13:56	Clear	SMV other	Non-fatal injury	Dry	West	Going ahead	Passenger van	Curb	0
2017-Apr-24, Mon,20:57	Clear	Turning movement	P.D. only	Dry	North	Turning left	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Apr-25, Tue,05:17	Clear	Angle	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	



Location: BANK	ST @ HUNT (CLUB RD							
Traffic Control: Tra	ffic signal						Total Collisions:	139	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2017-May-09, Tue,05:51	Clear	Angle	Non-fatal injury	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Jun-12, Mon,18:00	Clear	Rear end	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2017-Jun-22, Thu,17:20	Clear	Sideswipe	P.D. only	Dry	West	Unknown	Unknown	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2017-Jul-29, Sat,15:29	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	g Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	g Unknown	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Unknown	Other motor vehicle	
2017-Jul-30, Sun,20:38	Clear	Sideswipe	P.D. only	Dry	East	Turning right	Unknown	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Aug-29, Tue,10:42	Clear	Turning movement	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Sep-02, Sat,09:41	Clear	Angle	P.D. only	Dry	North	Going ahead	Truck - dump	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Sep-06, Wed, 17:55	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	g Passenger van	Other motor vehicle	0
					North	Stopped	Passenger van	Other motor vehicle	
2017-Sep-25, Mon,14:53	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Bicycle	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Cyclist	
2017-Sep-29, Fri,13:00	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Sep-30, Sat,11:00	Clear	Rear end	P.D. only	Dry	South	Unknown	Unknown	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	



Location: BANK	SI@HUNIC	LOB RD							
Traffic Control: Tra	ffic signal						Total Collisions:	139	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Oct-10, Tue,14:00	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Nov-09, Thu,12:08	Rain	SMV other	P.D. only	Wet	South	Slowing or stopping	Automobile, station wagon	Pole (utility, power)	0
2017-Nov-28, Tue, 15:40	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Dec-28, Thu,08:10	Snow	Rear end	P.D. only	Loose snow	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Jan-02, Tue, 12:26	Snow	Rear end	P.D. only	Slush	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Jan-11, Thu,14:47	Clear	Sideswipe	P.D. only	Wet	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Feb-09, Fri,03:30	Clear	SMV other	P.D. only	Packed snow	South	Going ahead	Automobile, station wagon	Pole (sign, parking me	ter) 0
2018-Feb-22, Thu,20:15	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Mar-02, Fri,08:30	Clear	Rear end	P.D. only	Dry	North	Going ahead	Unknown	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Mar-11, Sun,15:35	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Mar-26, Mon,12:11	Clear	Rear end	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Apr-26, Thu,14:27	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	



Location: BANK	ST @ HUNT (CLUB RD							
Traffic Control: Tra	ffic signal						Total Collisions:	139	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-May-10, Thu,19:30	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Jun-11, Mon,16:00	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jun-22, Fri,16:00	Clear	Rear end	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jul-05, Thu,21:04	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Jul-27, Fri,19:00	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Sep-09, Sun,22:44	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Oct-02, Tue,15:52	Clear	Rear end	Non-fatal injury	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Oct-07, Sun,19:40	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Oct-17, Wed,08:05	Clear	Rear end	Non-fatal injury	Dry	North	Changing lanes	Pick-up truck	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Oct-30, Tue,09:33	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Nov-02, Fri,16:52	Rain	Other	P.D. only	Wet	South	Reversing	Truck - closed	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Nov-12, Mon,07:31	Clear	SMV other	Non-fatal injury	lce	East	Turning left	Automobile, station wagon	Pole (utility, power)	0
2018-Nov-12, Mon,07:31	Clear	SMV other	Non-fatal injury	lce	East	Turning left	Automobile, station wagon	Pole (utility, power)	0



Location: BANK	ST @ HUNT C	CLUB RD							
Traffic Control: Tra	ffic signal						Total Collisions:	139	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2018-Nov-17, Sat, 22:39	Clear	Angle	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Nov-30, Fri,15:20	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jan-06, Sun,18:15	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Changing lanes	Automobile, station wagon	Other motor vehicle	
2019-Jan-10, Thu,10:18	Clear	Angle	P.D. only	Slush	East	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Jan-12, Sat,14:35	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jan-20, Sun,09:59	Snow	Sideswipe	P.D. only	Loose snow	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jan-25, Fri,09:57	Clear	Rear end	P.D. only	lce	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Mar-06, Wed, 18:30	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Mar-12, Tue,06:00	Clear	SMV other	P.D. only	lce	West	Turning right	Automobile, station wagon	Pole (sign, parking me	eter) 0
2019-Mar-20, Wed,07:03	Clear	Rear end	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Mar-27, Wed,06:45	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	



Location: BANK	ST @ HUNT (LUB RD							
Traffic Control: Tra	ffic signal						Total Collisions:	139	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Mar-28, Thu,15:17	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
2019-Apr-28, Sun,23:20	Clear	Rear end	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-May-16, Thu,15:57	Clear	Sideswipe	P.D. only	Dry	North	Turning left	Pick-up truck	Other motor vehicle	0
					North	Turning left	Truck and trailer	Other motor vehicle	
2019-Jun-03, Mon,10:08	Rain	Angle	Non-fatal injury	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jun-17, Mon,15:53	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
2019-Jun-22, Sat,10:00	Clear	Other	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other	0
					West	Turning left	Pick-up truck	Debris falling off vehicle	
2019-Jun-24, Mon,09:15	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2019-Jul-17, Wed,23:42	Clear	Angle	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jul-24, Wed,19:20	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Aug-08, Thu,21:25	Clear	Rear end	Non-fatal injury	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	



Location: BANK	ST @ HUNT C	CLUB RD									
Traffic Control: Tra	ffic signal					Total Collisions: 139					
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped		
2019-Aug-11, Sun,16:39	Clear	Rear end	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0		
					West	Turning right	Automobile, station wagon	Other motor vehicle			
2019-Sep-04, Wed,09:56	Clear	Turning movement	P.D. only	Dry	South	Turning right	Tow truck	Other motor vehicle	0		
					South	Going ahead	Automobile, station wagon	Other motor vehicle			
2019-Sep-29, Sun,12:34	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0		
					West	Stopped	Automobile, station wagon	Other motor vehicle			
2019-Oct-07, Mon,16:00	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0		
					East	Going ahead	Automobile, station wagon	Other motor vehicle			
2019-Oct-29, Tue,11:36	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0		
					South	Turning right	Automobile, station wagon	Other motor vehicle			
2019-Oct-31, Thu,11:11	Clear	Turning movement	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0		
					North	Turning left	Truck - tank	Other motor vehicle			
2019-Nov-06, Wed,13:20	Clear	Rear end	P.D. only	Dry	South	Going ahead	Pick-up truck	Other motor vehicle	0		
					South	Going ahead	Automobile, station wagon	Other motor vehicle			
2019-Nov-07, Thu,14:45	Clear	Rear end	P.D. only	Dry	West	Changing lanes	Passenger van	Other motor vehicle	0		
					West	Stopped	Automobile, station wagon	Other motor vehicle			
2019-Nov-12, Tue,02:23	Snow	SMV other	P.D. only	Loose snow	East	Turning right	Automobile, station wagon	Curb	0		
2019-Nov-13, Wed,10:04	Clear	Sideswipe	P.D. only	Packed snow	North	Turning left	Truck - tank	Other motor vehicle	0		
					North	Turning left	Automobile, station wagon	Other motor vehicle			
2019-Nov-13, Wed,11:31	Clear	Rear end	P.D. only	lce	North	Going ahead	Automobile, station wagon	Other motor vehicle	0		
					North	Stopped	Automobile, station wagon	Other motor vehicle			
2019-Nov-29, Fri,16:00	Clear	Rear end	P.D. only	Dry	West	Turning right	Pick-up truck	Other motor vehicle	0		
					West	Stopped	Automobile, station wagon	Other motor vehicle			



Location: BANK	ST @ HUNT C	LUB RD							
Traffic Control: Tra	ffic signal						Total Collisions:	139	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Dec-28, Sat,09:08	Clear	Rear end	P.D. only	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
Location: DAZE S	GT @ 200 W C	OF BANK ST/SOUT	HKEYS SC						
Traffic Control: Tra	ffic signal						Total Collisions:	5	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Jan-22, Thu,17:03	Clear	Turning movement	P.D. only	Dry	North	Turning left	Passenger van	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Feb-14, Sat,14:47	Snow	Rear end	P.D. only	Slush	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2016-Mar-03, Thu,09:57	Clear	Turning movement	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Dec-02, Sat,22:10	Clear	Turning movement	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Pick-up truck	Other motor vehicle	
2017-Dec-15, Fri,23:45	Snow	Rear end	P.D. only	Loose snow	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
Location: DAZE S	ST btwn 200 V	V OF BANK ST & E	ANK ST						
Traffic Control: No	control						Total Collisions:	3	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Oct-25, Sun,12:20	Clear	Sideswipe	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	
2016-May-16, Mon,15:30	Clear	Angle	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	



Location: DAZE S	ST btwn 200 V	V OF BANK ST & E	BANK ST						
Traffic Control: No	control						Total Collisions:	3	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Oct-16, Tue,07:15	Clear	Angle	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
Location: DAZE S	ST btwn HUN	۲ CLUB RD & 200 ۲	W OF BANK ST						
Traffic Control: No	control						Total Collisions:	7	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Mar-17, Tue,15:54	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Feb-14, Sun,00:29	Clear	Turning movement	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2016-Jun-28, Tue,12:15	Clear	SMV other	P.D. only	Dry	North	Going ahead	Pick-up truck	Curb	0
2016-Dec-30, Fri,10:49	Clear	Angle	P.D. only	Wet	West	Turning left	Delivery van	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-May-26, Fri,14:14	Rain	SMV other	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Skidding/sliding	0
2019-Mar-29, Fri,16:09	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Dec-11, Wed,17:30	Snow	Turning movement	P.D. only	Packed snow	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
Location: HUNT	CLUB RD @ E	BRIDLE PATH DR/	DAZE ST						
Traffic Control: Tra	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Jan-06, Tue,17:08	Snow	Turning movement	P.D. only	Loose snow	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	



Location: HUNT (CLUB RD @ E	BRIDLE PATH DR/	DAZE ST						
Traffic Control: Trat	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	r Vehicle type	First Event	No. Ped
2015-Jan-20, Tue,18:20	Clear	Sideswipe	P.D. only	Wet	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Pick-up truck	Other motor vehicle	
2015-Mar-14, Sat,13:50	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Pick-up truck	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Mar-17, Tue,15:20	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	0
					West	Stopped	Passenger van	Other motor vehicle	
2015-Mar-20, Fri,08:22	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	g Pick-up truck	Other motor vehicle	0
					East	Slowing or stopping	g Automobile, station wagon	Other motor vehicle	
2015-Apr-27, Mon,13:06	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-May-25, Mon,16:00	Rain	Angle	P.D. only	Wet	South	Turning right	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Municipal transit bus	Other motor vehicle	
2015-Jul-30, Thu,17:57	Clear	Rear end	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2015-Sep-01, Tue,16:34	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	0
					West	Stopped	Passenger van	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Sep-22, Tue,15:30	Clear	Rear end	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2015-Nov-08, Sun,12:29	Clear	Rear end	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
2015-Dec-04, Fri,18:36	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	



Location: HUNT	CLUB RD @ E	BRIDLE PATH DR/	DAZE ST						
Traffic Control: Tra	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2015-Dec-28, Mon,13:40	Clear	Rear end	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
2016-Mar-23, Wed,07:45	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	g Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Passenger van	Other motor vehicle	
2016-Apr-22, Fri,10:19	Rain	Turning movement	P.D. only	Wet	South	Going ahead	Pick-up truck	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2016-Jun-29, Wed,10:35	Clear	Angle	P.D. only	Dry	East	Turning right	Delivery van	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Sep-01, Thu,23:42	Clear	Rear end	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Sep-17, Sat,09:08	Clear	Other	P.D. only	Dry	South	Reversing	Pick-up truck	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2016-Oct-24, Mon,18:30	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Passenger van	Other motor vehicle	
2016-Nov-04, Fri,18:53	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Jan-19, Thu,11:05	Clear	SMV other	Non-fatal injury	Wet	East	Going ahead	Passenger van	Pedestrian	1
2017-Jan-23, Mon,21:31	Clear	Rear end	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Jan-27, Fri,21:37	Clear	Rear end	Non-fatal injury	lce	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	



Location: HUNT	CLUB RD @ E	BRIDLE PATH DR/	DAZE ST						
Traffic Control: Tra	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2017-Feb-09, Thu,13:11	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Apr-20, Thu,21:03	Clear	Turning movement	Non-fatal injury	Dry	East	Turning right	Passenger van	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Apr-28, Fri,16:06	Clear	Rear end	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Cyclist	0
					East	Going ahead	Bicycle	Other motor vehicle	
2017-May-03, Wed,15:39	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	g Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Jul-03, Mon,09:09	Clear	Angle	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Aug-14, Mon,09:30	Clear	Angle	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Sep-14, Thu,08:25	Clear	Rear end	P.D. only	Dry	West	Stopped	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Sep-23, Sat,17:40	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Oct-23, Mon,13:21	Clear	Rear end	P.D. only	Dry	East	Going ahead	Passenger van	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Oct-28, Sat,10:30	Clear	Sideswipe	P.D. only	Dry	South	Unknown	Automobile, station wagon	Other motor vehicle	0
					South	Unknown	Automobile, station wagon	Other motor vehicle	
2017-Dec-17, Sun,13:42	Clear	Rear end	Non-fatal injury	Slush	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	



Location: HUNT	CLUB RD @ B	RIDLE PATH DR/	DAZE ST						
Traffic Control: Tra	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2017-Dec-20, Wed,10:30	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Mar-05, Mon,14:52	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Passenger van	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-May-12, Sat,13:15	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-May-21, Mon,19:20	Clear	Turning movement	P.D. only	Dry	East	Turning right	Unknown	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Jun-03, Sun,12:07	Freezing Rain	Rear end	Non-fatal injury	Wet	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Jul-01, Sun,12:55	Clear	Turning movement	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Jul-03, Tue,20:24	Clear	Rear end	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Slowing or stopping	g Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jul-06, Fri,23:20	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jul-15, Sun,08:27	Clear	Angle	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Passenger van	Other motor vehicle	
2018-Jul-16, Mon,08:49	Clear	Angle	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Jul-19, Thu,15:30	Clear	Rear end	P.D. only	Dry	East	Stopped	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	



Location: HUNT	CLUB RD @ BF	RIDLE PATH DR/	DAZE ST						
Traffic Control: Tra	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Jul-31, Tue,08:05	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Passenger van	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Sep-08, Sat,17:45	Clear	Turning movement	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Oct-06, Sat,14:07	Clear	Rear end	Non-fatal injury	Dry	East	Slowing or stopping	Truck and trailer	Other motor vehicle	0
					East	Stopped	Passenger van	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Oct-07, Sun,11:30	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Oct-11, Thu,16:30	Fog, mist, smoke, dust	, Sideswipe	P.D. only	Dry	East	Merging	Unknown	Other motor vehicle	0
					East	Merging	Automobile, station wagon	Other motor vehicle	
2018-Oct-30, Tue,18:30	Clear	Rear end	P.D. only	Wet	South	Unknown	Unknown	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Nov-22, Thu,11:30	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Delivery van	Other motor vehicle	
2018-Dec-15, Sat,17:16	Clear	Rear end	Non-fatal injury	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Dec-18, Tue, 19:47	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Dec-19, Wed, 16:01	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	



Location: HUNT	CLUB RD @ E	BRIDLE PATH D	R/DAZE ST						
Traffic Control: Tra	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	r Vehicle type	First Event	No. Ped
2018-Dec-24, Mon,13:04	Clear	Rear end	P.D. only	Loose snow	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jan-27, Sun,14:40	Clear	Rear end	P.D. only	Loose snow	North	Turning right	Pick-up truck	Other motor vehicle	0
					North	Turning right	Passenger van	Other motor vehicle	
2019-Jan-31, Thu,16:05	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Truck and trailer	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Feb-09, Sat,18:00	Clear	Sideswipe	P.D. only	Ice	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Feb-13, Wed, 19:20	Snow	Rear end	P.D. only	Loose snow	West	Unknown	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Mar-14, Thu,21:20	Clear	Rear end	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-May-13, Mon,12:22	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2019-May-15, Wed,21:10	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-May-18, Sat,15:00	Clear	Rear end	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Jun-08, Sat,06:09	Clear	Angle	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jun-10, Mon,17:09	Clear	Rear end	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jun-27, Thu,21:46	Rain	Sideswipe	P.D. only	Wet	East	Changing lanes	Automobile, station wagon	Cyclist	0
					East	Going ahead	Bicycle	Other motor vehicle	



Location: HUNT	CLUB RD @ E	BRIDLE PATH DR/	DAZE ST						
Traffic Control: Tra	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2019-Jul-04, Thu,13:50	Clear	Rear end	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jul-07, Sun,18:36	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Aug-08, Thu,19:03	Clear	Rear end	P.D. only	Dry	West	Unknown	Unknown	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Aug-20, Tue,15:05	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2019-Aug-23, Fri,17:48	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Aug-31, Sat,18:02	Clear	Angle	Non-fatal injury	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Sep-01, Sun,13:51	Clear	Rear end	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Sep-12, Thu,06:00	Clear	Sideswipe	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Pick-up truck	Other motor vehicle	
2019-Sep-14, Sat,13:04	Clear	Angle	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	



Location: HUNT	CLUB RD @ E	BRIDLE PATH D	R/DAZE ST						
Traffic Control: Tra	ffic signal						Total Collisions:	80	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2019-Sep-17, Tue, 17:00	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Sep-19, Thu,13:30	Clear	Rear end	Non-fatal injury	Dry	East	Turning right	Pick-up truck	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Sep-20, Fri,15:30	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Dec-08, Sun,16:43	Clear	Sideswipe	P.D. only	Wet	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	

Appendix F – Trip Generation Data

Shopping Center (820)						
Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GLA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.					
Setting/Location:	General Urban/Suburban					
Number of Studies:	84					
Avg. 1000 Sq. Ft. GLA:	351					
Directional Distribution:	62% entering, 38% exiting					

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
0.94	0.18 - 23.74	0.87

Data Plot and Equation



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Shopping Center (820)						
Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GLA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.					
Setting/Location:	General Urban/Suburban					
Number of Studies:	261					
Avg. 1000 Sq. Ft. GLA:	327					
Directional Distribution:	48% entering, 52% exiting					

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.81	0.74 - 18.69	2.04

Data Plot and Equation



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Quality F (9	Restaurant 31)
Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a m
Setting/Location:	General Urban/Suburban
Number of Studies:	7
Avg. 1000 Sq. Ft. GFA:	10
Directional Distribution:	Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.73	0.25 - 1.60	0.42

Data Plot and Equation



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Quality Restaurant (931)				
Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday			
	Peak Hour of Adjacent Street Traffic,			
	One Hour Between 4 and 6 p.m.			
Setting/Location:	General Urban/Suburban			
Number of Studies:	19			
Avg. 1000 Sq. Ft. GFA:	9			
Directional Distribution:	67% entering, 33% exiting			

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
7.80	2.62 - 18.68	4.49

Data Plot and Equation



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Demographic Characteristics

Population Employed Population Households	56,820 25,400 22,130	Actively Travelled Number of Vehicles Area (km ²)		45,210 30,390 52.3
Occupation				
Status (age 5+)		Male	Female	Total
Full Time Employed		11,620	10,650	22,280
Part Time Employed		1,130	2,000	3,130
Student		7,910	7,300	15,210
Retiree		3,690	4,680	8,380
Unemployed		730	700	1,430
Homemaker		90	1,950	2,030
Other		420	660	1,080
Total:		25,580	27,950	53,520
Traveller Characteristics		Male	Female	Total
Transit Pass Holders		5,960	7,020	12,980
Licensed Drivers		18,420	19,280	37,700
Telecommuters		80	190	270
Trips made by residents		66,220	74,780	141,000



Household Size					
1 person	4,880	22%			
2 persons	7,100	32%			
3 persons	3,880	18%			
4 persons	3,940	18%			
5+ persons	2,330	11%			
Total:	22,130	100%			

Households by Vehicle Availability				
0 vehicles	2,030	9%		
1 vehicle	11,340	51%		
2 vehicles	7,400	33%		
3 vehicles	1,220	6%		
4+ vehicles	140	1%		
Total:	22,130	100%		

Households by Dwelling Type				
Single-detached	6,980	32%		
Semi-detached	2,150	10%		
Townhouse	8,900	40%		
Apartment/Condo	4,110	19%		
Total:	22,130	100%		

Selected Indicators	
Daily Trips per Person (age 5+)	2.63
Vehicles per Person	0.53
Number of Persons per Household	2.57
Daily Trips per Household	6.37
Vehicles per Household	1.37
Workers per Household	1.15
Population Density (Pop/km2)	1090



Employed Population



* In 2005 data was only collected for household members aged 11* therefore these results cannot be compared to the 2011 data.



Travel Patterns

Top Five Destinations of Trips from Hunt Club



Summary of Trips to and from Hunt Club							
AM Peak Period (6:30 - 8:59)	Destinations of	Origins of					
	Trips From		Trips To				
Districts	District	% Total	District	% Total			
Ottawa Centre	3,320	10%	180	1%			
Ottawa Inner Area	3,060	10%	830	4%			
Ottawa East	960	3%	540	3%			
Beacon Hill	380	1%	170	1%			
Alta Vista	7,990	25%	1,980	10%			
Hunt Club	8,550	27%	8,550	44%			
Merivale	3,130	10%	960	5%			
Ottawa West	580	2%	360	2%			
Bayshore / Cedarview	540	2%	230	1%			
Orléans	630	2%	950	5%			
Rural East	50	0%	140	1%			
Rural Southeast	190	1%	1,210	6%			
South Gloucester / Leitrim	870	3%	1,100	6%			
South Nepean	440	1%	920	5%			
Rural Southwest	180	1%	220	1%			
Kanata / Stittsvile	420	1%	490	3%			
Rural West	60	0%	80	0%			
Île de Hull	380	1%	50	0%			
Hull Périphérie	170	1%	50	0%			
Plateau	0	0%	80	0%			
Aylmer	0	0%	160	1%			
Rural Northwest	0	0%	110	1%			
Pointe Gatineau	70	0%	70	0%			
Gatineau Est	80	0%	120	1%			
Rural Northeast	30	0%	20	0%			
Buckingham / Masson-Angers	0	0%	0	0%			
Ontario Sub-Total:	31,350	98%	18,910	97%			
Québec Sub-Total:	730	2%	660	3%			
Total:	32,080	100%	19,570	100%			

Trips by Trip Purpose

24 Hours	From District		To District	V	Vithin District	
Work or related	19,270	25%	12,680	16%	3,720	9%
School	9,690	12%	1,260	2%	3,410	8%
Shopping	6,290	8%	9,030	12%	7,130	17%
Leisure	6,830	9%	5,190	7%	3,880	9%
Medical	2,210	3%	1,090	1%	180	0%
Pick-up / drive passenger	5,400	7%	5,740	7%	3,610	9%
Return Home	25,220	32%	39,090	51%	18,040	43%
Other	3,490	4%	3,100	4%	2,190	5%
Total:	78,400	100%	77,180	100%	42,160	100%
AM Peak (06:30 - 08:59)	From District		To District	V	Vithin District	
Work or related	12,470	53%	6,990	63%	1,840	22%
School	7,350	31%	1,150	10%	3,190	37%
Shopping	260	1%	390	4%	330	4%
Leisure	360	2%	340	3%	370	4%
Medical	650	3%	140	1%	20	0%
Pick-up / drive passenger	1,480	6%	880	8%	1,340	16%
Return Home	420	2%	570	5%	670	8%
Other	560	2%	570	5%	780	9%
Total:	23,550	100%	11,030	100%	8,540	100%
PM Peak (15:30 - 17:59)	From District		To District	v	Vithin District	
Work or related	460	3%	530	2%	140	1%
School	350	2%	0	0%	50	1%
Shopping	1,370	9%	2,130	10%	1,530	16%
Leisure	1,440	9%	1,230	6%	1,080	11%
Medical	240	2%	120	1%	10	0%
Pick-up / drive passenger	1,420	9%	2,010	9%	930	9%
Return Home	9,130	59%	15,540	70%	5,730	58%
Other	990	6%	780	3%	400	4%
Total:	15,400	100%	22,340	100%	9,870	100%
Peak Period (%)	Total [.]		% of 24 Hours		Within Distric	rt (%)
24 Hours	197 740				21%	
AM Peak Period	/3 120		22%		20%	
PM Poak Poriod	43,120		22/0		20%	
FIVI FEAK PELIUU	47,010		2470		21%	

Trips by Primary Travel Mode

24 Hours	From District		To District	Wi	thin Distric	t
Auto Driver	47,460	61%	47,270	61%	22,130	52%
Auto Passenger	12,000	15%	11,370	15%	6,360	15%
Transit	13,980	18%	13,850	18%	1,660	4%
Bicycle	560	1%	580	1%	360	1%
Walk	310	0%	350	0%	8,370	20%
Other	4,100	5%	3,740	5%	3,290	8%
Total:	78,410	100%	77,160	100%	42,170	100%
AM Peak (06:30 - 08:59)	From District		To District	Wi	thin Distric	t
Auto Driver	10,420	44%	8,350	76%	3,700	43%
Auto Passenger	2,740	12%	1,080	10%	1,190	14%
Transit	7,540	32%	710	6%	270	3%
Bicycle	220	1%	130	1%	100	1%
Walk	150	1%	20	0%	1,720	20%
Other	2,490	11%	760	7%	1,570	18%
Total:	23,560	100%	11,050	100%	8,550	100%
PM Peak (15:30 - 17:59)	From District		To District	Wi	thin Distric	t
Auto Driver	10,960	71%	12,380	55%	5,340	54%
Auto Passenger	2,590	17%	2,910	13%	1,880	19%
Transit	1,330	9%	5,460	24%	270	3%
Bicycle	120	1%	180	1%	80	1%
Walk	30	0%	40	0%	1,710	17%
Other	360	2%	1,360	6%	580	6%
Total:	15,390	100%	22,330	100%	9,860	100%
Avg Vehicle Occupancy	From District		To District	Wi	thin Distric	t
24 Hours	1.25		1.24		1.29	
AM Peak Period	1.26		1.13		1.32	
PM Peak Period	1.24		1.24		1.35	
Transit Modal Split	From District		To District	Wi	thin Distric	t
24 Hours	19%		19%		6%	
AM Peak Period	36%		7%		5%	
PM Peak Period	9%		26%		4%	

Appendix G – TDM Checklists

TDM-Supportive Development Design and Infrastructure Checklist: *Residential Developments (multi-family or condominium)*

Legend				
REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed			
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users			
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance			

	TDM-s	supportive design & infrastructure measures: Residential developments	Check if completed & add descriptions, explanations or plan/drawing references
	1.	WALKING & CYCLING: ROUTES	
	1.1	Building location & access points	
BASIC	1.1.1	Locate building close to the street, and do not locate parking areas between the street and building entrances	
BASIC	1.1.2	Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	
BASIC	1.1.3	Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	
	1.2	Facilities for walking & cycling	
REQUIRED	1.2.1	Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations (see Official Plan policy 4.3.3)	
REQUIRED	1.2.2	Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible (see Official <i>Plan policy 4.3.12</i>)	

	TDM-s	upportive design & infrastructure measures: Residential developments	Check if completed & add descriptions, explanations or plan/drawing references	
REQUIRED	1.2.3	Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks (see Official Plan policy 4.3.10)		
REQUIRED	1.2.4	Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps (see Official Plan policy 4.3.10)		
REQUIRED	1.2.5	Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on- road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians (see Official Plan policy 4.3.11)		
BASIC	1.2.6	Provide safe, direct and attractive walking routes from building entrances to nearby transit stops		
BASIC	1.2.7	Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible		
BASIC	1.2.8	Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility		
	1.3	Amenities for walking & cycling		
BASIC	1.3.1	Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails		
BASIC	1.3.2	Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)		

	TDM-s	supportive design & infrastructure measures: Residential developments	Check if completed & add descriptions, explanations or plan/drawing references
	2.	WALKING & CYCLING: END-OF-TRIP FACILI	TIES
	2.1	Bicycle parking	
REQUIRED	2.1.1	Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible (see Official Plan policy 4.3.6)	
REQUIRED	2.1.2	Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well- used areas (see Zoning By-law Section 111)	
REQUIRED	2.1.3	Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored <i>(see Zoning By-law Section 111)</i>	
BASIC	2.1.4	Provide bicycle parking spaces equivalent to the expected number of resident-owned bicycles, plus the expected peak number of visitor cyclists	
	2.2	Secure bicycle parking	
REQUIRED	2.2.1	Where more than 50 bicycle parking spaces are provided for a single residential building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers (<i>see Zoning By-law Section 111</i>)	
BETTER	2.2.2	Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi- family residential developments	
	2.3	Bicycle repair station	
BETTER	2.3.1	Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	
	3.	TRANSIT	
	3.1	Customer amenities	
BASIC	3.1.1	Provide shelters, lighting and benches at any on-site transit stops	□ N/A
BASIC	3.1.2	Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	□ N/A
BETTER	3.1.3	Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	□ N/A

	TDM-s	supportive design & infrastructure measures: Residential developments	Check if completed & add descriptions, explanations or plan/drawing references
	4.	RIDESHARING	
	4.1	Pick-up & drop-off facilities	
BASIC	4.1.1	Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	UNDER CONSIDERATION
	5.	CARSHARING & BIKESHARING	
	5.1	Carshare parking spaces	
BETTER	5.1.1	Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses <i>(see Zoning By-law Section 94)</i>	□ N/A
	5.2	Bikeshare station location	
BETTER	5.2.1	Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	UNDER CONSIDERATION
	6.	PARKING	
	6.1	Number of parking spaces	
REQUIRED	6.1.1	Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	
BASIC	6.1.2	Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	
BASIC	6.1.3	Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly (see Zoning By-law Section 104)	
BETTER	6.1.4	Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking <i>(see Zoning By-law Section 111)</i>	UNDER CONSIDERATION
	6.2	Separate long-term & short-term parking areas	1
BETTER	6.2.1	Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	

TDM Measures Checklist:

Residential Developments (multi-family, condominium or subdivision)

	Legend
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance
*	The measure is one of the most dependably effective tools to encourage the use of sustainable modes

TDM measures: Residential developments			Check if proposed & add descriptions		
	1.	TDM PROGRAM MANAGEMENT			
	1.1	Program coordinator			
BASIC	★ 1.1.1	Designate an internal coordinator, or contract with an external coordinator			
	1.2	Travel surveys			
BETTER	1.2.1	Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	under consideration		
	2.	WALKING AND CYCLING			
	2. 2.1	WALKING AND CYCLING Information on walking/cycling routes & des	tinations		
BASIC	2. 2.1 2.1.1	WALKING AND CYCLING Information on walking/cycling routes & des Display local area maps with walking/cycling access routes and key destinations at major entrances (multi-family, condominium)	tinations ✔		
BASIC	 2. 2.1.1 2.2 	WALKING AND CYCLING Information on walking/cycling routes & des Display local area maps with walking/cycling access routes and key destinations at major entrances (multi-family, condominium) Bicycle skills training	tinations ✔		

TDM measures: Residential developments		Check if proposed & add descriptions			
3. TRANSIT					
		3.1	Transit information		
BASIC		3.1.1	Display relevant transit schedules and route maps at entrances (multi-family, condominium)	\checkmark	
BETTER		3.1.2	Provide real-time arrival information display at entrances (multi-family, condominium)		under consideration
		3.2	Transit fare incentives		
BASIC	*	3.2.1	Offer PRESTO cards preloaded with one monthly transit pass on residence purchase/move-in, to encourage residents to use transit	\checkmark	
BETTER		3.2.2	Offer at least one year of free monthly transit passes on residence purchase/move-in		under consideration
		3.3	Enhanced public transit service		
BETTER	*	3.3.1	Contract with OC Transpo to provide early transit services until regular services are warranted by occupancy levels <i>(subdivision)</i>		not applicable
		3.4	Private transit service		
BETTER		3.4.1	Provide shuttle service for seniors homes or lifestyle communities (e.g. scheduled mall or supermarket runs)		not applicable
		4.	CARSHARING & BIKESHARING		
		4.1	Bikeshare stations & memberships		
BETTER		4.1.1	Contract with provider to install on-site bikeshare station (<i>multi-family</i>)		
BETTER		4.1.2	Provide residents with bikeshare memberships, either free or subsidized <i>(multi-family)</i>		
		4.2	Carshare vehicles & memberships		
BETTER		4.2.1	Contract with provider to install on-site carshare vehicles and promote their use by residents		
BETTER		4.2.2	Provide residents with carshare memberships, either free or subsidized		
		5.	PARKING		
		5.1	Priced parking		
BASIC	*	5.1.1	Unbundle parking cost from purchase price (condominium)		not applicable
BASIC	*	5.1.2	Unbundle parking cost from monthly rent (<i>multi-family</i>)	\checkmark	

TDM measures: Residential developments			Check if proposed & add descriptions	
6. TDM MARKETING & COMMUNICATIONS				
6.1	Multimodal travel information			
BASIC ★ 6.1.1	Provide a multimodal travel option information package to new residents	\checkmark		
6.2	Personalized trip planning			
BETTER ★ 6.2.1	Offer personalized trip planning to new residents		under consideration	

Appendix H – Swept Path Analysis



134569-Autoturn.dgn Turning 09/24/21 12:41:53



134569-Autoturn.dgn Turning 09/24/21 12:43:52
Appendix I – MMLOS Analysis

Multi-Modal Level of Service - Intersections Form

Consultant Scenario Comments	IBI Group Existing/Future Conditions		Project Date	South Keys	134569					To add intersed Select column Then select c	<u>stions</u> s LMNO, right-cl olumn P, right-c	lick and <i>Copy;</i> click and <i>Insert</i>	Copied Cells	To add interse Select column Then select c	<u>ctions</u> is LMNO, right-c column P, right-	click and Copy;	Copied Cells	To add intersed Select column Then select c	<u>:tions</u> s LMNO, right-c :olumn P, right-	lick and Copy; click and Insert	Copied Cells
	INTERSECTIONS		- Bank St	& Dazá St			Bank St & I	Hunt Club Rd			Dazá St & Sc	outh Keve SC			Hunt Club	Rd & Dazó St			Airport Parkwa	v & Hunt Club R	d
	Crossing Side	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Lanes	10+	8	8	6	10+	10+	10+	10+	6	7	5	6	7	10+	10+	10+	6	5	7	7
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	Median > 2.4 m	Median > 2.4 m	No Median - 2.4 m	No Median - 2.4 m
	Conflicting Left Turns	Protected/ Permissive	Protected/ Permissive	Permissive	Permissive	Protected	Protected	Protected	Protected	Protected/ Permissive	Protected/ Permissive	Permissive	Permissive	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected
	Conflicting Right Turns	Permissive or yield control	I Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
	Ped Signal Leading Interval?	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	No
rian	Right Turn Channel	Conventional with Receiving Lane	No Channel	Conv'tl without Receiving Lane	Conventional with Receiving Lane	Conventional with Receiving Lane	Conventional with Receiving Lane	Conventional with Receiving Lane	Conventional with Receiving Lane	No Channel	No Channel	No Channel	No Channel	Smart Channel	Conv'tl without Receiving Lane	Smart Channel	Conv'tl without Receiving Lane	Conventional with Receiving Lane	Conv'tl without Receiving Lane	Conventional with Receiving Lane	Conv'tl without Receiving Lane
est	Corner Radius	10-15m	5-10m	10-15m	10-15m	15-25m	>25m	>25m	>25m	5-10m	5-10m	5-10m	5-10m	5-10m	5-10m	5-10m	5-10m	15-25m	15-25m	15-25m	15-25m
edi	Crosswalk Type	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings
C	PETSI Score	-39	-6	-5	24	-38	-39	-39	-39	21	5	38	21	19	-32	-30	-32	37	55	14	17
	Ped. Exposure to Traffic LoS	#N/A	F	F	F	#N/A	#N/A	#N/A	#N/A	F	F	E	F	F	#N/A	#N/A	#N/A	E	D	F	F
	Cycle Length	120	120	120	120	120	120	120	120	75	75	75	75	130	130	130	130	130	130	130	130
	Effective Walk Time	33.7	33.7	9.9	9.9	10.3	18.3	18.5	9.5	6.9	6.9	17.1	17.1	27.8	27.8	7	7	33.7	33.7	7.2	7.2
	Average Pedestrian Delay	31	31	51	51	50	43	43	51	31	31	22	22	40	40	58	58	36	36	58	58
	Pedestrian Delay LoS	D		E	E _	E	E	E	E	D _	D	C	C	E	E	E	E	D	D	E	E
	Level of Service	#N/A	F	F	F	#N/A	#N/A	#N/A	#N/A	F	F	E	F	F	#N/A	#N/A	#N/A	E	D	<u>⊢ ⊢</u>	F
			#	N/A			#1	N/A			i	F			#I	N/A				F	
	Approach From	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Bicycle Lane Arrangement on Approach	Pocket Bike Lane	Mixed Traffic	Pocket Bike Lane	Pocket Bike Lane	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank></blank>	> 50 m Introduced right turn lane		≤ 50 m Introduced right turn lane	> 50 m Introduced right turn lane	Not Applicable	≤ 50 m	Not Applicable	Not Applicable					> 50 m	≤ 50 m Introduced right turn lane	≤ 50 m Introduced right turn lane	Not Applicable	> 50 m	≤ 50 m	Not Applicable	Not Applicable
	Dedicated Right Turning Speed	≤ 25 km/h	Not Applicable	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	>25 to 30 km/h	>25 to 30 km/h					≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	>25 to 30 km/h	≤ 25 km/h	≤ 25 km/h	Not Applicable	>25 to 30 km/h
<u>0</u>	Cyclist Through Movement	D		В	D	Not Applicable	D	Not Applicable	Not Applicable					F	В	Not Applicable	Not Applicable	F	D	Not Applicable	Not Applicable
cyc	Separated or Mixed Traffic	Separated	Mixed Traffic	Separated	Separated	Separated	Mixed Traffic	Separated	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	Separated	Separated	Mixed Traffic	Mixed Traffic	Separated	Separated
Bi	Left Turn Approach	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	No lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	No lane crossed	One lane crossed	≥ 2 lanes crossed	1 lane crossed	≥ 2 lanes crossed	1 lane crossed	≥ 2 lanes crossed	No lane crossed	1 lane crossed	1 lane crossed
	Operating Speed	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≤ 40 km/h	≤ 40 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h
		F	F	F	F	F		F	F	F	F	B	B	F	E	F		F	C D	E	
	Level of Service		F	F	F			F	F	r	F	F	B	r	<u> </u>	F	E	F		F	E
	Average Signal Delay	≤ 30 sec	≤ 20 sec				≤ 20 sec	> 40 sec	> 40 sec					≤ 10 sec		> 40 sec	> 40 sec	≤ 10 sec		> 40 sec	≤ 40 sec
lsit		D	С	-	-	-	С	F	F	-	-	-	-	В	-	F	F	В	-	F	Е
Trai	Level of Service			D				F				-				F				F	
	Effective Corner Radius	10 - 15 m			< 10 m	> 15 m	> 15 m	> 15 m	> 15 m	< 10 m	< 10 m	< 10 m	< 10 m	< 10 m	< 10 m	< 10 m	< 10 m	> 15 m	10 - 15 m	> 15 m	> 15 m
Ċ.	Number of Receiving Lanes on Departure from Intersection	1	0	0	2+	2+	2+	2+	2+	1	1	2+	2+	2+	2+	2+	1	2+	2+	1	1
Tru		E	-	-	D	A	Α	Α	Α	F	F	D	D	D	D	D	F	Α	В	С	С
	Level of Service			E				Α			I	F				F				C	
ţ	Volume to Capacity Ratio																				
Au	Level of Service			-				-				-				-				-	

Multi-Modal Level of Service - Segments Form

Consultant	IBI Group		Project	South Keys F	hase 1						
Scenario Commonte	Existing/Future Conditions		Date								
Comments											
SEGMENTS		Dazé St	Section	Section	Section	Section 4	Section	Section	Section 7	Section 8	Section 9
	Sidewalk Width		≥ 2 m	2							
	Boulevard Width		< 0.5								
_	Operating Speed		> 50 to 60 km/b								
iria	On-Street Parking		no								
est	Exposure to Traffic PLoS	E	E	-	-	-	-	-	-	-	-
ed	Effective Sidewalk Width		2.5 m								
L	Crowding PLoS		250 ped/nr	-	_	_	-	_	-	-	_
	Level of Service		E	-	-	-	-	-	-	-	-
	Type of Cycling Facility		Mixed Traffic								
	Number of Travel Lanes		4-5 lanes total								
	Operating Speed		≥ 50 to 60 km/h								
	# of Lanes & Operating Speed LoS		E	-	-	-	-	-	-	-	-
<u>0</u>	Bike Lane (+ Parking Lane) Width										
cyc	Bike Lane Width LoS	E	-	-	-	-	-	-	-	-	-
<u>ia</u>	Bike Lane Blockages					_	_	_		-	
	Median Refuge Width (no median = < 1.8 m)		< 1.8 m refuge								
	No. of Lanes at Unsignalized Crossing		4-5 lanes								
	Sidestreet Operating Speed		≤ 40 km/h								
	Unsignalized Crossing - Lowest LoS		В	-	-	-	-	-	-	-	-
	Level of Service		E	-	-	-	-	-	-	-	-
it	Facility Type		Mixed Traffic								
ans	Friction or Ratio Transit:Posted Speed	D	Vt/Vp ≥ 0.8								
Tr:	Level of Service		D	-	-	-	-	-	-	-	-
	Truck Lane Width		≤ 3.5 m								
lick	Travel Lanes per Direction	Λ	> 1								
Ч	Level of Service	~	A	-	-	-	-	-	-	-	-

Appendix J – Intersection Capacity Analysis

Existing (2021) Traffic

1: Airport Parkway & Hunt Club Road Existing Conditions

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>ک</u>	≜1 ≱		ľ	∱1 ≽		ľ		1	ሻሻ		1
Traffic Volume (vph)	335	1045	7	64	917	580	15	0	81	247	0	140
Future Volume (vph)	335	1045	7	64	917	580	15	0	81	247	0	140
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	0.99							
Frt		0.999			0.942				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3260	0	1544	3018	0	1616	0	1381	3257	0	1488
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1711	3260	0	1543	3018	0	1616	0	1381	3257	0	1488
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			115				164			156
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		431.4			316.9			354.1			189.5	
Travel Time (s)		25.9			19.0			15.9			8.5	
Confl. Peds. (#/hr)	7		2	2		7						
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	6%	0%	12%	11%	1%	7%	0%	12%	3%	0%	4%
Adj. Flow (vph)	372	1161	8	71	1019	644	17	0	90	274	0	156
Shared Lane Traffic (%)												
Lane Group Flow (vph)	372	1169	0	71	1663	0	17	0	90	274	0	156
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6							
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		4		4	8		8
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0
Minimum Split (s)	12.4	47.3		12.4	47.3		17.8		17.8	22.5		22.5
Total Split (s)	32.0	50.0		32.0	50.0		18.0		18.0	48.0		48.0
Total Split (%)	24.6%	38.5%		24.6%	38.5%		13.8%		13.8%	36.9%		36.9%
Maximum Green (s)	24.6	42.7		24.6	42.7		10.2		10.2	40.2		40.2
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	C-Max		None	C-Max		None		None	None		None
Walk Time (s)		31.0			31.0							
Flash Dont Walk (s)		9.0			9.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)	41.4	82.6		11.3	49.8		16.3		16.3	16.3		16.3
Actuated g/C Ratio	0.32	0.64		0.09	0.38		0.13		0.13	0.13		0.13

Lanes, Volumes, Timings

Synchro 11 Report September 2021

Lane Group	Ø3
Lane	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

1: Airport Parkway & Hunt Club Road Existing Conditions

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.68	0.56		0.53	1.36		0.08		0.28	0.67		0.48
Control Delay	46.7	16.7		45.5	194.7		49.3		2.2	62.2		12.6
Queue Delay	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Delay	46.7	16.7		45.5	194.7		49.3		2.2	62.2		12.6
LOS	D	В		D	F		D		А	Е		В
Approach Delay		23.9			188.6			9.7			44.2	
Approach LOS		С			F			А			D	
Queue Length 50th (m)	85.3	89.2		17.4	~271.7		3.9		0.0	35.1		0.0
Queue Length 95th (m)	118.6	131.7		m21.1 r	n#284.9		10.8		0.0	47.5		18.9
Internal Link Dist (m)		407.4			292.9			330.1			165.5	
Turn Bay Length (m)	150.0			55.0					40.0	120.0		120.0
Base Capacity (vph)	544	2072		292	1226		203		316	1007		567
Starvation Cap Reductn	0	0		0	0		0		0	0		0
Spillback Cap Reductn	0	0		0	0		0		0	0		0
Storage Cap Reductn	0	0		0	0		0		0	0		0
Reduced v/c Ratio	0.68	0.56		0.24	1.36		0.08		0.28	0.27		0.28
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130)											
Offset: 1 (1%), Referenced	to phase 2	EBT and	6:WBT, S	tart of G	ireen							
Natural Cycle: 150												
Control Type: Actuated-Coc	ordinated											
Maximum v/c Ratio: 1.36												
Intersection Signal Delay: 1	00.7			h	ntersectio	n LOS: F						
Intersection Capacity Utilization	ation 93.3%	•		l	CU Level	of Service	F					
Analysis Period (min) 15												
~ Volume exceeds capaci	ity, queue i	s theoretic	ally infinit	e.								
Queue shown is maximu	um after two	o cycles.										
# 95th percentile volume	exceeds ca	pacity, qu	eue may l	be longe	er.							
Queue shown is maximu	um after two	o cycles.										
m Volume for 95th percer	ntile queue	is metered	d by upstr	eam sig	nal.							

Splits and Phases: 1: Airport Parkway & Hunt Club Road

√ Ø1	→Ø2 (R)	A Mag	1 Ø4	
32 s	50 s	30 s	18 s	
	← Ø6 (R)	Ø8		
32 s	50 s	48 s		

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Bridle Path Drive/Dazé Street & Hunt Club Road Existing Conditions

	●	۶	-	\rightarrow	F	4	+	•	1	Ť	1	1
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ሻሻ	<u> ተተኑ</u>			<u>۲</u>	^	1	ሻሻ	†	1	5
Traffic Volume (vph)	13	160	1047	98	2	13	1134	61	200	108	67	30
Future Volume (vph)	13	160	1047	98	2	13	1134	61	200	108	67	30
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			0.99		0.96	0.94		0.99	1.00
Frt			0.987					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3293	4557	0	0	1439	3232	1517	3106	1802	1459	1679
Flt Permitted		0.133				0.851			0.950			0.950
Satd. Flow (perm)	0	458	4557	0	0	1281	3232	1462	2924	1802	1439	1675
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			13					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		15		18		18		15	32		2	2
Confl. Bikes (#/hr)				1				2				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	2%	7%	7%	0%	23%	7%	2%	8%	1%	6%	3%
Adj. Flow (vph)	14	178	1163	109	2	14	1260	68	222	120	74	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	192	1272	0	0	16	1260	68	222	120	74	33
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	15.0	15.0	52.0		15.0	15.0	52.0	52.0	22.0	41.0	41.0	22.0
Total Split (%)	11.5%	11.5%	40.0%		11.5%	11.5%	40.0%	40.0%	16.9%	31.5%	31.5%	16.9%
Maximum Green (s)	8.5	8.5	45.8		8.5	8.5	45.8	45.8	15.5	34.0	34.0	15.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min		None	None	C-Min	C-Min	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		30.1	77.4			8.7	48.1	48.1	13.8	22.6	22.6	8.1
Actuated g/C Ratio		0.23	0.60			0.07	0.37	0.37	0.11	0.17	0.17	0.06

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Lane Group	SBT	SBB
		#
Traffic Volume (voh)	30	152
Future Volume (vph)	30	152
Ideal Flow (vphpl)	1800	1800
Storage Length (m)	1000	0.0
Storage Lange		0.0
Taper Length (m)		1
Lano Litil Easter	1.00	1.00
Pod Riko Factor	1.00	0.05
Frt		0.93
		0.650
Satd Flow (prot)	1000	1517
Elt Pormittod	1020	1517
	1000	1444
Datu. Flow (perifit)	1020	1444 Vac
		107
Salu. Flow (KTUK)	50	137
Link Speed (K/N)	50	
	209.8	
Travel Time (S)	15.1	
Confl. Peas. (#/hr)		32
Conti. Bikes (#/nr)	0.00	0.00
Peak Hour Factor	0.90	0.90
Heavy Venicles (%)	0%	2%
Auj. Flow (Vpn)	33	169
Shared Lane Traffic (%)		100
Lane Group Flow (vph)	33	169
	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	41.0	41.0
Total Split (s)	41.0	41.0
Total Split (%)	31.5%	31.5%
Maximum Green (s)	34.0	34.0
Yellow Time (s)	3.3	3.3
All-Red Time (s)	3.7	3.7
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.0	7.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	27.0	27.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	11.9	11.9
Actuated g/C Ratio	0.09	0.09

2: Bridle Path Drive/Dazé Street & Hunt Club Road Existing Conditions

	₫	٭	-	$\mathbf{\hat{z}}$	F	•	←	*	•	Ť	1	4
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		1.83	0.47			0.19	1.05	0.11	0.68	0.38	0.20	0.32
Control Delay		433.1	12.3			60.6	81.2	0.3	66.5	52.9	1.3	65.6
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		433.1	12.3			60.6	81.2	0.3	66.5	52.9	1.3	65.6
LOS		F	В			Е	F	А	Е	D	А	E
Approach Delay			67.5				76.9			51.0		
Approach LOS			Е				Е			D		
Queue Length 50th (m)		~38.3	37.3			4.0	167.3	0.0	28.5	29.2	0.0	8.3
Queue Length 95th (m)		#65.6	57.6			11.2	#235.4	0.0	41.5	46.9	0.0	18.8
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		105	2717			96	1195	631	370	471	477	198
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		1.83	0.47			0.17	1.05	0.11	0.60	0.25	0.16	0.17
Intersection Summary												
Area Type: Of	ther											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced to	phase 2:	EBT and	6:WBT, S	start of G	reen							
Natural Cycle: 135												
Control Type: Actuated-Coord	dinated											
Maximum v/c Ratio: 1.83												
Intersection Signal Delay: 67.	0			Ir	ntersectior	LOS: E						
Intersection Capacity Utilization	on 89.1%			IC	CU Level o	of Servic	еE					
Analysis Period (min) 15												
~ Volume exceeds capacity	, queue is	s theoretic	cally infini	te.								
Queue shown is maximum	after two	cycles.										
# 95th percentile volume ex	ceeds ca	pacity, qu	eue may	be longe	r.							
Queue shown is maximum	after two	cycles.										

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

√ Ø1	> Ø2 (R)	▲ Ø3	♦ Ø4
15 s	52 s	22 s	41 s
≯ø5	 Ø6 (R)	Ø7	Øs
15 s	52 s	22 s	41 s

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Long Group	ODT	CDD
	301	JDN
v/c Ratio	0.20	0.66
Control Delay	56.2	27.0
Queue Delay	0.0	0.0
Total Delay	56.2	27.0
LOS	Е	С
Approach Delay	36.5	
Approach LOS	D	
Queue Length 50th (m)	8.1	7.9
Queue Length 95th (m)	17.6	29.8
Internal Link Dist (m)	185.8	
Turn Bay Length (m)		
Base Capacity (vph)	476	478
Starvation Cap Reductn	0	0
Spillback Cap Beductn	0	0
Storage Can Beducth	0	0
Reduced v/c Patio	0.07	0.35
neuuceu v/c hallu	0.07	0.35
Intersection Summary		

3: Bank Street & Hunt Club Road Existing Conditions

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ሻሻ	<u></u>	1		<u> </u>	^	1	ሻሻ	^	1	ኘኘ	^
Traffic Volume (vph)	120	709	260	1	31	946	190	283	933	22	83	316
Future Volume (vph)	120	709	260	1	31	946	190	283	933	22	83	316
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		0.0		60.0		100.0	60.0		60.0	30.0	
Storage Lanes	2		1		1		1	2		1	2	
Taper Length (m)	2.5				2.5			2.5			2.5	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95
Ped Bike Factor	0.99		0.98		1.00		0.97	0.97		0.96	0.99	
Frt			0.850				0.850			0.850		
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	3022	3202	1488	0	1634	3232	1532	3195	3357	1547	3288	3262
Flt Permitted	0.950				0.769			0.950			0.950	
Satd. Flow (perm)	3006	3202	1452	0	1318	3232	1489	3089	3357	1487	3255	3262
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			289				279			216		
Link Speed (k/h)		60				60			60			60
Link Distance (m)		152.6				161.6			179.7			141.8
Travel Time (s)		9.2				9.7			10.8			8.5
Confl. Peds. (#/hr)	10		9		9		10	25		20	20	
Confl. Bikes (#/hr)							3			3		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	11%	8%	4%	0%	6%	7%	1%	5%	3%	0%	2%	6%
Adj. Flow (vph)	133	788	289	1	34	1051	211	314	1037	24	92	351
Shared Lane Traffic (%)												
Lane Group Flow (vph)	133	788	289	0	35	1051	211	314	1037	24	92	351
Turn Type	Prot	NA	Perm	custom	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4			3	8		5	2		1	6
Permitted Phases			4	3			8			2		
Detector Phase	7	4	4	3	3	8	8	5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.5	33.7	33.7	11.5	11.5	33.7	33.7	12.1	34.5	34.5	12.1	34.5
Total Split (s)	21.0	45.0	45.0	13.0	13.0	37.0	37.0	25.0	48.0	48.0	14.0	37.0
Total Split (%)	17.5%	37.5%	37.5%	10.8%	10.8%	30.8%	30.8%	20.8%	40.0%	40.0%	11.7%	30.8%
Maximum Green (s)	14.5	38.3	38.3	6.5	6.5	30.3	30.3	17.9	41.5	41.5	6.9	30.5
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.8	3.0	3.0	2.8	2.8	3.0	3.0	3.4	2.8	2.8	3.4	2.8
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)	6.5	6.7	6.7		6.5	6.7	6.7	7.1	6.5	6.5	7.1	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	None	Max	Max	None	C-Max	C-Max	None	C-Max
Walk Time (s)		7.0	7.0			7.0	7.0		7.0	7.0		7.0
Flash Dont Walk (s)		20.0	20.0			20.0	20.0		21.0	21.0		21.0
Pedestrian Calls (#/hr)		0	0			0	0		0	0		0
Act Effct Green (s)	10.6	40.9	40.9		6.4	34.2	34.2	16.1	41.6	41.6	6.8	32.3
Actuated g/C Ratio	0.09	0.34	0.34		0.05	0.28	0.28	0.13	0.35	0.35	0.06	0.27

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Lanerontigurations	r.
Traffic Volume (vph)	136
Future Volume (vph)	136
Ideal Flow (vphpl)	1800
Storage Length (m)	120.0
Storage Lanes	1
Taper Length (m)	
Lane Util. Factor	1.00
Ped Bike Factor	0.96
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1381
Flt Permitted	
Satd. Flow (perm)	1321
Right Turn on Red	Yes
Satd. Flow (RTOR)	281
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	25
Confl. Bikes (#/hr)	20
Peak Hour Factor	0 90
Heavy Vehicles (%)	12%
Adi Flow (vph)	151
Shared Lane Traffic (%)	131
Lane Group Flow (upb)	151
	Dorm
	reim
Protected Priases	^
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	34.5
Total Split (s)	37.0
Total Split (%)	30.8%
Maximum Green (s)	30.5
Yellow Time (s)	3.7
All-Red Time (s)	2.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	32.3
Actuated g/C Batio	0 27
, istation g/o riallo	0.27

3: Bank Street & Hunt Club Road Existing Conditions

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
v/c Ratio	0.50	0.72	0.42		0.50	1.14	0.34	0.74	0.89	0.04	0.49	0.40
Control Delay	58.3	40.0	5.4		79.5	116.2	2.6	60.5	48.0	0.1	67.7	29.3
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	58.3	40.0	5.4		79.5	116.2	2.6	60.5	48.0	0.1	67.7	29.3
LOS	Е	D	А		Е	F	А	Е	D	А	Е	С
Approach Delay		33.8				96.7			50.0			28.1
Approach LOS		С				F			D			С
Queue Length 50th (m)	15.6	87.9	0.0		8.2	~152.2	0.0	36.8	120.9	0.0	11.2	23.8
Queue Length 95th (m)	25.0	111.4	19.0		#21.2	#203.7	5.2	51.5	#158.2	0.0	19.4	32.0
Internal Link Dist (m)		128.6				137.6			155.7			117.8
Turn Bay Length (m)	95.0				60.0		100.0	60.0		60.0	30.0	
Base Capacity (vph)	365	1090	685		71	921	623	476	1163	656	189	879
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	0.36	0.72	0.42		0.49	1.14	0.34	0.66	0.89	0.04	0.49	0.40
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 120)											
Offset: 65 (54%), Reference	ed to phase	e 2:NBT ar	nd 6:SBT	, Start of C	Green							
Natural Cycle: 105												
Control Type: Actuated-Coc	ordinated											
Maximum v/c Ratio: 1.14												
Intersection Signal Delay: 5	6.3			Int	tersectio	n LOS: E						
Intersection Capacity Utiliza	ation 86.0%)		IC	U Level	of Servic	еE					
Analysis Period (min) 15												
~ Volume exceeds capaci	ity, queue i	s theoretic	ally infini	te.								
Queue shown is maximu	um after two	o cycles.										
# 95th percentile volume e	exceeds ca	pacity, qu	eue may	be longer								
Queue shown is maximu	um after two	o cycles.										

Splits and Phases: 3: Bank Street & Hunt Club Road



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Lane Group	SBR
v/c Ratio	0.27
Control Delay	1.2
Queue Delay	0.0
Total Delay	1.2
LOS	А
Approach Delay	
Approach LOS	
Queue Length 50th (m)	0.2
Queue Length 95th (m)	0.0
Internal Link Dist (m)	
Turn Bay Length (m)	120.0
Base Capacity (vph)	561
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.27
Intersection Summary	

4: Bank Street & Dazé Street/Cahill Drive Existing Conditions

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations		ب ا ۲	1		ર્શ	1	<u>۲</u>	≜1 }			۲	<u>^</u>
Traffic Volume (vph)	110	0	28	73	0	148	90	927	51	3	17	391
Future Volume (vph)	110	0	28	73	0	148	90	927	51	3	17	391
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0		0.0	0.0		40.0	45.0		0.0		70.0	
Storage Lanes	0		1	0		1	1		0		1	
Taper Length (m)	7.6			7.6			7.6				7.6	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor		0.97	0.97		0.98	0.95	1.00	1.00			1.00	
Frt			0.850			0.850		0.992				
Flt Protected		0.950			0.950		0.950				0.950	
Satd. Flow (prot)	0	1679	1488	0	1647	1502	1712	3237	0	0	1729	3172
Flt Permitted		0.704			0.626		0.454				0.263	
Satd. Flow (perm)	0	1202	1440	0	1067	1426	814	3237	0	0	478	3172
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			105			151		8				
Link Speed (k/h)		50			50			60				60
Link Distance (m)		72.9			188.5			169.4				264.5
Travel Time (s)		5.2			13.6			10.2				15.9
Confl. Peds. (#/hr)	19		10	10		19	6		3		3	
Confl. Bikes (#/hr)						2			1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	0%	4%	5%	0%	3%	1%	6%	2%	0%	0%	9%
Adj. Flow (vph)	122	0	31	81	0	164	100	1030	57	3	19	434
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	31	0	81	164	100	1087	0	0	22	434
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	Perm	NA
Protected Phases		4			8		5	2				6
Permitted Phases	4		4	8		8	2			6	6	
Detector Phase	4	4	4	8	8	8	5	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	34.3		34.3	34.3	34.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	14.0	78.0		64.0	64.0	64.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	11.7%	65.0%		53.3%	53.3%	53.3%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	7.7	71.7		57.7	57.7	57.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1	6.3	6.3			6.3	6.3
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0		0	0	0
Act Effct Green (s)		17.5	17.5		17.5	17.5	85.1	85.1			71.0	71.0
Actuated g/C Ratio		0.15	0.15		0.15	0.15	0.71	0.71			0.59	0.59

Lanes, Volumes, Timings

Synchro 11 Report September 2021

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Lane Group	SBR	Ø3	Ø7
LareConfigurations	1		
Traffic Volume (vph)	117		
Future Volume (vph)	117		
Ideal Flow (vphpl)	1800		
Storage Length (m)	75.0		
Storage Lanes	0		
Taper Length (m)	Ŭ		
Lane I Itil Factor	1 00		
Ped Bike Factor	0.08		
Frt	0.50		
Flt Protected	0.000		
Satd Flow (prot)	1/10		
Elt Pormittod	1419		
	1000		
Salu. Flow (perm)	1386		
Right Turn on Red	Yes		
Sato. Flow (RTOR)	130		
LINK Speed (K/h)			
Link Distance (m)			
Travel Time (s)			
Confl. Peds. (#/hr)	6		
Confl. Bikes (#/hr)			
Peak Hour Factor	0.90		
Heavy Vehicles (%)	9%		
Adj. Flow (vph)	130		
Shared Lane Traffic (%)			
Lane Group Flow (vph)	130		
Turn Type	Perm		
Protected Phases		3	7
Permitted Phases	6		
Detector Phase	6		
Switch Phase			
Minimum Initial (s)	10.0	3.0	3.0
Minimum Split (s)	34.3	5.0	5.0
Total Split (s)	64.0	5.0	5.0
Total Split (%)	53.3%	4%	4%
Maximum Green (s)	57.7	3.0	3.0
Yellow Time (s)	3.7	2.0	2.0
All-Red Time (s)	2.6	0.0	0.0
Lost Time Adjust (s)	0.0	2.0	0.0
Total Lost Time (s)	6.3		
	0.0	hea	L ead
Lead-Lag Optimize?	Lay	Voc	Voo
	105	185	2.0
	3.U	3.0	3.0
		wax	Max
vvaik Time (s)	/.0		
Flash Dont Walk (s)	11.0		
Pedestrian Calls (#/hr)	0		
Act Effect Green (s)	71.0		
Actuated g/C Ratio	0.59		

4: Bank Street & Dazé Street/Cahill Drive Existing Conditions

	٦	-	\mathbf{r}	4	-	•	•	t	1	L	1	Ŧ
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio		0.70	0.10		0.52	0.49	0.16	0.47			0.08	0.23
Control Delay		67.9	0.7		57.8	13.4	6.4	6.6			14.2	13.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		67.9	0.7		57.8	13.4	6.4	6.6			14.2	13.1
LOS		Е	А		Е	В	А	А			В	В
Approach Delay		54.3			28.1			6.6				10.8
Approach LOS		D			С			А				В
Queue Length 50th (m)		27.7	0.0		17.9	2.7	4.4	25.8			2.1	23.9
Queue Length 95th (m)		45.0	0.0		31.7	20.4	m8.4	m44.9			7.4	40.0
Internal Link Dist (m)		48.9			164.5			145.4				240.5
Turn Bay Length (m)						40.0	45.0				70.0	
Base Capacity (vph)		309	448		274	479	639	2296			282	1875
Starvation Cap Reductn		0	0		0	0	0	0			0	0
Spillback Cap Reductn		0	0		0	0	0	0			0	0
Storage Cap Reductn		0	0		0	0	0	0			0	0
Reduced v/c Ratio		0.39	0.07		0.30	0.34	0.16	0.47			0.08	0.23
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 12	20											
Offset: 57 (48%), Referen	ced to phase	2:NBTL a	and 6:SB	TL, Start	of Green							
Natural Cycle: 90												
Control Type: Actuated-Co	oordinated											
Maximum v/c Ratio: 0.70												
Intersection Signal Delay:	ntersection Signal Delay: 13.5 Intersection LOS: B											
Intersection Capacity Utiliz	zation 81.2%			IC	CU Level o	of Service	D					
Analysis Period (min) 15												
	تعبيمي ماللم	-	بلاممين برماله		I							

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

	Å ₽ <mark>₽</mark> ₽₽
78 s	5 s 37 s
▲ ø5 • • • ø6 (R)	∦ 1 ₂ ↓ Ø8
14s 64s	5 s 37 s

	-		
	-		
Lane Group	SBR	Ø3	Ø7
v/c Ratio	0.15		
Control Delay	2.9		
Queue Delay	0.0		
Total Delay	2.9		
LOS	А		
Approach Delay			
Approach LOS			
Queue Length 50th (m)	0.0		
Queue Length 95th (m)	9.5		
Internal Link Dist (m)			
Turn Bay Length (m)	75.0		
Base Capacity (vph)	872		
Starvation Cap Reductn	0		
Spillback Cap Reductn	0		
Storage Cap Reductn	0		
Reduced v/c Ratio	0.15		
Intersection Summary			

5: Dazé Street & South Keys SC Existing Conditions

	٦	-	$\mathbf{\hat{z}}$	4	-	*	1	Ť	۲	L#	1	Ŧ
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	<u>۲</u>	eî 👘		5	eî 👘		٦	A1⊅			<u>۲</u>	↑ ĵ _₽
Traffic Volume (vph)	35	1	83	5	2	7	115	216	3	2	4	154
Future Volume (vph)	35	1	83	5	2	7	115	216	3	2	4	154
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Storage Lanes	1		0	1		0	1		0		1	
Taper Length (m)	2.5			2.5			2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor	1.00	0.99		1.00	0.99			1.00				
Frt		0.852			0.880			0.998				0.945
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1631	1485	0	1441	1584	0	1712	3383	0	0	1729	3196
Flt Permitted	0.751			0.697			0.532				0.601	
Satd. Flow (perm)	1287	1485	0	1056	1584	0	959	3383	0	0	1094	3196
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		92			8			2				100
Link Speed (k/h)		30			30			50				50
Link Distance (m)		107.1			73.7			57.4				76.4
Travel Time (s)		12.9			8.8			4.1				5.5
Confl. Peds. (#/hr)	2		1	1		2						
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	6%	100%	2%	20%	0%	0%	1%	2%	0%	0%	0%	3%
Adj. Flow (vph)	39	1	92	6	2	8	128	240	3	2	4	171
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	93	0	6	10	0	128	243	0	0	6	271
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		custom	pm+pt	NA
Protected Phases		4			8		5	2			1	6
Permitted Phases	4			8			2			1	6	
Detector Phase	4	4		8	8		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		1.4	5.0		1.4	1.4	5.0
Minimum Split (s)	28.0	28.0		28.1	28.1		7.3	32.9		7.3	7.3	32.9
Total Split (s)	28.0	28.0		28.1	28.1		12.0	35.0		12.0	12.0	35.0
Total Split (%)	37.3%	37.3%		37.4%	37.4%		16.0%	46.6%		16.0%	16.0%	46.6%
Maximum Green (s)	22.0	22.0		22.0	22.0		6.1	29.1		6.1	6.1	29.1
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	2.7	2.7		2.8	2.8		2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.0	6.0		6.1	6.1		5.9	5.9			5.9	5.9
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Max		None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0			15.0				15.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			12.0				12.0
Pedestrian Calls (#/hr)	0	0		0	0			0				0
Act Effct Green (s)	7.3	7.3		7.3	7.3		41.0	41.3			37.1	34.2
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.70	0.70			0.63	0.58

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ane Group	CDD
	00
Futuro Volume (vph)	90
	1900
Storage Length (m)	1800
Storage Length (m)	0.0
	0
Laper Length (m)	0.07
Lane Util. Factor	0.95
Ped Bike Factor	
Frt	
⊢It Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.90
Heavy Vehicles (%)	1%
Adj. Flow (vph)	100
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (c)	
waik Time (s)	
Pedestrian Calls (#/nr)	
Act Effect Green (s)	
Actuated g/C Ratio	

5: Dazé Street & South Keys SC Existing Conditions

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	
v/c Ratio	0.24	0.35		0.05	0.05		0.17	0.10			0.01	0.14	
Control Delay	27.7	10.6		23.8	16.0		4.3	5.4			4.0	6.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0	
Total Delay	27.7	10.6		23.8	16.0		4.3	5.4			4.0	6.0	
LOS	С	В		С	В		А	А			А	A	
Approach Delay		15.6			18.9			5.0				5.9	
Approach LOS		В			В			А				A	
Queue Length 50th (m)	4.0	0.1		0.6	0.2		3.8	3.7			0.2	5.0	
Queue Length 95th (m)	11.4	10.6		3.4	3.7		9.3	13.4			1.1	11.2	
Internal Link Dist (m)		83.1			49.7			33.4				52.4	
Turn Bay Length (m)	40.0						70.0				40.0		
Base Capacity (vph)	487	620		398	602		749	2380			766	1904	
Starvation Cap Reductn	0	0		0	0		0	0			0	0	
Spillback Cap Reductn	0	0		0	0		0	0			0	0	
Storage Cap Reductn	0	0		0	0		0	0			0	0	
Reduced v/c Ratio	0.08	0.15		0.02	0.02		0.17	0.10			0.01	0.14	
Intersection Summary													
Area Type:	Other												
Cycle Length: 75.1													
Actuated Cycle Length: 58	3.7												
Natural Cycle: 70													
Control Type: Semi Act-Ur	ncoord												
Maximum v/c Ratio: 0.35													
Intersection Signal Delay:	7.4			In	Intersection LOS: A								
Intersection Capacity Utiliz	ation 38.1%			IC	U Level o	of Service	A						
Analysis Period (min) 15													

Splits and Phases: 5: Dazé Street & South Keys SC

M _{Ø1}	↑ø₂	<u>→</u> ₀₄	
12 s	35 s	28 s	
▲ ø5	Ø6	Ø8	
12 s	35 s	28.1 s	

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Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Interception Summary	

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Intersection

Int Delay, s/veh

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		- 11	_ ≜ î≽	
Traffic Vol, veh/h	0	0	0	334	242	0
Future Vol, veh/h	0	0	0	334	242	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	371	269	0

Major/Minor	Minor2	Μ	ajor1	Ma	jor2				
Conflicting Flow All	-	135	-	0	-	0			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			
Critical Hdwy	-	6.9	-	-	-	-			
Critical Hdwy Stg 1	-	-	-	-	-	-			
Critical Hdwy Stg 2	-	-	-	-	-	-			
Follow-up Hdwy	-	3.3	-	-	-	-			
Pot Cap-1 Maneuver	0	895	0	-	-	-			
Stage 1	0	-	0	-	-	-			
Stage 2	0	-	0	-	-	-			
Platoon blocked, %				-	-	-			
Mov Cap-1 Maneuve	r -	895	-	-	-	-			
Mov Cap-2 Maneuve	r -	-	-	-	-	-			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	Α		

Minor Lane/Major Mvmt	NBT EBI	_n1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	А	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection

Int Delay, s/veh	0.2						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations		1	<u>ار</u>	^	≜ î≽		
Traffic Vol, veh/h	0	6	6	334	242	0	
Future Vol, veh/h	0	6	6	334	242	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	0	150	-	-	-	
Veh in Median Storage,	# 0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	90	90	90	90	90	90	
Heavy Vehicles, %	0	0	0	0	0	0	
Mvmt Flow	0	7	7	371	269	0	

Major/Minor	Minor2	I	Major1	Мај	or2	
Conflicting Flow All	-	135	269	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	895	1306	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuve	r -	895	1306	-	-	-
Mov Cap-2 Maneuve	r -	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.1	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBL	NBT EI	3Ln1	SBT	SBR
Capacity (veh/h)	1306	-	895	-	-
HCM Lane V/C Ratio	0.005	- C).007	-	-
HCM Control Delay (s)	7.8	-	9.1	-	-
HCM Lane LOS	А	-	Α	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

1: Airport Parkway & Hunt Club Road Existing Conditions

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	≜1 ≱		ľ	≜ î≽		ľ		1	ሻሻ		1
Traffic Volume (vph)	166	1270	9	77	1241	320	15	0	134	574	0	270
Future Volume (vph)	166	1270	9	77	1241	320	15	0	134	574	0	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00		0.99					0.99
Frt		0.999			0.969				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3473	0	1615	3425	0	1706	0	1570	3506	0	1617
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3473	0	1613	3425	0	1688	0	1570	3506	0	1593
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			27				164			300
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		431.4			316.9			354.1			189.5	
Travel Time (s)		25.9			19.0			15.9			8.5	
Confl. Peds. (#/hr)	11		5	5		11	3					3
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	5%	0%	13%	3%	2%	7%	0%	4%	1%	0%	1%
Adj. Flow (vph)	184	1411	10	86	1379	356	17	0	149	638	0	300
Shared Lane Traffic (%)												
Lane Group Flow (vph)	184	1421	0	86	1735	0	17	0	149	638	0	300
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6							
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		4		4	8		8
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0
Minimum Split (s)	17.2	47.3		12.4	47.3		17.8		17.8	22.5		22.5
Total Split (s)	28.0	53.0		28.0	53.0		19.0		19.0	49.0		49.0
Total Split (%)	21.5%	40.8%		21.5%	40.8%		14.6%		14.6%	37.7%		37.7%
Maximum Green (s)	20.6	45.7		20.6	45.7		11.2		11.2	41.2		41.2
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	C-Max		None	C-Max		None		None	None		None
Walk Time (s)		31.0			31.0							
Flash Dont Walk (s)		9.0			9.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)	18.4	65.2		12.2	59.1		30.0		30.0	30.0		30.0
Actuated g/C Ratio	0.14	0.50		0.09	0.45		0.23		0.23	0.23		0.23

Lane Group	Ø3
Lane	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

1: Airport Parkway & Hunt Club Road Existing Conditions

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.72	0.82		0.57	1.10		0.04		0.31	0.79		0.50
Control Delay	68.9	33.5		54.5	83.9		36.4		5.7	54.1		7.1
Queue Delay	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Delay	68.9	33.5		54.5	83.9		36.4		5.7	54.1		7.1
LOS	E	С		D	F		D		А	D		A
Approach Delay		37.6			82.6			8.8			39.1	
Approach LOS		D			F			А			D	
Queue Length 50th (m)	45.7	156.7		21.9	~256.7		3.4		0.0	79.7		0.0
Queue Length 95th (m)	66.9	#240.2		m23.5 r	n#292.1		9.1		12.7	93.9		20.9
Internal Link Dist (m)		407.4			292.9			330.1			165.5	
Turn Bay Length (m)	150.0			55.0					40.0	120.0		120.0
Base Capacity (vph)	298	1742		255	1571		390		488	1111		709
Starvation Cap Reductn	0	0		0	0		0		0	0		0
Spillback Cap Reductn	0	0		0	0		0		0	0		0
Storage Cap Reductn	0	0		0	0		0		0	0		0
Reduced v/c Ratio	0.62	0.82		0.34	1.10		0.04		0.31	0.57		0.42
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced	to phase 2	EBT and	6:WBT, S	tart of G	ireen							
Natural Cycle: 145												
Control Type: Actuated-Coo	ordinated											
Maximum v/c Ratio: 1.10												
Intersection Signal Delay: 54	4.9			h	ntersectio	n LOS: D						
Intersection Capacity Utiliza	tion 89.1%	, D		10	CU Level	of Service	E					
Analysis Period (min) 15												
~ Volume exceeds capaci	ty, queue	is theoretic	cally infinit	te.								
Queue shown is maximum after two cycles.												
# 95th percentile volume e	exceeds ca	apacity, qu	eue may	be longe	er.							
Queue shown is maximum after two cycles.												
m Volume for 95th percen	itile queue	is metered	d by upstr	eam sig	nal.							

Splits and Phases: 1: Airport Parkway & Hunt Club Road

Ø 1		►Ø2 (R)	AL _{Ø3}	104				
28 s		53 s		30 s		19 s		
		← Ø6 (R)		Ø8				
28 s		53 s		49 s				

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Bridle Path Drive/Dazé Street & Hunt Club Road Existing Conditions

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ካካ	ተተኈ			٦	<u></u>	1	ሻሻ	↑	1	ሻ
Traffic Volume (vph)	25	261	1373	244	28	35	1245	81	141	107	75	101
Future Volume (vph)	25	261	1373	244	28	35	1245	81	141	107	75	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			1.00		0.93	0.93		0.96	0.98
Frt			0.977					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3509	4818	0	0	1825	3544	1617	3404	1921	1617	1807
Flt Permitted		0.190				0.202			0.950			0.950
Satd. Flow (perm)	0	695	4818	0	0	386	3544	1511	3181	1921	1556	1768
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			31					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		35		25		25		35	44		22	22
Confl. Bikes (#/hr)				1							1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	5%	5%	0%	0%	3%	1%	4%	0%	1%	1%
Adj. Flow (vph)	28	290	1526	271	31	39	1383	90	157	119	83	112
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	318	1797	0	0	70	1383	90	157	119	83	112
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	18.0	18.0	54.0		18.0	18.0	54.0	54.0	17.0	41.0	41.0	17.0
Total Split (%)	13.8%	13.8%	41.5%		13.8%	13.8%	41.5%	41.5%	13.1%	31.5%	31.5%	13.1%
Maximum Green (s)	11.5	11.5	47.8		11.5	11.5	47.8	47.8	10.5	34.0	34.0	10.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max		None	None	C-Max	C-Max	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		21.0	49.0			19.8	47.8	47.8	9.9	24.7	24.7	10.2
Actuated g/C Ratio		0.16	0.38			0.15	0.37	0.37	0.08	0.19	0.19	0.08

2: Bridle Path Drive/Dazé Street & Hunt Club Road Existing Conditions

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		2.84	0.98			1.19	1.06	0.14	0.61	0.33	0.20	0.79
Control Delay		868.3	48.8			226.8	82.7	1.1	68.4	45.6	1.7	95.0
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		868.3	48.8			226.8	82.7	1.1	68.4	45.6	1.7	95.0
LOS		F	D			F	F	А	Е	D	А	F
Approach Delay			172.1				84.5			45.4		
Approach LOS			F				F			D		
Queue Length 50th (m)		~75.5	~159.6			~22.1	~204.8	0.0	20.3	26.2	0.0	28.6
Queue Length 95th (m)	r	n#104.8	#200.2			#59.0	#247.4	2.0	31.7	40.5	1.7	#59.5
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		112	1834			59	1303	646	274	502	508	144
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		2.84	0.98			1.19	1.06	0.14	0.57	0.24	0.16	0.78
Intersection Summary												
Area Type: 0	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced t	o phase 2	EBT and	6:WBT, \$	Start of G	reen							
Natural Cycle: 135												
Control Type: Actuated-Coor	rdinated											
Maximum v/c Ratio: 2.84												
Intersection Signal Delay: 11	7.7			Ir	ntersectio	n LOS: F						
Intersection Capacity Utilizat	tion 95.7%	•		IC	CU Level	of Servic	e F					
Analysis Period (min) 15												
 Volume exceeds capacit 	y, queue i	s theoret	cally infin	ite.								
Queue shown is maximu	m after two	o cycles.										
# 95th percentile volume e	# 95th percentile volume exceeds capacity, queue may be longer.											
Queue shown is maximu	m after two	o cycles.										
m Volume for 95th percent	tile queue	is metere	ed by upst	ream sigr	nal.							

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

₩ø1	, →ø2 (R)	Ø 3	Ø4
18 s	54 s	17 s	41 s
≯ _{Ø5}	 Ø6 (R)	Ø7	Øs
18 s	54 s	17 s	41 s

	1	1
	+	*
Lane Group	SBT	SBR
v/c Ratio	0.49	0.87
Control Delay	49.8	51.7
Queue Delay	0.0	0.0
Total Delay	49.8	51.7
LOS	D	D
Approach Delay	58.7	
Approach LOS	Е	
Queue Length 50th (m)	41.0	55.2
Queue Length 95th (m)	58.8	86.3
Internal Link Dist (m)	185.8	
Turn Bay Length (m)		
Base Capacity (vph)	497	497
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.36	0.71
Intersection Summary		

3: Bank Street & Hunt Club Road Existing Conditions

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations		ካካ		1		ሻ	- † †	1	ካካ	- † †	1	
Traffic Volume (vph)	4	141	898	359	1	46	805	178	325	518	55	1
Future Volume (vph)	4	141	898	359	1	46	805	178	325	518	55	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		95.0		0.0		60.0		100.0	60.0		60.0	
Storage Lanes		2		1		1		1	2		1	
Taper Length (m)		2.5				2.5			2.5			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	1.00	0.95
Ped Bike Factor		1.00		0.96		0.99		0.98	0.97		0.96	
Frt				0.850				0.850			0.850	
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	3314	3510	1601	0	1756	3579	1617	3506	3579	1601	0
Flt Permitted		0.381				0.533			0.950			
Satd. Flow (perm)	0	1326	3510	1532	0	979	3579	1583	3411	3579	1535	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				274				196			157	
Link Speed (k/h)			60				60			60		
Link Distance (m)			152.6				161.6			179.7		
Travel Time (s)			9.2				9.7			10.8		
Confl. Peds. (#/hr)		4		21		21		4	55		22	
Confl. Bikes (#/hr)				5				4			2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	7%	4%	2%	0%	4%	2%	1%	1%	2%	2%	0%
Adj. Flow (vph)	4	157	998	399	1	51	894	198	361	576	61	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	998	399	0	52	894	198	361	576	61	0
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Perm	Prot	NA	Perm	custom
Protected Phases		7	4			3	8		5	2		
Permitted Phases	7			4	3			8			2	1
Detector Phase	7	7	4	4	3	3	8	8	5	2	2	1
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	33.7	33.7	11.5	11.5	33.7	33.7	12.1	34.5	34.5	12.1
Total Split (s)	17.0	17.0	41.0	41.0	14.0	14.0	38.0	38.0	19.0	46.0	46.0	19.0
Total Split (%)	14.2%	14.2%	34.2%	34.2%	11.7%	11.7%	31.7%	31.7%	15.8%	38.3%	38.3%	15.8%
Maximum Green (s)	10.5	10.5	34.3	34.3	7.5	7.5	31.3	31.3	11.9	39.5	39.5	11.9
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.8	2.8	3.0	3.0	2.8	2.8	3.0	3.0	3.4	2.8	2.8	3.4
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.5	6.7	6.7		6.5	6.7	6.7	7.1	6.5	6.5	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	None	None	Max	Max	None	C-Max	C-Max	None
Walk Time (s)			7.0	7.0			7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			20.0	20.0			20.0	20.0		21.0	21.0	
Pedestrian Calls (#/hr)			0	0			0	0		0	0	
Act Effct Green (s)		10.5	34.3	34.3		7.5	31.3	31.3	11.9	39.5	39.5	
Actuated g/C Ratio		0.09	0.29	0.29		0.06	0.26	0.26	0.10	0.33	0.33	
	1	Ļ	~									
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Lane Group	SBI	SBT	SBB									
Lane Configurations	**	**	#									
Traffic Volume (uph)	200	055	106									
	222	900	100									
	1000	1000	1000									
Storage Length (m)	1900	1900	120.0									
Storage Length (m)	30.0		120.0									
Storage Lanes	2		I									
Taper Length (m)	2.5	0.05	4.00									
Lane Util. Factor	0.97	0.95	1.00									
Ped Bike Factor	0.98		0.92									
Frt			0.850									
	0.950	0576										
Satd. Flow (prot)	3506	3579	1555									
Fit Permitted	0.336											
Satd. Flow (perm)	1219	3579	1425									
Right Turn on Red			Yes									
Satd. Flow (RTOR)			157									
Link Speed (k/h)		60										
Link Distance (m)		141.8										
Travel Time (s)		8.5										
Confl. Peds. (#/hr)	22		55									
Confl. Bikes (#/hr)			4									
Peak Hour Factor	0.90	0.90	0.90									
Heavy Vehicles (%)	1%	2%	5%									
Adj. Flow (vph)	247	1061	218									
Shared Lane Traffic (%)												
Lane Group Flow (vph)	248	1061	218									
Turn Type	Prot	NA	Perm									
Protected Phases	1	6										
Permitted Phases			6									
Detector Phase	1	6	6									
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0									
Minimum Split (s)	12.1	34.5	34.5									
Total Split (s)	19.0	46.0	46.0									
Total Split (%)	15.8%	38.3%	38.3%									
Maximum Green (s)	11.9	39.5	39.5									
Yellow Time (s)	3.7	3.7	3.7									
All-Bed Time (s)	3.4	2.8	2.8									
Lost Time Adjust (s)	0.0	0.0	0.0									
Total Lost Time (s)	7 1	6.5	6.5									
	heal	0.0	0.0									
Lead Lag Optimize?	Voc	Lay	Lay									
Vehicle Extension (a)	2.0	20	20									
	S.U None	C Mov	C Mov									
	None											
waik Time (s)		0.1	0.7									
Flash Dont Walk (s)		21.0	21.0									
Pedestrian Calls (#/hr)		0	0									
Act Effct Green (s)	11.9	39.5	39.5									
Actuated g/C Ratio	0.10	0.33	0.33									

3: Bank Street & Hunt Club Road Existing Conditions

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
v/c Ratio		1.39	1.00	0.63		0.85	0.96	0.36	1.04	0.49	0.10	
Control Delay		259.4	70.3	16.4		134.9	64.9	6.9	111.5	33.9	0.3	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		259.4	70.3	16.4		134.9	64.9	6.9	111.5	33.9	0.3	
LOS		F	Е	В		F	Е	А	F	С	А	
Approach Delay			76.0				58.1			59.9		
Approach LOS			Е				Е			Е		
Queue Length 50th (m)		~26.0	123.5	23.8		12.4	109.5	0.4	~47.2	56.8	0.0	
Queue Length 95th (m)		#47.9	#168.4	57.7		#36.5	#149.6	18.1	#77.0	73.7	0.0	
Internal Link Dist (m)			128.6				137.6			155.7		
Turn Bay Length (m)		95.0				60.0		100.0	60.0		60.0	
Base Capacity (vph)		116	1003	633		61	933	557	347	1178	610	
Starvation Cap Reductn		0	0	0		0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0		0	0	0	0	0	0	
Storage Cap Reductn		0	0	0		0	0	0	0	0	0	
Reduced v/c Ratio		1.39	1.00	0.63		0.85	0.96	0.36	1.04	0.49	0.10	
Intersection Summary												
Area Type: 0	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 23 (19%), Reference	d to phase	2:NBT a	nd 6:SBT	, Start of	Green							
Natural Cycle: 95												
Control Type: Actuated-Coor	rdinated											
Maximum v/c Ratio: 2.07												
Intersection Signal Delay: 81	.1			In	tersection	n LOS: F						
Intersection Capacity Utilizat	ion 87.0%			IC	U Level	of Servic	еE					
Analysis Period (min) 15												
~ Volume exceeds capacit	y, queue is	s theoreti	cally infini	te.								
Queue shown is maximur	m after two	o cycles.										
# 95th percentile volume e	xceeds ca	pacity, q	ueue may	be longe	r.							
Queue shown is maximur	m after two	o cycles.										

Splits and Phases: 3: Bank Street & Hunt Club Road

Ø1	Ø2 (R)	✓ _{Ø3}	₩ Ø4
19 s	46 s	14 s	41 s
▲ Ø5	Ø6 (R)	🖈 _{Ø7}	4 [≜] _ Ø8
19 s	46 s	17 s	38 s

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		*	
Lane Group	SBL	SBT	SBR
v/c Ratio	2.07	0.90	0.38
Control Delay	533.4	41.7	12.3
Queue Delay	0.0	0.0	0.0
Total Delay	533.4	41.7	12.3
LOS	F	D	В
Approach Delay		117.4	
Approach LOS		F	
Queue Length 50th (m)	~48.8	52.5	3.0
Queue Length 95th (m)	#75.6	#139.2	27.2
Internal Link Dist (m)		117.8	
Turn Bay Length (m)	30.0		120.0
Base Capacity (vph)	120	1178	574
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	2.07	0.90	0.38
Intersection Summary			

4: Bank Street & Dazé Street/Cahill Drive Existing Conditions

	۶	-	\mathbf{r}	4	+	*	₽	1	1	۲	L#	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		र्स	1		ર્શ	1		7	tβ			1
Traffic Volume (vph)	154	1	124	82	0	101	2	158	632	92	4	146
Future Volume (vph)	154	1	124	82	0	101	2	158	632	92	4	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		40.0		45.0		0.0		70.0
Storage Lanes	0		1	0		1		1		0		1
Taper Length (m)	7.6			7.6				7.6				7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Ped Bike Factor		0.92	0.95		0.97	0.90			0.99			0.99
Frt			0.850			0.850			0.981			
Flt Protected		0.953			0.950			0.950				0.950
Satd. Flow (prot)	0	1813	1617	0	1659	1633	0	1825	3478	0	0	1807
Flt Permitted		0.661			0.529			0.129				0.294
Satd. Flow (perm)	0	1160	1535	0	900	1471	0	248	3478	0	0	552
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			136			112			18			
Link Speed (k/h)		50			50				60			
Link Distance (m)		72.9			188.5				169.4			
Travel Time (s)		5.2			13.6				10.2			
Confl. Peds. (#/hr)	44		18	18		44		30		19		19
Confl. Bikes (#/hr)			4			1				2		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	0%	1%	10%	0%	0%	0%	0%	2%	1%	0%	1%
Adj. Flow (vph)	171	1	138	91	0	112	2	176	702	102	4	162
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	172	138	0	91	112	0	178	804	0	0	166
Turn Type	Perm	NA	Perm	Perm	NA	Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases		4			8			5	2			1
Permitted Phases	4		4	8		8	5	2			1	6
Detector Phase	4	4	4	8	8	8	5	5	2		1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	5.0	10.0		5.0	5.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	11.3	34.3		11.3	11.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	17.0	17.0	61.0		17.0	17.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	14.2%	14.2%	50.8%		14.2%	14.2%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	10.7	10.7	54.7		10.7	10.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7		3.7	3.7
All-Red Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6	2.6		2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1		6.3	6.3			6.3
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Venicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	C-Max		None	None
waik Time (S)	11.0	1.0	1.0	1.0	1.0	1.0			1.0			
	11.0	11.0	11.0	11.0	11.0	11.0			11.0			
Pedestrian Galls (#/hr)	U	0	0	U	0	0		74.0	0			70 5
Act Effect Green (S)		22.7	22.7		22.7	22.7		74.6	64.3			/2.5
Actuated g/C Ratio		0.19	0.19		0.19	0.19		0.62	0.54			0.60

Lanes, Volumes, Timings

Synchro 11 Report September 2021

	Ļ	-		
Lane Group	SBT	SBB	Ø3	Ø7
		3		01
	1104	210		
Future Volume (vph)	1124	210		
	1000	1000		
Storage Length (m)	1900	75.0		
Storage Lanes		75.0		
Tapor Longth (m)		0		
Laper Lengur (m)	0.05	1.00		
Lane Ulli. Factor	0.95	1.00		
Feu Bike Factor		0.93		
Frt Fit Ducto storel		0.850		
Fit Protected	0570	1000		
Sato. Flow (prot)	3579	1633		
	0.536			
Said. Flow (perm)	3579	1514		
Right Turn on Red		Yes		
Satd. Flow (RTOR)		326		
Link Speed (k/h)	60			
Link Distance (m)	264.5			
I ravel Time (s)	15.9			
Confl. Peds. (#/hr)		30		
Confl. Bikes (#/hr)		5		
Peak Hour Factor	0.90	0.90		
Heavy Vehicles (%)	2%	0%		
Adj. Flow (vph)	1249	353		
Shared Lane Traffic (%)				
Lane Group Flow (vph)	1249	353		
Turn Type	NA	Perm		
Protected Phases	6		3	7
Permitted Phases		6		
Detector Phase	6	6		
Switch Phase				
Minimum Initial (s)	10.0	10.0	3.0	3.0
Minimum Split (s)	34.3	34.3	5.0	5.0
Total Split (s)	61.0	61.0	5.0	5.0
Total Split (%)	50.8%	50.8%	4%	4%
Maximum Green (s)	54.7	54.7	3.0	3.0
Yellow Time (s)	3.7	3.7	2.0	2.0
All-Red Time (s)	2.6	2.6	0.0	0.0
Lost Time Adjust (s)	0.0	0.0		
Total Lost Time (s)	6.3	6.3		
Lead/Lag	Lao	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	C-May	C-Max	Max	Max
Walk Time (s)	7.0	7 0	Max	Max
Flash Dont Walk (s)	11.0	11.0		
Pedestrian Calls (#/br)		۰ ۱۱.0		
	62.0	62.2		
Actuated a/C Patio	0.52	05.5		
Actuated g/C Hatto	0.53	0.53		

4: Bank Street & Dazé Street/Cahill Drive Existing Conditions

	٨	-	\mathbf{F}	•	-	*	₽	1	1	1	L	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
v/c Ratio		0.79	0.34		0.54	0.30		0.62	0.43			0.39
Control Delay		69.3	8.7		53.9	8.7		35.6	14.8			11.5
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Delay		69.3	8.7		53.9	8.7		35.6	14.8			11.5
LOS		Е	А		D	А		D	В			В
Approach Delay		42.3			29.0				18.6			
Approach LOS		D			С				В			
Queue Length 50th (m)		38.8	0.4		19.4	0.0		29.0	39.8			13.3
Queue Length 95th (m)		59.1	15.6		33.9	13.7		m46.7	m51.8			26.4
Internal Link Dist (m)		48.9			164.5				145.4			
Turn Bay Length (m)						40.0		45.0				70.0
Base Capacity (vph)		298	496		231	461		304	1872			453
Starvation Cap Reductn		0	0		0	0		0	0			0
Spillback Cap Reductn		0	0		0	0		0	0			0
Storage Cap Reductn		0	0		0	0		0	0			0
Reduced v/c Ratio		0.58	0.28		0.39	0.24		0.59	0.43			0.37
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 12	20											
Offset: 14 (12%), Referen	ced to phase	2:NBTL a	and 6:SB	TL, Start	of Green							
Natural Cycle: 90												
Control Type: Actuated-Co	oordinated											
Maximum v/c Ratio: 0.79												
Intersection Signal Delay:	In	itersection	LOS: C									
Intersection Capacity Utiliz	IC	CU Level o	of Service	E								
Analysis Period (min) 15												
					I							

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

M _{Ø1}	Ø2 (R)	.	e ↔ Ø4
17 s	61s	5 s	37 s
🔊 Ø5	Ø6 (R)	.	Ø8
17 s	61s	5 s	37 s

4: Bank Street & Dazé Street/Cahill Drive Existing Conditions

	1	1		
	•	•		
Lane Group	SBT	SBR	Ø3	Ø7
v/c Ratio	0.66	0.37		
Control Delay	24.3	4.0		
Queue Delay	0.0	0.0		
Total Delay	24.3	4.0		
LOS	С	А		
Approach Delay	19.0			
Approach LOS	В			
Queue Length 50th (m)	110.0	3.0		
Queue Length 95th (m)	153.3	20.2		
Internal Link Dist (m)	240.5			
Turn Bay Length (m)		75.0		
Base Capacity (vph)	1886	952		
Starvation Cap Reductn	0	0		
Spillback Cap Reductn	0	0		
Storage Cap Reductn	0	0		
Reduced v/c Ratio	0.66	0.37		
Intersection Summary				

5: Dazé Street & South Keys SC Existing Conditions

	٦	-	$\mathbf{\hat{z}}$	4	-	*	1	Ť	۲	L#	1	ŧ
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ľ	el el		5	el el		<u>ک</u>	∱1 ≽			ľ	∱î ∌
Traffic Volume (vph)	85	3	221	2	4	13	195	185	18	1	21	287
Future Volume (vph)	85	3	221	2	4	13	195	185	18	1	21	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Storage Lanes	1		0	1		0	1		0		1	
Taper Length (m)	2.5			2.5			2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor	0.99	0.98		1.00	0.98		1.00	1.00			0.99	0.99
Frt		0.852			0.883			0.987				0.950
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1825	1608	0	1825	1669	0	1825	3560	0	0	1825	3404
Flt Permitted	0.746			0.342			0.422				0.611	
Satd. Flow (perm)	1421	1608	0	655	1669	0	809	3560	0	0	1165	3404
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		246			14			13				79
Link Speed (k/h)		30			30			50				50
Link Distance (m)		107.1			73.7			57.4				76.4
Travel Time (s)		12.9			8.8			4.1				5.5
Confl. Peds. (#/hr)	6		3	3		6	3		5		5	
Confl. Bikes (#/hr)			2						1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%
Adj. Flow (vph)	94	3	246	2	4	14	217	206	20	1	23	319
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	249	0	2	18	0	217	226	0	0	24	477
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		custom	pm+pt	NA
Protected Phases		4			8		5	2			1	6
Permitted Phases	4			8			2			1	6	
Detector Phase	4	4		8	8		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		5.0	5.0	10.0
Minimum Split (s)	28.1	28.1		28.1	28.1		10.9	32.9		10.9	10.9	32.9
Total Split (s)	36.1	36.1		36.1	36.1		35.0	58.0		15.9	15.9	38.9
Total Split (%)	32.8%	32.8%		32.8%	32.8%		31.8%	52.7%		14.5%	14.5%	35.4%
Maximum Green (s)	30.0	30.0		30.0	30.0		29.1	52.1		10.0	10.0	33.0
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	2.8	2.8		2.8	2.8		2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.1	6.1		6.1	6.1		5.9	5.9			5.9	5.9
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Max		None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0			15.0				15.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			12.0				12.0
Pedestrian Calls (#/hr)	0	0		0	0			0				0
Act Effct Green (s)	11.7	11.7		11.7	11.7		56.4	52.6			48.0	42.1
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.70	0.65			0.59	0.52

Lanes, Volumes, Timings

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Lane Group	CDD
	חספי
	140
Future Volume (vpn)	142
Future volume (vpm)	142
Ideal Flow (vpnpl)	1900
Storage Length (m)	0.0
	0
Laper Length (m)	0.07
Lane Util. Factor	0.95
Ped Bike Factor	
Frt	
Hit Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	3
Confl. Bikes (#/hr)	
Peak Hour Factor	0.90
Heavy Vehicles (%)	1%
Adj. Flow (vph)	158
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (a)	
Pedestrian Calls (#/br)	
Actuated a/C Patia	
Actuated g/C Hatlo	

Lanes, Volumes, Timings

Synchro 11 Report September 2021

5: Dazé Street & South Keys SC Existing Conditions

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	
v/c Ratio	0.46	0.56		0.02	0.07		0.32	0.10			0.03	0.26	
Control Delay	40.7	10.4		32.5	19.1		5.5	6.3			4.6	9.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0	
Total Delay	40.7	10.4		32.5	19.1		5.5	6.3			4.6	9.5	
LOS	D	В		С	В		А	А			А	A	
Approach Delay		18.7			20.5			5.9				9.3	
Approach LOS		В			С			А				A	
Queue Length 50th (m)	12.4	0.4		0.2	0.5		8.4	4.1			0.8	15.3	
Queue Length 95th (m)	29.7	20.0		2.3	6.4		18.7	13.7			3.2	29.1	
Internal Link Dist (m)		83.1			49.7			33.4				52.4	
Turn Bay Length (m)	40.0						70.0				40.0		
Base Capacity (vph)	533	756		245	635		939	2324			835	1812	
Starvation Cap Reductn	0	0		0	0		0	0			0	0	
Spillback Cap Reductn	0	0		0	0		0	0			0	0	
Storage Cap Reductn	0	0		0	0		0	0			0	0	
Reduced v/c Ratio	0.18	0.33		0.01	0.03		0.23	0.10			0.03	0.26	
Intersection Summary													
Area Type:	Other												
Cycle Length: 110													
Actuated Cycle Length: 80.	7												
Natural Cycle: 75													
Control Type: Semi Act-Un	coord												
Maximum v/c Ratio: 0.56													
Intersection Signal Delay: 1	0.8			In	Intersection LOS: B								
Intersection Capacity Utilization 62.8%						of Service	В						
Analysis Period (min) 15													

Splits and Phases: 5: Dazé Street & South Keys SC

Mø1	1 ø2		<u>⊿</u> _{Ø4}
15.9 s	58 s		36.1s
▲ Ø5		Ø6	↓ Ø8
35 s		38.9 s	36.1 s

.

Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Interception Summary	

0

Intersection

Int Delay, s/veh

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		- 11	_ ≜ î≽	
Traffic Vol, veh/h	0	0	0	418	553	0
Future Vol, veh/h	0	0	0	418	553	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	464	614	0

Major/Minor	Minor2	М	ajor1	Ma	jor2			
Conflicting Flow All	-	307	-	0	-	0		
Stage 1	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-		
Critical Hdwy	-	6.9	-	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-		
Follow-up Hdwy	-	3.3	-	-	-	-		
Pot Cap-1 Maneuver	0	695	0	-	-	-		
Stage 1	0	-	0	-	-	-		
Stage 2	0	-	0	-	-	-		
Platoon blocked, %				-	-	-		
Mov Cap-1 Maneuve	r -	695	-	-	-	-		
Mov Cap-2 Maneuve	r -	-	-	-	-	-		
Stage 1	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-		

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	Α		

Minor Lane/Major Mvmt	NBT EBI	NBT EBLn1		NBT EBLn1		NBT EBLn1		NBT EBLn1		NBT EBLn1		SBR	
Capacity (veh/h)	-	-	-	-									
HCM Lane V/C Ratio	-	-	-	-									
HCM Control Delay (s)	-	0	-	-									
HCM Lane LOS	-	А	-	-									
HCM 95th %tile Q(veh)	-	-	-	-									

Intersection

Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1	۳	- 11		
Traffic Vol, veh/h	0	26	31	418	553	0
Future Vol, veh/h	0	26	31	418	553	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage	, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	29	34	464	614	0

Major/Minor	Minor2	Ν	/lajor1	Majo	or2		
Conflicting Flow All	-	307	614	0	-	0	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	6.9	4.1	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	3.3	2.2	-	-	-	
Pot Cap-1 Maneuver	0	695	975	-	-	-	
Stage 1	0	-	-	-	-	-	
Stage 2	0	-	-	-	-	-	
Platoon blocked, %				-	-	-	
Mov Cap-1 Maneuver	· -	695	975	-	-	-	
Mov Cap-2 Maneuver	· -	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.6	0
HCM LOS	В		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	975	- 695	-	-
HCM Lane V/C Ratio	0.035	- 0.042	-	-
HCM Control Delay (s)	8.8	- 10.4	-	-
HCM Lane LOS	А	- B	-	-
HCM 95th %tile Q(veh)	0.1	- 0.1	-	-

Future (2026) Background Traffic

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	≜1 ,		ľ	A12∍		1		1	ሻሻ		1
Traffic Volume (vph)	347	1089	25	66	963	604	15	0	83	253	0	148
Future Volume (vph)	347	1089	25	66	963	604	15	0	83	253	0	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	0.99							
Frt		0.997			0.942				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3436	0	1630	3185	0	1706	0	1458	3437	0	1570
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1806	3436	0	1628	3185	0	1706	0	1458	3437	0	1570
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			113				164			148
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		431.4			316.9			354.1			189.5	
Travel Time (s)		25.9			19.0			15.9			8.5	
Confl. Peds. (#/hr)	7		2	2		7						
Confl. Bikes (#/hr)						1						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	6%	0%	12%	11%	1%	7%	0%	12%	3%	0%	4%
Adj. Flow (vph)	347	1089	25	66	963	604	15	0	83	253	0	148
Shared Lane Traffic (%)												
Lane Group Flow (vph)	347	1114	0	66	1567	0	15	0	83	253	0	148
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6							
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		4		4	8		8
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0
Minimum Split (s)	12.4	47.3		12.4	47.3		17.8		17.8	22.5		22.5
Total Split (s)	32.0	50.0		32.0	50.0		18.0		18.0	48.0		48.0
Total Split (%)	24.6%	38.5%		24.6%	38.5%		13.8%		13.8%	36.9%		36.9%
Maximum Green (s)	24.6	42.7		24.6	42.7		10.2		10.2	40.2		40.2
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	C-Max		None	C-Max		None		None	None		None
Walk Time (s)		31.0			31.0							
Flash Dont Walk (s)		9.0			9.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)	34.0	84.7		10.6	58.5		15.0		15.0	15.0		15.0
Actuated g/C Ratio	0.26	0.65		0.08	0.45		0.12		0.12	0.12		0.12

Lane Group	Ø3
LaneConfigurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

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Lane Group	EBL	EBT	EBR WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.74	0.50	0.50	1.05		0.08		0.27	0.64		0.48
Control Delay	53.9	14.2	49.4	63.7		50.5		2.1	62.2		13.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0
Total Delay	53.9	14.2	49.4	63.7		50.5		2.1	62.2		13.0
LOS	D	В	D	Е		D		А	Е		В
Approach Delay		23.6		63.1			9.5			44.1	
Approach LOS		С		Е			А			D	
Queue Length 50th (m)	81.8	77.0	15.9	~212.3		3.5		0.0	32.3		0.0
Queue Length 95th (m)	112.5	111.9	m22.1	m#277.1		10.0		0.0	44.7		18.7
Internal Link Dist (m)		407.4		292.9			330.1			165.5	
Turn Bay Length (m)	150.0		55.0					40.0	120.0		120.0
Base Capacity (vph)	472	2238	308	1495		196		313	1062		587
Starvation Cap Reductn	0	0	0	0		0		0	0		0
Spillback Cap Reductn	0	0	0	0		0		0	0		0
Storage Cap Reductn	0	0	0	0		0		0	0		0
Reduced v/c Ratio	0.74	0.50	0.21	1.05		0.08		0.27	0.24		0.25
Intersection Summary											
Area Type:	Other										
Cycle Length: 130											
Actuated Cycle Length: 130											
Offset: 1 (1%), Referenced t	to phase 2	EBT and	6:WBT, Start of G	areen							
Natural Cycle: 150											
Control Type: Actuated-Coo	rdinated										
Maximum v/c Ratio: 1.05											
Intersection Signal Delay: 43	3.5		I	ntersectio	n LOS: D						
Intersection Capacity Utiliza	tion 92.6%	•		CU Level	of Service	F					
Analysis Period (min) 15											
 Volume exceeds capacit 	ty, queue i	s theoretic	ally infinite.								
Queue shown is maximu	m after two	o cycles.									
# 95th percentile volume e	exceeds ca	pacity, qu	eue may be longe	ər.							
Queue shown is maximu	m after two	o cycles.									
m Volume for 95th percent	Volume for 95th percentile queue is metered by upstream signal.										

Splits and Phases: 1: Airport Parkway & Hunt Club Road

√ Ø1	• -•	102 (R)	H _{Ø3}	*/Ø4	
32 s	50 s		30 s	18 s	
▶ _{Ø5}	• • •	Ø6 (R)	Ø8		
32 s	50 s		48 s		

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2026 AM Phase 1 Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ሻሻ	ተተኈ			<u>ک</u>	^	1	ሻሻ	1	1	5
Traffic Volume (vph)	19	163	1084	98	2	16	1189	75	200	108	67	30
Future Volume (vph)	19	163	1084	98	2	16	1189	75	200	108	67	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			0.99		0.96	0.94		0.99	1.00
Frt			0.988					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3478	4816	0	0	1515	3411	1601	3278	1902	1541	1772
Flt Permitted		0.140				0.833			0.950			0.950
Satd. Flow (perm)	0	509	4816	0	0	1319	3411	1543	3086	1902	1519	1768
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			13					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		15		18		18		15	32		2	2
Confl. Bikes (#/hr)				1				2				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	2%	7%	7%	0%	23%	7%	2%	8%	1%	6%	3%
Adj. Flow (vph)	19	163	1084	98	2	16	1189	75	200	108	67	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	182	1182	0	0	18	1189	75	200	108	67	30
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	15.0	15.0	52.0		15.0	15.0	52.0	52.0	22.0	41.0	41.0	22.0
Total Split (%)	11.5%	11.5%	40.0%		11.5%	11.5%	40.0%	40.0%	16.9%	31.5%	31.5%	16.9%
Maximum Green (s)	8.5	8.5	45.8		8.5	8.5	45.8	45.8	15.5	34.0	34.0	15.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min		None	None	C-Min	C-Min	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		28.5	79.1			8.9	51.5	51.5	12.9	21.0	21.0	7.7
Actuated g/C Ratio		0.22	0.61			0.07	0.40	0.40	0.10	0.16	0.16	0.06

Lanes, Volumes, Timings

Synchro 11 Report September 2021

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Lane Group	SBT	SBR
		<u>364</u>
Lane yoningurations	T	150
Future Volume (vpn)	30	152
Future volume (vpn)	30	152
Ideal Flow (vpnpl)	1900	1900
Storage Length (m)		0.0
Storage Lanes		1
Laper Length (m)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		0.95
Frt		0.850
Hit Protected		
Satd. Flow (prot)	1921	1601
Flt Permitted		
Satd. Flow (perm)	1921	1524
Right Turn on Red		Yes
Satd. Flow (RTOR)		137
Link Speed (k/h)	50	
Link Distance (m)	209.8	
Travel Time (s)	15.1	
Confl. Peds. (#/hr)		32
Confl. Bikes (#/hr)		
Peak Hour Factor	1.00	1.00
Heavy Vehicles (%)	0%	2%
Adj. Flow (vph)	30	152
Shared Lane Traffic (%)		
Lane Group Flow (vph)	30	152
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	41.0	41.0
Total Split (s)	41.0	41.0
Total Split (%)	31.5%	31.5%
Maximum Green (s)	34.0	34.0
Yellow Time (s)	3.3	3.3
All-Red Time (s)	3.7	3.7
Lost Time Adjust (c)	0.0	0.0
Total Lost Time (a)	7.0	7.0
	7.0	1.0
	Lag	Lag
Lead-Lag Optimize?	Yes	res
venicie Extension (s)	3.0	3.0
Recall Mode	None	None
vvalk lime (s)	7.0	7.0
Flash Dont Walk (s)	27.0	27.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	10.9	10.9
Actuated g/C Ratio	0.08	0.08

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2026 AM Phase 1 Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		1.64	0.40			0.20	0.88	0.11	0.62	0.35	0.19	0.29
Control Delay		360.1	11.3			60.6	45.0	0.3	64.3	53.6	1.1	64.7
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		360.1	11.3			60.6	45.0	0.3	64.3	53.6	1.1	64.7
LOS		F	В			Е	D	А	Е	D	А	E
Approach Delay			57.8				42.6			49.9		
Approach LOS			Е				D			D		
Queue Length 50th (m)		~35.5	34.2			4.5	139.7	0.0	25.6	26.2	0.0	7.5
Queue Length 95th (m)		#61.0	49.3			12.1	#195.8	0.0	37.5	43.3	0.0	17.2
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		111	2934			100	1351	698	390	497	498	209
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		1.64	0.40			0.18	0.88	0.11	0.51	0.22	0.13	0.14
Intersection Summary												
Area Type: Ot	her											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced to	phase 2:	EBT and	6:WBT, S	tart of G	reen							
Natural Cycle: 135												
Control Type: Actuated-Coord	inated											
Maximum v/c Ratio: 1.64												
Intersection Signal Delay: 49.3	3			Ir	ntersection	LOS: D)					
Intersection Capacity Utilization 88.4%				IC	CU Level c	of Servic	еE					
Analysis Period (min) 15												
~ Volume exceeds capacity,	queue is	theoretic	cally infinit	te.								
Queue shown is maximum	after two	cycles.										
# 95th percentile volume exc	ceeds ca	pacity, qu	eue may	be longe	er.							
Queue shown is maximum	after two	cycles.										

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

√ Ø1	, → Ø2 (R)	▲ Ø3	∲ Ø4
15 s	52 s	22 s	41 s
≯ø5	▲ <u> </u>	Ø7	Øs
15 s	52 s	22 s	41 s

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2026 AM Phase 1 Build-out

	1	1
	+	•
Lane Group	SBT	SBR
v/c Ratio	0.19	0.60
Control Delay	57.6	22.1
Queue Delay	0.0	0.0
Total Delay	57.6	22.1
LOS	E	С
Approach Delay	33.2	
Approach LOS	С	
Queue Length 50th (m)	7.3	3.7
Queue Length 95th (m)	16.6	24.1
Internal Link Dist (m)	185.8	
Turn Bay Length (m)		
Base Capacity (vph)	502	499
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.06	0.30
Intersection Summary		

3: Bank Street & Hunt Club Road BG 2026 AM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ሻሻ	^	1		<u>۲</u>	^	1	ሻሻ	^	1	ሻሻ	^
Traffic Volume (vph)	129	734	268	1	32	977	195	291	956	23	86	327
Future Volume (vph)	129	734	268	1	32	977	195	291	956	23	86	327
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	95.0		0.0		60.0		100.0	60.0		60.0	30.0	
Storage Lanes	2		1		1		1	2		1	2	
Taper Length (m)	2.5				2.5			2.5			2.5	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95
Ped Bike Factor	0.99		0.98		1.00		0.97	0.97		0.96	0.99	
Frt			0.850				0.850			0.850		
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	3190	3380	1570	0	1725	3411	1617	3372	3544	1633	3471	3444
Flt Permitted	0.950							0.950			0.950	
Satd. Flow (perm)	3171	3380	1533	0	1809	3411	1572	3257	3544	1569	3432	3444
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			268				279			216		
Link Speed (k/h)		60				60			60			60
Link Distance (m)		152.6				161.6			179.7			141.8
Travel Time (s)		9.2				9.7			10.8			8.5
Confl. Peds. (#/hr)	10		9		9		10	25		20	20	
Confl. Bikes (#/hr)							3			3		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	11%	8%	4%	0%	6%	7%	1%	5%	3%	0%	2%	6%
Adj. Flow (vph)	129	734	268	1	32	977	195	291	956	23	86	327
Shared Lane Traffic (%)												
Lane Group Flow (vph)	129	734	268	0	33	977	195	291	956	23	86	327
Turn Type	Prot	NA	Perm	custom	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4			3	8		5	2		1	6
Permitted Phases			4	3			8			2		
Detector Phase	7	4	4	3	3	8	8	5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.5	33.7	33.7	11.5	11.5	33.7	33.7	12.1	34.5	34.5	12.1	34.5
Total Split (s)	21.0	45.0	45.0	13.0	13.0	37.0	37.0	25.0	48.0	48.0	14.0	37.0
Total Split (%)	17.5%	37.5%	37.5%	10.8%	10.8%	30.8%	30.8%	20.8%	40.0%	40.0%	11.7%	30.8%
Maximum Green (s)	14.5	38.3	38.3	6.5	6.5	30.3	30.3	17.9	41.5	41.5	6.9	30.5
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.8	3.0	3.0	2.8	2.8	3.0	3.0	3.4	2.8	2.8	3.4	2.8
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)	6.5	6.7	6.7		6.5	6.7	6.7	7.1	6.5	6.5	7.1	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	None	Max	Max	None	C-Max	C-Max	None	C-Max
Walk Time (s)		7.0	7.0			7.0	7.0		7.0	7.0		7.0
Flash Dont Walk (s)		20.0	20.0			20.0	20.0		21.0	21.0		21.0
Pedestrian Calls (#/hr)		0	0			0	0		0	0		0
Act Effct Green (s)	10.2	43.5	43.5		6.4	34.6	34.6	15.2	44.3	44.3	6.8	33.2
Actuated g/C Ratio	0.08	0.36	0.36		0.05	0.29	0.29	0.13	0.37	0.37	0.06	0.28

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Lane Group	CDD
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Traffic Volume (vpn)	151
Future Volume (vph)	151
Ideal Flow (vphpl)	1900
Storage Length (m)	120.0
Storage Lanes	1
Taper Length (m)	
Lane Util. Factor	1.00
Ped Bike Factor	0.96
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1458
Flt Permitted	
Satd. Flow (perm)	1395
Right Turn on Red	Yes
Satd. Flow (RTOR)	281
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	25
Confl. Bikes (#/hr)	
Peak Hour Factor	1.00
Heavy Vehicles (%)	12%
Adj. Flow (vph)	151
Shared Lane Traffic (%)	
Lane Group Flow (vph)	151
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phase	6
Switch Phase	0
Minimum Initial (e)	10.0
Minimum Split (s)	24 5
Total Split (s)	37.0
Total Split (S)	20 00/
Maximum Groop (a)	00.0%
Vollow Time (a)	30.5 7 C
	0.7
Lost Time Adjust (s)	2.8
Lost Time Adjust (S)	0.0
Total Lost Time (s)	6.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	33.2
Actuated g/C Ratio	0.28

3: Bank Street & Hunt Club Road BG 2026 AM Phase 1 Build-out

Lane Group v/c Ratio Control Delay Queue Delay Total Delay LOS	EBL 0.48 57.8 0.0 57.8 E	EBT 0.60 34.8 0.0 34.8 C	EBR 0.37 5.1 0.0 5.1	WBU	WBL 0.35 65.1	WBT 0.99	WBR 0.30	NBL	NBT	NBR	SBL	SBT
v/c Ratio Control Delay Queue Delay Total Delay	0.48 57.8 0.0 57.8 E	0.60 34.8 0.0 34.8 C	0.37 5.1 0.0 5.1		0.35 65.1	0.99	0.30	0.00				
Control Delay Queue Delay Total Delay	57.8 0.0 57.8 E	34.8 0.0 34.8 C	5.1 0.0 5.1		65.1		0.00	0.68	0.73	0.03	0.44	0.34
Queue Delay Total Delay LOS	0.0 57.8 E	0.0 34.8 C	0.0 5.1			70.3	1.6	58.3	37.6	0.1	66.3	28.4
Total Delay	57.8 E	34.8 C	5.1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.05	Е	С			65.1	70.3	1.6	58.3	37.6	0.1	66.3	28.4
200			А		Е	E	А	E	D	А	Е	С
Approach Delay		30.4				59.0			41.6			26.9
Approach LOS		С				E			D			С
Queue Length 50th (m)	15.2	78.8	0.0		7.7	120.7	0.0	34.0	105.4	0.0	10.6	22.0
Queue Length 95th (m)	24.4	100.1	18.2		18.2	#176.0	1.8	47.5	130.5	0.0	18.7	30.1
Internal Link Dist (m)		128.6				137.6			155.7			117.8
Turn Bay Length (m)	95.0				60.0		100.0	60.0		60.0	30.0	
Base Capacity (vph)	385	1224	726		97	983	651	502	1308	715	199	952
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	0.34	0.60	0.37		0.34	0.99	0.30	0.58	0.73	0.03	0.43	0.34
Intersection Summary												
Area Type: Oth	ner											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 65 (54%), Referenced to	o phase	2:NBT ar	nd 6:SBT	, Start of Gi	reen							
Natural Cycle: 95												
Control Type: Actuated-Coordir	nated											
Maximum v/c Ratio: 0.99												
Intersection Signal Delay: 41.6				Inte	ersectio	n LOS: D						
Intersection Capacity Utilization	n 85.1%			ICU	J Level	of Service	E					
Analysis Period (min) 15												
# 95th percentile volume exce	eeds ca	pacity, qu	eue may	be longer.								
Queue shown is maximum a	after two	cycles.										

Splits and Phases: 3: Bank Street & Hunt Club Road

Ø1	¶ø2 (R)	√ ø3	₩ Ø4
14 s	48 s	13 s	45 s
▲ ø5	🛛 🔹 Ø6 (R)		4 [⊕] Ø8
25 s	37 s	21 s	37 s

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Lane Group	SBR
v/c Ratio	0.26
Control Delay	1.1
Queue Delay	0.0
Total Delay	1.1
LOS	А
Approach Delay	
Approach LOS	
Queue Length 50th (m)	0.1
Queue Length 95th (m)	0.2
Internal Link Dist (m)	
Turn Bay Length (m)	120.0
Base Capacity (vph)	589
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.26
Intersection Summary	

4: Bank Street & Dazé Street/Cahill Drive BG 2026 AM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations		ب ا ا	1		ę	1	<u>ک</u>	≜1 ≱			ľ	<u></u>
Traffic Volume (vph)	122	0	33	73	0	148	90	951	51	3	17	411
Future Volume (vph)	122	0	33	73	0	148	90	951	51	3	17	411
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		40.0	45.0		0.0		70.0	
Storage Lanes	0		1	0		1	1		0		1	
Taper Length (m)	7.6			7.6			7.6				7.6	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor		0.97	0.97		0.98	0.95	0.99	1.00			1.00	
Frt			0.850			0.850		0.992				
Flt Protected		0.950			0.950		0.950				0.950	
Satd. Flow (prot)	0	1772	1570	0	1738	1585	1807	3417	0	0	1825	3349
Flt Permitted		0.709			0.623		0.468				0.286	
Satd. Flow (perm)	0	1277	1521	0	1121	1505	886	3417	0	0	548	3349
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			105			148		8				
Link Speed (k/h)		50			50			60				60
Link Distance (m)		72.9			188.5			169.4				264.5
Travel Time (s)		5.2			13.6			10.2				15.9
Confl. Peds. (#/hr)	19		10	10		19	6		3		3	
Confl. Bikes (#/hr)						2			1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	0%	4%	5%	0%	3%	1%	6%	2%	0%	0%	9%
Adj. Flow (vph)	122	0	33	73	0	148	90	951	51	3	17	411
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	33	0	73	148	90	1002	0	0	20	411
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	Perm	NA
Protected Phases		4			8		5	2				6
Permitted Phases	4		4	8		8	2			6	6	
Detector Phase	4	4	4	8	8	8	5	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	34.3		34.3	34.3	34.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	14.0	78.0		64.0	64.0	64.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	11.7%	65.0%		53.3%	53.3%	53.3%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	7.7	71.7		57.7	57.7	57.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1	6.3	6.3			6.3	6.3
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0		0	0	0
Act Effct Green (s)		16.9	16.9		16.9	16.9	85.7	85.7			72.0	72.0
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.71	0.71			0.60	0.60

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Lane Group	SBR	Ø3	Ø7
Lareconfigurations	٢		
Traffic Volume (vph)	117		
Future Volume (vph)	117		
Ideal Flow (vphpl)	1900		
Storage Length (m)	75.0		
Storage Lanes	0		
Taper Length (m)			
Lane Util. Factor	1.00		
Ped Bike Factor	0.98		
Frt	0.850		
Flt Protected			
Satd. Flow (prot)	1498		
Flt Permitted			
Satd. Flow (perm)	1463		
Right Turn on Red	Yes		
Satd. Flow (RTOR)	117		
Link Speed (k/h)			
Link Distance (m)			
Travel Time (s)			
Confl. Peds. (#/hr)	6		
Confl. Bikes (#/hr)			
Peak Hour Factor	1.00		
Heavy Vehicles (%)	9%		
Adi, Flow (vph)	117		
Shared Lane Traffic (%)			
Lane Group Flow (vph)	117		
Turn Type	Perm		
Protected Phases		3	7
Permitted Phases	6	Ŭ	
Detector Phase	6		
Switch Phase	0		
Minimum Initial (e)	10.0	3.0	3.0
Minimum Split (s)	2/1 2	5.0	5.0
Total Solit (s)	6/ 0	5.0	5.0
Total Split (%)	52 20/	/10/	J.U //0/
Movimum Groom (a)	53.3%	4%	4%
Vellow Time (a)	0.7	3.0	3.0
	3.7	2.0	2.0
An-neu nime (s)	2.6	0.0	0.0
Lost Time Adjust (S)	0.0		
Total Lost Time (s)	6.3		
Lead/Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	C-Max	Max	Max
Walk Time (s)	7.0		
Flash Dont Walk (s)	11.0		
Pedestrian Calls (#/hr)	0		
Act Effct Green (s)	72.0		
Actuated g/C Ratio	0.60		

4: Bank Street & Dazé Street/Cahill Drive BG 2026 AM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio		0.68	0.11		0.46	0.44	0.13	0.41			0.06	0.20
Control Delay		67.0	0.7		55.5	10.8	5.4	5.5			13.0	12.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		67.0	0.7		55.5	10.8	5.4	5.5			13.0	12.2
LOS		Е	А		Е	В	А	А			В	В
Approach Delay		52.9			25.6			5.5				10.2
Approach LOS		D			С			А				В
Queue Length 50th (m)		27.7	0.0		16.0	0.0	4.0	24.1			1.8	21.7
Queue Length 95th (m)		45.1	0.0		29.2	16.9	m7.7	37.1			6.5	36.1
Internal Link Dist (m)		48.9			164.5			145.4				240.5
Turn Bay Length (m)						40.0	45.0				70.0	
Base Capacity (vph)		328	469		288	497	694	2443			328	2009
Starvation Cap Reductn		0	0		0	0	0	0			0	0
Spillback Cap Reductn		0	0		0	0	0	0			0	0
Storage Cap Reductn		0	0		0	0	0	0			0	0
Reduced v/c Ratio		0.37	0.07		0.25	0.30	0.13	0.41			0.06	0.20
Intersection Summary												
Area Type: 0	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 57 (48%), Reference	d to phase	2:NBTL a	and 6:SB	TL, Start	of Green							
Natural Cycle: 90												
Control Type: Actuated-Coor	rdinated											
Maximum v/c Ratio: 0.68												
Intersection Signal Delay: 12	2.6			In	tersectior	n LOS: B						
Intersection Capacity Utilizat	ion 80.0%			IC	U Level	of Service	D					
Analysis Period (min) 15												

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

	₩ 2 24
78 s	5s 37s
▲ Ø5 🖡 📫 Ø6 (R)	₩ 2 * Ø8
14s 64s	5 s 37 s

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	-		
Lane Group	SBR	Ø3	Ø7
v/c Ratio	0.13		
Control Delay	2.8		
Queue Delay	0.0		
Total Delay	2.8		
LOS	А		
Approach Delay			
Approach LOS			
Queue Length 50th (m)	0.0		
Queue Length 95th (m)	8.7		
Internal Link Dist (m)			
Turn Bay Length (m)	75.0		
Base Capacity (vph)	924		
Starvation Cap Reductn	0		
Spillback Cap Reductn	0		
Storage Cap Reductn	0		
Reduced v/c Ratio	0.13		
Intersection Summary			

5: Dazé Street & South Keys SC BG 2026 AM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ሻ	eî 👘		٦	eî 👘		۲.	≜ î≽			ľ	≜1 ≱
Traffic Volume (vph)	35	1	83	5	2	7	115	233	3	2	4	154
Future Volume (vph)	35	1	83	5	2	7	115	233	3	2	4	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Storage Lanes	1		0	1		0	1		0		1	
Taper Length (m)	2.5			2.5			2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor	1.00	0.99		1.00	0.99			1.00				
Frt		0.852			0.883			0.998				0.945
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1722	1566	0	1521	1678	0	1807	3571	0	0	1825	3373
Flt Permitted	0.752			0.702			0.546				0.605	
Satd. Flow (perm)	1360	1566	0	1123	1678	0	1039	3571	0	0	1162	3373
Right Turn on Red			Yes			Yes			Yes	-		
Satd. Flow (BTOB)		83			7			2				90
Link Speed (k/h)		30			30			50				50
Link Distance (m)		107 1			73.7			57.4				76.4
Travel Time (s)		12.9			8.8			4 1				5.5
Confl Peds (#/hr)	2	12.0	1	1	0.0	2						0.0
Confl Bikes (#/hr)	-		•	•		2			1			
Peak Hour Factor	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00
	6%	100%	2%	20%	0%	0%	1%	2%	0%	0%	0%	3%
Adi Flow (vph)	35	10078	83	5	2	7	115	233	3	2	4	154
Shared Lane Traffic (%)	00		00	5	2	1	115	200	5	2	7	104
Lang Group Flow (upb)	25	84	0	Б	٥	0	115	226	0	0	6	244
	Porm	04 NA	0	Porm		0	nmunt	230	0	oustom	nmunt	244 NA
Protoctod Phases	Fenn	INA A		Feilii	NA Q		pm+pt 5	2		custom	pm+pt 1	NA 6
Protected Phases	1	4		0	0		5	2		-	6	0
Detector Phases	4	1		0	o		2	2			1	G
Switch Phase	4	4		U	U		J	2		I	1	U
	5.0	5.0		5.0	5.0		1 /	5.0		1 /	1 /	5.0
Minimum Colit (c)	20.0	20.0		20.1	20.1		7.9	22.0		7.9	7.9	22.0
Total Split (s)	20.0	20.0		20.1	20.1		12.0	32.9		12.0	12.0	32.9
Total Split (S)	20.0	20.0		20.1	20.1		10.0%	46.69/		16.0%	16.0%	46.6%
Maximum Groon (a)	37.3%	37.3%		37.4%	37.4%		10.0% 6 1	40.0%		10.0%	6 1	40.0%
Maximum Green (s)	22.0	22.0		22.0	22.0		0.1	29.1		0.1	0.1	29.1
	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (S)	2.7	2.7		2.8	2.8		2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.0	6.0		6.1	6.1		5.9	5.9			5.9	5.9
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?		• •					Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Max		None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0			15.0				15.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			12.0				12.0
Pedestrian Calls (#/hr)	0	0		0	0			0				0
Act Effct Green (s)	7.1	7.1		7.0	7.0		41.0	41.2			37.1	34.2
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.70	0.71			0.64	0.59

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Lane Group	SBR
Latonfigurations	
Traffic Volume (vph)	90
Future Volume (vph)	90
Ideal Flow (vphpl)	1900
Storage Length (m)	0.0
Storage Lanes	0
Taper Length (m)	
Lane Util. Factor	0.95
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	1.00
Heavy Vehicles (%)	1%
Adj. Flow (vph)	90
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	

5: Dazé Street & South Keys SC BG 2026 AM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Batio	0.21	0.32		0.04	0.04		0.14	0.09			0.01	0.12
Control Delay	27.1	10.5		23.8	16.4		4.1	5.2			3.8	5.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	27.1	10.5		23.8	16.4		4.1	5.2			3.8	5.9
LOS	С	В		С	В		А	А			А	А
Approach Delay		15.3			19.1			4.8				5.8
Approach LOS		В			В			А				А
Queue Length 50th (m)	3.6	0.1		0.5	0.2		3.3	3.5			0.2	4.4
Queue Length 95th (m)	10.5	10.2		3.1	3.6		8.2	12.8			1.1	10.1
Internal Link Dist (m)		83.1			49.7			33.4				52.4
Turn Bay Length (m)	40.0						70.0				40.0	
Base Capacity (vph)	517	647		425	640		810	2521			815	2009
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.07	0.13		0.01	0.01		0.14	0.09			0.01	0.12
Intersection Summary												
Area Type:	Other											
Cycle Length: 75.1												
Actuated Cycle Length: 58	.4											
Natural Cycle: 70												
Control Type: Semi Act-Ur	ncoord											
Maximum v/c Ratio: 0.32												
Intersection Signal Delay:	7.1			In	tersectior	n LOS: A						
Intersection Capacity Utiliz	ation 37.3%			IC	U Level	of Service	A					
Analysis Period (min) 15												

Splits and Phases: 5: Dazé Street & South Keys SC

M _{Ø1}	↑ø₂	<u>→</u> ₀₄	
12 s	35 s	28 s	
▲ ø5	Ø6	Ø8	
12 s	35 s	28.1 s	

5: Dazé Street & South Keys SC BG 2026 AM Phase 1 Build-out

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Lane Group	SBR			
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (m)				
Queue Length 95th (m)				
Internal Link Dist (m)				
Turn Bay Length (m)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				
Intersection Summary				

0

Intersection

Int Delay, s/veh

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		- 11	1	
Traffic Vol, veh/h	0	0	0	351	242	0
Future Vol, veh/h	0	0	0	351	242	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	351	242	0

Major/Minor	Minor2	М	ajor1	Ma	jor2					
Conflicting Flow All	-	121	-	0	-	0				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				
Critical Hdwy	-	6.9	-	-	-	-				
Critical Hdwy Stg 1	-	-	-	-	-	-				
Critical Hdwy Stg 2	-	-	-	-	-	-				
Follow-up Hdwy	-	3.3	-	-	-	-				
Pot Cap-1 Maneuver	0	914	0	-	-	-				
Stage 1	0	-	0	-	-	-				
Stage 2	0	-	0	-	-	-				
Platoon blocked, %				-	-	-				
Mov Cap-1 Maneuver	r –	914	-	-	-	-				
Mov Cap-2 Maneuver	r –	-	-	-	-	-				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	Α		

Minor Lane/Major Mvmt	NBT EBI	Ln1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	А	-	-
HCM 95th %tile Q(veh)	-	-	-	-

0.1

Intersection

Int Delay, s/veh

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1	<u> </u>	- 11	1	
Traffic Vol, veh/h	0	6	6	351	242	0
Future Vol, veh/h	0	6	6	351	242	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage	, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	6	6	351	242	0

Major/Minor	Minor2	I	Major1	Majo	or2				
Conflicting Flow All	-	121	242	0	-	0			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			
Critical Hdwy	-	6.9	4.1	-	-	-			
Critical Hdwy Stg 1	-	-	-	-	-	-			
Critical Hdwy Stg 2	-	-	-	-	-	-			
Follow-up Hdwy	-	3.3	2.2	-	-	-			
Pot Cap-1 Maneuver	0	914	1336	-	-	-			
Stage 1	0	-	-	-	-	-			
Stage 2	0	-	-	-	-	-			
Platoon blocked, %				-	-	-			
Mov Cap-1 Maneuver	· -	914	1336	-	-	-			
Mov Cap-2 Maneuver	· -	-	-	-	-	-			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			

Approach	EB	NB	SB
HCM Control Delay, s	9	0.1	0
HCM LOS	Α		

Minor Lane/Major Mvmt	NBL	NBT EE	3Ln1	SBT	SBR							
Capacity (veh/h)	1336	-	914	-	-							
HCM Lane V/C Ratio	0.004	- 0	.007	-	-							
HCM Control Delay (s)	7.7	-	9	-	-							
HCM Lane LOS	А	-	Α	-	-							
HCM 95th %tile Q(veh)	0	-	0	-	-							
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>ک</u>	≜1 ≱		ľ	∱1 ≽		ľ		1	ሻሻ		1
Traffic Volume (vph)	175	1331	33	79	1296	334	15	0	137	593	0	282
Future Volume (vph)	175	1331	33	79	1296	334	15	0	137	593	0	282
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00		0.99					0.99
Frt		0.996			0.969				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3464	0	1615	3425	0	1706	0	1570	3506	0	1617
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3464	0	1613	3425	0	1688	0	1570	3506	0	1593
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			27				164			282
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		431.4			316.9			354.1			189.5	
Travel Time (s)		25.9			19.0			15.9			8.5	
Confl. Peds. (#/hr)	11		5	5		11	3					3
Confl. Bikes (#/hr)			1									
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	5%	0%	13%	3%	2%	7%	0%	4%	1%	0%	1%
Adj. Flow (vph)	175	1331	33	79	1296	334	15	0	137	593	0	282
Shared Lane Traffic (%)												
Lane Group Flow (vph)	175	1364	0	79	1630	0	15	0	137	593	0	282
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6							
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		4		4	8		8
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0
Minimum Split (s)	17.2	47.3		12.4	47.3		17.8		17.8	22.5		22.5
Total Split (s)	28.0	53.0		28.0	53.0		19.0		19.0	49.0		49.0
Total Split (%)	21.5%	40.8%		21.5%	40.8%		14.6%		14.6%	37.7%		37.7%
Maximum Green (s)	20.6	45.7		20.6	45.7		11.2		11.2	41.2		41.2
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	C-Max		None	C-Max		None		None	None		None
Walk Time (s)		31.0			31.0							
Flash Dont Walk (s)		9.0			9.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)	17.8	70.4		11.7	61.5		28.3		28.3	28.3		28.3
Actuated g/C Ratio	0.14	0.54		0.09	0.47		0.22		0.22	0.22		0.22

Lane Group	Ø3
LaneConfigurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag L	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

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Lane Group	EBL	EBT	EBR WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.71	0.73	0.54	1.00		0.04		0.29	0.78		0.50
Control Delay	68.9	28.0	54.9	47.4		37.7		4.6	55.2		7.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0
Total Delay	68.9	28.0	54.9	47.4		37.7		4.6	55.2		7.4
LOS	E	С	D	D		D		А	Е		A
Approach Delay		32.6		47.8			7.9			39.8	
Approach LOS		С		D			А			D	
Queue Length 50th (m)	43.5	141.0	20.2	~133.2		3.1		0.0	74.3		0.0
Queue Length 95th (m)	64.5	#208.3	m23.4	m#273.8		8.5		9.7	88.4		20.6
Internal Link Dist (m)		407.4		292.9			330.1			165.5	
Turn Bay Length (m)	150.0		55.0					40.0	120.0		120.0
Base Capacity (vph)	295	1877	255	1633		366		469	1111		697
Starvation Cap Reductn	0	0	0	0		0		0	0		0
Spillback Cap Reductn	0	0	0	0		0		0	0		0
Storage Cap Reductn	0	0	0	0		0		0	0		0
Reduced v/c Ratio	0.59	0.73	0.31	1.00		0.04		0.29	0.53		0.40
Intersection Summary											
Area Type:	Other										
Cycle Length: 130											
Actuated Cycle Length: 130	0										
Offset: 1 (1%), Referenced	to phase 2	:EBT and	6:WBT, Start of C	Green							
Natural Cycle: 145											
Control Type: Actuated-Co	ordinated										
Maximum v/c Ratio: 1.00											
Intersection Signal Delay: 3	39.3			ntersectio	n LOS: D						
Intersection Capacity Utilization	ation 92.1%	b		CU Level	of Service	F					
Analysis Period (min) 15											
 Volume exceeds capac 	ity, queue	s theoretic	cally infinite.								
Queue shown is maxim	um after tw	o cycles.									
# 95th percentile volume	exceeds ca	apacity, qu	eue may be long	er.							
Queue shown is maximi	um after tw	o cycles.									
m Volume for 95th percer	ntile queue	is metered	d by upstream sig	ınal.							

Splits and Phases: 1: Airport Parkway & Hunt Club Road

€ø1	→Ø2 (R)	Al _{Ø3}	*/Ø4	
28 s	53 s	30 s	19 s	
	← Ø6 (R)	Ø8		
28 s	53 s	49 s		

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2026 PM Phase 1 Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ሻሻ	^			ľ	† †	1	ኘ	•	1	ሻ
Traffic Volume (vph)	33	268	1426	244	28	37	1298	88	141	107	75	101
Future Volume (vph)	33	268	1426	244	28	37	1298	88	141	107	75	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			1.00		0.93	0.93		0.96	0.98
Frt			0.978					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3509	4825	0	0	1825	3544	1617	3404	1921	1617	1807
Flt Permitted		0.169				0.203			0.950			0.950
Satd. Flow (perm)	0	617	4825	0	0	388	3544	1511	3176	1921	1556	1768
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			29					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		35		25		25		35	44		22	22
Confl. Bikes (#/hr)				1							1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	5%	5%	0%	0%	3%	1%	4%	0%	1%	1%
Adj. Flow (vph)	33	268	1426	244	28	37	1298	88	141	107	75	101
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	301	1670	0	0	65	1298	88	141	107	75	101
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	18.0	18.0	54.0		18.0	18.0	54.0	54.0	17.0	41.0	41.0	17.0
Total Split (%)	13.8%	13.8%	41.5%		13.8%	13.8%	41.5%	41.5%	13.1%	31.5%	31.5%	13.1%
Maximum Green (s)	11.5	11.5	47.8		11.5	11.5	47.8	47.8	10.5	34.0	34.0	10.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max		None	None	C-Max	C-Max	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		23.6	51.7			19.7	47.8	47.8	9.7	22.3	22.3	10.0
Actuated g/C Ratio		0.18	0.40			0.15	0.37	0.37	0.07	0.17	0.17	0.08

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Lane Group	SBT	SBR
Lane F onfigurations	Ť	7
Traffic Volume (vph)	162	316
Future Volume (vph)	162	316
Ideal Flow (vphpl)	1900	1900
Storage Length (m)		0.0
Storage Lanes		1
Taper Length (m)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		0.94
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1902	1617
Flt Permitted		
Satd. Flow (perm)	1902	1517
Right Turn on Red		Yes
Satd. Flow (RTOR)		137
Link Speed (k/h)	50	
Link Distance (m)	209.8	
Travel Time (s)	15.1	
Confl. Peds. (#/hr)		44
Confl. Bikes (#/hr)		
Peak Hour Factor	1.00	1 00
Heavy Vehicles (%)	1%	1%
Adi Flow (vph)	162	316
Shared Lane Traffic (%)	102	010
	160	316
		Porm
Protoctod Phases		Feilli
Protected Phases	4	4
Permitted Phases		4
Detector Phase	4	4
Switch Phase	100	10.0
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	41.0	41.0
Total Split (s)	41.0	41.0
Total Split (%)	31.5%	31.5%
Maximum Green (s)	34.0	34.0
Yellow Time (s)	3.3	3.3
All-Red Time (s)	3.7	3.7
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.0	7.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	27.0	27.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	22.6	22.6
Actuated g/C Ratio	0.17	0.17
Act Effct Green (s)	22.6 0.17	22.6
notuatou y/O natio	0.17	0.17

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2026 PM Phase 1 Build-out

	€	٦	-	\mathbf{r}	F	4	←	•	•	t	1	1
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		2.69	0.86			1.12	1.00	0.14	0.56	0.33	0.20	0.73
Control Delay		802.5	36.6			203.9	65.1	0.9	66.5	47.3	1.2	87.8
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		802.5	36.6			203.9	65.1	0.9	66.5	47.3	1.2	87.8
LOS		F	D			F	Е	А	Е	D	А	F
Approach Delay			153.6				67.4			45.0		
Approach LOS			F				Е			D		
Queue Length 50th (m)		~70.1	147.9			16.8	173.5	0.0	18.1	24.2	0.0	25.6
Queue Length 95th (m)		#107.2	#162.2			#55.8	#223.3	1.5	29.0	37.1	0.0	#51.5
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		112	1937			58	1303	646	274	502	508	144
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		2.69	0.86			1.12	1.00	0.14	0.51	0.21	0.15	0.70
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced t	to phase 2	:EBT and	l 6:WBT, 3	Start of G	ireen							
Natural Cycle: 125												
Control Type: Actuated-Coo	rdinated											
Maximum v/c Ratio: 2.69												
Intersection Signal Delay: 10	03.4			lı lı	ntersectio	n LOS: F						
Intersection Capacity Utiliza	tion 97.6%)		10	CU Level	of Servic	e F					
Analysis Period (min) 15												
~ Volume exceeds capaci	ty, queue i	s theoret	ically infin	iite.								
Queue shown is maximu	m after two	o cycles.										
# 95th percentile volume e	exceeds ca	pacity, q	ueue may	/ be longe	er.							
Queue shown is maximu	m after two	o cycles.										

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

₩ø1	→ Ø2 (R)	▲ Ø3	
18 s	54 s	17 s	41 s
≯ø5	 Ø6 (R)	Ø7	Øs
18 s	54 s	17 s	41 s

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2026 PM Phase 1 Build-out

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Lano Group SR	
v/c Ratio 0.4	9 0.84
Control Delay 51.	6 47.5
Queue Delay 0.	0.0
Total Delay 51.	6 47.5
LOS	D D
Approach Delay 55.	7
Approach LOS	E
Queue Length 50th (m) 37.	7 46.0
Queue Length 95th (m) 53.	4 72.9
Internal Link Dist (m) 185.	3
Turn Bay Length (m)	
Base Capacity (vph) 49	7 497
Starvation Cap Reductn	0 0
Spillback Cap Reductn	0 C
Storage Cap Reductn	0 C
Reduced v/c Ratio 0.3	3 0.64

3: Bank Street & Hunt Club Road BG 2026 PM Phase 1 Build-out

	SBU
Lane Group EDU EDU EDU EDU EDU VIDU WDL WDL WDL WDL NDL NBL NBL	000
Lane Configurations	
Traffic Volume (vph) 4 157 928 369 1 48 834 183 336 532 56	1
Future Volume (vph) 4 157 928 369 1 48 834 183 336 532 56	1
Ideal Flow (vphpl) 1900 1900 1900 1900 1900 1900 1900 190	1900
Storage Length (m) 95.0 0.0 60.0 100.0 60.0 60.0	
Storage Lanes 2 1 1 1 2 1	
Taper Length (m) 2.5 2.5 2.5	
Lane Util. Factor 0.95 0.97 0.95 1.00 0.95 1.00 0.95 1.00 0.97 0.95 1.00	0.95
Ped Bike Factor 1.00 0.96 0.99 0.98 0.97 0.96	
Frt 0.850 0.850 0.850	
Fit Protected 0.950 0.950 0.950	
Satd. Flow (prot) 0 3314 3510 1601 0 1756 3579 1617 3506 3579 1601	0
Flt Permitted 0.381 0.667 0.950	
Satd. Flow (perm) 0 1326 3510 1532 0 1225 3579 1583 3400 3579 1535	0
Right Turn on Red Yes Yes Yes	
Satd. Flow (RTOR) 279 183 157	
Link Speed (k/h) 60 60 60	
Link Distance (m) 152.6 161.6 179.7	
Travel Time (s) 9.2 9.7 10.8	
Confl. Peds. (#/hr) 4 21 21 4 55 22	
Confl. Bikes (#/hr) 5 4 2	
Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	1.00
Heavy Vehicles (%) 0% 7% 4% 2% 0% 4% 2% 1% 1% 2% 2%	0%
Adj. Flow (vph) 4 157 928 369 1 48 834 183 336 532 56	1
Shared Lane Traffic (%)	
Lane Group Flow (vph) 0 161 928 369 0 49 834 183 336 532 56	0
Turn Type custom Prot NA Perm custom Prot NA Perm Prot NA Perm	custom
Protected Phases 7 4 3 8 5 2	
Permitted Phases 7 4 3 8 2	1
Detector Phase 7 7 4 4 3 3 8 8 5 2 2	1
Switch Phase	
Minimum Initial (s) 5.0 5.0 10.0 10.0 5.0 5.0 10.0 10.0 5.0 10.0 10	5.0
Minimum Split (s) 11.5 11.5 33.7 33.7 11.5 11.5 33.7 33.7 12.1 34.5 34.5	12.1
Total Split (s) 17.0 17.0 41.0 41.0 14.0 14.0 38.0 38.0 19.0 46.0 46.0	19.0
Total Split (%) 14.2% 14.2% 34.2% 34.2% 11.7% 11.7% 31.7% 31.7% 15.8% 38.3% 38.3%	15.8%
Maximum Green (s) 10.5 10.5 34.3 34.3 7.5 7.5 31.3 31.3 11.9 39.5 39.5	11.9
Yellow Time (s) 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7	3.7
All-Red Time (s) 2.8 2.8 3.0 3.0 2.8 2.8 3.0 3.0 3.4 2.8 2.8	3.4
Lost Time Adjust (s) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	
Total Lost Time (s) 6.5 6.7 6.7 6.7 6.5 6.7 6.7 7.1 6.5 6.5	
Lead/Lag Lead Lead Lag Lag Lead Lead Lag Lag Lag Lag	Lead
Lead-Lag Optimize? Yes	Yes
Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0
Recall Mode None None Max Max None None Max Max None C-Max C-Max	None
Walk Time (s) 7.0 7.0 7.0 7.0 7.0 7.0 7.0	
Flash Dont Walk (s) 20.0 20.0 20.0 20.0 21.0 21.0	
Pedestrian Calls (#/hr) 0 0 0 0 0 0 0	
Act Effct Green (s) 10.5 37.1 37.1 7.5 31.3 31.3 11.9 39.5 39.5	
Actuated g/C Ratio 0.09 0.31 0.31 0.06 0.26 0.26 0.10 0.33 0.33	

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Lane Group	SBL	SBT	SBR
Lane Configurations	ካካ	<u>††</u>	7
Traffic Volume (vph)	229	981	227
Future Volume (vph)	229	981	227
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (m)	30.0		120.0
Storage Lanes	2		1
Taper Length (m)	2.5		
Lane Util. Factor	0.97	0.95	1.00
Ped Bike Factor	0.98		0.92
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3506	3579	1555
Flt Permitted	0.336		
Satd. Flow (perm)	1218	3579	1425
Right Turn on Red			Yes
Satd. Flow (RTOR)			157
Link Speed (k/h)		60	
Link Distance (m)		141.8	
Travel Time (s)		8.5	
Confl. Peds. (#/hr)	22		55
Confl. Bikes (#/hr)			4
Peak Hour Factor	1.00	1.00	1.00
Heavy Vehicles (%)	1%	2%	5%
Adi Flow (vph)	229	981	227
Shared Lane Traffic (%)	220	001	/
Lane Group Flow (yph)	230	981	227
	Prot	NA	Porm
Protected Phases	1	6	
Permitted Phases		0	e
Dotootor Phases	4	F	0
Switch Phase	1	0	0
Switch Fliase	FO	10.0	10.0
	5.0	10.0	10.0
	12.1	34.5	34.5
Total Split (s)	19.0	46.0	46.0
i otal Split (%)	15.8%	38.3%	38.3%
Maximum Green (s)	11.9	39.5	39.5
Yellow Time (s)	3.7	3.7	3.7
All-Red Time (s)	3.4	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	7.1	6.5	6.5
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max
Walk Time (s)		7.0	7.0
Flash Dont Walk (s)		21.0	21.0
Pedestrian Calls (#/hr)		0	0
Act Effct Green (s)	11.9	39.5	39.5
Actuated g/C Ratio	0.10	0.33	0.33

3: Bank Street & Hunt Club Road BG 2026 PM Phase 1 Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
v/c Ratio		1.39	0.86	0.55		0.64	0.89	0.33	0.97	0.45	0.09	
Control Delay		259.4	48.9	12.8		91.1	55.9	6.7	95.0	33.2	0.3	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		259.4	48.9	12.8		91.1	55.9	6.7	95.0	33.2	0.3	
LOS		F	D	В		F	Е	А	F	С	А	
Approach Delay			63.0				49.1			53.7		
Approach LOS			Е				D			D		
Queue Length 50th (m)		~26.0	111.8	16.1		11.5	99.9	0.0	41.2	51.7	0.0	
Queue Length 95th (m)		#47.9	#149.6	46.4		#30.7	#133.6	17.1	#70.0	67.7	0.0	
Internal Link Dist (m)			128.6				137.6			155.7		
Turn Bay Length (m)		95.0				60.0		100.0	60.0		60.0	
Base Capacity (vph)		116	1085	666		76	933	548	347	1178	610	
Starvation Cap Reductn		0	0	0		0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0		0	0	0	0	0	0	
Storage Cap Reductn		0	0	0		0	0	0	0	0	0	
Reduced v/c Ratio		1.39	0.86	0.55		0.64	0.89	0.33	0.97	0.45	0.09	
Intersection Summary												
Area Type: C	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 23 (19%), Referenced	d to phase	2:NBT a	ind 6:SBT	, Start of (Green							
Natural Cycle: 105												
Control Type: Actuated-Coor	dinated											
Maximum v/c Ratio: 1.92												
Intersection Signal Delay: 69	.5			In	tersectior	n LOS: E						
Intersection Capacity Utilizati	ion 88.9%			IC	U Level o	of Servic	еE					
Analysis Period (min) 15												
Volume exceeds capacity, queue is theoretically infinite.												
Queue shown is maximum after two cycles.												
# 95th percentile volume ex	95th percentile volume exceeds capacity, queue may be longer.											
Queue shown is maximum	n after two	cycles.										

Splits and Phases: 3: Bank Street & Hunt Club Road

Ø1	Ø2 (R)	√ ø3	₩ 04
19 s	46 s	14 s	41 s
▲ ø5	Ø6 (R)	🖈 _{ø7}	4 [®] _ Ø8
19 s	46 s	17 s	38 s

3: Bank Street & Hunt Club Road BG 2026 PM Phase 1 Build-out

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Lane Group	SBL	SBT	SBR
v/c Ratio	1.92	0.83	0.40
Control Delay	471.8	35.5	10.6
Queue Delay	0.0	0.0	0.0
Total Delay	471.8	35.5	10.6
LOS	F	D	В
Approach Delay		101.4	
Approach LOS		F	
Queue Length 50th (m)	~44.2	48.0	3.3
Queue Length 95th (m)	#69.8	89.5	26.7
Internal Link Dist (m)		117.8	
Turn Bay Length (m)	30.0		120.0
Base Capacity (vph)	120	1178	574
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.92	0.83	0.40
Intersection Summary			

4: Bank Street & Dazé Street/Cahill Drive BG 2026 PM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		ا	1		ب ا	1		ľ	≜ î≽			5
Traffic Volume (vph)	160	1	132	82	0	101	2	158	650	92	4	146
Future Volume (vph)	160	1	132	82	0	101	2	158	650	92	4	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		40.0		45.0		0.0		70.0
Storage Lanes	0		1	0		1		1		0		1
Taper Length (m)	7.6			7.6				7.6				7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Ped Bike Factor		0.92	0.95		0.97	0.90			0.99			0.98
Frt			0.850			0.850			0.981			
Flt Protected		0.953			0.950			0.950				0.950
Satd. Flow (prot)	0	1813	1617	0	1659	1633	0	1825	3478	0	0	1807
Flt Permitted		0.668			0.548			0.159				0.321
Satd. Flow (perm)	0	1172	1535	0	932	1471	0	305	3478	0	0	601
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			132			105			17			
Link Speed (k/h)		50			50				60			
Link Distance (m)		72.9			188.5				169.4			
Travel Time (s)		5.2			13.6				10.2			
Confl. Peds. (#/hr)	44		18	18		44		30		19		19
Confl. Bikes (#/hr)			4			1				2		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	0%	1%	10%	0%	0%	0%	0%	2%	1%	0%	1%
Adj. Flow (vph)	160	1	132	82	0	101	2	158	650	92	4	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	132	0	82	101	0	160	742	0	0	150
Turn Type	Perm	NA	Perm	Perm	NA	Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases		4			8			5	2			1
Permitted Phases	4		4	8		8	5	2			1	6
Detector Phase	4	4	4	8	8	8	5	5	2		1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	5.0	10.0		5.0	5.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	11.3	34.3		11.3	11.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	17.0	17.0	61.0		17.0	17.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	14.2%	14.2%	50.8%		14.2%	14.2%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	10.7	10.7	54.7		10.7	10.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7		3.7	3.7
All-Red Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6	2.6		2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1		6.3	6.3			6.3
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	C-Max		None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0			7.0			
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0			11.0			
Pedestrian Calls (#/hr)	0	0	0	0	0	0			0			
Act Effct Green (s)		21.7	21.7		21.7	21.7		74.7	65.6			74.5
Actuated g/C Ratio		0.18	0.18		0.18	0.18		0.62	0.55			0.62

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Traffic Volume (vph)	1174	318		
⊢uture Volume (vph)	1174	318		
Ideal Flow (vphpl)	1900	1900		
Storage Length (m)		75.0		
Storage Lanes		0		
Taper Length (m)				
Lane Util. Factor	0.95	1.00		
Ped Bike Factor		0.93		
Frt		0.850		
Flt Protected				
Satd. Flow (prot)	3579	1633		
Flt Permitted				
Satd. Flow (perm)	3579	1514		
Right Turn on Red		Yes		
Satd. Flow (RTOR)		312		
Link Speed (k/h)	60			
Link Distance (m)	264.5			
Travel Time (s)	15.9			
Confl. Peds. (#/hr)	. 0.0	30		
Confl. Bikes (#/hr)		5		
Peak Hour Factor	1 00	1 00		
Heavy Vehicles (%)	2%	0%		
Adi Flow (vph)	1174	318		
Shared Lane Traffic (%)	1174	010		
Lane Group Flow (vph)	117/	318		
	NA	Perm		
Protected Phases	ГЛ А	i enn	3	7
Pormitted Phases	0	C	3	1
Permilled Priases	<u> </u>	6		
Delector Phase	6	6		
Switch Phase	10.0	10.0		~ ~
Minimum Initial (s)	10.0	10.0	3.0	3.0
Minimum Split (s)	34.3	34.3	5.0	5.0
Total Split (s)	61.0	61.0	5.0	5.0
Total Split (%)	50.8%	50.8%	4%	4%
Maximum Green (s)	54.7	54.7	3.0	3.0
Yellow Time (s)	3.7	3.7	2.0	2.0
All-Red Time (s)	2.6	2.6	0.0	0.0
Lost Time Adjust (s)	0.0	0.0		
Total Lost Time (s)	6.3	6.3		
Lead/Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	Max	Max
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	11.0	11.0		
Pedestrian Calls (#/br)	0	0		
	65 F	65.5		
Actuated a/C Patia	00.0	05.5		
Actuated g/C Hatto	0.55	0.55		

4: Bank Street & Dazé Street/Cahill Drive BG 2026 PM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
v/c Ratio		0.76	0.34		0.49	0.29		0.52	0.39			0.32
Control Delay		68.0	8.7		52.2	8.6		27.3	14.1			10.2
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Delay		68.0	8.7		52.2	8.6		27.3	14.1			10.2
LOS		Е	А		D	А		С	В			В
Approach Delay		41.3			28.1				16.4			
Approach LOS		D			С				В			
Queue Length 50th (m)		36.4	0.0		17.5	0.0		22.5	36.8			11.5
Queue Length 95th (m)		55.5	14.9		31.0	12.6		m39.1	m46.8			23.8
Internal Link Dist (m)		48.9			164.5				145.4			
Turn Bay Length (m)						40.0		45.0				70.0
Base Capacity (vph)		301	493		239	456		330	1909			490
Starvation Cap Reductn		0	0		0	0		0	0			0
Spillback Cap Reductn		0	0		0	0		0	0			0
Storage Cap Reductn		0	0		0	0		0	0			0
Reduced v/c Ratio		0.53	0.27		0.34	0.22		0.48	0.39			0.31
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 12	20											
Offset: 14 (12%), Referen	ced to phase	2:NBTL a	and 6:SB	TL, Start	of Green							
Natural Cycle: 90												
Control Type: Actuated-C	oordinated											
Maximum v/c Ratio: 0.76												
Intersection Signal Delay:	19.8			In	tersection	n LOS: B						
Intersection Capacity Utili	zation 87.7%			IC	U Level	of Service	E					
Analysis Period (min) 15												
			بلام من ما ام									

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

M _{Ø1}	Ø2 (R)	.	e ↔ Ø4
17 s	61s	5 s	37 s
🔊 Ø5	Ø6 (R)	.	z ₩ Ø8
17 s	61s	5 s	37 s

4: Bank Street & Dazé Street/Cahill Drive BG 2026 PM Phase 1 Build-out

	ţ	1		
Lane Group	SBT	SBR	Ø3	Ø7
v/c Ratio	0.60	0.33		
Control Delay	21.5	3.2		
Queue Delay	0.0	0.0		
Total Delay	21.5	3.2		
LOS	С	А		
Approach Delay	16.9			
Approach LOS	В			
Queue Length 50th (m)	94.6	0.6		
Queue Length 95th (m)	140.4	16.2		
Internal Link Dist (m)	240.5			
Turn Bay Length (m)		75.0		
Base Capacity (vph)	1952	968		
Starvation Cap Reductn	0	0		
Spillback Cap Reductn	0	0		
Storage Cap Reductn	0	0		
Reduced v/c Ratio	0.60	0.33		
Intersection Summary				

5: Dazé Street & South Keys SC BG 2026 PM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ሻ	¢î 🕹		ሻ	4Î		ሻ	↑ Ъ			ሻ	- † Þ
Traffic Volume (vph)	85	3	221	2	4	13	195	199	18	1	21	287
Future Volume (vph)	85	3	221	2	4	13	195	199	18	1	21	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Storage Lanes	1		0	1		0	1		0		1	
Taper Length (m)	2.5			2.5			2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor	0.99	0.98		1.00	0.98		1.00	1.00			0.99	0.99
Frt		0.852			0.885			0.988				0.950
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1825	1608	0	1825	1673	0	1825	3564	0	0	1825	3404
Flt Permitted	0.746			0.389			0.445				0.616	
Satd. Flow (perm)	1421	1608	0	745	1673	0	853	3564	0	0	1174	3404
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		221			13			12				79
Link Speed (k/h)		30			30			50				50
Link Distance (m)		107.1			73.7			57.4				76.4
Travel Time (s)		12.9			8.8			4.1				5.5
Confl. Peds. (#/hr)	6		3	3		6	3		5		5	
Confl. Bikes (#/hr)			2						1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%
Adj. Flow (vph)	85	3	221	2	4	13	195	199	18	1	21	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	224	0	2	17	0	195	217	0	0	22	429
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		custom	pm+pt	NA
Protected Phases		4			8		5	2			1	6
Permitted Phases	4			8			2			1	6	
Detector Phase	4	4		8	8		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		5.0	5.0	10.0
Minimum Split (s)	28.1	28.1		28.1	28.1		10.9	32.9		10.9	10.9	32.9
Total Split (s)	36.1	36.1		36.1	36.1		35.0	58.0		15.9	15.9	38.9
Total Split (%)	32.8%	32.8%		32.8%	32.8%		31.8%	52.7%		14.5%	14.5%	35.4%
Maximum Green (s)	30.0	30.0		30.0	30.0		29.1	52.1		10.0	10.0	33.0
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	2.8	2.8		2.8	2.8		2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.1	6.1		6.1	6.1		5.9	5.9			5.9	5.9
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Max		None	None	Max
Walk Time (s)	7 0	7 0		7 0	7 0			15.0				15.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			12.0				12.0
Pedestrian Calls (#/hr)	0	0.0.0		0	0			0				0
Act Effct Green (s)	11.4	11 4		11.4	114		56.2	52.6			48.3	42.5
Actuated q/C Ratio	0.14	0.14		0.14	0.14		0.70	0.65			0.60	0.53
	•···											

Lanes, Volumes, Timings

Synchro 11 Report September 2021 1

Lane Group	SBR
LareConfigurations	
Traffic Volume (vph)	142
Future Volume (vph)	142
Ideal Flow (vphpl)	1900
Storage Length (m)	0.0
Storage Lanes	0
Taper Length (m)	
Lane Util. Factor	0.95
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	3
Confl. Bikes (#/hr)	
Peak Hour Factor	1.00
Heavy Vehicles (%)	1%
Adj. Flow (vph)	142
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	

Lanes, Volumes, Timings

Synchro 11 Report September 2021

5: Dazé Street & South Keys SC BG 2026 PM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio	0.42	0.54		0.02	0.07		0.28	0.09			0.03	0.23
Control Delay	40.0	10.5		32.5	19.6		5.0	6.2			4.4	8.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	40.0	10.5		32.5	19.6		5.0	6.2			4.4	8.8
LOS	D	В		С	В		А	А			А	A
Approach Delay		18.6			21.0			5.6				8.6
Approach LOS		В			С			А				A
Queue Length 50th (m)	11.1	0.4		0.2	0.5		7.4	3.8			0.8	13.0
Queue Length 95th (m)	27.1	19.3		2.3	6.2		16.3	12.9			2.9	24.6
Internal Link Dist (m)		83.1			49.7			33.4				52.4
Turn Bay Length (m)	40.0						70.0				40.0	
Base Capacity (vph)	535	743		280	638		958	2335			849	1836
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.16	0.30		0.01	0.03		0.20	0.09			0.03	0.23
Intersection Summary												
Area Type:	Other											
Cycle Length: 110												
Actuated Cycle Length: 80.	.4											
Natural Cycle: 75												
Control Type: Semi Act-Un	coord											
Maximum v/c Ratio: 0.54												
Intersection Signal Delay: 1	10.4			In	Intersection LOS: B							
Intersection Capacity Utilization	ation 62.8%			IC	U Level	of Service	В					
Analysis Period (min) 15												

Splits and Phases: 5: Dazé Street & South Keys SC

Ø1	1 ø2		<u>→</u> _{Ø4}
15.9 s	58 s		36.1s
▲ Ø5		Ø6	₩ Ø8
35 s		38.9 s	36.1s

5: Dazé Street & South Keys SC BG 2026 PM Phase 1 Build-out

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Lane Group	SBR			
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (m)				
Queue Length 95th (m)				
Internal Link Dist (m)				
Turn Bay Length (m)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				
Intersection Summary				

0

Intersection

Int Delay, s/veh

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		- 11	∱ î≽	
Traffic Vol, veh/h	0	0	0	432	553	0
Future Vol, veh/h	0	0	0	432	553	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	432	553	0

Major/Minor	Minor2	Μ	lajor1	Ma	jor2			
Conflicting Flow All	-	277	-	0	-	0		
Stage 1	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-		
Critical Hdwy	-	6.9	-	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-		
Follow-up Hdwy	-	3.3	-	-	-	-		
Pot Cap-1 Maneuver	0	726	0	-	-	-		
Stage 1	0	-	0	-	-	-		
Stage 2	0	-	0	-	-	-		
Platoon blocked, %				-	-	-		
Mov Cap-1 Maneuve	r -	726	-	-	-	-		
Mov Cap-2 Maneuve	r -	-	-	-	-	-		
Stage 1	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-		

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	Α		

Minor Lane/Major Mvmt	NBT EBI	_n1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	А	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection

Int Delay, s/veh

Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1	<u>ار</u>	^	∱î ≽	
Traffic Vol, veh/h	0	26	31	432	553	0
Future Vol, veh/h	0	26	31	432	553	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	26	31	432	553	0

Major/Minor	Minor2	I	Major1	Majo	or2				
Conflicting Flow All	-	277	553	0	-	0			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			
Critical Hdwy	-	6.9	4.1	-	-	-			
Critical Hdwy Stg 1	-	-	-	-	-	-			
Critical Hdwy Stg 2	-	-	-	-	-	-			
Follow-up Hdwy	-	3.3	2.2	-	-	-			
Pot Cap-1 Maneuver	0	726	1027	-	-	-			
Stage 1	0	-	-	-	-	-			
Stage 2	0	-	-	-	-	-			
Platoon blocked, %				-	-	-			
Mov Cap-1 Maneuver	· -	726	1027	-	-	-			
Mov Cap-2 Maneuver	· -	-	-	-	-	-			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.6	0
HCM LOS	В		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	1027	- 726	-	-
HCM Lane V/C Ratio	0.03	- 0.036	-	-
HCM Control Delay (s)	8.6	- 10.1	-	-
HCM Lane LOS	А	- B	-	-
HCM 95th %tile Q(veh)	0.1	- 0.1	-	-

Future (2031) Background Traffic

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	≜1 ≱		ሻ	≜1 }-		ሻ		1	ካካ		1
Traffic Volume (vph)	356	1115	25	67	986	619	16	0	85	259	0	152
Future Volume (vph)	356	1115	25	67	986	619	16	0	85	259	0	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	0.99							
Frt		0.997			0.942				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3436	0	1630	3185	0	1706	0	1458	3437	0	1570
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1806	3436	0	1628	3185	0	1706	0	1458	3437	0	1570
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			113				164			152
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		431.4			316.9			354.1			189.5	
Travel Time (s)		25.9			19.0			15.9			8.5	
Confl. Peds. (#/hr)	7		2	2		7						
Confl. Bikes (#/hr)						1						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	6%	0%	12%	11%	1%	7%	0%	12%	3%	0%	4%
Adj. Flow (vph)	356	1115	25	67	986	619	16	0	85	259	0	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	356	1140	0	67	1605	0	16	0	85	259	0	152
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6							
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		4		4	8		8
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0
Minimum Split (s)	12.4	47.3		12.4	47.3		17.8		17.8	22.5		22.5
Total Split (s)	32.0	50.0		32.0	50.0		18.0		18.0	48.0		48.0
Total Split (%)	24.6%	38.5%		24.6%	38.5%		13.8%		13.8%	36.9%		36.9%
Maximum Green (s)	24.6	42.7		24.6	42.7		10.2		10.2	40.2		40.2
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	C-Max		None	C-Max		None		None	None		None
Walk Time (s)		31.0			31.0							
Flash Dont Walk (s)		9.0			9.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)	35.4	84.4		10.7	56.9		15.2		15.2	15.2		15.2
Actuated g/C Ratio	0.27	0.65		0.08	0.44		0.12		0.12	0.12		0.12

Lanes, Volumes, Timings

Synchro 11 Report September 2021

Lane Group	Ø3
LaneConfigurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

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Lane Group	EBL	EBT	EBR WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
v/c Ratio	0.72	0.51	0.50	1.10		0.08		0.27	0.65		0.48	
Control Delay	52.3	14.6	49.1	84.0		50.3		2.1	62.2		12.8	
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0	
Total Delay	52.3	14.6	49.1	84.0		50.3		2.1	62.2		12.8	
LOS	D	В	D	F		D		А	E		В	
Approach Delay		23.6		82.6			9.7			43.9		
Approach LOS		С		F			А			D		
Queue Length 50th (m)	83.5	80.1	16.2	~227.2		3.7		0.0	33.1		0.0	
Queue Length 95th (m)	115.1	116.5	m22.1	m#290.3		10.4		0.0	45.4		18.9	
Internal Link Dist (m)		407.4		292.9			330.1			165.5		
Turn Bay Length (m)	150.0		55.0					40.0	120.0		120.0	
Base Capacity (vph)	492	2230	308	1456		199		315	1062		590	
Starvation Cap Reductn	0	0	0	0		0		0	0		0	
Spillback Cap Reductn	0	0	0	0		0		0	0		0	
Storage Cap Reductn	0	0	0	0		0		0	0		0	
Reduced v/c Ratio	0.72	0.51	0.22	1.10		0.08		0.27	0.24		0.26	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced	to phase 2:	EBT and	6:WBT, Start of (Green								
Natural Cycle: 150												
Control Type: Actuated-Coo	ordinated											
Maximum v/c Ratio: 1.10												
Intersection Signal Delay: 5	2.3			Intersectio	n LOS: D							
Intersection Capacity Utiliza	tion 94.2%	,		ICU Level	of Service	F						
Analysis Period (min) 15												
 Volume exceeds capaci 	ty, queue i	s theoretic	ally infinite.									
Queue shown is maximu	m after two	o cycles.										
# 95th percentile volume e	exceeds ca	pacity, qu	eue may be long	er.								
Queue shown is maximu	Queue shown is maximum after two cycles.											
m Volume for 95th percen	n Volume for 95th percentile queue is metered by upstream signal.											

Splits and Phases: 1: Airport Parkway & Hunt Club Road

√ Ø1	• -•	102 (R)	H _{Ø3}	*/Ø4	[≪] √Ø4		
32 s	50 s			30 s	18 s		
▶ _{Ø5}	• • •	Ø6 (R)		Ø8			
32 s	50 s			48 s			

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2031 AM Phase 1 Horizon Year

	●	٦	-	\rightarrow	F	4	+	•	1	t	1	1
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ሻሻ	ተተጮ			ሻ		1	ካካ	•	1	ሻ
Traffic Volume (vph)	19	163	1110	98	2	16	1218	75	200	108	67	30
Future Volume (vph)	19	163	1110	98	2	16	1218	75	200	108	67	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			0.99		0.96	0.94		0.99	1.00
Frt			0.988					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3478	4816	0	0	1515	3411	1601	3278	1902	1541	1772
Flt Permitted		0.140				0.833			0.950			0.950
Satd. Flow (perm)	0	510	4816	0	0	1319	3411	1543	3086	1902	1519	1768
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			12					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		15		18		18		15	32		2	2
Confl. Bikes (#/hr)				1				2				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	2%	7%	7%	0%	23%	7%	2%	8%	1%	6%	3%
Adj. Flow (vph)	19	163	1110	98	2	16	1218	75	200	108	67	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	182	1208	0	0	18	1218	75	200	108	67	30
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	15.0	15.0	52.0		15.0	15.0	52.0	52.0	22.0	41.0	41.0	22.0
Total Split (%)	11.5%	11.5%	40.0%		11.5%	11.5%	40.0%	40.0%	16.9%	31.5%	31.5%	16.9%
Maximum Green (s)	8.5	8.5	45.8		8.5	8.5	45.8	45.8	15.5	34.0	34.0	15.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min		None	None	C-Min	C-Min	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		28.5	79.1			8.9	51.5	51.5	12.9	21.0	21.0	7.7
Actuated g/C Ratio		0.22	0.61			0.07	0.40	0.40	0.10	0.16	0.16	0.06

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	ODT	CDD
	SBI	SBR
Lane P ontigurations	Ť	r
Traffic Volume (vph)	30	152
Future Volume (vph)	30	152
Ideal Flow (vphpl)	1900	1900
Storage Length (m)		0.0
Storage Lanes		1
Taper Length (m)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		0.95
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1921	1601
Flt Permitted		
Satd. Flow (perm)	1921	1524
Right Turn on Red		Yes
Satd. Flow (RTOR)		137
Link Speed (k/h)	50	
Link Distance (m)	209.8	
Travel Time (s)	15.1	
Confl. Peds. (#/hr)		32
Confl. Bikes (#/hr)		
Peak Hour Factor	1.00	1.00
Heavy Vehicles (%)	0%	2%
Adj. Flow (vph)	30	152
Shared Lane Traffic (%)		
Lane Group Flow (vph)	30	152
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	41.0	41.0
Total Split (s)	41.0	41.0
Total Split (%)	31.5%	31.5%
Maximum Green (s)	34.0	34.0
Yellow Time (s)	2 Q	2.2
	3.3	3.3
Lost Time Adjust (s)	0.0	0.0
	0.0	0.0
	7.0	7.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
venicle Extension (s)	3.0	3.0
Recall Mode	None	None
walk lime (s)	7.0	7.0
Flash Dont Walk (s)	27.0	27.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	10.9	10.9
Actuated g/C Ratio	0.08	0.08

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2031 AM Phase 1 Horizon Year

	€	٭	-	\mathbf{r}	F	4	+	•	•	t	1	4
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		1.64	0.41			0.20	0.90	0.11	0.62	0.35	0.19	0.29
Control Delay		357.5	11.3			60.6	46.9	0.3	64.3	53.6	1.1	64.7
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		357.5	11.3			60.6	46.9	0.3	64.3	53.6	1.1	64.7
LOS		F	В			Е	D	А	Е	D	А	E
Approach Delay			56.6				44.5			49.9		
Approach LOS			Е				D			D		
Queue Length 50th (m)		~35.5	35.1			4.5	145.0	0.0	25.6	26.2	0.0	7.5
Queue Length 95th (m)		#61.3	49.5			12.1	#204.2	0.0	37.5	43.3	0.0	17.2
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		111	2934			100	1351	698	390	497	498	209
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		1.64	0.41			0.18	0.90	0.11	0.51	0.22	0.13	0.14
Intersection Summary												
Area Type: O	other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced to	phase 2:	EBT and	6:WBT, 5	Start of G	reen							
Natural Cycle: 135												
Control Type: Actuated-Coord	dinated											
Maximum v/c Ratio: 1.64												
Intersection Signal Delay: 49.	.5			lr	ntersection	LOS: D)					
Intersection Capacity Utilization	on 89.2%			IC	CU Level o	of Servic	еE					
Analysis Period (min) 15												
~ Volume exceeds capacity	, queue is	s theoretic	cally infini	te.								
Queue shown is maximum	n after two	cycles.										
# 95th percentile volume ex	ceeds ca	pacity, qu	ieue may	be longe	r.							
Queue shown is maximum	n after two	o cycles.										

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

√ Ø1	> Ø2 (R)	A Ø3	
15 s	52 s	22 s	41 s
≯ø5	 Ø6 (R)	Ø7	Øs
15 s	52 s	22 s	41s

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2031 AM Phase 1 Horizon Year

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Lane Group	SBT	SBR
v/c Ratio	0.19	0.60
Control Delay	57.6	22.1
Queue Delay	0.0	0.0
Total Delay	57.6	22.1
LOS	E	С
Approach Delay	33.2	
Approach LOS	С	
Queue Length 50th (m)	7.3	3.7
Queue Length 95th (m)	16.6	24.1
Internal Link Dist (m)	185.8	
Turn Bay Length (m)		
Base Capacity (vph)	502	499
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.06	0.30
Intersection Summary		

3: Bank Street & Hunt Club Road BG 2031 AM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ሻሻ	^	1		۲	<u>^</u>	1	ሻሻ	<u>^</u>	1	ኘኘ	<u>^</u>
Traffic Volume (vph)	132	751	275	1	33	1000	200	298	980	23	88	335
Future Volume (vph)	132	751	275	1	33	1000	200	298	980	23	88	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	95.0		0.0		60.0		100.0	60.0		60.0	30.0	
Storage Lanes	2		1		1		1	2		1	2	
Taper Length (m)	2.5				2.5			2.5			2.5	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95
Ped Bike Factor	0.99		0.98		1.00		0.97	0.97		0.96	0.99	
Frt			0.850				0.850			0.850		
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	3190	3380	1570	0	1725	3411	1617	3372	3544	1633	3471	3444
Flt Permitted	0.950							0.950			0.950	
Satd. Flow (perm)	3172	3380	1533	0	1809	3411	1572	3259	3544	1569	3433	3444
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			275				279			216		
Link Speed (k/h)		60				60			60			60
Link Distance (m)		152.6				161.6			179.7			141.8
Travel Time (s)		9.2				9.7			10.8			8.5
Confl. Peds. (#/hr)	10		9		9		10	25		20	20	
Confl. Bikes (#/hr)							3			3		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	11%	8%	4%	0%	6%	7%	1%	5%	3%	0%	2%	6%
Adj. Flow (vph)	132	751	275	1	33	1000	200	298	980	23	88	335
Shared Lane Traffic (%)												
Lane Group Flow (vph)	132	751	275	0	34	1000	200	298	980	23	88	335
Turn Type	Prot	NA	Perm	custom	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4			3	8		5	2		1	6
Permitted Phases			4	3			8			2		
Detector Phase	7	4	4	3	3	8	8	5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.5	33.7	33.7	11.5	11.5	33.7	33.7	12.1	34.5	34.5	12.1	34.5
Total Split (s)	21.0	45.0	45.0	13.0	13.0	37.0	37.0	25.0	48.0	48.0	14.0	37.0
Total Split (%)	17.5%	37.5%	37.5%	10.8%	10.8%	30.8%	30.8%	20.8%	40.0%	40.0%	11.7%	30.8%
Maximum Green (s)	14.5	38.3	38.3	6.5	6.5	30.3	30.3	17.9	41.5	41.5	6.9	30.5
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.8	3.0	3.0	2.8	2.8	3.0	3.0	3.4	2.8	2.8	3.4	2.8
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)	6.5	6.7	6.7		6.5	6.7	6.7	7.1	6.5	6.5	7.1	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	None	Max	Max	None	C-Max	C-Max	None	C-Max
Walk Time (s)		7.0	7.0			7.0	7.0		7.0	7.0		7.0
Flash Dont Walk (s)		20.0	20.0			20.0	20.0		21.0	21.0		21.0
Pedestrian Calls (#/hr)		0	0			0	0		0	0		0
Act Effct Green (s)	10.3	43.5	43.5		6.4	34.5	34.5	15.4	41.6	41.6	6.8	33.0
Actuated g/C Ratio	0.09	0.36	0.36		0.05	0.29	0.29	0.13	0.35	0.35	0.06	0.28

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Lane Group	SED
	- 3DA #
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France Volume (vph)	155
Future Volume (vph)	155
Ideal Flow (vphpl)	1900
Storage Length (m)	120.0
Storage Lanes	1
Taper Length (m)	
Lane Util. Factor	1.00
Ped Bike Factor	0.96
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1458
Flt Permitted	
Satd. Flow (perm)	1395
Right Turn on Red	Yes
Satd. Flow (RTOR)	281
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	25
Confl. Bikes (#/hr)	
Peak Hour Factor	1.00
Heavy Vehicles (%)	12%
Adi, Flow (vph)	155
Shared Lane Traffic (%)	
Lane Group Flow (vph)	155
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phases	6
Switch Phase	0
Switch Fhase	10.0
Minimum Colt (c)	10.0
Tetel Split (s)	34.5
Total Split (S)	37.0
	30.8%
Wallow Time ()	30.5
Yellow Time (s)	3.7
All-Red Lime (s)	2.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	33.0
Actuated g/C Ratio	0.28

3: Bank Street & Hunt Club Road BG 2031 AM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
v/c Ratio	0.48	0.61	0.38		0.36	1.02	0.31	0.69	0.80	0.03	0.45	0.35
Control Delay	57.9	35.2	5.1		65.5	76.6	1.9	58.6	41.3	0.1	66.7	28.6
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	57.9	35.2	5.1		65.5	76.6	1.9	58.6	41.3	0.1	66.7	28.6
LOS	Е	D	А		E	Е	А	Е	D	А	Е	С
Approach Delay		30.6				64.2			44.5			27.0
Approach LOS		С				Е			D			С
Queue Length 50th (m)	15.5	81.2	0.0		7.9	~131.4	0.0	34.9	109.1	0.0	10.9	22.6
Queue Length 95th (m)	24.8	102.9	18.4		18.5	#182.9	2.6	48.6	134.7	0.0	19.3	30.8
Internal Link Dist (m)		128.6				137.6			155.7			117.8
Turn Bay Length (m)	95.0				60.0		100.0	60.0		60.0	30.0	
Base Capacity (vph)	385	1224	730		97	980	650	502	1229	685	199	947
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	0.34	0.61	0.38		0.35	1.02	0.31	0.59	0.80	0.03	0.44	0.35
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 65 (54%), Reference	ed to phase	2:NBT ar	nd 6:SBT	, Start of C	Green							
Natural Cycle: 95												
Control Type: Actuated-Coo	ordinated											
Maximum v/c Ratio: 1.02												
Intersection Signal Delay: 4	4.0			Int	tersectio	n LOS: D						
Intersection Capacity Utiliza	tion 86.0%	,		IC	U Level	of Service	εE					
Analysis Period (min) 15												
~ Volume exceeds capaci	ty, queue i	s theoretic	ally infini	te.								
Queue shown is maximu	im after two	o cycles.										
# 95th percentile volume e	exceeds ca	pacity, qu	eue may	be longer								
Queue shown is maximu	im after two	o cycles.										

Splits and Phases: 3: Bank Street & Hunt Club Road



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Lane Group	SBR
v/c Ratio	0.26
Control Delay	1.2
Queue Delay	0.0
Total Delay	1.2
LOS	А
Approach Delay	
Approach LOS	
Queue Length 50th (m)	0.1
Queue Length 95th (m)	0.2
Internal Link Dist (m)	
Turn Bay Length (m)	120.0
Base Capacity (vph)	587
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.26
Intersection Summary	

4: Bank Street & Dazé Street/Cahill Drive BG 2031 AM Phase 1 Horizon Year

	۶	→	\mathbf{r}	4	+	*	1	1	۲	L#	1	ŧ
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations		ب ا ا	1		ę	1	<u>ک</u>	≜1 ≱			1	<u></u>
Traffic Volume (vph)	122	0	33	73	0	148	90	974	51	3	17	421
Future Volume (vph)	122	0	33	73	0	148	90	974	51	3	17	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		40.0	45.0		0.0		70.0	
Storage Lanes	0		1	0		1	1		0		1	
Taper Length (m)	7.6			7.6			7.6				7.6	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor		0.97	0.97		0.98	0.95	0.99	1.00			1.00	
Frt			0.850			0.850		0.993				
Flt Protected		0.950			0.950		0.950				0.950	
Satd. Flow (prot)	0	1772	1570	0	1738	1585	1807	3421	0	0	1825	3349
Flt Permitted		0.709			0.623		0.462				0.280	
Satd. Flow (perm)	0	1277	1521	0	1121	1505	874	3421	0	0	537	3349
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			105			148		8				
Link Speed (k/h)		50			50			60				60
Link Distance (m)		72.9			188.5			169.4				264.5
Travel Time (s)		5.2			13.6			10.2				15.9
Confl. Peds. (#/hr)	19		10	10		19	6		3		3	
Confl. Bikes (#/hr)						2			1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	0%	4%	5%	0%	3%	1%	6%	2%	0%	0%	9%
Adj. Flow (vph)	122	0	33	73	0	148	90	974	51	3	17	421
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	33	0	73	148	90	1025	0	0	20	421
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	Perm	NA
Protected Phases		4			8		5	2				6
Permitted Phases	4		4	8		8	2			6	6	
Detector Phase	4	4	4	8	8	8	5	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	34.3		34.3	34.3	34.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	14.0	78.0		64.0	64.0	64.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	11.7%	65.0%		53.3%	53.3%	53.3%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	7.7	71.7		57.7	57.7	57.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1	6.3	6.3			6.3	6.3
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0		0	0	0
Act Effct Green (s)		16.9	16.9		16.9	16.9	85.7	85.7			72.0	72.0
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.71	0.71			0.60	0.60

Lanes, Volumes, Timings

Synchro 11 Report September 2021
	1		
Lane Group	SBR	Ø3	Ø7
LareConfigurations	1		
Traffic Volume (vph)	117		
Future Volume (vph)	117		
Ideal Flow (vphpl)	1900		
Storage Length (m)	75.0		
Storage Lanes	0		
Taper Length (m)			
Lane Util. Factor	1.00		
Ped Bike Factor	0.98		
Frt	0.850		
Flt Protected			
Satd. Flow (prot)	1498		
Flt Permitted			
Satd, Flow (perm)	1463		
Right Turn on Red	Yes		
Satd Flow (RTOR)	117		
Link Speed (k/b)	117		
Link Distance (m)			
Confl Dodo (#/br)	e		
Confl. Pikos (#/III)	0		
	1 00		
Peak Hour Factor	1.00		
Heavy Venicles (%)	9%		
Adj. Flow (vph)	11/		
Shared Lane Traffic (%)			
Lane Group Flow (vph)	117		
Turn Type	Perm		
Protected Phases		3	7
Permitted Phases	6		
Detector Phase	6		
Switch Phase			
Minimum Initial (s)	10.0	3.0	3.0
Minimum Split (s)	34.3	5.0	5.0
Total Split (s)	64.0	5.0	5.0
Total Split (%)	53.3%	4%	4%
Maximum Green (s)	57.7	3.0	3.0
Yellow Time (s)	3.7	2.0	2.0
All-Red Time (s)	2.6	0.0	0.0
Lost Time Adjust (s)	0.0		
Total Lost Time (s)	6.3		
lead/Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Vac	Yee	Yee
Vehicle Extension (s)	3.0	3 0	3 0
	C May	S.U	S.U May
		Widx	Max
Walk Hille (S)	11.0		
	11.0		
redesirian Calls (#/nr)	0		
Act Effect Green (s)	/2.0		
Actuated g/C Ratio	0.60		

4: Bank Street & Dazé Street/Cahill Drive BG 2031 AM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio		0.68	0.11		0.46	0.44	0.13	0.42			0.06	0.21
Control Delay		67.0	0.7		55.5	10.8	5.5	5.7			13.1	12.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		67.0	0.7		55.5	10.8	5.5	5.7			13.1	12.2
LOS		Е	А		Е	В	А	А			В	В
Approach Delay		52.9			25.6			5.7				10.3
Approach LOS		D			С			А				В
Queue Length 50th (m)		27.7	0.0		16.0	0.0	4.0	24.6			1.8	22.3
Queue Length 95th (m)		45.1	0.0		29.2	16.9	m7.8	40.4			6.5	36.9
Internal Link Dist (m)		48.9			164.5			145.4				240.5
Turn Bay Length (m)						40.0	45.0				70.0	
Base Capacity (vph)		328	469		288	497	687	2445			322	2009
Starvation Cap Reductn		0	0		0	0	0	0			0	0
Spillback Cap Reductn		0	0		0	0	0	0			0	0
Storage Cap Reductn		0	0		0	0	0	0			0	0
Reduced v/c Ratio		0.37	0.07		0.25	0.30	0.13	0.42			0.06	0.21
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 57 (48%), Reference	d to phase	2:NBTL a	and 6:SB	TL, Start	of Green							
Natural Cycle: 90												
Control Type: Actuated-Coo	rdinated											
Maximum v/c Ratio: 0.68												
Intersection Signal Delay: 12	2.6			In	tersectior	n LOS: B						
Intersection Capacity Utiliza	tion 80.7%			IC	CU Level o	of Service	D					
Analysis Period (min) 15												
	19				-1							

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

	₩ 2 24
78 s	5s 37s
▲ Ø5 🖡 📫 Ø6 (R)	₩ 2 * Ø8
14s 64s	5 s 37 s

	-		
	-		
Lane Group	SBR	Ø3	Ø7
v/c Ratio	0.13		
Control Delay	2.8		
Queue Delay	0.0		
Total Delay	2.8		
LOS	А		
Approach Delay			
Approach LOS			
Queue Length 50th (m)	0.0		
Queue Length 95th (m)	8.7		
Internal Link Dist (m)			
Turn Bay Length (m)	75.0		
Base Capacity (vph)	924		
Starvation Cap Reductn	0		
Spillback Cap Reductn	0		
Storage Cap Reductn	0		
Reduced v/c Ratio	0.13		
Intersection Summary			

5: Dazé Street & South Keys SC BG 2031 AM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	1	f,		5	eî 👘		۲	A1⊅			<u>۲</u>	≜1 ≱
Traffic Volume (vph)	35	1	83	5	2	7	115	233	3	2	4	154
Future Volume (vph)	35	1	83	5	2	7	115	233	3	2	4	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Storage Lanes	1		0	1		0	1		0		1	
Taper Length (m)	2.5			2.5			2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor	1.00	0.99		1.00	0.99			1.00				
Frt		0.852			0.883			0.998				0.945
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1722	1566	0	1521	1678	0	1807	3571	0	0	1825	3373
Flt Permitted	0.752			0.702			0.546				0.605	
Satd. Flow (perm)	1360	1566	0	1123	1678	0	1039	3571	0	0	1162	3373
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		83			7			2				90
Link Speed (k/h)		30			30			50				50
Link Distance (m)		107.1			73.7			57.4				76.4
Travel Time (s)		12.9			8.8			4.1				5.5
Confl. Peds. (#/hr)	2		1	1		2						
Confl. Bikes (#/hr)									1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	6%	100%	2%	20%	0%	0%	1%	2%	0%	0%	0%	3%
Adj. Flow (vph)	35	1	83	5	2	7	115	233	3	2	4	154
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	84	0	5	9	0	115	236	0	0	6	244
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		custom	pm+pt	NA
Protected Phases		4			8		5	2			1	6
Permitted Phases	4			8			2			1	6	
Detector Phase	4	4		8	8		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		1.4	5.0		1.4	1.4	5.0
Minimum Split (s)	28.0	28.0		28.1	28.1		7.3	32.9		7.3	7.3	32.9
Total Split (s)	28.0	28.0		28.1	28.1		12.0	35.0		12.0	12.0	35.0
Total Split (%)	37.3%	37.3%		37.4%	37.4%		16.0%	46.6%		16.0%	16.0%	46.6%
Maximum Green (s)	22.0	22.0		22.0	22.0		6.1	29.1		6.1	6.1	29.1
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	2.7	2.7		2.8	2.8		2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.0	6.0		6.1	6.1		5.9	5.9			5.9	5.9
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Max		None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0			15.0				15.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			12.0				12.0
Pedestrian Calls (#/hr)	0	0		0	0			0				0
Act Effct Green (s)	7.1	7.1		7.0	7.0		41.0	41.2			37.1	34.2
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.70	0.71			0.64	0.59

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Lane Group	SBR
Lare	
Traffic Volume (vph)	90
Future Volume (vph)	90
Ideal Flow (vphpl)	1900
Storage Length (m)	0.0
Storage Lanes	0
Taper Length (m)	
Lane Util. Factor	0.95
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	1.00
Heavy Vehicles (%)	1%
Adj. Flow (vph)	90
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	

5: Dazé Street & South Keys SC BG 2031 AM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio	0.21	0.32		0.04	0.04		0.14	0.09			0.01	0.12
Control Delay	27.1	10.5		23.8	16.4		4.1	5.2			3.8	5.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	27.1	10.5		23.8	16.4		4.1	5.2			3.8	5.9
LOS	С	В		С	В		А	А			А	A
Approach Delay		15.3			19.1			4.8				5.8
Approach LOS		В			В			А				A
Queue Length 50th (m)	3.6	0.1		0.5	0.2		3.3	3.5			0.2	4.4
Queue Length 95th (m)	10.5	10.2		3.1	3.6		8.2	12.8			1.1	10.1
Internal Link Dist (m)		83.1			49.7			33.4				52.4
Turn Bay Length (m)	40.0						70.0				40.0	
Base Capacity (vph)	517	647		425	640		810	2521			815	2009
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.07	0.13		0.01	0.01		0.14	0.09			0.01	0.12
Intersection Summary												
Area Type:	Other											
Cycle Length: 75.1												
Actuated Cycle Length: 58	8.4											
Natural Cycle: 70												
Control Type: Semi Act-U	ncoord											
Maximum v/c Ratio: 0.32												
Intersection Signal Delay:	7.1			In	tersection	n LOS: A						
Intersection Capacity Utili	zation 37.3%			IC	CU Level	of Service	А					
Analysis Period (min) 15												

Splits and Phases: 5: Dazé Street & South Keys SC

M _{Ø1}	↑ø₂	<u>→</u> ₀₄	
12 s	35 s	28 s	
▲ ø5	Ø6	Ø8	
12 s	35 s	28.1 s	

5: Dazé Street & South Keys SC BG 2031 AM Phase 1 Horizon Year

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Long Group	CDD
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Can Beductn	
Snillback Can Beductn	
Storage Cap Reducts	
Reduced V/C Ratio	
Intersection Summary	

0

Intersection

Int Delay, s/veh

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		- 11	1	
Traffic Vol, veh/h	0	0	0	351	242	0
Future Vol, veh/h	0	0	0	351	242	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	351	242	0

Major/Minor	Minor2	Μ	ajor1	Ma	jor2				
Conflicting Flow All	-	121	-	0	-	0			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			
Critical Hdwy	-	6.9	-	-	-	-			
Critical Hdwy Stg 1	-	-	-	-	-	-			
Critical Hdwy Stg 2	-	-	-	-	-	-			
Follow-up Hdwy	-	3.3	-	-	-	-			
Pot Cap-1 Maneuver	0	914	0	-	-	-			
Stage 1	0	-	0	-	-	-			
Stage 2	0	-	0	-	-	-			
Platoon blocked, %				-	-	-			
Mov Cap-1 Maneuve	r -	914	-	-	-	-			
Mov Cap-2 Maneuver	r -	-	-	-	-	-			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBT EBI	_n1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	А	-	-
HCM 95th %tile Q(veh)	-	-	-	-

0.1

Intersection

Int Delay, s/veh

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1	1	- 11	1	
Traffic Vol, veh/h	0	6	6	351	242	0
Future Vol, veh/h	0	6	6	351	242	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	6	6	351	242	0

Major/Minor	Minor2	I	Major1	Majo	or2					
Conflicting Flow All	-	121	242	0	-	0				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				
Critical Hdwy	-	6.9	4.1	-	-	-				
Critical Hdwy Stg 1	-	-	-	-	-	-				
Critical Hdwy Stg 2	-	-	-	-	-	-				
Follow-up Hdwy	-	3.3	2.2	-	-	-				
Pot Cap-1 Maneuver	0	914	1336	-	-	-				
Stage 1	0	-	-	-	-	-				
Stage 2	0	-	-	-	-	-				
Platoon blocked, %				-	-	-				
Mov Cap-1 Maneuver	r –	914	1336	-	-	-				
Mov Cap-2 Maneuver	r –	-	-	-	-	-				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				

Approach	EB	NB	SB
HCM Control Delay, s	9	0.1	0
HCM LOS	Α		

Minor Lane/Major Mvmt	NBL	NBT EE	3Ln1	SBT	SBR
Capacity (veh/h)	1336	-	914	-	-
HCM Lane V/C Ratio	0.004	- 0	.007	-	-
HCM Control Delay (s)	7.7	-	9	-	-
HCM Lane LOS	А	-	Α	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	≜ 1,₀		٦	∱1 ≱		٦		1	ሻሻ		1
Traffic Volume (vph)	179	1362	33	81	1327	342	16	0	141	608	0	288
Future Volume (vph)	179	1362	33	81	1327	342	16	0	141	608	0	288
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00		0.99					0.99
Frt		0.996			0.969				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3464	0	1615	3425	0	1706	0	1570	3506	0	1617
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3464	0	1613	3425	0	1688	0	1570	3506	0	1593
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			27				164			288
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		431.4			316.9			354.1			189.5	
Travel Time (s)		25.9			19.0			15.9			8.5	
Confl. Peds. (#/hr)	11		5	5		11	3					3
Confl. Bikes (#/hr)			1									
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	5%	0%	13%	3%	2%	7%	0%	4%	1%	0%	1%
Adj. Flow (vph)	179	1362	33	81	1327	342	16	0	141	608	0	288
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	1395	0	81	1669	0	16	0	141	608	0	288
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6							
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		4		4	8		8
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0
Minimum Split (s)	17.2	47.3		12.4	47.3		17.8		17.8	22.5		22.5
Total Split (s)	28.0	53.0		28.0	53.0		19.0		19.0	49.0		49.0
Total Split (%)	21.5%	40.8%		21.5%	40.8%		14.6%		14.6%	37.7%		37.7%
Maximum Green (s)	20.6	45.7		20.6	45.7		11.2		11.2	41.2		41.2
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	C-Max		None	C-Max		None		None	None		None
Walk Time (s)		31.0			31.0							
Flash Dont Walk (s)		9.0			9.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)	18.0	69.7		11.8	60.6		28.8		28.8	28.8		28.8
Actuated g/C Ratio	0.14	0.54		0.09	0.47		0.22		0.22	0.22		0.22

Lane Group	Ø3
LaneConfigurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag L	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

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Lane Group	EBL	EBT	EBR WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.72	0.75	0.55	1.04		0.04		0.30	0.78		0.50
Control Delay	68.8	29.2	54.7	57.8		37.4		5.0	54.9		7.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0
Total Delay	68.8	29.2	54.7	57.8		37.4		5.0	54.9		7.3
LOS	Е	С	D	Е		D		А	D		A
Approach Delay		33.7		57.7			8.3			39.6	
Approach LOS		С		Е			А			D	
Queue Length 50th (m)	44.4	148.2	20.6	~233.0		3.3		0.0	76.1		0.0
Queue Length 95th (m)	65.7	#227.0	m23.4	m#280.1		8.8		10.9	90.1		20.9
Internal Link Dist (m)		407.4		292.9			330.1			165.5	
Turn Bay Length (m)	150.0		55.0					40.0	120.0		120.0
Base Capacity (vph)	296	1858	255	1612		374		475	1111		701
Starvation Cap Reductn	0	0	0	0		0		0	0		0
Spillback Cap Reductn	0	0	0	0		0		0	0		0
Storage Cap Reductn	0	0	0	0		0		0	0		0
Reduced v/c Ratio	0.60	0.75	0.32	1.04		0.04		0.30	0.55		0.41
Intersection Summary											
Area Type:	Other										
Cycle Length: 130											
Actuated Cycle Length: 130)										
Offset: 1 (1%), Referenced	to phase 2	:EBT and	6:WBT, Start of C	Green							
Natural Cycle: 145											
Control Type: Actuated-Coo	ordinated										
Maximum v/c Ratio: 1.04											
Intersection Signal Delay: 4	3.6			ntersectio	n LOS: D						
Intersection Capacity Utiliza	ation 93.8%	5		CU Level	of Service	F					
Analysis Period (min) 15											
~ Volume exceeds capac	ity, queue i	s theoretic	ally infinite.								
Queue shown is maximu	um after tw	o cycles.									
# 95th percentile volume	exceeds ca	apacity, qu	eue may be long	er.							
Queue shown is maximu	um after tw	o cycles.									
m Volume for 95th percer	ntile queue	is metered	d by upstream sig	nal.							

Splits and Phases: 1: Airport Parkway & Hunt Club Road

√ Ø1	 ₩02 (R)		AL _{Ø3}	*\/@4	
28 s	53 s		30 s	19 s	
✓ Ø2	← Ø6 (R)		Ø8		
28 s	53 s		49 s		

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2031 PM Phase 1 Horizon Year

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ሻሻ	^			ľ	<u></u>	1	ኘ	1	1	۲
Traffic Volume (vph)	33	268	1461	244	28	37	1329	88	141	107	75	101
Future Volume (vph)	33	268	1461	244	28	37	1329	88	141	107	75	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			1.00		0.93	0.93		0.96	0.98
Frt			0.979					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3509	4831	0	0	1825	3544	1617	3404	1921	1617	1807
Flt Permitted		0.169				0.203			0.950			0.950
Satd. Flow (perm)	0	617	4831	0	0	388	3544	1511	3176	1921	1556	1768
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			28					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		35		25		25		35	44		22	22
Confl. Bikes (#/hr)				1							1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	5%	5%	0%	0%	3%	1%	4%	0%	1%	1%
Adj. Flow (vph)	33	268	1461	244	28	37	1329	88	141	107	75	101
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	301	1705	0	0	65	1329	88	141	107	75	101
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	18.0	18.0	54.0		18.0	18.0	54.0	54.0	17.0	41.0	41.0	17.0
Total Split (%)	13.8%	13.8%	41.5%		13.8%	13.8%	41.5%	41.5%	13.1%	31.5%	31.5%	13.1%
Maximum Green (s)	11.5	11.5	47.8		11.5	11.5	47.8	47.8	10.5	34.0	34.0	10.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max		None	None	C-Max	C-Max	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		23.6	51.7			19.7	47.8	47.8	9.7	22.3	22.3	10.0
Actuated g/C Ratio		0.18	0.40			0.15	0.37	0.37	0.07	0.17	0.17	0.08

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Lane Group	SBT	SBR
Lane [®] onfigurations	↑	1
Traffic Volume (vph)	162	316
Future Volume (vph)	162	316
Ideal Flow (vphpl)	1900	1900
Storage Length (m)		0.0
Storage Lanes		1
Taper Length (m)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		0.94
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1902	1617
Flt Permitted		
Satd. Flow (perm)	1902	1517
Right Turn on Red	,	Yes
Satd. Flow (RTOR)		137
Link Speed (k/h)	50	
Link Distance (m)	209.8	
Travel Time (s)	15.1	
Confl. Peds. (#/hr)	10.1	44
Confl. Bikes (#/hr)		
Peak Hour Factor	1 00	1 00
Heavy Vehicles (%)	1%	1%
Adi Flow (vph)	162	316
Shared Lane Traffic (%)	102	510
Lane Group Flow (uph)	160	216
	102	Dorm
Protected Phases	INA A	Feiiii
Protected Phases	4	4
		4
Delector Phase	4	4
Switch Phase	10.0	10.0
Minimum Initial (s)	10.0	10.0
IVIINIMUM Split (s)	41.0	41.0
Total Split (s)	41.0	41.0
i otal Split (%)	31.5%	31.5%
Maximum Green (s)	34.0	34.0
Yellow Time (s)	3.3	3.3
All-Red Time (s)	3.7	3.7
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.0	7.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	27.0	27.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	22.6	22.6
Actuated g/C Ratio	0.17	0.17
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2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2031 PM Phase 1 Horizon Year

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		2.69	0.88			1.12	1.02	0.14	0.56	0.33	0.20	0.73
Control Delay		802.0	37.6			203.9	70.7	0.9	66.5	47.3	1.2	87.8
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		802.0	37.6			203.9	70.7	0.9	66.5	47.3	1.2	87.8
LOS		F	D			F	Е	А	Е	D	А	F
Approach Delay			152.3				72.4			45.0		
Approach LOS			F				Е			D		
Queue Length 50th (m)		~70.0	147.9			16.8	~189.7	0.0	18.1	24.2	0.0	25.6
Queue Length 95th (m)	r	n#106.1	#182.2			#55.8	#232.3	1.5	29.0	37.1	0.0	#51.5
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		112	1939			58	1303	646	274	502	508	144
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		2.69	0.88			1.12	1.02	0.14	0.51	0.21	0.15	0.70
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced t	to phase 2	:EBT and	6:WBT, \$	Start of G	reen							
Natural Cycle: 125												
Control Type: Actuated-Coo	ordinated											
Maximum v/c Ratio: 2.69												
Intersection Signal Delay: 10	04.7			Ir	ntersectio	n LOS: F						
Intersection Capacity Utiliza	tion 98.5%)		10	CU Level	of Servic	e F					
Analysis Period (min) 15												
 Volume exceeds capacity 	ty, queue i	s theoret	cally infin	ite.								
Queue shown is maximu	m after two	o cycles.										
# 95th percentile volume e	exceeds ca	pacity, q	ueue may	be longe	er.							
Queue shown is maximu	m after two	o cycles.										
m Volume for 95th percen	Nolume for 95th percentile queue is metered by upstream signal.											

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

opino una i nases.	2. Bhaic Fair Bhyc/Baze Offeet a Hair Oldo Hoda		
₩ø1	→Ø2 (R)	Ø 3	
18 s	54 s	17 s	41 s
≯ ø₅	 Ø6 (R)	Ø7	Ø8
18 s	54 s	17 s	41 s

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2031 PM Phase 1 Horizon Year

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Lane Group	SBT	SBR
v/c Ratio	0.49	0.84
Control Delay	51.6	47.5
Queue Delay	0.0	0.0
Total Delay	51.6	47.5
LOS	D	D
Approach Delay	55.7	
Approach LOS	Е	
Queue Length 50th (m)	37.7	46.0
Queue Length 95th (m)	53.4	72.9
Internal Link Dist (m)	185.8	
Turn Bay Length (m)		
Base Capacity (vph)	497	497
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.33	0.64
Intersection Summary		

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations		ካካ	- † †	1		ሻ	- † †	1	ካካ	- † †	1	
Traffic Volume (vph)	4	160	951	378	1	49	854	188	344	545	58	1
Future Volume (vph)	4	160	951	378	1	49	854	188	344	545	58	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		95.0		0.0		60.0		100.0	60.0		60.0	
Storage Lanes		2		1		1		1	2		1	
Taper Length (m)		2.5				2.5			2.5			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	1.00	0.95
Ped Bike Factor		1.00		0.96		0.99		0.98	0.97		0.96	
Frt				0.850				0.850			0.850	
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	3314	3510	1601	0	1756	3579	1617	3506	3579	1601	0
Flt Permitted		0.381				0.667			0.950			
Satd. Flow (perm)	0	1326	3510	1532	0	1225	3579	1583	3403	3579	1535	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				277				188			157	
Link Speed (k/h)			60				60			60		
Link Distance (m)			152.6				161.6			179.7		
Travel Time (s)			9.2				9.7			10.8		
Confl. Peds. (#/hr)		4		21		21		4	55		22	
Confl. Bikes (#/hr)				5				4			2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	7%	4%	2%	0%	4%	2%	1%	1%	2%	2%	0%
Adj. Flow (vph)	4	160	951	378	1	49	854	188	344	545	58	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	164	951	378	0	50	854	188	344	545	58	0
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Perm	Prot	NA	Perm	custom
Protected Phases		7	4			3	8		5	2		
Permitted Phases	7			4	3			8			2	1
Detector Phase	7	7	4	4	3	3	8	8	5	2	2	1
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	33.7	33.7	11.5	11.5	33.7	33.7	12.1	34.5	34.5	12.1
Total Split (s)	17.0	17.0	41.0	41.0	14.0	14.0	38.0	38.0	19.0	46.0	46.0	19.0
Total Split (%)	14.2%	14.2%	34.2%	34.2%	11.7%	11.7%	31.7%	31.7%	15.8%	38.3%	38.3%	15.8%
Maximum Green (s)	10.5	10.5	34.3	34.3	7.5	7.5	31.3	31.3	11.9	39.5	39.5	11.9
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.8	2.8	3.0	3.0	2.8	2.8	3.0	3.0	3.4	2.8	2.8	3.4
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.5	6.7	6.7		6.5	6.7	6.7	7.1	6.5	6.5	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	None	None	Max	Max	None	C-Max	C-Max	None
Walk Time (s)			7.0	7.0			7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			20.0	20.0			20.0	20.0		21.0	21.0	
Pedestrian Calls (#/hr)			0	0			0	0		0	0	
Act Effct Green (s)		10.5	37.1	37.1		7.5	31.3	31.3	11.9	39.5	39.5	
Actuated g/C Ratio		0.09	0.31	0.31		0.06	0.26	0.26	0.10	0.33	0.33	

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Lane Group	SBL	SBT	SBR
Lane Configurations	ካካ	<u>†</u> †	7
Traffic Volume (vph)	234	1005	232
Future Volume (vph)	234	1005	232
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (m)	30.0		120.0
Storage Lanes	2		1
Taper Length (m)	2.5		
Lane Util. Factor	0.97	0.95	1.00
Ped Bike Factor	0.98		0.92
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3506	3579	1555
Flt Permitted	0.336		
Satd. Flow (perm)	1218	3579	1425
Right Turn on Red			Yes
Satd. Flow (RTOR)			157
Link Speed (k/h)		60	
Link Distance (m)		141.8	
Travel Time (s)		8.5	
Confl. Peds. (#/hr)	22	0.0	55
Confl Bikes (#/hr)	LL		4
Peak Hour Factor	1 00	1.00	1 00
Heavy Vehicles (%)	1%	20%	5%
Adi Elow (vph)	1 /0	1005	0/0
Auj. Flow (vpi) Sharad Lana Traffia (%)	204	1005	232
Lano Group Flow (upb)	005	1005	000
	Z00	1003	ZJZ Dorm
		NA C	Ferm
Protected Phases	1	6	^
Permitted Phases		-	6
Detector Phase	1	6	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	12.1	34.5	34.5
Total Split (s)	19.0	46.0	46.0
Total Split (%)	15.8%	38.3%	38.3%
Maximum Green (s)	11.9	39.5	39.5
Yellow Time (s)	3.7	3.7	3.7
All-Red Time (s)	3.4	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	7.1	6.5	6.5
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max
Walk Time (s)		7.0	7.0
Flash Dont Walk (s)		21.0	21.0
Pedestrian Calls (#/hr)		0	0
Act Effct Green (s)	11.9	39.5	39.5
Actuated g/C Ratio	0.10	0.33	0.33

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
v/c Ratio		1.41	0.88	0.57		0.66	0.92	0.34	0.99	0.46	0.10	
Control Delay		269.1	50.5	13.7		92.7	58.4	6.7	100.4	33.4	0.3	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		269.1	50.5	13.7		92.7	58.4	6.7	100.4	33.4	0.3	
LOS		F	D	В		F	Е	А	F	С	А	
Approach Delay			65.2				51.1			55.7		
Approach LOS			Е				D			Е		
Queue Length 50th (m)		~26.7	115.5	18.2		11.7	103.0	0.0	42.3	53.2	0.0	
Queue Length 95th (m)		#48.7	#155.8	49.9		#31.7	#138.7	17.3	#72.2	69.4	0.0	
Internal Link Dist (m)			128.6				137.6			155.7		
Turn Bay Length (m)		95.0				60.0		100.0	60.0		60.0	
Base Capacity (vph)		116	1085	664		76	933	551	347	1178	610	
Starvation Cap Reductn		0	0	0		0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0		0	0	0	0	0	0	
Storage Cap Reductn		0	0	0		0	0	0	0	0	0	
Reduced v/c Ratio		1.41	0.88	0.57		0.66	0.92	0.34	0.99	0.46	0.10	
Intersection Summary												
Area Type: C	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 23 (19%), Referenced	d to phase	2:NBT a	nd 6:SBT	Start of	Green							
Natural Cycle: 105												
Control Type: Actuated-Coor	dinated											
Maximum v/c Ratio: 1.96												
Intersection Signal Delay: 72	.1			In	tersectior	n LOS: E						
Intersection Capacity Utilizati	ion 90.4%			IC	U Level o	of Servic	еE					
Analysis Period (min) 15												
~ Volume exceeds capacity	y, queue is	s theoreti	cally infini	te.								
Queue shown is maximum	n after two	o cycles.										
# 95th percentile volume ex	xceeds ca	pacity, q	ueue may	be longei	r.							
Queue shown is maximum	n after two	o cycles.										

Splits and Phases: 3: Bank Street & Hunt Club Road

Ø1	Ø2 (R)	✓ø₃	₩ Ø4
19 s	46 s	14 s	41 s
▲ ø5	Ø6 (R)	🖈 _{Ø7}	4 ⁴ Ø8
19 s	46 s	17 s	38 s

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Lane Group	SBL	SBT	SBR
v/c Ratio	1.96	0.85	0.40
Control Delay	488.9	37.1	11.3
Queue Delay	0.0	0.0	0.0
Total Delay	488.9	37.1	11.3
LOS	F	D	В
Approach Delay		105.2	
Approach LOS		F	
Queue Length 50th (m)	~45.5	51.6	3.6
Queue Length 95th (m)	#71.8	98.3	28.2
Internal Link Dist (m)		117.8	
Turn Bay Length (m)	30.0		120.0
Base Capacity (vph)	120	1178	574
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.96	0.85	0.40
Intersection Summary			

4: Bank Street & Dazé Street/Cahill Drive BG 2031 PM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		ب ا ا	1		÷	1		ľ	≜ î≽			5
Traffic Volume (vph)	160	1	132	82	0	101	2	158	666	92	4	146
Future Volume (vph)	160	1	132	82	0	101	2	158	666	92	4	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		40.0		45.0		0.0		70.0
Storage Lanes	0		1	0		1		1		0		1
Taper Length (m)	7.6			7.6				7.6				7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Ped Bike Factor		0.92	0.95		0.97	0.90			0.99			0.99
Frt			0.850			0.850			0.982			
Flt Protected		0.953			0.950			0.950				0.950
Satd. Flow (prot)	0	1813	1617	0	1659	1633	0	1825	3483	0	0	1807
Flt Permitted		0.668			0.548			0.150				0.314
Satd. Flow (perm)	0	1172	1535	0	932	1471	0	288	3483	0	0	589
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			132			105			17			
Link Speed (k/h)		50			50				60			
Link Distance (m)		72.9			188.5				169.4			
Travel Time (s)		5.2			13.6				10.2			
Confl. Peds. (#/hr)	44		18	18		44		30		19		19
Confl. Bikes (#/hr)			4			1				2		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	0%	1%	10%	0%	0%	0%	0%	2%	1%	0%	1%
Adj. Flow (vph)	160	1	132	82	0	101	2	158	666	92	4	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	132	0	82	101	0	160	758	0	0	150
Turn Type	Perm	NA	Perm	Perm	NA	Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases		4			8			5	2			1
Permitted Phases	4		4	8		8	5	2			1	6
Detector Phase	4	4	4	8	8	8	5	5	2		1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	5.0	10.0		5.0	5.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	11.3	34.3		11.3	11.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	17.0	17.0	61.0		17.0	17.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	14.2%	14.2%	50.8%		14.2%	14.2%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	10.7	10.7	54.7		10.7	10.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7		3.7	3.7
All-Red Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6	2.6		2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1		6.3	6.3			6.3
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	C-Max		None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0			7.0			
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0			11.0			
Pedestrian Calls (#/hr)	0	0	0	0	0	0			0			
Act Effct Green (s)		21.7	21.7		21.7	21.7		74.8	65.6			74.4
Actuated g/C Ratio		0.18	0.18		0.18	0.18		0.62	0.55			0.62

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Lane Group	SBT	SBR	Ø3	Ø7
Lane C onfigurations	<u></u>	7		
Traffic Volume (vph)	1202	318		
Future Volume (vph)	1202	318		
Ideal Flow (vphpl)	1900	1900		
Storage Length (m)		75.0		
Storage Lanes		0		
Taper Length (m)				
Lane Util. Factor	0.95	1.00		
Ped Bike Factor		0.93		
Frt		0.850		
Flt Protected				
Satd. Flow (prot)	3579	1633		
Flt Permitted				
Satd. Flow (perm)	3579	1514		
Right Turn on Red		Yes		
Satd. Flow (RTOR)		305		
Link Speed (k/h)	60			
Link Distance (m)	264.5			
Travel Time (s)	15.9			
Confl. Peds. (#/hr)		30		
Confl. Bikes (#/hr)		5		
Peak Hour Factor	1.00	1.00		
Heavy Vehicles (%)	2%	0%		
Adi, Flow (vph)	1202	318		
Shared Lane Traffic (%)		5.0		
Lane Group Flow (vph)	1202	318		
Turn Type	NA	Perm		
Protected Phases	6		3	7
Permitted Phases	- 0	6	Ū	,
Detector Phase	6	6		
Switch Phase	0	0		
Minimum Initial (a)	10.0	10.0	3.0	3.0
Minimum Colit (c)	10.0	10.0	3.U	3.0 E 0
Total Split (s)	34.3	34.3	5.0	5.0
Total Split (S)	61.0	61.0	5.0	5.0
Total Split (%)	50.8%	50.8%	4%	4%
Maximum Green (s)	54.7	54.7	3.0	3.0
Yellow Lime (s)	3.7	3.7	2.0	2.0
All-Red Lime (s)	2.6	2.6	0.0	0.0
Lost Time Adjust (s)	0.0	0.0		
Total Lost Time (s)	6.3	6.3		
Lead/Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	Max	Max
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	11.0	11.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)	65.4	65.4		
Actuated g/C Ratio	0.54	0.54		

4: Bank Street & Dazé Street/Cahill Drive BG 2031 PM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
v/c Ratio		0.76	0.34		0.49	0.29		0.54	0.40			0.33
Control Delay		68.0	8.7		52.2	8.6		28.6	14.1			10.3
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Delay		68.0	8.7		52.2	8.6		28.6	14.1			10.3
LOS		Е	А		D	А		С	В			В
Approach Delay		41.3			28.1				16.6			
Approach LOS		D			С				В			
Queue Length 50th (m)		36.4	0.0		17.5	0.0		23.4	37.5			11.5
Queue Length 95th (m)		55.5	14.9		31.0	12.6		m40.3	m47.4			23.8
Internal Link Dist (m)		48.9			164.5				145.4			
Turn Bay Length (m)						40.0		45.0				70.0
Base Capacity (vph)		301	493		239	456		322	1912			483
Starvation Cap Reductn		0	0		0	0		0	0			0
Spillback Cap Reductn		0	0		0	0		0	0			0
Storage Cap Reductn		0	0		0	0		0	0			0
Reduced v/c Ratio		0.53	0.27		0.34	0.22		0.50	0.40			0.31
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 12	0											
Offset: 14 (12%), Reference	ed to phase	2:NBTL a	and 6:SB	TL, Start	of Green							
Natural Cycle: 90												
Control Type: Actuated-Co	ordinated											
Maximum v/c Ratio: 0.76												
Intersection Signal Delay:	20.1			In	tersectior	LOS: C						
Intersection Capacity Utiliz	ation 88.4%			IC	U Level o	of Service	Е					
Analysis Period (min) 15												
m Valuma for OEth serves	ntile queue :	a matarra										

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

M _{Ø1}	Ø2 (R)	.	e ↔ Ø4
17 s	61s	5 s	37 s
🔊 Ø5	Ø6 (R)	.	Ø8
17 s	61s	5 s	37 s

4: Bank Street & Dazé Street/Cahill Drive BG 2031 PM Phase 1 Horizon Year

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Lane Group	SBT	SBR	Ø3	Ø7
v/c Ratio	0.62	0.33		
Control Delay	21.9	3.4		
Queue Delay	0.0	0.0		
Total Delay	21.9	3.4		
LOS	С	А		
Approach Delay	17.3			
Approach LOS	В			
Queue Length 50th (m)	97.9	1.4		
Queue Length 95th (m)	145.1	17.2		
Internal Link Dist (m)	240.5			
Turn Bay Length (m)		75.0		
Base Capacity (vph)	1951	964		
Starvation Cap Reductn	0	0		
Spillback Cap Reductn	0	0		
Storage Cap Reductn	0	0		
Reduced v/c Ratio	0.62	0.33		
Intersection Summary				

5: Dazé Street & South Keys SC BG 2031 PM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ľ	el 🕴		ľ	el el		ľ	≜ î≽			ľ	↑ ĵ₀
Traffic Volume (vph)	85	3	221	2	4	13	195	199	18	1	21	287
Future Volume (vph)	85	3	221	2	4	13	195	199	18	1	21	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Storage Lanes	1		0	1		0	1		0		1	
Taper Length (m)	2.5			2.5			2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor	0.99	0.98		1.00	0.98		1.00	1.00			0.99	0.99
Frt		0.852			0.885			0.988				0.950
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1825	1608	0	1825	1673	0	1825	3564	0	0	1825	3404
Flt Permitted	0.746			0.389			0.445				0.616	
Satd. Flow (perm)	1421	1608	0	745	1673	0	853	3564	0	0	1174	3404
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		221			13			12				79
Link Speed (k/h)		30			30			50				50
Link Distance (m)		107.1			73.7			57.4				76.4
Travel Time (s)		12.9			8.8			4.1				5.5
Confl. Peds. (#/hr)	6		3	3		6	3		5		5	
Confl. Bikes (#/hr)			2						1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%
Adj. Flow (vph)	85	3	221	2	4	13	195	199	18	1	21	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	224	0	2	17	0	195	217	0	0	22	429
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		custom	pm+pt	NA
Protected Phases		4			8		5	2			1	6
Permitted Phases	4			8			2			1	6	
Detector Phase	4	4		8	8		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		5.0	5.0	10.0
Minimum Split (s)	28.1	28.1		28.1	28.1		10.9	32.9		10.9	10.9	32.9
Total Split (s)	36.1	36.1		36.1	36.1		35.0	58.0		15.9	15.9	38.9
Total Split (%)	32.8%	32.8%		32.8%	32.8%		31.8%	52.7%		14.5%	14.5%	35.4%
Maximum Green (s)	30.0	30.0		30.0	30.0		29.1	52.1		10.0	10.0	33.0
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	2.8	2.8		2.8	2.8		2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.1	6.1		6.1	6.1		5.9	5.9			5.9	5.9
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Max		None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0			15.0				15.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			12.0				12.0
Pedestrian Calls (#/hr)	0	0		0	0			0				0
Act Effct Green (s)	11.4	11.4		11.4	11.4		56.2	52.6			48.3	42.5
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.70	0.65			0.60	0.53

1

Lane Group	SBR
Traffic Volume (vph)	142
Future Volume (vph)	142
Ideal Flow (vphpl)	1900
Storage Length (m)	0.0
Storage Lanes	0
Taper Length (m)	
Lane Util. Factor	0.95
Ped Bike Factor	0.00
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	3
Confl. Bikes (#/hr)	
Peak Hour Factor	1.00
Heavy Vehicles (%)	1%
Adj. Flow (vph)	142
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	

Lanes, Volumes, Timings

Synchro 11 Report September 2021

5: Dazé Street & South Keys SC BG 2031 PM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	
v/c Ratio	0.42	0.54		0.02	0.07		0.28	0.09			0.03	0.23	
Control Delay	40.0	10.5		32.5	19.6		5.0	6.2			4.4	8.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0	
Total Delay	40.0	10.5		32.5	19.6		5.0	6.2			4.4	8.8	
LOS	D	В		С	В		А	А			А	A	
Approach Delay		18.6			21.0			5.6				8.6	
Approach LOS		В			С			А				A	
Queue Length 50th (m)	11.1	0.4		0.2	0.5		7.4	3.8			0.8	13.0	
Queue Length 95th (m)	27.1	19.3		2.3	6.2		16.3	12.9			2.9	24.6	
Internal Link Dist (m)		83.1			49.7			33.4				52.4	
Turn Bay Length (m)	40.0						70.0				40.0		
Base Capacity (vph)	535	743		280	638		958	2335			849	1836	
Starvation Cap Reductn	0	0		0	0		0	0			0	0	
Spillback Cap Reductn	0	0		0	0		0	0			0	0	
Storage Cap Reductn	0	0		0	0		0	0			0	0	
Reduced v/c Ratio	0.16	0.30		0.01	0.03		0.20	0.09			0.03	0.23	
Intersection Summary													
Area Type:	Other												
Cycle Length: 110													
Actuated Cycle Length: 80	.4												
Natural Cycle: 75													
Control Type: Semi Act-Un	coord												
Maximum v/c Ratio: 0.54													
Intersection Signal Delay:	10.4			In	Intersection LOS: B								
Intersection Capacity Utiliz	ation 62.8%			IC	U Level	of Service	В						
Analysis Period (min) 15													

Splits and Phases: 5: Dazé Street & South Keys SC

Mø1	1 ø2		<u>⊿</u> _{Ø4}
15.9 s	58 s		36.1s
▲ Ø5		Ø6	↓ Ø8
35 s		38.9 s	36.1 s

5: Dazé Street & South Keys SC BG 2031 PM Phase 1 Horizon Year

1

Lane Group	SBR			
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (m)				
Queue Length 95th (m)				
Internal Link Dist (m)				
Turn Bay Length (m)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				
Intersection Summary				

0

Intersection

Int Delay, s/veh

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		- 11	_ ≜ î≽	
Traffic Vol, veh/h	0	0	0	432	553	0
Future Vol, veh/h	0	0	0	432	553	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	432	553	0

Major/Minor	Minor2	M	ajor1	Ma	jor2	
Conflicting Flow All	-	277	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	726	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuve	r -	726	-	-	-	-
Mov Cap-2 Maneuve	r -	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBT EBI	Ln1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	А	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection

Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1	<u>ار</u>	^	∱î ≽	
Traffic Vol, veh/h	0	26	31	432	553	0
Future Vol, veh/h	0	26	31	432	553	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	26	31	432	553	0

Major/Minor	Minor2	I	Major1	Majo	or2		
Conflicting Flow All	-	277	553	0	-	0	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	6.9	4.1	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	3.3	2.2	-	-	-	
Pot Cap-1 Maneuver	0	726	1027	-	-	-	
Stage 1	0	-	-	-	-	-	
Stage 2	0	-	-	-	-	-	
Platoon blocked, %				-	-	-	
Mov Cap-1 Maneuver	· -	726	1027	-	-	-	
Mov Cap-2 Maneuver	· -	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.6	0
HCM LOS	В		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	1027	- 726	-	-
HCM Lane V/C Ratio	0.03	- 0.036	-	-
HCM Control Delay (s)	8.6	- 10.1	-	-
HCM Lane LOS	А	- B	-	-
HCM 95th %tile Q(veh)	0.1	- 0.1	-	-

Future (2041) Background Traffic

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ľ	≜1 ≱		ľ	tβ		ľ		1	ሻሻ		1	
Traffic Volume (vph)	373	1168	26	70	1032	648	16	0	89	272	0	159	
Future Volume (vph)	373	1168	26	70	1032	648	16	0	89	272	0	159	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0	
Storage Lanes	1		0	1		0	1		1	1		1	
Taper Length (m)	7.6			7.6			7.6			7.6			
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00	
Ped Bike Factor	1.00	1.00		1.00	0.99								
Frt		0.997			0.942				0.850			0.850	
Flt Protected	0.950			0.950			0.950			0.950			
Satd. Flow (prot)	1807	3436	0	1630	3185	0	1706	0	1458	3437	0	1570	
Flt Permitted	0.950			0.950			0.950			0.950			
Satd. Flow (perm)	1806	3436	0	1629	3185	0	1706	0	1458	3437	0	1570	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		2			113				164			159	
Link Speed (k/h)		60			60			80			80		
Link Distance (m)		431.4			316.9			354.1			189.5		
Travel Time (s)		25.9			19.0			15.9			8.5		
Confl. Peds. (#/hr)	7		2	2		7							
Confl. Bikes (#/hr)						1							
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Heavy Vehicles (%)	1%	6%	0%	12%	11%	1%	7%	0%	12%	3%	0%	4%	
Adj. Flow (vph)	373	1168	26	70	1032	648	16	0	89	272	0	159	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	373	1194	0	70	1680	0	16	0	89	272	0	159	
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm	
Protected Phases	5	2		1	6								
Permitted Phases							4		4	8		8	
Detector Phase	5	2		1	6		4		4	8		8	
Switch Phase													
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0	
Minimum Split (s)	12.4	47.3		12.4	47.3		17.8		17.8	22.5		22.5	
Total Split (s)	32.0	50.0		32.0	50.0		18.0		18.0	48.0		48.0	
Total Split (%)	24.6%	38.5%		24.6%	38.5%		13.8%		13.8%	36.9%		36.9%	
Maximum Green (s)	24.6	42.7		24.6	42.7		10.2		10.2	40.2		40.2	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7	
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0	
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8	
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag				
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes				
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0	
Recall Mode	None	C-Max		None	C-Max		None		None	None		None	
Walk Time (s)		31.0			31.0								
Flash Dont Walk (s)		9.0			9.0								
Pedestrian Calls (#/hr)		0			0								
Act Effct Green (s)	38.0	83.7		10.9	53.8		15.7		15.7	15.7		15.7	
Actuated g/C Ratio	0.29	0.64		0.08	0.41		0.12		0.12	0.12		0.12	

Lane Group	Ø3
LaneConfigurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

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Lane Group	EBL	EBT	EBR WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.71	0.54	0.51	1.21		0.08		0.28	0.66		0.48
Control Delay	49.7	15.4	49.2	131.3		49.8		2.2	62.1		12.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0
Total Delay	49.7	15.4	49.2	131.3		49.8		2.2	62.1		12.5
LOS	D	В	D	F		D		А	Е		В
Approach Delay		23.6		128.0			9.4			43.8	
Approach LOS		С		F			А			D	
Queue Length 50th (m)	86.7	87.5	17.3	~256.6		3.7		0.0	34.8		0.0
Queue Length 95th (m)	120.1	126.7	m22.7	m#306.1		10.4		0.0	47.5		19.0
Internal Link Dist (m)		407.4		292.9			330.1			165.5	
Turn Bay Length (m)	150.0		55.0					40.0	120.0		120.0
Base Capacity (vph)	528	2213	308	1383		205		320	1062		595
Starvation Cap Reductn	0	0	0	0		0		0	0		0
Spillback Cap Reductn	0	0	0	0		0		0	0		0
Storage Cap Reductn	0	0	0	0		0		0	0		0
Reduced v/c Ratio	0.71	0.54	0.23	1.21		0.08		0.28	0.26		0.27
Intersection Summary											
Area Type:	Other										
Cycle Length: 130											
Actuated Cycle Length: 130	0										
Offset: 1 (1%), Referenced	to phase 2:	EBT and	6:WBT, Start of G	Green							
Natural Cycle: 150											
Control Type: Actuated-Co	ordinated										
Maximum v/c Ratio: 1.21											
Intersection Signal Delay: 72.9					n LOS: E						
Intersection Capacity Utilization 97.3%					of Service	F					
Analysis Period (min) 15											
 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 maxim	um after two	o cycles.									
m Volume for 95th percer	ntile queue	is metered	d by upstream sig	nal.							

Splits and Phases: 1: Airport Parkway & Hunt Club Road

√ Ø1	• -•	102 (R)	H _{Ø3}	*/Ø4	
32 s	50 s		30 s	18 s	
▶ _{Ø5}	• • •	Ø6 (R)	Ø8		
32 s	50 s		48 s		

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	
2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2041 AM Master Plan Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ሻሻ	ተተቡ			ሻ	† †	1	ሻሻ	•	1	ሻ
Traffic Volume (vph)	19	163	1163	98	2	16	1274	75	200	108	67	30
Future Volume (vph)	19	163	1163	98	2	16	1274	75	200	108	67	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			0.99		0.96	0.94		0.99	1.00
Frt			0.988					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3478	4818	0	0	1515	3411	1601	3278	1902	1541	1772
Flt Permitted		0.140				0.833			0.950			0.950
Satd. Flow (perm)	0	510	4818	0	0	1320	3411	1543	3086	1902	1519	1768
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			12					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		15		18		18		15	32		2	2
Confl. Bikes (#/hr)				1				2				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	2%	7%	7%	0%	23%	7%	2%	8%	1%	6%	3%
Adj. Flow (vph)	19	163	1163	98	2	16	1274	75	200	108	67	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	182	1261	0	0	18	1274	75	200	108	67	30
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	15.0	15.0	52.0		15.0	15.0	52.0	52.0	22.0	41.0	41.0	22.0
Total Split (%)	11.5%	11.5%	40.0%		11.5%	11.5%	40.0%	40.0%	16.9%	31.5%	31.5%	16.9%
Maximum Green (s)	8.5	8.5	45.8		8.5	8.5	45.8	45.8	15.5	34.0	34.0	15.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min		None	None	C-Min	C-Min	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		28.5	79.1			8.9	51.5	51.5	12.9	21.0	21.0	7.7
Actuated g/C Ratio		0.22	0.61			0.07	0.40	0.40	0.10	0.16	0.16	0.06

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Lana Group	CRT	CBD
Lane vonigurations	Ť	[
Future Volume (vpn)	30	152
Future volume (vph)	30	152
Ideal Flow (vphpl)	1900	1900
Storage Length (m)		0.0
Storage Lanes		1
I aper Length (m)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		0.95
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1921	1601
Flt Permitted		
Satd. Flow (perm)	1921	1524
Right Turn on Red		Yes
Satd. Flow (RTOR)		137
Link Speed (k/h)	50	
Link Distance (m)	209.8	
Travel Time (s)	15.1	
Confl. Peds. (#/hr)		32
Confl. Bikes (#/hr)		
Peak Hour Factor	1.00	1.00
Heavy Vehicles (%)	0%	2%
Adj. Flow (vph)	30	152
Shared Lane Traffic (%)		
Lane Group Flow (vph)	30	152
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases	1	4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Snlit (s)	41 0	41.0
Total Solit (s)	41.0	41.0
Total Split (%)	31 50/	31 5%
Maximum Groon (c)	24.0	34.0
Vollow Time (s)	04.0	04.0
	0.3	3.3
	3./	3.7
Lost Time Adjust (S)	0.0	0.0
Total Lost Time (s)	/.0	7.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	27.0	27.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	10.9	10.9
Actuated g/C Ratio	0.08	0.08

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2041 AM Master Plan Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		1.64	0.43			0.20	0.94	0.11	0.62	0.35	0.19	0.29
Control Delay		357.4	11.3			60.6	52.0	0.3	64.3	53.6	1.1	64.7
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		357.4	11.3			60.6	52.0	0.3	64.3	53.6	1.1	64.7
LOS		F	В			Е	D	А	Е	D	А	E
Approach Delay			54.9				49.3			49.9		
Approach LOS			D				D			D		
Queue Length 50th (m)		~35.9	36.7			4.5	155.7	0.0	25.6	26.2	0.0	7.5
Queue Length 95th (m)		#61.5	49.5			12.1	#220.2	0.0	37.5	43.3	0.0	17.2
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		111	2935			100	1351	698	390	497	498	209
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		1.64	0.43			0.18	0.94	0.11	0.51	0.22	0.13	0.14
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced t	o phase 2:	EBT and	6:WBT, S	tart of G	reen							
Natural Cycle: 135												
Control Type: Actuated-Coo	rdinated											
Maximum v/c Ratio: 1.64												
Intersection Signal Delay: 50).8			Ir	ntersection	LOS: D)					
Intersection Capacity Utilization	tion 90.7%			IC	CU Level o	of Servic	еE					
Analysis Period (min) 15												
~ Volume exceeds capacit	ty, queue is	s theoretic	cally infinit	te.								
Queue shown is maximu	m after two	cycles.										
# 95th percentile volume e	exceeds ca	pacity, qu	eue may	be longe	r.							
Queue shown is maximu	m after two	o cycles.										

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

√ Ø1	> Ø2 (R)	▲ Ø3	♦ Ø4
15 s	52 s	22 s	41 s
≯ø5	 Ø6 (R)	Ø7	Ø8
15 s	52 s	22 s	41 s

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2041 AM Master Plan Build-out

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Lane Group	SBT	SBR
v/c Ratio	0.19	0.60
Control Delay	57.6	22.1
Queue Delay	0.0	0.0
Total Delay	57.6	22.1
LOS	E	С
Approach Delay	33.2	
Approach LOS	С	
Queue Length 50th (m)	7.3	3.7
Queue Length 95th (m)	16.6	24.1
Internal Link Dist (m)	185.8	
Turn Bay Length (m)		
Base Capacity (vph)	502	499
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.06	0.30
Intersection Summary		

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ሻሻ	<u></u>	1		<u> </u>	<u>^</u>	1	ሻሻ	<u>^</u>	1	ኘኘ	<u>^</u>
Traffic Volume (vph)	138	787	288	1	34	1048	209	312	1026	24	92	351
Future Volume (vph)	138	787	288	1	34	1048	209	312	1026	24	92	351
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	95.0		0.0		60.0		100.0	60.0		60.0	30.0	
Storage Lanes	2		1		1		1	2		1	2	
Taper Length (m)	2.5				2.5			2.5			2.5	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95
Ped Bike Factor	0.99		0.98		1.00		0.97	0.97		0.96	0.99	
Frt			0.850				0.850			0.850		
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	3190	3380	1570	0	1725	3411	1617	3372	3544	1633	3471	3444
Flt Permitted	0.950				0.769			0.950			0.950	
Satd. Flow (perm)	3173	3380	1533	0	1391	3411	1572	3261	3544	1569	3435	3444
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			288				279			216		
Link Speed (k/h)		60				60			60			60
Link Distance (m)		152.6				161.6			179.7			141.8
Travel Time (s)		9.2				9.7			10.8			8.5
Confl. Peds. (#/hr)	10		9		9		10	25		20	20	
Confl. Bikes (#/hr)							3			3		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	11%	8%	4%	0%	6%	7%	1%	5%	3%	0%	2%	6%
Adj. Flow (vph)	138	787	288	1	34	1048	209	312	1026	24	92	351
Shared Lane Traffic (%)												
Lane Group Flow (vph)	138	787	288	0	35	1048	209	312	1026	24	92	351
Turn Type	Prot	NA	Perm	custom	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4			3	8		5	2		1	6
Permitted Phases			4	3			8			2		
Detector Phase	7	4	4	3	3	8	8	5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.5	33.7	33.7	11.5	11.5	33.7	33.7	12.1	34.5	34.5	12.1	34.5
Total Split (s)	21.0	45.0	45.0	13.0	13.0	37.0	37.0	25.0	48.0	48.0	14.0	37.0
Total Split (%)	17.5%	37.5%	37.5%	10.8%	10.8%	30.8%	30.8%	20.8%	40.0%	40.0%	11.7%	30.8%
Maximum Green (s)	14.5	38.3	38.3	6.5	6.5	30.3	30.3	17.9	41.5	41.5	6.9	30.5
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.8	3.0	3.0	2.8	2.8	3.0	3.0	3.4	2.8	2.8	3.4	2.8
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)	6.5	6.7	6.7		6.5	6.7	6.7	7.1	6.5	6.5	7.1	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	None	Max	Max	None	C-Max	C-Max	None	C-Max
Walk Time (s)		7.0	7.0			7.0	7.0		7.0	7.0		7.0
Flash Dont Walk (s)		20.0	20.0			20.0	20.0		21.0	21.0		21.0
Pedestrian Calls (#/hr)		0	0			0	0		0	0		0
Act Effct Green (s)	10.5	40.9	40.9		6.4	34.3	34.3	15.7	41.6	41.6	6.8	32.7
Actuated g/C Ratio	0.09	0.34	0.34		0.05	0.29	0.29	0.13	0.35	0.35	0.06	0.27

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Lana Group	CDD
Laner Contigurations	7
Traffic Volume (vph)	162
Future Volume (vph)	162
Ideal Flow (vphpl)	1900
Storage Length (m)	120.0
Storage Lanes	1
Taper Length (m)	
Lane Util. Factor	1.00
Ped Bike Factor	0.96
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1458
Flt Permitted	
Satd. Flow (perm)	1395
Right Turn on Red	Yes
Satd. Flow (RTOR)	281
Link Speed (k/h)	201
Link Distance (m)	
Confl Pede (#/br)	25
Confl. Rikos (#/hr)	20
Dook Hour Easter	1.00
	1.00
neavy venicles (%)	12%
Adj. Flow (vpn)	162
Shared Lane Traffic (%)	
Lane Group Flow (vph)	162
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	34.5
Total Split (s)	37.0
Total Split (%)	30.8%
Maximum Green (s)	30.5
Yellow Time (s)	3.7
All-Red Time (s)	2.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.5
Lead/Lag	Lan
Lead-Lag Optimize?	Ves
Vehicle Extension (s)	3 0
	C May
walk Tille (S)	0.1
Flash Dont Walk (s)	21.0
Pedestrian Galls (#/hr)	0
Act Effet Green (s)	32.7
Actuated g/C Ratio	0.27

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
v/c Ratio	0.49	0.68	0.40		0.47	1.08	0.32	0.71	0.83	0.04	0.47	0.37
Control Delay	57.9	38.5	5.2		76.3	92.7	2.3	58.9	43.3	0.1	67.4	29.0
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	57.9	38.5	5.2		76.3	92.7	2.3	58.9	43.3	0.1	67.4	29.0
LOS	Е	D	А		Е	F	А	Е	D	А	Е	С
Approach Delay		32.8				77.6			46.1			27.4
Approach LOS		С				Е			D			С
Queue Length 50th (m)	16.2	86.2	0.0		8.2	~144.5	0.0	36.5	116.3	0.0	11.4	23.6
Queue Length 95th (m)	25.8	108.8	18.8		#20.3	#196.3	4.6	50.6	143.2	0.0	19.7	31.9
Internal Link Dist (m)		128.6				137.6			155.7			117.8
Turn Bay Length (m)	95.0				60.0		100.0	60.0		60.0	30.0	
Base Capacity (vph)	385	1151	712		75	974	648	502	1229	684	199	937
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	0.36	0.68	0.40		0.47	1.08	0.32	0.62	0.83	0.04	0.46	0.37
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 120)											
Offset: 65 (54%), Reference	ed to phase	2:NBT ar	nd 6:SBT	, Start of G	ireen							
Natural Cycle: 95												
Control Type: Actuated-Coc	ordinated											
Maximum v/c Ratio: 1.08												
Intersection Signal Delay: 4	9.1			Inte	ersectio	n LOS: D						
Intersection Capacity Utiliza	ation 88.0%			ICL	J Level	of Service	еE					
Analysis Period (min) 15												
~ Volume exceeds capaci	ity, queue is	s theoretic	ally infini	te.								
Queue shown is maximu	um after two	o cycles.										
# 95th percentile volume e	exceeds ca	pacity, qu	eue may	be longer.								
Queue shown is maximu	um after two	o cycles.										

Splits and Phases: 3: Bank Street & Hunt Club Road



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Lane Group	SBR
v/c Ratio	0.28
Control Delay	1.2
Queue Delay	0.0
Total Delay	1.2
LOS	А
Approach Delay	
Approach LOS	
Queue Length 50th (m)	0.1
Queue Length 95th (m)	0.2
Internal Link Dist (m)	
Turn Bay Length (m)	120.0
Base Capacity (vph)	584
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.28
Interpretion Summory	

4: Bank Street & Dazé Street/Cahill Drive BG 2041 AM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations		र्च	1		र्स	1	<u>۲</u>	∱ β			5	<u></u>
Traffic Volume (vph)	122	0	33	73	0	148	90	1021	51	3	17	440
Future Volume (vph)	122	0	33	73	0	148	90	1021	51	3	17	440
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		40.0	45.0		0.0		70.0	
Storage Lanes	0		1	0		1	1		0		1	
Taper Length (m)	7.6			7.6			7.6				7.6	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor		0.97	0.97		0.98	0.95	1.00	1.00			1.00	
Frt			0.850			0.850		0.993				
Flt Protected		0.950			0.950		0.950				0.950	
Satd. Flow (prot)	0	1772	1570	0	1738	1585	1807	3421	0	0	1825	3349
Flt Permitted		0.709			0.623		0.452				0.267	
Satd. Flow (perm)	0	1277	1521	0	1121	1505	856	3421	0	0	512	3349
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			105			148		7				
Link Speed (k/h)		50			50			60				60
Link Distance (m)		72.9			188.5			169.4				264.5
Travel Time (s)		5.2			13.6			10.2				15.9
Confl. Peds. (#/hr)	19		10	10		19	6		3		3	
Confl. Bikes (#/hr)						2			1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	0%	4%	5%	0%	3%	1%	6%	2%	0%	0%	9%
Adj. Flow (vph)	122	0	33	73	0	148	90	1021	51	3	17	440
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	33	0	73	148	90	1072	0	0	20	440
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	Perm	NA
Protected Phases		4			8		5	2				6
Permitted Phases	4		4	8		8	2			6	6	
Detector Phase	4	4	4	8	8	8	5	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	34.3		34.3	34.3	34.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	14.0	78.0		64.0	64.0	64.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	11.7%	65.0%		53.3%	53.3%	53.3%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	7.7	71.7		57.7	57.7	57.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1	6.3	6.3			6.3	6.3
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0		0	0	0
Act Effct Green (s)		16.9	16.9		16.9	16.9	85.7	85.7			72.0	72.0
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.71	0.71			0.60	0.60

Lanes, Volumes, Timings

Synchro 11 Report September 2021

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Lane Group	SBR	Ø3	Ø7
	1		
Traffic Volume (vph)	117		
Future Volume (vph)	117		
Ideal Flow (vohol)	1900		
Storage Length (m)	75.0		
Storage Lanes	, 0.0		
Taper Length (m)	U		
Lane Litil, Factor	1.00		
Ped Bike Factor	0 08		
Frt	0.90		
Elt Protectod	0.000		
Sate Flow (prot)	1400		
Salu. Flow (prol)	1498		
	1400		
Said. Flow (perm)	1463		
Right Turn on Red	Yes		
Satd. Flow (RTOR)	117		
Link Speed (k/h)			
Link Distance (m)			
Travel Time (s)			
Confl. Peds. (#/hr)	6		
Confl. Bikes (#/hr)			
Peak Hour Factor	1.00		
Heavy Vehicles (%)	9%		
Adj. Flow (vph)	117		
Shared Lane Traffic (%)			
Lane Group Flow (vph)	117		
Turn Type	Perm		
Protected Phases		3	7
Permitted Phases	6		
Detector Phase	6		
Switch Phase			
Minimum Initial (s)	10.0	3.0	3.0
Minimum Split (s)	34.3	5.0	5.0
Total Split (s)	64.0	5.0	5.0
Total Split (%)	53.3%	4%	4%
Maximum Green (s)	57.7	3.0	3.0
Yellow Time (s)	3.7	2.0	2.0
All-Red Time (s)	2.6	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.3		
	0.0	beal	Lead
Lead Lag Optimize?	Lay	Voc	Voc
Vehicle Extension (a)	20	2.0	20
	3.0	3.0	3.0
	C-Max	Max	Max
vvaik Time (s)	/.0		
Flash Dont Walk (s)	11.0		
Pedestrian Calls (#/hr)	0		
Act Effct Green (s)	72.0		
Actuated g/C Ratio	0.60		

4: Bank Street & Dazé Street/Cahill Drive BG 2041 AM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio		0.68	0.11		0.46	0.44	0.13	0.44			0.07	0.22
Control Delay		67.0	0.7		55.5	10.8	5.8	6.0			13.2	12.3
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		67.0	0.7		55.5	10.8	5.8	6.0			13.2	12.3
LOS		Е	А		Е	В	А	А			В	В
Approach Delay		52.9			25.6			6.0				10.4
Approach LOS		D			С			А				В
Queue Length 50th (m)		27.7	0.0		16.0	0.0	4.0	25.9			1.8	23.4
Queue Length 95th (m)		45.1	0.0		29.2	16.9	m8.2	45.2			6.5	38.7
Internal Link Dist (m)		48.9			164.5			145.4				240.5
Turn Bay Length (m)						40.0	45.0				70.0	
Base Capacity (vph)		328	469		288	497	675	2445			307	2009
Starvation Cap Reductn		0	0		0	0	0	0			0	0
Spillback Cap Reductn		0	0		0	0	0	0			0	0
Storage Cap Reductn		0	0		0	0	0	0			0	0
Reduced v/c Ratio		0.37	0.07		0.25	0.30	0.13	0.44			0.07	0.22
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 57 (48%), Reference	ed to phase	2:NBTL a	and 6:SB	TL, Start	of Green							
Natural Cycle: 90												
Control Type: Actuated-Coc	ordinated											
Maximum v/c Ratio: 0.68												
Intersection Signal Delay: 1	2.7			In	tersectior	n LOS: B						
Intersection Capacity Utiliza	tion 82.0%			IC	U Level o	of Service	D					
Analysis Period (min) 15												
	41				- 1							

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

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78 s	5 s 37 s
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14s 64s	5 s 37 s

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Lane Group	SBR	Ø3	Ø7
v/c Ratio	0.13		
Control Delay	2.8		
Queue Delay	0.0		
Total Delay	2.8		
LOS	А		
Approach Delay			
Approach LOS			
Queue Length 50th (m)	0.0		
Queue Length 95th (m)	8.7		
Internal Link Dist (m)			
Turn Bay Length (m)	75.0		
Base Capacity (vph)	924		
Starvation Cap Reductn	0		
Spillback Cap Reductn	0		
Storage Cap Reductn	0		
Reduced v/c Ratio	0.13		
Intersection Summary			

5: Dazé Street & South Keys SC BG 2041 AM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	<u>۲</u>	eî 👘		٦	eî 👘		ሻ	≜ î≽			1	≜1 }
Traffic Volume (vph)	35	1	83	5	2	7	115	233	3	2	4	154
Future Volume (vph)	35	1	83	5	2	7	115	233	3	2	4	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Storage Lanes	1		0	1		0	1		0		1	
Taper Length (m)	2.5			2.5			2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor	1.00	0.99		1.00	0.99			1.00				
Frt		0.852			0.883			0.998				0.945
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1722	1566	0	1521	1678	0	1807	3571	0	0	1825	3373
Flt Permitted	0.752			0.702			0.546				0.605	
Satd. Flow (perm)	1360	1566	0	1123	1678	0	1039	3571	0	0	1162	3373
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		83			7			2				90
Link Speed (k/h)		30			30			50				50
Link Distance (m)		107.1			73.7			57.4				76.4
Travel Time (s)		12.9			8.8			4.1				5.5
Confl. Peds. (#/hr)	2		1	1		2						
Confl. Bikes (#/hr)									1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	6%	100%	2%	20%	0%	0%	1%	2%	0%	0%	0%	3%
Adj. Flow (vph)	35	1	83	5	2	7	115	233	3	2	4	154
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	84	0	5	9	0	115	236	0	0	6	244
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		custom	pm+pt	NA
Protected Phases		4			8		5	2			1	6
Permitted Phases	4			8			2			1	6	
Detector Phase	4	4		8	8		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		1.4	5.0		1.4	1.4	5.0
Minimum Split (s)	28.0	28.0		28.1	28.1		7.3	32.9		7.3	7.3	32.9
Total Split (s)	28.0	28.0		28.1	28.1		12.0	35.0		12.0	12.0	35.0
Total Split (%)	37.3%	37.3%		37.4%	37.4%		16.0%	46.6%		16.0%	16.0%	46.6%
Maximum Green (s)	22.0	22.0		22.0	22.0		6.1	29.1		6.1	6.1	29.1
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	2.7	2.7		2.8	2.8		2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.0	6.0		6.1	6.1		5.9	5.9			5.9	5.9
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Max		None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0			15.0				15.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			12.0				12.0
Pedestrian Calls (#/hr)	0	0		0	0			0				0
Act Effct Green (s)	7.1	7.1		7.0	7.0		41.0	41.2			37.1	34.2
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.70	0.71			0.64	0.59

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Late Configurations Traffic Volume (vph) 90 Future Volume (vph) 90 Ideal Flow (vphpl) 1900 Storage Length (m) 0.0 Storage Lanes 0 Taper Length (m) 1900 Lane Util. Factor 0.95 Ped Bike Factor Frt Fit Protected Satd. Flow (prot) 0 Satd. Flow (prot) 0 Right Turn on Red Yes Satd. Flow (prot) 0 Right Turn on Red Yes Satd. Flow (prot) 0 Travel Time (s) Confl. Peds. (#/hr) Confl. Peds. (#/hr) Confl. Rikes (#/hr) Peak Hour Factor 1.00 Heavy Vehicles (%) 1% Adj. Flow (vph) 90 Shared Lane Traffic (%) Lane Group Flow (vph) Lane Group Flow (vph) 0 Turn Type Protected Phases Permitted Phases Switch Phase Minimum Initial (s) Minimum Silit (s) Total Split (%) Total Split	Lane Group	SBR
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Lane Group Flow (vph)0Turn TypeProtected PhasesPermitted PhasesDetector PhaseSwitch PhaseMinimum Initial (s)Minimum Split (s)Total Split (s)Total Split (%)Maximum Green (s)Yellow Time (s)All-Red Time (s)Lost Time Adjust (s)Total Lost Time (s)Lead-LagLead-Lag Optimize?Vehicle Extension (s)Recall ModeWalk Time (s)Flash Dont Walk (s)Pedestrian Calls (#/hr)Act Effct Green (s)Actuated g/C Ratio	Shared Lane Traffic (%)	
Turn Type Protected Phases Permitted Phases Detector Phase Switch Phase Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Lane Group Flow (vph)	0
Protected Phases Permitted Phases Detector Phase Switch Phase Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Turn Type	
Permitted Phases Detector Phase Switch Phase Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Protected Phases	
Detector Phase Switch Phase Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Permitted Phases	
Switch Phase Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Detector Phase	
Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Switch Phase	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Minimum Initial (s)	
Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Minimum Split (s)	
Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Total Split (s)	
Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Total Split (%)	
Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Maximum Green (s)	
All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Yellow Time (s)	
Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	All-Red Time (s)	
Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Lost Time Adjust (s)	
Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Total Lost Time (s)	
Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Lead/Lag	
Vehicle Extension (s) Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Lead-Lag Optimize?	
Recall Mode Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Vehicle Extension (s)	
Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Recall Mode	
Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Walk Time (s)	
Pedestrian Calls (#/hr) Act Effct Green (s) Actuated g/C Ratio	Flash Dont Walk (s)	
Act Effct Green (s) Actuated g/C Ratio	Pedestrian Calls (#/hr)	
Actuated g/C Ratio	Act Effct Green (s)	
-	Actuated g/C Ratio	

Lanes, Volumes, Timings

Synchro 11 Report September 2021

5: Dazé Street & South Keys SC BG 2041 AM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio	0.21	0.32		0.04	0.04		0.14	0.09			0.01	0.12
Control Delay	27.1	10.5		23.8	16.4		4.1	5.2			3.8	5.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	27.1	10.5		23.8	16.4		4.1	5.2			3.8	5.9
LOS	С	В		С	В		А	А			А	A
Approach Delay		15.3			19.1			4.8				5.8
Approach LOS		В			В			А				A
Queue Length 50th (m)	3.6	0.1		0.5	0.2		3.3	3.5			0.2	4.4
Queue Length 95th (m)	10.5	10.2		3.1	3.6		8.2	12.8			1.1	10.1
Internal Link Dist (m)		83.1			49.7			33.4				52.4
Turn Bay Length (m)	40.0						70.0				40.0	
Base Capacity (vph)	517	647		425	640		810	2521			815	2009
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.07	0.13		0.01	0.01		0.14	0.09			0.01	0.12
Intersection Summary												
Area Type:	Other											
Cycle Length: 75.1												
Actuated Cycle Length: 58	3.4											
Natural Cycle: 70												
Control Type: Semi Act-U	ncoord											
Maximum v/c Ratio: 0.32												
Intersection Signal Delay:	7.1			In	tersectior	n LOS: A						
Intersection Capacity Utili	zation 37.3%			IC	U Level o	of Service	А					
Analysis Period (min) 15												

Splits and Phases: 5: Dazé Street & South Keys SC

M _{Ø1}	↑ø₂	<u>→</u> ₀₄	
12 s	35 s	28 s	
▲ ø5	Ø6	Ø8	
12 s	35 s	28.1 s	

1

Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

0

Intersection

Int Delay, s/veh

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		- 11	_ ≜ î≽	
Traffic Vol, veh/h	0	0	0	351	242	0
Future Vol, veh/h	0	0	0	351	242	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	351	242	0

Major/Minor	Minor2	Μ	ajor1	Ma	jor2				
Conflicting Flow All	-	121	-	0	-	0			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			
Critical Hdwy	-	6.9	-	-	-	-			
Critical Hdwy Stg 1	-	-	-	-	-	-			
Critical Hdwy Stg 2	-	-	-	-	-	-			
Follow-up Hdwy	-	3.3	-	-	-	-			
Pot Cap-1 Maneuver	0	914	0	-	-	-			
Stage 1	0	-	0	-	-	-			
Stage 2	0	-	0	-	-	-			
Platoon blocked, %				-	-	-			
Mov Cap-1 Maneuve	r -	914	-	-	-	-			
Mov Cap-2 Maneuver	r -	-	-	-	-	-			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	Α		

Minor Lane/Major Mvmt	NBT EBI	_n1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	А	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection

Int Delay, s/veh

Int Delay, s/veh	0.1						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations		1	<u>آ</u>	^	∱ î≽		
Traffic Vol, veh/h	0	6	6	351	242	0	1
Future Vol, veh/h	0	6	6	351	242	0)
Conflicting Peds, #/hr	0	0	0	0	0	0)
Sign Control	Stop	Stop	Free	Free	Free	Free	•
RT Channelized	-	None	-	None	-	None	•
Storage Length	-	0	150	-	-	-	
Veh in Median Storage	e, # 0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	100	100	100	100	100	100	
Heavy Vehicles, %	0	0	0	0	0	0	
Mvmt Flow	0	6	6	351	242	0	

Major/Minor	Minor2	I	Major1	Majo	or2					
Conflicting Flow All	-	121	242	0	-	0				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				
Critical Hdwy	-	6.9	4.1	-	-	-				
Critical Hdwy Stg 1	-	-	-	-	-	-				
Critical Hdwy Stg 2	-	-	-	-	-	-				
Follow-up Hdwy	-	3.3	2.2	-	-	-				
Pot Cap-1 Maneuver	0	914	1336	-	-	-				
Stage 1	0	-	-	-	-	-				
Stage 2	0	-	-	-	-	-				
Platoon blocked, %				-	-	-				
Mov Cap-1 Maneuver	r –	914	1336	-	-	-				
Mov Cap-2 Maneuver	r –	-	-	-	-	-				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				

Approach	EB	NB	SB
HCM Control Delay, s	9	0.1	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBL	NBT EE	3Ln1	SBT	SBR
Capacity (veh/h)	1336	-	914	-	-
HCM Lane V/C Ratio	0.004	- 0	.007	-	-
HCM Control Delay (s)	7.7	-	9	-	-
HCM Lane LOS	А	-	Α	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u> </u>	≜ 1,		<u> </u>	A1⊅		7		1	ሻሻ		1
Traffic Volume (vph)	188	1426	34	85	1389	358	16	0	147	636	0	302
Future Volume (vph)	188	1426	34	85	1389	358	16	0	147	636	0	302
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00		0.99					0.99
Frt		0.997			0.969				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3467	0	1615	3425	0	1706	0	1570	3506	0	1617
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3467	0	1613	3425	0	1688	0	1570	3506	0	1593
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			27				164			302
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		431.4			316.9			354.1			189.5	
Travel Time (s)		25.9			19.0			15.9			8.5	
Confl. Peds. (#/hr)	11		5	5		11	3					3
Confl. Bikes (#/hr)			1									
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	5%	0%	13%	3%	2%	7%	0%	4%	1%	0%	1%
Adj. Flow (vph)	188	1426	34	85	1389	358	16	0	147	636	0	302
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	1460	0	85	1747	0	16	0	147	636	0	302
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6							
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		4		4	8		8
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0
Minimum Split (s)	17.2	47.3		12.4	47.3		17.8		17.8	22.5		22.5
Total Split (s)	28.0	53.0		28.0	53.0		19.0		19.0	49.0		49.0
Total Split (%)	21.5%	40.8%		21.5%	40.8%		14.6%		14.6%	37.7%		37.7%
Maximum Green (s)	20.6	45.7		20.6	45.7		11.2		11.2	41.2		41.2
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	C-Max		None	C-Max		None		None	None		None
Walk Time (s)		31.0			31.0							
Flash Dont Walk (s)		9.0			9.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)	18.6	65.4		12.2	58.9		30.0		30.0	30.0		30.0
Actuated g/C Ratio	0.14	0.50		0.09	0.45		0.23		0.23	0.23		0.23

Lane Group	Ø3
LaneConfigurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

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Lane Group	EBL	EBT	EBR W	3L V	NBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.73	0.84	0.	56	1.12		0.04		0.30	0.79		0.50
Control Delay	68.9	34.5	53	8.8	88.7		36.4		5.5	54.2		7.1
Queue Delay	0.0	0.0	C	0.0	0.0		0.0		0.0	0.0		0.0
Total Delay	68.9	34.5	53	8.8	88.7		36.4		5.5	54.2		7.1
LOS	Е	С		D	F		D		А	D		A
Approach Delay		38.4		ł	87.1			8.5			39.0	
Approach LOS		D			F			А			D	
Queue Length 50th (m)	46.7	164.1	21	.5 ~2	60.7		3.2		0.0	79.5		0.0
Queue Length 95th (m)	68.1	#250.6	m23	8.7 m#29	91.3		8.7		12.1	93.6		20.9
Internal Link Dist (m)		407.4		2	92.9			330.1			165.5	
Turn Bay Length (m)	150.0		55	5.0					40.0	120.0		120.0
Base Capacity (vph)	300	1744	2	55 1	1566		389		488	1111		711
Starvation Cap Reductn	0	0		0	0		0		0	0		0
Spillback Cap Reductn	0	0		0	0		0		0	0		0
Storage Cap Reductn	0	0		0	0		0		0	0		0
Reduced v/c Ratio	0.63	0.84	0.3	33	1.12		0.04		0.30	0.57		0.42
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced	to phase 2	EBT and	6:WBT, Start o	of Greer	n							
Natural Cycle: 145												
Control Type: Actuated-Coo	rdinated											
Maximum v/c Ratio: 1.12												
Intersection Signal Delay: 5	6.9			Inters	section	n LOS: E						
Intersection Capacity Utiliza	tersection Capacity Utilization 97.4% ICU Level of Service F											
Analysis Period (min) 15												
~ Volume exceeds capaci	ty, queue	is theoretic	ally infinite.									
Queue shown is maximum after two cycles.												
# 95th percentile volume exceeds capacity, queue may be longer.												
Queue shown is maximum after two cycles.												
Volume for 95th percentile queue is metered by upstream signal.												

Splits and Phases: 1: Airport Parkway & Hunt Club Road

√ Ø1	→Ø2 (R)	AL _{Ø3}	*/Ø4	
28 s	53 s	30 s	19 s	
✓ Ø2	← Ø6 (R)	Ø8		
28 s	53 s	49 s		

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2041 PM Master Plan Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ካካ	<u>ቀ</u> ቀኑ			ኘ	^	1	ካካ	↑	1	ሻ
Traffic Volume (vph)	33	268	1529	244	28	37	1392	88	141	107	75	101
Future Volume (vph)	33	268	1529	244	28	37	1392	88	141	107	75	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			1.00		0.93	0.93		0.96	0.98
Frt			0.979					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3509	4833	0	0	1825	3544	1617	3404	1921	1617	1807
Flt Permitted		0.169				0.203			0.950			0.950
Satd. Flow (perm)	0	618	4833	0	0	388	3544	1511	3176	1921	1556	1768
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			26					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		35		25		25		35	44		22	22
Confl. Bikes (#/hr)				1							1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	5%	5%	0%	0%	3%	1%	4%	0%	1%	1%
Adj. Flow (vph)	33	268	1529	244	28	37	1392	88	141	107	75	101
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	301	1773	0	0	65	1392	88	141	107	75	101
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	18.0	18.0	54.0		18.0	18.0	54.0	54.0	17.0	41.0	41.0	17.0
Total Split (%)	13.8%	13.8%	41.5%		13.8%	13.8%	41.5%	41.5%	13.1%	31.5%	31.5%	13.1%
Maximum Green (s)	11.5	11.5	47.8		11.5	11.5	47.8	47.8	10.5	34.0	34.0	10.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max		None	None	C-Max	C-Max	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		23.6	51.7			19.7	47.8	47.8	9.7	22.3	22.3	10.0
Actuated g/C Ratio		0.18	0.40			0.15	0.37	0.37	0.07	0.17	0.17	0.08

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Lane Group	SBT	SBR
Lane [®] onfigurations	↑	1
Traffic Volume (vph)	162	316
Future Volume (vph)	162	316
Ideal Flow (vphpl)	1900	1900
Storage Length (m)		0.0
Storage Lanes		1
Taper Length (m)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		0.94
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1902	1617
Flt Permitted		
Satd. Flow (perm)	1902	1517
Right Turn on Red	,	Yes
Satd. Flow (RTOR)		137
Link Speed (k/h)	50	
Link Distance (m)	209.8	
Travel Time (s)	15.1	
Confl. Peds. (#/hr)	10.1	44
Confl. Bikes (#/hr)		
Peak Hour Factor	1 00	1 00
Heavy Vehicles (%)	1%	1%
Adi Flow (vph)	162	316
Shared Lane Traffic (%)	102	510
Lane Group Flow (uph)	160	216
	102	Dorm
Protected Phases	INA A	Feiiii
Protected Phases	4	4
		4
Delector Phase	4	4
Switch Phase	10.0	10.0
Minimum Initial (s)	10.0	10.0
IVIINIMUM Split (s)	41.0	41.0
Total Split (s)	41.0	41.0
i otal Split (%)	31.5%	31.5%
Maximum Green (s)	34.0	34.0
Yellow Time (s)	3.3	3.3
All-Red Time (s)	3.7	3.7
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.0	7.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	27.0	27.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	22.6	22.6
Actuated g/C Ratio	0.17	0.17
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2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2041 PM Master Plan Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		2.69	0.91			1.12	1.07	0.14	0.56	0.33	0.20	0.73
Control Delay		801.0	39.0			203.9	84.9	0.9	66.5	47.3	1.2	87.8
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		801.0	39.0			203.9	84.9	0.9	66.5	47.3	1.2	87.8
LOS		F	D			F	F	А	Е	D	А	F
Approach Delay			149.6				85.1			45.0		
Approach LOS			F				F			D		
Queue Length 50th (m)		~70.0	146.7			16.8	~207.4	0.0	18.1	24.2	0.0	25.6
Queue Length 95th (m)		m#98.5	#195.6			#55.8	#250.0	1.5	29.0	37.1	0.0	#51.5
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		112	1938			58	1303	646	274	502	508	144
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		2.69	0.91			1.12	1.07	0.14	0.51	0.21	0.15	0.70
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced t	o phase 2	EBT and	l 6:WBT, \$	Start of G	reen							
Natural Cycle: 135												
Control Type: Actuated-Coo	rdinated											
Maximum v/c Ratio: 2.69												
Intersection Signal Delay: 10)8.1			lr	ntersection	n LOS: F						
Intersection Capacity Utilizat	tion 100.2	%		IC	CU Level	of Servic	e G					
Analysis Period (min) 15												
 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.												
Volume for 95th percentile queue is metered by upstream signal.												

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

₩ø1	, →ø2 (R)	Ø 3	♦ Ø4
18 s	54 s	17 s	41 s
≯ _{Ø5}	 Ø6 (R)	Ø7	Øs
18 s	54 s	17 s	41 s

2: Bridle Path Drive/Dazé Street & Hunt Club Road BG 2041 PM Master Plan Build-out

	1	1
	•	•
Lane Group	SBT	SBR
v/c Ratio	0.49	0.84
Control Delay	51.6	47.5
Queue Delay	0.0	0.0
Total Delay	51.6	47.5
LOS	D	D
Approach Delay	55.7	
Approach LOS	Е	
Queue Length 50th (m)	37.7	46.0
Queue Length 95th (m)	53.4	72.9
Internal Link Dist (m)	185.8	
Turn Bay Length (m)		
Base Capacity (vph)	497	497
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.33	0.64
Intersection Summary		

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations		ሻሻ	^	1		ሻ	† †	1	ካካ	<u></u>	1	
Traffic Volume (vph)	4	167	996	396	1	52	895	197	361	571	61	1
Future Volume (vph)	4	167	996	396	1	52	895	197	361	571	61	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		95.0		0.0		60.0		100.0	60.0		60.0	
Storage Lanes		2		1		1		1	2		1	
Taper Length (m)		2.5				2.5			2.5			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	1.00	0.95
Ped Bike Factor		1.00		0.96		0.99		0.98	0.97		0.96	
Frt				0.850				0.850			0.850	
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	3314	3510	1601	0	1756	3579	1617	3506	3579	1601	0
Flt Permitted		0.381				0.533			0.950			
Satd. Flow (perm)	0	1326	3510	1532	0	979	3579	1583	3410	3579	1535	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				273				195			157	
Link Speed (k/h)			60				60			60		
Link Distance (m)			152.6				161.6			179.7		
Travel Time (s)			9.2				9.7			10.8		
Confl. Peds. (#/hr)		4		21		21		4	55		22	
Confl. Bikes (#/hr)				5				4			2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	7%	4%	2%	0%	4%	2%	1%	1%	2%	2%	0%
Adj. Flow (vph)	4	167	996	396	1	52	895	197	361	571	61	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	171	996	396	0	53	895	197	361	571	61	0
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Perm	Prot	NA	Perm	custom
Protected Phases		7	4			3	8		5	2		
Permitted Phases	7			4	3			8			2	1
Detector Phase	7	7	4	4	3	3	8	8	5	2	2	1
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	33.7	33.7	11.5	11.5	33.7	33.7	12.1	34.5	34.5	12.1
Total Split (s)	17.0	17.0	41.0	41.0	14.0	14.0	38.0	38.0	19.0	46.0	46.0	19.0
Total Split (%)	14.2%	14.2%	34.2%	34.2%	11.7%	11.7%	31.7%	31.7%	15.8%	38.3%	38.3%	15.8%
Maximum Green (s)	10.5	10.5	34.3	34.3	7.5	7.5	31.3	31.3	11.9	39.5	39.5	11.9
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.8	2.8	3.0	3.0	2.8	2.8	3.0	3.0	3.4	2.8	2.8	3.4
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.5	6.7	6.7		6.5	6.7	6.7	7.1	6.5	6.5	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	None	None	Max	Max	None	C-Max	C-Max	None
Walk Lime (s)			7.0	7.0			7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			20.0	20.0			20.0	20.0		21.0	21.0	
Pedestrian Calls (#/hr)			0	0			0	0		0	0	
Act Effct Green (s)		10.5	34.3	34.3		7.5	31.3	31.3	11.9	39.5	39.5	
Actuated g/C Ratio		0.09	0.29	0.29		0.06	0.26	0.26	0.10	0.33	0.33	

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Lane Group	SBI	SBT	SBB
Lane Configurations	**		
	245	1052	2/2
Future Volume (vph)	240	1052	242
	1000	1002	1000
Storago Longth (m)	20.0	1900	120.0
	30.0		120.0
Storage Lanes	2		I
Laper Length (m)	2.5	0.05	1.00
Lane Util. Factor	0.97	0.95	1.00
Ped Bike Factor	0.98		0.92
	0.055		0.850
Fit Protected	0.950		
Satd. Flow (prot)	3506	3579	1555
Fit Permitted	0.336		
Satd. Flow (perm)	1219	3579	1425
Right Turn on Red			Yes
Satd. Flow (RTOR)			157
Link Speed (k/h)		60	
Link Distance (m)		141.8	
Travel Time (s)		8.5	
Confl. Peds. (#/hr)	22		55
Confl. Bikes (#/hr)			4
Peak Hour Factor	1.00	1.00	1.00
Heavy Vehicles (%)	1%	2%	5%
Adj. Flow (vph)	245	1052	242
Shared Lane Traffic (%)			
Lane Group Flow (vph)	246	1052	242
Turn Type	Prot	NA	Perm
Protected Phases	1	6	
Permitted Phases			6
Detector Phase	1	6	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	12.1	34.5	34.5
Total Split (s)	19.0	46.0	46.0
Total Split (%)	15.8%	38.3%	38.3%
Maximum Green (s)	11.9	39.5	39.5
Yellow Time (s)	37	3.7	3.7
All-Red Time (s)	3.4	2.8	2.8
Lost Time Adjust (s)	0.4	2.0	2.0
Total Lost Time (a)	7 1	0.0	0.0
	/.1	0.0	0.0
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
venicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max
Walk Time (s)		7.0	7.0
Flash Dont Walk (s)		21.0	21.0
Pedestrian Calls (#/hr)		0	0
Act Effct Green (s)	11.9	39.5	39.5
Actuated g/C Ratio	0.10	0.33	0.33

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
v/c Ratio		1.47	0.99	0.63		0.87	0.96	0.35	1.04	0.48	0.10	
Control Delay		292.2	69.8	16.2		138.6	65.1	6.9	111.5	33.8	0.3	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		292.2	69.8	16.2		138.6	65.1	6.9	111.5	33.8	0.3	
LOS		F	Е	В		F	Е	А	F	С	А	
Approach Delay			80.5				58.5			60.0		
Approach LOS			F				Е			Е		
Queue Length 50th (m)		~28.5	123.2	23.3		12.6	109.6	0.4	~47.2	56.2	0.0	
Queue Length 95th (m)		#51.0	#167.7	57.2		#37.4	#150.1	17.9	#77.0	72.9	0.0	
Internal Link Dist (m)			128.6				137.6			155.7		
Turn Bay Length (m)		95.0				60.0		100.0	60.0		60.0	
Base Capacity (vph)		116	1003	632		61	933	557	347	1178	610	
Starvation Cap Reductn		0	0	0		0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0		0	0	0	0	0	0	
Storage Cap Reductn		0	0	0		0	0	0	0	0	0	
Reduced v/c Ratio		1.47	0.99	0.63		0.87	0.96	0.35	1.04	0.48	0.10	
Intersection Summary												
Area Type: C	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 23 (19%), Referenced	I to phase	2:NBT a	und 6:SBT	, Start of (Green							
Natural Cycle: 105												
Control Type: Actuated-Coord	dinated											
Maximum v/c Ratio: 2.05												
Intersection Signal Delay: 81.	.7			In	tersection	n LOS: F						
Intersection Capacity Utilization	on 93.4%			IC	U Level	of Servic	e F					
Analysis Period (min) 15												
~ Volume exceeds capacity	, queue is	s theoreti	cally infini	te.								
Queue shown is maximum	n after two	cycles.										
# 95th percentile volume ex	ceeds ca	pacity, q	ueue may	be longe	r.							
Queue shown is maximum	n after two	cycles.										

Splits and Phases: 3: Bank Street & Hunt Club Road

M _{Ø1}	Ø2 (R)	✓ _{Ø3}	₩04
19 s	46 s	14 s	41 s
1 Ø5	Ø6 (R)		4 [♠] Ø8
19 s	46 s	17 s	38 s

	1	1	1
	*	+	-
Lane Group	SBL	SBT	SBR
v/c Ratio	2.05	0.89	0.42
Control Delay	527.1	40.7	12.8
Queue Delay	0.0	0.0	0.0
Total Delay	527.1	40.7	12.8
LOS	F	D	В
Approach Delay		114.0	
Approach LOS		F	
Queue Length 50th (m)	~48.4	58.1	4.2
Queue Length 95th (m)	#74.8	#131.2	30.9
Internal Link Dist (m)		117.8	
Turn Bay Length (m)	30.0		120.0
Base Capacity (vph)	120	1178	574
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	2.05	0.89	0.42
Intersection Summary			

4: Bank Street & Dazé Street/Cahill Drive BG 2041 PM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		ا	1		ę	1		ľ	≜î ≽			1
Traffic Volume (vph)	160	1	132	82	0	101	2	158	697	92	4	146
Future Volume (vph)	160	1	132	82	0	101	2	158	697	92	4	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		40.0		45.0		0.0		70.0
Storage Lanes	0		1	0		1		1		0		1
Taper Length (m)	7.6			7.6				7.6				7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Ped Bike Factor		0.92	0.95		0.97	0.90			0.99			0.99
Frt			0.850			0.850			0.983			
Flt Protected		0.953			0.950			0.950				0.950
Satd. Flow (prot)	0	1813	1617	0	1659	1633	0	1825	3487	0	0	1807
Flt Permitted		0.668			0.548			0.133				0.302
Satd. Flow (perm)	0	1172	1535	0	932	1471	0	256	3487	0	0	567
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			132			105			16			
Link Speed (k/h)		50			50				60			
Link Distance (m)		72.9			188.5				169.4			
Travel Time (s)		5.2			13.6				10.2			
Confl. Peds. (#/hr)	44		18	18		44		30		19		19
Confl. Bikes (#/hr)			4			1				2		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	0%	1%	10%	0%	0%	0%	0%	2%	1%	0%	1%
Adj. Flow (vph)	160	1	132	82	0	101	2	158	697	92	4	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	132	0	82	101	0	160	789	0	0	150
Turn Type	Perm	NA	Perm	Perm	NA	Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases		4			8			5	2			1
Permitted Phases	4		4	8		8	5	2			1	6
Detector Phase	4	4	4	8	8	8	5	5	2		1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	5.0	10.0		5.0	5.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	11.3	34.3		11.3	11.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	17.0	17.0	61.0		17.0	17.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	14.2%	14.2%	50.8%		14.2%	14.2%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	10.7	10.7	54.7		10.7	10.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7		3.7	3.7
All-Red Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6	2.6		2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1		6.3	6.3			6.3
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	C-Max		None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0			7.0			
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0			11.0			
Pedestrian Calls (#/hr)	0	0	0	0	0	0			0			
Act Effct Green (s)		21.7	21.7		21.7	21.7		75.1	65.6			74.1
Actuated g/C Ratio		0.18	0.18		0.18	0.18		0.63	0.55			0.62

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Lane Group	SBT	SBR	Ø3	Ø7
Lane C onfigurations	<u>†</u> †	7		
Traffic Volume (vph)	1258	318		
Future Volume (vph)	1258	318		
Ideal Flow (vphpl)	1900	1900		
Storage Length (m)		75.0		
Storage Lanes		0		
Taper Length (m)				
Lane Util. Factor	0.95	1.00		
Ped Bike Factor		0.93		
Frt		0.850		
Flt Protected				
Satd. Flow (prot)	3579	1633		
Flt Permitted				
Satd. Flow (perm)	3579	1514		
Right Turn on Red		Yes		
Satd. Flow (RTOR)		291		
Link Speed (k/h)	60			
Link Distance (m)	264.5			
Travel Time (s)	15.9			
Confl. Peds. (#/hr)		30		
Confl. Bikes (#/hr)		5		
Peak Hour Factor	1.00	1.00		
Heavy Vehicles (%)	2%	0%		
Adi, Flow (vph)	1258	318		
Shared Lane Traffic (%)	1200	010		
Lane Group Flow (vph)	1258	318		
Turn Type	NA	Perm		
Protected Phases	6		3	7
Permitted Phases	0	6	0	1
Detector Phase	6	6		
Switch Phase	0	0		
Minimum Initial (e)	10.0	10.0	3.0	3.0
Minimum Split (s)	24.2	34.2	5.0	5.0
Total Split (s)	54.3	61.0	5.0	5.0
Total Split (S)	61.U	01.U	0.C	0.C
Total Spill (%)	50.8%	50.8%	4%	4%
Wallow Time (5)	54.7	54.7	3.0	3.0
	3.7	3.7	2.0	2.0
All-Red Time (s)	2.6	2.6	0.0	0.0
Lost Time Adjust (s)	0.0	0.0		
Total Lost Time (s)	6.3	6.3		
Lead/Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	Max	Max
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	11.0	11.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)	65.1	65.1		
Actuated g/C Ratio	0.54	0.54		

4: Bank Street & Dazé Street/Cahill Drive BG 2041 PM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
v/c Ratio		0.76	0.34		0.49	0.29		0.56	0.41			0.34
Control Delay		68.0	8.7		52.2	8.6		31.1	14.3			10.5
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Delay		68.0	8.7		52.2	8.6		31.1	14.3			10.5
LOS		E	А		D	А		С	В			В
Approach Delay		41.3			28.1				17.2			
Approach LOS		D			С				В			
Queue Length 50th (m)		36.4	0.0		17.5	0.0		25.0	39.2			11.5
Queue Length 95th (m)		55.5	14.9		31.0	12.6		m41.5	m50.0			23.8
Internal Link Dist (m)		48.9			164.5				145.4			
Turn Bay Length (m)						40.0		45.0				70.0
Base Capacity (vph)		301	493		239	456		308	1914			470
Starvation Cap Reductn		0	0		0	0		0	0			0
Spillback Cap Reductn		0	0		0	0		0	0			0
Storage Cap Reductn		0	0		0	0		0	0			0
Reduced v/c Ratio		0.53	0.27		0.34	0.22		0.52	0.41			0.32
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 12	0											
Offset: 14 (12%), Reference	ed to phase	2:NBTL a	and 6:SB	TL, Start	of Green							
Natural Cycle: 90												
Control Type: Actuated-Co	ordinated											
Maximum v/c Ratio: 0.76												
Intersection Signal Delay: 20.7 Intersection LOS: C												
Intersection Capacity Utiliz	IC	CU Level	of Service	E								
Analysis Period (min) 15												
			بلام من ما ام									

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

M _{Ø1}	Ø2 (R)	.	e ↔ Ø4
17 s	61s	5 s	37 s
🔊 Ø5	Ø6 (R)	.	Ø8
17 s	61s	5 s	37 s

4: Bank Street & Dazé Street/Cahill Drive BG 2041 PM Master Plan Build-out

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Lane Group	• SBT	SBR	Ø3	Ø7
v/c Ratio	0.65	0.33		
Control Delay	22.9	3.9		
Queue Delay	0.0	0.0		
Total Delay	22.9	3.9		
LOS	С	А		
Approach Delay	18.3			
Approach LOS	В			
Queue Length 50th (m)	105.3	2.8		
Queue Length 95th (m)	155.1	19.4		
Internal Link Dist (m)	240.5			
Turn Bay Length (m)		75.0		
Base Capacity (vph)	1942	954		
Starvation Cap Reductn	0	0		
Spillback Cap Reductn	0	0		
Storage Cap Reductn	0	0		
Reduced v/c Ratio	0.65	0.33		
Intersection Summary				

5: Dazé Street & South Keys SC BG 2041 PM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ľ	el 🕴		ľ	el el		1	≜ î≽			ľ	<u>†</u> †
Traffic Volume (vph)	85	3	221	2	4	13	195	199	18	1	21	287
Future Volume (vph)	85	3	221	2	4	13	195	199	18	1	21	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Storage Lanes	1		0	1		0	1		0		1	
Taper Length (m)	2.5			2.5			2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor	0.99	0.98		1.00	0.98		1.00	1.00			0.99	0.99
Frt		0.852			0.885			0.988				0.950
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1825	1608	0	1825	1673	0	1825	3564	0	0	1825	3404
Flt Permitted	0.746			0.389			0.445				0.616	
Satd. Flow (perm)	1421	1608	0	745	1673	0	853	3564	0	0	1174	3404
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		221			13			12				79
Link Speed (k/h)		30			30			50				50
Link Distance (m)		107.1			73.7			57.4				76.4
Travel Time (s)		12.9			8.8			4.1				5.5
Confl. Peds. (#/hr)	6		3	3		6	3		5		5	
Confl. Bikes (#/hr)			2						1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%
Adj. Flow (vph)	85	3	221	2	4	13	195	199	18	1	21	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	224	0	2	17	0	195	217	0	0	22	429
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		custom	pm+pt	NA
Protected Phases		4			8		5	2			1	6
Permitted Phases	4			8			2			1	6	
Detector Phase	4	4		8	8		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		5.0	5.0	10.0
Minimum Split (s)	28.1	28.1		28.1	28.1		10.9	32.9		10.9	10.9	32.9
Total Split (s)	36.1	36.1		36.1	36.1		35.0	58.0		15.9	15.9	38.9
Total Split (%)	32.8%	32.8%		32.8%	32.8%		31.8%	52.7%		14.5%	14.5%	35.4%
Maximum Green (s)	30.0	30.0		30.0	30.0		29.1	52.1		10.0	10.0	33.0
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	2.8	2.8		2.8	2.8		2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.1	6.1		6.1	6.1		5.9	5.9			5.9	5.9
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Max		None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0			15.0				15.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			12.0				12.0
Pedestrian Calls (#/hr)	0	0		0	0			0				0
Act Effct Green (s)	11.4	11.4		11.4	11.4		56.2	52.6			48.3	42.5
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.70	0.65			0.60	0.53

Lanes, Volumes, Timings

Synchro 11 Report September 2021 1

Lane Group	SBB
	02.1
Traffic Volume (vph)	142
Future Volume (vph)	1/2
Ideal Flow (vphpl)	1900
Storage Length (m)	0.0
Storage Lanes	0.0
Taper Length (m)	0
Lane Litil Eactor	0.95
Ped Bike Factor	0.00
Frt	
Elt Protected	
Satd Flow (prot)	0
Elt Permitted	0
Satd, Flow (perm)	0
Right Turn on Red	Yes
Satd, Flow (RTOR)	100
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	3
Confl. Bikes (#/hr)	
Peak Hour Factor	1.00
Heavy Vehicles (%)	1%
Adj. Flow (vph)	142
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
5: Dazé Street & South Keys SC BG 2041 PM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio	0.42	0.54		0.02	0.07		0.28	0.09			0.03	0.23
Control Delay	40.0	10.5		32.5	19.6		5.0	6.2			4.4	8.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	40.0	10.5		32.5	19.6		5.0	6.2			4.4	8.8
LOS	D	В		С	В		А	А			А	A
Approach Delay		18.6			21.0			5.6				8.6
Approach LOS		В			С			А				A
Queue Length 50th (m)	11.1	0.4		0.2	0.5		7.4	3.8			0.8	13.0
Queue Length 95th (m)	27.1	19.3		2.3	6.2		16.3	12.9			2.9	24.6
Internal Link Dist (m)		83.1			49.7			33.4				52.4
Turn Bay Length (m)	40.0						70.0				40.0	
Base Capacity (vph)	535	743		280	638		958	2335			849	1836
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.16	0.30		0.01	0.03		0.20	0.09			0.03	0.23
Intersection Summary												
Area Type:	Other											
Cycle Length: 110												
Actuated Cycle Length: 80	.4											
Natural Cycle: 75												
Control Type: Semi Act-Ur	ncoord											
Maximum v/c Ratio: 0.54												
Intersection Signal Delay:	10.4			In	tersectior	n LOS: B						
Intersection Capacity Utiliz	ation 62.8%			IC	U Level o	of Service	В					
Analysis Period (min) 15												

Splits and Phases: 5: Dazé Street & South Keys SC

M _{Ø1}	1 ø2		<u></u> _Ø4
15.9 s	58 s		36.1 s
▲ Ø5		Ø6	₩ Ø8
35 s		38.9 s	36.1 s

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Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

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Intersection

Int Delay, s/veh

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		- 11	_ ≜ î≽	
Traffic Vol, veh/h	0	0	0	432	553	0
Future Vol, veh/h	0	0	0	432	553	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	432	553	0

Major/Minor	Minor2	Μ	lajor1	Ma	jor2			
Conflicting Flow All	-	277	-	0	-	0		
Stage 1	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-		
Critical Hdwy	-	6.9	-	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-		
Follow-up Hdwy	-	3.3	-	-	-	-		
Pot Cap-1 Maneuver	0	726	0	-	-	-		
Stage 1	0	-	0	-	-	-		
Stage 2	0	-	0	-	-	-		
Platoon blocked, %				-	-	-		
Mov Cap-1 Maneuve	r -	726	-	-	-	-		
Mov Cap-2 Maneuve	r -	-	-	-	-	-		
Stage 1	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-		

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBT EBL	n1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	А	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection

Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1	٦	^	∱î ≽	
Traffic Vol, veh/h	0	26	31	432	553	0
Future Vol, veh/h	0	26	31	432	553	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	26	31	432	553	0

Major/Minor	Minor2	1	Major1	Majo	or2				
Conflicting Flow All	-	277	553	0	-	0			_
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			
Critical Hdwy	-	6.9	4.1	-	-	-			
Critical Hdwy Stg 1	-	-	-	-	-	-			
Critical Hdwy Stg 2	-	-	-	-	-	-			
Follow-up Hdwy	-	3.3	2.2	-	-	-			
Pot Cap-1 Maneuver	0	726	1027	-	-	-			
Stage 1	0	-	-	-	-	-			
Stage 2	0	-	-	-	-	-			
Platoon blocked, %				-	-	-			
Mov Cap-1 Maneuve	r –	726	1027	-	-	-			
Mov Cap-2 Maneuver	r –	-	-	-	-	-			
Stage 1	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-			

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.6	0
HCM LOS	В		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	1027	- 726	-	-
HCM Lane V/C Ratio	0.03	- 0.036	-	-
HCM Control Delay (s)	8.6	- 10.1	-	-
HCM Lane LOS	А	- B	-	-
HCM 95th %tile Q(veh)	0.1	- 0.1	-	-

Future (2026) Total Traffic

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ľ	≜1 ≱		ľ	∱1 ≽		ľ		1	ሻሻ		1
Traffic Volume (vph)	347	1092	25	67	969	619	15	0	84	259	0	148
Future Volume (vph)	347	1092	25	67	969	619	15	0	84	259	0	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	0.99							
Frt		0.997			0.942				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3436	0	1630	3186	0	1706	0	1458	3437	0	1570
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1806	3436	0	1628	3186	0	1706	0	1458	3437	0	1570
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			118				164			148
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		431.4			316.9			354.1			189.5	
Travel Time (s)		25.9			19.0			15.9			8.5	
Confl. Peds. (#/hr)	7		2	2		7						
Confl. Bikes (#/hr)						1						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	6%	0%	12%	11%	1%	7%	0%	12%	3%	0%	4%
Adj. Flow (vph)	347	1092	25	67	969	619	15	0	84	259	0	148
Shared Lane Traffic (%)												
Lane Group Flow (vph)	347	1117	0	67	1588	0	15	0	84	259	0	148
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6							
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		4		4	8		8
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0
Minimum Split (s)	12.4	47.3		12.4	47.3		17.8		17.8	22.5		22.5
Total Split (s)	32.0	50.0		32.0	50.0		18.0		18.0	48.0		48.0
Total Split (%)	24.6%	38.5%		24.6%	38.5%		13.8%		13.8%	36.9%		36.9%
Maximum Green (s)	24.6	42.7		24.6	42.7		10.2		10.2	40.2		40.2
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	C-Max		None	C-Max		None		None	None		None
Walk Time (s)		31.0			31.0							
Flash Dont Walk (s)		9.0			9.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)	34.0	84.4		10.7	58.3		15.2		15.2	15.2		15.2
Actuated g/C Ratio	0.26	0.65		0.08	0.45		0.12		0.12	0.12		0.12

Lane Group	Ø3
LaneConfigurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

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Lane Group	EBL	EBT	EBR WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.74	0.50	0.50	1.06		0.08		0.27	0.65		0.47
Control Delay	53.9	14.4	48.6	70.3		50.1		2.1	62.2		12.9
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0
Total Delay	53.9	14.4	48.6	70.3		50.1		2.1	62.2		12.9
LOS	D	В	D	E		D		А	Е		В
Approach Delay		23.8		69.4			9.3			44.2	
Approach LOS		С		Е			А			D	
Queue Length 50th (m)	81.8	77.8	16.3	~218.3		3.5		0.0	33.1		0.0
Queue Length 95th (m)	112.5	113.2	m22.5 r	m#282.1		10.0		0.0	45.4		18.6
Internal Link Dist (m)		407.4		292.9			330.1			165.5	
Turn Bay Length (m)	150.0		55.0					40.0	120.0		120.0
Base Capacity (vph)	472	2230	308	1493		199		315	1062		587
Starvation Cap Reductn	0	0	0	0		0		0	0		0
Spillback Cap Reductn	0	0	0	0		0		0	0		0
Storage Cap Reductn	0	0	0	0		0		0	0		0
Reduced v/c Ratio	0.74	0.50	0.22	1.06		0.08		0.27	0.24		0.25
Intersection Summary											
Area Type:	Other										
Cycle Length: 130											
Actuated Cycle Length: 130)										
Offset: 1 (1%), Referenced	to phase 2	EBT and	6:WBT, Start of G	ireen							
Natural Cycle: 150											
Control Type: Actuated-Coc	ordinated										
Maximum v/c Ratio: 1.06											
Intersection Signal Delay: 4	6.5		lı	ntersectio	n LOS: D						
Intersection Capacity Utiliza	ation 93.2%		l	CU Level	of Service	F					
Analysis Period (min) 15											
 Volume exceeds capaci 	ity, queue i	s theoretic	ally infinite.								
Queue shown is maximu	um after two	o cycles.									
# 95th percentile volume e	exceeds ca	pacity, qu	eue may be longe	er.							
Queue shown is maximu	um after two	o cycles.									
m Volume for 95th percent	ntile queue	is metered	d by upstream sig	nal.							

Splits and Phases: 1: Airport Parkway & Hunt Club Road

√ Ø1	→Ø2 (R)	A Mag	*\/@4		
32 s	50 s	30 s	18 s		
	← Ø6 (R)	Ø8			
32 s	50 s	48 s			

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2026 AM Phase 1 Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ኘኘ	11			۲ ۲	^	1	ሻሻ	1	1	7
Traffic Volume (vph)	19	173	1084	98	2	16	1189	78	200	109	67	52
Future Volume (vph)	19	173	1084	98	2	16	1189	78	200	109	67	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			0.99		0.96	0.94		0.99	1.00
Frt			0.988					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3478	4816	0	0	1515	3411	1601	3278	1902	1541	1772
Flt Permitted		0.137				0.833			0.950			0.950
Satd. Flow (perm)	0	498	4816	0	0	1319	3411	1543	3087	1902	1519	1768
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			13					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		15		18		18		15	32		2	2
Confl. Bikes (#/hr)				1				2				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	2%	7%	7%	0%	23%	7%	2%	8%	1%	6%	3%
Adj. Flow (vph)	19	173	1084	98	2	16	1189	78	200	109	67	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	192	1182	0	0	18	1189	78	200	109	67	52
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	15.0	15.0	52.0		15.0	15.0	52.0	52.0	22.0	41.0	41.0	22.0
Total Split (%)	11.5%	11.5%	40.0%		11.5%	11.5%	40.0%	40.0%	16.9%	31.5%	31.5%	16.9%
Maximum Green (s)	8.5	8.5	45.8		8.5	8.5	45.8	45.8	15.5	34.0	34.0	15.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min		None	None	C-Min	C-Min	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		29.3	78.1			8.9	49.7	49.7	12.9	17.9	17.9	9.2
Actuated g/C Ratio		0.23	0.60			0.07	0.38	0.38	0.10	0.14	0.14	0.07

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Lane Group	SBT	SBB
		#
Traffic Volume (voh)	32	173
Future Volume (vph)	32	173
	ےد ۱۵۸۵	1000
Storago Longth (m)	1900	1900
		0.0
Storage Laries		I
raper Length (m)	1.00	1.00
Lane Util. Factor	1.00	1.00
Fed Bike Factor		0.95
FIL Fit Directo at a d		0.850
Fit Protected	1001	1001
Satd. Flow (prot)	1921	1601
Fit Permitted		
Satd. Flow (perm)	1921	1524
Right Turn on Red		Yes
Satd. Flow (RTOR)		137
Link Speed (k/h)	50	
Link Distance (m)	209.8	
Travel Time (s)	15.1	
Confl. Peds. (#/hr)		32
Confl. Bikes (#/hr)		
Peak Hour Factor	1.00	1.00
Heavy Vehicles (%)	0%	2%
Adj. Flow (vph)	32	173
Shared Lane Traffic (%)		
Lane Group Flow (vph)	32	173
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	41.0	41.0
Total Split (s)	41.0	41.0
Total Split (%)	31.5%	31.5%
Maximum Green (s)	34.0	34.0
Yellow Time (s)	3.3	3.3
All-Red Time (s)	3.7	3.7
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.0	7.0
Lead/Lag	l an	Lan
Lead-Lag Optimize?	Yee	Yes
Vehicle Extension (s)	3.0	3.0
	None	None
Walk Time (s)	7.0	7 0
Flach Dont Wolk (a)	7.0	7.0
Pedeetrion Calle (#/br)	27.0	27.0
	0	11.0
Actuated #/C Datia	11.8	0.00
Actuated d/C Ratio	0.09	0.09

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2026 AM Phase 1 Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		1.71	0.41			0.20	0.91	0.12	0.62	0.42	0.20	0.42
Control Delay		388.0	12.0			60.6	49.5	0.3	64.3	57.3	1.4	67.0
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		388.0	12.0			60.6	49.5	0.3	64.3	57.3	1.4	67.0
LOS		F	В			E	D	А	Е	Е	А	E
Approach Delay			64.5				46.6			51.1		
Approach LOS			Е				D			D		
Queue Length 50th (m)		~37.7	34.6			4.5	142.2	0.0	25.6	26.9	0.0	13.0
Queue Length 95th (m)		#63.1	60.4			12.1	#206.4	0.0	37.5	43.5	0.0	25.7
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		112	2900			100	1303	678	390	497	498	209
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		1.71	0.41			0.18	0.91	0.12	0.51	0.22	0.13	0.25
Intersection Summary												
Area Type: Ot	ther											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced to	phase 2:	EBT and	6:WBT, S	Start of G	reen							
Natural Cycle: 135												
Control Type: Actuated-Coord	linated											
Maximum v/c Ratio: 1.71												
Intersection Signal Delay: 54.0	C			In	tersection	LOS: D)					
Intersection Capacity Utilizatio	on 89.1%			IC	CU Level o	of Servic	e E					
Analysis Period (min) 15												
~ Volume exceeds capacity,	, queue is	s theoretic	cally infini	te.								
Queue shown is maximum	after two	cycles.										
# 95th percentile volume exc	ceeds ca	pacity, qu	eue may	be longe	r.							
Queue shown is maximum	after two	cycles.										

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

√ Ø1	, → Ø2 (R)	▲ Ø3	∲ Ø4
15 s	52 s	22 s	41 s
≯ø5	▲ <u> </u>	Ø7	Øs
15 s	52 s	22 s	41 s

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2026 AM Phase 1 Build-out

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Lane Group	SBT	SBR
v/c Ratio	0.18	0.66
Control Delay	55.8	27.1
Queue Delay	0.0	0.0
Total Delay	55.8	27.1
LOS	Е	С
Approach Delay	38.7	
Approach LOS	D	
Queue Length 50th (m)	7.8	8.9
Queue Length 95th (m)	17.1	30.8
Internal Link Dist (m)	185.8	
Turn Bay Length (m)		
Base Capacity (vph)	502	499
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.06	0.35
Intersection Summary		

3: Bank Street & Hunt Club Road TT 2026 AM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ሻሻ	<u></u>	1		ľ	<u></u>	1	ሻሻ	<u></u>	1	ኘኘ	<u></u>
Traffic Volume (vph)	143	738	272	1	32	979	195	293	956	23	86	327
Future Volume (vph)	143	738	272	1	32	979	195	293	956	23	86	327
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	95.0		0.0		60.0		100.0	60.0		60.0	30.0	
Storage Lanes	2		1		1		1	2		1	2	
Taper Length (m)	2.5				2.5			2.5			2.5	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95
Ped Bike Factor	0.99		0.98		1.00		0.97	0.97		0.96	0.99	
Frt			0.850				0.850			0.850		
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	3190	3380	1570	0	1725	3411	1617	3372	3544	1633	3471	3444
Flt Permitted	0.950							0.950			0.950	
Satd. Flow (perm)	3172	3380	1533	0	1809	3411	1572	3257	3544	1569	3432	3444
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			272				279			216		
Link Speed (k/h)		60				60			60			60
Link Distance (m)		152.6				161.6			179.7			141.8
Travel Time (s)		9.2				9.7			10.8			8.5
Confl. Peds. (#/hr)	10		9		9		10	25		20	20	
Confl. Bikes (#/hr)							3			3		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	11%	8%	4%	0%	6%	7%	1%	5%	3%	0%	2%	6%
Adj. Flow (vph)	143	738	272	1	32	979	195	293	956	23	86	327
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	738	272	0	33	979	195	293	956	23	86	327
Turn Type	Prot	NA	Perm	custom	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4			3	8		5	2		1	6
Permitted Phases			4	3			8			2		
Detector Phase	7	4	4	3	3	8	8	5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.5	33.7	33.7	11.5	11.5	33.7	33.7	12.1	34.5	34.5	12.1	34.5
Total Split (s)	21.0	45.0	45.0	13.0	13.0	37.0	37.0	25.0	48.0	48.0	14.0	37.0
Total Split (%)	17.5%	37.5%	37.5%	10.8%	10.8%	30.8%	30.8%	20.8%	40.0%	40.0%	11.7%	30.8%
Maximum Green (s)	14.5	38.3	38.3	6.5	6.5	30.3	30.3	17.9	41.5	41.5	6.9	30.5
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.8	3.0	3.0	2.8	2.8	3.0	3.0	3.4	2.8	2.8	3.4	2.8
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)	6.5	6.7	6.7		6.5	6.7	6.7	7.1	6.5	6.5	7.1	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	None	Max	Max	None	C-Max	C-Max	None	C-Max
Walk Time (s)		7.0	7.0			7.0	7.0		7.0	7.0		7.0
Flash Dont Walk (s)		20.0	20.0			20.0	20.0		21.0	21.0		21.0
Pedestrian Calls (#/hr)		0	0			0	0		0	0		0
Act Effct Green (s)	10.7	43.5	43.5		6.4	34.1	34.1	15.2	44.3	44.3	6.8	33.2
Actuated g/C Ratio	0.09	0.36	0.36		0.05	0.28	0.28	0.13	0.37	0.37	0.06	0.28

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Lane Group	CDD
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Traffic Volume (vpn)	151
Future Volume (vph)	151
Ideal Flow (vphpl)	1900
Storage Length (m)	120.0
Storage Lanes	1
Taper Length (m)	
Lane Util. Factor	1.00
Ped Bike Factor	0.96
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1458
Flt Permitted	
Satd. Flow (perm)	1395
Right Turn on Red	Yes
Satd. Flow (RTOR)	281
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	25
Confl. Bikes (#/hr)	
Peak Hour Factor	1.00
Heavy Vehicles (%)	12%
Adj. Flow (vph)	151
Shared Lane Traffic (%)	
Lane Group Flow (vph)	151
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phase	6
Switch Phase	0
Minimum Initial (e)	10.0
Minimum Split (s)	24 5
Total Split (s)	37.0
Total Split (S)	20 00/
Maximum Groop (a)	00.0%
Vollow Time (a)	30.5 7 C
	0.7
Lost Time Adjust (s)	2.8
Lost Time Adjust (S)	0.0
Total Lost Time (s)	6.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	33.2
Actuated g/C Ratio	0.28

3: Bank Street & Hunt Club Road TT 2026 AM Phase 1 Build-out

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EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
0.50	0.60	0.37		0.35	1.01	0.30	0.68	0.73	0.03	0.44	0.34
57.9	34.9	5.1		65.1	74.7	1.7	58.4	37.6	0.1	66.3	28.4
0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.9	34.9	5.1		65.1	74.7	1.7	58.4	37.6	0.1	66.3	28.4
Е	С	А		Е	Е	А	Е	D	А	Е	С
	30.7				62.6			41.7			26.9
	С				Е			D			С
16.8	79.4	0.0		7.7	~123.6	0.0	34.3	105.4	0.0	10.6	22.0
26.5	100.8	18.4		18.2	#179.1	1.8	47.7	130.5	0.0	18.7	30.1
	128.6				137.6			155.7			117.8
95.0				60.0		100.0	60.0		60.0	30.0	
385	1224	729		97	968	646	502	1308	715	199	951
0	0	0		0	0	0	0	0	0	0	0
0	0	0		0	0	0	0	0	0	0	0
0	0	0		0	0	0	0	0	0	0	0
0.37	0.60	0.37		0.34	1.01	0.30	0.58	0.73	0.03	0.43	0.34
ther											
to phase	2:NBT ar	nd 6:SBT	, Start of (Green							
linated											
7			In	tersectio	n LOS: D						
on 85.3%			IC	U Level	of Service	εE					
, queue i	s theoretic	ally infini	te.								
after two	o cycles.										
ceeds ca	pacity, qu	eue may	be longer								
after two	o cycles.										
	EBL 0.50 57.9 0.0 57.9 0.10 57.9 0.0 57.9 0.0 57.9 0.0 385 0 0 0.385 0 0.37	EBL EBT 0.50 0.60 57.9 34.9 0.0 0.0 57.9 34.9 0.0 0.0 57.9 34.9 0.0 0.0 57.9 34.9 0.0 0.0 57.9 34.9 E C 30.7	EBL EBT EBR 0.50 0.60 0.37 57.9 34.9 5.1 0.0 0.0 0.0 57.9 34.9 5.1 0.0 0.0 0.0 57.9 34.9 5.1 0.0 0.0 0.0 57.9 34.9 5.1 EE C A 30.7 C 0 16.8 79.4 0.0 26.5 100.8 18.4 128.6 95.0 0 385 1224 729 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0.37 0.60 0.37 to phase 2:NBT and 6:SBT inated 7 185.3%	EBL EBT EBR WBU 0.50 0.60 0.37 1 57.9 34.9 5.1 1 0.0 0.0 0.0 1 57.9 34.9 5.1 1 57.9 34.9 5.1 1 0.0 0.0 0.0 1 1 E C A 1 1 1 E C A 1	EBL EBT EBR WBU WBL 0.50 0.60 0.37 0.35 57.9 34.9 5.1 65.1 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 0.0 0.0 0.0 165.1 E C A E 30.7	EBL EBT EBR WBU WBL WBT 0.50 0.60 0.37 0.35 1.01 57.9 34.9 5.1 65.1 74.7 0.0 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 74.7 0.0 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 74.7 E C A E E 30.7 -26.6 74.7 62.6 C C -123.6 26.5 16.8 79.4 0.0 7.7 ~123.6 95.0 - 60.0 385 1224 729 97 968 0 0 0 0 0 0 0 0 0.37 0.60 0.37 0.34 1.01 0 0 inated - - Intersection LOS: D 10<	EBL EBT EBR WBU WBL WBT WBR 0.50 0.60 0.37 0.35 1.01 0.30 57.9 34.9 5.1 65.1 74.7 1.7 0.0 0.0 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 74.7 1.7 0.0 0.0 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 74.7 1.7 E C A E E A 30.7 65.1 74.7 1.7 E C A E E A 30.7 0.0 7.7 ~123.6 0.0 26.5 100.8 18.4 18.2 #179.1 1.8 128.6 60.0 100.0 0 0 0 0 0 0 0 0 0 <t< td=""><td>EBL EBT EBR WBU WBL WBT WBR NBL 0.50 0.60 0.37 0.35 1.01 0.30 0.68 57.9 34.9 5.1 65.1 74.7 1.7 58.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 74.7 1.7 58.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 74.7 1.7 58.4 E C A E E A E 30.7 - 128.6 0.0 34.3 26.5 100.8 18.4 18.2 #179.1 1.8 47.7 128.6 124 729 97 968 646 502 0 0 0 0 0 0 0 0 0.37 0.60 0.</td><td>EBL EBR WBU WBL WBT WBR NBL NBT 0.50 0.60 0.37 0.35 1.01 0.30 0.68 0.73 57.9 34.9 5.1 65.1 74.7 1.7 58.4 37.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 74.7 1.7 58.4 37.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 74.7 1.7 58.4 37.6 E C A E E B 0.0 0.0 0.0 30.7 - 128.6 0.0 34.3 105.1 128.5 128.6 105.7 130.5 128.6 19.4 18.2 #179.1 1.8 47.7 130.5 155.7 95.0 60.0 0 0 0 0 0 0 0 0</td><td>Image: Part of the sector of the se</td><td>Image: Propertion of the sector of</td></t<>	EBL EBT EBR WBU WBL WBT WBR NBL 0.50 0.60 0.37 0.35 1.01 0.30 0.68 57.9 34.9 5.1 65.1 74.7 1.7 58.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 74.7 1.7 58.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 74.7 1.7 58.4 E C A E E A E 30.7 - 128.6 0.0 34.3 26.5 100.8 18.4 18.2 #179.1 1.8 47.7 128.6 124 729 97 968 646 502 0 0 0 0 0 0 0 0 0.37 0.60 0.	EBL EBR WBU WBL WBT WBR NBL NBT 0.50 0.60 0.37 0.35 1.01 0.30 0.68 0.73 57.9 34.9 5.1 65.1 74.7 1.7 58.4 37.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 74.7 1.7 58.4 37.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 57.9 34.9 5.1 65.1 74.7 1.7 58.4 37.6 E C A E E B 0.0 0.0 0.0 30.7 - 128.6 0.0 34.3 105.1 128.5 128.6 105.7 130.5 128.6 19.4 18.2 #179.1 1.8 47.7 130.5 155.7 95.0 60.0 0 0 0 0 0 0 0 0	Image: Part of the sector of the se	Image: Propertion of the sector of

Splits and Phases: 3: Bank Street & Hunt Club Road



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Lane Group	SBR
v/c Ratio	0.26
Control Delay	1.1
Queue Delay	0.0
Total Delay	1.1
LOS	А
Approach Delay	
Approach LOS	
Queue Length 50th (m)	0.1
Queue Length 95th (m)	0.2
Internal Link Dist (m)	
Turn Bay Length (m)	120.0
Base Capacity (vph)	588
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.26
Intersection Summary	

4: Bank Street & Dazé Street/Cahill Drive TT 2026 AM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations		र्स	1		र्स	1	٦	≜ î≽			۲	<u></u>
Traffic Volume (vph)	122	0	33	73	0	148	90	965	51	3	17	411
Future Volume (vph)	122	0	33	73	0	148	90	965	51	3	17	411
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		40.0	45.0		0.0		70.0	
Storage Lanes	0		1	0		1	1		0		1	
Taper Length (m)	7.6			7.6			7.6				7.6	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor		0.97	0.97		0.98	0.95	0.99	1.00			1.00	
Frt			0.850			0.850		0.992				
Flt Protected		0.950			0.950		0.950				0.950	
Satd. Flow (prot)	0	1772	1570	0	1738	1585	1807	3417	0	0	1825	3349
Flt Permitted		0.709			0.623		0.468				0.282	
Satd. Flow (perm)	0	1277	1521	0	1121	1505	886	3417	0	0	540	3349
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			105			148		8				
Link Speed (k/h)		50			50			60				60
Link Distance (m)		72.9			188.5			169.4				264.5
Travel Time (s)		5.2			13.6			10.2				15.9
Confl. Peds. (#/hr)	19		10	10		19	6		3		3	
Confl. Bikes (#/hr)						2			1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	0%	4%	5%	0%	3%	1%	6%	2%	0%	0%	9%
Adj. Flow (vph)	122	0	33	73	0	148	90	965	51	3	17	411
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	33	0	73	148	90	1016	0	0	20	411
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	-	Perm	Perm	NA
Protected Phases		4			8		5	2				6
Permitted Phases	4		4	8		8	2			6	6	
Detector Phase	4	4	4	8	8	8	5	2		6	6	6
Switch Phase				-	-	-	-			-	-	-
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	34.3		34.3	34.3	34.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	14.0	78.0		64.0	64.0	64.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	11.7%	65.0%		53.3%	53.3%	53.3%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	7.7	71.7		57.7	57.7	57.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7		3.7	3.7	3.7
All-Bed Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1	6.3	6.3			6.3	6.3
Lead/Lag	Lan	Lag	Lag	Lao	Lag	Lag	Lead	0.0		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Becall Mode	None	None	None	None	None	None	None	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7 0	7.0	7 0	7 0	7 0	7 0	None	7 0		7 0	70	7 0
Flash Dont Walk (c)	11.0	11.0	11.0	11.0	11.0	11.0		11.0		11.0	11.0	11.0
Pedestrian Calls (#/br)	۰ ۱.0	0	0	0	0	۰ ۱		۰ ۱۱.0		0	0.11	0
Act Effet Green (c)	0	16.0	16.0	0	16.0	16.0	85.7	85.7		0	72.0	72.0
Actuated a/C Patio		0.14	0.14		0.14	0.14	0.71	0.71			0.60	0.60
Actualed y/C hallo		0.14	0.14		0.14	0.14	0.71	0.71			0.00	0.00

	1		
	-		
Lane Group	SBR	Ø3	Ø7
LareConfigurations	1		
Traffic Volume (vph)	123		
Future Volume (vph)	123		
Ideal Flow (vphpl)	1900		
Storage Length (m)	75.0		
Storage Lanes	0		
Taper Length (m)			
Lane Util. Factor	1.00		
Ped Bike Factor	0.98		
Frt	0.850		
Elt Protected	0.000		
Satd Flow (prot)	1498		
Elt Permitted	1100		
Satd Flow (perm)	1/63		
Bight Turn on Red	Voc		
	100		
Jalu. Flow (NTON)	123		
Link Speed (k/n)			
Travel Time (s)	0		
Confi. Peas. (#/nr)	6		
Confi. Bikes (#/hr)	4.00		
Peak Hour Factor	1.00		
Heavy Vehicles (%)	9%		
Adj. Flow (vph)	123		
Shared Lane Traffic (%)			
Lane Group Flow (vph)	123		
Turn Type	Perm		
Protected Phases		3	7
Permitted Phases	6		
Detector Phase	6		
Switch Phase			
Minimum Initial (s)	10.0	3.0	3.0
Minimum Split (s)	34.3	5.0	5.0
Total Split (s)	64.0	5.0	5.0
Total Split (%)	53.3%	4%	4%
Maximum Green (s)	57.7	3.0	3.0
Yellow Time (s)	3.7	2.0	2.0
All-Red Time (s)	2.6	0.0	0.0
Lost Time Adjust (s)	0.0		
Total Lost Time (s)	6.3		
Lead/Lag	Lao	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	C-Max	Max	Max
Walk Time (s)	7 0	Max	Max
Flash Dont Walk (s)	11.0		
Podostrian Calls (#/br)	0		
Act Effet Green (a)	70.0		
Actuated a/C Patia	0.60		
Actualed g/C Hallo	0.60		

4: Bank Street & Dazé Street/Cahill Drive TT 2026 AM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio		0.68	0.11		0.46	0.44	0.13	0.42			0.06	0.20
Control Delay		67.0	0.7		55.5	10.8	5.5	5.7			13.1	12.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		67.0	0.7		55.5	10.8	5.5	5.7			13.1	12.2
LOS		Е	А		Е	В	А	А			В	В
Approach Delay		52.9			25.6			5.7				10.1
Approach LOS		D			С			А				В
Queue Length 50th (m)		27.7	0.0		16.0	0.0	4.3	25.7			1.8	21.7
Queue Length 95th (m)		45.1	0.0		29.2	16.9	m8.0	38.8			6.5	36.1
Internal Link Dist (m)		48.9			164.5			145.4				240.5
Turn Bay Length (m)						40.0	45.0				70.0	
Base Capacity (vph)		328	469		288	497	694	2443			324	2009
Starvation Cap Reductn		0	0		0	0	0	0			0	0
Spillback Cap Reductn		0	0		0	0	0	0			0	0
Storage Cap Reductn		0	0		0	0	0	0			0	0
Reduced v/c Ratio		0.37	0.07		0.25	0.30	0.13	0.42			0.06	0.20
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 57 (48%), Reference	ed to phase	2:NBTL a	and 6:SB	TL, Start o	of Green							
Natural Cycle: 90												
Control Type: Actuated-Coo	ordinated											
Maximum v/c Ratio: 0.68												
Intersection Signal Delay: 12	2.7			In	tersectior	n LOS: B						
Intersection Capacity Utiliza	tion 80.4%			IC	U Level	of Service	D					
Analysis Period (min) 15												
	ا من من ماند		ساسم متنبي مما الم		- I							

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

	Å ₽ <mark>₽</mark> ₽₽
78 s	5 s 37 s
▲ ø5 • • • ø6 (R)	∦ 1 ₂ ↓ Ø8
14s 64s	5 s 37 s

	-		
Lane Group	SBR	Ø3	Ø7
v/c Ratio	0.13		
Control Delay	2.7		
Queue Delay	0.0		
Total Delay	2.7		
LOS	А		
Approach Delay			
Approach LOS			
Queue Length 50th (m)	0.0		
Queue Length 95th (m)	8.9		
Internal Link Dist (m)			
Turn Bay Length (m)	75.0		
Base Capacity (vph)	927		
Starvation Cap Reductn	0		
Spillback Cap Reductn	0		
Storage Cap Reductn	0		
Reduced v/c Ratio	0.13		
Intersection Summary			

5: Dazé Street & South Keys SC TT 2026 AM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ሻ	4		ሻ	4Î		ሻ	∱ î≽			ሻ	- † Ъ
Traffic Volume (vph)	35	1	83	5	2	7	115	233	3	2	4	160
Future Volume (vph)	35	1	83	5	2	7	115	233	3	2	4	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Storage Lanes	1		0	1		0	1		0		1	
Taper Length (m)	2.5			2.5			2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor	1.00	0.99		1.00	0.99			1.00				
Frt		0.852			0.883			0.998				0.946
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1722	1566	0	1521	1678	0	1807	3571	0	0	1825	3376
Flt Permitted	0.752			0.702			0.543				0.605	
Satd. Flow (perm)	1360	1566	0	1123	1678	0	1033	3571	0	0	1162	3376
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		83			7			2				90
Link Speed (k/h)		30			30			50				50
Link Distance (m)		107.1			73.7			57.4				76.4
Travel Time (s)		12.9			8.8			4.1				5.5
Confl. Peds. (#/hr)	2		1	1		2						
Confl. Bikes (#/hr)									1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	6%	100%	2%	20%	0%	0%	1%	2%	0%	0%	0%	3%
Adj. Flow (vph)	35	1	83	5	2	7	115	233	3	2	4	160
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	84	0	5	9	0	115	236	0	0	6	250
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		custom	pm+pt	NA
Protected Phases		4			8		5	2			1	6
Permitted Phases	4			8			2			1	6	
Detector Phase	4	4		8	8		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		1.4	5.0		1.4	1.4	5.0
Minimum Split (s)	28.0	28.0		28.1	28.1		7.3	32.9		7.3	7.3	32.9
Total Split (s)	28.0	28.0		28.1	28.1		12.0	35.0		12.0	12.0	35.0
Total Split (%)	37.3%	37.3%		37.4%	37.4%		16.0%	46.6%		16.0%	16.0%	46.6%
Maximum Green (s)	22.0	22.0		22.0	22.0		6.1	29.1		6.1	6.1	29.1
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	2.7	2.7		2.8	2.8		2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.0	6.0		6.1	6.1		5.9	5.9			5.9	5.9
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Max		None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0			15.0				15.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			12.0				12.0
Pedestrian Calls (#/hr)												
- \ /	0	0		0	0			0				0
Act Effct Green (s)	0 7.1	0 7.1		0 7.0	0 7.0		41.0	0 41.2			37.1	0 34.2

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Lane Group	SBR
Latonfigurations	
Traffic Volume (vph)	90
Future Volume (vph)	90
Ideal Flow (vphpl)	1900
Storage Length (m)	0.0
Storage Lanes	0
Taper Length (m)	
Lane Util. Factor	0.95
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	1.00
Heavy Vehicles (%)	1%
Adj. Flow (vph)	90
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	

Lanes, Volumes, Timings

Synchro 11 Report September 2021

5: Dazé Street & South Keys SC TT 2026 AM Phase 1 Build-out

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Lane Group	FBI	FBT	- FBR	WBI	WBT	WBR	NBI	NBT	NBR	SBU	SBI	SBT
v/c Batio	0.21	0.32		0.04	0.04		0.14	0.09		020	0.01	0.12
Control Delay	27.1	10.5		23.8	16.4		4 1	5.00			3.8	5.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	27.1	10.5		23.8	16.4		4.1	5.2			3.8	5.9
LOS	С	В		C	В		A	A			A	A
Approach Delay		15.3			19.1			4.9				5.9
Approach LOS		В			В			А				А
Queue Length 50th (m)	3.6	0.1		0.5	0.2		3.3	3.5			0.2	4.6
Queue Length 95th (m)	10.5	10.2		3.1	3.6		8.2	12.8			1.1	10.4
Internal Link Dist (m)		83.1			49.7			33.4				52.4
Turn Bay Length (m)	40.0						70.0				40.0	
Base Capacity (vph)	517	647		425	640		806	2521			815	2011
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.07	0.13		0.01	0.01		0.14	0.09			0.01	0.12
Intersection Summary												
Area Type:	Other											
Cycle Length: 75.1												
Actuated Cycle Length: 58	3.4											
Natural Cycle: 70												
Control Type: Semi Act-U	ncoord											
Maximum v/c Ratio: 0.32												
Intersection Signal Delay:	7.2			In	tersection	n LOS: A						
Intersection Capacity Utiliz	zation 37.4%			IC	U Level	of Service	А					
Analysis Period (min) 15												

Splits and Phases: 5: Dazé Street & South Keys SC

M _{Ø1}	▲ ¶ _{Ø2}	A 04	
12 s	35 s	28 s	
Ø 5	Ø6	4 Ø8	
12 s	35 s	28.1 s	

5: Dazé Street & South Keys SC TT 2026 AM Phase 1 Build-out

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Lane Group	SBR			
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (m)				
Queue Length 95th (m)				
Internal Link Dist (m)				
Turn Bay Length (m)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				
Intersection Summary				

Intersection

Int Delay, s/veh	0.2						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations		1		^	∱ î≽		
Traffic Vol, veh/h	0	14	0	351	242	6	
Future Vol, veh/h	0	14	0	351	242	6	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	0	-	-	-	-	
Veh in Median Storage	e,#0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	100	100	100	100	100	100	
Heavy Vehicles, %	0	0	0	0	0	0	
Mvmt Flow	0	14	0	351	242	6	

Major/Minor	Minor2	М	ajor1	Ma	jor2	
Conflicting Flow All	-	124	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	910	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuve	r -	910	-	-	-	-
Mov Cap-2 Maneuve	r -	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	910	-	-
HCM Lane V/C Ratio	-	0.015	-	-
HCM Control Delay (s)	-	9	-	-
HCM Lane LOS	-	А	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection

Int Delay, s/veh

Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		- 11	∱ î≽	
Traffic Vol, veh/h	0	37	20	351	242	0
Future Vol, veh/h	0	37	20	351	242	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	37	20	351	242	0

Major/Minor	Minor2	I	Major1	Majo	or2	
Conflicting Flow All	-	121	242	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	914	1336	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuve	r –	914	1336	-	-	-
Mov Cap-2 Maneuve	r –	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.4	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBL	NBT E	BLn1	SBT	SBR
Capacity (veh/h)	1336	-	914	-	-
HCM Lane V/C Ratio	0.015	-	0.04	-	-
HCM Control Delay (s)	7.7	-	9.1	-	-
HCM Lane LOS	А	-	А	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	≜ ⊅		ሻ	≜ ⊅		٦		1	ሻሻ		1
Traffic Volume (vph)	175	1336	33	80	1300	343	15	0	139	606	0	282
Future Volume (vph)	175	1336	33	80	1300	343	15	0	139	606	0	282
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00		0.99					0.99
Frt		0.996			0.969				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3464	0	1615	3425	0	1706	0	1570	3506	0	1617
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3464	0	1613	3425	0	1688	0	1570	3506	0	1593
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			28				164			282
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		431.4			316.9			354.1			189.5	
Travel Time (s)		25.9			19.0			15.9			8.5	
Confl. Peds. (#/hr)	11		5	5		11	3					3
Confl. Bikes (#/hr)			1									
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	5%	0%	13%	3%	2%	7%	0%	4%	1%	0%	1%
Adj. Flow (vph)	175	1336	33	80	1300	343	15	0	139	606	0	282
Shared Lane Traffic (%)												
Lane Group Flow (vph)	175	1369	0	80	1643	0	15	0	139	606	0	282
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6							
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		4		4	8		8
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0
Minimum Split (s)	17.2	47.3		12.4	47.3		17.8		17.8	22.5		22.5
Total Split (s)	28.0	53.0		28.0	53.0		19.0		19.0	49.0		49.0
Total Split (%)	21.5%	40.8%		21.5%	40.8%		14.6%		14.6%	37.7%		37.7%
Maximum Green (s)	20.6	45.7		20.6	45.7		11.2		11.2	41.2		41.2
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	C-Max		None	C-Max		None		None	None		None
Walk Time (s)		31.0			31.0							
Flash Dont Walk (s)		9.0			9.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)	17.8	69.9		11.8	61.0		28.7		28.7	28.7		28.7
Actuated g/C Ratio	0.14	0.54		0.09	0.47		0.22		0.22	0.22		0.22

Lane Group	Ø3
LaneConfigurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

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Lane Group	EBL	EBT	EBR WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.71	0.73	0.55	1.01		0.04		0.29	0.78		0.49
Control Delay	68.9	28.6	55.2	51.1		37.3		4.8	54.9		7.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0
Total Delay	68.9	28.6	55.2	51.1		37.3		4.8	54.9		7.3
LOS	Е	С	E	D		D		А	D		A
Approach Delay		33.1		51.3			8.0			39.8	
Approach LOS		С		D			А			D	
Queue Length 50th (m)	43.5	143.3	20.4	~138.7		3.0		0.0	75.9		0.0
Queue Length 95th (m)	64.5	#218.5	m23.4	m#279.6		8.4		10.3	89.8		20.4
Internal Link Dist (m)		407.4		292.9			330.1			165.5	
Turn Bay Length (m)	150.0		55.0					40.0	120.0		120.0
Base Capacity (vph)	295	1863	255	1621		373		474	1111		697
Starvation Cap Reductn	0	0	0	0		0		0	0		0
Spillback Cap Reductn	0	0	0	0		0		0	0		0
Storage Cap Reductn	0	0	0	0		0		0	0		0
Reduced v/c Ratio	0.59	0.73	0.31	1.01		0.04		0.29	0.55		0.40
Intersection Summary											
Area Type:	Other										
Cycle Length: 130											
Actuated Cycle Length: 130)										
Offset: 1 (1%), Referenced	to phase 2	:EBT and	6:WBT, Start of G	areen							
Natural Cycle: 145											
Control Type: Actuated-Coo	ordinated										
Maximum v/c Ratio: 1.01											
Intersection Signal Delay: 4	0.9		I	Intersection LOS: D							
Intersection Capacity Utilization 92.9% ICU Level of Service F											
Analysis Period (min) 15											
 Volume exceeds capacity, queue is theoretically infinite. 											
Queue shown is maximum after two cycles.											
# 95th percentile volume	# 95th percentile volume exceeds capacity, queue may be longer.										
Queue shown is maximum after two cycles.											
m Volume for 95th percer	n Volume for 95th percentile queue is metered by upstream signal.										

Splits and Phases: 1: Airport Parkway & Hunt Club Road

√ Ø1	₩ Ø2 (R)		AL _{Ø3}	*\/@4	
28 s	53 s		30 s	19 s	
✓ Ø2	← Ø6 (R)		Ø8		
28 s	53 s		49 s		

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2026 PM Phase 1 Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ሻሻ	^			7	^	1	ኘኘ	†	1	۲
Traffic Volume (vph)	33	287	1426	244	28	37	1298	95	141	108	75	115
Future Volume (vph)	33	287	1426	244	28	37	1298	95	141	108	75	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			1.00		0.93	0.93		0.96	0.98
Frt			0.978					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3509	4825	0	0	1825	3544	1617	3404	1921	1617	1807
Flt Permitted		0.176				0.208			0.950			0.950
Satd. Flow (perm)	0	643	4825	0	0	398	3544	1511	3176	1921	1556	1768
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			29					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		35		25		25		35	44		22	22
Confl. Bikes (#/hr)				1							1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	5%	5%	0%	0%	3%	1%	4%	0%	1%	1%
Adj. Flow (vph)	33	287	1426	244	28	37	1298	95	141	108	75	115
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	320	1670	0	0	65	1298	95	141	108	75	115
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	18.0	18.0	54.0		18.0	18.0	54.0	54.0	17.0	41.0	41.0	17.0
Total Split (%)	13.8%	13.8%	41.5%		13.8%	13.8%	41.5%	41.5%	13.1%	31.5%	31.5%	13.1%
Maximum Green (s)	11.5	11.5	47.8		11.5	11.5	47.8	47.8	10.5	34.0	34.0	10.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max		None	None	C-Max	C-Max	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		22.7	51.3			19.2	47.8	47.8	9.7	22.9	22.9	10.2
Actuated g/C Ratio		0.17	0.39			0.15	0.37	0.37	0.07	0.18	0.18	0.08

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Lane Group	SBT	SBR
		1
Traffic Volume (voh)	162	320
Future Volume (vph)	162	329
	100	1000
Storago Longth (m)	1900	1900
Storage Length (III)		0.0
		I
Lapel Lengui (III)	1.00	1.00
Lane Ulli. Factor	1.00	1.00
Feu Dike Factor		0.94
Fit Protoctod		0.850
	1000	1017
Salu. Flow (prot)	1902	1017
Fit Permitted	1000	4547
Sato. Flow (perm)	1902	1517
Right Turn on Red		Yes
Satd. Flow (RTOR)		137
LINK Speed (k/h)	50	
LINK Distance (m)	209.8	
Travel Time (s)	15.1	
Confl. Peds. (#/hr)		44
Contl. Bikes (#/hr)		
Peak Hour Factor	1.00	1.00
Heavy Vehicles (%)	1%	1%
Adj. Flow (vph)	163	329
Shared Lane Traffic (%)		
Lane Group Flow (vph)	163	329
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	41.0	41.0
Total Split (s)	41.0	41.0
Total Split (%)	31.5%	31.5%
Maximum Green (s)	34.0	34.0
Yellow Time (s)	3.3	3.3
All-Red Time (s)	3.7	3.7
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.0	7.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	27.0	27.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	23.5	23.5
Actuated g/C Ratio	0.18	0.18

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2026 PM Phase 1 Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		2.86	0.87			1.10	1.00	0.15	0.56	0.32	0.19	0.81
Control Delay		874.7	37.3			201.6	65.1	1.5	66.5	46.6	1.1	97.0
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		874.7	37.3			201.6	65.1	1.5	66.5	46.6	1.1	97.0
LOS		F	D			F	Е	А	Е	D	А	F
Approach Delay			171.9				67.0			44.7		
Approach LOS			F				Е			D		
Queue Length 50th (m)		~75.5	145.0			16.9	173.5	0.0	18.1	24.1	0.0	29.5
Queue Length 95th (m)		#113.2	#162.2			#55.6	#223.3	2.9	29.0	37.3	0.0	#61.1
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		112	1921			59	1303	646	274	502	508	144
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		2.86	0.87			1.10	1.00	0.15	0.51	0.22	0.15	0.80
Intersection Summary												
Area Type: C	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced to	phase 2	EBT and	6:WBT, 8	Start of G	ireen							
Natural Cycle: 125												
Control Type: Actuated-Coord	dinated											
Maximum v/c Ratio: 2.86												
Intersection Signal Delay: 111.9					ntersectio	n LOS: F	•					
Intersection Capacity Utilization 98.3%				l	CU Level	of Servic	e F					
Analysis Period (min) 15												
~ Volume exceeds capacity	, queue i	s theoreti	ically infin	ite.								
Queue shown is maximum	n after two	o cycles.										
# 95th percentile volume ex	ceeds ca	pacity, q	ueue may	be longe	er.							
Queue shown is maximum	n after two	o cycles.										

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

₩ø1	→ Ø2 (R)	▲ Ø3	
18 s	54 s	17 s	41 s
≯ø5	 Ø6 (R)	Ø7	Øs
18 s	54 s	17 s	41 s

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2026 PM Phase 1 Build-out

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Lane Group	SBT	SBR
v/c Ratio	0.47	0.85
Control Delay	50.5	49.2
Queue Delay	0.0	0.0
Total Delay	50.5	49.2
LOS	D	D
Approach Delay	58.6	
Approach LOS	Е	
Queue Length 50th (m)	37.6	49.5
Queue Length 95th (m)	53.9	77.7
Internal Link Dist (m)	185.8	
Turn Bay Length (m)		
Base Capacity (vph)	497	497
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.33	0.66
Intersection Summary		

3: Bank Street & Hunt Club Road TT 2026 PM Phase 1 Build-out

	SBU
Lane Configurations	
Traffic Volume (vph) 4 165 931 371 1 48 838 183 339 532 56	1
Future Volume (vph) 4 165 931 371 1 48 838 183 339 532 56	1
Ideal Flow (vphpl) 1900 1900 1900 1900 1900 1900 1900 190	1900
Storage Length (m) 95.0 0.0 60.0 100.0 60.0 60.0	
Storage Lanes 2 1 1 1 2 1	
Taper Length (m) 2.5 2.5 2.5	
Lane Util. Factor 0.95 0.97 0.95 1.00 0.95 1.00 0.95 1.00 0.97 0.95 1.00	0.95
Ped Bike Factor 1.00 0.96 0.99 0.98 0.97 0.96	
Frt 0.850 0.850 0.850	
Flt Protected 0.950 0.950 0.950	
Satd. Flow (prot) 0 3314 3510 1601 0 1756 3579 1617 3506 3579 1601	0
Flt Permitted 0.381 0.667 0.950	
Satd. Flow (perm) 0 1326 3510 1532 0 1225 3579 1583 3400 3579 1535	0
Right Turn on Red Yes Yes Yes	
Satd. Flow (RTOR) 279 183 157	
Link Speed (k/h) 60 60 60	
Link Distance (m) 152.6 161.6 179.7	
Travel Time (s) 9.2 9.7 10.8	
Confl. Peds. (#/hr) 4 21 21 4 55 22	
Confl. Bikes (#/hr) 5 4 2	
Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	1.00
Heavy Vehicles (%) 0% 7% 4% 2% 0% 4% 2% 1% 1% 2% 2%	0%
Adj. Flow (vph) 4 165 931 371 1 48 838 183 339 532 56	1
Shared Lane Traffic (%)	
Lane Group Flow (vph) 0 169 931 371 0 49 838 183 339 532 56	0
Turn Type custom Prot NA Perm custom Prot NA Perm Prot NA Perm	custom
Protected Phases 7 4 3 8 5 2	
Permitted Phases 7 4 3 8 2	1
Detector Phase 7 7 4 4 3 3 8 8 5 2 2	1
Switch Phase	
Minimum Initial (s) 5.0 5.0 10.0 10.0 5.0 5.0 10.0 10.0 5.0 10.0 10	5.0
Minimum Split (s) 11.5 11.5 33.7 33.7 11.5 11.5 33.7 33.7 12.1 34.5 34.5	12.1
Total Split (s) 17.0 17.0 41.0 41.0 14.0 14.0 38.0 38.0 19.0 46.0 46.0	19.0
Total Split (%) 14.2% 14.2% 34.2% 34.2% 11.7% 11.7% 31.7% 31.7% 15.8% 38.3% 38.3%	15.8%
Maximum Green (s) 10.5 10.5 34.3 34.3 7.5 7.5 31.3 31.3 11.9 39.5 39.5	11.9
Yellow Time (s) 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7	3.7
All-Red Time (s) 2.8 2.8 3.0 3.0 2.8 2.8 3.0 3.0 3.4 2.8 2.8	3.4
Lost Time Adjust (s) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	
Total Lost Time (s) 6.5 6.7 6.7 6.7 6.5 6.7 6.7 7.1 6.5 6.5	
Lead/Lag Lead Lead Lag Lag Lead Lead Lag Lag Lag Lag	Lead
Lead-Lag Optimize? Yes	Yes
Vehicle Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	3.0
Recall Mode None None Max Max None None Max Max None C-Max C-Max	None
Walk Time (s) 7.0 7.0 7.0 7.0 7.0 7.0 7.0	
Flash Dont Walk (s) 20.0 20.0 20.0 20.0 21.0 21.0	
Pedestrian Calls (#/hr) 0 0 0 0 0 0 0	
Act Effct Green (s) 10.5 37.1 37.1 7.5 31.3 31.3 11.9 39.5 39.5	
Actuated g/C Ratio 0.09 0.31 0.31 0.06 0.26 0.26 0.10 0.33 0.33	
3: Bank Street & Hunt Club Road TT 2026 PM Phase 1 Build-out

	1	Ŧ	-
Lane Group	SBI	SBT	SBB
Lane Configurations	**	**	1
Traffic Volume (unh)	220	001	207
Futuro Volume (vpn)	229	901	227
	1000	1000	1000
Ideal Flow (vpnpi)	1900	1900	100.0
Storage Length (m)	30.0		120.0
Storage Lanes	2		1
Taper Length (m)	2.5		
Lane Util. Factor	0.97	0.95	1.00
Ped Bike Factor	0.98		0.92
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3506	3579	1555
Flt Permitted	0.336		
Satd. Flow (perm)	1218	3579	1425
Right Turn on Red			Yes
Satd. Flow (RTOR)			157
Link Speed (k/h)		60	
Link Distance (m)		141.8	
Travel Time (s)		8.5	
Confl. Peds. (#/hr)	22		55
Confl. Bikes (#/hr)			4
Peak Hour Factor	1.00	1.00	1.00
Heavy Vehicles (%)	1%	2%	5%
Adi Flow (vph)	220	0.81	227
Sharod Lano Traffic (%)	223	301	221
	220	0.01	207
	230	901	227
Turn Type	Prol	NA	Perm
Protected Phases	I	6	
Permitted Phases		_	6
Detector Phase	1	6	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	12.1	34.5	34.5
Total Split (s)	19.0	46.0	46.0
Total Split (%)	15.8%	38.3%	38.3%
Maximum Green (s)	11.9	39.5	39.5
Yellow Time (s)	3.7	3.7	3.7
All-Red Time (s)	3.4	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	7.1	6.5	6.5
Lead/Lag	Lead	Lao	Lao
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Becall Mode	None	C-May	C-Max
Walk Time (s)	None	7 0	7.0
Flach Dont Walk (a)		21.0	21.0
Pedestrian Calls (#/h=)		21.0	21.0
	11.0	0	0
Act Elict Green (S)	11.9	39.5	39.5
Actuated g/C Ratio	0.10	0.33	0.33

3: Bank Street & Hunt Club Road TT 2026 PM Phase 1 Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
v/c Ratio		1.46	0.86	0.56		0.64	0.90	0.33	0.98	0.45	0.09	
Control Delay		285.6	49.1	12.9		91.1	56.4	6.7	97.0	33.2	0.3	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		285.6	49.1	12.9		91.1	56.4	6.7	97.0	33.2	0.3	
LOS		F	D	В		F	Е	А	F	С	А	
Approach Delay			67.1				49.5			54.5		
Approach LOS			Е				D			D		
Queue Length 50th (m)		~28.0	112.3	16.5		11.5	100.6	0.0	41.7	51.7	0.0	
Queue Length 95th (m)		#50.2	#150.4	47.3		#30.7	#134.6	17.1	#71.0	67.7	0.0	
Internal Link Dist (m)			128.6				137.6			155.7		
Turn Bay Length (m)		95.0				60.0		100.0	60.0		60.0	
Base Capacity (vph)		116	1085	666		76	933	548	347	1178	610	
Starvation Cap Reductn		0	0	0		0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0		0	0	0	0	0	0	
Storage Cap Reductn		0	0	0		0	0	0	0	0	0	
Reduced v/c Ratio		1.46	0.86	0.56		0.64	0.90	0.33	0.98	0.45	0.09	
Intersection Summary												
Area Type: C	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 23 (19%), Referenced	d to phase	2:NBT a	Ind 6:SBT	, Start of	Green							
Natural Cycle: 105												
Control Type: Actuated-Coor	dinated											
Maximum v/c Ratio: 1.92												
Intersection Signal Delay: 70	.9			In	tersectior	n LOS: E						
Intersection Capacity Utilizati	on 89.0%			IC	U Level o	of Servic	еE					
Analysis Period (min) 15												
 Volume exceeds capacity 	/, queue is	s theoreti	cally infini	te.								
Queue shown is maximun	n after two	cycles.										
# 95th percentile volume ex	kceeds ca	pacity, q	ueue may	be longe	r.							
Queue shown is maximun	n after two	cycles.										

Splits and Phases: 3: Bank Street & Hunt Club Road

Ø1	Ø2 (R)	√ ø3	₩ 04
19 s	46 s	14 s	41 s
▲ ø5	Ø6 (R)	🖈 _{ø7}	4 [€] _ Ø8
19 s	46 s	17 s	38 s

3: Bank Street & Hunt Club Road TT 2026 PM Phase 1 Build-out

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Lana Group	SBI	SBT	SBB
	1.00	0.02	0.40
	1.92	0.83	0.40
Control Delay	4/1.8	35.5	10.6
Queue Delay	0.0	0.0	0.0
Total Delay	471.8	35.5	10.6
LOS	F	D	В
Approach Delay		101.4	
Approach LOS		F	
Queue Length 50th (m)	~44.2	48.0	3.3
Queue Length 95th (m)	#69.8	89.5	26.7
Internal Link Dist (m)		117.8	
Turn Bay Length (m)	30.0		120.0
Base Capacity (vph)	120	1178	574
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.92	0.83	0.40
Interpretion Cummons			

4: Bank Street & Dazé Street/Cahill Drive TT 2026 PM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		ę	1		ર્શ	1		<u>ک</u>	A			۲
Traffic Volume (vph)	160	1	132	82	0	101	2	158	658	92	4	146
Future Volume (vph)	160	1	132	82	0	101	2	158	658	92	4	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		40.0		45.0		0.0		70.0
Storage Lanes	0		1	0		1		1		0		1
Taper Length (m)	7.6			7.6				7.6				7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Ped Bike Factor		0.92	0.95		0.97	0.90			0.99			0.99
Frt			0.850			0.850			0.982			
Flt Protected		0.953			0.950			0.950				0.950
Satd. Flow (prot)	0	1813	1617	0	1659	1633	0	1825	3482	0	0	1807
Flt Permitted		0.668			0.548			0.159				0.317
Satd. Flow (perm)	0	1172	1535	0	932	1471	0	305	3482	0	0	594
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			132			105			17			
Link Speed (k/h)		50			50				60			
Link Distance (m)		72.9			188.5				169.4			
Travel Time (s)		5.2			13.6				10.2			
Confl. Peds. (#/hr)	44		18	18		44		30		19		19
Confl. Bikes (#/hr)			4			1				2		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	0%	1%	10%	0%	0%	0%	0%	2%	1%	0%	1%
Adj. Flow (vph)	160	1	132	82	0	101	2	158	658	92	4	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	132	0	82	101	0	160	750	0	0	150
Turn Type	Perm	NA	Perm	Perm	NA	Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases		4			8			5	2			1
Permitted Phases	4		4	8		8	5	2			1	6
Detector Phase	4	4	4	8	8	8	5	5	2		1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	5.0	10.0		5.0	5.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	11.3	34.3		11.3	11.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	17.0	17.0	61.0		17.0	17.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	14.2%	14.2%	50.8%		14.2%	14.2%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	10.7	10.7	54.7		10.7	10.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7		3.7	3.7
All-Red Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6	2.6		2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1		6.3	6.3			6.3
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	C-Max		None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0			7.0			
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0			11.0			
Pedestrian Calls (#/hr)	0	0	0	0	0	0			0			
Act Effct Green (s)		21.7	21.7		21.7	21.7		74.7	65.6			74.5
Actuated g/C Ratio		0.18	0.18		0.18	0.18		0.62	0.55			0.62

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1 O	0.07	055	~~	~-
Lane Group	SBT	SBR	Ø3	Ø7
Lane F onfigurations	<u>.</u>	7		
Traffic Volume (vph)	1174	330		
Future Volume (vph)	1174	330		
Ideal Flow (vphpl)	1900	1900		
Storage Length (m)		75.0		
Storage Lanes		0		
Taper Length (m)				
Lane Util. Factor	0.95	1.00		
Ped Bike Factor		0.93		
Frt		0.850		
Flt Protected				
Satd. Flow (prot)	3579	1633		
Flt Permitted				
Satd. Flow (perm)	3579	1514		
Right Turn on Red		Yes		
Satd. Flow (RTOR)		324		
Link Speed (k/h)	60			
Link Distance (m)	264.5			
Travel Time (s)	15.9			
Confl. Peds. (#/hr)		30		
Confl. Bikes (#/hr)		5		
Peak Hour Factor	1.00	1.00		
Heavy Vehicles (%)	2%	0%		
Adi, Flow (vph)	1174	330		
Shared Lane Traffic (%)	11/4	000		
Lane Group Flow (vph)	1174	330		
Turn Type	NA	Perm		
Protected Phases	- A	1 GHH	3	7
Permitted Phases	0	6	3	1
Peteotor Phases	c	Ø		
Delector Pridse	6	b		
Switch Phase	10.0	10.0	0.0	0.0
IVIINIMUM INITIAL (S)	10.0	10.0	3.0	3.0
Minimum Split (s)	34.3	34.3	5.0	5.0
Total Split (s)	61.0	61.0	5.0	5.0
Total Split (%)	50.8%	50.8%	4%	4%
Maximum Green (s)	54.7	54.7	3.0	3.0
Yellow Time (s)	3.7	3.7	2.0	2.0
All-Red Time (s)	2.6	2.6	0.0	0.0
Lost Time Adjust (s)	0.0	0.0		
Total Lost Time (s)	6.3	6.3		
Lead/Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	Max	Max
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	11.0	11.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)	65.5	65.5		
Actuated q/C Ratio	0.55	0.55		
station g/o riallo	0.00	0.00		

4: Bank Street & Dazé Street/Cahill Drive TT 2026 PM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
v/c Ratio		0.76	0.34		0.49	0.29		0.52	0.39			0.33
Control Delay		68.0	8.7		52.2	8.6		27.0	14.2			10.3
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Delay		68.0	8.7		52.2	8.6		27.0	14.2			10.3
LOS		Е	А		D	А		С	В			В
Approach Delay		41.3			28.1				16.5			
Approach LOS		D			С				В			
Queue Length 50th (m)		36.4	0.0		17.5	0.0		22.6	37.8			11.5
Queue Length 95th (m)		55.5	14.9		31.0	12.6		m38.6	m47.3			23.8
Internal Link Dist (m)		48.9			164.5				145.4			
Turn Bay Length (m)						40.0		45.0				70.0
Base Capacity (vph)		301	493		239	456		330	1911			486
Starvation Cap Reductn		0	0		0	0		0	0			0
Spillback Cap Reductn		0	0		0	0		0	0			0
Storage Cap Reductn		0	0		0	0		0	0			0
Reduced v/c Ratio		0.53	0.27		0.34	0.22		0.48	0.39			0.31
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 14 (12%), Reference	ed to phase	2:NBTL a	and 6:SB	TL, Start	of Green							
Natural Cycle: 90												
Control Type: Actuated-Coo	rdinated											
Maximum v/c Ratio: 0.76												
Intersection Signal Delay: 19.8 Intersection LOS: B												
Intersection Capacity Utiliza	tion 87.7%			IC	CU Level o	of Service	E					
Analysis Period (min) 15												

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

M _{Ø1}	Ø2 (R)	.	e ↔ Ø4
17 s	61s	5 s	37 s
🔊 Ø5	Ø6 (R)	.	Ø8
17 s	61s	5 s	37 s

4: Bank Street & Dazé Street/Cahill Drive TT 2026 PM Phase 1 Build-out

	Ţ	1		
	•			
Lane Group	SBT	SBR	Ø3	Ø7
v/c Ratio	0.60	0.34		
Control Delay	21.5	3.2		
Queue Delay	0.0	0.0		
Total Delay	21.5	3.2		
LOS	С	А		
Approach Delay	16.8			
Approach LOS	В			
Queue Length 50th (m)	94.6	0.6		
Queue Length 95th (m)	140.4	16.5		
Internal Link Dist (m)	240.5			
Turn Bay Length (m)		75.0		
Base Capacity (vph)	1952	973		
Starvation Cap Reductn	0	0		
Spillback Cap Reductn	0	0		
Storage Cap Reductn	0	0		
Reduced v/c Ratio	0.60	0.34		
Intersection Summary				

5: Dazé Street & South Keys SC TT 2026 PM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ሻ	4Î		ሻ	4Î		ሻ	↑ ĵ≽			ሻ	- † 1>
Traffic Volume (vph)	85	3	221	2	4	13	195	199	18	1	21	299
Future Volume (vph)	85	3	221	2	4	13	195	199	18	1	21	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Storage Lanes	1		0	1		0	1		0		1	
Taper Length (m)	2.5			2.5			2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor	0.99	0.98		1.00	0.98		1.00	1.00			0.99	0.99
Frt		0.852			0.885			0.988				0.952
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1825	1608	0	1825	1673	0	1825	3564	0	0	1825	3412
Flt Permitted	0.746			0.389			0.440				0.616	
Satd. Flow (perm)	1421	1608	0	745	1673	0	843	3564	0	0	1174	3412
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		221			13			12				74
Link Speed (k/h)		30			30			50				50
Link Distance (m)		107.1			73.7			57.4				76.4
Travel Time (s)		12.9			8.8			4.1				5.5
Confl. Peds. (#/hr)	6		3	3		6	3		5		5	
Confl. Bikes (#/hr)	-		2	-		-	-		1		-	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%
Adi, Flow (vph)	85	3	221	2	4	13	195	199	18	1	21	299
Shared Lane Traffic (%)		-										
Lane Group Flow (vph)	85	224	0	2	17	0	195	217	0	0	22	441
	Perm	NA	-	Perm	NA	-	pm+pt	NA	-	custom	pm+pt	NA
Protected Phases		4			8		5	2			1	6
Permitted Phases	4			8	Ŭ		2	_		1	6	Ū
Detector Phase	4	4		8	8		5	2		1	1	6
Switch Phase	-			-	-		-			-	-	-
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		5.0	5.0	10.0
Minimum Split (s)	28.1	28.1		28.1	28.1		10.9	32.9		10.9	10.9	32.9
Total Split (s)	36.1	36.1		36.1	36.1		35.0	58.0		15.9	15.9	38.9
Total Split (%)	32.8%	32.8%		32.8%	32.8%		31.8%	52.7%		14.5%	14.5%	35.4%
Maximum Green (s)	30.0	30.0		30.0	30.0		29.1	52.1		10.0	10.0	33.0
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Bed Time (s)	2.8	2.8		2.8	2.8		2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		2.0	0.0	0.0
Total Lost Time (s)	6.1	6.0		6.1	6.1		5.9	5.9			5.9	5.9
Lead/Lag	0.1	0.1		0.1	0.1		l ead	Lag		Lead	Lead	l an
Lead-Lag							Ves	Ves		Ves	Ves	Ves
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	May		None	None	Max
Walk Time (s)	7.0	70		7 0	70		None	15.0		None	None	15.0
Flash Dont Walk (c)	15.0	15.0		15.0	15.0			12.0				12.0
Podestrian Calls (#/br)	15.0	15.0		15.0	15.0			12.0				12.0
	U + 1 A	U 11 4		11 /	11 4		FC 0	52.6			10.0	0 40 E
Actuated a/C Datia	11.4	0.14		0.14	0.14		0.70	52.0			48.3	42.5
Actualed g/C Hatlo	0.14	0.14		0.14	0.14		0.70	0.65			0.60	0.53

Lanes, Volumes, Timings

Synchro 11 Report September 2021 1

Lane Group	SBR
Latonfigurations	
Traffic Volume (vph)	142
Future Volume (vph)	142
Ideal Flow (vphpl)	1900
Storage Length (m)	0.0
Storage Lanes	0
Taper Length (m)	
Lane Util. Factor	0.95
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	3
Confl. Bikes (#/hr)	
Peak Hour Factor	1.00
Heavy Vehicles (%)	1%
Adj. Flow (vph)	142
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	

Lanes, Volumes, Timings

Synchro 11 Report September 2021

5: Dazé Street & South Keys SC TT 2026 PM Phase 1 Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT		
v/c Ratio	0.42	0.54		0.02	0.07		0.28	0.09			0.03	0.24		
Control Delay	40.0	10.5		32.5	19.6		5.1	6.2			4.4	9.0		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0		
Total Delay	40.0	10.5		32.5	19.6		5.1	6.2			4.4	9.0		
LOS	D	В		С	В		А	А			А	A		
Approach Delay		18.6			21.0			5.6				8.8		
Approach LOS		В			С			А				A		
Queue Length 50th (m)	11.1	0.4		0.2	0.5		7.4	3.8			0.8	13.7		
Queue Length 95th (m)	27.1	19.3		2.3	6.2		16.3	12.9			2.9	25.7		
Internal Link Dist (m)		83.1			49.7			33.4				52.4		
Turn Bay Length (m)	40.0						70.0				40.0			
Base Capacity (vph)	535	743		280	638		955	2335			849	1838		
Starvation Cap Reductn	0	0		0	0		0	0			0	0		
Spillback Cap Reductn	0	0		0	0		0	0			0	0		
Storage Cap Reductn	0	0		0	0		0	0			0	0		
Reduced v/c Ratio	0.16	0.30		0.01	0.03		0.20	0.09			0.03	0.24		
Intersection Summary														
Area Type:	Other													
Cycle Length: 110														
Actuated Cycle Length: 80	.4													
Natural Cycle: 75														
Control Type: Semi Act-Un	coord													
Maximum v/c Ratio: 0.54														
Intersection Signal Delay:	10.4			In	Intersection LOS: B									
Intersection Capacity Utiliz	ation 62.8%			IC	U Level o	of Service	В							
Analysis Period (min) 15														

Splits and Phases: 5: Dazé Street & South Keys SC

Mø1	1 ø2		<u>⊿</u> _{Ø4}
15.9 s	58 s		36.1s
▲ Ø5		Ø6	↓ Ø8
35 s		38.9 s	36.1 s

5: Dazé Street & South Keys SC TT 2026 PM Phase 1 Build-out

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Lane Group	SBR		
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (m)			
Queue Length 95th (m)			
Internal Link Dist (m)			
Turn Bay Length (m)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

Intersection

Int Delay, s/veh

Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		^	≜ î≽	
Traffic Vol, veh/h	0	9	0	432	553	12
Future Vol, veh/h	0	9	0	432	553	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	9	0	432	553	12

Major/Minor	Minor2	N	lajor1	Ma	jor2		
Conflicting Flow All	-	283	-	0	-	0	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	6.9	-	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	3.3	-	-	-	-	
Pot Cap-1 Maneuver	0	720	0	-	-	-	
Stage 1	0	-	0	-	-	-	
Stage 2	0	-	0	-	-	-	
Platoon blocked, %				-	-	-	
Mov Cap-1 Maneuve	r -	720	-	-	-	-	
Mov Cap-2 Maneuve	r -	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	В		

Minor Lane/Major Mvmt	NBT EB	Ln1	SBT	SBR
Capacity (veh/h)		720	-	-
HCM Lane V/C Ratio	- 0.0	013	-	-
HCM Control Delay (s)	- 1	0.1	-	-
HCM Lane LOS	-	В	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection

Int Delay, s/veh

Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1	- ሽ	- 11	∱ î≽	
Traffic Vol, veh/h	0	45	58	432	553	0
Future Vol, veh/h	0	45	58	432	553	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	45	58	432	553	0

Major/Minor	Minor2	I	Major1	Majo	or2					
Conflicting Flow All	-	277	553	0	-	0				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				
Critical Hdwy	-	6.9	4.1	-	-	-				
Critical Hdwy Stg 1	-	-	-	-	-	-				
Critical Hdwy Stg 2	-	-	-	-	-	-				
Follow-up Hdwy	-	3.3	2.2	-	-	-				
Pot Cap-1 Maneuver	0	726	1027	-	-	-				
Stage 1	0	-	-	-	-	-				
Stage 2	0	-	-	-	-	-				
Platoon blocked, %				-	-	-				
Mov Cap-1 Maneuver	· -	726	1027	-	-	-				
Mov Cap-2 Maneuver	· -	-	-	-	-	-				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				

Approach	EB	NB	SB
HCM Control Delay, s	10.3	1	0
HCM LOS	В		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	1027	- 726	-	-
HCM Lane V/C Ratio	0.056	- 0.062	-	-
HCM Control Delay (s)	8.7	- 10.3	-	-
HCM Lane LOS	А	- B	-	-
HCM 95th %tile Q(veh)	0.2	- 0.2	-	-

Future (2031) Total Traffic

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ľ	≜ ⊅		ሻ	≜ î≽		٦		1	ካካ		1
Traffic Volume (vph)	356	1118	25	69	991	632	16	0	86	265	0	152
Future Volume (vph)	356	1118	25	69	991	632	16	0	86	265	0	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	0.99							
Frt		0.997			0.942				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3436	0	1630	3186	0	1706	0	1458	3437	0	1570
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1806	3436	0	1628	3186	0	1706	0	1458	3437	0	1570
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			117				164			152
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		431.4			316.9			354.1			189.5	
Travel Time (s)		25.9			19.0			15.9			8.5	
Confl. Peds. (#/hr)	7		2	2		7						
Confl. Bikes (#/hr)						1						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	6%	0%	12%	11%	1%	7%	0%	12%	3%	0%	4%
Adj. Flow (vph)	356	1118	25	69	991	632	16	0	86	265	0	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	356	1143	0	69	1623	0	16	0	86	265	0	152
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6							
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		4		4	8		8
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0
Minimum Split (s)	12.4	47.3		12.4	47.3		17.8		17.8	22.5		22.5
Total Split (s)	32.0	50.0		32.0	50.0		18.0		18.0	48.0		48.0
Total Split (%)	24.6%	38.5%		24.6%	38.5%		13.8%		13.8%	36.9%		36.9%
Maximum Green (s)	24.6	42.7		24.6	42.7		10.2		10.2	40.2		40.2
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	C-Max		None	C-Max		None		None	None		None
Walk Time (s)		31.0			31.0							
Flash Dont Walk (s)		9.0			9.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)	35.4	84.0		10.9	56.7		15.4		15.4	15.4		15.4
Actuated g/C Ratio	0.27	0.65		0.08	0.44		0.12		0.12	0.12		0.12

Lanes, Volumes, Timings

Synchro 11 Report September 2021

Lane Group	Ø3
LaneConfigurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

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Lane Group	EBL	EBT	EBR WB	L WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.72	0.51	0.5	1 1.12		0.08		0.27	0.65		0.48
Control Delay	52.3	14.8	48.4	4 90.7		50.1		2.1	62.2		12.7
Queue Delay	0.0	0.0	0.	0.0		0.0		0.0	0.0		0.0
Total Delay	52.3	14.8	48.	4 90.7		50.1		2.1	62.2		12.7
LOS	D	В	[D F		D		А	E		В
Approach Delay		23.7		89.0			9.6			44.1	
Approach LOS		С		F			А			D	
Queue Length 50th (m)	83.5	81.2	16.	8 ~232.6		3.7		0.0	33.9		0.0
Queue Length 95th (m)	115.1	118.1	m22.	5 m#287.8		10.4		0.0	46.4		18.8
Internal Link Dist (m)		407.4		292.9			330.1			165.5	
Turn Bay Length (m)	150.0		55.	0				40.0	120.0		120.0
Base Capacity (vph)	492	2220	30	8 1454		202		317	1062		590
Starvation Cap Reductn	0	0		0 0		0		0	0		0
Spillback Cap Reductn	0	0		0 0		0		0	0		0
Storage Cap Reductn	0	0		0 0		0		0	0		0
Reduced v/c Ratio	0.72	0.51	0.2	2 1.12		0.08		0.27	0.25		0.26
Intersection Summary											
Area Type:	Other										
Cycle Length: 130											
Actuated Cycle Length: 130)										
Offset: 1 (1%), Referenced	to phase 2	EBT and	6:WBT, Start of	Green							
Natural Cycle: 150											
Control Type: Actuated-Coc	ordinated										
Maximum v/c Ratio: 1.12											
Intersection Signal Delay: 5	5.4			Intersection	on LOS: E						
Intersection Capacity Utiliza	ation 94.7%			ICU Level	of Service	€ F					
Analysis Period (min) 15											
 Volume exceeds capaci 	ity, queue i	s theoretic	ally infinite.								
Queue shown is maximu	um after two	o cycles.									
# 95th percentile volume	exceeds ca	pacity, qu	eue may be lon	ger.							
Queue shown is maximu	um after two	o cycles.									
m Volume for 95th percer	ntile queue	is metered	d by upstream s	ignal.							

Splits and Phases: 1: Airport Parkway & Hunt Club Road

√ Ø1	♥ → Ø2 (R)	A Aga	104
32 s	50 s	30 s	18 s
	← ● Ø6 (R)	Ø8	
32 s	50 s	48 s	

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2031 AM Phase 1 Horizon Year

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ካካ	<u>ተተ</u> ኑ			ሻ	- † †	1	ካካ	↑	1	ሻ
Traffic Volume (vph)	19	172	1110	98	2	16	1218	78	200	109	67	49
Future Volume (vph)	19	172	1110	98	2	16	1218	78	200	109	67	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			0.99		0.96	0.94		0.99	1.00
Frt			0.988					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3478	4816	0	0	1515	3411	1601	3278	1902	1541	1772
Flt Permitted		0.137				0.833			0.950			0.950
Satd. Flow (perm)	0	499	4816	0	0	1319	3411	1543	3087	1902	1519	1768
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			12					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		15		18		18		15	32		2	2
Confl. Bikes (#/hr)				1				2				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	2%	7%	7%	0%	23%	7%	2%	8%	1%	6%	3%
Adj. Flow (vph)	19	172	1110	98	2	16	1218	78	200	109	67	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	191	1208	0	0	18	1218	78	200	109	67	49
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	15.0	15.0	52.0		15.0	15.0	52.0	52.0	22.0	41.0	41.0	22.0
Total Split (%)	11.5%	11.5%	40.0%		11.5%	11.5%	40.0%	40.0%	16.9%	31.5%	31.5%	16.9%
Maximum Green (s)	8.5	8.5	45.8		8.5	8.5	45.8	45.8	15.5	34.0	34.0	15.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min		None	None	C-Min	C-Min	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		29.3	78.2			8.9	49.8	49.8	12.9	18.0	18.0	9.0
Actuated g/C Ratio		0.23	0.60			0.07	0.38	0.38	0.10	0.14	0.14	0.07

Lanes, Volumes, Timings

Synchro 11 Report September 2021

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Lane Group	SBT	SBR
Lane C onfigurations	1	7
Traffic Volume (vph)	32	171
Future Volume (vph)	32	171
Ideal Flow (vphpl)	1900	1900
Storage Length (m)		0.0
Storage Lanes		1
Taper Length (m)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		0.95
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1921	1601
Flt Permitted		
Satd. Flow (perm)	1921	1524
Right Turn on Red		Yes
Satd. Flow (RTOR)		137
Link Speed (k/h)	50	
Link Distance (m)	209.8	
Travel Time (s)	15.1	
Confl. Peds. (#/hr)		32
Confl. Bikes (#/hr)		
Peak Hour Factor	1.00	1.00
Heavy Vehicles (%)	0%	2%
Adj. Flow (vph)	32	171
Shared Lane Traffic (%)		
Lane Group Flow (vph)	32	171
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Snlit (s)	41.0	41 0
Total Split (s)	41.0	41.0
Total Split (%)	31.5%	31 5%
Maximum Green (s)	3/ 0	34.0
Vellow Time (c)	04.0 2 2	2.2
	0.0	0.0
Lost Timo Adjust (s)	3.7	3.7
	0.0	0.0
	7.0	7.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Venicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	27.0	27.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	11.7	11.7
Actuated g/C Ratio	0.09	0.09

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2031 AM Phase 1 Horizon Year

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		1.71	0.42			0.20	0.93	0.11	0.62	0.41	0.20	0.40
Control Delay		383.1	11.9			60.6	51.8	0.3	64.3	57.1	1.4	66.8
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		383.1	11.9			60.6	51.8	0.3	64.3	57.1	1.4	66.8
LOS		F	В			E	D	А	Е	Е	А	E
Approach Delay			62.6				48.9			51.0		
Approach LOS			Е				D			D		
Queue Length 50th (m)		~37.6	35.4			4.5	147.4	0.0	25.6	26.8	0.0	12.2
Queue Length 95th (m)		#62.7	58.7			12.1	#214.8	0.0	37.5	43.4	0.0	24.8
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		112	2903			100	1306	679	390	497	498	209
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		1.71	0.42			0.18	0.93	0.11	0.51	0.22	0.13	0.23
Intersection Summary												
Area Type: O	ther											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced to	phase 2:	EBT and	6:WBT, S	start of G	reen							
Natural Cycle: 135												
Control Type: Actuated-Coord	dinated											
Maximum v/c Ratio: 1.71												
Intersection Signal Delay: 54.	0			Ir	ntersectior	n LOS: D)					
Intersection Capacity Utilization	on 89.9%			IC	CU Level o	of Servic	еE					
Analysis Period (min) 15												
~ Volume exceeds capacity	, queue is	s theoretic	cally infini	te.								
Queue shown is maximum	after two	cycles.										
# 95th percentile volume ex	ceeds ca	pacity, qu	ieue may	be longe	r.							
Queue shown is maximum	after two	cycles.										

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

√ Ø1	> Ø2 (R)	A Ø3	
15 s	52 s	22 s	41 s
≯ø5	 Ø6 (R)	Ø7	Øs
15 s	52 s	22 s	41 s

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2031 AM Phase 1 Horizon Year

	1	1
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Lane Group	SBT	SBR
v/c Ratio	0.18	0.65
Control Delay	56.1	26.6
Queue Delay	0.0	0.0
Total Delay	56.1	26.6
LOS	E	С
Approach Delay	38.2	
Approach LOS	D	
Queue Length 50th (m)	7.8	8.4
Queue Length 95th (m)	17.2	30.3
Internal Link Dist (m)	185.8	
Turn Bay Length (m)		
Base Capacity (vph)	502	499
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.06	0.34
Intersection Summary		

3: Bank Street & Hunt Club Road TT 2031 AM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ሻሻ	<u></u>	1		<u>ک</u>	<u></u>	1	ሻሻ	<u></u>	*	ሻሻ	<u></u>
Traffic Volume (vph)	144	755	278	1	33	1002	200	300	980	23	88	335
Future Volume (vph)	144	755	278	1	33	1002	200	300	980	23	88	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	95.0		0.0		60.0		100.0	60.0		60.0	30.0	
Storage Lanes	2		1		1		1	2		1	2	
Taper Length (m)	2.5				2.5			2.5			2.5	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95
Ped Bike Factor	0.99		0.98		1.00		0.97	0.97		0.96	0.99	
Frt			0.850				0.850			0.850		
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	3190	3380	1570	0	1725	3411	1617	3372	3544	1633	3471	3444
Flt Permitted	0.950							0.950			0.950	
Satd. Flow (perm)	3172	3380	1533	0	1809	3411	1572	3259	3544	1569	3433	3444
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			278				279			216		
Link Speed (k/h)		60				60			60			60
Link Distance (m)		152.6				161.6			179.7			141.8
Travel Time (s)		9.2				9.7			10.8			8.5
Confl. Peds. (#/hr)	10		9		9		10	25		20	20	
Confl. Bikes (#/hr)							3			3		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	11%	8%	4%	0%	6%	7%	1%	5%	3%	0%	2%	6%
Adj. Flow (vph)	144	755	278	1	33	1002	200	300	980	23	88	335
Shared Lane Traffic (%)												
Lane Group Flow (vph)	144	755	278	0	34	1002	200	300	980	23	88	335
Turn Type	Prot	NA	Perm	custom	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4			3	8		5	2		1	6
Permitted Phases			4	3			8			2		
Detector Phase	7	4	4	3	3	8	8	5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.5	33.7	33.7	11.5	11.5	33.7	33.7	12.1	34.5	34.5	12.1	34.5
Total Split (s)	21.0	45.0	45.0	13.0	13.0	37.0	37.0	25.0	48.0	48.0	14.0	37.0
Total Split (%)	17.5%	37.5%	37.5%	10.8%	10.8%	30.8%	30.8%	20.8%	40.0%	40.0%	11.7%	30.8%
Maximum Green (s)	14.5	38.3	38.3	6.5	6.5	30.3	30.3	17.9	41.5	41.5	6.9	30.5
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.8	3.0	3.0	2.8	2.8	3.0	3.0	3.4	2.8	2.8	3.4	2.8
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)	6.5	6.7	6.7		6.5	6.7	6.7	7.1	6.5	6.5	7.1	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	None	Max	Max	None	C-Max	C-Max	None	C-Max
Walk Time (s)		7.0	7.0			7.0	7.0		7.0	7.0		7.0
Flash Dont Walk (s)		20.0	20.0			20.0	20.0		21.0	21.0		21.0
Pedestrian Calls (#/hr)		0	0			0	0		0	0		0
Act Effct Green (s)	10.7	43.5	43.5		6.4	34.1	34.1	15.4	41.6	41.6	6.8	33.0
Actuated g/C Ratio	0.09	0.36	0.36		0.05	0.28	0.28	0.13	0.35	0.35	0.06	0.28

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Long Group	CDD
	SBR
Lare Configurations	7
Traffic Volume (vph)	155
Future Volume (vph)	155
Ideal Flow (vphpl)	1900
Storage Length (m)	120.0
Storage Lanes	1
Taper Length (m)	
Lane Util. Factor	1.00
Ped Bike Factor	0.96
Frt	0.850
Elt Protected	0.000
Satd Flow (prot)	1458
Elt Permitted	1400
Satd Flow (norm)	1205
Dight Turp on Dod	1395
	Tes
Said. Flow (KTUK)	281
LINK Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	25
Confl. Bikes (#/hr)	
Peak Hour Factor	1.00
Heavy Vehicles (%)	12%
Adj. Flow (vph)	155
Shared Lane Traffic (%)	
Lane Group Flow (vph)	155
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phase	6
Switch Phase	0
Minimum Initial (e)	10.0
Minimum Split (c)	24 5
Total Split (s)	04.0
Total Split (S)	37.0
Total Split (%)	30.8%
Walliam Time ()	30.5
Yellow Lime (s)	3.7
All-Red Time (s)	2.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	33.0
Actuated g/C Batio	0.28
notation y/O hallo	0.20

3: Bank Street & Hunt Club Road TT 2031 AM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
v/c Ratio	0.51	0.62	0.38		0.36	1.04	0.31	0.69	0.80	0.03	0.45	0.35
Control Delay	57.9	35.3	5.1		65.5	80.8	1.9	58.6	41.3	0.1	66.7	28.6
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	57.9	35.3	5.1		65.5	80.8	1.9	58.6	41.3	0.1	66.7	28.6
LOS	Е	D	А		Е	F	А	Е	D	А	Е	С
Approach Delay		30.9				67.6			44.5			27.1
Approach LOS		С				E			D			С
Queue Length 50th (m)	16.9	81.7	0.0		7.9	~133.4	0.0	35.1	109.1	0.0	10.9	22.6
Queue Length 95th (m)	26.6	103.5	18.4		18.5	#185.0	2.7	48.8	134.7	0.0	19.3	30.8
Internal Link Dist (m)		128.6				137.6			155.7			117.8
Turn Bay Length (m)	95.0				60.0		100.0	60.0		60.0	30.0	
Base Capacity (vph)	385	1224	732		97	968	646	502	1229	685	199	945
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	0.37	0.62	0.38		0.35	1.04	0.31	0.60	0.80	0.03	0.44	0.35
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 120)											
Offset: 65 (54%), Reference	ed to phase	2:NBT ar	nd 6:SBT	, Start of G	Green							
Natural Cycle: 95												
Control Type: Actuated-Coc	ordinated											
Maximum v/c Ratio: 1.04												
Intersection Signal Delay: 4	5.1			Int	ersectio	n LOS: D						
Intersection Capacity Utiliza	ation 86.1%	,		IC	U Level	of Service	еE					
Analysis Period (min) 15												
~ Volume exceeds capaci	ity, queue i	s theoretic	ally infini	te.								
Queue shown is maximu	im after two	o cycles.										
# 95th percentile volume e	exceeds ca	pacity, qu	eue may	be longer.								
Queue shown is maximu	im after two	o cycles.										

Splits and Phases: 3: Bank Street & Hunt Club Road



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Lane Group	SBR
v/c Ratio	0.26
Control Delay	1.2
Queue Delay	0.0
Total Delay	1.2
LOS	А
Approach Delay	
Approach LOS	
Queue Length 50th (m)	0.1
Queue Length 95th (m)	0.2
Internal Link Dist (m)	
Turn Bay Length (m)	120.0
Base Capacity (vph)	586
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.26

4: Bank Street & Dazé Street/Cahill Drive TT 2031 AM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations		÷	1		र्च	1	<u>۲</u>	≜ î≽			٦	- † †
Traffic Volume (vph)	122	0	33	73	0	148	90	987	51	3	17	421
Future Volume (vph)	122	0	33	73	0	148	90	987	51	3	17	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		40.0	45.0		0.0		70.0	
Storage Lanes	0		1	0		1	1		0		1	
Taper Length (m)	7.6			7.6			7.6				7.6	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor		0.97	0.97		0.98	0.95	0.99	1.00			1.00	
Frt			0.850			0.850		0.993				
Flt Protected		0.950			0.950		0.950				0.950	
Satd. Flow (prot)	0	1772	1570	0	1738	1585	1807	3421	0	0	1825	3349
Flt Permitted		0.709			0.623		0.462				0.276	
Satd. Flow (perm)	0	1277	1521	0	1121	1505	874	3421	0	0	529	3349
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			105			148		8				
Link Speed (k/h)		50			50			60				60
Link Distance (m)		72.9			188.5			169.4				264.5
Travel Time (s)		5.2			13.6			10.2				15.9
Confl. Peds. (#/hr)	19		10	10		19	6		3		3	
Confl. Bikes (#/hr)						2			1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	0%	4%	5%	0%	3%	1%	6%	2%	0%	0%	9%
Adj. Flow (vph)	122	0	33	73	0	148	90	987	51	3	17	421
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	33	0	73	148	90	1038	0	0	20	421
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	Perm	NA
Protected Phases		4			8		5	2				6
Permitted Phases	4		4	8		8	2			6	6	
Detector Phase	4	4	4	8	8	8	5	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	34.3		34.3	34.3	34.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	14.0	78.0		64.0	64.0	64.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	11.7%	65.0%		53.3%	53.3%	53.3%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	7.7	71.7		57.7	57.7	57.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1	6.3	6.3			6.3	6.3
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0		0	0	0
Act Effct Green (s)		16.9	16.9		16.9	16.9	85.7	85.7			72.0	72.0
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.71	0.71			0.60	0.60

Lanes, Volumes, Timings

Synchro 11 Report September 2021

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Lane Group	SBR	Ø3	Ø7
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Traffic Volume (voh)	123		
Future Volume (vph)	123		
Ideal Flow (vphpl)	1900		
Storage Length (m)	75.0		
Storage Length (III)	75.0		
Storage Laries	0		
	4 00		
Lane Util. Factor	1.00		
Ped Bike Factor	0.98		
Frt	0.850		
Flt Protected			
Satd. Flow (prot)	1498		
Flt Permitted			
Satd. Flow (perm)	1463		
Right Turn on Red	Yes		
Satd. Flow (RTOR)	123		
Link Speed (k/h)			
Link Distance (m)			
Travel Time (s)			
Confl. Peds. (#/hr)	6		
Confl. Bikes (#/hr)			
Peak Hour Factor	1.00		
Heavy Vehicles (%)	9%		
Adj. Flow (vph)	123		
Shared Lane Traffic (%)			
Lane Group Flow (vph)	123		
Turn Type	Perm		
Protected Phases		3	7
Permitted Phases	6	0	1
Detector Phase	6		
Switch Phase	0		
	10.0	2.0	2.0
Minimum Colit (s)	10.0	5.0	5.0
Total Split (s)	34.3	5.0	5.0
Total Split (S)	64.0	5.0	5.0
Total Split (%)	53.3%	4%	4%
Maximum Green (s)	5/./	3.0	3.0
Yellow Lime (s)	3.7	2.0	2.0
All-Red Lime (s)	2.6	0.0	0.0
Lost Time Adjust (s)	0.0		
Total Lost Time (s)	6.3		
Lead/Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	C-Max	Max	Max
Walk Time (s)	7.0		
Flash Dont Walk (s)	11.0		
Pedestrian Calls (#/hr)	0		
Act Effct Green (s)	72.0		
Actuated g/C Ratio	0.60		

4: Bank Street & Dazé Street/Cahill Drive TT 2031 AM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio		0.68	0.11		0.46	0.44	0.13	0.42			0.06	0.21
Control Delay		67.0	0.7		55.5	10.8	5.7	5.9			13.1	12.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		67.0	0.7		55.5	10.8	5.7	5.9			13.1	12.2
LOS		Е	А		Е	В	А	А			В	В
Approach Delay		52.9			25.6			5.8				10.2
Approach LOS		D			С			А				В
Queue Length 50th (m)		27.7	0.0		16.0	0.0	4.2	26.1			1.8	22.3
Queue Length 95th (m)		45.1	0.0		29.2	16.9	m8.1	42.1			6.5	36.9
Internal Link Dist (m)		48.9			164.5			145.4				240.5
Turn Bay Length (m)						40.0	45.0				70.0	
Base Capacity (vph)		328	469		288	497	687	2445			317	2009
Starvation Cap Reductn		0	0		0	0	0	0			0	0
Spillback Cap Reductn		0	0		0	0	0	0			0	0
Storage Cap Reductn		0	0		0	0	0	0			0	0
Reduced v/c Ratio		0.37	0.07		0.25	0.30	0.13	0.42			0.06	0.21
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 57 (48%), Reference	d to phase	2:NBTL a	and 6:SB	TL, Start	of Green							
Natural Cycle: 90												
Control Type: Actuated-Coo	rdinated											
Maximum v/c Ratio: 0.68												
Intersection Signal Delay: 12	2.7			In	tersection	n LOS: B						
Intersection Capacity Utiliza	tion 81.0%			IC	U Level o	of Service	e D					
Analysis Period (min) 15												
m Volumo for 05th poreon	tilo quouo i	o motoro		oom olar								

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

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78 s	5 s 37 s
▲ ø5 • • • ø6 (R)	∦ 1 ₂ ↓ Ø8
14s 64s	5 s 37 s

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Lane Group	SBR	Ø3	Ø7
v/c Ratio	0.13		
Control Delay	2.7		
Queue Delay	0.0		
Total Delay	2.7		
LOS	А		
Approach Delay			
Approach LOS			
Queue Length 50th (m)	0.0		
Queue Length 95th (m)	8.9		
Internal Link Dist (m)			
Turn Bay Length (m)	75.0		
Base Capacity (vph)	927		
Starvation Cap Reductn	0		
Spillback Cap Reductn	0		
Storage Cap Reductn	0		
Reduced v/c Ratio	0.13		
Intersection Summary			

5: Dazé Street & South Keys SC TT 2031 AM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ľ	el el		ľ	el el		ľ	∱1 ≽			ľ	↑ ĵ∌
Traffic Volume (vph)	35	1	83	5	2	7	115	233	3	2	4	160
Future Volume (vph)	35	1	83	5	2	7	115	233	3	2	4	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Storage Lanes	1		0	1		0	1		0		1	
Taper Length (m)	2.5			2.5			2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor	1.00	0.99		1.00	0.99			1.00				
Frt		0.852			0.883			0.998				0.946
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1722	1566	0	1521	1678	0	1807	3571	0	0	1825	3376
Flt Permitted	0.752			0.702			0.543				0.605	
Satd. Flow (perm)	1360	1566	0	1123	1678	0	1033	3571	0	0	1162	3376
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		83			7			2				90
Link Speed (k/h)		30			30			50				50
Link Distance (m)		107.1			73.7			57.4				76.4
Travel Time (s)		12.9			8.8			4.1				5.5
Confl. Peds. (#/hr)	2		1	1		2						
Confl. Bikes (#/hr)									1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	6%	100%	2%	20%	0%	0%	1%	2%	0%	0%	0%	3%
Adj. Flow (vph)	35	1	83	5	2	7	115	233	3	2	4	160
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	84	0	5	9	0	115	236	0	0	6	250
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		custom	pm+pt	NA
Protected Phases		4			8		5	2			1	6
Permitted Phases	4			8			2			1	6	
Detector Phase	4	4		8	8		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		1.4	5.0		1.4	1.4	5.0
Minimum Split (s)	28.0	28.0		28.1	28.1		7.3	32.9		7.3	7.3	32.9
Total Split (s)	28.0	28.0		28.1	28.1		12.0	35.0		12.0	12.0	35.0
Total Split (%)	37.3%	37.3%		37.4%	37.4%		16.0%	46.6%		16.0%	16.0%	46.6%
Maximum Green (s)	22.0	22.0		22.0	22.0		6.1	29.1		6.1	6.1	29.1
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	2.7	2.7		2.8	2.8		2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.0	6.0		6.1	6.1		5.9	5.9			5.9	5.9
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Max		None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0			15.0				15.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			12.0				12.0
Pedestrian Calls (#/hr)	0	0		0	0			0				0
Act Effct Green (s)	7.1	7.1		7.0	7.0		41.0	41.2			37.1	34.2
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.70	0.71			0.64	0.59

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Lane Group	SBB
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Future Volume (vph)	90
I deal Elow (vahal)	1000
Ideal Flow (vpripi)	1900
Storage Length (III)	0.0
Storage Lanes	0
Laper Length (m)	0.05
Lane Ulli. Factor	0.95
	•
Salu. Flow (prot)	0
Salu. Flow (perm)	U Var
	res
Salu. Flow (KTUK)	
Link Speed (K/N)	
Confl. Dodo (#/br)	
Confl. Peas. (#/hr)	
Contil. Bikes (#/hr)	1.00
Heak Hour Factor	1.00
Heavy venicles (%)	1%
Auj. Flow (vpn)	90
Snared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Lime (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	

Lanes, Volumes, Timings

Synchro 11 Report September 2021

5: Dazé Street & South Keys SC TT 2031 AM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio	0.21	0.32		0.04	0.04		0.14	0.09			0.01	0.12
Control Delay	27.1	10.5		23.8	16.4		4.1	5.2			3.8	5.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	27.1	10.5		23.8	16.4		4.1	5.2			3.8	5.9
LOS	С	В		С	В		А	А			А	A
Approach Delay		15.3			19.1			4.9				5.9
Approach LOS		В			В			А				A
Queue Length 50th (m)	3.6	0.1		0.5	0.2		3.3	3.5			0.2	4.6
Queue Length 95th (m)	10.5	10.2		3.1	3.6		8.2	12.8			1.1	10.4
Internal Link Dist (m)		83.1			49.7			33.4				52.4
Turn Bay Length (m)	40.0						70.0				40.0	
Base Capacity (vph)	517	647		425	640		806	2521			815	2011
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.07	0.13		0.01	0.01		0.14	0.09			0.01	0.12
Intersection Summary												
Area Type:	Other											
Cycle Length: 75.1												
Actuated Cycle Length: 58	8.4											
Natural Cycle: 70												
Control Type: Semi Act-U	ncoord											
Maximum v/c Ratio: 0.32												
Intersection Signal Delay:	7.2			In	tersectior	n LOS: A						
Intersection Capacity Utili	zation 37.4%			IC	CU Level	of Service	А					
Analysis Period (min) 15												

Splits and Phases: 5: Dazé Street & South Keys SC

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12 s	35 s	28 s	
Ø 5	Ø6	4 Ø8	
12 s	35 s	28.1 s	

5: Dazé Street & South Keys SC TT 2031 AM Phase 1 Horizon Year

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Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Beductn	
Spillback Cap Reductn	
Storage Can Beductn	
Deduced w/c Detic	
Reduced V/C Ralio	
Intersection Summarv	

Intersection

Int Delay, s/veh

Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		^	∱ î≽	
Traffic Vol, veh/h	0	12	0	351	242	6
Future Vol, veh/h	0	12	0	351	242	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage	, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	12	0	351	242	6

Major/Minor	Minor2	М	ajor1	Ma	jor2			
Conflicting Flow All	-	124	-	0	-	0		
Stage 1	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-		
Critical Hdwy	-	6.9	-	-	-	-		
Critical Hdwy Stg 1	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-		
Follow-up Hdwy	-	3.3	-	-	-	-		
Pot Cap-1 Maneuver	0	910	0	-	-	-		
Stage 1	0	-	0	-	-	-		
Stage 2	0	-	0	-	-	-		
Platoon blocked, %				-	-	-		
Mov Cap-1 Maneuve	r –	910	-	-	-	-		
Mov Cap-2 Maneuve	r -	-	-	-	-	-		
Stage 1	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-		

Approach	EB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	910	-	-
HCM Lane V/C Ratio	-	0.013	-	-
HCM Control Delay (s)	-	9	-	-
HCM Lane LOS	-	А	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection

Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		- 11	∱ î≽	
Traffic Vol, veh/h	0	34	18	351	242	0
Future Vol, veh/h	0	34	18	351	242	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	34	18	351	242	0

Major/Minor	Minor2	1	Major1	Majo	or2		
Conflicting Flow All	-	121	242	0	-	0	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	6.9	4.1	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	3.3	2.2	-	-	-	
Pot Cap-1 Maneuver	0	914	1336	-	-	-	
Stage 1	0	-	-	-	-	-	
Stage 2	0	-	-	-	-	-	
Platoon blocked, %				-	-	-	
Mov Cap-1 Maneuver	r –	914	1336	-	-	-	
Mov Cap-2 Maneuver	r –	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.4	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR								
Capacity (veh/h)	1336	- 914	-	-								
HCM Lane V/C Ratio	0.013	- 0.037	-	-								
HCM Control Delay (s)	7.7	- 9.1	-	-								
HCM Lane LOS	А	- A	-	-								
HCM 95th %tile Q(veh)	0	- 0.1	-	-								
	۶	-	\mathbf{r}	4	+	*	1	Ť	1	1	ŧ	~
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>ک</u>	≜ 1≽		ኘ	A		1		*	ሻሻ		1
Traffic Volume (vph)	179	1367	33	82	1330	350	16	0	142	618	0	288
Future Volume (vph)	179	1367	33	82	1330	350	16	0	142	618	0	288
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00		0.99					0.99
Frt		0.996			0.969				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3464	0	1615	3425	0	1706	0	1570	3506	0	1617
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3464	0	1613	3425	0	1688	0	1570	3506	0	1593
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			28				164			288
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		431.4			316.9			354.1			189.5	
Travel Time (s)		25.9			19.0			15.9			8.5	
Confl. Peds. (#/hr)	11		5	5		11	3					3
Confl. Bikes (#/hr)			1									
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	5%	0%	13%	3%	2%	7%	0%	4%	1%	0%	1%
Adj. Flow (vph)	179	1367	33	82	1330	350	16	0	142	618	0	288
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	1400	0	82	1680	0	16	0	142	618	0	288
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6							
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		4		4	8		8
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0
Minimum Split (s)	17.2	47.3		12.4	47.3		17.8		17.8	22.5		22.5
Total Split (s)	28.0	53.0		28.0	53.0		19.0		19.0	49.0		49.0
Total Split (%)	21.5%	40.8%		21.5%	40.8%		14.6%		14.6%	37.7%		37.7%
Maximum Green (s)	20.6	45.7		20.6	45.7		11.2		11.2	41.2		41.2
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	C-Max		None	C-Max		None		None	None		None
Walk Time (s)		31.0			31.0							
Flash Dont Walk (s)		9.0			9.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)	18.0	66.4		11.9	60.3		29.2		29.2	29.2		29.2
Actuated g/C Ratio	0.14	0.51		0.09	0.46		0.22		0.22	0.22		0.22

Lanes, Volumes, Timings

Synchro 11 Report September 2021

Lane Group	Ø3
LaneConfigurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.72	0.79		0.55	1.05		0.04		0.30	0.79		0.50
Control Delay	68.8	31.6		54.9	62.0		37.1		5.0	54.8		7.2
Queue Delay	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Delay	68.8	31.6		54.9	62.0		37.1		5.0	54.8		7.2
LOS	Е	С		D	E		D		А	D		A
Approach Delay		35.8			61.6			8.3			39.7	
Approach LOS		D			E			А			D	
Queue Length 50th (m)	44.4	150.2		20.8	~237.0		3.2		0.0	77.3		0.0
Queue Length 95th (m)	65.7	#230.3		m23.4 r	m#284.8		8.8		11.0	91.3		20.9
Internal Link Dist (m)		407.4			292.9			330.1			165.5	
Turn Bay Length (m)	150.0			55.0					40.0	120.0		120.0
Base Capacity (vph)	296	1770		255	1603		378		479	1111		701
Starvation Cap Reductn	0	0		0	0		0		0	0		0
Spillback Cap Reductn	0	0		0	0		0		0	0		0
Storage Cap Reductn	0	0		0	0		0		0	0		0
Reduced v/c Ratio	0.60	0.79		0.32	1.05		0.04		0.30	0.56		0.41
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced	to phase 2	EBT and	6:WBT, St	art of G	ireen							
Natural Cycle: 145												
Control Type: Actuated-Coo	ordinated											
Maximum v/c Ratio: 1.05												
Intersection Signal Delay: 4	6.0			h	ntersectio	n LOS: D						
Intersection Capacity Utiliza	tion 94.5%	, 0		l	CU Level	of Service	F					
Analysis Period (min) 15												
~ Volume exceeds capaci	ty, queue	is theoretic	ally infinite	э.								
Queue shown is maximu	ım after tw	o cycles.										
# 95th percentile volume e	exceeds ca	apacity, qu	eue may b	be longe	er.							
Queue shown is maximu	im after tw	o cycles.										
m Volume for 95th percen	itile queue	is metered	d by upstre	eam sig	nal.							

Splits and Phases: 1: Airport Parkway & Hunt Club Road

√ Ø1	 ₩02 (R)		AL _{Ø3}	*\/@4	
28 s	53 s		30 s	19 s	
✓ Ø2	← Ø6 (R)		Ø8		
28 s	53 s		49 s		

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2031 PM Phase 1 Horizon Year

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ሻሻ	^			ľ	^	1	ኘ	1	1	1
Traffic Volume (vph)	33	284	1461	244	28	37	1329	94	141	108	75	113
Future Volume (vph)	33	284	1461	244	28	37	1329	94	141	108	75	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			1.00		0.93	0.93		0.96	0.98
Frt			0.979					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3509	4831	0	0	1825	3544	1617	3404	1921	1617	1807
Flt Permitted		0.175				0.207			0.950			0.950
Satd. Flow (perm)	0	639	4831	0	0	396	3544	1511	3176	1921	1556	1768
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			28					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		35		25		25		35	44		22	22
Confl. Bikes (#/hr)				1							1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	5%	5%	0%	0%	3%	1%	4%	0%	1%	1%
Adj. Flow (vph)	33	284	1461	244	28	37	1329	94	141	108	75	113
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	317	1705	0	0	65	1329	94	141	108	75	113
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	18.0	18.0	54.0		18.0	18.0	54.0	54.0	17.0	41.0	41.0	17.0
Total Split (%)	13.8%	13.8%	41.5%		13.8%	13.8%	41.5%	41.5%	13.1%	31.5%	31.5%	13.1%
Maximum Green (s)	11.5	11.5	47.8		11.5	11.5	47.8	47.8	10.5	34.0	34.0	10.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max		None	None	C-Max	C-Max	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		22.8	51.3			19.3	47.8	47.8	9.7	22.9	22.9	10.2
Actuated g/C Ratio		0.18	0.39			0.15	0.37	0.37	0.07	0.18	0.18	0.08

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Lane Group	SBT	SBR
		1
	162	328
Future Volume (vph)	160	3020
	100	1000
Storago Longth (m)	1900	1900
		0.0
		1
raper Length (m)	1 00	1.00
Lane Ulli. Factor	1.00	1.00
Fed Bike Factor		0.94
FIL Fit Directo at a d		0.850
Fit Protected		4045
Satd. Flow (prot)	1902	1617
Fit Permitted		
Satd. Flow (perm)	1902	1517
Right Turn on Red		Yes
Satd. Flow (RTOR)		137
Link Speed (k/h)	50	
Link Distance (m)	209.8	
Travel Time (s)	15.1	
Confl. Peds. (#/hr)		44
Confl. Bikes (#/hr)		
Peak Hour Factor	1.00	1.00
Heavy Vehicles (%)	1%	1%
Adj. Flow (vph)	163	328
Shared Lane Traffic (%)		
Lane Group Flow (vph)	163	328
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	41.0	41.0
Total Split (s)	41.0	41.0
Total Split (%)	31.5%	31.5%
Maximum Green (s)	34.0	34.0
Yellow Time (s)	3.3	3.3
All-Red Time (s)	3.7	3.7
Lost Time Adjust (c)	0.0	0.0
Total Lost Time (a)	7.0	7.0
	7.0	7.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
venicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	27.0	27.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	23.5	23.5
Actuated g/C Ratio	0.18	0.18

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2031 PM Phase 1 Horizon Year

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		2.83	0.89			1.12	1.02	0.15	0.56	0.32	0.19	0.80
Control Delay		867.1	37.3			204.1	70.7	1.4	66.5	46.6	1.1	95.6
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		867.1	37.3			204.1	70.7	1.4	66.5	46.6	1.1	95.6
LOS		F	D			F	Е	А	Е	D	А	F
Approach Delay			167.4				72.1			44.7		
Approach LOS			F				Е			D		
Queue Length 50th (m)		~74.7	145.3			~16.9	~189.7	0.0	18.1	24.1	0.0	28.9
Queue Length 95th (m)	n	n#107.6	#182.4			#55.6	#232.3	2.8	29.0	37.3	0.0	#60.0
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		112	1925			58	1303	646	274	502	508	144
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		2.83	0.89			1.12	1.02	0.15	0.51	0.22	0.15	0.78
Intersection Summary												
Area Type: C	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced to	o phase 2	EBT and	6:WBT,	Start of G	ireen							
Natural Cycle: 125												
Control Type: Actuated-Coor	rdinated											
Maximum v/c Ratio: 2.83												
Intersection Signal Delay: 11	1.6			li	ntersectio	n LOS: F						
Intersection Capacity Utilizat	ion 99.1%	•		10	CU Level	of Servic	e F					
Analysis Period (min) 15												
~ Volume exceeds capacit	y, queue i	s theoreti	cally infir	iite.								
Queue shown is maximur	m after two	o cycles.										
# 95th percentile volume e	xceeds ca	pacity, q	ueue may	/ be longe	er.							
Queue shown is maximur	m after two	o cycles.										
m Volume for 95th percent	ile queue	is metere	d by ups	tream sig	nal.							

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

ÿ1	, →Ø2 (R)	1 Ø3	∲ Ø4
18 s	54 s	17 s	41 s
≯ _{Ø5}	 Ø6 (R)	Ø7	Øs
18 s	54 s	17 s	41 s

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2031 PM Phase 1 Horizon Year

	Ļ	-
Lane Group	SBT	SBB
v/c Batio	0.48	0.85
Control Delay	50.6	19.05
	0.0	49.0
Total Delay	50.6	49.0
LOS	00.0 D	D
Approach Delay	58.1	
Approach LOS	E	
Queue Length 50th (m)	37.6	49.1
Queue Length 95th (m)	53.9	77.7
Internal Link Dist (m)	185.8	
Turn Bay Length (m)		
Base Capacity (vph)	497	497
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.33	0.66
Intersection Summary		

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations		ካካ	- † †	1		ሻ	- † †	1	ካካ	- † †	1	
Traffic Volume (vph)	4	168	953	380	1	49	858	188	347	545	58	1
Future Volume (vph)	4	168	953	380	1	49	858	188	347	545	58	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		95.0		0.0		60.0		100.0	60.0		60.0	
Storage Lanes		2		1		1		1	2		1	
Taper Length (m)		2.5				2.5			2.5			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	1.00	0.95
Ped Bike Factor		1.00		0.96		0.99		0.98	0.97		0.96	
Frt				0.850				0.850			0.850	
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	3314	3510	1601	0	1756	3579	1617	3506	3579	1601	0
Flt Permitted		0.381				0.667			0.950			
Satd. Flow (perm)	0	1326	3510	1532	0	1225	3579	1583	3403	3579	1535	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				277				188			157	
Link Speed (k/h)			60				60			60		
Link Distance (m)			152.6				161.6			179.7		
Travel Time (s)			9.2				9.7			10.8		
Confl. Peds. (#/hr)		4		21		21		4	55		22	
Confl. Bikes (#/hr)				5				4			2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	7%	4%	2%	0%	4%	2%	1%	1%	2%	2%	0%
Adj. Flow (vph)	4	168	953	380	1	49	858	188	347	545	58	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	172	953	380	0	50	858	188	347	545	58	0
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Perm	Prot	NA	Perm	custom
Protected Phases		7	4			3	8		5	2		
Permitted Phases	7			4	3			8			2	1
Detector Phase	7	7	4	4	3	3	8	8	5	2	2	1
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	33.7	33.7	11.5	11.5	33.7	33.7	12.1	34.5	34.5	12.1
Total Split (s)	17.0	17.0	41.0	41.0	14.0	14.0	38.0	38.0	19.0	46.0	46.0	19.0
Total Split (%)	14.2%	14.2%	34.2%	34.2%	11.7%	11.7%	31.7%	31.7%	15.8%	38.3%	38.3%	15.8%
Maximum Green (s)	10.5	10.5	34.3	34.3	7.5	7.5	31.3	31.3	11.9	39.5	39.5	11.9
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.8	2.8	3.0	3.0	2.8	2.8	3.0	3.0	3.4	2.8	2.8	3.4
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.5	6.7	6.7		6.5	6.7	6.7	7.1	6.5	6.5	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	None	None	Max	Max	None	C-Max	C-Max	None
Walk Time (s)			7.0	7.0			7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			20.0	20.0			20.0	20.0		21.0	21.0	
Pedestrian Calls (#/hr)			0	0			0	0		0	0	
Act Effct Green (s)		10.5	37.1	37.1		7.5	31.3	31.3	11.9	39.5	39.5	
Actuated g/C Ratio		0.09	0.31	0.31		0.06	0.26	0.26	0.10	0.33	0.33	

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Lana Graun	CDI	CDT	CDD
	SDL		JDR J
	11	1005	ח
Traffic Volume (vph)	234	1005	232
Future volume (vph)	234	1005	232
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (m)	30.0		120.0
Storage Lanes	2		1
Taper Length (m)	2.5		
Lane Util. Factor	0.97	0.95	1.00
Ped Bike Factor	0.98		0.92
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3506	3579	1555
Flt Permitted	0.336		
Satd. Flow (perm)	1218	3579	1425
Right Turn on Red			Yes
Satd. Flow (RTOR)			157
Link Speed (k/h)		60	
Link Distance (m)		141.8	
Travel Time (s)		8.5	
Confl. Peds. (#/hr)	22		55
Confl. Bikes (#/hr)			4
Peak Hour Factor	1.00	1.00	1.00
Heavy Vehicles (%)	1%	2%	.100
Adi Flow (yph)	234	1005	232
Shared Lane Traffic (%)	204	1000	202
Lane Group Flow (vph)	235	1005	222
	Prot	NIA	Porm
Protected Phases			
Pormitted Phases	1	0	c
Permilled Phases		•	6
Delector Phase	1	6	6
Switch Phase	= 0	10.0	10.0
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	12.1	34.5	34.5
Total Split (s)	19.0	46.0	46.0
Total Split (%)	15.8%	38.3%	38.3%
Maximum Green (s)	11.9	39.5	39.5
Yellow Time (s)	3.7	3.7	3.7
All-Red Time (s)	3.4	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	7.1	6.5	6.5
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max
Walk Time (s)		7.0	7.0
Flash Dont Walk (s)		21.0	21.0
Pedestrian Calls (#/br)		0	0
Act Effet Green (s)	11 0	30 F	30.5
Actuated a/C Ratio	0 10	0.33	03.5
nulualeu y/U hallo	0.10	0.33	0.33

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
v/c Ratio		1.48	0.88	0.57		0.66	0.92	0.34	1.00	0.46	0.10	
Control Delay		295.6	50.7	13.9		92.7	58.9	6.7	102.5	33.4	0.3	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		295.6	50.7	13.9		92.7	58.9	6.7	102.5	33.4	0.3	
LOS		F	D	В		F	Е	А	F	С	А	
Approach Delay			69.4				51.5			56.7		
Approach LOS			Е				D			Е		
Queue Length 50th (m)		~28.8	115.8	18.6		11.7	103.6	0.0	42.7	53.2	0.0	
Queue Length 95th (m)		#51.2	#156.3	50.5		#31.7	#140.1	17.3	#73.2	69.4	0.0	
Internal Link Dist (m)			128.6				137.6			155.7		
Turn Bay Length (m)		95.0				60.0		100.0	60.0		60.0	
Base Capacity (vph)		116	1085	664		76	933	551	347	1178	610	
Starvation Cap Reductn		0	0	0		0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0		0	0	0	0	0	0	
Storage Cap Reductn		0	0	0		0	0	0	0	0	0	
Reduced v/c Ratio		1.48	0.88	0.57		0.66	0.92	0.34	1.00	0.46	0.10	
Intersection Summary												
Area Type: C	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 23 (19%), Referenced	to phase	2:NBT a	Ind 6:SBT	, Start of (Green							
Natural Cycle: 105												
Control Type: Actuated-Coord	dinated											
Maximum v/c Ratio: 1.96												
Intersection Signal Delay: 73.	.6			In	tersectior	ו LOS: E						
Intersection Capacity Utilizati	on 90.5%			IC	U Level o	of Servic	e E					
Analysis Period (min) 15												
 Volume exceeds capacity, queue is theoretically infinite. 												
Queue shown is maximum	Queue shown is maximum after two cycles.											
# 95th percentile volume ex	95th percentile volume exceeds capacity, queue may be longer.											
Queue shown is maximum	n after two	cycles.										

Splits and Phases: 3: Bank Street & Hunt Club Road

Ø1	Ø2 (R)	✓ _{Ø3}	₩ Ø4
19 s	46 s	14 s	41 s
▲ Ø5	Ø6 (R)	🖈 _{Ø7}	4 [≜] _ Ø8
19 s	46 s	17 s	38 s

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Lane Group	SBL	SBT	SBR
v/c Ratio	1.96	0.85	0.40
Control Delay	488.9	37.1	11.3
Queue Delay	0.0	0.0	0.0
Total Delay	488.9	37.1	11.3
LOS	F	D	В
Approach Delay		105.2	
Approach LOS		F	
Queue Length 50th (m)	~45.5	51.6	3.6
Queue Length 95th (m)	#71.8	98.3	28.2
Internal Link Dist (m)		117.8	
Turn Bay Length (m)	30.0		120.0
Base Capacity (vph)	120	1178	574
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.96	0.85	0.40
Intersection Summary			

4: Bank Street & Dazé Street/Cahill Drive TT 2031 PM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		ب ا ۲	1		ર્શ	1		<u>ک</u>	∱1 }			۲
Traffic Volume (vph)	160	1	132	82	0	101	2	158	673	92	4	146
Future Volume (vph)	160	1	132	82	0	101	2	158	673	92	4	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		40.0		45.0		0.0		70.0
Storage Lanes	0		1	0		1		1		0		1
Taper Length (m)	7.6			7.6				7.6				7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Ped Bike Factor		0.92	0.95		0.97	0.90			0.99			0.99
Frt			0.850			0.850			0.982			
Flt Protected		0.953			0.950			0.950				0.950
Satd. Flow (prot)	0	1813	1617	0	1659	1633	0	1825	3483	0	0	1807
Flt Permitted		0.668			0.548			0.150				0.311
Satd. Flow (perm)	0	1172	1535	0	932	1471	0	288	3483	0	0	583
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			132			105			16			
Link Speed (k/h)		50			50				60			
Link Distance (m)		72.9			188.5				169.4			
Travel Time (s)		5.2			13.6				10.2			
Confl. Peds. (#/hr)	44		18	18		44		30		19		19
Confl. Bikes (#/hr)			4			1				2		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	0%	1%	10%	0%	0%	0%	0%	2%	1%	0%	1%
Adj. Flow (vph)	160	1	132	82	0	101	2	158	673	92	4	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	132	0	82	101	0	160	765	0	0	150
Turn Type	Perm	NA	Perm	Perm	NA	Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases		4			8			5	2			1
Permitted Phases	4		4	8		8	5	2			1	6
Detector Phase	4	4	4	8	8	8	5	5	2		1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	5.0	10.0		5.0	5.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	11.3	34.3		11.3	11.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	17.0	17.0	61.0		17.0	17.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	14.2%	14.2%	50.8%		14.2%	14.2%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	10.7	10.7	54.7		10.7	10.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7		3.7	3.7
All-Red Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6	2.6		2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1		6.3	6.3			6.3
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	C-Max		None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0			7.0			
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0			11.0			
Pedestrian Calls (#/hr)	0	0	0	0	0	0			0			
Act Effct Green (s)		21.7	21.7		21.7	21.7		74.8	65.6			74.4
Actuated g/C Ratio		0.18	0.18		0.18	0.18		0.62	0.55			0.62

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	CDT	CDD	<i>(</i> 72)	(X7
	281	SBR	23	07
Lane Configurations	TT	ח		
Traffic Volume (vph)	1202	329		
⊢uture volume (vph)	1202	329		
Ideal Flow (vphpl)	1900	1900		
Storage Length (m)		/5.0		
Storage Lanes		0		
Laper Length (m)		1.00		
Lane Util. Factor	0.95	1.00		
Ped Bike Factor		0.93		
Frt		0.850		
Fit Protected				
Satd. Flow (prot)	3579	1633		
Fit Permitted				
Satd. Flow (perm)	3579	1514		
Right Turn on Red		Yes		
Satd. Flow (RTOR)		315		
Link Speed (k/h)	60			
Link Distance (m)	264.5			
Travel Time (s)	15.9			
Confl. Peds. (#/hr)		30		
Confl. Bikes (#/hr)		5		
Peak Hour Factor	1.00	1.00		
Heavy Vehicles (%)	2%	0%		
Adj. Flow (vph)	1202	329		
Shared Lane Traffic (%)				
Lane Group Flow (vph)	1202	329		
Turn Type	NA	Perm		
Protected Phases	6		3	7
Permitted Phases		6		
Detector Phase	6	6		
Switch Phase				
Minimum Initial (s)	10.0	10.0	3.0	3.0
Minimum Split (s)	34.3	34.3	5.0	5.0
Total Split (s)	61.0	61.0	5.0	5.0
Total Split (%)	50.8%	50.8%	4%	4%
Maximum Green (s)	54.7	54.7	3.0	3.0
Yellow Time (s)	3.7	3.7	2.0	2.0
All-Red Time (s)	2.6	2.6	0.0	0.0
Lost Time Adjust (s)	0.0	0.0		
Total Lost Time (s)	6.3	6.3		
Lead/Lag	Lao	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	Max	Max
Walk Time (s)	7 0	7.0	Mux	Max
Flash Dont Walk (s)	11.0	11.0		
Padastrian Calls (#/br)	0.11	∩ 11.0		
	65.4	65.4		
Actuated a/C Patio	05.4	05.4		
Actualed g/C Hallo	0.54	0.54		

4: Bank Street & Dazé Street/Cahill Drive TT 2031 PM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
v/c Ratio		0.76	0.34		0.49	0.29		0.54	0.40			0.33
Control Delay		68.0	8.7		52.2	8.6		28.3	14.3			10.4
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Delay		68.0	8.7		52.2	8.6		28.3	14.3			10.4
LOS		Е	А		D	А		С	В			В
Approach Delay		41.3			28.1				16.7			
Approach LOS		D			С				В			
Queue Length 50th (m)		36.4	0.0		17.5	0.0		23.5	38.5			11.5
Queue Length 95th (m)		55.5	14.9		31.0	12.6		m39.6	m48.2			23.8
Internal Link Dist (m)		48.9			164.5				145.4			
Turn Bay Length (m)						40.0		45.0				70.0
Base Capacity (vph)		301	493		239	456		322	1911			480
Starvation Cap Reductn		0	0		0	0		0	0			0
Spillback Cap Reductn		0	0		0	0		0	0			0
Storage Cap Reductn		0	0		0	0		0	0			0
Reduced v/c Ratio		0.53	0.27		0.34	0.22		0.50	0.40			0.31
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 120	0											
Offset: 14 (12%), Reference	ed to phase	2:NBTL a	and 6:SB	TL, Start	of Green							
Natural Cycle: 90												
Control Type: Actuated-Co	ordinated											
Maximum v/c Ratio: 0.76												
Intersection Signal Delay: 2	20.0			In	tersection	LOS: C						
Intersection Capacity Utilization	ation 88.4%			IC	U Level o	of Service	E					
Analysis Period (min) 15												
m Volumo for 05th poroo	atilo guovo i	a motoro		oom olan								

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

M _{Ø1}	Ø2 (R)	.	e ↔ Ø4
17 s	61s	5 s	37 s
🔊 Ø5	Ø6 (R)	.	Ø8
17 s	61s	5 s	37 s

4: Bank Street & Dazé Street/Cahill Drive TT 2031 PM Phase 1 Horizon Year

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Lane Group	SBT	SBR	Ø3	Ø7
v/c Ratio	0.62	0.34		
Control Delay	21.9	3.4		
Queue Delay	0.0	0.0		
Total Delay	21.9	3.4		
LOS	С	А		
Approach Delay	17.3			
Approach LOS	В			
Queue Length 50th (m)	97.9	1.5		
Queue Length 95th (m)	145.1	17.5		
Internal Link Dist (m)	240.5			
Turn Bay Length (m)		75.0		
Base Capacity (vph)	1951	968		
Starvation Cap Reductn	0	0		
Spillback Cap Reductn	0	0		
Storage Cap Reductn	0	0		
Reduced v/c Ratio	0.62	0.34		
Intersection Summary				

5: Dazé Street & South Keys SC TT 2031 PM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	۲	f,		ሻ	ef 👘		ሻ	≜ î≽			٦	≜1 }
Traffic Volume (vph)	85	3	221	2	4	13	195	199	18	1	21	298
Future Volume (vph)	85	3	221	2	4	13	195	199	18	1	21	298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Storage Lanes	1		0	1		0	1		0		1	
Taper Length (m)	2.5			2.5			2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor	0.99	0.98		1.00	0.98		1.00	1.00			0.99	0.99
Frt		0.852			0.885			0.988				0.952
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1825	1608	0	1825	1673	0	1825	3564	0	0	1825	3412
Flt Permitted	0.746			0.389			0.441				0.616	
Satd. Flow (perm)	1421	1608	0	745	1673	0	845	3564	0	0	1174	3412
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		221			13			12				74
Link Speed (k/h)		30			30			50				50
Link Distance (m)		107.1			73.7			57.4				76.4
Travel Time (s)		12.9			8.8			4.1				5.5
Confl. Peds. (#/hr)	6		3	3		6	3		5		5	
Confl. Bikes (#/hr)			2						1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%
Adj. Flow (vph)	85	3	221	2	4	13	195	199	18	1	21	298
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	224	0	2	17	0	195	217	0	0	22	440
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		custom	pm+pt	NA
Protected Phases		4			8		5	2			1	6
Permitted Phases	4			8			2			1	6	
Detector Phase	4	4		8	8		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		5.0	5.0	10.0
Minimum Split (s)	28.1	28.1		28.1	28.1		10.9	32.9		10.9	10.9	32.9
Total Split (s)	36.1	36.1		36.1	36.1		35.0	58.0		15.9	15.9	38.9
Total Split (%)	32.8%	32.8%		32.8%	32.8%		31.8%	52.7%		14.5%	14.5%	35.4%
Maximum Green (s)	30.0	30.0		30.0	30.0		29.1	52.1		10.0	10.0	33.0
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	2.8	2.8		2.8	2.8		2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.1	6.1		6.1	6.1		5.9	5.9			5.9	5.9
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Max		None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0			15.0				15.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			12.0				12.0
Pedestrian Calls (#/hr)	0	0		0	0			0				0
Act Effct Green (s)	11.4	11.4		11.4	11.4		56.2	52.6			48.3	42.5
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.70	0.65			0.60	0.53

Lanes, Volumes, Timings

Synchro 11 Report September 2021

Lane Group	SBR
Lateconfigurations	
Traffic Volume (vph)	142
Future Volume (vph)	142
Ideal Flow (vphpl)	1900
Storage Length (m)	0.0
Storage Lanes	0.0
Taper Length (m)	
Lane Util. Factor	0.95
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	-
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	3
Confl. Bikes (#/hr)	
Peak Hour Factor	1.00
Heavy Vehicles (%)	1%
Adj. Flow (vph)	142
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
¥	

5: Dazé Street & South Keys SC TT 2031 PM Phase 1 Horizon Year

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio	0.42	0.54		0.02	0.07		0.28	0.09			0.03	0.24
Control Delay	40.0	10.5		32.5	19.6		5.1	6.2			4.4	9.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	40.0	10.5		32.5	19.6		5.1	6.2			4.4	9.0
LOS	D	В		С	В		А	А			А	A
Approach Delay		18.6			21.0			5.6				8.8
Approach LOS		В			С			А				A
Queue Length 50th (m)	11.1	0.4		0.2	0.5		7.4	3.8			0.8	13.7
Queue Length 95th (m)	27.1	19.3		2.3	6.2		16.3	12.9			2.9	25.7
Internal Link Dist (m)		83.1			49.7			33.4				52.4
Turn Bay Length (m)	40.0						70.0				40.0	
Base Capacity (vph)	535	743		280	638		955	2335			849	1838
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.16	0.30		0.01	0.03		0.20	0.09			0.03	0.24
Intersection Summary												
Area Type:	Other											
Cycle Length: 110												
Actuated Cycle Length: 80).4											
Natural Cycle: 75												
Control Type: Semi Act-Ur	ncoord											
Maximum v/c Ratio: 0.54												
Intersection Signal Delay:	10.4			In	Intersection LOS: B							
Intersection Capacity Utiliz	ation 62.8%			IC	U Level	of Service	В					
Analysis Period (min) 15												

Splits and Phases: 5: Dazé Street & South Keys SC

Ø1	1 ø2		<u>→</u> _{Ø4}
15.9 s	58 s		36.1s
▲ Ø5		Ø6	₩ Ø8
35 s		38.9 s	36.1s

5: Dazé Street & South Keys SC TT 2031 PM Phase 1 Horizon Year

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	CDD
Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Beductn	
Spillback Cap Reductn	
Storage Can Beductn	
Deduced w/c Detic	
Reduced V/C Ralio	
Intersection Summarv	

Intersection

Int Delay, s/veh

Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		- 11	∱ î≽	
Traffic Vol, veh/h	0	8	0	432	553	11
Future Vol, veh/h	0	8	0	432	553	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	8	0	432	553	11

Major/Minor	Minor2	M	ajor1	Ma	ijor2	
Conflicting Flow All	-	282	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	721	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuve	r -	721	-	-	-	-
Mov Cap-2 Maneuve	r -	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0	0
HCM LOS	В		

Minor Lane/Major Mvmt	NBT E	BLn1	SBT	SBR
Capacity (veh/h)	-	721	-	-
HCM Lane V/C Ratio	-	0.011	-	-
HCM Control Delay (s)	-	10	-	-
HCM Lane LOS	-	В	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection

Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		- 11	∱ î≽	
Traffic Vol, veh/h	0	43	54	432	553	0
Future Vol, veh/h	0	43	54	432	553	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	43	54	432	553	0

Major/Minor	Minor2	I	Major1	Majo	or2					
Conflicting Flow All	-	277	553	0	-	0				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				
Critical Hdwy	-	6.9	4.1	-	-	-				
Critical Hdwy Stg 1	-	-	-	-	-	-				
Critical Hdwy Stg 2	-	-	-	-	-	-				
Follow-up Hdwy	-	3.3	2.2	-	-	-				
Pot Cap-1 Maneuver	0	726	1027	-	-	-				
Stage 1	0	-	-	-	-	-				
Stage 2	0	-	-	-	-	-				
Platoon blocked, %				-	-	-				
Mov Cap-1 Maneuver	· -	726	1027	-	-	-				
Mov Cap-2 Maneuver	· -	-	-	-	-	-				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				

Approach	EB	NB	SB
HCM Control Delay, s	10.3	1	0
HCM LOS	В		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	1027	- 726	-	-
HCM Lane V/C Ratio	0.053	- 0.059	-	-
HCM Control Delay (s)	8.7	- 10.3	-	-
HCM Lane LOS	А	- B	-	-
HCM 95th %tile Q(veh)	0.2	- 0.2	-	-

Future (2041) Total Traffic

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>ک</u>	≜1 ≱		ľ	≜ î≽		ľ		1	ሻሻ		1
Traffic Volume (vph)	373	1175	26	76	1048	690	16	0	91	290	0	159
Future Volume (vph)	373	1175	26	76	1048	690	16	0	91	290	0	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	0.99							
Frt		0.997			0.940				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3436	0	1630	3181	0	1706	0	1458	3437	0	1570
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1806	3436	0	1629	3181	0	1706	0	1458	3437	0	1570
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			126				164			159
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		431.4			316.9			354.1			189.5	
Travel Time (s)		25.9			19.0			15.9			8.5	
Confl. Peds. (#/hr)	7		2	2		7						
Confl. Bikes (#/hr)						1						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	6%	0%	12%	11%	1%	7%	0%	12%	3%	0%	4%
Adj. Flow (vph)	373	1175	26	76	1048	690	16	0	91	290	0	159
Shared Lane Traffic (%)												
Lane Group Flow (vph)	373	1201	0	76	1738	0	16	0	91	290	0	159
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6							
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		4		4	8		8
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0
Minimum Split (s)	12.4	47.3		12.4	47.3		17.8		17.8	22.5		22.5
Total Split (s)	32.0	50.0		32.0	50.0		18.0		18.0	48.0		48.0
Total Split (%)	24.6%	38.5%		24.6%	38.5%		13.8%		13.8%	36.9%		36.9%
Maximum Green (s)	24.6	42.7		24.6	42.7		10.2		10.2	40.2		40.2
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	C-Max		None	C-Max		None		None	None		None
Walk Time (s)		31.0			31.0							
Flash Dont Walk (s)		9.0			9.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)	38.0	82.5		11.4	53.1		16.4		16.4	16.4		16.4
Actuated g/C Ratio	0.29	0.63		0.09	0.41		0.13		0.13	0.13		0.13

Lane Group	Ø3
LaneConfigurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

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Lane Group	EBL	EBT	EBR WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
v/c Ratio	0.71	0.55	0.54	1.27		0.07		0.28	0.67		0.47	
Control Delay	49.7	16.3	48.1	155.5		49.0		2.1	61.8		12.1	
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0	
Total Delay	49.7	16.3	48.1	155.5		49.0		2.1	61.8		12.1	
LOS	D	В	D	F		D		А	Е		В	
Approach Delay		24.2		151.0			9.1			44.2		
Approach LOS		С		F			А			D		
Queue Length 50th (m)	86.7	90.6	19.1	~273.8		3.7		0.0	37.1		0.0	
Queue Length 95th (m)	120.1	131.7	m23.8	m#290.7		10.3		0.0	49.7		18.9	
Internal Link Dist (m)		407.4		292.9			330.1			165.5		
Turn Bay Length (m)	150.0		55.0					40.0	120.0		120.0	
Base Capacity (vph)	528	2182	308	1373		215		327	1062		595	
Starvation Cap Reductn	0	0	0	0		0		0	0		0	
Spillback Cap Reductn	0	0	0	0		0		0	0		0	
Storage Cap Reductn	0	0	0	0		0		0	0		0	
Reduced v/c Ratio	0.71	0.55	0.25	1.27		0.07		0.28	0.27		0.27	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130)											
Offset: 1 (1%), Referenced	to phase 2	EBT and	6:WBT, Start of G	Green								
Natural Cycle: 150												
Control Type: Actuated-Coo	ordinated											
Maximum v/c Ratio: 1.27												
Intersection Signal Delay: 8	4.4		I	ntersectio	n LOS: F							
Intersection Capacity Utilization	ation 99.1%	•	l	ICU Level of Service F								
Analysis Period (min) 15												
~ Volume exceeds capac	ity, queue i	s theoretic	ally infinite.									
Queue shown is maximu	um after two	o cycles.										
# 95th percentile volume	exceeds ca	pacity, qu	eue may be long	er.								
Queue shown is maximum after two cycles.												
n Volume for 95th percentile queue is metered by upstream signal.												

Splits and Phases: 1: Airport Parkway & Hunt Club Road

√ Ø1		→Ø2 (R)	A Mag	1 Ø4	[≪] √Ø4		
32 s		50 s		30 s	18 s		
		← Ø6 (R)		Ø8			
32 s		50 s		48 s			

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2041 AM Master Plan Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ካካ	<u>ተተ</u> ኈ			ሻ	- † †	1	ካካ	↑	1	ሻ
Traffic Volume (vph)	19	190	1163	98	2	16	1274	83	200	110	67	93
Future Volume (vph)	19	190	1163	98	2	16	1274	83	200	110	67	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			0.99		0.96	0.94		0.99	1.00
Frt			0.988					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3477	4818	0	0	1515	3411	1601	3278	1902	1541	1772
Flt Permitted		0.135				0.833			0.950			0.950
Satd. Flow (perm)	0	491	4818	0	0	1320	3411	1543	3087	1902	1519	1768
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			12					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		15		18		18		15	32		2	2
Confl. Bikes (#/hr)				1				2				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	2%	7%	7%	0%	23%	7%	2%	8%	1%	6%	3%
Adj. Flow (vph)	19	190	1163	98	2	16	1274	83	200	110	67	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	209	1261	0	0	18	1274	83	200	110	67	93
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	15.0	15.0	52.0		15.0	15.0	52.0	52.0	22.0	41.0	41.0	22.0
Total Split (%)	11.5%	11.5%	40.0%		11.5%	11.5%	40.0%	40.0%	16.9%	31.5%	31.5%	16.9%
Maximum Green (s)	8.5	8.5	45.8		8.5	8.5	45.8	45.8	15.5	34.0	34.0	15.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min		None	None	C-Min	C-Min	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		29.7	75.7			8.9	46.9	46.9	12.9	15.2	15.2	11.9
Actuated g/C Ratio		0.23	0.58			0.07	0.36	0.36	0.10	0.12	0.12	0.09

Lanes, Volumes, Timings

Synchro 11 Report September 2021

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Lane Group	SBT	SBR
Lane C onfigurations	1	7
Traffic Volume (vph)	35	216
Future Volume (vph)	35	216
Ideal Flow (vphpl)	1900	1900
Storage Length (m)		0.0
Storage Lanes		1
Taper Length (m)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		0.95
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1921	1601
Flt Permitted		
Satd. Flow (perm)	1921	1524
Right Turn on Red		Yes
Satd. Flow (RTOR)		137
Link Speed (k/h)	50	
Link Distance (m)	209.8	
Travel Time (s)	15.1	
Confl. Peds. (#/hr)		32
Confl. Bikes (#/hr)		02
Peak Hour Factor	1 00	1.00
Heavy Vehicles (%)	0%	2%
Adi Flow (vph)	35	216
Shared Lane Traffic (%)		210
Lane Group Flow (vph)	35	216
	NΔ	Perm
Protected Phases	4	
Permitted Phases	4	Л
Dotoctor Phases	Λ	4
	4	4
	10.0	10.0
Minimum Colit (5)	10.0	10.0
winimum Split (S)	41.0	41.0
Total Split (S)	41.0	41.0
rotal Split (%)	31.5%	31.5%
waximum Green (s)	34.0	34.0
Yellow Lime (s)	3.3	3.3
All-Red Lime (s)	3.7	3.7
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.0	7.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	27.0	27.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)	14.3	14.3
Actuated g/C Ratio	0.11	0.11

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2041 AM Master Plan Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		1.87	0.45			0.20	1.04	0.13	0.62	0.50	0.22	0.58
Control Delay		451.1	13.5			60.6	76.1	0.5	64.3	60.6	1.7	70.3
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		451.1	13.5			60.6	76.1	0.5	64.3	60.6	1.7	70.3
LOS		F	В			E	Е	А	Е	Е	А	E
Approach Delay			75.7				71.4			52.1		
Approach LOS			E				Е			D		
Queue Length 50th (m)		~41.5	37.8			4.5	169.7	0.0	25.6	27.2	0.0	23.2
Queue Length 95th (m)		#72.8	78.3			12.1	#230.8	0.5	37.5	43.1	0.0	39.8
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		112	2810			100	1230	648	390	497	498	209
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		1.87	0.45			0.18	1.04	0.13	0.51	0.22	0.13	0.44
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced to	o phase 2:	EBT and	6:WBT, S	Start of G	reen							
Natural Cycle: 135												
Control Type: Actuated-Coor	rdinated											
Maximum v/c Ratio: 1.87												
Intersection Signal Delay: 68	3.8			Ir	ntersectior	n LOS: E						
Intersection Capacity Utilizat	tion 92.9%			IC	CU Level o	of Servic	e F					
Analysis Period (min) 15												
~ Volume exceeds capacit	y, queue is	s theoretic	cally infini	te.								
Queue shown is maximu	m after two	cycles.										
# 95th percentile volume e	xceeds ca	pacity, qu	ieue may	be longe	r.							
Queue shown is maximu	m after two	o cycles.										

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

√ Ø1	> Ø2 (R)	▲ Ø3	♦ Ø4
15 s	52 s	22 s	41 s
≯ø5	 Ø6 (R)	Ø7	Ø8
15 s	52 s	22 s	41 s

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2041 AM Master Plan Build-out

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Lane Group	SBT	SBR
v/c Ratio	0.17	0.75
Control Delay	51.9	36.8
Queue Delay	0.0	0.0
Total Delay	51.9	36.8
LOS	D	D
Approach Delay	47.4	
Approach LOS	D	
Queue Length 50th (m)	8.4	19.6
Queue Length 95th (m)	17.3	44.3
Internal Link Dist (m)	185.8	
Turn Bay Length (m)		
Base Capacity (vph)	502	499
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.07	0.43
Intersection Summary		

3: Bank Street & Hunt Club Road TT 2041 AM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ሻሻ	^	1		ľ	<u></u>	1	ሻሻ	<u></u>	*	ሻሻ	<u>^</u>
Traffic Volume (vph)	179	799	298	1	34	1052	209	316	1026	24	92	351
Future Volume (vph)	179	799	298	1	34	1052	209	316	1026	24	92	351
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	95.0		0.0		60.0		100.0	60.0		60.0	30.0	
Storage Lanes	2		1		1		1	2		1	2	
Taper Length (m)	2.5				2.5			2.5			2.5	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95
Ped Bike Factor	0.99		0.98		1.00		0.97	0.97		0.96	0.99	
Frt			0.850				0.850			0.850		
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	3190	3380	1570	0	1725	3411	1617	3372	3544	1633	3471	3444
Flt Permitted	0.950				0.769			0.950			0.950	
Satd. Flow (perm)	3173	3380	1533	0	1391	3411	1572	3261	3544	1569	3435	3444
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			298				279			216		
Link Speed (k/h)		60				60			60			60
Link Distance (m)		152.6				161.6			179.7			141.8
Travel Time (s)		9.2				9.7			10.8			8.5
Confl. Peds. (#/hr)	10		9		9		10	25		20	20	
Confl. Bikes (#/hr)							3			3		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	11%	8%	4%	0%	6%	7%	1%	5%	3%	0%	2%	6%
Adj. Flow (vph)	179	799	298	1	34	1052	209	316	1026	24	92	351
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	799	298	0	35	1052	209	316	1026	24	92	351
Turn Type	Prot	NA	Perm	custom	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4			3	8		5	2		1	6
Permitted Phases			4	3			8			2		
Detector Phase	7	4	4	3	3	8	8	5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.5	33.7	33.7	11.5	11.5	33.7	33.7	12.1	34.5	34.5	12.1	34.5
Total Split (s)	21.0	45.0	45.0	13.0	13.0	37.0	37.0	25.0	48.0	48.0	14.0	37.0
Total Split (%)	17.5%	37.5%	37.5%	10.8%	10.8%	30.8%	30.8%	20.8%	40.0%	40.0%	11.7%	30.8%
Maximum Green (s)	14.5	38.3	38.3	6.5	6.5	30.3	30.3	17.9	41.5	41.5	6.9	30.5
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.8	3.0	3.0	2.8	2.8	3.0	3.0	3.4	2.8	2.8	3.4	2.8
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)	6.5	6.7	6.7		6.5	6.7	6.7	7.1	6.5	6.5	7.1	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	None	Max	Max	None	C-Max	C-Max	None	C-Max
Walk Time (s)		7.0	7.0			7.0	7.0		7.0	7.0		7.0
Flash Dont Walk (s)		20.0	20.0			20.0	20.0		21.0	21.0		21.0
Pedestrian Calls (#/hr)		0	0			0	0		0	0		0
Act Effct Green (s)	11.8	40.9	40.9		6.4	33.0	33.0	15.8	41.6	41.6	6.8	32.6
Actuated g/C Ratio	0.10	0.34	0.34		0.05	0.28	0.28	0.13	0.35	0.35	0.06	0.27

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Lane Group	SED
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France Volume (vph)	162
Future Volume (vph)	162
Ideal Flow (vphpl)	1900
Storage Length (m)	120.0
Storage Lanes	1
Taper Length (m)	
Lane Util. Factor	1.00
Ped Bike Factor	0.96
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1458
Flt Permitted	
Satd. Flow (perm)	1395
Right Turn on Red	Yes
Satd. Flow (RTOR)	281
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	25
Confl. Bikes (#/hr)	_0
Peak Hour Factor	1.00
Heavy Vehicles (%)	12%
Adi, Flow (vph)	162
Shared Lane Traffic (%)	102
Lane Group Flow (vph)	162
Turn Type	Perm
Protected Phases	r chili
Permitted Phases	6
Detector Phases	0
Switch Phase	0
Switch Fhase	10.0
Minimum Colt (c)	10.0
winimum Split (s)	34.5
Total Split (S)	37.0
Total Split (%)	30.8%
Maximum Green (s)	30.5
Yellow Time (s)	3.7
All-Red Lime (s)	2.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	32.6
Actuated g/C Ratio	0.27

3: Bank Street & Hunt Club Road TT 2041 AM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
v/c Ratio	0.57	0.69	0.41		0.47	1.12	0.33	0.71	0.83	0.04	0.47	0.38
Control Delay	58.7	38.8	5.2		76.3	109.7	2.4	59.1	43.3	0.1	67.4	29.0
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	58.7	38.8	5.2		76.3	109.7	2.4	59.1	43.3	0.1	67.4	29.0
LOS	Е	D	А		Е	F	А	Е	D	А	Е	С
Approach Delay		33.7				91.5			46.2			27.4
Approach LOS		С				F			D			С
Queue Length 50th (m)	21.0	88.0	0.0		8.2	~151.1	0.0	37.0	116.3	0.0	11.4	23.6
Queue Length 95th (m)	31.9	111.0	19.1		#20.3	#201.0	4.7	51.2	143.2	0.0	19.7	31.9
Internal Link Dist (m)		128.6				137.6			155.7			117.8
Turn Bay Length (m)	95.0				60.0		100.0	60.0		60.0	30.0	
Base Capacity (vph)	385	1151	719		75	937	634	502	1229	684	199	935
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	0.46	0.69	0.41		0.47	1.12	0.33	0.63	0.83	0.04	0.46	0.38
Intersection Summary												
Area Type: 0	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 65 (54%), Reference	d to phase	2:NBT ar	nd 6:SBT	, Start of G	reen							
Natural Cycle: 105												
Control Type: Actuated-Coor	rdinated											
Maximum v/c Ratio: 1.12												
Intersection Signal Delay: 53	3.1			Inte	ersectio	n LOS: D						
Intersection Capacity Utilizat	ion 89.0%			ICU	J Level	of Service	϶E					
Analysis Period (min) 15												
 Volume exceeds capacit 	y, queue is	s theoretic	ally infini	te.								
Queue shown is maximu	m after two	o cycles.										
# 95th percentile volume e	xceeds ca	pacity, qu	eue may	be longer.								
Queue shown is maximu	m after two	o cycles.										

Splits and Phases: 3: Bank Street & Hunt Club Road



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Lane Group	SBR
v/c Ratio	0.28
Control Delay	1.2
Queue Delay	0.0
Total Delay	1.2
LOS	А
Approach Delay	
Approach LOS	
Queue Length 50th (m)	0.1
Queue Length 95th (m)	0.2
Internal Link Dist (m)	
Turn Bay Length (m)	120.0
Base Capacity (vph)	583
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.28
Intersection Summary	

4: Bank Street & Dazé Street/Cahill Drive TT 2041 AM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations		ا	1		र्च	1	ľ	≜ î≽			ľ	<u></u>
Traffic Volume (vph)	122	0	33	73	0	148	90	1064	51	3	17	440
Future Volume (vph)	122	0	33	73	0	148	90	1064	51	3	17	440
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		40.0	45.0		0.0		70.0	
Storage Lanes	0		1	0		1	1		0		1	
Taper Length (m)	7.6			7.6			7.6				7.6	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor		0.97	0.97		0.98	0.95	1.00	1.00			1.00	
Frt			0.850			0.850		0.993				
Flt Protected		0.950			0.950		0.950				0.950	
Satd. Flow (prot)	0	1772	1570	0	1738	1585	1807	3421	0	0	1825	3349
Flt Permitted		0.709			0.623		0.452				0.256	
Satd. Flow (perm)	0	1277	1521	0	1121	1505	856	3421	0	0	491	3349
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			105			143		7				
Link Speed (k/h)		50			50			60				60
Link Distance (m)		72.9			188.5			169.4				264.5
Travel Time (s)		5.2			13.6			10.2				15.9
Confl. Peds. (#/hr)	19		10	10		19	6		3		3	
Confl. Bikes (#/hr)						2			1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	0%	4%	5%	0%	3%	1%	6%	2%	0%	0%	9%
Adj. Flow (vph)	122	0	33	73	0	148	90	1064	51	3	17	440
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	33	0	73	148	90	1115	0	0	20	440
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	Perm	NA
Protected Phases		4			8		5	2				6
Permitted Phases	4		4	8		8	2			6	6	
Detector Phase	4	4	4	8	8	8	5	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	34.3		34.3	34.3	34.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	14.0	78.0		64.0	64.0	64.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	11.7%	65.0%		53.3%	53.3%	53.3%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	7.7	71.7		57.7	57.7	57.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6		2.6	2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1	6.3	6.3			6.3	6.3
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0		0	0	0
Act Effct Green (s)		16.9	16.9		16.9	16.9	85.7	85.7			72.0	72.0
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.71	0.71			0.60	0.60

Lanes, Volumes, Timings

Synchro 11 Report September 2021
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Lane Group	SBR	Ø3	Ø7
LareConfigurations	1		
Traffic Volume (vph)	134		
Future Volume (vph)	134		
Ideal Flow (vphpl)	1900		
Storage Length (m)	75.0		
Storage Lanes	0		
Taper Length (m)			
Lane Util. Factor	1.00		
Ped Bike Factor	0.98		
Frt	0.850		
Flt Protected			
Satd. Flow (prot)	1498		
Flt Permitted			
Satd. Flow (perm)	1463		
Right Turn on Red	Yes		
Satd. Flow (RTOR)	134		
Link Speed (k/h)			
Link Distance (m)			
Travel Time (s)			
Confl. Peds. (#/hr)	6		
Confl. Bikes (#/hr)	-		
Peak Hour Factor	1.00		
Heavy Vehicles (%)	9%		
Adi. Flow (vph)	134		
Shared Lane Traffic (%)			
Lane Group Flow (vph)	134		
Turn Type	Perm		
Protected Phases		3	7
Permitted Phases	6	Ū	
Detector Phase	6		
Switch Phase	J		
Minimum Initial (s)	10.0	3.0	3.0
Minimum Solit (s)	3/1 3	5.0	5.0
Total Split (s)	64.0	5.0	5.0
Total Split (%)	53 20/	/0/	J.0
Maximum Groop (a)	53.3%	+ 70	4%
Vallow Time (a)	07	3.0	3.0
	3./	2.0	2.0
All-Red Time (S)	2.6	0.0	0.0
Lost Time Adjust (S)	0.0		
Total Lost Time (s)	6.3		
Lead/Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	C-Max	Max	Max
Walk Time (s)	7.0		
Flash Dont Walk (s)	11.0		
Pedestrian Calls (#/hr)	0		
Act Effct Green (s)	72.0		
Actuated g/C Ratio	0.60		

4: Bank Street & Dazé Street/Cahill Drive TT 2041 AM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio		0.68	0.11		0.46	0.44	0.13	0.46			0.07	0.22
Control Delay		67.0	0.7		55.5	11.8	6.2	6.6			13.2	12.3
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		67.0	0.7		55.5	11.8	6.2	6.6			13.2	12.3
LOS		Е	А		Е	В	А	А			В	В
Approach Delay		52.9			26.3			6.5				10.2
Approach LOS		D			С			А				В
Queue Length 50th (m)		27.7	0.0		16.0	1.0	4.5	30.7			1.8	23.4
Queue Length 95th (m)		45.1	0.0		29.2	18.0	m8.8	50.6			6.6	38.7
Internal Link Dist (m)		48.9			164.5			145.4				240.5
Turn Bay Length (m)						40.0	45.0				70.0	
Base Capacity (vph)		328	469		288	493	675	2445			294	2009
Starvation Cap Reductn		0	0		0	0	0	0			0	0
Spillback Cap Reductn		0	0		0	0	0	0			0	0
Storage Cap Reductn		0	0		0	0	0	0			0	0
Reduced v/c Ratio		0.37	0.07		0.25	0.30	0.13	0.46			0.07	0.22
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 120)											
Offset: 57 (48%), Reference	ed to phase	2:NBTL a	and 6:SB	TL, Start	of Green							
Natural Cycle: 90												
Control Type: Actuated-Coc	ordinated											
Maximum v/c Ratio: 0.68												
Intersection Signal Delay: 1	2.8			In	tersectior	n LOS: B						
Intersection Capacity Utilization	ation 83.2%			IC	U Level o	of Service	ε					
Analysis Period (min) 15												
			بلاحمين برماله		- I							

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

	Å ₽ <mark>₽</mark> ₽₽
78 s	5 s 37 s
▲ ø5 • • • ø6 (R)	∦ 1 ₂ ↓ Ø8
14s 64s	5 s 37 s

	1		
	-		
Lane Group	SBR	Ø3	Ø7
v/c Ratio	0.14		
Control Delay	2.6		
Queue Delay	0.0		
Total Delay	2.6		
LOS	А		
Approach Delay			
Approach LOS			
Queue Length 50th (m)	0.0		
Queue Length 95th (m)	9.1		
Internal Link Dist (m)			
Turn Bay Length (m)	75.0		
Base Capacity (vph)	931		
Starvation Cap Reductn	0		
Spillback Cap Reductn	0		
Storage Cap Reductn	0		
Reduced v/c Ratio	0.14		
Intersection Summary			

5: Dazé Street & South Keys SC TT 2041 AM Master Plan Build-out

Lane Group EBL EBT EBT EBT WBL WBT WBL NBT NBT NBL SBU SBU <th< th=""><th></th><th>٦</th><th>-</th><th>$\mathbf{\hat{v}}$</th><th>4</th><th>-</th><th>*</th><th>1</th><th>1</th><th>۲</th><th>L#</th><th>1</th><th>Ŧ</th></th<>		٦	-	$\mathbf{\hat{v}}$	4	-	*	1	1	۲	L#	1	Ŧ
Lane Confgurations i	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Traffic Voluma (vph) 35 1 83 5 2 7 115 233 3 2 4 171 Future Voluma (vph) 350 100 1900 1	Lane Configurations	۲ ۲	el el		5	el el		<u>ک</u>	≜1 ≱			ľ	<u>†</u> †
Fulure (vph)351835271152.33324171ideal Flow (vphp)1900 <t< td=""><td>Traffic Volume (vph)</td><td>35</td><td>1</td><td>83</td><td>5</td><td>2</td><td>7</td><td>115</td><td>233</td><td>3</td><td>2</td><td>4</td><td>171</td></t<>	Traffic Volume (vph)	35	1	83	5	2	7	115	233	3	2	4	171
ideal Flow (php) 1900	Future Volume (vph)	35	1	83	5	2	7	115	233	3	2	4	171
Shorage Length (m) 40.0 0.0 7.0 0.0 40.0 Storage Lanes 1 0 1 0 1 0 1 0 1 0 1.00 1.00 1.00 1.00 0.95 2.5 2.5 2.5 2.5 2.5 2.5 0.950 0.950 0.950 0.950 0.950 0.950 0.948 0.948 0.950 0.950 0.950 0.953 3.82 3.83 </td <td>Ideal Flow (vphpl)</td> <td>1900</td>	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Lanes 1 0 1 0 1 0 1 Taper Length (m) 2.5	Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Tape Length (m) 2.5 2.5 2.5 2.5 2.5 Lane Uli, Factor 1.00 1.00 1.00 1.00 1.00 0.95 0.95 0.95 0.95 Ped Bike Factor 1.00 0.99 0.905 0.950 0.950 0.950 Stad. Flow (prot) 1.722 1566 0 1521 167.8 0 1021 3571 0 0 1162 3382 Stad. Flow (prot) 1.722 1.566 0 1123 167.8 0 121 3571 0 0 1162 3382 Stad. Flow (prot) 1.566 0 1123 167.8 0 121 3571 0 0 1162 3382 Stad. Flow (prot) 30 30 0 570 57.4 57.4 57.5 57.5 Link Speed (wh) 30 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Storage Lanes	1		0	1		0	1		0		1	
Lane Util. Factor 1.00 1.00 1.00 0.09 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.99 1.00 0.995 0.995 0.998 1.00 0.955 Satd. Flow (prot) 1722 1566 0 1521 1678 0 1001 102 3571 0 0 1123 3382 Flow (prot) 1360 1566 0 1123 1678 0 1021 3571 0 0 1162 3382 Satd. Flow (prot) 30 7 2 764 764 764 764 764 755 764 755 764 755 764 755 764 7100 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 <td>Taper Length (m)</td> <td>2.5</td> <td></td> <td></td> <td>2.5</td> <td></td> <td></td> <td>2.5</td> <td></td> <td></td> <td></td> <td>2.5</td> <td></td>	Taper Length (m)	2.5			2.5			2.5				2.5	
Ped Bike Factor 1.00 0.99 1.00 0.99 1.00 0.998 0.998 0.998 0.998 Fit Protected 0.550 0.955 0.955 0.955 0.955 0.955 0.955 0.955 0.950 0.955 0.950 0.955 0.950 0.955 0.950 0.955 0.950	Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Frt 0.852 0.883 0.998 0.998 0.948 FI Protected 0.950 0.950 0.950 0.950 0.950 FI Protected 0.702 1566 0<1521	Ped Bike Factor	1.00	0.99		1.00	0.99			1.00				
Fit Protected 0.950 0.950 0.950 0.950 Satd. Flow (prot) 1722 1566 0 1521 1678 0 1207 3571 0 0.950 0.950 Satd. Flow (perm) 1360 1566 0 1123 1678 0 1021 3571 0 0 1162 3382 Right Turn on Red Yes	Frt		0.852			0.883			0.998				0.948
Satd. Flow (prot) 1722 1566 0 1521 1678 0 1807 3571 0 0 1825 3382 FIP Permitted 0.752 0.702 0.537 0 0 0 1825 3382 Right Turn on Red 1360 1566 0 1122 1678 0 1021 3571 0 0 1162 3382 Right Turn on Red Yes Y	Flt Protected	0.950			0.950			0.950				0.950	
Fit Permitted0.7520.5370.605Satd. Flow (perm)13601566011231678010213671001162382Satd. Flow (RTOR)8377290Link Speed (k/h)3030574574574574Tavel Time (s)12.98.84.15555Confl. Bikes (#/n)211255Confl. Bikes (#/n)1.001.001.001.001.001.001.001.00Heavy Vehicles (%)6%100%2%2%0%11523332410Heavy Vehicles (%)6%100%2%2%0%115233322411Sared Lane Traffic (%)358405901152360062626Detector Phase4885211662626162610101.00<	Satd. Flow (prot)	1722	1566	0	1521	1678	0	1807	3571	0	0	1825	3382
Satd. Flow (perm) 1360 1566 0 1123 1678 0 1021 3571 0 0 1162 3382 Right Turn on Red Yes Yes Yes Yes Yes Yes Yes Satd. Flow (RTOR) 83 7 2 90 50<	Flt Permitted	0.752			0.702			0.537				0.605	
Right Turn on Red Yes Yes Yes Yes Yes Yes Sets Satd. Flow (RTOR) 833 7 2 90 50 50 50 50 50 50 50 50 50 50 50 50 50 57.4 1 57.4	Satd. Flow (perm)	1360	1566	0	1123	1678	0	1021	3571	0	0	1162	3382
Satd. Flow (RTOR) 83 7 2 90 Link Speed (k/h) 30 30 50 50 50 Link Distance (m) 107.1 73.7 57.4 76.4 Travel Time (s) 12.9 8.8 4.1 55 Confl. Bikes (#/hr) 2 1 1 2 1 1 2 1 1 2 1 1 0 1.00	Right Turn on Red			Yes			Yes			Yes			
Link Speed (k/h) 30 30 50 50 Link Distance (m) 107.1 73.7 57.4 76.4 Travel Time (s) 12.9 8.8 4.1 50 Confl. Peds. (#hr) 2 1 1 2 1 Peak Hour Factor 1.00 <	Satd. Flow (RTOR)		83			7			2				90
Link Distance (m) 107.1 73.7 57.4 76.4 Travel Time (s) 12.9 8.8 4.1 5.5 Confl. Bicks (#/hr) 2 1 1 2 1 Peak Hour Factor 1.00	Link Speed (k/h)		30			30			50				50
Travel Time (s) 12.9 8.8 4.1 5.5 Confl. Peds. (#hr) 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 1 2 1	Link Distance (m)		107.1			73.7			57.4				76.4
Confl. Peds. (#/hr) 2 1 1 2 Confl. Bikes (#/hr) 1 1 1 1 Peak Hour Factor 1.00	Travel Time (s)		12.9			8.8			4.1				5.5
Confl. Bikes (#/hr) 1 Peak Hour Factor 1.00 <tde< td=""><td>Confl. Peds. (#/hr)</td><td>2</td><td></td><td>1</td><td>1</td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td></tde<>	Confl. Peds. (#/hr)	2		1	1		2						
Peak Hour Factor 1.00 <td>Confl. Bikes (#/hr)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td>	Confl. Bikes (#/hr)									1			
Heavy Vehicles (%) 6% 100% 2% 2% 0% 0% 1% 2% 0% 0% 0% 3% Adj. Flow (vph) 35 1 83 5 2 7 115 233 3 2 4 171 Shared Lane Traffic (%) 35 84 0 5 9 0 115 233 3 2 4 171 Shared Lane Traffic (%) 35 84 0 5 9 0 115 233 3 2 4 171 Shared Lane Traffic (%) 7 NA Perm NA Perm NA Perm NA custom pm+pt NA Protected Phases 4 8 5 2 1 1 6 Switch Phase 7.3 32.9 7.3 32.9 7.3 32.9 7.3 32.9 7.3 32.9 7.3 32.9 7.3 32.9 7.3 32.9 7.3 32.9 7.3 32.9 7.3 32.9 7.3 33.9 3.3 3.3 3.3<	Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj, Flow (vph) 35 1 83 5 2 7 115 233 3 2 4 171 Shared Lane Traffic (%) Lane Group Flow (vph) 35 84 0 5 9 0 115 236 0 0 6 261 Turn Type Perm NA Perm NA pm+pt NA custom pm+pt NA Protected Phases 4 8 5 2 1 6 6 Detector Phase 4 4 8 8 5 2 1 1 6 Switch Phase	Heavy Vehicles (%)	6%	100%	2%	20%	0%	0%	1%	2%	0%	0%	0%	3%
Shared Lane Traffic (%) 35 84 0 5 9 0 115 236 0 0 6 261 Turn Type Perm NA Perm NA pm+pt NA custom pm+pt NA Protected Phases 4 8 5 2 1 6 Detector Phase 4 4 8 8 5 2 1 1 6 Detector Phase 4 4 8 8 5 2 1 1 6 Switch Phase 4 4 8 8 5 2 1 1 6 Minimum Initial (s) 5.0 5.0 5.0 5.0 1.4 1.4 1.4 5.0 Total Split (s) 28.0 28.0 28.1 28.1 12.0 35.0 16.0% 16.0% 46.6% Maximum Green (s) 22.0 22.0 22.0 22.0 6.1 29.1 6.1 6.1 29.1 Vellow Time (s) 3.3 3.3 3.3 3.3	Adi, Flow (vph)	35	1	83	5	2	7	115	233	3	2	4	171
Lane Group Flow (vph) 35 84 0 5 9 0 115 236 0 0 6 261 Turn Type Perm NA Perm NA pm+pt NA custom pm+pt NA Protected Phases 4 8 5 2 1 6 Detector Phase 4 4 8 8 5 2 1 1 6 Switch Phase 4 4 8 8 5 2 1 1 6 Switch Phase 4 4 8 8 5 2 1 1 6 Minimun Initial (s) 5.0 5.0 5.0 1.4 5.0 1.4 1.4 5.0 Total Split (s) 28.0 28.0 28.1 28.1 16.0% 46.6% 16.0% 46.6% Maximum Green (s) 22.0 22.0 22.0 26.1 2.6 2.6 2.6 2.6 <	Shared Lane Traffic (%)									_			
Turn Type Perm NA Perm NA pm+pt NA custom pm+pt NA Protected Phases 4 8 5 2 1 6 Permitted Phases 4 4 8 2 1 1 6 Detector Phase 4 4 8 8 5 2 1 1 6 Switch Phase	Lane Group Flow (vph)	35	84	0	5	9	0	115	236	0	0	6	261
Protected Phases 4 8 5 2 1 6 Permitted Phases 4 4 8 2 1 1 6 Detector Phase 4 4 8 8 5 2 1 1 6 Switch Phase	Turn Type	Perm	NA		Perm	NA		pm+pt	NA		custom	pm+pt	NA
Permitted Phases 4 8 2 1 6 Detector Phase 4 4 8 8 5 2 1 1 6 Switch Phase 5.0 5.0 5.0 1.4 5.0 1.4 1.4 5.0 Minimum Initial (s) 28.0 28.0 28.1 28.1 7.3 32.9 7.3 7.3 32.9 Total Split (s) 28.0 28.0 28.1 28.1 12.0 35.0 12.0 12.0 35.0 Total Split (%) 37.3% 37.3% 37.4% 37.4% 16.0% 46.6% 16.0% 46.6% Maximum Green (s) 22.0 22.0 22.0 22.0 6.1 29.1 6.1 6.1 29.1 Yellow Time (s) 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3	Protected Phases		4			8		5	2			1	6
Detector Phase 4 4 8 8 5 2 1 1 6 Switch Phase Minimum Initial (s) 5.0 5.0 5.0 1.4 5.0 1.4 1.4 5.0 Minimum Initial (s) 28.0 28.0 28.1 28.1 7.3 32.9 7.3 7.3 32.9 Total Split (s) 28.0 28.0 28.1 28.1 12.0 35.0 12.0 12.0 35.0 Total Split (s) 37.3% 37.3% 37.4% 37.4% 16.0% 46.6% 16.0% 46.6% Maximum Green (s) 22.0 22.0 22.0 22.0 6.1 29.1 6.1 6.1 29.1 Yellow Time (s) 3.3	Permitted Phases	4			8			2			1	6	-
Switch Phase Minimum Initial (s) 5.0 5.0 5.0 5.0 1.4 5.0 1.4 1.4 5.0 Minimum Split (s) 28.0 28.0 28.1 28.1 7.3 32.9 7.3 7.3 32.9 Total Split (s) 28.0 28.0 28.1 28.1 12.0 35.0 12.0 12.0 35.0 Total Split (%) 37.3% 37.4% 37.4% 16.0% 46.6% 16.0% 46.6% Maximum Green (s) 22.0 22.0 22.0 22.0 6.1 29.1 6.1 6.1 6.1 29.1 Yellow Time (s) 3.3	Detector Phase	4	4		8	8		5	2		1	1	6
Minimum Initial (s) 5.0 5.0 5.0 5.0 1.4 5.0 1.4 1.4 5.0 Minimum Split (s) 28.0 28.0 28.1 28.1 28.1 7.3 32.9 7.3 7.3 32.9 Total Split (s) 28.0 28.0 28.1 28.1 12.0 35.0 12.0 12.0 35.0 Total Split (%) 37.3% 37.4% 37.4% 16.0% 46.6% 16.0% 46.6% Maximum Green (s) 22.0 22.0 22.0 22.0 6.1 29.1 6.1 6.1 29.1 Yellow Time (s) 3.3 <td< td=""><td>Switch Phase</td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td></td<>	Switch Phase					-							-
Minimum Split (s) 28.0 28.0 28.1 28.1 28.1 7.3 32.9 7.3 7.3 32.9 Total Split (s) 28.0 28.0 28.1 28.1 28.1 12.0 35.0 12.0 12.0 35.0 Total Split (s) 37.3% 37.3% 37.4% 37.4% 16.0% 46.6% 16.0% 46.6% Maximum Green (s) 22.0 22.0 22.0 22.0 6.1 29.1 6.1 6.1 29.1 Yellow Time (s) 3.3	Minimum Initial (s)	5.0	5.0		5.0	5.0		1.4	5.0		1.4	1.4	5.0
Total Split (s) 28.0 28.0 28.1 28.1 12.0 35.0 12.0 12.0 35.0 Total Split (%) 37.3% 37.3% 37.4% 37.4% 16.0% 46.6% 16.0% 16.0% 46.6% Maximum Green (s) 22.0 22.0 22.0 22.0 6.1 29.1 6.1 6.1 29.1 Yellow Time (s) 3.3	Minimum Split (s)	28.0	28.0		28.1	28.1		7.3	32.9		7.3	7.3	32.9
Total Split (%) 37.3% 37.3% 37.4% 37.4% 37.4% 16.0% 46.6% 16.0% 16.0% 46.6% Maximum Green (s) 22.0 22.0 22.0 22.0 6.1 29.1 6.1 6.1 29.1 Yellow Time (s) 3.3 3.5 5.9 5.9	Total Split (s)	28.0	28.0		28.1	28.1		12.0	35.0		12.0	12.0	35.0
Maximum Green (s) 22.0 22.0 22.0 22.0 22.0 6.1 29.1 6.1 6.1 29.1 Yellow Time (s) 3.3 3.5 5.9 5.9 5.9 5.9 5.9 5.9 5.9 <td>Total Split (%)</td> <td>37.3%</td> <td>37.3%</td> <td></td> <td>37.4%</td> <td>37.4%</td> <td></td> <td>16.0%</td> <td>46.6%</td> <td></td> <td>16.0%</td> <td>16.0%</td> <td>46.6%</td>	Total Split (%)	37.3%	37.3%		37.4%	37.4%		16.0%	46.6%		16.0%	16.0%	46.6%
Yellow Time (s) 3.3 3.4 0.0 0 0.0 0 0 0 0 0 0 0 </td <td>Maximum Green (s)</td> <td>22.0</td> <td>22.0</td> <td></td> <td>22.0</td> <td>22.0</td> <td></td> <td>6.1</td> <td>29.1</td> <td></td> <td>6.1</td> <td>6.1</td> <td>29.1</td>	Maximum Green (s)	22.0	22.0		22.0	22.0		6.1	29.1		6.1	6.1	29.1
All-Red Time (s) 2.7 2.7 2.8 2.8 2.6 <td>Yellow Time (s)</td> <td>3.3</td> <td>3.3</td> <td></td> <td>3.3</td> <td>3.3</td> <td></td> <td>3.3</td> <td>3.3</td> <td></td> <td>3.3</td> <td>3.3</td> <td>3.3</td>	Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
Lost Time Adjust (s) 0.0 0	All-Red Time (s)	2.7	2.7		2.8	2.8		2.6	2.6		2.6	2.6	2.6
Total Lost Time (s) 6.0 6.0 6.1 6.1 5.9 5.9 5.9 5.9 5.9 Lead/Lag Lead Lag Lead Lag Lead Lag Lead Lag Lead-Lag Optimize? Yes Yes Yes Yes Yes Yes Yes Vehicle Extension (s) 3.0 15.0 <td< td=""><td>Lost Time Adjust (s)</td><td>0.0</td><td>0.0</td><td></td><td>0.0</td><td>0.0</td><td></td><td>0.0</td><td>0.0</td><td></td><td></td><td>0.0</td><td>0.0</td></td<>	Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Lead/Lag Lead Lag Lead Lag Lead Lag Lead Lag Lead-Lag Optimize? Yes	Total Lost Time (s)	6.0	6.0		6.1	6.1		5.9	5.9			5.9	5.9
Lead-Lag Optimize? Yes	Lead/Lag				••••			Lead	Lag		Lead	Lead	Lag
Vehicle Extension (s) 3.0	Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode None None None None Max None Max Walk Time (s) 7.0 7.0 7.0 7.0 15.0 15.0 15.0 15.0 15.0 12.0 12.0 12.0 12.0 0	Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Walk Time (s) 7.0 7.0 7.0 7.0 15.0 15.0 15.0 15.0 15.0 12.0 12.0 12.0 12.0 0	Recall Mode	None	None		None	None		None	Max		None	None	Max
Flash Dont Walk (s) 15.0 15.0 15.0 15.0 12.0 12.0 Pedestrian Calls (#/hr) 0	Walk Time (s)	7.0	7.0		7.0	7.0			15.0				15.0
Pedestrian Calls (#/hr) 0	Flash Dont Walk (s)	15.0	15.0		15.0	15.0			12.0				12.0
	Pedestrian Calls (#/hr)	0	0		0	0			0				0
Act Effct Green (s) 7.1 7.1 7.0 7.0 41.0 41.2 37.1 34.2	Act Effct Green (s)	7.1	7.1		7.0	7.0		41.0	41.2			37.1	34.2
Actuated g/C Ratio 0.12 0.12 0.12 0.12 0.70 0.71 0.64 0.59	Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.70	0.71			0.64	0.59

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Lane Group	SBB
	OBIT
	۹N
Future Volume (vph)	90 90
Ideal Flow (vphpl)	1900
Storage Length (m)	0.0
Storage Lanes	0.0
Taper Length (m)	0
Lane Litil Eactor	0.95
Ped Bike Factor	0.00
Frt	
Elt Protected	
Satd Flow (prot)	0
Elt Permitted	0
Satd, Flow (perm)	0
Right Turn on Red	Yes
Satd, Flow (RTOR)	100
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	1.00
Heavy Vehicles (%)	1%
Adj. Flow (vph)	90
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	

5: Dazé Street & South Keys SC TT 2041 AM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio	0.21	0.32		0.04	0.04		0.14	0.09			0.01	0.13
Control Delay	27.1	10.5		23.8	16.4		4.1	5.2			3.8	6.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	27.1	10.5		23.8	16.4		4.1	5.2			3.8	6.0
LOS	С	В		С	В		А	А			А	A
Approach Delay		15.3			19.1			4.9				6.0
Approach LOS		В			В			А				A
Queue Length 50th (m)	3.6	0.1		0.5	0.2		3.3	3.5			0.2	4.9
Queue Length 95th (m)	10.5	10.2		3.1	3.6		8.2	12.8			1.1	10.9
Internal Link Dist (m)		83.1			49.7			33.4				52.4
Turn Bay Length (m)	40.0						70.0				40.0	
Base Capacity (vph)	517	647		425	640		799	2521			815	2015
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.07	0.13		0.01	0.01		0.14	0.09			0.01	0.13
Intersection Summary												
Area Type:	Other											
Cycle Length: 75.1												
Actuated Cycle Length: 58	3.4											
Natural Cycle: 70												
Control Type: Semi Act-U	ncoord											
Maximum v/c Ratio: 0.32												
Intersection Signal Delay:	7.2			In	tersectior	n LOS: A						
Intersection Capacity Utiliz	zation 37.7%			IC	U Level o	of Service	А					
Analysis Period (min) 15												

Splits and Phases: 5: Dazé Street & South Keys SC

M _{Ø1}	↑ø₂	<u>→</u> ₀₄	
12 s	35 s	28 s	
▲ ø5	Ø6	Ø8	
12 s	35 s	28.1 s	

5: Dazé Street & South Keys SC TT 2041 AM Master Plan Build-out

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Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductr	ı
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Interportion Cummon	
intersection Summary	

Intersection

Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		- 11	∱ î≽	
Traffic Vol, veh/h	0	41	0	351	240	20
Future Vol, veh/h	0	41	0	351	240	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage	, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	41	0	351	240	20

Major/Minor	Minor2	М	ajor1	Ma	jor2	
Conflicting Flow All	-	130	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	902	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuve	r -	902	-	-	-	-
Mov Cap-2 Maneuve	r -	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBT EE	3Ln1	SBT	SBR
Capacity (veh/h)	-	902	-	-
HCM Lane V/C Ratio	- 0	.045	-	-
HCM Control Delay (s)	-	9.2	-	-
HCM Lane LOS	-	Α	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

1.7

Intersection

Int Delay, s/veh

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1	1	- 11	1	
Traffic Vol, veh/h	0	97	44	351	240	0
Future Vol, veh/h	0	97	44	351	240	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	97	44	351	240	0

Major/Minor	Minor2	I	Major1	Majo	or2					
Conflicting Flow All	-	120	240	0	-	0				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				
Critical Hdwy	-	6.9	4.1	-	-	-				
Critical Hdwy Stg 1	-	-	-	-	-	-				
Critical Hdwy Stg 2	-	-	-	-	-	-				
Follow-up Hdwy	-	3.3	2.2	-	-	-				
Pot Cap-1 Maneuver	0	915	1339	-	-	-				
Stage 1	0	-	-	-	-	-				
Stage 2	0	-	-	-	-	-				
Platoon blocked, %				-	-	-				
Mov Cap-1 Maneuver	· -	915	1339	-	-	-				
Mov Cap-2 Maneuver	· -	-	-	-	-	-				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0.9	0
HCM LOS	А		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	1339	- 915	-	-
HCM Lane V/C Ratio	0.033	- 0.106	-	-
HCM Control Delay (s)	7.8	- 9.4	-	-
HCM Lane LOS	А	- A	-	-
HCM 95th %tile Q(veh)	0.1	- 0.4	-	-

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	≜1 ≱		٦	∱ ⊅		ľ		1	ካካ		1
Traffic Volume (vph)	188	1437	34	88	1396	377	16	0	152	664	0	302
Future Volume (vph)	188	1437	34	88	1396	377	16	0	152	664	0	302
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	150.0		0.0	55.0		0.0	0.0		40.0	120.0		120.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00		0.99					0.99
Frt		0.997			0.968				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1712	3285	0	1530	3241	0	1616	0	1488	3321	0	1532
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1710	3285	0	1528	3241	0	1599	0	1488	3321	0	1509
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			29				164			302
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		431.4			316.9			354.1			189.5	
Travel Time (s)		25.9			19.0			15.9			8.5	
Confl. Peds. (#/hr)	11		5	5		11	3					3
Confl. Bikes (#/hr)			1									
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	5%	0%	13%	3%	2%	7%	0%	4%	1%	0%	1%
Adj. Flow (vph)	188	1437	34	88	1396	377	16	0	152	664	0	302
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	1471	0	88	1773	0	16	0	152	664	0	302
Turn Type	Prot	NA		Prot	NA		Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6							
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		4		4	8		8
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		10.0		10.0	10.0		10.0
Minimum Split (s)	17.2	47.3		12.4	47.3		17.8		17.8	22.5		22.5
Total Split (s)	28.0	53.0		28.0	53.0		19.0		19.0	49.0		49.0
Total Split (%)	21.5%	40.8%		21.5%	40.8%		14.6%		14.6%	37.7%		37.7%
Maximum Green (s)	20.6	45.7		20.6	45.7		11.2		11.2	41.2		41.2
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7		3.7	3.7		3.7
All-Red Time (s)	3.7	3.6		3.7	3.6		4.1		4.1	4.1		4.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0		0.0
Total Lost Time (s)	7.4	7.3		7.4	7.3		7.8		7.8	7.8		7.8
Lead/Lag	Lead	Lag		Lead	Lag		Lag		Lag			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes		Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0		3.0	3.0		3.0
Recall Mode	None	C-Max		None	C-Max		None		None	None		None
Walk Time (s)		31.0			31.0							
Flash Dont Walk (s)		9.0			9.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)	18.8	62.5		12.8	56.4		32.2		32.2	32.2		32.2
Actuated g/C Ratio	0.14	0.48		0.10	0.43		0.25		0.25	0.25		0.25

Lanes, Volumes, Timings

Synchro 11 Report September 2021

Lane Group	Ø3
LaneConfigurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (m)	
Storage Lanes	
Taper Length (m)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (k/h)	
Link Distance (m)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.8
Total Split (s)	30.0
Total Split (%)	23%
Maximum Green (s)	22.2
Yellow Time (s)	3.7
All-Red Time (s)	4.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	

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Lane Group	EBL	EBT	EBR WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.76	0.93	0.59	1.25		0.04		0.31	0.81		0.50
Control Delay	72.5	44.3	53.6	143.8		34.6		5.8	53.8		6.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0
Total Delay	72.5	44.3	53.6	143.8		34.6		5.8	53.8		6.8
LOS	E	D	D	F		С		А	D		А
Approach Delay		47.5		139.5			8.5			39.1	
Approach LOS		D		F			А			D	
Queue Length 50th (m)	46.6	181.8	22.5	~291.3		3.1		0.0	82.9		0.0
Queue Length 95th (m)	70.5	#277.7	m23.1	m#290.8		8.5		13.0	96.9		20.5
Internal Link Dist (m)		407.4		292.9			330.1			165.5	
Turn Bay Length (m)	150.0		55.0					40.0	120.0		120.0
Base Capacity (vph)	281	1579	242	1423		396		492	1052		684
Starvation Cap Reductn	0	0	0	0		0		0	0		0
Spillback Cap Reductn	0	0	0	0		0		0	0		0
Storage Cap Reductn	0	0	0	0		0		0	0		0
Reduced v/c Ratio	0.67	0.93	0.36	1.25		0.04		0.31	0.63		0.44
Intersection Summary											
Area Type:	Other										
Cycle Length: 130											
Actuated Cycle Length: 130)										
Offset: 1 (1%), Referenced	to phase 2	EBT and	6:WBT, Start of C	Green							
Natural Cycle: 145											
Control Type: Actuated-Coc	ordinated										
Maximum v/c Ratio: 1.25											
Intersection Signal Delay: 8	1.2			ntersectio	n LOS: F						
Intersection Capacity Utiliza	ation 103.4	%		CU Level	of Service	G					
Analysis Period (min) 15											
 Volume exceeds capaci 	ty, queue	s theoretic	ally infinite.								
Queue shown is maximu	ım after tw	o cycles.									
# 95th percentile volume e	exceeds ca	apacity, qu	eue may be long	er.							
Queue shown is maximu	im after tw	o cycles.									
m Volume for 95th percen	ntile queue	is metered	d by upstream sig	ınal.							

Splits and Phases: 1: Airport Parkway & Hunt Club Road

√ Ø1	 ₩02 (R)		AL _{Ø3}	*\/@4	
28 s	53 s		30 s	19 s	
✓ Ø2	← Ø6 (R)		Ø8		
28 s	53 s		49 s		

Lane Group	Ø3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2041 PM Master Plan Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ኘኘ	^			ľ	<u></u>	1	ኘ	1	1	5
Traffic Volume (vph)	33	311	1529	244	28	37	1392	95	141	110	75	122
Future Volume (vph)	33	311	1529	244	28	37	1392	95	141	110	75	122
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)		100.0		0.0		80.0		90.0	50.0		25.0	50.0
Storage Lanes		2		0		1		1	2		1	1
Taper Length (m)		7.6				7.6			7.6			7.6
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Ped Bike Factor		0.99	0.99			1.00		0.93	0.93		0.96	0.98
Frt			0.979					0.850			0.850	
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3324	4579	0	0	1729	3357	1532	3225	1820	1532	1712
Flt Permitted		0.193				0.208			0.950			0.950
Satd. Flow (perm)	0	668	4579	0	0	377	3357	1431	3009	1820	1474	1675
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)			26					143			137	
Link Speed (k/h)			60				60			50		
Link Distance (m)			316.9				201.3			183.6		
Travel Time (s)			19.0				12.1			13.2		
Confl. Peds. (#/hr)		35		25		25		35	44		22	22
Confl. Bikes (#/hr)				1							1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	5%	5%	0%	0%	3%	1%	4%	0%	1%	1%
Adj. Flow (vph)	33	311	1529	244	28	37	1392	95	141	110	75	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	344	1773	0	0	65	1392	95	141	110	75	122
Turn Type	custom	Prot	NA		custom	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases		5	2			1	6		3	8		7
Permitted Phases	5				1			6			8	
Detector Phase	5	5	2		1	1	6	6	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	40.2		11.5	11.5	40.2	40.2	11.5	41.0	41.0	11.6
Total Split (s)	18.0	18.0	54.0		18.0	18.0	54.0	54.0	17.0	41.0	41.0	17.0
Total Split (%)	13.8%	13.8%	41.5%		13.8%	13.8%	41.5%	41.5%	13.1%	31.5%	31.5%	13.1%
Maximum Green (s)	11.5	11.5	47.8		11.5	11.5	47.8	47.8	10.5	34.0	34.0	10.4
Yellow Time (s)	3.7	3.7	3.7		3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	2.8	2.5		2.8	2.8	2.5	2.5	3.2	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5	6.2			6.5	6.2	6.2	6.5	7.0	7.0	6.6
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max		None	None	C-Max	C-Max	None	None	None	None
Walk Time (s)			7.0				7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			18.0				18.0	18.0		27.0	27.0	
Pedestrian Calls (#/hr)			0				0	0		0	0	
Act Effct Green (s)		20.7	49.4			19.2	47.8	47.8	9.8	24.8	24.8	10.4
Actuated g/C Ratio		0.16	0.38			0.15	0.37	0.37	0.08	0.19	0.19	0.08

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Lane Group	SRT	SBR
Lane youngurations	164	245
Future Volume (vpn)	104	345
Future volume (vpn)	104	345
Ideal Flow (vphpl)	1800	1800
Storage Length (m)		0.0
Storage Lanes		1
raper Length (m)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		0.94
Frt		0.850
Fit Protected		
Satd. Flow (prot)	1802	1532
FIt Permitted		
Satd. Flow (perm)	1802	1438
Right Turn on Red		Yes
Satd. Flow (RTOR)		137
Link Speed (k/h)	50	
Link Distance (m)	209.8	
Travel Time (s)	15.1	
Confl. Peds. (#/hr)		44
Confl. Bikes (#/hr)		
Peak Hour Factor	1.00	1.00
Heavy Vehicles (%)	1%	1%
Adj. Flow (vph)	164	345
Shared Lane Traffic (%)		
Lane Group Flow (vph)	164	345
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	41.0	41.0
Total Split (s)	41.0	41.0
Total Split (%)	31.5%	31.5%
Maximum Green (s)	34.0	34.0
Yellow Time (s)	3.3	3.3
All-Red Time (s)	3.7	3.7
Lost Time Adjust (s)	0.7	0.0
Total Lost Time (s)	7.0	7.0
	0.7	
Lead Lag Optimize?	Lay	Lay
Vohiolo Extension (a)	20	20
	J.U None	S.U
vvalk Time (s)	7.0	7.0
Flash Dont Walk (s)	27.0	27.0
Pedestrian Galls (#/hr)	0	0
Act Effect Green (s)	25.4	25.4
Actuated g/C Ratio	0.20	0.20

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2041 PM Master Plan Build-out

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
v/c Ratio		3.25	1.01			1.18	1.13	0.15	0.58	0.32	0.19	0.90
Control Delay		1040.3	55.3			225.5	106.7	1.5	67.9	45.3	1.1	112.7
Queue Delay		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		1040.3	55.3			225.5	106.7	1.5	67.9	45.3	1.1	112.7
LOS		F	Е			F	F	А	Е	D	А	F
Approach Delay			215.4				105.3			44.9		
Approach LOS			F				F			D		
Queue Length 50th (m)		~83.6	~175.9			~20.2	~217.0	0.0	18.1	24.0	0.0	31.5
Queue Length 95th (m)		m#105.0 r	m#202.1			#56.1	#259.6	2.9	29.1	38.2	0.0	#67.9
Internal Link Dist (m)			292.9				177.3			159.6		
Turn Bay Length (m)		100.0				80.0		90.0	50.0		25.0	50.0
Base Capacity (vph)		106	1754			55	1234	616	260	476	486	136
Starvation Cap Reductn		0	0			0	0	0	0	0	0	0
Spillback Cap Reductn		0	0			0	0	0	0	0	0	0
Storage Cap Reductn		0	0			0	0	0	0	0	0	0
Reduced v/c Ratio		3.25	1.01			1.18	1.13	0.15	0.54	0.23	0.15	0.90
Intersection Summary												
Area Type: 0	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 1 (1%), Referenced to	o phase 2	EBT and	l 6:WBT, \$	Start of G	reen							
Natural Cycle: 135												
Control Type: Actuated-Coor	rdinated											
Maximum v/c Ratio: 3.25												
Intersection Signal Delay: 14	5.7			Ir	ntersection	n LOS: F	:					
Intersection Capacity Utilizat	ion 104.9	%		IC	CU Level	of Servic	e G					
Analysis Period (min) 15												
 Volume exceeds capacit 	y, queue	s theoret	ically infin	ite.								
Queue shown is maximur	m after tw	o cycles.										
# 95th percentile volume e	xceeds ca	apacity, q	ueue may	be longe	r.							
Queue shown is maximur	n after tw	o cycles.										
m Volume for 95th percent	Volume for 95th percentile queue is metered by upstream signal.											

Splits and Phases: 2: Bridle Path Drive/Dazé Street & Hunt Club Road

₩ø1	> Ø2 (R)	1 Ø3	
18 s	54 s	17 s	41 s
≯ ø₅	 Ø6 (R)	Ø7	¶ø8
18 s	54 s	17 s	41 s

2: Bridle Path Drive/Dazé Street & Hunt Club Road TT 2041 PM Master Plan Build-out

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Lane Group	SBT	SBR
v/c Ratio	0.47	0.88
Control Delay	49.0	53.1
Queue Delay	0.0	0.0
Total Delay	49.0	53.1
LOS	D	D
Approach Delay	63.6	
Approach LOS	Е	
Queue Length 50th (m)	37.0	53.8
Queue Length 95th (m)	54.7	85.9
Internal Link Dist (m)	185.8	
Turn Bay Length (m)		
Base Capacity (vph)	471	477
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.35	0.72
Intersection Summary		

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations		ሻሻ	^	1		ሻ	† †	1	ካካ	^	1	
Traffic Volume (vph)	4	184	997	398	1	52	898	197	365	571	61	1
Future Volume (vph)	4	184	997	398	1	52	898	197	365	571	61	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)		95.0		0.0		60.0		100.0	60.0		60.0	
Storage Lanes		2		1		1		1	2		1	
Taper Length (m)		2.5				2.5			2.5			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	1.00	0.95
Ped Bike Factor		1.00		0.96		0.99		0.98	0.97		0.96	
Frt				0.850				0.850			0.850	
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	3139	3325	1517	0	1664	3390	1532	3321	3390	1517	0
Flt Permitted		0.381				0.533			0.950			
Satd. Flow (perm)	0	1256	3325	1451	0	928	3390	1500	3230	3390	1454	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				273				193			157	
Link Speed (k/h)			60				60			60		
Link Distance (m)			152.6				161.6			179.7		
Travel Time (s)			9.2				9.7			10.8		
Confl. Peds. (#/hr)		4		21		21		4	55		22	
Confl. Bikes (#/hr)				5				4			2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	7%	4%	2%	0%	4%	2%	1%	1%	2%	2%	0%
Adj. Flow (vph)	4	184	997	398	1	52	898	197	365	571	61	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	188	997	398	0	53	898	197	365	571	61	0
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Perm	Prot	NA	Perm	custom
Protected Phases		7	4			3	8		5	2		
Permitted Phases	7			4	3			8			2	1
Detector Phase	7	7	4	4	3	3	8	8	5	2	2	1
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.5	11.5	33.7	33.7	11.5	11.5	33.7	33.7	12.1	34.5	34.5	12.1
Total Split (s)	17.0	17.0	41.0	41.0	14.0	14.0	38.0	38.0	19.0	46.0	46.0	19.0
Total Split (%)	14.2%	14.2%	34.2%	34.2%	11.7%	11.7%	31.7%	31.7%	15.8%	38.3%	38.3%	15.8%
Maximum Green (s)	10.5	10.5	34.3	34.3	7.5	7.5	31.3	31.3	11.9	39.5	39.5	11.9
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.8	2.8	3.0	3.0	2.8	2.8	3.0	3.0	3.4	2.8	2.8	3.4
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.5	6.7	6.7		6.5	6.7	6.7	7.1	6.5	6.5	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	Max	None	None	Max	Max	None	C-Max	C-Max	None
Walk Time (s)			7.0	7.0			7.0	7.0		7.0	7.0	
Flash Dont Walk (s)			20.0	20.0			20.0	20.0		21.0	21.0	
Pedestrian Calls (#/hr)			0	0			0	0		0	0	
Act Effct Green (s)		10.5	34.3	34.3		7.5	31.3	31.3	11.9	39.5	39.5	
Actuated g/C Ratio		0.09	0.29	0.29		0.06	0.26	0.26	0.10	0.33	0.33	

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Lane Group	SBI	SBT	SBB
Lano Configurationa			
	- 1-1	1050	['
Future Volume (vph)	243	1052	242
I doal Flow (vehal)	1900	1002	1900
Storage Longth (m)	1800	1800	1000
Storage Length (III)	30.0		120.0
Storage Lanes	2		
Laper Length (m)	2.5	0.05	1 00
Lane Util. Factor	0.97	0.95	1.00
Ped Bike Factor	0.98		0.92
	0.055		0.850
Fit Protected	0.950	0000	
Satd. Flow (prot)	3321	3390	1473
⊢It Permitted	0.336		
Satd. Flow (perm)	1155	3390	1350
Right Turn on Red			Yes
Satd. Flow (RTOR)			157
Link Speed (k/h)		60	
Link Distance (m)		141.8	
Travel Time (s)		8.5	
Confl. Peds. (#/hr)	22		55
Confl. Bikes (#/hr)			4
Peak Hour Factor	1.00	1.00	1.00
Heavy Vehicles (%)	1%	2%	5%
Adj. Flow (vph)	245	1052	242
Shared Lane Traffic (%)			
Lane Group Flow (vph)	246	1052	242
Turn Type	Prot	NA	Perm
Protected Phases	1	6	
Permitted Phases			6
Detector Phase	1	6	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	12.1	34.5	34.5
Total Split (s)	19.0	46.0	46.0
Total Split (%)	15.8%	38.3%	38.3%
Maximum Green (s)	11 9	39.5	39.5
Yellow Time (s)	37	37	3.7
All-Red Time (s)	3.4	2.9	2.8
Lost Time Adjust (c)	0.4	2.0	2.0
Total Lost Time (s)	7 1	0.0 6 F	0.0
	/.1	0.0	0.0
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max
Walk Time (s)		7.0	7.0
Flash Dont Walk (s)		21.0	21.0
Pedestrian Calls (#/hr)		0	0
Act Effct Green (s)	11.9	39.5	39.5
Actuated g/C Ratio	0.10	0.33	0.33

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Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
v/c Ratio		1.72	1.05	0.65		0.91	1.02	0.37	1.11	0.51	0.10	
Control Delay		394.6	84.8	17.2		152.1	78.4	7.3	131.7	34.5	0.4	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		394.6	84.8	17.2		152.1	78.4	7.3	131.7	34.5	0.4	
LOS		F	F	В		F	Е	А	F	С	А	
Approach Delay			104.6				69.6			68.0		
Approach LOS			F				Е			Е		
Queue Length 50th (m)		~33.6	~134.5	24.3		12.6	~114.6	0.7	~50.6	56.8	0.0	
Queue Length 95th (m)		#57.1	#174.7	59.5		#38.2	#157.0	18.3	#80.4	73.9	0.0	
Internal Link Dist (m)			128.6				137.6			155.7		
Turn Bay Length (m)		95.0				60.0		100.0	60.0		60.0	
Base Capacity (vph)		109	950	609		58	884	533	329	1115	583	
Starvation Cap Reductn		0	0	0		0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0		0	0	0	0	0	0	
Storage Cap Reductn		0	0	0		0	0	0	0	0	0	
Reduced v/c Ratio		1.72	1.05	0.65		0.91	1.02	0.37	1.11	0.51	0.10	
Intersection Summary												
Area Type: C	Other											
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 23 (19%), Referenced	to phase	2:NBT a	und 6:SBT	, Start of (Green							
Natural Cycle: 95												
Control Type: Actuated-Coor	dinated											
Maximum v/c Ratio: 2.16												
Intersection Signal Delay: 96	.4			In	tersectior	n LOS: F						
Intersection Capacity Utilizati	on 97.3%			IC	U Level	of Servic	e F					
Analysis Period (min) 15												
 Volume exceeds capacity 	/, queue is	theoret	cally infin	te.								
Queue shown is maximun	n after two	cycles.										
# 95th percentile volume ex	ceeds ca	pacity, q	ueue may	be longe	r.							
Queue shown is maximun	n after two	cycles.										

Splits and Phases: 3: Bank Street & Hunt Club Road

Ø1	Ø2 (R)	√ ø3	₩ 04
19 s	46 s	14 s	41 s
▲ ø5	Ø6 (R)	🖈 _{ø7}	4 [®] _ Ø8
19 s	46 s	17 s	38 s

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Lane Group	SBI	SBT	SBB
v/c Batio	2 16	0.94	0.44
Control Delay	572.9	47.7	14.4
Queue Delay	0.0	0.0	0.0
Total Delay	572.9	47.7	14.4
LOS	F	D	В
Approach Delay		126.4	
Approach LOS		F	
Queue Length 50th (m)	~49.1	58.8	5.6
Queue Length 95th (m)	#75.7	#163.4	32.7
Internal Link Dist (m)		117.8	
Turn Bay Length (m)	30.0		120.0
Base Capacity (vph)	114	1115	549
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	2.16	0.94	0.44
Intersection Summary			

4: Bank Street & Dazé Street/Cahill Drive TT 2041 PM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		ا	1		ب ا	1		ľ	≜ î≽			5
Traffic Volume (vph)	160	1	132	82	0	101	2	158	724	92	4	146
Future Volume (vph)	160	1	132	82	0	101	2	158	724	92	4	146
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0		0.0	0.0		40.0		45.0		0.0		70.0
Storage Lanes	0		1	0		1		1		0		1
Taper Length (m)	7.6			7.6				7.6				7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Ped Bike Factor		0.92	0.95		0.97	0.90			0.99			0.99
Frt			0.850			0.850			0.983			
Flt Protected		0.953			0.950			0.950				0.950
Satd. Flow (prot)	0	1717	1532	0	1572	1547	0	1729	3305	0	0	1712
Flt Permitted		0.668			0.553			0.129				0.289
Satd. Flow (perm)	0	1110	1454	0	891	1394	0	235	3305	0	0	514
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			132			105			15			
Link Speed (k/h)		50			50				60			
Link Distance (m)		72.9			188.5				169.4			
Travel Time (s)		5.2			13.6				10.2			
Confl. Peds. (#/hr)	44		18	18		44		30		19		19
Confl. Bikes (#/hr)			4			1				2		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	0%	1%	10%	0%	0%	0%	0%	2%	1%	0%	1%
Adj. Flow (vph)	160	1	132	82	0	101	2	158	724	92	4	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	132	0	82	101	0	160	816	0	0	150
Turn Type	Perm	NA	Perm	Perm	NA	Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases		4			8			5	2			1
Permitted Phases	4		4	8		8	5	2			1	6
Detector Phase	4	4	4	8	8	8	5	5	2		1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	5.0	10.0		5.0	5.0
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	11.3	11.3	34.3		11.3	11.3
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	17.0	17.0	61.0		17.0	17.0
Total Split (%)	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%	14.2%	14.2%	50.8%		14.2%	14.2%
Maximum Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	10.7	10.7	54.7		10.7	10.7
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7		3.7	3.7
All-Red Time (s)	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.6	2.6		2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Lost Time (s)		6.1	6.1		6.1	6.1		6.3	6.3			6.3
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	C-Max		None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0			7.0			
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0			11.0			
Pedestrian Calls (#/hr)	0	0	0	0	0	0			0			
Act Effct Green (s)		22.4	22.4		22.4	22.4		74.8	64.8			73.1
Actuated g/C Ratio		0.19	0.19		0.19	0.19		0.62	0.54			0.61

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Lane Group	SBT	SBR	Ø3	Ø7
Lanetonfigurations	↑ ↑	1		
Traffic Volume (vph)	1258	344		
Future Volume (vph)	1258	344		
Ideal Flow (vphpl)	1800	1800		
Storage Length (m)		75.0		
Storage Lanes		0		
Taper Length (m)				
Lane Util. Factor	0.95	1.00		
Ped Bike Factor		0.93		
Frt		0.850		
Flt Protected				
Satd. Flow (prot)	3390	1547		
Flt Permitted				
Satd. Flow (perm)	3390	1434		
Right Turn on Red		Yes		
Satd, Flow (RTOR)		315		
Link Speed (k/h)	60	010		
Link Distance (m)	264.5			
Travel Time (s)	15.9			
Confl. Peds. (#/hr)	10.0	30		
Confl Bikes (#/hr)		5		
Peak Hour Factor	1.00	1 00		
Heavy Vehicles (%)	2%	0%		
Adi Flow (vnh)	1258	344		
Shared Lane Traffic (%)	1200	044		
Lane Group Flow (vob)	1059	211		
	1200	Dorm		
Protoctod Phases	NA C	Felli	0	7
Protected Phases	6	0	3	1
Petrililled Phases	•	6		
Detector Phase	6	6		
Switch Phase		40.0		<u> </u>
Minimum Initial (s)	10.0	10.0	3.0	3.0
Minimum Split (s)	34.3	34.3	5.0	5.0
Total Split (s)	61.0	61.0	5.0	5.0
Total Split (%)	50.8%	50.8%	4%	4%
Maximum Green (s)	54.7	54.7	3.0	3.0
Yellow Time (s)	3.7	3.7	2.0	2.0
All-Red Time (s)	2.6	2.6	0.0	0.0
Lost Time Adjust (s)	0.0	0.0		
Total Lost Time (s)	6.3	6.3		
Lead/Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	Max	Max
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	11.0	11.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)	64.0	64.0		
Actuated g/C Ratio	0.53	0.53		

4: Bank Street & Dazé Street/Cahill Drive TT 2041 PM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
v/c Ratio		0.78	0.35		0.49	0.29		0.59	0.46			0.37
Control Delay		70.1	8.7		52.2	8.6		33.0	15.9			11.4
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Delay		70.1	8.7		52.2	8.6		33.0	15.9			11.4
LOS		Е	А		D	А		С	В			В
Approach Delay		42.5			28.2				18.7			
Approach LOS		D			С				В			
Queue Length 50th (m)		36.3	0.0		17.4	0.0		26.0	42.5			11.8
Queue Length 95th (m)		56.1	14.9		31.1	12.6		m41.2	m55.4			24.2
Internal Link Dist (m)		48.9			164.5				145.4			
Turn Bay Length (m)						40.0		45.0				70.0
Base Capacity (vph)		285	472		229	436		288	1792			426
Starvation Cap Reductn		0	0		0	0		0	0			0
Spillback Cap Reductn		0	0		0	0		0	0			0
Storage Cap Reductn		0	0		0	0		0	0			0
Reduced v/c Ratio		0.56	0.28		0.36	0.23		0.56	0.46			0.35
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length: 120)											
Offset: 14 (12%), Reference	ed to phase	2:NBTL a	and 6:SB	TL, Start	of Green							
Natural Cycle: 90												
Control Type: Actuated-Coo	ordinated											
Maximum v/c Ratio: 0.78												
Intersection Signal Delay: 2	2.0			In	tersection	LOS: C						
Intersection Capacity Utilization	ation 92.7%			IC	U Level o	of Service	F					
Analysis Period (min) 15												
	المنتمنية مالله		ساسم مرب بيما ام		I							

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Bank Street & Dazé Street/Cahill Drive

M _{Ø1}	Ø2 (R)	.	e ↔ Ø4
17 s	61s	5 s	37 s
🔊 Ø5	Ø6 (R)	.	z ₩ Ø8
17 s	61s	5 s	37 s

4: Bank Street & Dazé Street/Cahill Drive TT 2041 PM Master Plan Build-out

	ţ	~		
Lane Group	SBT	SBB	Ø3	Ø7
v/a Patio	0.70	0.28	~~	~.
Control Dolov	25.0	4.0		
Ouque Delay	25.0	4.2		
Total Dolay	25.0	1.0		
	25.0	4.Ζ Δ		
Approach Dolay	10.8	~		
Approach LOS	19.0 B			
Approach 2005	112.4	3.0		
Queue Length 95th (m)	161.0	20.0		
Internal Link Dist (m)	240.5	20.3		
Turn Bay Length (m)	240.5	75.0		
Base Capacity (yph)	1807	011		
Starvation Can Reducto	007	0		
Spillback Can Beducth	0	0		
Storage Can Reductin	0	0		
Beduced v/c Batio	0.70	0.38		
	0.70	0.50		
Intersection Summary				

5: Dazé Street & South Keys SC TT 2041 PM Master Plan Build-out

	٦	-	$\mathbf{\hat{z}}$	4	-	*	•	1	۲	L#	1	Ŧ
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ሻ	eî 👘		٦	eî 👘		ሻ	≜ î≽			ľ	≜1 ≱
Traffic Volume (vph)	85	3	221	2	4	13	195	199	18	1	21	313
Future Volume (vph)	85	3	221	2	4	13	195	199	18	1	21	313
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	40.0		0.0	0.0		0.0	70.0		0.0		40.0	
Storage Lanes	1		0	1		0	1		0		1	
Taper Length (m)	2.5			2.5			2.5				2.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Ped Bike Factor	0.99	0.98		1.00	0.98		1.00	1.00			0.99	0.99
Frt		0.852			0.885			0.988				0.953
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	1729	1523	0	1729	1585	0	1729	3377	0	0	1729	3236
Flt Permitted	0.746			0.393			0.434				0.616	
Satd. Flow (perm)	1346	1523	0	713	1585	0	788	3377	0	0	1113	3236
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (BTOB)		221			13			12				68
Link Speed (k/h)		30			30			50				50
Link Distance (m)		107 1			73.7			57.4				76.4
Travel Time (s)		12.9			8.8			4 1				5.5
Confl Peds (#/hr)	6	12.0	3	3	0.0	6	3		5		5	0.0
Confl Bikes (#/hr)	Ū		2	0		U	Ū		1		0	
Peak Hour Factor	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00
	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%
Adi Flow (vph)	85	3	221	2	4	13	195	199	18	1	21	313
Shared Lane Traffic (%)	00	5	221	2	7	10	195	133	10		21	010
Lang Group Flow (upb)	95	224	٥	2	17	٥	105	217	0	0	22	455
	Porm	224 NA	0	Porm		0	nmunt		0	oustom	nm i nt	400
Protoctod Phases	Fenn			Feilii	NA Q		pin+pi	2		custom	pm+pt 1	NA 6
Protected Phases	1	4		0	0		5	2		-	6	0
Detector Phases	4	1		0	0		2	2			1	G
Switch Phase	4	4		U	U		J	2		I	1	U
	10.0	10.0		10.0	10.0		5.0	10.0		5.0	5.0	10.0
Minimum Colit (c)	20.1	20.1		20.1	20.1		10.0	22.0		10.0	10.0	22.0
Total Split (s)	20.1	20.1		20.1	20.1		25.0	52.9		10.9	10.9	32.9
Total Split (S)	20.00/	20.00/		20.00/	20.00/		21.00/	50.0		14 59/	14 59/	25 /0/
Maximum Groon (a)	20.0	20.0		20.0	20.0		20.1	52.7%		14.5%	14.5%	22.4%
Maximum Green (s)	30.0	30.0		30.0	30.0		29.1	32.1		10.0	10.0	33.0
	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (S)	2.8	2.8		2.8	2.8		2.6	2.6		2.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.1	6.1		6.1	6.1		5.9	5.9			5.9	5.9
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?		• •					Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Max		None	None	Max
Walk Lime (s)	7.0	7.0		7.0	7.0			15.0				15.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			12.0				12.0
Pedestrian Calls (#/hr)	0	0		0	0			0				0
Act Effct Green (s)	11.6	11.6		11.6	11.6		56.3	52.6			48.2	42.3
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.70	0.65			0.60	0.52

Lanes, Volumes, Timings

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Lane Group	SBB
	0011
Traffic Volume (voh)	142
Future Volume (vph)	142
Ideal Flow (vphpl)	1800
Storage Length (m)	0.00
Storage Lance	0.0
Taper Length (m)	0
Lane Litil Eactor	0.05
Pad Bike Factor	0.95
Frt	
Elt Protected	
Satd Flow (prot)	0
Elt Permitted	0
Satd Flow (perm)	0
Bight Turn on Red	Vec
Satd Flow (RTOR)	165
Link Speed (k/h)	
Confl Peds (#/br)	3
Confl. Bikes (#/hr)	3
Peak Hour Factor	1.00
Heavy Vehicles (%)	10/
Adi Flow (vph)	1/0
Shared Lane Traffic (%)	142
Lane Group Flow (upb)	0
	0
Permitted Phases	
Detector Phases	
Switch Phase	
Minimum Initial (a)	
Minimum Split (c)	
Total Split (s)	
Total Split (S)	
Maximum Groop (a)	
Vollow Time (a)	
All-Red Time (S)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
venicle Extension (s)	
Recall Mode	
Walk Lime (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	

5: Dazé Street & South Keys SC TT 2041 PM Master Plan Build-out

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
v/c Ratio	0.44	0.55		0.02	0.07		0.30	0.10			0.03	0.26
Control Delay	40.8	10.9		32.5	19.6		5.3	6.3			4.5	9.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	40.8	10.9		32.5	19.6		5.3	6.3			4.5	9.6
LOS	D	В		С	В		А	А			А	A
Approach Delay		19.1			21.0			5.8				9.4
Approach LOS		В			С			А				A
Queue Length 50th (m)	11.2	0.4		0.2	0.5		7.4	3.8			0.8	14.7
Queue Length 95th (m)	27.4	19.2		2.3	6.1		16.9	13.3			3.0	28.1
Internal Link Dist (m)		83.1			49.7			33.4				52.4
Turn Bay Length (m)	40.0						70.0				40.0	
Base Capacity (vph)	505	710		267	603		899	2207			800	1730
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.17	0.32		0.01	0.03		0.22	0.10			0.03	0.26
Intersection Summary												
Area Type:	Other											
Cycle Length: 110												
Actuated Cycle Length: 80	.6											
Natural Cycle: 75												
Control Type: Semi Act-Un	icoord											
Maximum v/c Ratio: 0.55												
Intersection Signal Delay:	10.8			In	tersectior	n LOS: B						
Intersection Capacity Utiliz	ation 64.1%			IC	U Level o	of Service	С					
Analysis Period (min) 15												

Splits and Phases: 5: Dazé Street & South Keys SC

M _{Ø1}	1 ø2		<u>⊿</u> _{Ø4}
15.9 s	58 s		36.1s
▲ Ø5		Ø6	₩ Ø8
35 s		38.9 s	36.1 s

5: Dazé Street & South Keys SC TT 2041 PM Master Plan Build-out

1

Lane Group	SBR
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (m)	
Queue Length 95th (m)	
Internal Link Dist (m)	
Turn Bay Length (m)	
Base Capacity (vph)	
Starvation Cap Reductr	ı
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Interportion Cummon	
intersection Summary	

Intersection

Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		1		^	≜ î≽	
Traffic Vol, veh/h	0	17	0	432	541	38
Future Vol, veh/h	0	17	0	432	541	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	17	0	432	541	38

Major/Minor	Minor2	Μ	lajor1	Ма	jor2		
Conflicting Flow All	-	290	-	0	-	0	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	6.9	-	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	3.3	-	-	-	-	
Pot Cap-1 Maneuver	0	713	0	-	-	-	
Stage 1	0	-	0	-	-	-	
Stage 2	0	-	0	-	-	-	
Platoon blocked, %				-	-	-	
Mov Cap-1 Maneuve	r -	713	-	-	-	-	
Mov Cap-2 Maneuve	r -	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0	0
HCM LOS	В		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	713	-	-
HCM Lane V/C Ratio	-	0.024	-	-
HCM Control Delay (s)	-	10.2	-	-
HCM Lane LOS	-	В	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

1.2

Intersection

Int Delay, s/veh

EBL	EBR	NBL	NBT	SBT	SBR
	1	1	- 11	_ ≜ î≽	
0	61	84	432	543	0
0	61	84	432	543	0
0	0	0	0	0	0
Stop	Stop	Free	Free	Free	Free
-	None	-	None	-	None
-	0	150	-	-	-
# 0	-	-	0	0	-
0	-	-	0	0	-
100	100	100	100	100	100
0	0	0	0	0	0
0	61	84	432	543	0
	EBL 0 0 5top - - 4 0 0 100 0 0	EBL EBR 0 61 0 61 0 61 0 50 Stop Stop 0 70 4 0 0 100 100 100 0 61	EBL EBR NBL Image: Im	EBL EBR NBL NBT Image: I	EBL EBR NBL NBT SBT Image: I

Major/Minor	Minor2	1	Major1	Majo	or2		
Conflicting Flow All	-	272	543	0	-	0	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	6.9	4.1	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	3.3	2.2	-	-	-	
Pot Cap-1 Maneuver	0	732	1036	-	-	-	
Stage 1	0	-	-	-	-	-	
Stage 2	0	-	-	-	-	-	
Platoon blocked, %				-	-	-	
Mov Cap-1 Maneuve	r -	732	1036	-	-	-	
Mov Cap-2 Maneuver	r -	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	

Approach	EB	NB	SB
HCM Control Delay, s	10.4	1.4	0
HCM LOS	В		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	1036	- 732	-	-
HCM Lane V/C Ratio	0.081	- 0.083	-	-
HCM Control Delay (s)	8.8	- 10.4	-	-
HCM Lane LOS	А	- B	-	-
HCM 95th %tile Q(veh)	0.3	- 0.3	-	-

Appendix K – Auxiliary Lane Analysis







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APPENDIX C

Appendix L – RMA Drawings



