

Lake Hill Development Traffic Impact Analysis



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Submitted To:

Summit County Housing
37 County Rd 1005
Frisco, CO 80443

Submitted By:

Fox Tuttle Transportation Group, LLC
1624 Market Street, Suite 202
Denver, CO 80202

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LAKE HILL DEVELOPMENT

TRAFFIC IMPACT STUDY

1.0 INTRODUCTION

The Fox Tuttle Transportation Group (Fox Tuttle) prepared this traffic impact study (Study) for the Lake Hill development (Project) in Frisco, CO. The project proposes to construct a new residential community with a mix of multi-family and single-family homes that will serve the local workforce of Summit County. The 44.8± acre site is currently vacant and located on Dillon Dam Road, northeast of the Lake Forest Condominiums. The property is within the Town of Frisco limits and within unincorporated Summit County. The land is bounded by I-70 to the west, Dillon Dam Road to the east, Lake Forest Condominiums to the south, and National Forest to the north as shown to the right. The original traffic impact study was completed by Michael Baker International in November 2015 (*Lake Hill Residential Development Traffic Study*). Fox Tuttle prepared an update (Year 2019 and 2022) to the original report to reflect changes associated with the existing roadway network, existing traffic volumes, and forecasted volumes. This latest Study includes new traffic volumes (counted in July 2022) and a new Project site plan that proposes higher density than previously evaluated, as well as senior living, a day care center, and a community coffee shop.



The purpose of this Study is to assist in identifying potential traffic impacts within the Study area as a result of this Project having an increase in density. The Study addresses existing, short-term (Year 2027), and long-term (Year 2042) mid-day and PM peak hour intersection conditions in the Study area with and without the Project generated traffic. The information contained in this Study is anticipated to be used by Summit County (County) in identifying any intersection or roadway deficiencies and potential improvements for both the short-term and long-term future conditions. This traffic study is consistent with Summit County requirements.

2.0 PROJECT DESCRIPTION

The Lake Hill Master Plan¹ was completed in July 2017 for the development of the new residential community. Lake Hill will be located within the Ten Mile Basin between I-70 and Dillon Dam Road, next to the existing Lake Forest Condominiums and across the street from the existing Heaton Campground. The purpose of Lake Hill is to provide housing for the local workforce within Summit County. Since the Master Plan was completed for Lake Hill in 2017, the need for workforce housing in Summit County has increased dramatically per Summit County staff. In the 2019 Housing Needs Assessment, it was found that by 2023 the Ten Mile Basin will have a gap of 1,035 units under 120% AMI and Countywide there will be a gap of 3,066 units under 120% AMI. Since the Needs Assessment was completed, the Summit County staff has noticed the housing situation has gotten significantly worse, due to the COVID-19 pandemic with more people working remotely. Due to this and the shortage of developable land for workforce housing, the Board of County Commissioners decided to increase the proposed density on the Lake Hill parcel. Therefore, the BOCC is proposing to construct 875 multi-family units and 25 duplex homes for a total of 900 dwelling units. The latest plan proposed to reserve 60 of the multi-family units for senior residents and plans to include a 2,000 square foot coffee shop and a 10,000 square foot day care center.

Access to the site is planned via two proposed driveways along Dillon Dam Road that are anticipated to be constructed as single-lane roundabouts. The accesses will lead to the internal roadway network to serve the Lake Hill community. A vicinity map is shown on **Figure 1**. The site and access plan is provided on **Figure 2**.

3.0 STUDY CONSIDERATIONS

The traffic analysis addressed the signalized and unsignalized intersection operations using the procedures and methodologies set forth by the *Highway Capacity Manual (HCM)*². Study intersections were evaluated using Synchro (version 11) software for signalized, stop-controlled and roundabout intersections.

¹ Master Plan was completed in partnership with Summit County, Town of Frisco, Summit Combined Housing Authority, Neighboring Community Stakeholders, and a consultant team.

² *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis*, Transportation Research Board, National Research Council, 6th Edition (2016).

3.1 Data Collection

Traffic counts were collected in July 2022 at five existing intersections for the weekday AM and PM peak hours. Intersection counts for US Highway 6 at Dillon Dam Road were gathered from the *Dillon Medical Center Traffic Impact Study* (FTH, November 2018) that were collected in September 2018 and grown to Year 2022. Average daily traffic (ADT) counts were collected for 24-hours on Dillon Dam Road south of N. Ten Mile Road, north of N. Ten Mile Road and south of the southmost security gate, as well as on N. Ten Mile Road east of Dillon Dam Road. Summit County staff provided count data for Dillon Dam Road that was collected in December 2018 that was utilized for comparison. Historic and projected traffic volumes for State Highway (SH) 9 and US Highway 6 were gathered from the Colorado Department of Transportation (CDOT) Transportation Data Management System (TDMS) to understand growth in the area.

Recently, CDOT completed a study that included the SH 9 interchange (Exit #203) along I-70 to provide the most appropriate design to accommodate the existing and future volumes on SH 9 through and near the interchange. As documented in CDOT's *Interstate 70 Exit 203 & Eastbound Auxiliary Lane Feasibility Study* (June 2020), the intersection of SH 9 at Dillon Dam Road would have to be altered significantly to improve the capacity and operations at the interchange intersections. The CDOT Feasibility Study recommended that the intersection of SH 9 and Dillon Dam Road become right-in, right-out for Dillon Dam Road (east side of intersection) and $\frac{3}{4}$ movement for Lusher Court (west side of the intersection). The left-turns to and from Dillon Dam Road and the left-turns from Lusher Court would be restricted and redirected to a new frontage road underpass. CDOT's conceptual design is shown in **Exhibit 1** to the right.



Exhibit 1. Recommended Interchange Design per the *Interstate 70 Exit 203 & Eastbound Auxiliary Lane Feasibility Study* (Figure 1-2)

In addition to the count data and CDOT study, the following transportation studies were

reviewed and incorporated into this analysis as appropriate:

- Frisco Whole Foods Traffic Impact Study. Felsburg Holt & Ullevig. October 2012.
- Lake Hill Residential Development Traffic Study. Michael Baker International. November 10, 2015
- Frisco Kum & Go #948 (NWC Lusher & Summit) Traffic Impact Study. Kimley Horn. September 2016.
- Frisco Trail Master Plan. SE Group. March 2017.
- Colorado Highway 9 – Frisco Traffic Study (MP 94.36 to MP 96.25). Stolfus & Associates, Inc. August 2018.
- Dillon Medical Building Traffic Impact Study. Fox Tuttle Hernandez Transportation Group, LLC. November 7, 2018.
- Lake Hill Development Traffic Impact Study. Fox Tuttle Hernandez Transportation Group, LLC. June 21, 2021

The existing traffic volumes are illustrated on **Figure 3**. The existing intersection geometry and traffic control are also shown on this figure. Signal timing for the intersection of US Highway 6 at N. Dillon Dam Road was provided by CDOT and utilized within the analysis. Count data is provided in the **Appendix**.

3.2 Level-of-Service Criteria

To measure and describe the operational status of the study intersections, transportation engineers and planners commonly use a grading system referred to as “Level-of-Service” (LOS) that is defined by the *HCM*. LOS characterizes the operational conditions of an intersections traffic flow, ranging from LOS A (indicating very good, free flow operations) and LOS F (indicating congested and sometimes oversaturated conditions). These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with traveling through the intersections. The intersection LOS is represented as a delay in seconds per vehicle for the intersection as a whole and for each turning movement. Criteria contained in the *HCM* was applied for these analyses in order to determine peak hour LOS. A more detailed discussion of LOS methodology is contained in the **Appendix** for reference. Typically, an acceptable level-of-service is LOS D or better in the peak hours.

4.0 EXISTING CONDITIONS

4.1 Roadways

The study area boundaries are based on the amount of traffic to be generated by the project and potential impact to the existing roadway network. The existing study area street network consists of arterials and local streets. The primary public roadways that serve the project site are discussed in the following text. The existing study area roadway network is illustrated on **Figure 1**.

US Highway 6 is an east-west principal arterial that connects Dillon to Keystone to the Loveland Ski Area. The highway provides access to I-70 on both sides of the Continental Divide/Eisenhower-Johnson Tunnels. US Highway 6 becomes Loveland Pass between Keystone and Loveland Ski Area, which is the alternative route to I-70 for trucks carrying hazardous materials to bypass the tunnels. West of Dillon Dam Road, US Highway 6 is classified by CDOT as a Non-Rural Arterial (NR-B) with three lanes per direction and services approximately 16,000 vehicles per day (vpd). East of N. Dillon Dam Road, the highway changes classification to Non-Rural Principal Highway (NR-A) with two lanes per direction and services approximately 12,000 vpd. The posted speed limit also changes on either side of Dillon Dam Road; west of the intersection the speed limit is 35 miles per hour (mph) and increases to 45 mph east of the intersection.

State Highway 9 (Summit Boulevard) is a north-south principal arterial that connects I-70 to Frisco, Breckenridge, and Park County. The highway continues east on I-70 where it heads north towards Kremmling from the interchange at Silverthorne (Exit #205). Summit Boulevard is a CDOT facility and is classified as NR-B (Non-Rural Arterial) with one lane per direction through the interchange and two lanes per direction south of the intersection with Dillon Dam Road/Lusher Court. The highway currently serves approximately 26,000 vpd just north of Dillon Dam Road and the posted speed limit is 35 mph. Within the study area, SH 9 is 82-feet wide with 12 to 13-foot travel lanes, two per direction; 18-foot median/center turn lane; and 12-foot auxiliary lanes.

Dillon Dam Road is a two-lane arterial within the study area that parallels I-70 and serves as a secondary connection between the towns of Frisco and Dillon. The roadway provides access to existing commercial businesses, lodging, multi-family complexes, and recreational areas. Over the dam, Dillon Dam Road is owned and secured by Denver Water with the authority to close the roadway due to threats against the dam and reservoir infrastructure. Adjacent to the Lake Hill property, the roadway width is 36-feet with 12 to 14-foot travel lanes (one per direction) and 6-foot shoulders. Dillon Dam Road serves approximately 9,000 vpd north of N. Ten Mile Road and

8,500 vpd south of the dam. The roadway has a posted speed limit of 30 mph south of Beaver Lodge Road and increases to 45 mph north of Beaver Lodge Road. Dillon Dam Road is planned to provide direct access into the proposed Lake Hill community.

N. Ten Mile Road is a local two-lane roadway that serves commercial and residential properties along the southwest corner of Dillon Reservoir. N. Ten Mile Road parallels SH 9 and acts as a frontage road for the local businesses with multiple locations that lead to the highway. N. Ten Mile Road serves approximately 3,500 vpd east of Dillon Dam Road.

La Bonte Street is a local two-lane roadway that leads to the center of the Town of Dillon. The roadway serves local, visitor, and marina traffic. The intersection with Dillon Dam Road is a single-lane roundabout and just north of the Denver Water security house.

Beaver Lodge Road, Prospect Point Drive, and Lake View Terrace are two-lane local roadways that serve residential properties, both owned and rented.

4.2 Intersections

The study area was developed from discussions with Summit County and Town staff and includes six existing intersections as listed below with the current traffic control:

1. Dillon Dam Road at N. Ten Mile Road (side-street stop-controlled)
2. Dillon Dam Road at Beaver Lodge Road (side-street stop-controlled)
3. Dillon Dam Road at Prospect Point Drive (side-street stop-controlled)
4. Dillon Dam Road at Lake View Terrace (side-street stop-controlled)
5. Dillon Dam Road at La Bonte Street (roundabout)
6. US Highway 6 at Dillon Dam Road (signalized)
7. US Highway 9 at Dillon Dam Road/Lusher Court (signalized)

The existing lane configuration at each of the study intersections is illustrated on **Figure 3**.

4.3 Pedestrian and Bicycle Access

There are no sidewalks on the study area roadways; however, there is a paved multi-use recreational path that circulates Dillon Reservoir and parallels Dillon Dam Road near the project site. The Dillon Recreational Path provides walking and biking access into the Town of Frisco and Town of Dillon and links to other local and regional recreational facilities.

There are no on-street bike lanes on the study area roadways.

4.4 Transit Access

Currently, the Town of Frisco and Summit County is served by Summit Stage; however, there is currently no transit services along Dillon Dam Road. The Frisco Station is located on Lusher Court near the new Whole Foods development, and it provides park-and-ride services to utilize the Frisco-Breckenridge route, Frisco-Silverthorne route, and Copper Mountain route. Each of these routes link to other transfer stations and adjacent communities.

Denver Water has approved the use of Dillon Dam Road for transit service. Summit Stage is currently studying the existing routes to understand if there is potential to reroute and/or provide new routes that will travel on Dillon Dam Road. Refer to **Section 9.0** for future transit recommendations to serve Lake Hill.

4.5 Existing Intersection Capacity Analysis

The results of the LOS calculations for the intersections are summarized in **Table 1**. Average and 95th percentile³ queues are summarized in **Table 2**. The intersection level-of-service worksheets are attached in the **Appendix**. **All of the study intersections operate overall at acceptable level-of-service, LOS C or better, with all side-street approaches at LOS E or better in both mid-day and PM peak hours.** The following movements operate at LOS E or F during mid-day or PM peak hours:

- **US Highway 6 and Dillon Dam Road:** The northbound left-turn operates at LOS E in the mid-day and PM peak hours. The northbound left-turn + through operates at LOS E during the mid-day

³ It should be noted that the 95th percentile queue length is a theoretical queue that is 1.65 standard deviations above the average queue length. In theory, the 95th percentile queue would be exceeded 5% of the time based on the average queue length, but it is also possible that a queue this long may not occur.

hour. These side-street delays are a result of the signal needing to operate as split phasing for the northbound and southbound approaches. The left-turn storage is limited; therefore, both side-street approaches have added left-turn capacity by sharing the through lane with a second left-turn lane. A shared left+through lane requires split phasing for safety purposes.

Recommendation: No mitigation measures are recommended. It is common that side-street movements, especially left-turns, to operate below LOS D during peak hours, and shifting time to accommodate these movements would be at the expense of the heavy through traffic on US Highway 6.

5.0 FUTURE BACKGROUND TRAFFIC CONDITIONS

5.1 Annual Growth Factor and Future Volume Methodology

In order to forecast the future peak hour traffic volumes, background traffic growth assumptions were based on forecasted volumes provided by CDOT's SH 9 interchange study. The future volumes included traffic input from the Frisco Whole Foods Traffic Impact Study (October 2012) and previous Lake Hill Residential Development Traffic Study (November 2015).

Based on CDOT daily traffic volumes, it was calculated that SH 9 and US 6 will have an annual growth rate of less than 1%. For the purpose of this Study, a 1% annual growth rate was applied and is likely conservative. The Year 2027 background traffic is summarized on **Figure 4** and the 2042 background traffic is summarized on **Figure 5**.

5.2 Signal Warrant Analysis

A traffic signal warrant analysis was performed for the intersection of N. Ten Mile Road and Dillon Dam Road. The Manual on Uniform Traffic Control Devices (MUTCD) provides guidelines of when volumes and conditions of an intersection would warrant a signal to be considered for installation. The 4-hour and 8-hour warrants were evaluated using hourly traffic volumes collected in July 2022 and future volumes calculated with the growth rate. It was determined that the intersection of **N. Ten Mile Road and Dillon Dam Road will meet both the 4-hour and 8-hour signal warrants in Year 2027 background**. For comparison purposes, this Study assumes that a traffic signal will be installed at the intersection by Year 2027 as a result of background traffic volumes.

The signal warrants were also evaluated for Year 2042 with the Exit 203 interchange redesign that will change the traffic volumes through the intersection of N. Ten Mile Road and Dillon Dam Road. Hourly traffic was redirected to the appropriate route to and from State Highway 9 with the planned restricted movements and new Frontage Road underpass. It was determined that the intersection of **N. Ten Mile Road and Dillon Dam Road will continue to meet both the 4-hour and 8-hour signal warrants in Year 2042 background.**

5.3 Year 2027 Background Intersection Capacity Analysis

The Study area intersections were evaluated to determine baseline operations for the Year 2027 background scenario and to identify any capacity constraints associated with background traffic. The level-of-service criteria discussed previously was applied to the study area intersections to determine the impacts with the short-term background volumes.

The results of the LOS calculations for the intersections are summarized in **Table 1**. Average and 95th percentile queues are summarized in **Table 2**. The intersection level-of-service worksheets are attached in the **Appendix**.

All of the study intersections operate overall at acceptable levels-of-service (LOS C or better) and perform similarly to the existing conditions. The movements that operated at LOS E in the mid-day and PM peak hours at US Highway 6 and Dillon Dam Road in the existing condition were estimated to continue to operate at that the same LOS in Year 2026 background.

5.4 Year 2042 Background Intersection Capacity Analysis

The study area intersections were evaluated to determine baseline operations for the Year 2042 background scenario and to identify any capacity constraints associated with background traffic. The level-of-service criteria discussed previously was applied to the study area intersections to determine the impacts with the long-term background volumes. For this long-term scenario, it was assumed that CDOT's recommended redesign of the Exit 203 interchange would be implemented and operational. Part of the roadway project, the intersection of SH 9 and Dillon Dam Road/Lusher Court become side-street stop-control with restricted movements. It is planned that Dillon Dam Road be changed to right-in, right-out (east side of intersection) and Lusher Court be changed to $\frac{3}{4}$ movement (west side of the intersection). The left-turns to and from Dillon Dam Road and the left-turns from Lusher Court would be restricted and redirected to a new frontage road underpass. For the purpose of this traffic study, the traffic forecasted for the intersection of SH 9 and Dillon Dam Road/Lusher Court was redirected to the future route to reach their destination.

The results of the LOS calculations for the intersections are summarized in **Table 1**. Average and 95th percentile queues are summarized in **Table 2**. The intersection level-of-service worksheets are attached in the **Appendix**.

All of the study intersections operate overall at acceptable levels-of-service and perform similarly to the existing conditions. The movements that operated at LOS E at US Highway 6 and Dillon Dam Road in the existing and short-term conditions was estimated to continue to operate at the same LOS in the long-term background scenario.

6.0 PROPOSED DEVELOPMENT TRAFFIC

The Project is proposed to be constructed in one phase by Year 2027. **Figure 2** shows the conceptual site plan and accesses on Dillon Dam Road. For the purpose of this traffic study, it was assumed that all of the proposed workforce homes in Lake Hill will be completed and occupied by Year 2027. This approach provides the most conservative estimate for traffic impacts associated with the completion of Lake Hill.

6.1 Trip Generation

To establish the volume of new trips that will be added to the roadway network from the proposed Lake Hill community, trip generation rates were gathered from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*⁴. A trip generation estimate was performed to determine the traffic increase based on land use types. The Project proposes to construct 25 duplex units (considered single-family attached), 815 multi-family dwelling units, 60 senior multi-family dwelling units, 2,000 square foot coffee shop and a 10,000 square foot day care center.

The trip rates contained in the ITE *Trip Generation Manual* for land uses #215 "Single-Family Attached Housing", #221 "Multi-Family Housing (Mid-Rise)", #252 "Senior Adult Housing Multi-Family", #565 "Day Care Center", and #936 "Coffee/Donut Shop without Drive-Through" were applied to the appropriate land use type and quantity to estimate the proposed traffic for Lake Hill. The manual does not have Midday trip rates, therefore the AM trip rates were utilized. It is anticipated that this methodology overestimates the generated trips that will be experienced midday since most residential, coffee shop, and day care

⁴ Trip Generation 11th Edition, Institute of Transportation Engineers, 2021.

center trips, even in mountain communities, occur outside of the midday peak period. **Table 3** provides the trip generation estimates for the Project.

Trip Types

The proposed Lake Hill development will create new trips, also known as ‘primary trips’, which is discussed in detail below:

Primary Trips. These trips are made specifically to travel to/from the residential community and are considered “new” trips. Primary trips would not have been made if the proposed project did not exist. Therefore, this is the only trip type that increases the total number of trips made on a regional basis.

Pass-By Trips. Pass-by trips do not create any increase in the traffic volumes within the primary impact area. In fact, the only impact of the pass-by trips is at the site driveways and adjacent intersections where through movements become turning movements into and out of the site. Therefore, pass-by trips have no additional impact on the road system beyond the site’s driveways or immediately adjacent intersections. With or without pass-by trips, the total trips to/from a project will remain the same. Pass-by was only applied to the coffee shop and day care center. For pass-by trips, the methodology set forth in the ITE’s *Trip Generation Manual* (Chapter 10) was utilized and half of the pass-by rates were implemented. Pass-by percentages are provided in the **Appendix**.

Multi-Use (Internal) Trips. These internal trips occur from one land use or building to another within the site boundaries. Multi-use or multi-purpose trips typically do not affect the exterior site access points, nor add any additional traffic volumes to the adjacent street network. Since the services are for the purpose of the Lake Hill development, it was estimated that internal capture for the day care center would be 50% and for the coffee shop would be 30%.

Non-Auto Trips. These trips are completed by walking, biking, or using transit. Non-auto trips do not affect the exterior site access points, nor add any additional traffic volumes to the adjacent street network. It was assumed that the residential land uses will have 10% non-auto trips due to primarily future transit services, but also bicyclists and pedestrians. Any multi-modal travel for the day care center or coffee shop are assumed to be included in the multi-use (internal) percentage. Refer to **Section 9.0** for anticipated transit service that will benefit residents of Lake Hill.

These assumptions are shown within the trip generation estimates in **Table 3**. The trips are summarized below in **Table 4**:

Table 4: Summary of Trip Generation

Period	Project Trips
Weekday Daily	3,737
Weekday Midday	302
Weekday PM	320

6.2 Trip Distribution and Assignment

The distribution percentages are based on regional land use destinations, existing travel patterns, and proximity to neighboring mountain communities. The existing intersection volumes at N. Ten Mile Road, Beaver Lodge Road, Prospect Point Drive, Lake View Terrace, and La Bonte Street were utilized to determine the percentage of trips that will travel north and south on Dillon Dam Road. The directional distributions for the existing side-streets are summarized in **Table 5**.

Table 5: Distribution Calculations

Intersection	Peak Period	Volume [Directional Percentage]			
		To North	To South	From North	From South
La Bonte Street	AM	103 [57%]	77 [43%]	125 [63%]	73 [37%]
	PM	66 [50%]	66 [40%]	332 [63%]	196 [37%]
Lake View Terrace	AM	4 [44%]	5 [56%]	4 [40%]	6 [60%]
	PM	5 [56%]	4 [44%]	6 [46%]	7 [54%]
Prospect Point Drive	AM	2 [15%]	11 [85%]	5 [29%]	12 [71%]
	PM	5 [36%]	9 [64%]	6 [35%]	11 [65%]
Beaver Lodge Road	AM	2 [40%]	3 [60%]	0 [0%]	8 [100%]
	PM	2 [22%]	7 [78%]	2 [25%]	6 [75%]
N. Ten Mile Road	AM	99 [52%]	91 [48%]	57 [34%]	111 [66%]
	PM	113 [57%]	86 [43%]	51 [34%]	97 [66%]
Average		43%	57%	37%	63%
Overall Average				40% (North)	60% (South)

It was assumed that 40% of the trips would travel north on Dillon Dam Road towards the Town of Dillon and 60% of the trips would travel south on Dillon Dam Road towards the Town of Frisco, this is slightly different than the previous trip distribution with 10% more traffic headed north.

The overall distribution within the Study area is as follows, as well as presented on **Figure 6**:

- 10% to/from SH 9 (north)
- 33% to/from SH 9 (south)
- 12% to/from Lusher Court (west)
- 5% to/from N. Ten Mile Road (south)
- 5% to/from La Bonte Street (north)
- 12% to/from US Highway 6 (east)
- 5% to/from Dillon Dam Road (north)
- 18% to/from US Highway 6 (west)

Using these distribution assumptions, the projected site traffic was assigned to the Study area roadway network for the weekday AM and PM peak hour periods. The site-generated volumes for Year 2027 are shown on **Figure 7A**. Since the intersection of SH 9 at Dillon Dam Road/Lusher Court is planned to be redesigned as part of the Exit 203 interchange project, trips were adjusted for Year 2042 at N. Ten Mile Road and at SH 9, which is shown on **Figure 7B**.

6.3 Proposed Access

The project proposes to have two accesses on Dillon Dam Road, both full-movement and single-lane roundabouts. The access locations are shown on **Figure 2**.

7.0 FUTURE TRAFFIC CONDITIONS WITH SITE DEVELOPMENT

This section discusses impacts associated with the development of the Lake Hill community in the short-term and long-term conditions.

7.1 Year 2027 Background + Project Intersection Capacity Analysis

The site-generated traffic volumes for were added to the Year 2027 background volumes to analyze potential site impacts in the short-term condition. The Year 2027 background + site-generated traffic volumes are illustrated on **Figure 8**. The level-of-service criteria discussed in prior sections was applied to the study area intersections to determine impacts with the addition of the site-build out traffic volumes

in the short-term. The results of the LOS calculations for the intersections are summarized in **Table 1**. Average and 95th percentile queues are summarized in **Table 2**.

The project trips do not significantly impact the Study intersections for the short-term. The Study intersections and movements will operate at LOS D or better, with the exception of the northbound left-turn and northbound left-turn + through at US 6 and Dillon Dam Road. These movements will operate at the same LOS as in the Year 2027 background scenario.

The proposed roundabout accesses are estimated to operate overall at LOS A with all approaches operating at LOS A in both peak hours.

7.2 Year 2042 Background + Project Intersection Capacity Analysis

The site-generated traffic volumes for the Project were added to the Year 2042 background volumes to analyze potential site impacts in the long-term build-out condition. This scenario includes the implementation of the Exit 203 interchange improvements and restrictions at SH 9 and Dillon Dam Road/Lusher Court. The Year 2042 background + site-generated traffic volumes are illustrated on **Figure 9**. The level-of-service criteria discussed in prior sections was applied to the study area intersections to determine impacts with the addition of the site-build out traffic volumes in the long-term. The results of the LOS calculations for the intersections are summarized in **Table 1**. Average and 95th percentile queues are summarized in **Table 2**.

The project trips do not significantly impact the Study intersections for the long-term. The Study intersections and movements will operate at LOS D or better, with the exception of the northbound left-turn and northbound left-turn + through at **US 6 and Dillon Dam Road**, and the westbound right-turn at **State Highway 9 and Dillon Dam Road/Lusher Court**. These northbound movements at US 6 and Dillon Dam Road will operate at the same LOS as in the Year 2042 background scenario.

The westbound right-turn at **State Highway 9 and Dillon Dam Road/Lusher Court** was estimated to begin to operate at LOS E in the PM peak hour. The traffic model did not take into account the signals on State Highway 9 at the Exit 203 eastbound ramp and at Ten Mile Drive intersection which will provide additional gaps in traffic for the westbound right-turns to turn onto State Highway 9. The 95th percentile queue was calculated to extend 210 feet, which will not impact the upstream intersection of Dillon Dam Road and N. Ten Mile Drive. No mitigation measures are recommended since the delay is same as when a signal is installed at this intersection and the queue does not impact the upstream intersection.

The proposed roundabout accesses are estimated to operate overall at LOS B or better with all approaches operating at LOS B or better in both peak hours.

8.0 QUEUE ANALYSIS

A queuing analysis was performed to determine if the queues would be accommodated by the existing storage length and if any of the queues impact an upstream intersection/access. **Table 2** provides the existing storage lengths or distance to nearest intersection/access, and the 95th percentile⁵ and average queues for the two peak hours within each evaluation scenario.

As shown in **Table 2**, the majority of the 95th percentile queues are shorter than the provided storage length or nearest upstream intersection/access, except those highlighted with **blue bold** font. The 95th percentile queues exceed the existing storage length during the existing and background conditions for the following movements:

- **US Highway 6 at N. Dillon Dam Road**
 - Westbound left-turn
 - Northbound left-turn
 - Northbound right-turn
 - Southbound left-turn
 - Southbound left-turn + through

Both side street movements at US Highway 6 have limited length to accommodate the turn lane storage needs. The northbound and southbound through lanes have become shared lanes with the left-turn to increase turning capacity. The signal timing is constrained by the progression needed on the highway and side street split phase operations. The westbound left-turn storage is restricted by the narrowing of the highway; it is possible that small adjustments in signal timing could improve the queuing of this

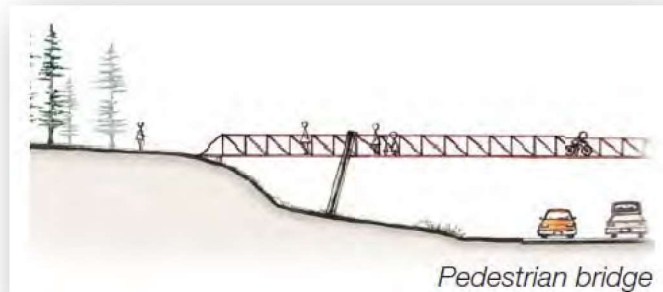
⁵ It should be noted that the 95th percentile queue length is a theoretical queue that is 1.65 standard deviations above the average queue length. In theory, the 95th percentile queue would be exceeded 5% of the time based on the average queue length, but it is also possible that a queue this long may not occur.

movement. No mitigation measure is recommended, except to monitor queues for potential safety issues that would need to be addressed once identified.

Project trips increase the northbound through + right-turn queue at **Dillon Dam Road and N. Ten Mile Road** beyond existing capacity (at this location, capacity is measured as the distance to the next access or intersection). It is recommended to consider adding an auxiliary right-turn lane, potentially when the intersection is signalized. At the other Study intersections, the Project trips only slightly increase queues at the study intersections.

9.0 FUTURE TRANSIT AND PEDESTRIAN/BICYCLIST AMENITIES

The Lake Hill Master Plan emphasizes the desire to have a transit-oriented, bicycle and pedestrian-friendly neighborhood to provide enhanced livability and connectivity within and surrounding the community. The Lake Hill property is across the street from the Dillon Reservoir Recreational Path and is also next to existing US Forest Service trails through the adjacent National Forest lands. The Lake Hill Master Plan anticipated including a pedestrian bridge over Dillon Dam Road from the Lake Hill community to the Dillon Recreational Path to provide a safe crossing route. The preliminary location of the pedestrian bridge has been identified just northeast of the south access roundabout to connect the proposed community center to the existing trail system. This location was determined to be within a quarter mile (approximately five-minute walk) from all the homes. The proposed roundabouts on Dillon Dam Road will also provide crosswalks for safe pedestrian crossing conditions for those that prefer to cross at-grade.



Source: Lake Hill Master Plan (July 2017)



Source: Lake Hill Master Plan (July 2017)

Within the Lake Hill neighborhood, it is proposed to provide a vast internal trail system linking the homes, community center, pedestrian bridge, and existing trails. Some of the trails will be paved pathways and others will be soft surface. Bike lanes will be considered on the internal roadways within the design process to provide safe connections for people biking.

The Frisco Trails Master Plan (March 2017) reviewed the existing trail system and made recommendations for future non-vehicular connectivity through and adjacent to the Town of Frisco. It was recommended that a trail connection be installed on the south side of Dillon Dam Road linking the existing Recreational Path to SH 9. The preliminary alignment shows the future trail connecting to the Recreational Path where it bends towards the reservoir and then crossing Dillon Dam Road and SH 9 to link to the Basecamp/Frisco Transit Center. The Frisco Trails Master Plan also proposed to install a paved path connecting Beaver Lodge Road to 9000 Divide and provide scenic walking trails along the waterfront. The Frisco Trails Master Plan recognizes the challenges of winter use on the Recreational Path related to plowing. Public comments indicated the desire for a maintained path during the winter for skiing, fat biking, and connection through Frisco.



Source: Frisco Trail Master Plan
(March 2017)

The Frisco Trails Master Plan recommended that the intersection of Dillon Dam Road at SH 9 be reconstructed to accommodate an underpass in the long-term to provide a safe east-west connection for pedestrians and bicyclists between major activity centers of Frisco. The interim design included widening the sidewalk, limiting access, and providing a leading pedestrian interval at the signal. Residents of Lake Hill will benefit from each of the future trails and underpass by providing recreation and transportation opportunities directly outside their homes that connect into the Town of Frisco.



Source: Frisco Trail Master Plan (March 2017)

The listed recommendations are supported by this traffic study and will provide Lake Hill residents the opportunity to walk or bike to and from their home. Consider plowing the Recreational Path from the Lake Hill community into town to encourage non-vehicular travel in the winter season.

The Lake Hill Master Plan determined that the best locations for the transit stops would be on the south side of the proposed roundabouts on Dillon Dam Road. Both locations would provide one bus stop per direction, for a total of four bus stops serving the Lake Hill community. Recently, Denver Water approved transit service across the dam which has led Summit Stage to review the existing transit routes and potential for rerouting to utilize Dillon Dam serve Lake Hill in the future. However, establishing a permanent transit route that will cross the dam and serve the Lake Hill community will be an ongoing challenge given that the Dillon Dam Road is closed regularly during the winter during snowstorms.

Ideally Summit Stage will one day provide transit access to the Lake Hill project and other residential developments along the Dillon Dam Road. However, this will require an adjustment to Summit Stage's typical operation of providing transit service that links communities rather than providing circulator or local access routes off the main connector roadways. One way that Lake Hill might be served is to provide a spur off of the "purple line" that connects between the Frisco Transfer Center and the Breckenridge Transfer Center. Another option might be a localized shuttle that links Lake Hill with the Frisco Transfer Center, and still another option may be some form of "Smart Transit" or demand responsive service as transit service technology evolves.

Given the uncertainty of future transit service to Lake Hill and other developments along the Dillon Dam Road, this Study has taken a somewhat conservative alternative mode trip reduction of 10% that reduces automobile traffic to account for transit, bicycle, and pedestrian access or other forms of human powered transportation. Given that much of the proposed housing at Lake Hill will be deed restricted or "affordable" housing, the developer may not be able to aggressively subsidize new transit service. That said, the Lake Hill project is a worthy target for providing enhanced transit access.

10.0 CONCLUSIONS

The Lake Hill proposes to construct local workforce housing with 860 multi-family units, 60 senior multi-family units, and 25 duplex homes for a total of 900 dwelling units, as well as a 2,000 square foot coffee shop and a 10,000 square foot day care center that will primarily serve the residents of Lake Hill. Access to the site is planned via two proposed driveways along Dillon Dam Road that are anticipated to be

constructed as single-lane roundabouts. The accesses will lead to the internal roadway network to serve the Lake Hill community.

The Project is estimated to generate 4,551 weekday daily trips with 478 trips occurring in the AM peak hour and 414 trips occurring in the PM peak hour, with approximately 7% as pass-by trips. **It was determined that the existing roadway and intersection network can serve the site added traffic volumes in the short-term and long-term scenarios with the increase in density to 900 dwelling units and coffee shop and day care center.**

Based on this Study, the side-street stop-controlled intersection at **N. Ten Mile Road is anticipated to meet the 4-hour and 8-hour signal warrants by Year 2027 due to growth in background traffic volumes.** It is recommended that the intersection of Dillon Dam Road at N. Ten Mile Road be signalized at the time that actual traffic volumes meet signal warrant criteria. With the restricted movements at SH 9 and Dillon Dam Road/Lusher Court in the future, the rerouted volumes through the N. Ten Mile Road intersection continue to warrant a signal.

The Project accesses should be constructed with the following lane configuration:

- **Dillon Dam Road at North Access:** Construct as a single-lane roundabout.
- **Dillon Dam Road at South Access:** Construct as a single-lane roundabout.

The proposed site access and circulation will adequately serve the estimated vehicular trips and loading operations. The proposed internal trail system and pedestrian bridge over Dillon Dam Road will encourage residents to walk or bike to/from and through the Lake Hill community. The residents will be able to take advantage of the existing recreational path and hiking trails adjacent to the property. It is hoped that some form of transit will be provided on Dillon Dam Road and serve Lake Hill residents to connect to communities within Summit County. The County, the Town, the developer and Summit Stage will need to work together to identify potential transit service options and funding sources. The implementation of non-auto amenities will achieve the Master Plan objectives of providing a livable, connected, and healthy community.

Note that the recommendations in this updated traffic study are the same as the previous traffic study for Lake Hill (Fox Tuttle, June 2021 and April 2022), regardless of the increase in dwelling units and commercial land uses.

Tables and Figures:

Table 1 – Peak Hour Intersection Level-of-Service Summary

Table 2 – Peak Hour Queue Summary

Table 3 – Trip Generation Summary

Table 4 – Summary of Trip Generation {IN REPORT}

Table 5 – Distribution Calculations {IN REPORT}

Figure 1 – Vicinity Map

Figure 2 – Conceptual Site Plan

Figure 3 – Year 2022 Existing Traffic Volumes

Figure 4 – Year 2027 Background Traffic Volumes

Figure 5 – Year 2042 Background Traffic Volumes

Figure 6 – Site Trip Distribution

Figure 7A – Site-Generated Traffic Volumes

Figure 7B – Site-Generated Traffic Volumes – Year 2042 Adjusted with Interchange

Figure 8 – Year 2027 Background + Project Traffic Volumes

Figure 9 – Year 2042 Background + Project Traffic Volumes

Table 1 - Peak Hour Intersection Level of Service Summary

Intersection and Lanes Groups	Existing (Year 2022)			Year 2027 Background			Year 2027 Bkgrd + Project			Year 2042 Background			Year 2042 Bkgrd + Project							
	Mid-Day Delay	LOS	PM Peak Delay	LOS	PM Peak Delay	LOS	Mid-Day Delay	LOS	PM Peak Delay	LOS	Mid-Day Delay	LOS	PM Peak Delay	LOS						
Signalized Control																				
Dillon Dam Road at N. Ten Mile Road	Analyzed as Stop-Controlled			9	A	10	B	9	A	11	B	12	B	12	B					
				28	C	26	C	27	C	25	C	21	C	21	C					
				30	C	30	C	30	C	30	C	29	C	29	C					
				5	A	7	A	5	A	9	A	6	A	8	A					
Southbound Left+Through			4	A	5	A	6	A	7	A	7	A	9	A	11	B				
Dillon Dam Road at US Highway 6	32	C	34	C	32	C	35	C	34	C	36	D	34	C	39	D	42	D		
Eastbound Left	14	B	18	B	15	B	19	B	17	B	22	C	17	B	25	C	20	B	29	C
Eastbound Through	20	C	27	C	21	C	29	C	24	C	32	C	26	C	38	D	28	C	45	D
Eastbound Right	19	B	24	C	19	B	25	C	22	C	38	D	23	C	31	C	25	C	35	C
Westbound Left	14	B	18	B	14	B	19	B	16	B	20	B	17	B	23	C	19	B	27	C
Westbound Through	21	C	27	C	22	C	28	C	24	C	30	C	26	C	36	D	28	C	37	D
Westbound Right	19	B	25	C	20	B	26	C	22	C	27	C	23	C	31	C	25	C	32	C
Northbound Left	61	E	55	E	62	E	55	E	60	E	54	D	60	E	54	D	59	E	53	D
Northbound Left+Through	61	E	55	D	61	E	54	D	60	E	55	D	60	E	54	D	59	E	53	D
Northbound Right	49	D	46	D	49	D	45	D	47	D	45	D	47	D	45	D	46	D	44	D
Southbound Left	54	D	52	D	55	D	53	D	54	D	52	D	55	D	54	D	55	D	52	D
Southbound Left+Through	54	D	52	D	54	D	52	D	54	D	53	D	54	D	53	D	54	D	54	D
Southbound Right	48	D	39	D	48	D	39	D	48	D	38	D	47	D	37	D	47	D	37	D
Dillon Dam Road/Lusher Court at State Highway 9	26	C	29	C	27	C	30	C	30	C	33	C	Analyzed as Stop-Controlled			Analyzed as Stop-Controlled				
Eastbound Left	52	D	50	D	52	D	51	D	52	D	51	D								
Eastbound Through+Right	37	D	34	C	37	D	34	C	38	D	35	C								
Westbound Left	53	D	53	D	53	D	53	D	55	D	55	D								
Westbound Through+Right	37	D	36	D	37	D	36	D	37	D	35	D								
Northbound Left	14	B	16	B	15	B	17	B	16	B	18	B								
Northbound Through	18	B	24	C	19	B	25	C	21	C	27	C								
Northbound Right	19	B	26	C	20	B	27	C	24	C	37	D								
Southbound Left	14	B	18	B	14	B	19	B	16	B	22	C								
Southbound Through	19	B	21	C	19	B	22	C	21	C	24	C								
Southbound Right	18	B	21	C	18	B	22	C	20	C	24	C								

Table 1 - Peak Hour Intersection Level of Service Summary

Intersection and Lanes Groups	Existing (Year 2022)			Year 2027 Background			Year 2027 Bkgrd + Project			Year 2042 Background			Year 2042 Bkgrd + Project					
	Mid-Day Delay	LOS	PM Peak Delay	LOS	PM Peak Delay	LOS	Mid-Day Delay	LOS	PM Peak Delay	LOS	Mid-Day Delay	LOS	PM Peak Delay	LOS	Mid-Day Delay	LOS	PM Peak Delay	LOS
Stop-Controlled																		
Dillon Dam Road at N. Ten Mile Road	4	A	4	A	Analyzed as Signalized			Analyzed as Signalized			Analyzed as Signalized			Analyzed as Signalized				
	21	C	26	D														
	11	B	14	B														
	0	A	0	A														
Dillon Dam Road at Beaver Lodge Road	8	A	9	A														
	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A
	14	B	17	C	14	B	19	C	18	C	26	D	15	C	21	C	19	C
	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A
Dillon Dam Road at Prospect Point Drive	0	A	9	A	0	A	9	A	0	A	10	A	9	A	10	A	9	A
	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A
	15	B	16	C	16	C	18	C	21	C	24	C	17	C	21	C	23	C
	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A
Dillon Dam Road at Lake View Terrace	8	A	9	A	8	A	9	A	9	A	10	A	8	A	10	A	9	A
	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A
	13	B	15	B	14	B	16	C	18	C	21	C	15	B	17	C	19	C
	8	A	8	A	8	A	8	A	9	A	8	A	8	A	8	A	9	A
Dillon Dam Road/Lusher Court at State Highway 9	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A
	0	A	0	A	Analyzed as Signalized			Analyzed as Signalized			Analyzed as Signalized			Analyzed as Signalized				
	8	A	8	A														
	0	A	0	A														
Eastbound Right	0	A	0	A														
	13	B	15	B														
	8	A	8	A														
	0	A	0	A														
Westbound Right	0	A	0	A														
	8	A	8	A														
	0	A	0	A														
	0	A	0	A														
Northbound Left	0	A	0	A														
	8	A	8	A														
	0	A	0	A														
	0	A	0	A														
Northbound Through	0	A	0	A														
	8	A	8	A														
	0	A	0	A														
	0	A	0	A														
Southbound Right	0	A	0	A														
	8	A	8	A														
	0	A	0	A														
	0	A	0	A														

Table 1 - Peak Hour Intersection Level of Service Summary

Intersection and Lanes Groups	Existing (Year 2022)			Year 2027 Background			Year 2027 Bkgrd + Project			Year 2042 Background			Year 2042 Bkgrd + Project		
	Mid-Day Delay	LOS	PM Peak Delay	Mid-Day Delay	LOS	PM Peak Delay	Mid-Day Delay	LOS	PM Peak Delay	Mid-Day Delay	LOS	PM Peak Delay	Mid-Day Delay	LOS	PM Peak Delay
Roundabout															
Dillon Dam Road at La Bonte Street	6	A	10	7	A	13	8	A	17	C	7	A	9	A	22
Westbound Left+Right	6	A	5	7	A	6	8	A	7	A	7	A	8	A	8
Northbound Through+Right	7	A	13	7	A	19	8	A	25	C	8	A	10	A	34
Southbound Left+Through	6	A	8	6	A	8	7	A	9	A	7	A	8	A	11
Dillon Dam Road at South Access	Analyzed with Project Scenarios			Analyzed with Project Scenarios			7	A	9	A	Analyzed with Project Scenarios			7	A
Eastbound Left+Right							7	A	5	A				7	A
Northbound Left+Through							7	A	11	B				7	A
Southbound Through+Right							7	A	6	A				7	A
Dillon Dam Road at North Access	Analyzed with Project Scenarios			Analyzed with Project Scenarios			6	A	8	A	Analyzed with Project Scenarios			7	A
Eastbound Left+Right							6	A	5	A				7	A
Northbound Left+Through							7	A	10	A				8	A
Southbound Through+Right							6	A	6	A				7	A

Note: Delay represented in average seconds per vehicle.

Table 2 - Peak Hour 95th Percentile Queue Summary

Intersection and Lanes Groups	Existing Storage	Existing (Year 2022)			Year 2027 Background			Year 2027 Background + Project			Year 2042 Background			Year 2042 Background + Project		
		Mid-Day	PM Peak		Mid-Day	PM Peak		Mid-Day	PM Peak		Mid-Day	PM Peak		Mid-Day	PM Peak	
		Signalized Control														
Dillon Dam Road at N. Ten Mile Road																
Westbound Left	100'	Analyzed as Stop-Control			68'		66'		67'	65'		25'	29'		23'	28'
Westbound Right	150'				34'		35'		36'	38'		48'	49'		49'	50'
Northbound Through+Right	-				120'		241'		153'	339'		74'	156'		92'	196'
Southbound Left+Through	-				117'		101'		197'	153'		144'	188'		173'	214'
Dillon Dam Road at US Highway 6																
Eastbound Left	500'	98'	115'	103'		122'		108'	125'		124'	147'		131'	151'	
Eastbound Through	-	247'	285'	264'		300'		276'	300'		325'	376'		325'	376'	
Eastbound Right	500'	60'	63'	62'		64'		69'	70'		70'	69'		73'	74'	
Westbound Left	150'	102'	132'	108'		141'		128'	166'		129'	180'		151'	292'	
Westbound Through	-	264'	292'	283'		308'		297'	308'		372'	391'		380'	391'	
Westbound Right	420'	62'	82'	64'		84'		67'	84'		73'	91'		73'	91'	
Northbound Left	110'	210'	186'	220'		194'		250'	209'		244'	215'		275'	233'	
Northbound Left+Through	-	216'	189'	223'		195'		258'	217'		252'	221'		283'	241'	
Northbound Right	70'	63'	70'	69'		79'		97'	103'		85'	111'		114'	133'	
Southbound Left	120'	152'	255'	160'		270'		164'	273'		186'	316'		186'	316'	
Southbound Left+Through	-	158'	266'	164'		280'		167'	290'		186'	326'		191'	340'	
Southbound Right	110'	50'	45'	52'		47'		52'	47'		54'	49'		54'	49'	
Dillon Dam Road/Lusher Court at State Highway 9																
Eastbound Left	145'	105'	128'	109'		134'		109'	134'		Analyzed as Stop-Control			Analyzed as Stop-Control		
Eastbound Through+Right	-	111'	160'	116'		168'		130'	189'							
Westbound Left	205'	120'	98'	134'		103'		186'	130'							
Westbound Through+Right	-	127'	113'	102'		117'		187'	149'							
Northbound Left	165'	48'	41'	51'		43'		58'	47'							
Northbound Through	-	197'	305'	211'		328'		237'	343'							
Northbound Right	200'	48'	58'	49'		59'		60'	67'							
Southbound Left	115'	46'	52'	49'		55'		64'	72'							
Southbound Through	-	206'	229'	222'		246'		246'	261'							
Southbound Right	240'	44'	51'	45'		52'		50'	56'							

Table 2 - Peak Hour 95th Percentile Queue Summary

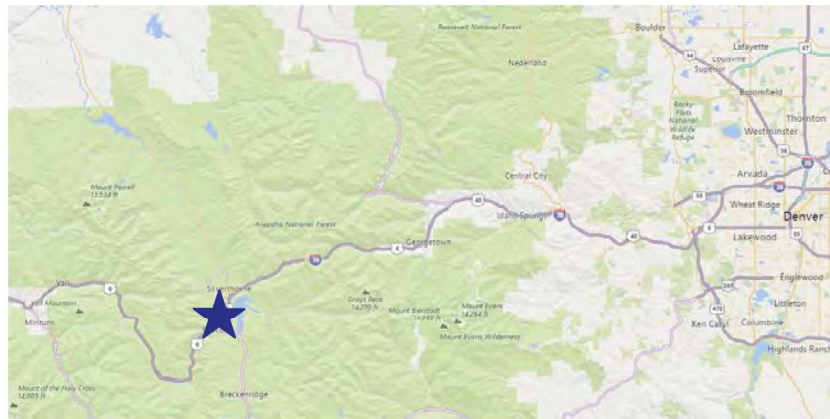
Intersection and Lanes Groups		Existing Storage	Existing (Year 2022)			Year 2027 Background			Year 2027 Background + Project			Year 2042 Background			Year 2042 Background + Project			
			Mid-Day	PM Peak		Mid-Day	PM Peak		Mid-Day	PM Peak		Mid-Day	PM Peak		Mid-Day	PM Peak		
Stop-Controlled																		
Dillon Dam Road at N. Ten Mile Road		Westbound Left	100'															
		Westbound Right	150'	30'	40'	Analyzed as Signalized			Analyzed as Signalized			Analyzed as Signalized			Analyzed as Signalized			
		Southbound Left+Through	-	5'	25'	5'												
Dillon Dam Road at Beaver Lodge Road		Westbound Left+Right	-	3'	5'	3'	5'	0'	0'	3'	8'	0'	0'	3'	5'	0'	8'	
		Southbound Left+Through	-	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	
Dillon Dam Road at Prospect Point Drive		Westbound Left+Right	-	3'	3'	5'	5'	0'	0'	5'	5'	0'	0'	5'	5'	0'	8'	
		Southbound Left+Through	-	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	
Dillon Dam Road at Lake View Terrace		Eastbound Left+Right	-	3'	3'	3'	3'	0'	0'	5'	5'	0'	0'	3'	3'	0'	5'	
		Dillon Dam Road/Lusher Court at State Highway 9																
Dillon Dam Road at La Bonte Street		Eastbound Right	-	Analyzed as Signalized			Analyzed as Signalized			Analyzed as Signalized			118'	73'	188'	93'		
		Westbound Right	-										98'	195'	110'	210'		
		Northbound Left	165'										18'	13'	18'	13'		
		Northbound Right	200'										0'	0'	0'	0'		
Dillon Dam Road at South Access		Southbound Right	240'										0'	0'	0'	0'		
		Roundabout																
Dillon Dam Road at La Bonte Street		Westbound Left+Right	-	25'	25'	25'	25'	0'	0'	25'	25'	0'	0'	25'	25'	0'	25'	
		Northbound Through+Right	-	50'	125'	50'	200'	250'	75'	250'	50'	325'	100'	350'	50'	100'	350'	
		Southbound Left+Through	-	25'	50'	50'	75'	100'	50'	100'	50'	100'	50'	125'	50'	50'	125'	
Dillon Dam Road at North Access		Eastbound Left+Right	-	Future Intersection			Future Intersection			Future Intersection			Future Intersection			Future Intersection		
		Northbound Left+Through	-															
		Southbound Through+Right	-															
Dillon Dam Road at North Access		Eastbound Left+Right	-	Future Intersection			Future Intersection			Future Intersection			Future Intersection			Future Intersection		
		Northbound Left+Through	-															
		Southbound Through+Right	-															

Table 3 - Trip Generation Summary

Land Use	Size	Unit	Internal Capture	Non-Auto Factor	Average Daily Trips			AM Peak Hour Trips			PM Peak Hour Trips					
					Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
Residential																
ITE 215 - Single-Family Attached Housing	25	Dwelling Units	1.00	0.90	7.20	162	81	81	0.48	11	3	8	0.57	13	7	6
	815	Dwelling Units	1.00	0.90	4.54	3,330	1,665	1,665	0.37	271	62	209	0.39	286	174	112
Additional																
ITE 252 - Senior Adult Housing - Multi-Family	60	Dwelling Units	1.00	0.90	3.24	175	88	87	0.20	11	4	7	0.25	14	8	6
	10	1,000 sf	0.50	1.00	47.62	238	119	119	11.00	55	29	26	11.12	56	26	30
	ITE 936 - Coffee/Donut Shop without Drive-Through ¹	2	1,000 sf	0.70	1.00	461.29	646	323	323	93.08	130	66	64	32.29	45	23
Pass-by Rate for Day Care Center					22%	52	26	26		12	6	6		13	6	7
Pass-by Rate for Coffee Shop					40%	258	129	129		52	26	26		18	9	9
Total Pass-By Trips:						310	155	155		64	32	32		31	15	16
Total Weekday New Trips:						4,241	2,121	2,120	AM >	414	132	282	PM >	383	223	160
Total Weekday Trips (New + Pass-By):						4,551	2,276	2,275	AM >	478	164	314	PM >	414	238	176

Source: ITE Trip Generation 11th Edition, 2021.

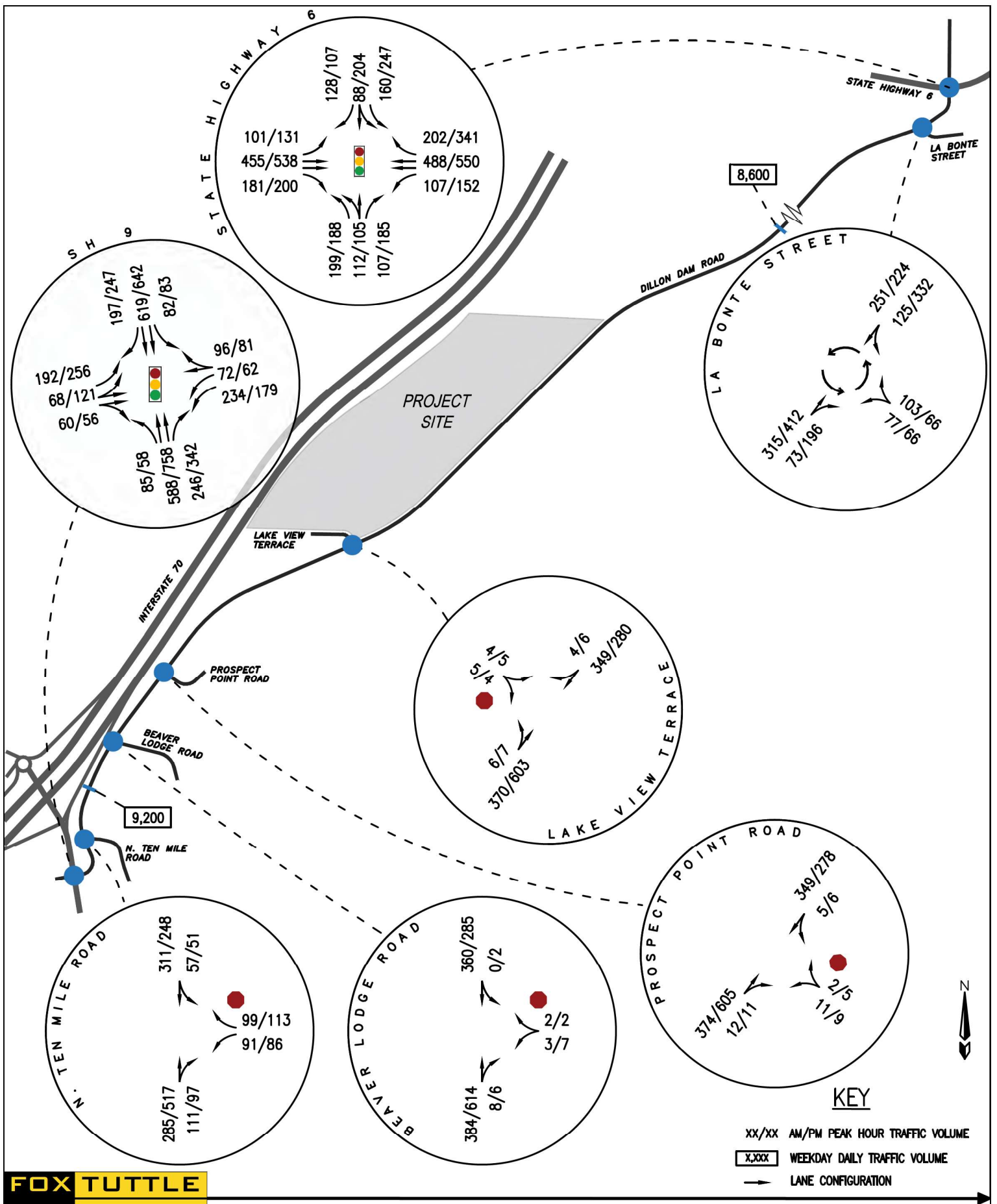
1. No weekday trip rate provided; therefore, a comparison between the PM peak hour rate and the Weekday rate for ITE # 937 was used to estimate the rate for ITE #936.



Proposed Access 2 (North)
Full Movement
Roundabout

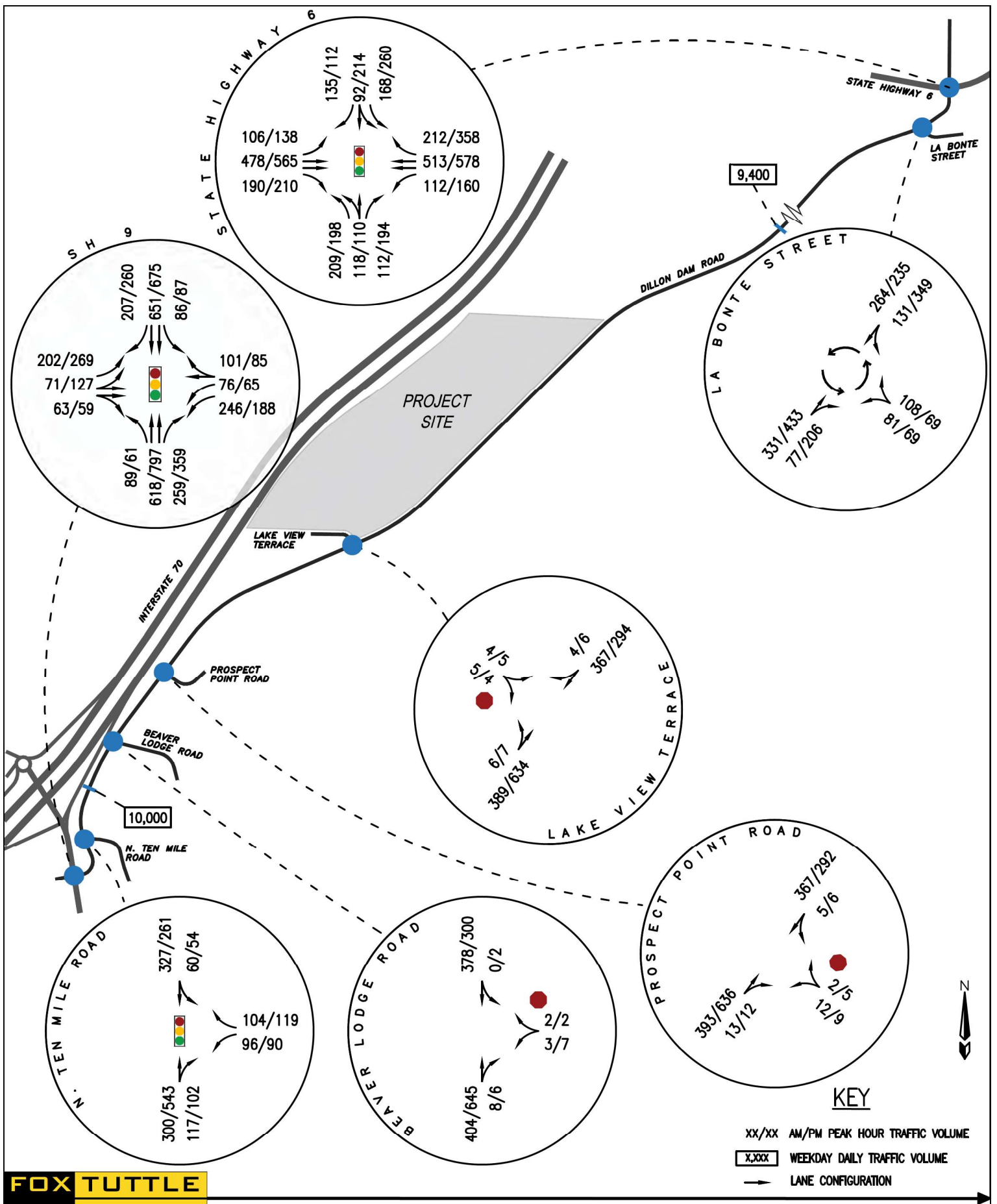


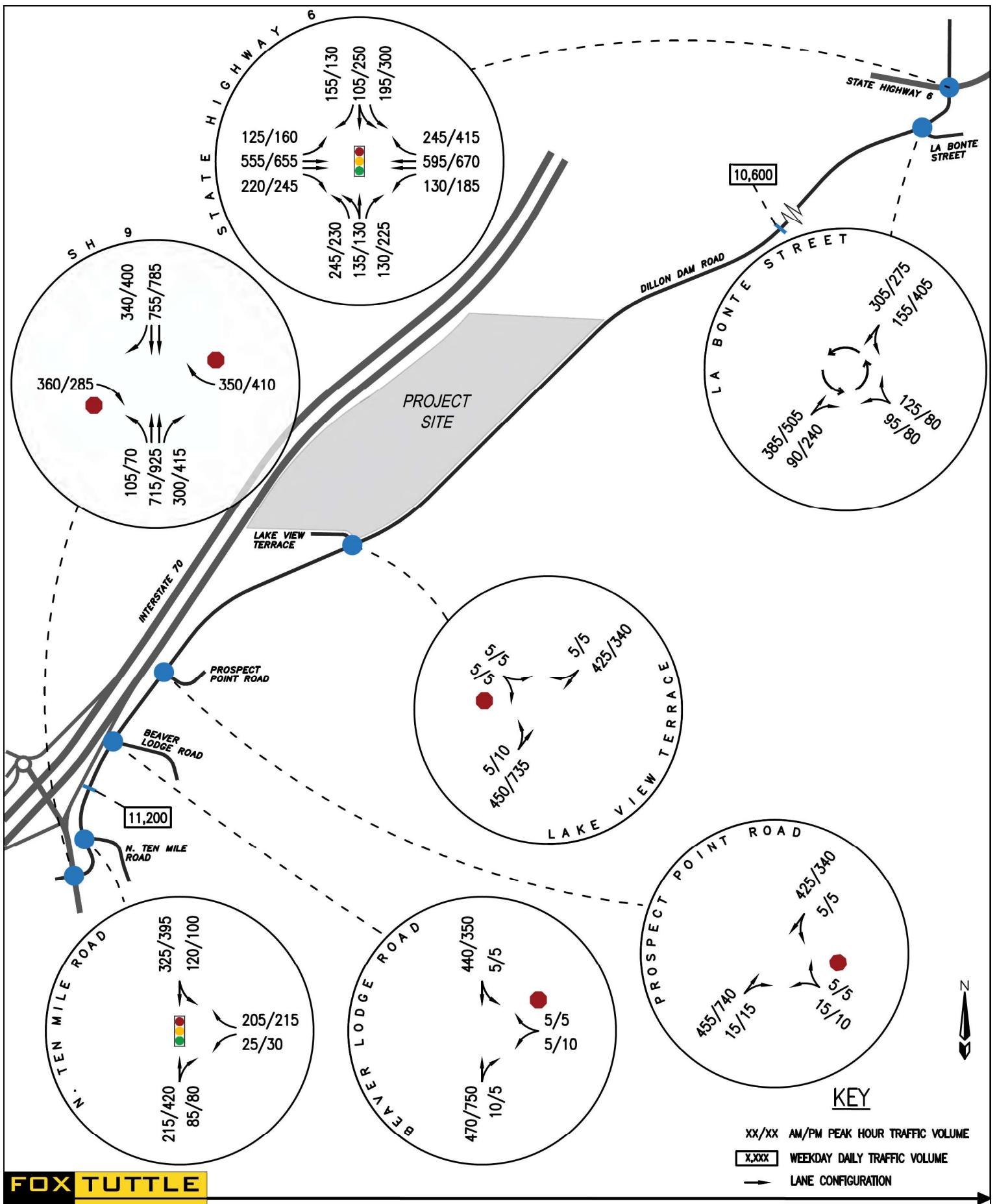
Proposed Access 1 (South)
Full Movement
Roundabout

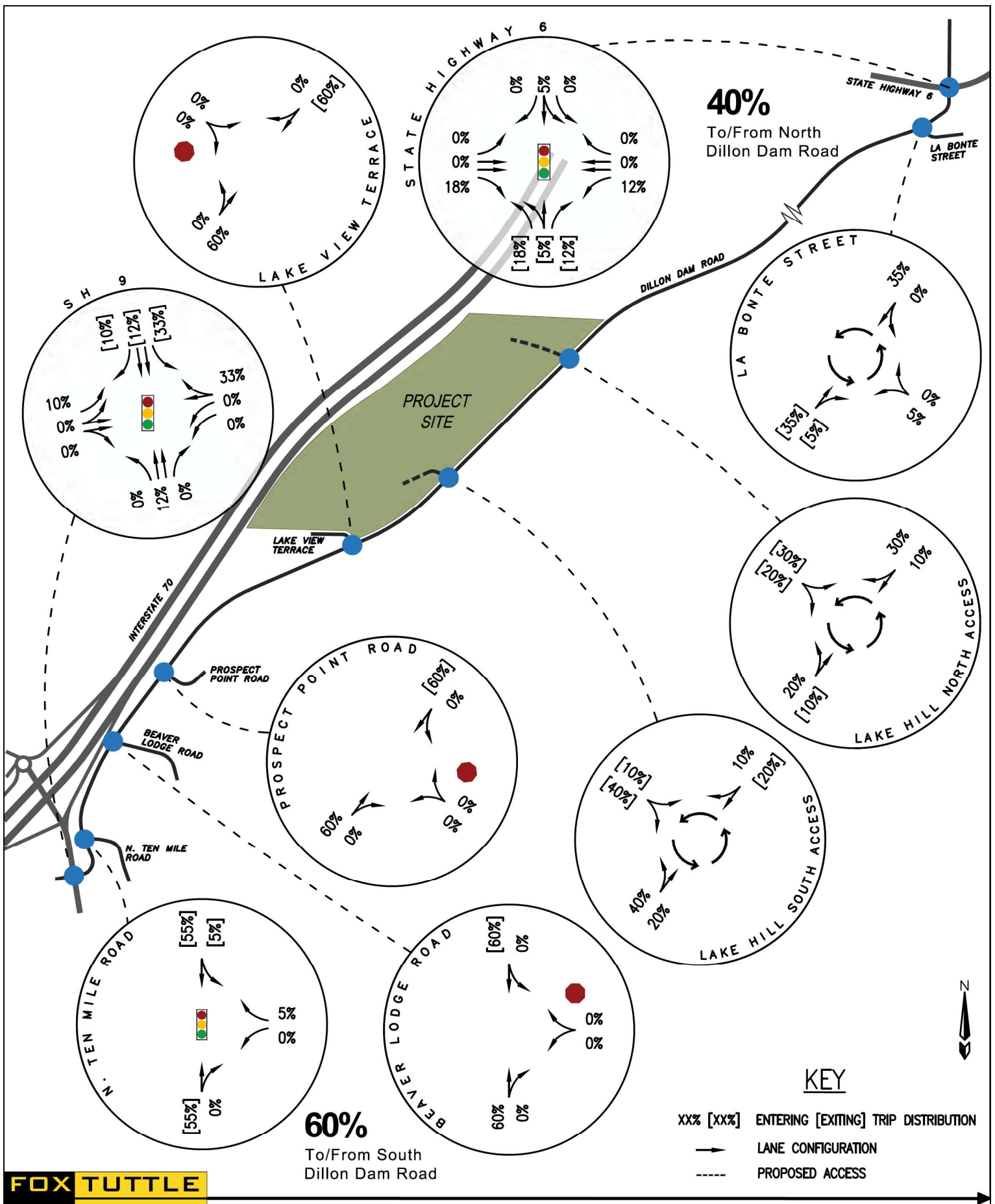


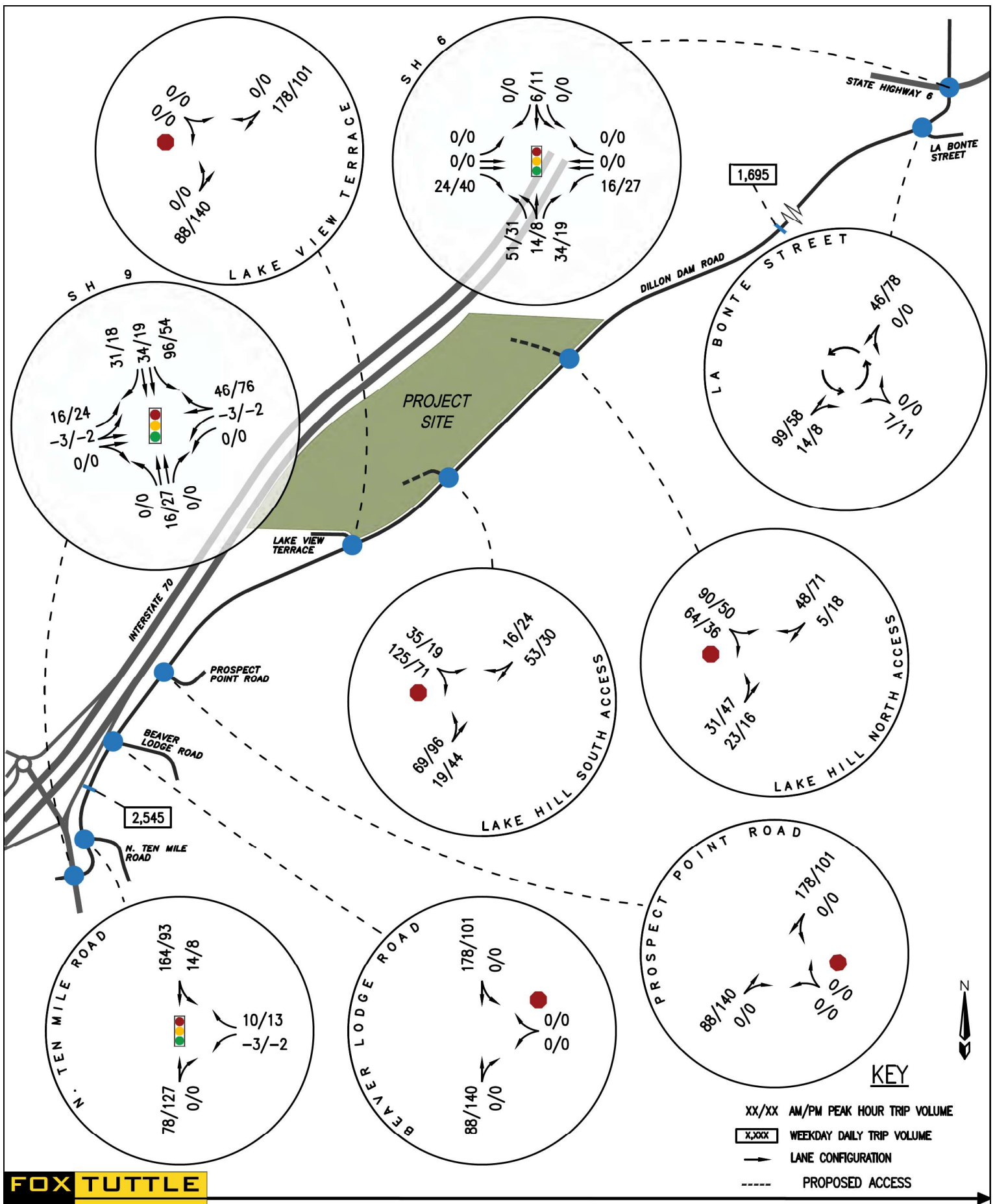
LAKE HILL DEVELOPMENT TRAFFIC IMPACT STUDY
YEAR 2022 EXISTING TRAFFIC VOLUMES

FT #	22010	Original Scale	NTS	Date	9/1/22	Drawn by	CAF	Figure #	3
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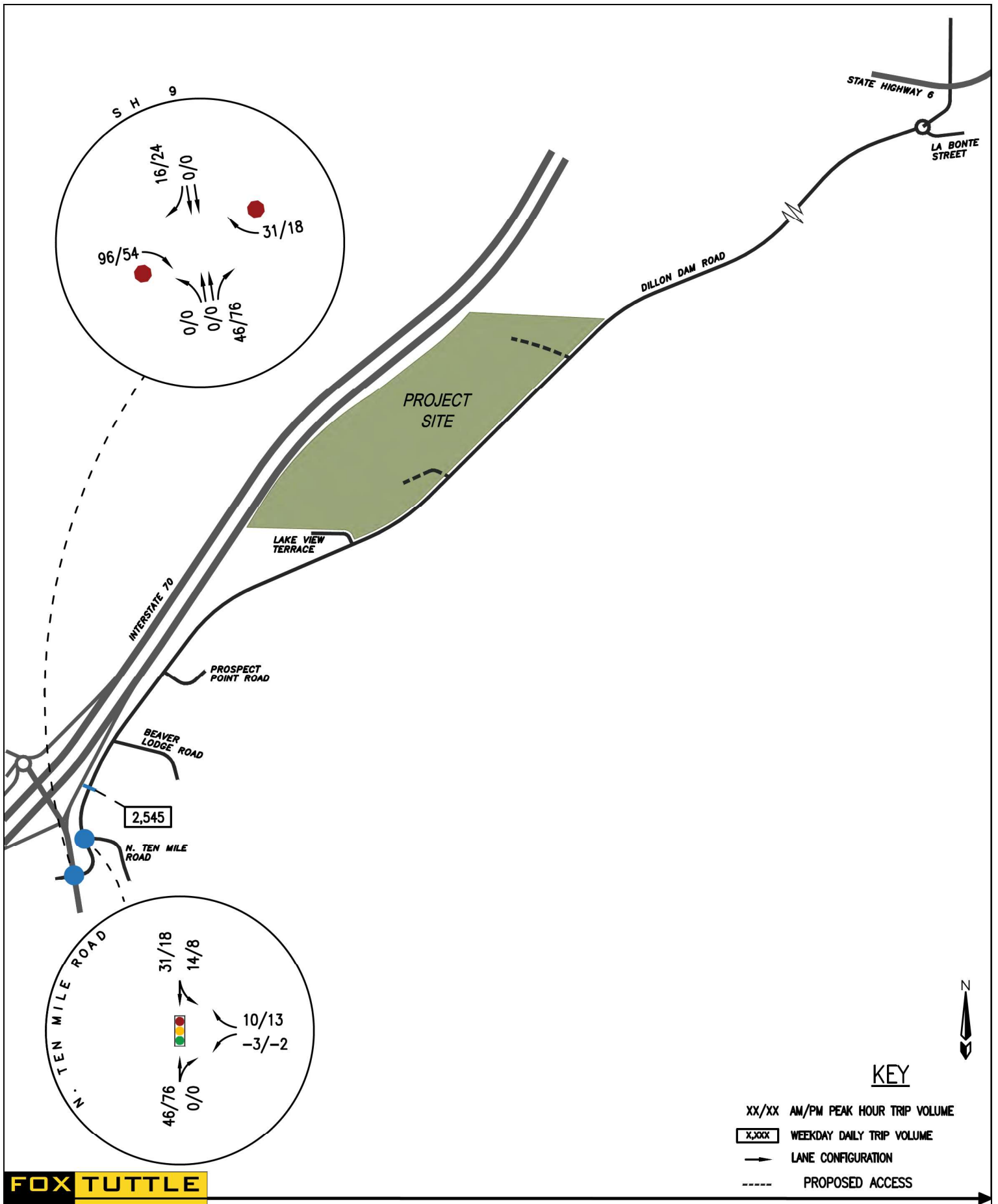






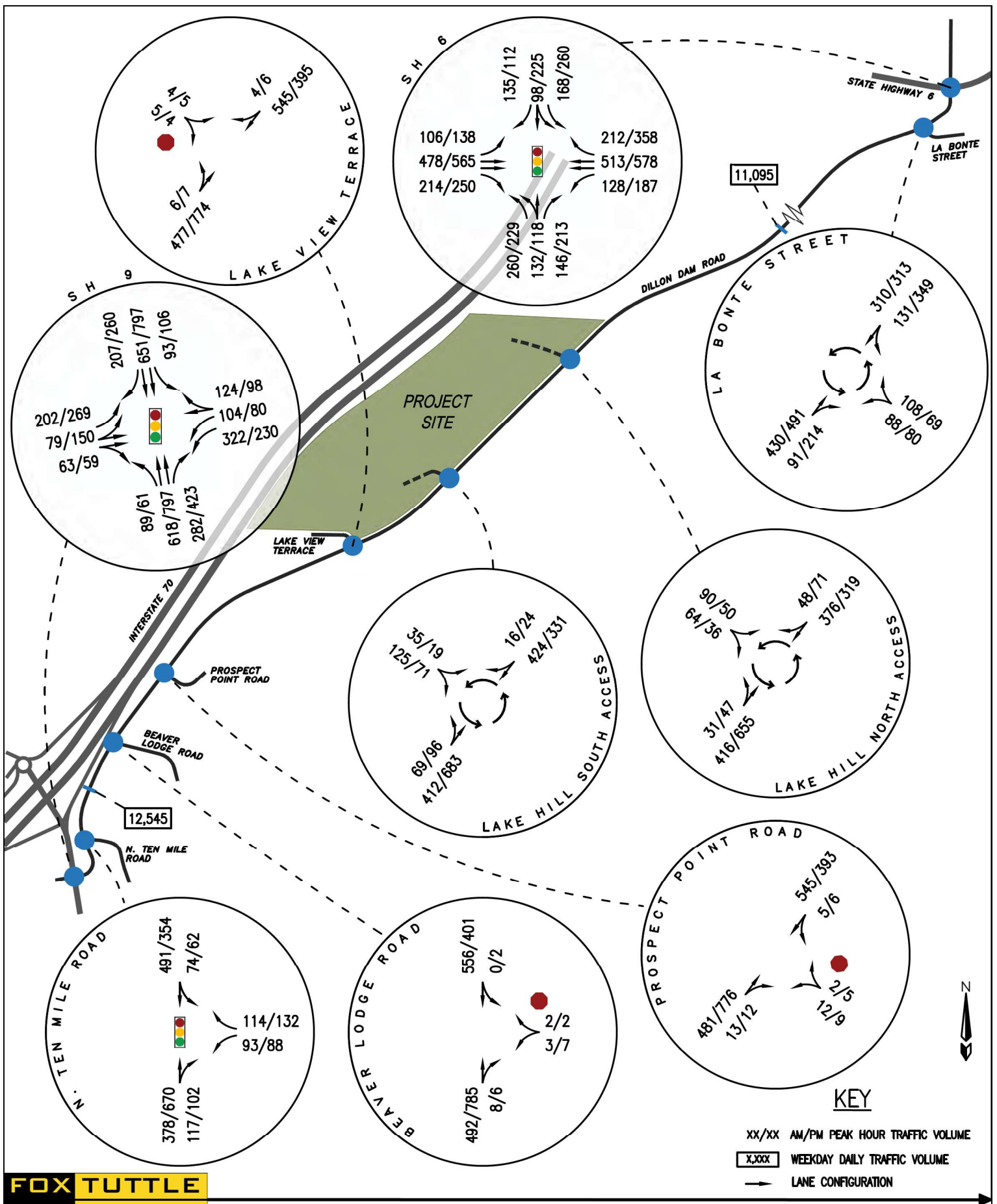


LAKE HILL DEVELOPMENT TRAFFIC IMPACT STUDY SITE-GENERATED TRAFFIC VOLUMES



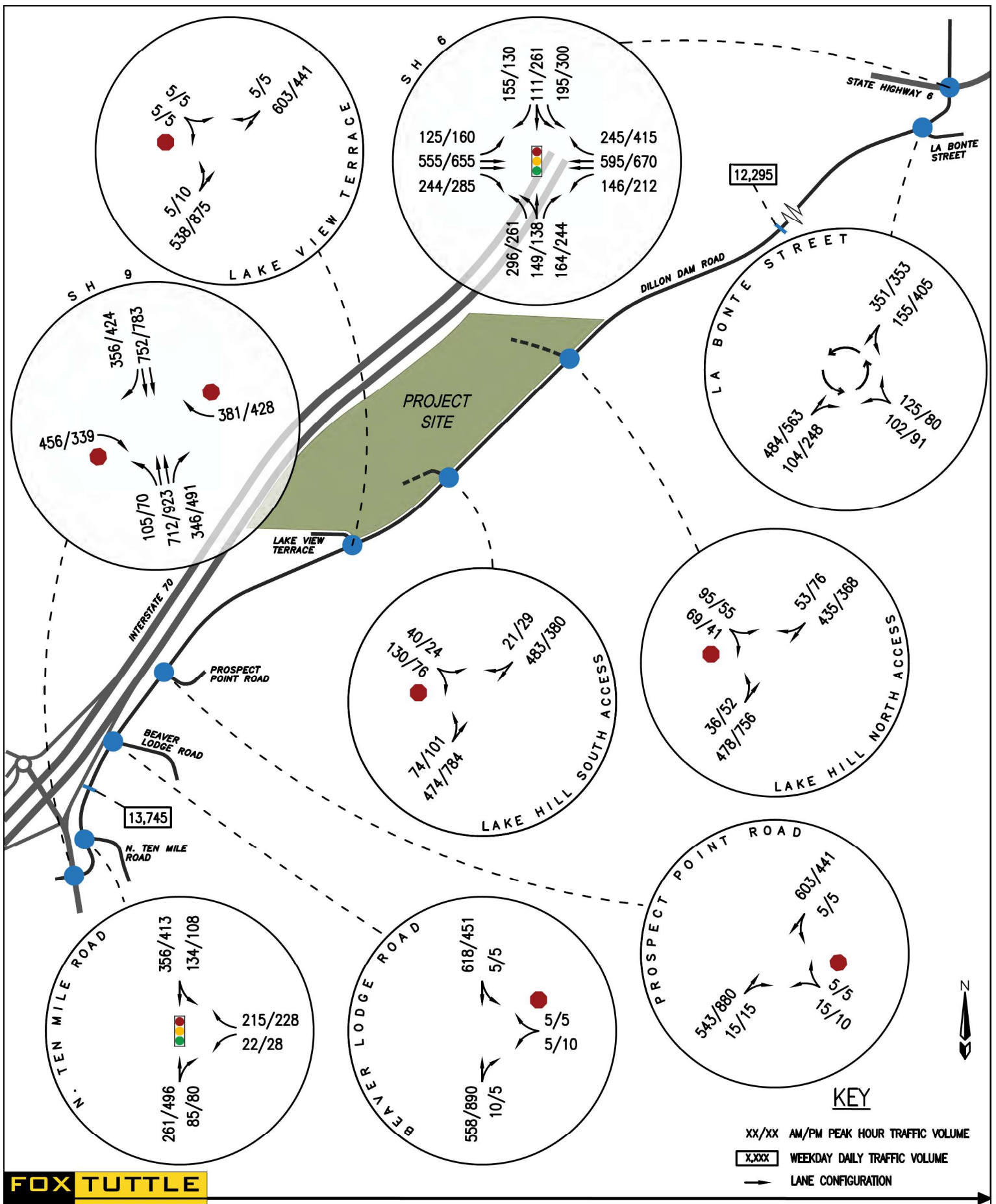
LAKE HILL DEVELOPMENT TRAFFIC IMPACT STUDY
SITE-GENERATED TRAFFIC VOLUMES - YEAR 2042 ADJUSTED WITH INTERCHANGE

FT #	22010	Original Scale	NTS	Date	5/31/23	Drawn by	CRS	Figure #	7B
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LAKE HILL DEVELOPMENT TRAFFIC IMPACT STUDY
YEAR 2027 BACKGROUND + PROJECT TRAFFIC VOLUMES

FT #	22010	Original Scale	NTS	Date	5/31/23	Drawn by	CRS	Figure #	8
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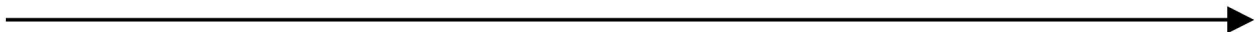
Appendix:

Level-of-Service Definitions

Existing Traffic Data

Signal Warrant Worksheets

Intersection Capacity Worksheets



Level-of-Service Definitions

LEVEL OF SERVICE DEFINITIONS

In rating roadway and intersection operating conditions with existing or future traffic volumes, “Levels of Service” (LOS) A through F are used, with LOS A indicating very good operation and LOS F indicating poor operation. Levels of service at signalized and unsignalized intersections are closely associated with vehicle delays experienced in seconds per vehicle. More complete level of service definitions and delay data for signal and stop sign controlled intersections are contained in the following table for reference.

Level of Service Rating	Delay in seconds per vehicle (a)		Definition
	Signalized	Unsignalized	
A	0.0 to 10.0	0.0 to 10.0	Low vehicular traffic volumes; primarily free flow operations. Density is low and vehicles can freely maneuver within the traffic stream. Drivers are able to maintain their desired speeds with little or no delay.
B	10.1 to 20.0	10.1 to 15.0	Stable vehicular traffic volume flow with potential for some restriction of operating speeds due to traffic conditions. Vehicle maneuvering is only slightly restricted. The stopped delays are not bothersome and drivers are not subject to appreciable tension.
C	20.1 to 35.0	15.1 to 25.0	Stable traffic operations, however the ability for vehicles to maneuver is more restricted by the increase in traffic volumes. Relatively satisfactory operating speeds prevail, but adverse signal coordination or longer vehicle queues cause delays along the corridor.
D	35.1 to 55.0	25.1 to 35.0	Approaching unstable vehicular traffic flow where small increases in volume could cause substantial delays. Most drivers are restricted in ability to maneuver and selection of travel speeds due to congestion. Driver comfort and convenience are low, but tolerable.
E	55.1 to 80.0	35.1 to 50.0	Traffic operations characterized by significant approach delays and average travel speeds of one-half to one-third the free flow speed. Vehicular flow is unstable and there is potential for stoppages of brief duration. High signal density, extensive vehicle queuing, or corridor signal progression/timing are the typical causes of vehicle delays at signalized corridors.
F	> 80.0	> 50.0	Forced vehicular traffic flow and operations with high approach delays at critical intersections. Vehicle speeds are reduced substantially, and stoppages may occur for short or long periods of time because of downstream congestion.

(a) Delay ranges based on Highway Capacity Manual (6th Edition, 2016) criteria.



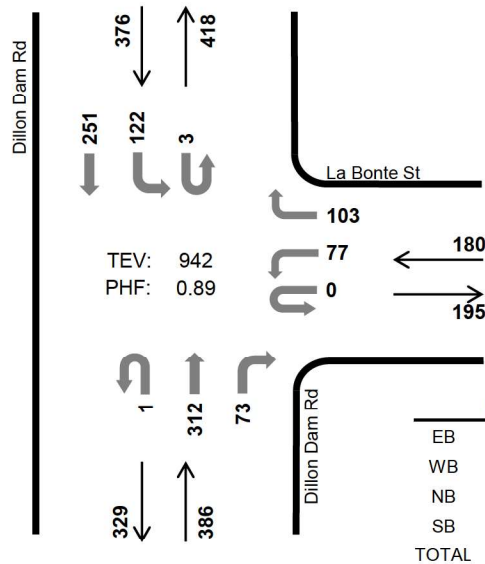
Existing Traffic Data



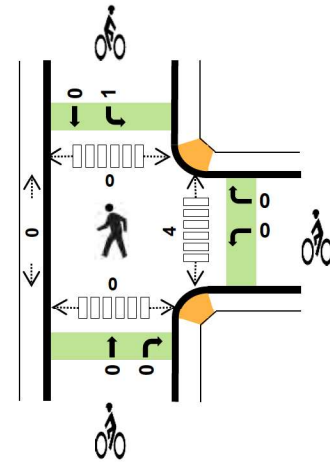
Dillon Dam Rd La Bonte St



Peak Hour



Date: 07/12/2022
Count Period: 12:00 PM to 2:30 PM
Peak Hour: 12:00 PM to 1:00 PM



	HV %:	PHF
EB	-	-
WB	0.6%	0.79
NB	0.3%	0.89
SB	0.8%	0.94
TOTAL	0.5%	0.89

Two-and-a-Half-Hour Count Summaries

Interval Start		n/a				La Bonte St				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM		0	0	0	0	0	13	0	24	0	0	82	7	1	33	62	0	222	0
12:15 PM		0	0	0	0	0	18	0	23	0	0	85	23	1	24	61	0	235	0
12:30 PM		0	0	0	0	0	21	0	24	0	0	60	22	1	28	65	0	221	0
12:45 PM		0	0	0	0	0	25	0	32	1	0	85	21	0	37	63	0	264	942
Peak Hour	All	0	0	0	0	0	77	0	103	1	0	312	73	3	122	251	0	942	0
	HV	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0	0	5	0
	HV%	-	-	-	-	-	0%	-	1%	0%	-	0%	1%	0%	2%	0%	-	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	0	0	2	2	0	0	0	0	0	2	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
12:30 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	1	1	0	0	0	0	0	2	0	0	0	2
Peak Hour	0	1	1	3	5	0	0	0	1	1	4	0	0	0	4

Two-and-a-Half-Hour Count Summaries																			
Interval Start		n/a				La Bonte St				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	12:00 PM	0	0	0	0	0	13	0	24	0	0	82	7	1	33	62	0		
	12:15 PM	0	0	0	0	0	18	0	23	0	0	85	23	1	24	61	0		
	12:30 PM	0	0	0	0	0	21	0	24	0	0	60	22	1	28	65	0		
	12:45 PM	0	0	0	0	0	25	0	32	1	0	85	21	0	37	63	0		
	1:00 PM	0	0	0	0	0	15	0	21	0	0	56	20	1	24	55	0		
	1:15 PM	0	0	0	0	0	13	0	26	0	0	73	27	2	32	64	0		
	1:30 PM	0	0	0	0	0	12	0	26	1	0	75	14	0	38	64	0		
	1:45 PM	0	0	0	0	0	12	0	29	0	0	45	22	1	35	52	0		
	2:00 PM	0	0	0	0	0	13	0	27	0	0	65	14	0	34	67	0		
	2:15 PM	0	0	0	0	0	12	0	34	0	0	52	24	1	42	61	0		
Count Total		0	0	0	0	0	154	0	266	2	0	678	194	8	327	614	0		
Peak Hour	All	0	0	0	0	0	77	0	103	1	0	312	73	3	122	251	0		
	HV	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0	0		
	HV%	-	-	-	-	-	0%	-	1%	0%	-	0%	1%	0%	2%	0%	-		
Note: Two-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.																			
Interval Start		Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)							
		EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total			
	12:00 PM	0	0	0	2	2	0	0	0	0	0	2	0	0	0	0	2		
	12:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0		
	12:30 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	1	1	0	0	0	0	0	2	0	0	0	0	2		
	1:00 PM	0	1	2	0	3	0	1	0	0	1	0	0	0	0	0	0		
	1:15 PM	0	0	0	2	2	0	1	0	0	1	0	0	0	0	0	0		
	1:30 PM	0	1	1	1	3	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	1	1	0	0	0	1	1	0	4	0	0	0	4		
	2:00 PM	0	0	0	1	1	0	0	0	0	0	2	0	0	0	0	2		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4		
Count Total		0	3	4	8	15	0	2	0	2	4	8	6	0	0	0	14		
Peak Hr		0	1	1	3	5	0	0	0	1	1	4	0	0	0	0	4		

Two-and-a-Half-Hour Count Summaries - Heavy Vehicles																		
Interval Start	n/a				La Bonte St				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5
1:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	3	6
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	8
1:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	3	9
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	9
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Count Total	0	0	0	0	0	0	0	3	0	0	3	1	1	6	1	0	15	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0	0	5	0

Two-and-a-Half-Hour Count Summaries - Bikes																		
Interval Start	n/a				La Bonte St				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT			
12:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
12:15 PM	0	0	0		0	0	0		0	0	0		1	0	0		1	0
12:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
12:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	1
1:00 PM	0	0	0		0	0	1		0	0	0		0	0	0		1	2
1:15 PM	0	0	0		0	0	1		0	0	0		0	0	0		1	2
1:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	2
1:45 PM	0	0	0		0	0	0		0	0	0		1	0	0		1	3
2:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	2
2:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	1
Count Total	0	0	0		0	0	2		0	0	0		2	0	0		4	0
Peak Hour	0	0	0		0	0	0		0	0	0		1	0	0		1	0

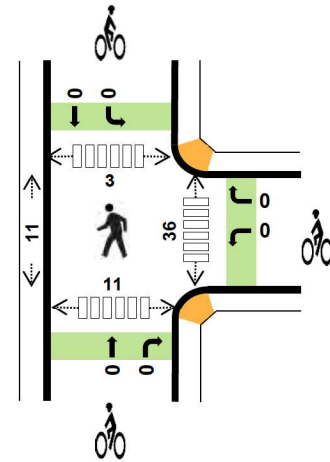
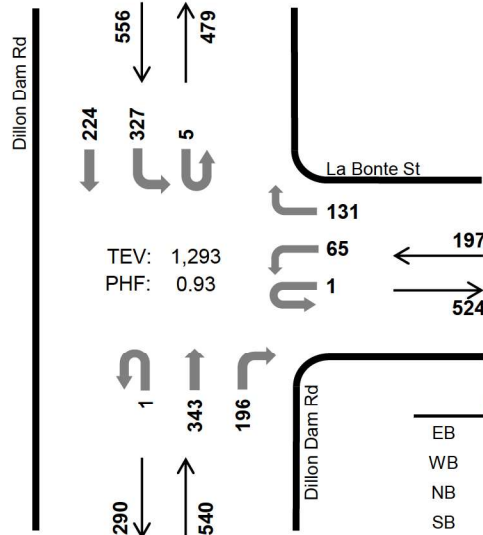
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Dillon Dam Rd La Bonte St



Peak Hour

Date: 07/12/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	-	-
WB	0.5%	0.90
NB	0.2%	0.89
SB	0.4%	0.96
TOTAL	0.3%	0.93

Two-Hour Count Summaries

Interval Start		n/a				La Bonte St				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	17	0	39	0	0	86	33	2	71	65	0	313	0
4:15 PM		0	0	0	0	0	21	0	29	0	0	66	35	0	69	68	0	288	0
4:30 PM		0	0	0	0	0	6	0	27	1	0	91	37	1	68	56	0	287	0
4:45 PM		0	0	0	0	0	15	0	36	0	0	92	46	1	91	50	0	331	1,219
5:00 PM		0	0	0	0	0	18	0	37	0	0	69	43	0	75	54	0	296	1,202
5:15 PM		0	0	0	0	1	17	0	33	1	0	93	57	1	78	66	0	347	1,261
5:30 PM		0	0	0	0	0	15	0	25	0	0	89	50	3	83	54	0	319	1,293
5:45 PM		0	0	0	0	0	8	0	27	0	0	78	43	1	80	57	0	294	1,256
Count Total		0	0	0	0	1	117	0	253	2	0	664	344	9	615	470	0	2,475	0
Peak Hour	All	0	0	0	0	1	65	0	131	1	0	343	196	5	327	224	0	1,293	0
	HV	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	4	0
	HV%	-	-	-	-	0%	0%	-	1%	0%	-	0%	0%	0%	1%	0%	-	0%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	2	2	0	1	0	0	1	0	0	0	0	0
4:15 PM	0	1	0	0	1	0	0	0	0	0	4	0	0	0	4
4:30 PM	0	0	1	0	1	0	0	0	0	0	4	2	0	0	6
4:45 PM	0	0	1	0	1	0	0	0	0	0	4	0	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	8	0	8	18
5:15 PM	0	0	0	2	2	0	0	0	0	0	10	2	3	2	17
5:30 PM	0	1	0	0	1	0	0	0	0	0	20	1	0	1	22
5:45 PM	0	1	0	0	1	0	0	0	0	0	5	0	0	0	5
Count Total	0	3	2	4	9	0	1	0	0	1	49	13	3	11	76
Peak Hr	0	1	1	2	4	0	0	0	0	0	36	11	3	11	61

Two-Hour Count Summaries - Heavy Vehicles

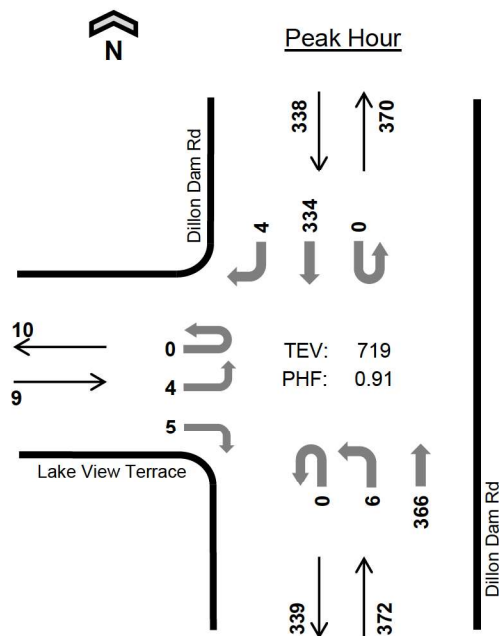
Interval Start	n/a				La Bonte St				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	4
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	4
Count Total	0	0	0	0	0	0	0	3	0	0	2	0	0	4	0	0	0	9	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	0	4	0

Two-Hour Count Summaries - Bikes

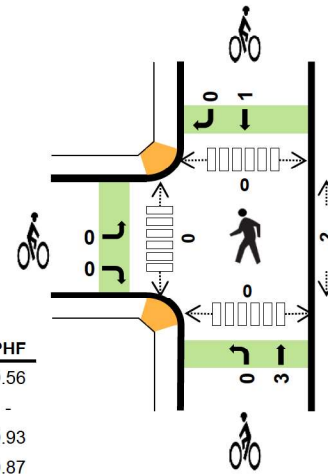
Interval Start	n/a			La Bonte St			Dillon Dam Rd			Dillon Dam Rd			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	1	0	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Dillon Dam Rd Lake View Terrace



Date: 07/12/2022
Count Period: 12:00 PM to 2:30 PM
Peak Hour: 12:15 PM to 1:15 PM



	HV %:	PHF
EB	11.1%	0.56
WB	-	-
NB	1.3%	0.93
SB	0.6%	0.87
TOTAL	1.1%	0.91

Two-and-a-Half-Hour Count Summaries

Interval Start		Lake View Terrace				n/a				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:15 PM		0	0	0	2	0	0	0	0	0	2	89	0	0	0	86	0	179	0
12:30 PM		0	2	0	1	0	0	0	0	0	1	86	0	0	0	86	1	177	0
12:45 PM		0	0	0	0	0	0	0	0	0	1	99	0	0	0	96	1	197	0
1:00 PM		0	2	0	2	0	0	0	0	0	2	92	0	0	0	66	2	166	719
Peak Hour	All	0	4	0	5	0	0	0	0	0	6	366	0	0	0	334	4	719	0
	HV	0	0	0	1	0	0	0	0	0	1	4	0	0	0	2	0	8	0
	HV%	-	0%	-	20%	-	-	-	-	-	17%	1%	-	-	-	1%	0%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:15 PM	0	0	1	0	1	0	0	1	1	2	1	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1
12:45 PM	0	0	1	1	2	0	0	1	0	1	0	0	0	0	0
1:00 PM	1	0	3	1	5	0	0	0	0	0	0	0	0	0	0
Peak Hour	1	0	5	2	8	0	0	3	1	4	2	0	0	0	2

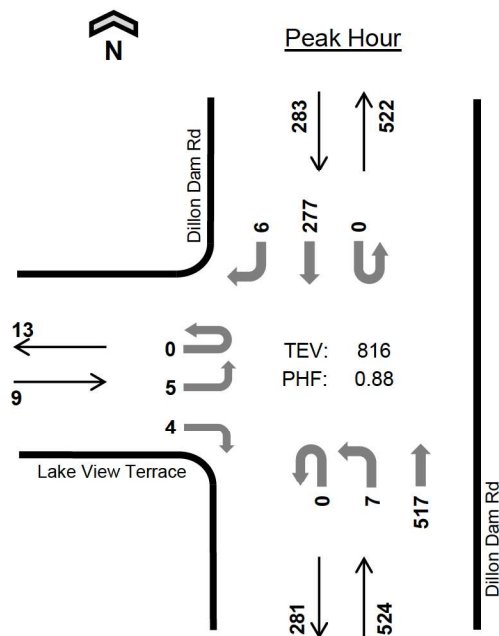
Two-and-a-Half-Hour Count Summaries																			
Interval Start		Lake View Terrace				n/a				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	12:00 PM	0	1	0	1	0	0	0	0	0	0	91	0	0	0	69	2		
	12:15 PM	0	0	0	2	0	0	0	0	0	2	89	0	0	0	86	0		
	12:30 PM	0	2	0	1	0	0	0	0	0	1	86	0	0	0	86	1		
	12:45 PM	0	0	0	0	0	0	0	0	0	1	99	0	0	0	96	1		
	1:00 PM	0	2	0	2	0	0	0	0	0	2	92	0	0	0	66	2		
	1:15 PM	0	0	0	1	0	0	0	0	0	0	94	0	0	0	74	5		
	1:30 PM	0	0	0	0	0	0	0	0	0	1	90	0	0	0	78	2		
	1:45 PM	0	0	0	1	0	0	0	0	0	2	60	0	0	0	54	0		
	2:00 PM	0	0	0	0	0	0	0	0	0	1	81	0	0	0	81	0		
	2:15 PM	0	1	0	3	0	0	0	0	0	1	89	0	0	0	68	2		
Count Total		0	6	0	11	0	0	0	0	0	11	871	0	0	0	758	15		
Peak Hour	All	0	4	0	5	0	0	0	0	0	6	366	0	0	0	334	4		
	HV	0	0	0	1	0	0	0	0	0	1	4	0	0	0	2	0		
	HV%	-	0%	-	20%	-	-	-	-	-	-	17%	1%	-	-	-	1%	0%	
Note: Two-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.																			
Interval Start		Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)							
		EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total			
	12:00 PM	0	0	0	0	0	0	0	12	0	12	1	0	0	0	0	1		
	12:15 PM	0	0	1	0	1	0	0	1	1	2	1	0	0	0	0	1		
	12:30 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	1		
	12:45 PM	0	0	1	1	2	0	0	1	0	1	0	0	0	0	0	0		
	1:00 PM	1	0	3	1	5	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0		
	1:30 PM	0	0	0	1	1	1	0	3	1	5	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0		
	2:00 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0		
	2:15 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0		
Count Total		1	0	5	4	10	1	0	24	3	28	3	0	0	0	0	3		
Peak Hr		1	0	5	2	8	0	0	3	1	4	2	0	0	0	0	2		

Two-and-a-Half-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Lake View Terrace				n/a				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	3
1:00 PM	0	0	0	1	0	0	0	0	0	1	2	0	0	0	1	0	5	8
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	8
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
Count Total	0	0	0	1	0	0	0	0	0	1	4	0	0	0	4	0	10	0
Peak Hour	0	0	0	1	0	0	0	0	0	1	4	0	0	0	2	0	8	0

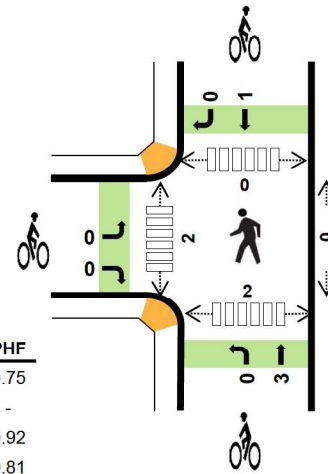
Two-and-a-Half-Hour Count Summaries - Bikes																		
Interval Start	Lake View Terrace				n/a				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT			
12:00 PM	0	0	0		0	0	0		0	12	0		0	0	0		12	0
12:15 PM	0	0	0		0	0	0		0	1	0		0	1	0		2	0
12:30 PM	0	0	0		0	0	0		0	1	0		0	0	0		1	0
12:45 PM	0	0	0		0	0	0		0	1	0		0	0	0		1	16
1:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	4
1:15 PM	0	0	0		0	0	0		0	2	0		0	0	0		2	4
1:30 PM	0	0	1		0	0	0		0	3	0		0	1	0		5	8
1:45 PM	0	0	0		0	0	0		1	1	0		0	0	0		2	9
2:00 PM	0	0	0		0	0	0		0	2	0		0	0	0		2	11
2:15 PM	0	0	0		0	0	0		0	0	0		0	1	0		1	10
Count Total	0	0	1		0	0	0		1	23	0		0	3	0		28	0
Peak Hour	0	0	0		0	0	0		0	3	0		0	1	0		4	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Dillon Dam Rd Lake View Terrace



Date: 07/12/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	0.0%	0.75
WB	-	-
NB	0.4%	0.92
SB	0.7%	0.81
TOTAL	0.5%	0.88

Two-Hour Count Summaries

Interval Start		Lake View Terrace				n/a				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	2	0	0	0	0	0	3	122	0	0	0	74	1	202	0
4:15 PM		0	0	0	3	0	0	0	0	0	0	113	0	0	0	81	0	197	0
4:30 PM		0	1	0	0	0	0	0	0	0	3	132	0	0	0	59	1	196	0
4:45 PM		0	1	0	0	0	0	0	0	0	1	125	0	0	0	64	3	194	789
5:00 PM		0	2	0	1	0	0	0	0	0	1	123	0	0	0	54	1	182	769
5:15 PM		0	1	0	1	0	0	0	0	0	3	140	0	0	0	86	1	232	804
5:30 PM		0	1	0	2	0	0	0	0	0	2	129	0	0	0	73	1	208	816
5:45 PM		0	0	0	3	0	0	0	0	0	3	115	0	0	0	73	0	194	816
Count Total		0	6	0	12	0	0	0	0	0	16	999	0	0	0	564	8	1,605	0
Peak Hour	All	0	5	0	4	0	0	0	0	0	7	517	0	0	0	277	6	816	0
	HV	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	0
	HV%	-	0%	-	0%	-	-	-	-	-	0%	0%	-	-	-	1%	0%	0%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	3	0	3	0	0	1	0	1	0	0	0	0	0
4:45 PM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
5:00 PM	0	0	1	0	1	0	0	0	1	1	0	2	0	2	4
5:15 PM	0	0	0	2	2	0	0	1	0	1	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Count Total	0	0	5	2	7	0	0	5	1	6	0	2	1	2	5
Peak Hr	0	0	2	2	4	0	0	3	1	4	0	2	0	2	4

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Lake View Terrace				n/a				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	7	
Peak Hour	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	

Two-Hour Count Summaries - Bikes																	
Interval Start	Lake View Terrace			n/a			Dillon Dam Rd			Dillon Dam Rd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0			
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	2			
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	3			
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	4			
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	4			
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	4			
Count Total	0	0	0	0	0	0	0	5	0	0	1	0	6	0			
Peak Hour	0	0	0	0	0	0	0	3	0	0	1	0	4	0			

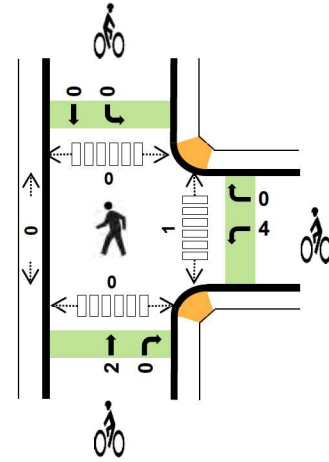
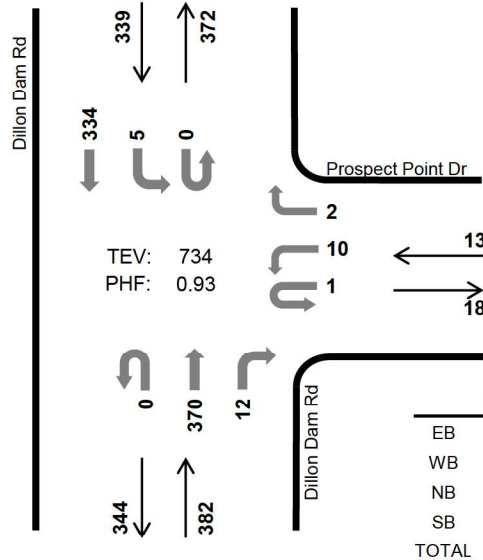
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Dillon Dam Rd Prospect Point Dr



Peak Hour

Date: 07/12/2022
Count Period: 12:00 PM to 2:30 PM
Peak Hour: 12:00 PM to 1:00 PM



Two-and-a-Half-Hour Count Summaries

Interval Start		n/a				Prospect Point Dr				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM		0	0	0	0	0	2	0	1	0	0	88	3	0	1	74	0	169	0
12:15 PM		0	0	0	0	0	4	0	0	0	0	95	4	0	1	86	0	190	0
12:30 PM		0	0	0	0	1	3	0	0	0	0	86	1	0	0	86	0	177	0
12:45 PM		0	0	0	0	0	1	0	1	0	0	101	4	0	3	88	0	198	734
Peak Hour	All	0	0	0	0	1	10	0	2	0	0	370	12	0	5	334	0	734	0
	HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0
	HV%	-	-	-	-	0%	0%	-	0%	-	-	1%	0%	-	0%	0%	-	0%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0
12:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
12:45 PM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1
Peak Hour	0	0	3	0	3	0	4	2	0	6	1	0	0	0	1

Two-and-a-Half-Hour Count Summaries																			
Interval Start		n/a				Prospect Point Dr				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	12:00 PM	0	0	0	0	0	2	0	1	0	0	88	3	0	1	74	0	169	0
	12:15 PM	0	0	0	0	0	4	0	0	0	0	95	4	0	1	86	0	190	0
	12:30 PM	0	0	0	0	1	3	0	0	0	0	86	1	0	0	86	0	177	0
	12:45 PM	0	0	0	0	0	1	0	1	0	0	101	4	0	3	88	0	198	734
	1:00 PM	0	0	0	0	0	1	0	1	0	0	88	2	0	1	69	0	162	727
	1:15 PM	0	0	0	0	0	0	0	2	0	0	94	1	0	1	79	0	177	714
	1:30 PM	0	0	0	0	0	3	0	0	0	0	89	5	0	0	73	0	170	707
	1:45 PM	0	0	0	0	0	0	0	2	0	0	68	1	0	0	57	0	128	637
	2:00 PM	0	0	0	0	0	6	0	0	0	0	84	2	0	0	88	0	180	655
	2:15 PM	0	0	0	0	0	4	0	0	0	0	88	3	0	0	71	0	166	644
Count Total		0	0	0	0	1	24	0	7	0	0	881	26	0	7	771	0	1,717	0
Peak Hour	All	0	0	0	0	1	10	0	2	0	0	370	12	0	5	334	0	734	0
	HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0
	HV%	-	-	-	-	0%	0%	-	0%	-	-	1%	0%	-	0%	0%	-	0%	0
Note: Two-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.																			
Interval Start		Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)							
		EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total			
	12:00 PM	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	0	
	12:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	
	12:45 PM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	0	0	1	
	1:00 PM	0	0	3	1	4	0	0	1	0	1	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	1	1	0	0	7	4	11	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	
	2:15 PM	0	0	1	1	2	0	0	0	1	1	0	0	0	0	0	0	0	
Count Total		0	0	7	3	10	0	4	12	5	21	1	0	0	0	0	0	1	
Peak Hr		0	0	3	0	3	0	4	2	0	6	1	0	0	0	0	0	1	

Two-and-a-Half-Hour Count Summaries - Heavy Vehicles																			
Interval Start	n/a				Prospect Point Dr				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	3
1:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4	7
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	3
Count Total	0	0	0	0	0	0	0	0	0	0	7	0	0	0	3	0	0	10	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0

Two-and-a-Half-Hour Count Summaries - Bikes																			
Interval Start	n/a				Prospect Point Dr				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT				
12:00 PM	0	0	0		4	0	0		0	1	0		0	0	0		5	0	
12:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	
12:30 PM	0	0	0		0	0	0		0	1	0		0	0	0		1	0	
12:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	6	
1:00 PM	0	0	0		0	0	0		0	1	0		0	0	0		1	2	
1:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	2	
1:30 PM	0	0	0		0	0	0		0	7	0		0	4	0		11	12	
1:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	12	
2:00 PM	0	0	0		0	0	0		0	2	0		0	0	0		2	13	
2:15 PM	0	0	0		0	0	0		0	0	0		0	1	0		1	14	
Count Total	0	0	0		4	0	0		0	12	0		0	5	0		21	0	
Peak Hour	0	0	0		4	0	0		0	2	0		0	0	0		6	0	

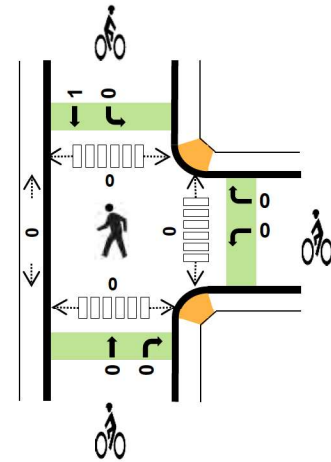
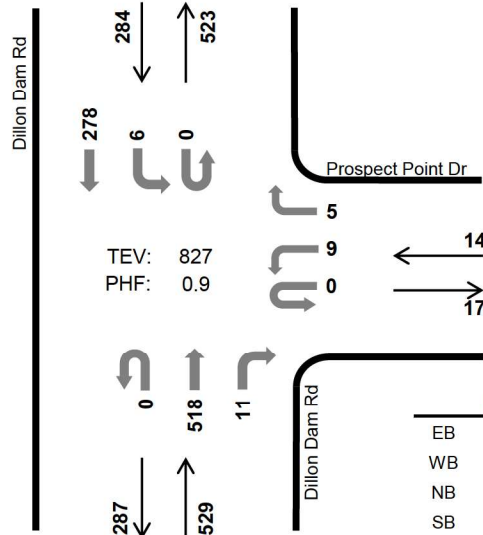
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Dillon Dam Rd Prospect Point Dr



Peak Hour

Date: 07/12/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	-	-
WB	0.0%	0.88
NB	0.6%	0.92
SB	1.1%	0.84
TOTAL	0.7%	0.90

Two-Hour Count Summaries

Interval Start		n/a				Prospect Point Dr				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	1	0	0	1	0	124	2	0	1	75	0	204	0
4:15 PM		0	0	0	0	0	2	0	1	0	0	113	2	0	0	83	0	201	0
4:30 PM		0	0	0	0	0	1	0	0	0	0	138	2	0	1	59	0	201	0
4:45 PM		0	0	0	0	0	2	0	2	0	0	125	5	0	0	62	0	196	802
5:00 PM		0	0	0	0	0	2	0	1	0	0	125	4	0	1	57	0	190	788
5:15 PM		0	0	0	0	0	2	0	1	0	0	142	1	0	3	82	0	231	818
5:30 PM		0	0	0	0	0	3	0	1	0	0	126	1	0	2	77	0	210	827
5:45 PM		0	0	0	0	0	3	0	0	0	0	117	5	0	2	66	0	193	824
Count Total		0	0	0	0	0	16	0	6	1	0	1,010	22	0	10	561	0	1,626	0
Peak Hour	All	0	0	0	0	0	9	0	5	0	0	518	11	0	6	278	0	827	0
	HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	1%	0%	-	0%	1%	-	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
4:30 PM	0	0	3	0	3	0	0	1	0	1	0	0	0	0	0
4:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	1	1	2	0	0	0	1	1	0	0	0	0	0
5:15 PM	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	1	0	0	0	1	1	0	0	0	0	0
Count Total	0	0	7	3	10	0	1	1	2	4	0	0	0	0	0
Peak Hr	0	0	3	3	6	0	0	0	1	1	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	n/a				Prospect Point Dr				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	3	0	10
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6

Two-Hour Count Summaries - Bikes

Interval Start	n/a			Prospect Point Dr			Dillon Dam Rd			Dillon Dam Rd			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	2
Count Total	0	0	0	0	0	1	0	1	0	0	2	0	4	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	1	0	1	0

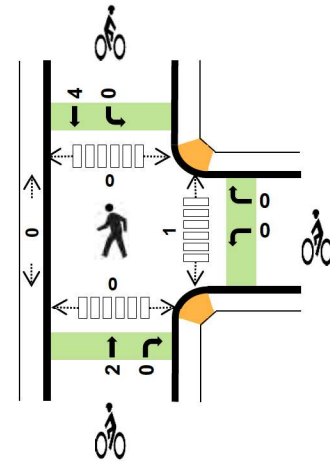
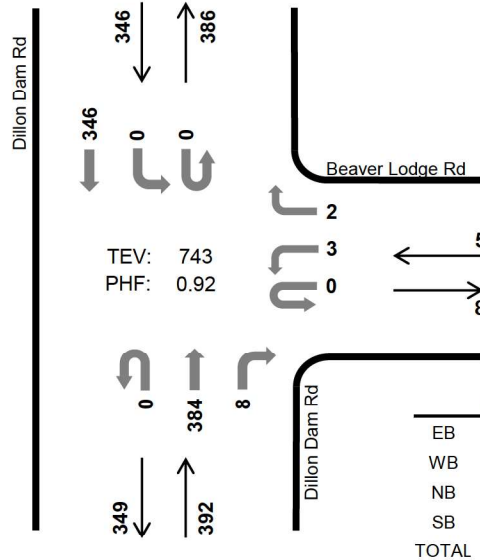
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Dillon Dam Rd Beaver Lodge Rd



Peak Hour

Date: 07/12/2022
Count Period: 12:00 PM to 2:30 PM
Peak Hour: 12:00 PM to 1:00 PM



Two-and-a-Half-Hour Count Summaries

Interval Start		n/a				Beaver Lodge Rd				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM		0	0	0	0	0	1	0	0	0	0	91	2	0	0	78	0	172	0
12:15 PM		0	0	0	0	0	2	0	1	0	0	98	1	0	0	88	0	190	0
12:30 PM		0	0	0	0	0	0	0	1	0	0	86	2	0	0	91	0	180	0
12:45 PM		0	0	0	0	0	0	0	0	0	0	109	3	0	0	89	0	201	743
Peak Hour	All	0	0	0	0	0	3	0	2	0	0	384	8	0	0	346	0	743	0
	HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	1%	0%	-	-	0%	-	0%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	0	0	0	0	0	0	1	4	5	0	0	0	0	0
12:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
12:45 PM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1
Peak Hour	0	0	3	0	3	0	0	2	4	6	1	0	0	0	1

Two-and-a-Half-Hour Count Summaries																			
Interval Start		n/a				Beaver Lodge Rd				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	12:00 PM	0	0	0	0	0	1	0	0	0	0	91	2	0	0	78	0		
	12:15 PM	0	0	0	0	0	2	0	1	0	0	98	1	0	0	88	0		
	12:30 PM	0	0	0	0	0	0	0	1	0	0	86	2	0	0	91	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	109	3	0	0	89	0		
	1:00 PM	0	0	0	0	0	2	0	1	0	0	85	0	0	0	74	0		
	1:15 PM	0	0	0	0	0	2	0	0	0	0	100	3	0	1	77	0		
	1:30 PM	0	0	0	0	0	1	0	2	0	0	89	0	0	0	77	0		
	1:45 PM	0	0	0	0	0	2	0	0	0	0	70	2	0	0	58	0		
	2:00 PM	0	0	0	0	0	1	0	2	0	0	80	1	0	0	92	0		
	2:15 PM	0	0	0	0	0	4	0	1	0	0	90	2	0	1	73	0		
Count Total		0	0	0	0	0	15	0	8	0	0	898	16	0	2	797	0		
Peak Hour	All	0	0	0	0	0	3	0	2	0	0	384	8	0	0	346	0		
	HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0		
	HV%	-	-	-	-	-	0%	-	0%	-	-	1%	0%	-	-	0%	-		
Note: Two-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.																			
Interval Start		Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)							
		EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total			
	12:00 PM	0	0	0	0	0	0	0	1	4	5	0	0	0	0	0	0		
	12:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0		
	12:45 PM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	0	1		
	1:00 PM	0	0	2	1	3	0	0	1	0	1	0	0	0	0	0	0		
	1:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	1	1	2	0	0	7	4	11	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
	2:00 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0		
	2:15 PM	0	1	1	1	3	0	0	0	1	1	0	0	0	0	0	0		
Count Total		0	1	8	3	12	0	0	12	9	21	2	0	0	0	0	2		
Peak Hr		0	0	3	0	3	0	0	2	4	6	1	0	0	0	0	1		

Two-and-a-Half-Hour Count Summaries - Heavy Vehicles																		
Interval Start	n/a				Beaver Lodge Rd				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	3
1:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	6
1:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	6
1:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	8
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
2:15 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	3	5
Count Total	0	0	0	0	0	1	0	0	0	0	8	0	0	0	3	0	12	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0

Two-and-a-Half-Hour Count Summaries - Bikes																		
Interval Start	n/a				Beaver Lodge Rd				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT			
12:00 PM	0	0	0		0	0	0		0	1	0		0	4	0		5	0
12:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
12:30 PM	0	0	0		0	0	0		0	1	0		0	0	0		1	0
12:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	6
1:00 PM	0	0	0		0	0	0		0	1	0		0	0	0		1	2
1:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	2
1:30 PM	0	0	0		0	0	0		0	7	0		0	4	0		11	12
1:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	12
2:00 PM	0	0	0		0	0	0		0	2	0		0	0	0		2	13
2:15 PM	0	0	0		0	0	0		0	0	0		0	1	0		1	14
Count Total	0	0	0		0	0	0		0	12	0		0	9	0		21	0
Peak Hour	0	0	0		0	0	0		0	2	0		0	4	0		6	0

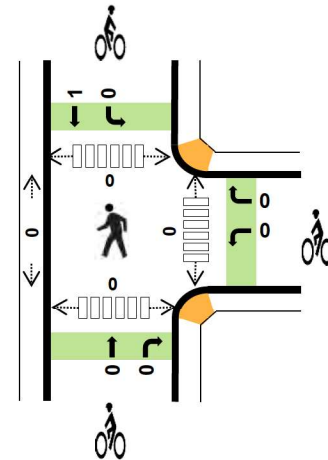
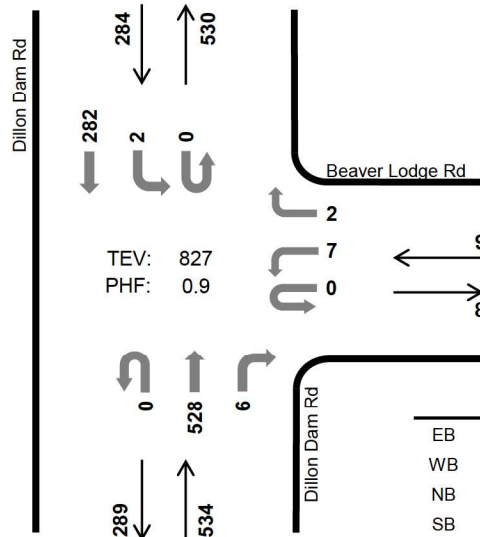
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Dillon Dam Rd Beaver Lodge Rd



Peak Hour

Date: 07/12/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	-	-
WB	0.0%	0.56
NB	0.9%	0.92
SB	1.1%	0.85
TOTAL	1.0%	0.90

Two-Hour Count Summaries

Interval Start		n/a				Beaver Lodge Rd				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	1	0	1	0	0	122	1	0	0	77	0	202	0
4:15 PM		0	0	0	0	0	2	0	0	0	0	117	0	0	1	85	0	205	0
4:30 PM		0	0	0	0	0	0	0	1	0	0	140	4	0	1	57	0	203	0
4:45 PM		0	0	0	0	0	1	0	0	0	0	126	1	0	0	63	0	191	801
5:00 PM		0	0	0	0	0	2	0	0	0	0	131	2	0	1	59	0	195	794
5:15 PM		0	0	0	0	0	1	0	1	0	0	144	1	0	1	83	0	231	820
5:30 PM		0	0	0	0	0	3	0	1	0	0	127	2	0	0	77	0	210	827
5:45 PM		0	0	0	0	0	1	0	0	0	0	120	0	0	0	70	0	191	827
Count Total		0	0	0	0	0	11	0	4	0	0	1,027	11	0	4	571	0	1,628	0
Peak Hour	All	0	0	0	0	0	7	0	2	0	0	528	6	0	2	282	0	827	0
	HV	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	8	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	1%	0%	-	0%	1%	-	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	3	0	3	0	0	1	0	1	0	0	0	0	0
4:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	2	1	3	0	0	0	1	1	0	0	0	0	0
5:15 PM	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	1	0	0	0	1	1	0	0	0	0	0
Count Total	0	0	9	3	12	0	0	1	2	3	0	0	0	0	0
Peak Hr	0	0	5	3	8	0	0	0	1	1	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	n/a				Beaver Lodge Rd				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	7
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	10
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	8
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	8
Count Total	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	3	12	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	8	0

Two-Hour Count Summaries - Bikes

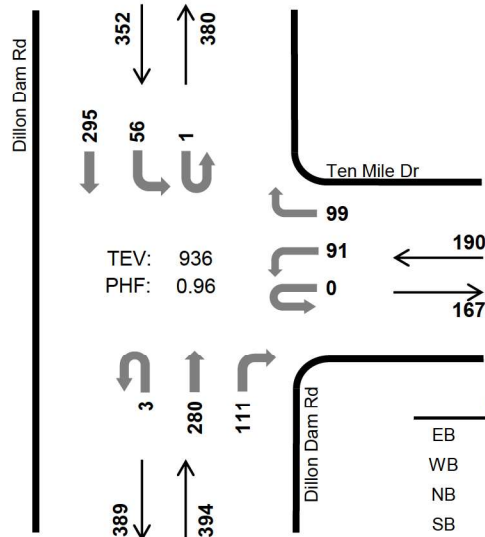
Interval Start	n/a			Beaver Lodge Rd			Dillon Dam Rd			Dillon Dam Rd			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	2
Count Total	0	0	0	0	0	0	0	1	0	0	2	0	3	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	1	0	1	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

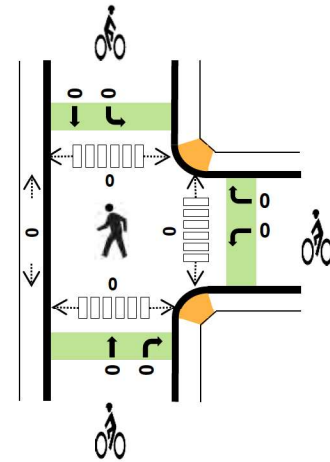
Dillon Dam Rd Ten Mile Dr



Peak Hour



Date: 07/12/2022
Count Period: 12:00 PM to 2:30 PM
Peak Hour: 12:15 PM to 1:15 PM



	HV %:	PHF
EB	-	-
WB	4.2%	0.95
NB	2.3%	0.91
SB	1.1%	0.96
TOTAL	2.2%	0.96

Two-and-a-Half-Hour Count Summaries

Interval Start		n/a				Ten Mile Dr				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:15 PM		0	0	0	0	0	19	0	24	0	0	77	31	1	16	75	0	243	0
12:30 PM		0	0	0	0	0	27	0	23	3	0	62	28	0	12	80	0	235	0
12:45 PM		0	0	0	0	0	17	0	33	0	0	74	25	0	14	68	0	231	0
1:00 PM		0	0	0	0	0	28	0	19	0	0	67	27	0	14	72	0	227	936
Peak Hour	All	0	0	0	0	0	91	0	99	3	0	280	111	1	56	295	0	936	0
	HV	0	0	0	0	0	8	0	0	2	0	4	3	0	1	3	0	21	0
	HV%	-	-	-	-	-	9%	-	0%	67%	-	1%	3%	0%	2%	1%	-	2%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:15 PM	0	3	2	1	6	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	2	3	3	8	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	8	9	4	21	0	0	0	0	0	0	0	0	0	0

Two-and-a-Half-Hour Count Summaries																				
Interval Start		n/a				Ten Mile Dr				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour	
		Eastbound				Westbound				Northbound				Southbound						
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
	12:00 PM	0	0	0	0	0	0	17	0	15	0	0	81	19	0	21	60	0	213	0
	12:15 PM	0	0	0	0	0	0	19	0	24	0	0	77	31	1	16	75	0	243	0
	12:30 PM	0	0	0	0	0	0	27	0	23	3	0	62	28	0	12	80	0	235	0
	12:45 PM	0	0	0	0	0	0	17	0	33	0	0	74	25	0	14	68	0	231	922
	1:00 PM	0	0	0	0	0	0	28	0	19	0	0	67	27	0	14	72	0	227	936
	1:15 PM	0	0	0	0	0	0	18	0	23	0	0	77	19	0	16	62	0	215	908
	1:30 PM	0	0	0	0	0	0	19	0	29	0	0	58	27	0	12	67	0	212	885
	1:45 PM	0	0	0	0	0	0	24	0	20	0	0	52	35	0	8	54	0	193	847
	2:00 PM	0	0	0	0	0	0	11	0	13	0	0	65	9	0	21	70	0	189	809
	2:15 PM	0	0	0	0	0	0	22	0	28	1	0	67	22	0	14	67	0	221	815
Count Total		0	0	0	0	0	0	202	0	227	4	0	680	242	1	148	675	0	2,179	0
Peak Hour	All	0	0	0	0	0	0	91	0	99	3	0	280	111	1	56	295	0	936	0
	HV	0	0	0	0	0	0	8	0	0	2	0	4	3	0	1	3	0	21	0
	HV%	-	-	-	-	-	-	9%	-	0%	67%	-	1%	3%	0%	2%	1%	-	2%	0
Note: Two-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.																				
Interval Start		Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)								
		EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total				
	12:00 PM	0	1	0	1	2	0	1	0	4	5	0	0	0	0	0	0			
	12:15 PM	0	3	2	1	6	0	0	0	0	0	0	0	0	0	0	0			
	12:30 PM	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0			
	12:45 PM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0			
	1:00 PM	0	2	3	3	8	0	0	0	0	0	0	0	0	0	0	0			
	1:15 PM	0	1	1	1	3	0	0	4	0	4	0	0	0	0	0	0			
	1:30 PM	0	0	3	2	5	0	0	1	4	5	0	0	0	0	0	0			
	1:45 PM	0	0	1	0	1	0	0	2	0	2	1	0	0	0	0	1			
	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2:15 PM	0	1	1	2	4	0	0	0	1	1	1	0	0	0	0	1			
Count Total		0	11	15	10	36	0	1	7	9	17	2	0	0	0	0	2			
Peak Hr		0	8	9	4	21	0	0	0	0	0	0	0	0	0	0	0			

Two-and-a-Half-Hour Count Summaries - Heavy Vehicles																			
Interval Start	n/a				Ten Mile Dr				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
12:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2	0
12:15 PM	0	0	0	0	0	3	0	0	0	0	0	1	1	0	0	1	0	6	0
12:30 PM	0	0	0	0	0	1	0	0	0	2	0	0	1	0	0	0	0	4	0
12:45 PM	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	3	15
1:00 PM	0	0	0	0	0	2	0	0	0	0	0	2	1	0	1	2	0	8	21
1:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	3	18
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2	0	5	19
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	17
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
2:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	1	0	4	10
Count Total	0	0	0	0	0	11	0	0	2	0	4	9	0	0	3	7	0	36	0
Peak Hour	0	0	0	0	0	8	0	0	2	0	4	3	0	0	1	3	0	21	0

Two-and-a-Half-Hour Count Summaries - Bikes																		
Interval Start	n/a				Ten Mile Dr				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT			
12:00 PM	0	0	0		0	0	1		0	0	0		0	4	0		5	0
12:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
12:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
12:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	5
1:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
1:15 PM	0	0	0		0	0	0		0	4	0		0	0	0		4	4
1:30 PM	0	0	0		0	0	0		0	1	0		1	3	0		5	9
1:45 PM	0	0	0		0	0	0		0	2	0		0	0	0		2	11
2:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	11
2:15 PM	0	0	0		0	0	0		0	0	0		0	1	0		1	8
Count Total	0	0	0		0	0	1		0	7	0		1	8	0		17	0
Peak Hour	0	0	0		0	0	0		0	0	0		0	0	0		0	0

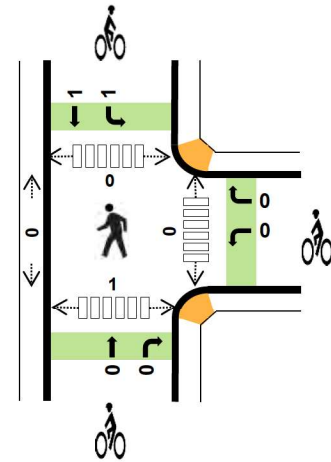
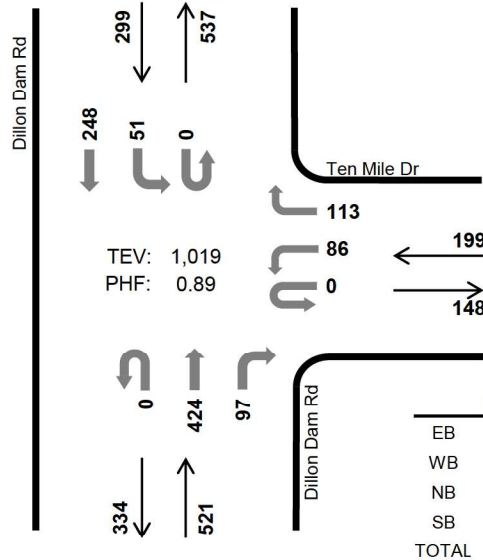
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Dillon Dam Rd Ten Mile Dr



Peak Hour

Date: 07/12/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	-	-
WB	1.0%	0.87
NB	0.8%	0.89
SB	1.0%	0.88
TOTAL	0.9%	0.89

Two-Hour Count Summaries

Interval Start		n/a				Ten Mile Dr				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	19	0	21	0	0	100	29	0	12	63	0	244	0
4:15 PM		0	0	0	0	0	16	0	27	0	0	94	19	0	15	72	0	243	0
4:30 PM		0	0	0	0	0	15	0	24	0	0	118	28	0	10	48	0	243	0
4:45 PM		0	0	0	0	0	14	0	17	0	0	108	20	0	5	59	0	223	953
5:00 PM		0	0	0	0	0	30	0	27	0	0	110	21	0	12	53	0	253	962
5:15 PM		0	0	0	0	0	21	0	33	0	0	119	28	0	11	74	0	286	1,005
5:30 PM		0	0	0	0	0	18	0	38	0	0	86	27	0	15	66	0	250	1,012
5:45 PM		0	0	0	0	0	17	0	15	0	0	109	21	0	13	55	0	230	1,019
Count Total		0	0	0	0	0	150	0	202	0	0	844	193	0	93	490	0	1,972	0
Peak Hour	All	0	0	0	0	0	86	0	113	0	0	424	97	0	51	248	0	1,019	0
	HV	0	0	0	0	0	2	0	0	0	0	2	2	0	0	3	0	9	0
	HV%	-	-	-	-	-	2%	-	0%	-	-	0%	2%	-	0%	1%	-	1%	0

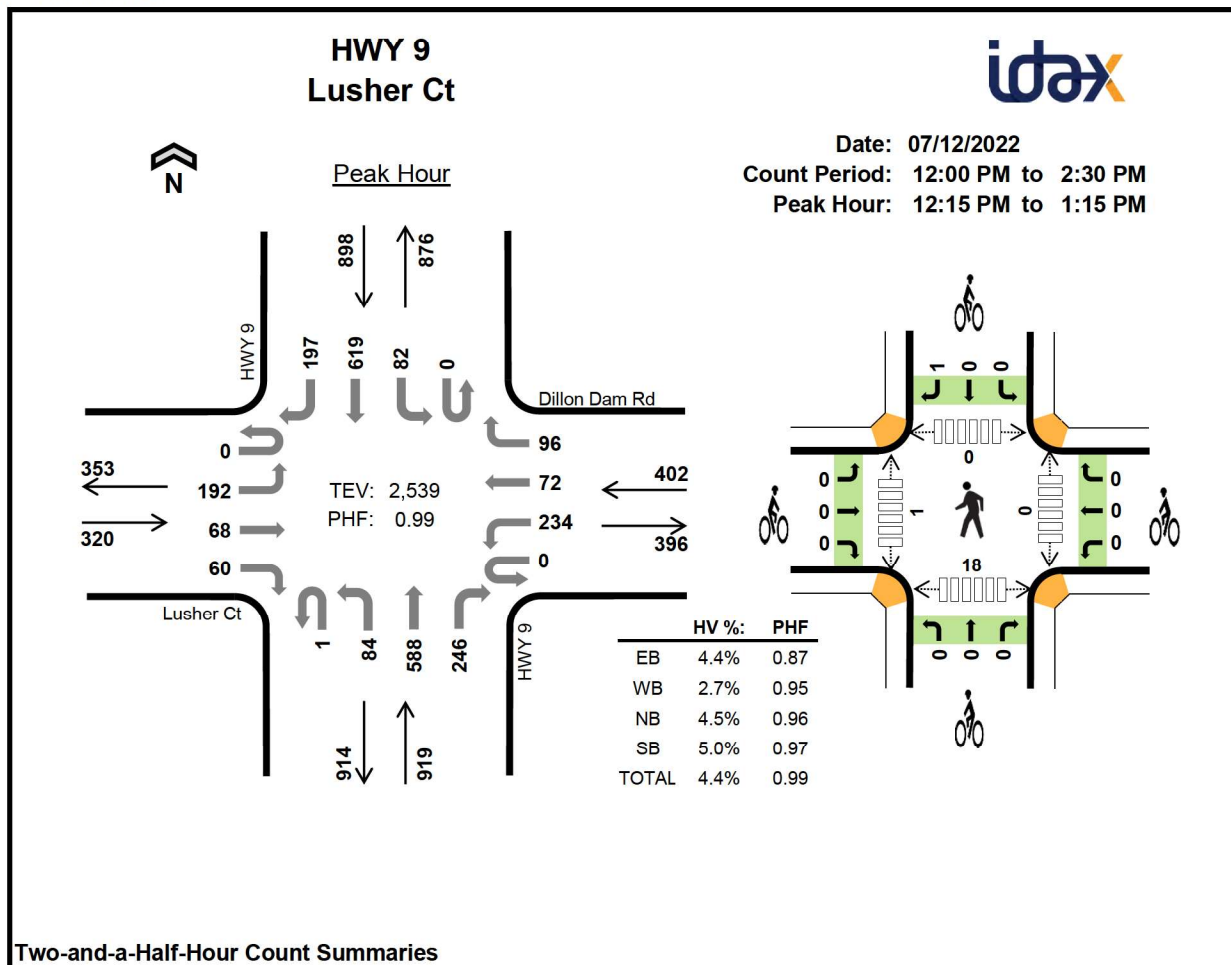
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	3	2	0	5	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	5	1	6	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	1	1	3	0	0	0	1	1	0	0	0	0	0
5:15 PM	0	1	1	2	4	0	0	0	0	0	0	0	0	1	1
5:30 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
Count Total	0	7	14	4	25	0	0	0	2	2	0	0	0	1	1
Peak Hr	0	2	4	3	9	0	0	0	2	2	0	0	0	1	1

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	n/a				Ten Mile Dr				Dillon Dam Rd				Dillon Dam Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	2	0	0	0	0	0	1	1	0	0	0	0	4	0
4:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	2	0	0	0	0	5	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	1	0	6	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	16
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	3	15
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2	0	4	14
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	10
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Count Total	0	0	0	0	0	7	0	0	0	0	0	7	7	0	0	4	0	25	0
Peak Hour	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	3	0	9	0

Two-Hour Count Summaries - Bikes																		
Interval Start	n/a			Ten Mile Dr			Dillon Dam Rd			Dillon Dam Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0			
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0			

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-and-a-Half-Hour Count Summaries

Interval Start		Lusher Ct				Dillon Dam Rd				HWY 9				HWY 9				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:15 PM		0	41	20	10	0	60	15	27	0	27	141	71	0	21	147	49	629	0
12:30 PM		0	47	13	17	0	60	19	27	0	17	151	65	0	13	163	43	635	0
12:45 PM		0	46	18	16	0	51	24	15	1	14	162	57	0	23	157	52	636	0
1:00 PM		0	58	17	17	0	63	14	27	0	26	134	53	0	25	152	53	639	2,539
Peak Hour	All	0	192	68	60	0	234	72	96	1	84	588	246	0	82	619	197	2,539	0
	HV	0	11	2	1	0	0	1	10	0	1	36	4	0	3	33	9	111	0
	HV%	-	6%	3%	2%	-	0%	1%	10%	0%	1%	6%	2%	-	4%	5%	5%	4%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:15 PM	2	4	10	9	25	0	0	0	0	0	0	0	0	5	5
12:30 PM	4	2	16	11	33	0	0	0	0	0	0	0	0	1	1
12:45 PM	2	2	6	13	23	0	0	0	1	1	0	1	0	9	10
1:00 PM	6	3	9	12	30	0	0	0	0	0	0	0	0	3	3
Peak Hour	14	11	41	45	111	0	0	0	1	1	0	1	0	18	19

Two-and-a-Half-Hour Count Summaries																			
Interval Start		Lusher Ct				Dillon Dam Rd				HWY 9				HWY 9				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM		0	53	19	21	0	39	9	17	0	9	163	61	0	19	159	55	624	0
12:15 PM		0	41	20	10	0	60	15	27	0	27	141	71	0	21	147	49	629	0
12:30 PM		0	47	13	17	0	60	19	27	0	17	151	65	0	13	163	43	635	0
12:45 PM		0	46	18	16	0	51	24	15	1	14	162	57	0	23	157	52	636	2,524
1:00 PM		0	58	17	17	0	63	14	27	0	26	134	53	0	25	152	53	639	2,539
1:15 PM		0	65	27	19	0	53	10	18	0	19	163	54	0	14	131	44	617	2,527
1:30 PM		0	50	16	19	0	49	13	21	0	15	169	46	0	20	167	48	633	2,525
1:45 PM		0	39	21	13	0	46	14	12	0	19	151	42	0	27	150	57	591	2,480
2:00 PM		0	57	18	20	0	60	11	12	0	14	155	46	0	9	152	40	594	2,435
2:15 PM		0	58	21	18	0	57	16	20	0	11	161	50	0	20	143	54	629	2,447
Count Total		0	514	190	170	0	538	145	196	1	171	1,550	545	0	191	1,521	495	6,227	0
Peak Hour	All	0	192	68	60	0	234	72	96	1	84	588	246	0	82	619	197	2,539	0
	HV	0	11	2	1	0	0	1	10	0	1	36	4	0	3	33	9	111	0
	HV%	-	6%	3%	2%	-	0%	1%	10%	0%	1%	6%	2%	-	4%	5%	5%	4%	0
Note: Two-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.																			
Interval Start		Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)							
		EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total			
12:00 PM		4	1	7	12	24	0	4	0	0	4	0	0	0	2	2			
12:15 PM		2	4	10	9	25	0	0	0	0	0	0	0	0	5	5			
12:30 PM		4	2	16	11	33	0	0	0	0	0	0	0	1	1				
12:45 PM		2	2	6	13	23	0	0	0	1	1	0	1	0	9	10			
1:00 PM		6	3	9	12	30	0	0	0	0	0	0	0	3	3				
1:15 PM		4	3	14	13	34	4	0	0	0	4	0	0	0	2	2			
1:30 PM		3	3	12	11	29	1	3	0	0	4	0	0	0	1	1			
1:45 PM		1	0	9	11	21	2	0	0	0	2	0	0	0	7	7			
2:00 PM		6	0	8	11	25	0	0	0	0	0	0	0	5	5				
2:15 PM		3	3	12	10	28	0	1	0	0	1	0	0	0	10	10			
Count Total		35	21	103	113	272	7	8	0	1	16	0	1	0	45	46			
Peak Hour		14	11	41	45	111	0	0	0	1	1	0	1	0	18	19			

Two-and-a-Half-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Lusher Ct				Dillon Dam Rd				HWY 9				HWY 9				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	3	1	0	0	0	0	1	0	0	7	0	0	0	11	1	24	0
12:15 PM	0	1	1	0	0	0	1	3	0	0	7	3	0	0	8	1	25	0
12:30 PM	0	2	1	1	0	0	0	2	0	0	16	0	0	0	7	4	33	0
12:45 PM	0	2	0	0	0	0	0	2	0	0	5	1	0	0	10	3	23	105
1:00 PM	0	6	0	0	0	0	0	3	0	1	8	0	0	3	8	1	30	111
1:15 PM	0	2	0	2	0	0	1	2	0	0	14	0	0	0	12	1	34	120
1:30 PM	0	2	1	0	0	1	0	2	0	0	11	1	0	2	9	0	29	116
1:45 PM	0	1	0	0	0	0	0	0	0	0	9	0	0	1	5	5	21	114
2:00 PM	0	5	0	1	0	0	0	0	0	0	8	0	0	0	9	2	25	109
2:15 PM	0	2	0	1	0	0	1	2	0	0	11	1	0	1	7	2	28	103
Count Total	0	26	4	5	0	1	3	17	0	1	96	6	0	7	86	20	272	0
Peak Hour	0	11	2	1	0	0	1	10	0	1	36	4	0	3	33	9	111	0

Two-and-a-Half-Hour Count Summaries - Bikes																	
Interval Start	Lusher Ct			Dillon Dam Rd			HWY 9			HWY 9			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
12:00 PM	0	0	0	0	4	0	0	0	0	0	0	0	4	0			
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	5			
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
1:15 PM	0	4	0	0	0	0	0	0	0	0	0	0	4	5			
1:30 PM	0	1	0	0	3	0	0	0	0	0	0	0	4	9			
1:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	10			
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	10			
2:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	7			
Count Total	0	7	0	0	8	0	0	0	0	0	0	1	16	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	1	1	0			

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

HWY 9 Lusher Ct

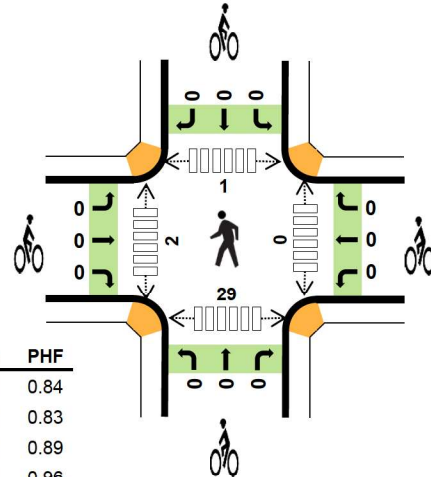
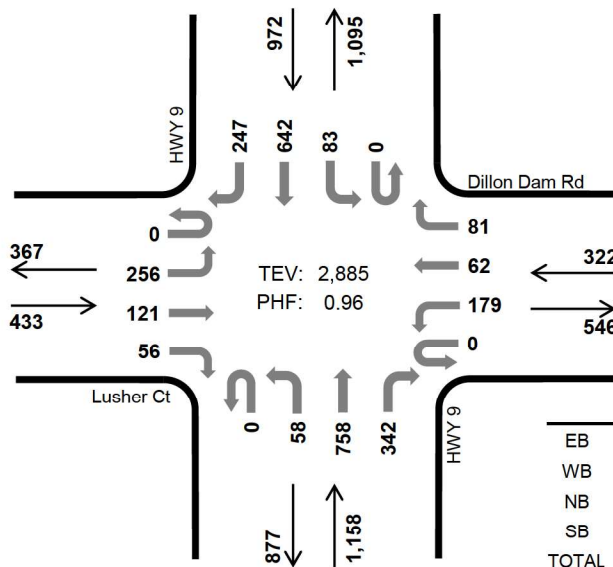


Peak Hour

Date: 07/12/2022

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	3.5%	0.84
WB	2.2%	0.83
NB	3.1%	0.89
SB	3.7%	0.96
TOTAL	3.3%	0.96

Two-Hour Count Summaries

Interval Start		Lusher Ct				Dillon Dam Rd				HWY 9				HWY 9				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	70	23	15	0	48	14	19	0	21	167	76	0	30	138	58	679	0
4:15 PM		0	45	18	19	0	53	16	18	1	20	176	83	0	18	134	61	662	0
4:30 PM		0	76	38	15	0	33	17	17	0	14	169	83	0	19	150	77	708	0
4:45 PM		0	56	22	17	0	43	15	14	0	14	187	88	0	18	153	66	693	2,742
5:00 PM		0	73	31	16	0	42	16	28	0	16	181	80	0	22	180	51	736	2,799
5:15 PM		0	51	30	8	0	61	14	22	0	14	221	91	0	24	159	53	748	2,885
5:30 PM		0	72	23	13	0	50	17	14	0	17	187	76	0	16	127	44	656	2,833
5:45 PM		0	76	23	10	0	46	15	10	1	14	159	82	0	24	131	40	631	2,771
Count Total		0	519	208	113	0	376	124	142	2	130	1,447	659	0	171	1,172	450	5,513	0
Peak Hour	All	0	256	121	56	0	179	62	81	0	58	758	342	0	83	642	247	2,885	0
	HV	0	12	2	1	0	0	1	6	0	0	31	5	0	2	26	8	94	0
	HV%	-	5%	2%	2%	-	0%	2%	7%	-	0%	4%	1%	-	2%	4%	3%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	8	1	11	6	26	0	0	0	0	0	0	0	0	4	4
4:15 PM	3	2	9	10	24	0	0	0	0	0	0	0	0	7	7
4:30 PM	8	2	14	13	37	0	0	0	0	0	0	0	0	8	8
4:45 PM	1	0	5	9	15	0	0	0	0	0	0	0	0	8	8
5:00 PM	4	2	8	7	21	0	0	0	0	0	0	2	0	3	5
5:15 PM	2	3	9	7	21	0	0	0	0	0	0	0	1	10	11
5:30 PM	3	0	10	3	16	0	0	0	0	0	0	0	0	7	7
5:45 PM	3	0	8	4	15	0	1	0	0	1	0	0	0	1	1
Count Total	32	10	74	59	175	0	1	0	0	1	0	2	1	48	51
Peak Hour	15	7	36	36	94	0	0	0	0	0	0	2	1	29	32

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Lusher Ct				Dillon Dam Rd				HWY 9				HWY 9				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	5	0	3	0	0	0	1	0	1	10	0	0	2	3	1	26	0
4:15 PM	0	2	0	1	0	0	1	1	0	1	8	0	0	2	6	2	24	0
4:30 PM	0	6	2	0	0	0	0	2	0	0	11	3	0	0	10	3	37	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	4	1	0	0	8	1	15	102
5:00 PM	0	4	0	0	0	0	0	2	0	0	7	1	0	0	4	3	21	97
5:15 PM	0	1	0	1	0	0	1	2	0	0	9	0	0	2	4	1	21	94
5:30 PM	0	1	2	0	0	0	0	0	0	1	9	0	0	0	2	1	16	73
5:45 PM	0	3	0	0	0	0	0	0	0	1	7	0	0	0	4	0	15	73
Count Total	0	23	4	5	0	0	2	8	0	4	65	5	0	6	41	12	175	0
Peak Hour	0	12	2	1	0	0	1	6	0	0	31	5	0	2	26	8	94	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Lusher Ct			Dillon Dam Rd			HWY 9			HWY 9			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	1				
Count Total	0	0	0	0	1	0	0	0	0	0	0	0	1	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Vehicle Classification Report Summary

Location: DILLON DAM RD MIDWAY S/O SOUTH SECURITY GATE
Count Direction: Northbound / Southbound
Date Range: 7/12/2022 to 7/12/2022
Site Code: 01

		FHWA Vehicle Classification												Total	
		1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total															
Northbound		38	3,524	769	0	145	1	0	2	0	0	0	0	0	4,479
Percent		0.8%	78.7%	17.2%	0.0%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound		46	2,715	902	0	445	2	0	1	0	0	0	0	0	4,111
Percent		1.1%	66.0%	21.9%	0.0%	10.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total		84	6,239	1,671	0	590	3	0	3	0	0	0	0	0	8,590
Percent		1.0%	72.6%	19.5%	0.0%	6.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Vehicle Speed Report Summary

Location: DILLON DAM RD MIDWAY S/O SOUTH SECURITY GATE
Count Direction: Northbound / Southbound
Date Range: 7/12/2022 to 7/12/2022
Site Code: 01

		Speed Range (mph)																Total	
		0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
		Study Total																	
Northbound		1	0	0	2	74	692	2,170	1,351	175	10	0	3	0	0	0	1	0	4,479
Percent		0.0%	0.0%	0.0%	0.0%	1.7%	15.4%	48.4%	30.2%	3.9%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound		0	2	7	10	28	162	981	1,761	975	165	16	2	0	0	2	0	0	4,111
Percent		0.0%	0.0%	0.2%	0.2%	0.7%	3.9%	23.9%	42.8%	23.7%	4.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total		1	2	7	12	102	854	3,151	3,112	1,150	175	16	5	0	0	2	1	0	8,590
Percent		0.0%	0.0%	0.1%	0.1%	1.2%	9.9%	36.7%	36.2%	13.4%	2.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Northbound			Northbound		
50th Percentile (Median)	38.5	mph	Mean (Average) Speed	38.5	mph
85th Percentile	42.3	mph	10 mph Pace	33.6 - 43.6	mph
95th Percentile	44.7	mph	Percent in Pace	82.4	%
Southbound			Southbound		
50th Percentile (Median)	42.5	mph	Mean (Average) Speed	42.4	mph
85th Percentile	47.0	mph	10 mph Pace	37.0 - 47.0	mph
95th Percentile	49.8	mph	Percent in Pace	74.1	%

Location: DILLON DAM RD MIDWAY S/O SOUTH SECURITY GATE
 Date Range: 7/12/2022 - 7/18/2022
 Site Code: 01

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	7/12/2022			7/13/2022			7/14/2022			7/15/2022			7/16/2022			7/17/2022			7/18/2022			7/12/2022		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	6	3	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	3	9
1:00 AM	5	5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	10
2:00 AM	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3
3:00 AM	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
4:00 AM	4	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	8
5:00 AM	12	32	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	32	44
6:00 AM	43	70	113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	70	113
7:00 AM	98	177	275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	177	275
8:00 AM	186	250	436	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	186	250	436
9:00 AM	215	260	475	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	215	260	475
10:00 AM	265	263	528	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	263	528
11:00 AM	277	299	576	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	277	299	576
12:00 PM	375	332	707	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	375	332	707
1:00 PM	325	298	623	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	325	298	623
2:00 PM	308	291	599	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	308	291	599
3:00 PM	391	315	706	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	391	315	706
4:00 PM	497	280	777	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	497	280	777
5:00 PM	511	288	799	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	511	288	799
6:00 PM	366	221	587	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	366	221	587
7:00 PM	227	189	416	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	227	189	416
8:00 PM	157	168	325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	157	168	325
9:00 PM	113	121	234	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	113	121	234
10:00 PM	62	209	271	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	209	271
11:00 PM	35	33	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	33	68
Total	4,479	4,111	8,590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,479	4,111	8,590
Percent	52%	48%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52%	48%	

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary

Location: DILLON DAM RD N/O TEN MILE DR
Count Direction: Northbound / Southbound
Date Range: 7/12/2022 to 7/12/2022
Site Code: 02

		FHWA Vehicle Classification													Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
		Study Total													
Northbound		39	3,605	886	1	213	2	0	1	1	0	0	0	0	4,748
Percent		0.8%	75.9%	18.7%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound		55	2,834	968	2	526	73	0	3	1	2	0	0	0	4,464
Percent		1.2%	63.5%	21.7%	0.0%	11.8%	1.6%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total		94	6,439	1,854	3	739	75	0	4	2	2	0	0	0	9,212
Percent		1.0%	69.9%	20.1%	0.0%	8.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Vehicle Speed Report Summary

Location: DILLON DAM RD N/O TEN MILE DR
Count Direction: Northbound / Southbound
Date Range: 7/12/2022 to 7/12/2022
Site Code: 02

	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
Study Total																		
Northbound	2	4	48	582	1,890	1,863	330	21	4	3	1	0	0	0	0	0	0	4,748
Percent	0.0%	0.1%	1.0%	12.3%	39.8%	39.2%	7.0%	0.4%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	0	7	35	122	894	2,039	1,164	187	16	0	0	0	0	0	0	0	0	4,464
Percent	0.0%	0.2%	0.8%	2.7%	20.0%	45.7%	26.1%	4.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	2	11	83	704	2,784	3,902	1,494	208	20	3	1	0	0	0	0	0	0	9,212
Percent	0.0%	0.1%	0.9%	7.6%	30.2%	42.4%	16.2%	2.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Northbound			Northbound		
50th Percentile (Median)	29.8	mph	Mean (Average) Speed	29.6	mph
85th Percentile	33.6	mph	10 mph Pace	25.1 - 35.1	mph
95th Percentile	35.9	mph	Percent in Pace	79.0	%
Southbound			Southbound		
50th Percentile (Median)	32.9	mph	Mean (Average) Speed	32.8	mph
85th Percentile	37.2	mph	10 mph Pace	27.8 - 37.8	mph
95th Percentile	39.7	mph	Percent in Pace	77.5	%

Location: DILLON DAM RD N/O TEN MILE DR
 Date Range: 7/12/2022 - 7/18/2022
 Site Code: 02

Time	7/12/2022 - 7/18/2022																					Mid-Week Average		
	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday					
	7/12/2022			7/13/2022			7/14/2022			7/15/2022			7/16/2022			7/17/2022			7/18/2022					
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total			
12:00 AM	5	5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	10
1:00 AM	5	5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	10
2:00 AM	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3
3:00 AM	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
4:00 AM	4	6	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	6	10
5:00 AM	15	35	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	35	50
6:00 AM	45	87	132	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45	87	132
7:00 AM	101	199	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	101	199	300
8:00 AM	204	278	482	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	204	278	482
9:00 AM	238	292	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	238	292	530
10:00 AM	266	318	584	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	266	318	584
11:00 AM	328	318	646	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	328	318	646
12:00 PM	388	361	749	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	388	361	749
1:00 PM	351	303	654	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	351	303	654
2:00 PM	349	315	664	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	349	315	664
3:00 PM	421	330	751	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	421	330	751
4:00 PM	501	289	790	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	501	289	790
5:00 PM	530	306	836	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	530	306	836
6:00 PM	371	267	638	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	371	267	638
7:00 PM	245	209	454	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	245	209	454
8:00 PM	153	167	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	153	167	320
9:00 PM	138	139	277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	138	139	277
10:00 PM	55	199	254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	199	254
11:00 PM	34	33	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	33	67
Total	4,748	4,464	9,212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,748	4,464	9,212
Percent	52%	48%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52%	48%	

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary

Location: DILLON DAM RD S/O TEN MILE RD
Count Direction: Northbound / Southbound
Date Range: 7/12/2022 to 7/12/2022
Site Code: 03

		FHWA Vehicle Classification													Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total															
Northbound		23	1,973	2,121	3	835	7	0	2	0	0	0	0	0	4,964
Percent		0.5%	39.7%	42.7%	0.1%	16.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound		68	3,463	953	3	338	32	0	3	5	2	0	0	0	4,867
Percent		1.4%	71.2%	19.6%	0.1%	6.9%	0.7%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	100%
Total		91	5,436	3,074	6	1,173	39	0	5	5	2	0	0	0	9,831
Percent		0.9%	55.3%	31.3%	0.1%	11.9%	0.4%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Vehicle Speed Report Summary

Location: DILLON DAM RD S/O TEN MILE RD
Count Direction: Northbound / Southbound
Date Range: 7/12/2022 to 7/12/2022
Site Code: 03

		Speed Range (mph)																Total	
		0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
		Study Total																	
Northbound		9	153	859	905	1,728	1,184	112	9	5	0	0	0	0	0	0	0	0	4,964
Percent		0.2%	3.1%	17.3%	18.2%	34.8%	23.9%	2.3%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound		17	202	977	1,855	1,652	160	3	1	0	0	0	0	0	0	0	0	0	4,867
Percent		0.3%	4.2%	20.1%	38.1%	33.9%	3.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total		26	355	1,836	2,760	3,380	1,344	115	10	5	0	0	0	0	0	0	0	0	9,831
Percent		0.3%	3.6%	18.7%	28.1%	34.4%	13.7%	1.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary		Total Study Speed Statistics	
Northbound		Northbound	
50th Percentile (Median)	27.1 mph	Mean (Average) Speed	25.9 mph
85th Percentile	31.5 mph	10 mph Pace	23.5 - 33.5 mph
95th Percentile	33.9 mph	Percent in Pace	60.5 %
Southbound		Southbound	
50th Percentile (Median)	23.7 mph	Mean (Average) Speed	23.1 mph
85th Percentile	27.4 mph	10 mph Pace	18.7 - 28.7 mph
95th Percentile	29.3 mph	Percent in Pace	74.9 %

Location: DILLON DAM RD S/O TEN MILE RD
 Date Range: 7/12/2022 - 7/18/2022
 Site Code: 03

Time	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	7/12/2022			7/13/2022			7/14/2022			7/15/2022			7/16/2022			7/17/2022			7/18/2022					
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total			
12:00 AM	5	5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	10
1:00 AM	7	5	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	5	12
2:00 AM	2	3	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	5
3:00 AM	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
4:00 AM	6	14	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	14	20
5:00 AM	20	45	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	45	65
6:00 AM	79	109	188	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	109	188
7:00 AM	130	233	363	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	130	233	363
8:00 AM	251	278	529	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	251	278	529
9:00 AM	246	293	539	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	246	293	539
10:00 AM	285	343	628	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	285	343	628
11:00 AM	339	352	691	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	339	352	691
12:00 PM	396	375	771	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	396	375	771
1:00 PM	361	360	721	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	361	360	721
2:00 PM	328	348	676	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	328	348	676
3:00 PM	424	375	799	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	424	375	799
4:00 PM	504	318	822	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	504	318	822
5:00 PM	506	336	842	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	506	336	842
6:00 PM	387	299	686	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	387	299	686
7:00 PM	271	233	504	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	271	233	504
8:00 PM	179	195	374	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	179	195	374
9:00 PM	138	129	267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	138	129	267
10:00 PM	63	191	254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	191	254
11:00 PM	37	27	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	27	64
Total	4,964	4,867	9,831	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,964	4,867	9,831
Percent	50%	50%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50%	50%	

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary

Location: TEN MILE RD E-O DILLON DAM RD

Count Direction: Eastbound / Westbound

Date Range: 7/14/2022 to 7/14/2022

Site Code: 04

		FHWA Vehicle Classification													Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total															
Eastbound	9	1,138	359	1	242	7	0	0	2	0	0	0	0	0	1,758
Percent	0.5%	64.7%	20.4%	0.1%	13.8%	0.4%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Westbound	10	1,171	386	1	256	11	0	0	0	0	0	0	0	0	1,835
Percent	0.5%	63.8%	21.0%	0.1%	14.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	19	2,309	745	2	498	18	0	0	2	0	0	0	0	0	3,593
Percent	0.5%	64.3%	20.7%	0.1%	13.9%	0.5%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Vehicle Speed Report Summary

Location: TEN MILE RD E-O DILLON DAM RD
 Count Direction: Eastbound / Westbound
 Date Range: 7/14/2022 to 7/14/2022
 Site Code: 04

	Speed Range (mph)																Total	
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	39	557	873	270	19	0	0	0	0	0	0	0	0	0	0	0	0	1,758
Percent	2.2%	31.7%	49.7%	15.4%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Westbound	63	461	987	315	9	0	0	0	0	0	0	0	0	0	0	0	0	1,835
Percent	3.4%	25.1%	53.8%	17.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	102	1,018	1,860	585	28	0	0	0	0	0	0	0	0	0	0	0	0	3,593
Percent	2.8%	28.3%	51.8%	16.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary		Total Study Speed Statistics	
Eastbound		Eastbound	
50th Percentile (Median)	16.7 mph	Mean (Average) Speed	16.6 mph
85th Percentile	20.2 mph	10 mph Pace	11.4 - 21.4 mph
95th Percentile	22.6 mph	Percent in Pace	85.6 %
Westbound		Westbound	
50th Percentile (Median)	17.1 mph	Mean (Average) Speed	16.8 mph
85th Percentile	20.2 mph	10 mph Pace	11.5 - 21.5 mph
95th Percentile	21.9 mph	Percent in Pace	85.7 %

Location: TEN MILE RD E-O DILLON DAM RD
 Date Range: 7/14/2022 - 7/20/2022
 Site Code: 04

Time	Thursday		Friday		Saturday		Sunday		Monday		Tuesday		Wednesday		Mid-Week Average	
	7/14/2022		7/15/2022		7/16/2022		7/17/2022		7/18/2022		7/19/2022		7/20/2022			
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	Total
12:00 AM	7	4	11	-	-	-	-	-	-	-	-	-	-	-	7	4
1:00 AM	2	2	4	-	-	-	-	-	-	-	-	-	-	-	2	2
2:00 AM	1	1	2	-	-	-	-	-	-	-	-	-	-	-	1	1
3:00 AM	2	1	3	-	-	-	-	-	-	-	-	-	-	-	2	1
4:00 AM	1	8	9	-	-	-	-	-	-	-	-	-	-	-	1	8
5:00 AM	12	16	28	-	-	-	-	-	-	-	-	-	-	-	12	16
6:00 AM	51	56	107	-	-	-	-	-	-	-	-	-	-	-	51	56
7:00 AM	95	78	173	-	-	-	-	-	-	-	-	-	-	-	95	78
8:00 AM	106	89	195	-	-	-	-	-	-	-	-	-	-	-	106	89
9:00 AM	95	100	195	-	-	-	-	-	-	-	-	-	-	-	95	100
10:00 AM	121	129	250	-	-	-	-	-	-	-	-	-	-	-	121	129
11:00 AM	110	159	269	-	-	-	-	-	-	-	-	-	-	-	110	159
12:00 PM	132	148	280	-	-	-	-	-	-	-	-	-	-	-	132	148
1:00 PM	142	144	286	-	-	-	-	-	-	-	-	-	-	-	142	144
2:00 PM	137	162	299	-	-	-	-	-	-	-	-	-	-	-	137	162
3:00 PM	121	141	262	-	-	-	-	-	-	-	-	-	-	-	121	141
4:00 PM	146	138	284	-	-	-	-	-	-	-	-	-	-	-	146	138
5:00 PM	148	173	321	-	-	-	-	-	-	-	-	-	-	-	148	173
6:00 PM	101	89	190	-	-	-	-	-	-	-	-	-	-	-	101	89
7:00 PM	82	83	165	-	-	-	-	-	-	-	-	-	-	-	82	83
8:00 PM	57	46	103	-	-	-	-	-	-	-	-	-	-	-	57	46
9:00 PM	59	40	99	-	-	-	-	-	-	-	-	-	-	-	59	40
10:00 PM	17	21	38	-	-	-	-	-	-	-	-	-	-	-	17	21
11:00 PM	13	7	20	-	-	-	-	-	-	-	-	-	-	-	13	7
Total	1,758	1,835	3,593	-	-	-	-	-	-	-	-	-	-	-	1,758	1,835
Percent	49%	51%	-	-	-	-	-	-	-	-	-	-	-	-	49%	51%

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary

Location: DILLON DAM RD S/O NORTH SECURITY GATE
Count Direction: Northbound / Southbound
Date Range: 7/12/2022 to 7/12/2022
Site Code: 05

		FHWA Vehicle Classification													Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total															
Northbound		37	3,158	882	0	435	2	0	0	0	0	0	0	0	4,514
Percent		0.8%	70.0%	19.5%	0.0%	9.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound		32	3,095	827	0	211	0	0	0	0	0	0	0	0	4,165
Percent		0.8%	74.3%	19.9%	0.0%	5.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total		69	6,253	1,709	0	646	2	0	0	0	0	0	0	0	8,679
Percent		0.8%	72.0%	19.7%	0.0%	7.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Vehicle Speed Report Summary

Location: DILLON DAM RD S/O NORTH SECURITY GATE
Count Direction: Northbound / Southbound
Date Range: 7/12/2022 to 7/12/2022
Site Code: 05

	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
Study Total																		
Northbound	19	27	84	204	830	1,937	1,179	219	14	1	0	0	0	0	0	0	0	4,514
Percent	0.4%	0.6%	1.9%	4.5%	18.4%	42.9%	26.1%	4.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	1	3	7	61	948	2,140	885	102	14	3	1	0	0	0	0	0	0	4,165
Percent	0.0%	0.1%	0.2%	1.5%	22.8%	51.4%	21.2%	2.4%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	20	30	91	265	1,778	4,077	2,064	321	28	4	1	0	0	0	0	0	0	8,679
Percent	0.2%	0.3%	1.0%	3.1%	20.5%	47.0%	23.8%	3.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary		Total Study Speed Statistics	
Northbound		Northbound	
50th Percentile (Median)	33.0 mph	Mean (Average) Speed	32.4 mph
85th Percentile	37.2 mph	10 mph Pace	28.3 - 38.3 mph
95th Percentile	40.1 mph	Percent in Pace	73.9 %
Southbound		Southbound	
50th Percentile (Median)	32.4 mph	Mean (Average) Speed	32.5 mph
85th Percentile	36.4 mph	10 mph Pace	27.4 - 37.4 mph
95th Percentile	38.8 mph	Percent in Pace	82.2 %

Location: DILLON DAM RD S/O NORTH SECURITY GATE
 Date Range: 7/12/2022 - 7/18/2022
 Site Code: 05

Time	Tuesday		Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average	
	7/12/2022			7/13/2022			7/14/2022			7/15/2022			7/16/2022			7/17/2022			7/18/2022			
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB		Total
12:00 AM	8	3	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	3	11
1:00 AM	4	6	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	6	10
2:00 AM	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	4
3:00 AM	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3
4:00 AM	3	4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4	7
5:00 AM	11	34	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	34	45
6:00 AM	49	80	129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49	80	129
7:00 AM	94	186	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94	186	280
8:00 AM	176	249	425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	176	249	425
9:00 AM	228	250	478	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	228	250	478
10:00 AM	260	274	534	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	260	274	534
11:00 AM	282	296	578	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	282	296	578
12:00 PM	379	335	714	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	379	335	714
1:00 PM	339	287	626	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	339	287	626
2:00 PM	318	296	614	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	318	296	614
3:00 PM	382	305	687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	382	305	687
4:00 PM	486	295	781	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	486	295	781
5:00 PM	517	276	793	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	517	276	793
6:00 PM	356	255	611	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	356	255	611
7:00 PM	241	189	430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	241	189	430
8:00 PM	161	180	341	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	161	180	341
9:00 PM	117	123	240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	123	240
10:00 PM	64	209	273	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	209	273
11:00 PM	36	29	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	29	65
Total	4,514	4,165	8,679	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,514	4,165	8,679
Percent	52%	48%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52%	48%	

1. Mid-week average includes data between Tuesday and Thursday.

Vehicle Classification Report Summary

Location: DILLON DAM RD BTWN NORTH SECURITY GATE & DAM
Count Direction: Northbound / Southbound
Date Range: 7/12/2022 to 7/12/2022
Site Code: 06

		FHWA Vehicle Classification												Total	
		1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total															
Northbound		34	2,945	1,014	0	547	1	0	1	0	0	0	0	0	4,542
Percent		0.7%	64.8%	22.3%	0.0%	12.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound		35	2,659	934	0	502	6	0	0	0	0	0	0	0	4,136
Percent		0.8%	64.3%	22.6%	0.0%	12.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total		69	5,604	1,948	0	1,049	7	0	1	0	0	0	0	0	8,678
Percent		0.8%	64.6%	22.4%	0.0%	12.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Vehicle Speed Report Summary

Location: DILLON DAM RD BTWN NORTH SECURITY GATE & DAM
Count Direction: Northbound / Southbound
Date Range: 7/12/2022 to 7/12/2022
Site Code: 06

	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +
Study Total																	
Northbound	0	0	9	12	73	521	1,951	1,586	352	33	5	0	0	0	0	0	0
Percent	0.0%	0.0%	0.2%	0.3%	1.6%	11.5%	43.0%	34.9%	7.7%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Southbound	0	0	0	4	47	422	1,767	1,456	389	42	7	2	0	0	0	0	0
Percent	0.0%	0.0%	0.0%	0.1%	1.1%	10.2%	42.7%	35.2%	9.4%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	0	0	9	16	120	943	3,718	3,042	741	75	12	2	0	0	0	0	0
Percent	0.0%	0.0%	0.1%	0.2%	1.4%	10.9%	42.8%	35.1%	8.5%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Northbound			Northbound		
50th Percentile (Median)	39.4	mph	Mean (Average) Speed	39.4	mph
85th Percentile	43.6	mph	10 mph Pace	34.6 - 44.6	mph
95th Percentile	46.3	mph	Percent in Pace	78.6	%
Southbound			Southbound		
50th Percentile (Median)	39.6	mph	Mean (Average) Speed	39.8	mph
85th Percentile	44.0	mph	10 mph Pace	34.7 - 44.7	mph
95th Percentile	46.9	mph	Percent in Pace	78.1	%

Location: DILLON DAM RD BTWN NORTH SECURITY GATE & DAM
 Date Range: 7/12/2022 - 7/18/2022
 Site Code: 06

Time	Mid-Week Average																				
	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday		
	7/12/2022			7/13/2022			7/14/2022			7/15/2022			7/16/2022			7/17/2022			7/18/2022		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	8	3	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	3	11
1:00 AM	4	6	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	6	10
2:00 AM	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	4
3:00 AM	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3
4:00 AM	3	4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4	7
5:00 AM	11	34	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	34	45
6:00 AM	48	80	128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	80	128
7:00 AM	99	183	282	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	183	282
8:00 AM	174	249	423	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	174	249	423
9:00 AM	227	255	482	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	227	255	482
10:00 AM	265	264	529	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265	264	529
11:00 AM	284	294	578	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	284	294	578
12:00 PM	386	326	712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	386	326	712
1:00 PM	334	291	625	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	334	291	625
2:00 PM	314	301	615	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	314	301	615
3:00 PM	389	301	690	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	389	301	690
4:00 PM	485	293	778	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	485	293	778
5:00 PM	522	280	802	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	522	280	802
6:00 PM	365	243	608	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	365	243	608
7:00 PM	241	187	428	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	241	187	428
8:00 PM	162	178	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	162	178	340
9:00 PM	117	122	239	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	122	239
10:00 PM	65	207	272	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	207	272
11:00 PM	36	31	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	31	67
Total	4,542	4,136	8,678	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,542	4,136	8,678
Percent	52%	48%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52%	48%	-

1. Mid-week average includes data between Tuesday and Thursday.

***Signal Warrant
Worksheets***

**Lake Hill Development
Signal Warrant Analysis**

Warrant 1: 8 Hour Analysis - 2027 Background Volumes

Day 1	Major Dillon Dam Rd EB / WB	Minor* 10 Mile Rd WB	Warrant Type		Condition A		Condition B		Condition A + B			
			Street Designation	Vehicles per Hour Needed to Meet Warrant	Major	Minor	Major	Minor	Major A	Minor A	Major B	Minor B
Time of Day	1	2	350	140	525	70	280	112	420	56		
0:00	10	4	no	no	no	no	no	no	no	no		
1:00	12	2	no	no	no	no	no	no	no	no		
2:00	4	1	no	no	no	no	no	no	no	no		
3:00	1	1	no	no	no	no	no	no	no	no		
4:00	12	8	no	no	no	no	no	no	no	no		
5:00	58	17	no	no	no	no	no	no	no	no		
6:00	174	59	no	no	no	no	no	no	no	no		
7:00	346	82	no	no	no	no	no	no	no	no		
8:00	556	94	yes	no	yes	yes	yes	no	yes	yes		
9:00	566	105	yes	no	yes	yes	yes	no	yes	yes		
10:00	634	136	yes	no	yes	yes	yes	yes	yes	yes		
11:00	690	167	yes	yes	yes	yes	yes	yes	yes	yes		
12:00	795	156	yes	yes	yes	yes	yes	yes	yes	yes		
13:00	697	151	yes	yes	yes	yes	yes	yes	yes	yes		
14:00	676	170	yes	yes	yes	yes	yes	yes	yes	yes		
15:00	793	148	yes	yes	yes	yes	yes	yes	yes	yes		
16:00	834	145	yes	yes	yes	yes	yes	yes	yes	yes		
17:00	854	182	yes	yes	yes	yes	yes	yes	yes	yes		
18:00	688	94	yes	no	yes	yes	yes	no	yes	yes		
19:00	505	87	yes	no	no	yes	yes	no	yes	yes		
20:00	364	48	yes	no	no	no	yes	no	no	no		
21:00	291	42	no	no	no	no	yes	no	no	no		
22:00	275	22	no	no	no	no	no	no	no	no		
23:00	74	7	no	no	no	no	no	no	no	no		
Total	9,909	1,928	7	Not Met	11	Met		8	Met			

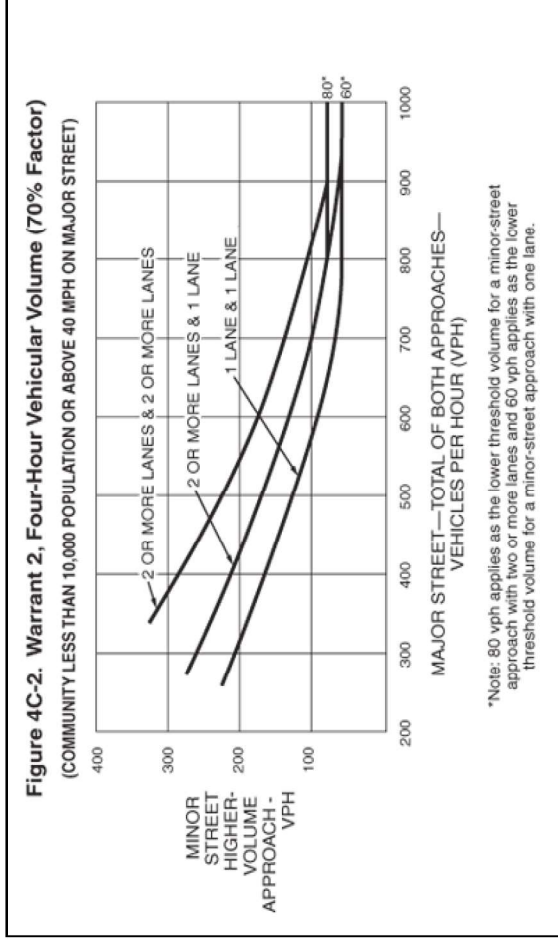
* Vehicles per hour on higher-volume minor-street approach (one direction only)

Intersection: Dillon Dam Rd & 10 Mile Rd

Warrant 2: 4 Hour Analysis - 2027 Background Volumes

Day 1	Major Dillon Dam Rd EB / WB	Minor* 10 Mile Rd WB	Warrant 2 (Figure 4C-1)	
Time of Day	Number of Lanes			
	1	2		
0:00	10	4	no	
1:00	12	2	no	
2:00	4	1	no	
3:00	1	1	no	
4:00	12	8	no	
5:00	58	17	no	
6:00	174	59	no	
7:00	346	82	no	
8:00	556	94	no	
9:00	566	105	no	
10:00	634	136	Warrant is Met (yes/no)	
11:00	690	167		
12:00	795	156		
13:00	697	151		
14:00	676	170		
15:00	793	148		
16:00	834	145		
17:00	854	182		
18:00	688	94	no	
19:00	505	87	no	
20:00	364	48	no	
21:00	291	42	no	
22:00	275	22	no	
23:00	74	7	no	
Total	9,909	1,928	8	Met

*The minor volume used in this analysis comes from the minor approach with the higher total volume during the full study day.



**Lake Hill Development
Signal Warrant Analysis**

Warrant 1: 8 Hour Analysis - 2042 Background Volumes

Day 1	Major		Minor* 10 Mile Rd WB	Warrant Type	Condition A		Condition B		Condition A + B			
	Dillon Dam Rd NB/SB				Major	Minor	Major	Minor	Major A	Minor A	Major B	Minor B
Time of Day	Number of Lanes			Vehicles per Hour Needed to Meet Warrant	350	140	525	70	280	112	420	56
0:00	12		5	Warrant is Met (yes/no)	no	no	no	no	no	no	no	no
1:00	14		2		no	no	no	no	no	no	no	no
2:00	5		1		no	no	no	no	no	no	no	no
3:00	2		1		no	no	no	no	no	no	no	no
4:00	15		10		no	no	no	no	no	no	no	no
5:00	74		20		no	no	no	no	no	no	no	no
6:00	208		68		no	no	no	no	no	no	no	no
7:00	436		95		yes	no	no	no	yes	yes	no	yes
8:00	664		109		yes	no	no	yes	yes	yes	yes	yes
9:00	683		122		yes	no	no	yes	yes	yes	yes	yes
10:00	758		157		yes	yes	yes	yes	yes	yes	yes	yes
11:00	801		194		yes	yes	yes	yes	yes	yes	yes	yes
12:00	917		181		yes	yes	yes	yes	yes	yes	yes	yes
13:00	792		176		yes	yes	yes	yes	yes	yes	yes	yes
14:00	786		198		yes	yes	yes	yes	yes	yes	yes	yes
15:00	888		172		yes	yes	yes	yes	yes	yes	yes	yes
16:00	883		168		yes	yes	yes	yes	yes	yes	yes	yes
17:00	912		211		yes	yes	yes	yes	yes	yes	yes	yes
18:00	753		109		yes	no	no	yes	yes	no	yes	yes
19:00	564		101		yes	no	no	yes	yes	no	yes	yes
20:00	421		56		yes	no	no	yes	yes	no	yes	yes
21:00	341		49		no	no	no	no	no	no	no	no
22:00	383		26		yes	no	no	no	no	yes	no	no
23:00	84		9		no	no	no	no	no	no	no	no
Total	11,396		2,240		8	Met	12	Met		9	Met	

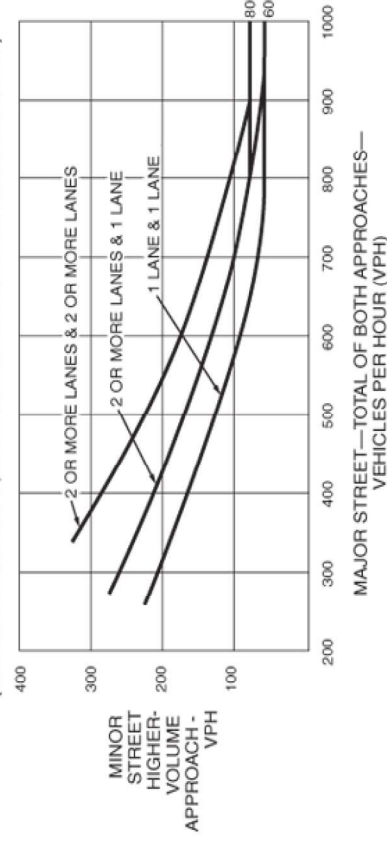
* Vehicles per hour on higher-volume minor-street approach (one direction only)

Intersection: **Dillon Dam Rd & 10 Mile Rd****Warrant 2: 4 Hour Analysis - 2042 Background Volumes**

Day 1	Major Dillon Dam Rd	Minor* 10 Mile Rd	Warrant 2 (Figure 4C-1)
Time of Day	NB/SB	WB	
	Number of Lanes		
	1	2	
0:00	12	5	no
1:00	14	2	no
2:00	5	1	no
3:00	2	1	no
4:00	15	10	no
5:00	74	20	no
6:00	208	68	no
7:00	436	95	no
8:00	664	109	no
9:00	683	122	Warrant is Met (yes/no)
10:00	758	157	
11:00	801	194	
12:00	917	181	
13:00	792	176	
14:00	786	198	
15:00	888	172	
16:00	883	168	
17:00	912	211	yes
18:00	753	109	yes
19:00	564	101	yes
20:00	421	56	no
21:00	341	49	no
22:00	383	26	no
23:00	84	9	no
Total	11,396	2,240	10 Met





*The minor volume used in this analysis comes from the minor approach with the higher total volume during the full study day.




Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

***Intersection Capacity Worksheets:
2022 Existing***




Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	91	99	285	111	57	311
Future Vol, veh/h	91	99	285	111	57	311
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	100	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	91	91	96	96
Heavy Vehicles, %	4	4	2	2	1	1
Mvmt Flow	96	104	313	122	59	324
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	816	374	0	0	435	0
Stage 1	374	-	-	-	-	-
Stage 2	442	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.11	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.209	-
Pot Cap-1 Maneuver	344	668	-	-	1130	-
Stage 1	691	-	-	-	-	-
Stage 2	644	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	322	668	-	-	1130	-
Mov Cap-2 Maneuver	322	-	-	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	603	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	15.9	0	1.3			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 322 668 1130	-	-		
HCM Lane V/C Ratio	-	- 0.297 0.156 0.053	-	-		
HCM Control Delay (s)	-	- 20.8 11.4 8.4	0			
HCM Lane LOS	-	- C B A	A			
HCM 95th %tile Q(veh)	-	- 1.2 0.6 0.2	-			

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	2	384	8	0	360
Future Vol, veh/h	3	2	384	8	0	360
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	42	42	88	88	95	95
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	7	5	436	9	0	379

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	820	441	0
Stage 1	441	-	-
Stage 2	379	-	-
Critical Hdwy	6.41	6.21	4.11
Critical Hdwy Stg 1	5.41	-	-
Critical Hdwy Stg 2	5.41	-	-
Follow-up Hdwy	3.509	3.309	2.209
Pot Cap-1 Maneuver	346	618	1121
Stage 1	651	-	-
Stage 2	694	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	346	618	1121
Mov Cap-2 Maneuver	346	-	-
Stage 1	651	-	-
Stage 2	694	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	420	1121
HCM Lane V/C Ratio	-	-	0.028	-
HCM Control Delay (s)	-	-	13.8	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	2	374	12	5	349
Future Vol, veh/h	11	2	374	12	5	349
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	81	81	91	91	93	93
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	14	2	411	13	5	375
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	803	418	0	0	424	0
Stage 1	418	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	354	637	-	-	1141	-
Stage 1	666	-	-	-	-	-
Stage 2	690	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	352	637	-	-	1141	-
Mov Cap-2 Maneuver	352	-	-	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	686	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	14.9	0	0.1			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	378	1141	-	
HCM Lane V/C Ratio	-	-	0.042	0.005	-	
HCM Control Delay (s)	-	-	14.9	8.2	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

























Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	4	5	6	370	349	4
Future Vol, veh/h	4	5	6	370	349	4
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	56	56	93	93	87	87
Heavy Vehicles, %	11	11	1	1	1	1
Mvmt Flow	7	9	6	398	401	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	814	404	406	0	-	0
Stage 1	404	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Critical Hdwy	6.51	6.31	4.11	-	-	-
Critical Hdwy Stg 1	5.51	-	-	-	-	-
Critical Hdwy Stg 2	5.51	-	-	-	-	-
Follow-up Hdwy	3.599	3.399	2.209	-	-	-
Pot Cap-1 Maneuver	335	628	1158	-	-	-
Stage 1	655	-	-	-	-	-
Stage 2	651	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	333	628	1158	-	-	-
Mov Cap-2 Maneuver	333	-	-	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	651	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	13.3	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1158	-	451	-	-	
HCM Lane V/C Ratio	0.006	-	0.036	-	-	
HCM Control Delay (s)	8.1	0	13.3	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection			
Intersection Delay, s/veh	6.2		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	227	434	400
Demand Flow Rate, veh/h	229	439	404
Vehicles Circulating, veh/h	356	134	98
Vehicles Exiting, veh/h	217	368	487
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.2	6.6	5.9
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	229	439	404
Cap Entry Lane, veh/h	960	1204	1249
Entry HV Adj Factor	0.991	0.990	0.991
Flow Entry, veh/h	227	434	400
Cap Entry, veh/h	951	1191	1237
V/C Ratio	0.239	0.365	0.324
Control Delay, s/veh	6.2	6.6	5.9
LOS	A	A	A
95th %tile Queue, veh	1	2	1

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

7: Dillon Dam Road & State Highway 6







2022 Existing - Mid-Day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	455	181	107	488	202	199	112	107	160	88	128
Future Volume (vph)	101	455	181	107	488	202	199	112	107	160	88	128
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	1.0	14.0	14.0	1.0	14.0	14.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Split (s)	5.5	20.0	20.0	5.5	20.0	20.0	7.0	7.0	7.0	7.0	7.0	7.0
Total Split (s)	14.0	34.0	34.0	13.0	33.0	33.0	41.0	41.0	41.0	42.0	42.0	42.0
Total Split (%)	10.8%	26.2%	26.2%	10.0%	25.4%	25.4%	31.5%	31.5%	31.5%	32.3%	32.3%	32.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	74.4	63.1	63.1	74.9	63.3	63.3	18.6	18.6	18.6	18.8	18.8	18.8
Actuated g/C Ratio	0.57	0.49	0.49	0.58	0.49	0.49	0.14	0.14	0.14	0.14	0.14	0.14
v/c Ratio	0.22	0.29	0.23	0.22	0.31	0.25	0.69	0.69	0.37	0.55	0.55	0.41

Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 86 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 28.4
 Intersection Capacity Utilization 59.5%
 Analysis Period (min) 15

Splits and Phases: 7: Dillon Dam Road & State Highway 6













 Ø1	 Ø2 (R)	 Ø4	 Ø8
13 s	34 s	42 s	41 s
 Ø5	 Ø6 (R)		
14 s	33 s		

Queues

7: Dillon Dam Road & State Highway 6

























Lake Hill Development Traffic Impact Study - Frisco, CO

2022 Existing - Mid-Day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	110	495	197	116	530	220	166	172	116	132	138	139
v/c Ratio	0.22	0.29	0.23	0.22	0.31	0.25	0.69	0.69	0.37	0.55	0.55	0.41
Control Delay	15.6	24.3	5.1	15.6	24.4	4.9	67.2	66.6	14.9	58.0	57.9	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	24.3	5.1	15.6	24.4	4.9	67.2	66.6	14.9	58.0	57.9	10.0
Queue Length 50th (ft)	34	118	0	36	128	0	142	147	11	113	118	0
Queue Length 95th (ft)	98	247	60	102	264	62	210	216	63	152	158	50
Internal Link Dist (ft)		817			836			345			494	
Turn Bay Length (ft)	500			150		420	110		70	120		
Base Capacity (vph)	531	1718	853	543	1724	883	465	483	511	478	496	540
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.29	0.23	0.21	0.31	0.25	0.36	0.36	0.23	0.28	0.28	0.26
Intersection Summary												

HCM Signalized Intersection Capacity Analysis Lake Hill Development Traffic Impact Study - Frisco, CO





















7: Dillon Dam Road & State Highway 6
2022 Existing - Mid-Day

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	455	181	107	488	202	199	112	107	160	88	128
Future Volume (vph)	101	455	181	107	488	202	199	112	107	160	88	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.99	1.00	0.95	0.99	1.00
Satd. Flow (prot)	1770	3539	1548	1769	3539	1583	1681	1744	1583	1681	1743	1549
Flt Permitted	0.41	1.00	1.00	0.43	1.00	1.00	0.95	0.99	1.00	0.95	0.99	1.00
Satd. Flow (perm)	767	3539	1548	800	3539	1583	1681	1744	1583	1681	1743	1549
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	495	197	116	530	220	216	122	116	174	96	139
RTOR Reduction (vph)	0	0	101	0	0	113	0	0	87	0	0	119
Lane Group Flow (vph)	110	495	96	116	530	107	166	172	29	132	138	20
Confl. Peds. (#/hr)			1	1			9					9
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Actuated Green, G (s)	72.4	63.1	63.1	72.8	63.3	63.3	18.6	18.6	18.6	18.8	18.8	18.8
Effective Green, g (s)	72.4	63.1	63.1	72.8	63.3	63.3	18.6	18.6	18.6	18.8	18.8	18.8
Actuated g/C Ratio	0.56	0.49	0.49	0.56	0.49	0.49	0.14	0.14	0.14	0.14	0.14	0.14
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	498	1717	751	518	1723	770	240	249	226	243	252	224
v/s Ratio Prot	0.02	0.14		c0.02	c0.15		c0.10	0.10		0.08	c0.08	
v/s Ratio Perm	0.11		0.06	0.11		0.07			0.02			0.01
v/c Ratio	0.22	0.29	0.13	0.22	0.31	0.14	0.69	0.69	0.13	0.54	0.55	0.09
Uniform Delay, d1	13.8	20.0	18.3	13.6	20.1	18.4	53.0	53.0	48.6	51.6	51.6	48.2
Progression 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
Incremental Delay, d2	0.2	0.4	0.3	0.2	0.5	0.4	8.3	8.0	0.3	2.5	2.4	0.2
Delay (s)	14.0	20.4	18.7	13.8	20.6	18.7	61.3	61.0	48.9	54.1	54.1	48.4
Level of Service	B	C	B	B	C	B	E	E	D	D	D	D
Approach Delay (s)		19.1			19.2			58.0			52.1	
Approach LOS		B			B			E			D	
Intersection Summary												
HCM 2000 Control Delay			31.5				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.41									
Actuated Cycle Length (s)			130.0				Sum of lost time (s)			20.0		
Intersection Capacity Utilization			59.5%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

8: State Highway 9 & Dillon Dam Road









2022 Existing - Mid-Day

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	192	68	234	72	85	588	246	82	619	197
Future Volume (vph)	192	68	234	72	85	588	246	82	619	197
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases					2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	14.0	14.0	5.0	14.0	14.0
Minimum Split (s)	9.5	38.0	9.5	11.0	10.0	20.0	20.0	10.0	39.0	39.0
Total Split (s)	15.0	38.0	15.0	38.0	10.0	36.0	36.0	11.0	37.0	37.0
Total Split (%)	15.0%	38.0%	15.0%	38.0%	10.0%	36.0%	36.0%	11.0%	37.0%	37.0%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.4	12.0	10.6	12.2	58.5	51.0	51.0	58.3	50.8	50.8
Actuated g/C Ratio	0.10	0.12	0.11	0.12	0.58	0.51	0.51	0.58	0.51	0.51
v/c Ratio	0.63	0.61	0.68	0.67	0.19	0.35	0.28	0.18	0.37	0.23

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 23.0
 Intersection Capacity Utilization 70.3%
 Analysis Period (min) 15

Splits and Phases: 8: State Highway 9 & Dillon Dam Road

			
Ø1	Ø2 (R)	Ø3	Ø4
11 s	36 s	15 s	38 s
			
Ø5	Ø6 (R)	Ø7	Ø8
10 s	37 s	15 s	38 s

Queues
Lake Hill Development Traffic Impact Study - Frisco, CO























8: State Highway 9 & Dillon Dam Road
2022 Existing - Mid-Day



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	221	147	246	177	89	613	256	85	638	203
v/c Ratio	0.63	0.61	0.68	0.67	0.19	0.35	0.28	0.18	0.37	0.23
Control Delay	51.5	37.9	53.3	36.5	9.9	17.3	3.3	9.8	17.6	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	37.9	53.3	36.5	9.9	17.3	3.3	9.8	17.6	3.5
Queue Length 50th (ft)	70	61	78	65	21	123	0	20	130	0
Queue Length 95th (ft)	105	111	120	127	48	197	48	46	206	44
Internal Link Dist (ft)		279		327		602			402	
Turn Bay Length (ft)	145		205		165		200	115		240
Base Capacity (vph)	370	568	374	587	465	1751	909	479	1747	864
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.26	0.66	0.30	0.19	0.35	0.28	0.18	0.37	0.23
Intersection Summary										

HCM 6th Signalized Intersection Summary
Lake Hill Development Traffic Impact Study - Frisco, CO

8: State Highway 9 & Dillon Dam Road
2022 Existing - Mid-Day





												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	68	60	234	72	96	85	588	246	82	619	197
Future Volume (veh/h)	192	68	60	234	72	96	85	588	246	82	619	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	221	78	69	246	76	101	89	612	256	85	638	203
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	3	3	3	5	5	5	5	5	5
Cap, veh/h	290	170	150	315	141	187	368	1601	713	366	1600	713
Arrive On Green	0.09	0.19	0.19	0.09	0.20	0.20	0.05	0.46	0.46	0.05	0.46	0.46
Sat Flow, veh/h	3401	887	785	3428	710	944	1739	3469	1546	1739	3469	1546
Grp Volume(v), veh/h	221	0	147	246	0	177	89	612	256	85	638	203
Grp Sat Flow(s),veh/h/ln	1700	0	1673	1714	0	1654	1739	1735	1546	1739	1735	1546
Q Serve(g_s), s	6.4	0.0	7.8	7.0	0.0	9.6	2.7	11.5	10.7	2.5	12.1	8.1
Cycle Q Clear(g_c), s	6.4	0.0	7.8	7.0	0.0	9.6	2.7	11.5	10.7	2.5	12.1	8.1
Prop In Lane	1.00		0.47	1.00		0.57	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	290	0	320	315	0	327	368	1601	713	366	1600	713
V/C Ratio(X)	0.76	0.00	0.46	0.78	0.00	0.54	0.24	0.38	0.36	0.23	0.40	0.28
Avail Cap(c_a), veh/h	374	0	535	377	0	529	376	1601	713	392	1600	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.7	0.0	35.8	44.4	0.0	36.0	13.7	17.6	17.4	13.6	17.8	16.7
Incr Delay (d2), s/veh	6.7	0.0	1.0	8.6	0.0	1.4	0.3	0.7	1.4	0.3	0.7	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	3.2	3.3	0.0	4.0	1.0	4.6	4.0	1.0	4.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	0.0	36.9	53.0	0.0	37.4	14.0	18.3	18.8	13.9	18.5	17.7
LnGrp LOS	D	A	D	D	A	D	B	B	B	B	B	B
Approach Vol, veh/h		368			423			957			926	
Approach Delay, s/veh		45.6			46.5			18.0			17.9	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	52.2	13.2	25.1	9.6	52.1	12.5	25.8				
Change Period (Y+Rc), s	5.0	6.0	4.0	6.0	5.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	6.0	30.0	11.0	32.0	5.0	31.0	11.0	32.0				
Max Q Clear Time (g_c+l1), s	4.5	13.5	9.0	9.8	4.7	14.1	8.4	11.6				
Green Ext Time (p_c), s	0.0	6.4	0.2	0.8	0.0	6.4	0.2	1.0				




Intersection Summary




HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Notes

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

Intersection						
Int Delay, s/veh	4.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	86	113	449	97	51	248
Future Vol, veh/h	86	113	449	97	51	248
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	89	89	88	88
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	99	130	504	109	58	282
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	958	560	0	0	614	0
Stage 1	560	-	-	-	-	-
Stage 2	398	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	287	530	-	-	970	-
Stage 1	574	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	266	529	-	-	969	-
Mov Cap-2 Maneuver	266	-	-	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	633	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	19.3	0	1.5			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 266 529	969	-		
HCM Lane V/C Ratio	-	- 0.372 0.246	0.06	-		
HCM Control Delay (s)	-	- 26.3 14	9	0		
HCM Lane LOS	-	- D B	A	A		
HCM 95th %tile Q(veh)	-	- 1.6 1	0.2	-		

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	2	546	6	2	285
Future Vol, veh/h	7	2	546	6	2	285
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	56	56	92	92	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	13	4	593	7	2	335
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	936	597	0	0	600	0
Stage 1	597	-	-	-	-	-
Stage 2	339	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	295	505	-	-	982	-
Stage 1	552	-	-	-	-	-
Stage 2	724	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	294	505	-	-	982	-
Mov Cap-2 Maneuver	294	-	-	-	-	-
Stage 1	552	-	-	-	-	-
Stage 2	722	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	16.7	0	0.1			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	324	982	-	
HCM Lane V/C Ratio	-	-	0.05	0.002	-	
HCM Control Delay (s)	-	-	16.7	8.7	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	5	537	11	6	278
Future Vol, veh/h	9	5	537	11	6	278
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	88	88	92	92	84	84
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	10	6	584	12	7	331

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	935	590	0	0	596	0
Stage 1	590	-	-	-	-	-
Stage 2	345	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	296	509	-	-	985	-
Stage 1	556	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	293	509	-	-	985	-
Mov Cap-2 Maneuver	293	-	-	-	-	-
Stage 1	556	-	-	-	-	-
Stage 2	713	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.9	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	345	985
HCM Lane V/C Ratio	-	-	0.046	0.007
HCM Control Delay (s)	-	-	15.9	8.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	5	4	7	535	280	6
Future Vol, veh/h	5	4	7	535	280	6
Conflicting Peds, #/hr	1	7	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	92	92	81	81
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	7	5	8	582	346	7

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	949	357	353	0	-	0
Stage 1	350	-	-	-	-	-
Stage 2	599	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	290	689	1211	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	287	684	1211	-	-	-
Mov Cap-2 Maneuver	287	-	-	-	-	-
Stage 1	709	-	-	-	-	-
Stage 2	551	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0.1	0
HCM LOS	B		

























Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1211	-	387	-	-
HCM Lane V/C Ratio	0.006	-	0.031	-	-
HCM Control Delay (s)	8	0	14.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection			
Intersection Delay, s/veh	9.9		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	146	607	579
Demand Flow Rate, veh/h	146	613	584
Vehicles Circulating, veh/h	391	349	73
Vehicles Exiting, veh/h	571	308	464
Ped Vol Crossing Leg, #/h	1	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.4	13.2	7.5
Approach LOS	A	B	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	146	613	584
Cap Entry Lane, veh/h	926	967	1281
Entry HV Adj Factor	1.000	0.990	0.991
Flow Entry, veh/h	146	607	579
Cap Entry, veh/h	926	957	1269
V/C Ratio	0.158	0.634	0.456
Control Delay, s/veh	5.4	13.2	7.5
LOS	A	B	A
95th %tile Queue, veh	1	5	2

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

7: Dillon Dam Road & State Highway 6







2022 Existing - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	538	200	152	550	341	188	105	185	247	204	107
Future Volume (vph)	131	538	200	152	550	341	188	105	185	247	204	107
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	1.0	14.0	14.0	1.0	14.0	14.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Split (s)	5.5	20.0	20.0	5.5	20.0	20.0	7.0	7.0	7.0	7.0	7.0	7.0
Total Split (s)	13.0	34.0	34.0	13.0	34.0	34.0	36.0	36.0	36.0	37.0	37.0	37.0
Total Split (%)	10.8%	28.3%	28.3%	10.8%	28.3%	28.3%	30.0%	30.0%	30.0%	30.8%	30.8%	30.8%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	60.3	47.6	47.6	62.0	48.4	48.4	17.0	17.0	17.0	23.8	23.8	23.8
Actuated g/C Ratio	0.50	0.40	0.40	0.52	0.40	0.40	0.14	0.14	0.14	0.20	0.20	0.20
v/c Ratio	0.33	0.42	0.29	0.38	0.42	0.44	0.66	0.65	0.52	0.72	0.72	0.29

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 92 (77%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 29.7
 Intersection Capacity Utilization 69.2%
 Analysis Period (min) 15

Splits and Phases: 7: Dillon Dam Road & State Highway 6













 Ø1	 Ø2 (R)	 Ø4	 Ø8
13 s	34 s	37 s	36 s
 Ø5	 Ø6 (R)		
13 s	34 s		

Queues

7: Dillon Dam Road & State Highway 6

Lake Hill Development Traffic Impact Study - Frisco, CO

























2022 Existing - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	142	585	217	165	598	371	157	161	201	239	251	116
v/c Ratio	0.33	0.42	0.29	0.38	0.42	0.44	0.66	0.65	0.52	0.72	0.72	0.29
Control Delay	18.9	30.6	5.7	19.3	30.1	5.4	61.1	60.2	11.9	56.4	56.0	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	30.6	5.7	19.3	30.1	5.4	61.1	60.2	11.9	56.4	56.0	8.2
Queue Length 50th (ft)	52	168	0	61	170	0	123	126	6	183	192	0
Queue Length 95th (ft)	115	285	63	132	292	82	186	189	70	255	266	45
Internal Link Dist (ft)		817			836			345			494	
Turn Bay Length (ft)	500			150		420	110		70	120		
Base Capacity (vph)	435	1404	745	444	1428	850	434	450	551	448	469	501
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.42	0.29	0.37	0.42	0.44	0.36	0.36	0.36	0.53	0.54	0.23
Intersection Summary												

HCM Signalized Intersection Capacity Analysis Lake Hill Development Traffic Impact Study - Frisco, CO

7: Dillon Dam Road & State Highway 6





















2022 Existing - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	538	200	152	550	341	188	105	185	247	204	107
Future Volume (vph)	131	538	200	152	550	341	188	105	185	247	204	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.99	1.00	0.95	0.99	1.00
Satd. Flow (prot)	1769	3539	1548	1769	3539	1560	1681	1744	1583	1681	1759	1563
Flt Permitted	0.35	1.00	1.00	0.34	1.00	1.00	0.95	0.99	1.00	0.95	0.99	1.00
Satd. Flow (perm)	654	3539	1548	642	3539	1560	1681	1744	1583	1681	1759	1563
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	142	585	217	165	598	371	204	114	201	268	222	116
RTOR Reduction (vph)	0	0	131	0	0	221	0	0	165	0	0	93
Lane Group Flow (vph)	142	585	86	165	598	150	157	161	36	239	251	23
Confl. Peds. (#/hr)	2		1	1		2	1					1
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Actuated Green, G (s)	58.4	47.7	47.7	60.0	48.5	48.5	17.0	17.0	17.0	23.8	23.8	23.8
Effective Green, g (s)	58.4	47.7	47.7	60.0	48.5	48.5	17.0	17.0	17.0	23.8	23.8	23.8
Actuated g/C Ratio	0.49	0.40	0.40	0.50	0.40	0.40	0.14	0.14	0.14	0.20	0.20	0.20
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	417	1406	615	429	1430	630	238	247	224	333	348	309
v/s Ratio Prot	0.03	0.17		c0.04	c0.17		c0.09	0.09		0.14	c0.14	
v/s Ratio Perm	0.14		0.06	0.16		0.10			0.02			0.01
v/c Ratio	0.34	0.42	0.14	0.38	0.42	0.24	0.66	0.65	0.16	0.72	0.72	0.07
Uniform Delay, d1	17.5	26.1	23.1	17.0	25.6	23.6	48.8	48.7	45.2	45.0	45.0	39.1
Progression 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
Incremental Delay, d2	0.5	0.9	0.5	0.6	0.9	0.9	6.5	6.0	0.3	7.2	7.2	0.1
Delay (s)	18.0	27.0	23.5	17.6	26.5	24.5	55.2	54.7	45.6	52.2	52.2	39.2
Level of Service	B	C	C	B	C	C	E	D	D	D	D	D
Approach Delay (s)		24.9			24.6			51.3			49.7	
Approach LOS		C			C			D			D	
Intersection Summary												
HCM 2000 Control Delay			33.7				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			20.0		
Intersection Capacity Utilization			69.2%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

8: State Highway 9 & Dillon Dam Road








2022 Existing - PM Peak Hour

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	256	121	179	62	58	758	342	83	642	247
Future Volume (vph)	256	121	179	62	58	758	342	83	642	247
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases					2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	14.0	14.0	5.0	14.0	14.0
Minimum Split (s)	9.5	38.0	9.5	11.0	10.0	20.0	20.0	10.0	36.0	36.0
Total Split (s)	19.0	38.0	14.0	33.0	10.0	38.0	38.0	10.0	38.0	38.0
Total Split (%)	19.0%	38.0%	14.0%	33.0%	10.0%	38.0%	38.0%	10.0%	38.0%	38.0%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.5	16.4	9.7	12.7	54.3	47.2	47.2	55.4	47.8	47.8
Actuated g/C Ratio	0.14	0.16	0.10	0.13	0.54	0.47	0.47	0.55	0.48	0.48
v/c Ratio	0.67	0.70	0.65	0.64	0.15	0.51	0.41	0.25	0.40	0.30

Intersection Summary











Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 95
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 24.5
 Intersection Capacity Utilization 72.3%
 Analysis Period (min) 15

Splits and Phases: 8: State Highway 9 & Dillon Dam Road

						
Ø1	Ø2 (R)	Ø3	Ø4	Ø5	Ø6 (R)	Ø7
10 s	38 s	14 s	38 s	10 s	38 s	19 s
						33 s























Queues
Lake Hill Development Traffic Impact Study - Frisco, CO

8: State Highway 9 & Dillon Dam Road
2022 Existing - PM Peak Hour

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	305	211	216	173	65	852	384	86	669	257
v/c Ratio	0.67	0.70	0.65	0.64	0.15	0.51	0.41	0.25	0.40	0.30
Control Delay	48.8	46.2	53.3	36.3	11.5	22.0	3.8	12.3	19.9	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.8	46.2	53.3	36.3	11.5	22.0	3.8	12.3	19.9	3.7
Queue Length 50th (ft)	95	113	69	66	17	200	0	22	146	0
Queue Length 95th (ft)	128	160	98	113	41	305	58	52	229	51
Internal Link Dist (ft)		215		327		1020			467	
Turn Bay Length (ft)	145		205		165		200	115		240
Base Capacity (vph)	505	566	343	503	423	1655	943	347	1658	859
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.37	0.63	0.34	0.15	0.51	0.41	0.25	0.40	0.30
Intersection Summary										

HCM 6th Signalized Intersection Summary
Lake Hill Development Traffic Impact Study - Frisco, CO











8: State Highway 9 & Dillon Dam Road
2022 Existing - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	121	56	179	62	81	58	758	342	83	642	247
Future Volume (veh/h)	256	121	56	179	62	81	58	758	342	83	642	247
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1870	1870	1870	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	305	144	67	216	75	98	65	852	384	86	669	257
Peak Hour Factor	0.84	0.84	0.84	0.83	0.83	0.83	0.89	0.89	0.89	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	2	2	2	3	3	3	4	4	4
Cap, veh/h	380	281	131	284	151	197	320	1489	663	257	1490	663
Arrive On Green	0.11	0.24	0.24	0.08	0.21	0.21	0.04	0.42	0.42	0.05	0.43	0.43
Sat Flow, veh/h	3401	1173	546	3456	717	937	1767	3526	1569	1753	3497	1556
Grp Volume(v), veh/h	305	0	211	216	0	173	65	852	384	86	669	257
Grp Sat Flow(s),veh/h/ln	1700	0	1718	1728	0	1654	1767	1763	1569	1753	1749	1556
Q Serve(g_s), s	8.8	0.0	10.6	6.1	0.0	9.2	2.0	18.4	18.7	2.7	13.6	11.4
Cycle Q Clear(g_c), s	8.8	0.0	10.6	6.1	0.0	9.2	2.0	18.4	18.7	2.7	13.6	11.4
Prop In Lane	1.00		0.32	1.00		0.57	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	380	0	412	284	0	348	320	1489	663	257	1490	663
V/C Ratio(X)	0.80	0.00	0.51	0.76	0.00	0.50	0.20	0.57	0.58	0.33	0.45	0.39
Avail Cap(c_a), veh/h	510	0	550	346	0	447	334	1489	663	265	1490	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	0.0	32.9	44.9	0.0	34.8	15.9	22.0	22.1	17.0	20.4	19.7
Incr Delay (d2), s/veh	6.6	0.0	1.0	7.7	0.0	1.1	0.3	1.6	3.7	0.8	1.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	4.5	2.9	0.0	3.8	0.8	7.3	7.4	1.1	5.3	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	0.0	33.9	52.6	0.0	35.9	16.2	23.6	25.8	17.8	21.3	21.4
LnGrp LOS	D	A	C	D	A	D	B	C	C	B	C	C
Approach Vol, veh/h		516			389			1301			1012	
Approach Delay, s/veh		43.4			45.2			23.9			21.1	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	48.2	12.2	30.0	9.2	48.6	15.2	27.0				
Change Period (Y+Rc), s	5.0	6.0	4.0	6.0	5.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	5.0	32.0	10.0	32.0	5.0	32.0	15.0	27.0				
Max Q Clear Time (g_c+l1), s	4.7	20.7	8.1	12.6	4.0	15.6	10.8	11.2				
Green Ext Time (p_c), s	0.0	5.1	0.1	1.1	0.0	4.6	0.4	0.8				
Intersection Summary												
HCM 6th Ctrl Delay			28.7									
HCM 6th LOS			C									

***Intersection Capacity Worksheets:
2027 Background***

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

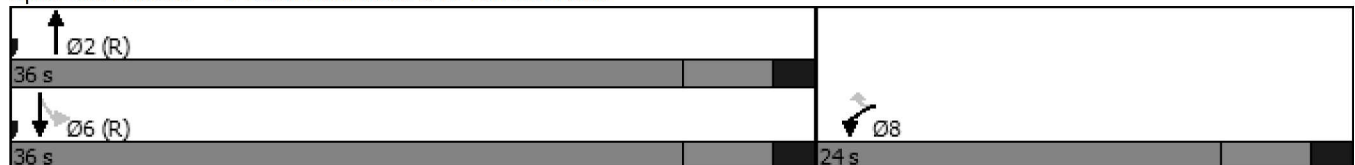
1: Dillon Dam Road & N. Ten Mile Road
2027 Background - Mid-Day

					
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	96	104	300	60	327
Future Volume (vph)	96	104	300	60	327
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0
Total Split (s)	24.0	24.0	36.0	36.0	36.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	8.8	8.8	42.7		42.7
Actuated g/C Ratio	0.15	0.15	0.71		0.71
v/c Ratio	0.40	0.34	0.36		0.34

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 8.0
Intersection Capacity Utilization 63.8%
Analysis Period (min) 15

Splits and Phases: 1: Dillon Dam Road & N. Ten Mile Road



Queues
Lake Hill Development Traffic Impact Study - Frisco, CO












1: Dillon Dam Road & N. Ten Mile Road
2027 Background - Mid-Day









Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	101	109	459	404
v/c Ratio	0.40	0.34	0.36	0.34
Control Delay	27.0	8.4	5.5	6.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	27.0	8.4	5.5	6.0
Queue Length 50th (ft)	34	0	55	55
Queue Length 95th (ft)	68	34	120	117
Internal Link Dist (ft)	227		327	780
Turn Bay Length (ft)		100		
Base Capacity (vph)	520	542	1288	1181
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.19	0.20	0.36	0.34
Intersection Summary				

HCM 6th Signalized Intersection Summary
Lake Hill Development Traffic Impact Study - Frisco, CO

1: Dillon Dam Road & N. Ten Mile Road
2027 Background - Mid-Day

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	96	104	300	117	60	327
Future Volume (veh/h)	96	104	300	117	60	327
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1870	1870	1885	1885
Adj Flow Rate, veh/h	101	109	330	129	62	341
Peak Hour Factor	0.95	0.95	0.91	0.91	0.96	0.96
Percent Heavy Veh, %	4	4	2	2	1	1
Cap, veh/h	185	164	889	348	199	1049
Arrive On Green	0.11	0.11	0.69	0.69	0.69	0.69
Sat Flow, veh/h	1753	1560	1280	500	187	1510
Grp Volume(v), veh/h	101	109	0	459	403	0
Grp Sat Flow(s),veh/h/ln	1753	1560	0	1780	1697	0
Q Serve(g_s), s	3.3	4.0	0.0	6.4	0.0	0.0
Cycle Q Clear(g_c), s	3.3	4.0	0.0	6.4	5.0	0.0
Prop In Lane	1.00	1.00		0.28	0.15	
Lane Grp Cap(c), veh/h	185	164	0	1237	1248	0
V/C Ratio(X)	0.55	0.66	0.00	0.37	0.32	0.00
Avail Cap(c_a), veh/h	526	468	0	1237	1248	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.93	1.00	0.00
Uniform Delay (d), s/veh	25.5	25.8	0.0	3.8	3.6	0.0
Incr Delay (d2), s/veh	2.5	4.5	0.0	0.8	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.6	0.0	1.6	1.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.0	30.4	0.0	4.6	4.2	0.0
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	210		459			403
Approach Delay, s/veh	29.2		4.6			4.2
Approach LOS	C		A			A
Timer - Assigned Phs	2		6		8	
Phs Duration (G+Y+Rc), s	47.7		47.7		12.3	
Change Period (Y+Rc), s	6.0		6.0		6.0	
Max Green Setting (Gmax), s	30.0		30.0		18.0	
Max Q Clear Time (g_c+I1), s	8.4		7.0		6.0	
Green Ext Time (p_c), s	3.0		2.7		0.5	
Intersection Summary						
HCM 6th Ctrl Delay			9.3			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	2	404	8	0	378
Future Vol, veh/h	3	2	404	8	0	378
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	42	42	88	88	95	95
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	7	5	459	9	0	398
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	862	464	0	0	468	0
Stage 1	464	-	-	-	-	-
Stage 2	398	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	327	600	-	-	1099	-
Stage 1	635	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	327	600	-	-	1099	-
Mov Cap-2 Maneuver	327	-	-	-	-	-
Stage 1	635	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	14.3	0	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	400	1099	-	
HCM Lane V/C Ratio	-	-	0.03	-	-	
HCM Control Delay (s)	-	-	14.3	0	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	2	393	13	5	367
Future Vol, veh/h	12	2	393	13	5	367
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	81	81	91	91	93	93
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	15	2	432	14	5	395

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	844	439	0
Stage 1	439	-	-
Stage 2	405	-	-
Critical Hdwy	6.41	6.21	4.11
Critical Hdwy Stg 1	5.41	-	-
Critical Hdwy Stg 2	5.41	-	-
Follow-up Hdwy	3.509	3.309	2.209
Pot Cap-1 Maneuver	335	620	1120
Stage 1	652	-	-
Stage 2	676	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	333	620	1120
Mov Cap-2 Maneuver	333	-	-
Stage 1	652	-	-
Stage 2	672	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.6	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	357	1120
HCM Lane V/C Ratio	-	-	0.048	0.005
HCM Control Delay (s)	-	-	15.6	8.2
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	4	5	6	389	367	4
Future Vol, veh/h	4	5	6	389	367	4
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	56	56	93	93	87	87
Heavy Vehicles, %	11	11	1	1	1	1
Mvmt Flow	7	9	6	418	422	5

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	855	425	427	0	-	0
Stage 1	425	-	-	-	-	-
Stage 2	430	-	-	-	-	-
Critical Hdwy	6.51	6.31	4.11	-	-	-
Critical Hdwy Stg 1	5.51	-	-	-	-	-
Critical Hdwy Stg 2	5.51	-	-	-	-	-
Follow-up Hdwy	3.599	3.399	2.209	-	-	-
Pot Cap-1 Maneuver	317	610	1138	-	-	-
Stage 1	641	-	-	-	-	-
Stage 2	637	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	315	610	1138	-	-	-
Mov Cap-2 Maneuver	315	-	-	-	-	-
Stage 1	637	-	-	-	-	-
Stage 2	637	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.7	0.1	0
HCM LOS	B		

























Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1138	-	431	-	-
HCM Lane V/C Ratio	0.006	-	0.037	-	-
HCM Control Delay (s)	8.2	0	13.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection			
Intersection Delay, s/veh	6.5		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	240	459	420
Demand Flow Rate, veh/h	242	464	424
Vehicles Circulating, veh/h	376	140	104
Vehicles Exiting, veh/h	228	388	514
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.5	6.9	6.1
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	242	464	424
Cap Entry Lane, veh/h	940	1196	1241
Entry HV Adj Factor	0.992	0.990	0.991
Flow Entry, veh/h	240	459	420
Cap Entry, veh/h	933	1184	1230
V/C Ratio	0.257	0.388	0.342
Control Delay, s/veh	6.5	6.9	6.1
LOS	A	A	A
95th %tile Queue, veh	1	2	2

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

7: Dillon Dam Road & State Highway 6







2027 Background - Mid-Day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	478	190	112	513	212	209	118	112	168	92	135
Future Volume (vph)	106	478	190	112	513	212	209	118	112	168	92	135
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	1.0	14.0	14.0	1.0	14.0	14.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Split (s)	5.5	20.0	20.0	5.5	20.0	20.0	7.0	7.0	7.0	7.0	7.0	7.0
Total Split (s)	14.0	34.0	34.0	13.0	33.0	33.0	41.0	41.0	41.0	42.0	42.0	42.0
Total Split (%)	10.8%	26.2%	26.2%	10.0%	25.4%	25.4%	31.5%	31.5%	31.5%	32.3%	32.3%	32.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	73.4	61.9	61.9	73.9	62.1	62.1	19.2	19.2	19.2	19.1	19.1	19.1
Actuated g/C Ratio	0.56	0.48	0.48	0.57	0.48	0.48	0.15	0.15	0.15	0.15	0.15	0.15
v/c Ratio	0.23	0.31	0.25	0.24	0.33	0.26	0.71	0.70	0.38	0.56	0.56	0.42

Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 86 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 29.0
 Intersection Capacity Utilization 60.0%
 Analysis Period (min) 15

Splits and Phases: 7: Dillon Dam Road & State Highway 6













			
Ø1	Ø2 (R)	Ø4	Ø8
13 s	34 s	42 s	41 s
			
Ø5	Ø6 (R)		
14 s	33 s		

Queues

7: Dillon Dam Road & State Highway 6

























Lake Hill Development Traffic Impact Study - Frisco, CO

2027 Background - Mid-Day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	115	520	207	122	558	230	175	180	122	139	144	147
v/c Ratio	0.23	0.31	0.25	0.24	0.33	0.26	0.71	0.70	0.38	0.56	0.56	0.42
Control Delay	16.2	25.4	5.2	16.2	25.5	5.0	67.3	66.3	15.9	58.4	58.2	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	25.4	5.2	16.2	25.5	5.0	67.3	66.3	15.9	58.4	58.2	9.8
Queue Length 50th (ft)	37	129	0	39	140	0	150	153	16	120	124	0
Queue Length 95th (ft)	103	264	62	108	283	64	220	223	69	160	164	52
Internal Link Dist (ft)		817			836			345			494	
Turn Bay Length (ft)	500			150		420	110		70	120		
Base Capacity (vph)	509	1684	844	522	1690	876	465	483	511	478	496	546
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.31	0.25	0.23	0.33	0.26	0.38	0.37	0.24	0.29	0.29	0.27
Intersection Summary												

HCM Signalized Intersection Capacity Analysis Lake Hill Development Traffic Impact Study - Frisco, CO





















7: Dillon Dam Road & State Highway 6
2027 Background - Mid-Day

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	478	190	112	513	212	209	118	112	168	92	135
Future Volume (vph)	106	478	190	112	513	212	209	118	112	168	92	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.99	1.00	0.95	0.98	1.00
Satd. Flow (prot)	1770	3539	1548	1769	3539	1583	1681	1744	1583	1681	1743	1549
Flt Permitted	0.39	1.00	1.00	0.41	1.00	1.00	0.95	0.99	1.00	0.95	0.98	1.00
Satd. Flow (perm)	731	3539	1548	767	3539	1583	1681	1744	1583	1681	1743	1549
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	115	520	207	122	558	230	227	128	122	183	100	147
RTOR Reduction (vph)	0	0	108	0	0	120	0	0	86	0	0	125
Lane Group Flow (vph)	115	520	99	122	558	110	175	180	36	139	144	22
Confl. Peds. (#/hr)			1	1			9					9
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Actuated Green, G (s)	71.5	61.9	61.9	71.9	62.1	62.1	19.2	19.2	19.2	19.1	19.1	19.1
Effective Green, g (s)	71.5	61.9	61.9	71.9	62.1	62.1	19.2	19.2	19.2	19.1	19.1	19.1
Actuated g/C Ratio	0.55	0.48	0.48	0.55	0.48	0.48	0.15	0.15	0.15	0.15	0.15	0.15
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	478	1685	737	499	1690	756	248	257	233	246	256	227
v/s Ratio Prot	0.02	0.15		c0.02	c0.16		c0.10	0.10		c0.08	0.08	
v/s Ratio Perm	0.11		0.06	0.12		0.07			0.02			0.01
v/c Ratio	0.24	0.31	0.13	0.24	0.33	0.15	0.71	0.70	0.15	0.57	0.56	0.10
Uniform Delay, d1	14.3	20.9	19.1	14.1	21.1	19.1	52.7	52.7	48.3	51.6	51.6	48.0
Progression 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
Incremental Delay, d2	0.3	0.5	0.4	0.3	0.5	0.4	8.8	8.3	0.3	3.0	2.8	0.2
Delay (s)	14.6	21.4	19.4	14.4	21.6	19.5	61.5	61.0	48.6	54.5	54.4	48.2
Level of Service	B	C	B	B	C	B	E	E	D	D	D	D
Approach Delay (s)		20.0			20.1			58.0			52.3	
Approach LOS		B			C			E			D	
Intersection Summary												
HCM 2000 Control Delay			32.1				HCM 2000 Level of Service		C			
HCM 2000 Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			130.0				Sum of lost time (s)		20.0			
Intersection Capacity Utilization			60.0%				ICU Level of Service		B			
Analysis Period (min)			15									
c Critical Lane Group												

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

8: State Highway 9 & Dillon Dam Road









2027 Background - Mid-Day

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	202	71	246	76	89	618	259	86	651	207
Future Volume (vph)	202	71	246	76	89	618	259	86	651	207
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases					2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	14.0	14.0	5.0	14.0	14.0
Minimum Split (s)	9.5	38.0	9.5	11.0	10.0	20.0	20.0	10.0	36.0	36.0
Total Split (s)	15.0	38.0	15.0	38.0	10.0	36.0	36.0	11.0	37.0	37.0
Total Split (%)	15.0%	38.0%	15.0%	38.0%	10.0%	36.0%	36.0%	11.0%	37.0%	37.0%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.5	12.5	10.7	12.7	57.9	50.2	50.2	57.7	50.1	50.1
Actuated g/C Ratio	0.10	0.12	0.11	0.13	0.58	0.50	0.50	0.58	0.50	0.50
v/c Ratio	0.66	0.62	0.71	0.68	0.21	0.37	0.30	0.19	0.39	0.25

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 95
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 23.7
 Intersection Capacity Utilization 71.1%
 Analysis Period (min) 15

Splits and Phases: 8: State Highway 9 & Dillon Dam Road

			
Ø1	Ø2 (R)	Ø3	Ø4
11 s	36 s	15 s	38 s
			
Ø5	Ø6 (R)	Ø7	Ø8
10 s	37 s	15 s	38 s

Queues
Lake Hill Development Traffic Impact Study - Frisco, CO

8: State Highway 9 & Dillon Dam Road

2027 Background - Mid-Day

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	232	154	259	186	93	644	270	89	671	213
v/c Ratio	0.66	0.62	0.71	0.68	0.21	0.37	0.30	0.19	0.39	0.25
Control Delay	52.3	38.7	54.8	37.5	10.3	18.1	3.4	10.2	18.3	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	38.7	54.8	37.5	10.3	18.1	3.4	10.2	18.3	3.5
Queue Length 50th (ft)	74	65	83	71	22	133	0	21	141	0
Queue Length 95th (ft)	109	116	#126	134	51	211	49	49	222	45
Internal Link Dist (ft)		279		327		602			402	
Turn Bay Length (ft)	145		205		165		200	115		240
Base Capacity (vph)	370	567	374	587	446	1726	906	458	1723	860
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.27	0.69	0.32	0.21	0.37	0.30	0.19	0.39	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
Lake Hill Development Traffic Impact Study - Frisco, CO

8: State Highway 9 & Dillon Dam Road
2027 Background - Mid-Day

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	71	63	246	76	101	89	618	259	86	651	207
Future Volume (veh/h)	202	71	63	246	76	101	89	618	259	86	651	207
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	232	82	72	259	80	106	93	644	270	89	671	213
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	3	3	3	5	5	5	5	5	5
Cap, veh/h	301	173	152	327	143	189	351	1578	703	349	1577	703
Arrive On Green	0.09	0.19	0.19	0.10	0.20	0.20	0.05	0.45	0.45	0.05	0.45	0.45
Sat Flow, veh/h	3401	891	782	3428	712	943	1739	3469	1546	1739	3469	1546
Grp Volume(v), veh/h	232	0	154	259	0	186	93	644	270	89	671	213
Grp Sat Flow(s),veh/h/ln	1700	0	1673	1714	0	1655	1739	1735	1546	1739	1735	1546
Q Serve(g_s), s	6.7	0.0	8.2	7.4	0.0	10.1	2.8	12.4	11.5	2.7	13.1	8.7
Cycle Q Clear(g_c), s	6.7	0.0	8.2	7.4	0.0	10.1	2.8	12.4	11.5	2.7	13.1	8.7
Prop In Lane	1.00		0.47	1.00		0.57	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	301	0	324	327	0	332	351	1578	703	349	1577	703
V/C Ratio(X)	0.77	0.00	0.47	0.79	0.00	0.56	0.27	0.41	0.38	0.26	0.43	0.30
Avail Cap(c_a), veh/h	374	0	536	377	0	530	357	1578	703	374	1577	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.94	0.00	0.94	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	0.0	35.8	44.3	0.0	36.0	14.2	18.2	18.0	14.1	18.4	17.3
Incr Delay (d2), s/veh	7.6	0.0	1.1	9.2	0.0	1.4	0.4	0.8	1.6	0.4	0.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	3.4	3.5	0.0	4.2	1.0	4.8	4.3	1.0	5.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	0.0	36.9	53.4	0.0	37.4	14.6	19.0	19.6	14.4	19.3	18.4
LnGrp LOS	D	A	D	D	A	D	B	B	B	B	B	B
Approach Vol, veh/h		386			445			1007			973	
Approach Delay, s/veh		46.1			46.7			18.8			18.6	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	51.5	13.5	25.4	9.6	51.5	12.8	26.1				
Change Period (Y+Rc), s	5.0	6.0	4.0	6.0	5.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	6.0	30.0	11.0	32.0	5.0	31.0	11.0	32.0				
Max Q Clear Time (g_c+l1), s	4.7	14.4	9.4	10.2	4.8	15.1	8.7	12.1				
Green Ext Time (p_c), s	0.0	4.4	0.1	0.8	0.0	4.4	0.2	1.0				

Intersection Summary











HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

Notes

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

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

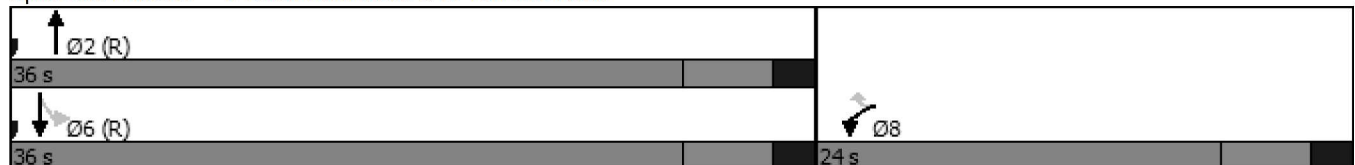
1: Dillon Dam Road & N. Ten Mile Road
2027 Background - PM Peak Hour

					
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	90	119	543	54	261
Future Volume (vph)	90	119	543	54	261
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0
Total Split (s)	24.0	24.0	36.0	36.0	36.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	8.8	8.8	42.7		42.7
Actuated g/C Ratio	0.15	0.15	0.71		0.71
v/c Ratio	0.39	0.39	0.55		0.32

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 9.2
Intersection Capacity Utilization 71.5%
Analysis Period (min) 15

Splits and Phases: 1: Dillon Dam Road & N. Ten Mile Road



Queues
Lake Hill Development Traffic Impact Study - Frisco, CO











1: Dillon Dam Road & N. Ten Mile Road
2027 Background - PM Peak Hour



Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	103	137	725	358
v/c Ratio	0.39	0.39	0.55	0.32
Control Delay	26.9	8.3	8.0	6.0
Queue Delay	0.0	0.0	0.5	0.0
Total Delay	26.9	8.3	8.5	6.0
Queue Length 50th (ft)	34	0	118	48
Queue Length 95th (ft)	66	35	241	101
Internal Link Dist (ft)	227		327	780
Turn Bay Length (ft)		100		
Base Capacity (vph)	536	575	1313	1103
Starvation Cap Reductn	0	0	217	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.19	0.24	0.66	0.32
Intersection Summary				

HCM 6th Signalized Intersection Summary
Lake Hill Development Traffic Impact Study - Frisco, CO

1: Dillon Dam Road & N. Ten Mile Road
2027 Background - PM Peak Hour




						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	90	119	543	102	54	261
Future Volume (veh/h)	90	119	543	102	54	261
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	103	137	610	115	61	297
Peak Hour Factor	0.87	0.87	0.89	0.89	0.88	0.88
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	220	196	1045	197	188	875
Arrive On Green	0.12	0.12	0.68	0.68	0.68	0.68
Sat Flow, veh/h	1795	1598	1542	291	175	1291
Grp Volume(v), veh/h	103	137	0	725	358	0
Grp Sat Flow(s),veh/h/ln	1795	1598	0	1833	1466	0
Q Serve(g_s), s	3.2	4.9	0.0	12.7	1.0	0.0
Cycle Q Clear(g_c), s	3.2	4.9	0.0	12.7	13.7	0.0
Prop In Lane	1.00	1.00		0.16	0.17	
Lane Grp Cap(c), veh/h	220	196	0	1242	1063	0
V/C Ratio(X)	0.47	0.70	0.00	0.58	0.34	0.00
Avail Cap(c_a), veh/h	539	479	0	1242	1063	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	0.86	1.00	0.00
Uniform Delay (d), s/veh	24.5	25.3	0.0	5.2	4.0	0.0
Incr Delay (d2), s/veh	1.5	4.5	0.0	1.7	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.0	0.0	3.6	1.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.1	29.8	0.0	6.9	4.8	0.0
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	240		725		358	
Approach Delay, s/veh	28.2		6.9		4.8	
Approach LOS	C		A		A	
Timer - Assigned Phs	2		6		8	
Phs Duration (G+Y+Rc), s	46.7		46.7		13.3	
Change Period (Y+Rc), s	6.0		6.0		6.0	
Max Green Setting (Gmax), s	30.0		30.0		18.0	
Max Q Clear Time (g_c+l1), s	14.7		15.7		6.9	
Green Ext Time (p_c), s	4.7		2.1		0.5	
Intersection Summary						
HCM 6th Ctrl Delay			10.2			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	7	2	645	6	2	300
Future Vol, veh/h	7	2	645	6	2	300
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	56	56	92	92	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	13	4	701	7	2	353

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1062	705	0
Stage 1	705	-	-
Stage 2	357	-	-
Critical Hdwy	6.41	6.21	4.11
Critical Hdwy Stg 1	5.41	-	-
Critical Hdwy Stg 2	5.41	-	-
Follow-up Hdwy	3.509	3.309	2.209
Pot Cap-1 Maneuver	249	438	895
Stage 1	492	-	-
Stage 2	710	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	248	438	895
Mov Cap-2 Maneuver	248	-	-
Stage 1	492	-	-
Stage 2	708	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	274	895
HCM Lane V/C Ratio	-	-	0.059	0.003
HCM Control Delay (s)	-	-	19	9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	5	636	12	6	292
Future Vol, veh/h	9	5	636	12	6	292
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	88	88	92	92	84	84
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	10	6	691	13	7	348

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1060	698	0	0	704
Stage 1	698	-	-	-	-
Stage 2	362	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11
Critical Hdwy Stg 1	5.41	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209
Pot Cap-1 Maneuver	249	442	-	-	898
Stage 1	495	-	-	-	-
Stage 2	707	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	247	442	-	-	898
Mov Cap-2 Maneuver	247	-	-	-	-
Stage 1	495	-	-	-	-
Stage 2	700	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	293	898
HCM Lane V/C Ratio	-	-	0.054	0.008
HCM Control Delay (s)	-	-	18	9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	5	4	7	634	294	6
Future Vol, veh/h	5	4	7	634	294	6
Conflicting Peds, #/hr	1	7	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	92	92	81	81
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	7	5	8	689	363	7

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1073	374	370	0	-	0
Stage 1	367	-	-	-	-	-
Stage 2	706	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	245	674	1194	-	-	-
Stage 1	703	-	-	-	-	-
Stage 2	491	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	242	670	1194	-	-	-
Mov Cap-2 Maneuver	242	-	-	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	491	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16	0.1	0
HCM LOS	C		

























Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1194	-	338	-	-
HCM Lane V/C Ratio	0.006	-	0.036	-	-
HCM Control Delay (s)	8	0	16	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection			
Intersection Delay, s/veh	13.1		
Intersection LOS	B		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	154	718	609
Demand Flow Rate, veh/h	156	725	615
Vehicles Circulating, veh/h	492	368	78
Vehicles Exiting, veh/h	601	325	570
Ped Vol Crossing Leg, #/h	1	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.3	18.9	7.9
Approach LOS	A	C	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	156	725	615
Cap Entry Lane, veh/h	835	948	1274
Entry HV Adj Factor	0.987	0.991	0.990
Flow Entry, veh/h	154	718	609
Cap Entry, veh/h	825	939	1261
V/C Ratio	0.187	0.765	0.483
Control Delay, s/veh	6.3	18.9	7.9
LOS	A	C	A
95th %tile Queue, veh	1	8	3

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

7: Dillon Dam Road & State Highway 6







2027 Background - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	565	210	160	578	358	198	110	194	260	214	112
Future Volume (vph)	138	565	210	160	578	358	198	110	194	260	214	112
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	1.0	14.0	14.0	1.0	14.0	14.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Split (s)	5.5	20.0	20.0	5.5	20.0	20.0	7.0	7.0	7.0	7.0	7.0	7.0
Total Split (s)	13.0	34.0	34.0	13.0	34.0	34.0	36.0	36.0	36.0	37.0	37.0	37.0
Total Split (%)	10.8%	28.3%	28.3%	10.8%	28.3%	28.3%	30.0%	30.0%	30.0%	30.8%	30.8%	30.8%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	58.8	45.8	45.8	60.9	46.8	46.8	17.7	17.7	17.7	24.5	24.5	24.5
Actuated g/C Ratio	0.49	0.38	0.38	0.51	0.39	0.39	0.15	0.15	0.15	0.20	0.20	0.20
v/c Ratio	0.37	0.45	0.31	0.42	0.45	0.46	0.67	0.66	0.53	0.74	0.74	0.29

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 92 (77%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 30.6
 Intersection Capacity Utilization 70.6%
 Analysis Period (min) 15

Splits and Phases: 7: Dillon Dam Road & State Highway 6













 Ø1	 Ø2 (R)	 Ø4	 Ø8
13 s	34 s	37 s	36 s
 Ø5	 Ø6 (R)		
13 s	34 s		

Queues

7: Dillon Dam Road & State Highway 6

























Lake Hill Development Traffic Impact Study - Frisco, CO

2027 Background - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	150	614	228	174	628	389	166	169	211	252	264	122
v/c Ratio	0.37	0.45	0.31	0.42	0.45	0.46	0.67	0.66	0.53	0.74	0.74	0.29
Control Delay	20.2	32.3	5.8	20.7	31.7	5.5	61.0	59.7	13.0	57.0	56.6	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	32.3	5.8	20.7	31.7	5.5	61.0	59.7	13.0	57.0	56.6	8.0
Queue Length 50th (ft)	57	185	0	67	186	0	130	132	13	192	202	0
Queue Length 95th (ft)	122	300	64	141	308	84	194	195	79	270	280	47
Internal Link Dist (ft)		817			836			345			494	
Turn Bay Length (ft)	500			150		420	110		70	120		
Base Capacity (vph)	411	1350	731	421	1381	845	434	450	551	448	469	506
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.45	0.31	0.41	0.45	0.46	0.38	0.38	0.38	0.56	0.56	0.24
Intersection Summary												

HCM Signalized Intersection Capacity Analysis Lake Hill Development Traffic Impact Study - Frisco, CO





















7: Dillon Dam Road & State Highway 6
2027 Background - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	565	210	160	578	358	198	110	194	260	214	112
Future Volume (vph)	138	565	210	160	578	358	198	110	194	260	214	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.99	1.00	0.95	0.99	1.00
Satd. Flow (prot)	1769	3539	1548	1769	3539	1560	1681	1744	1583	1681	1759	1563
Flt Permitted	0.33	1.00	1.00	0.32	1.00	1.00	0.95	0.99	1.00	0.95	0.99	1.00
Satd. Flow (perm)	612	3539	1548	591	3539	1560	1681	1744	1583	1681	1759	1563
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	614	228	174	628	389	215	120	211	283	233	122
RTOR Reduction (vph)	0	0	141	0	0	237	0	0	164	0	0	97
Lane Group Flow (vph)	150	614	87	174	628	152	166	169	47	252	264	25
Confl. Peds. (#/hr)	2		1	1		2	1					1
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Actuated Green, G (s)	56.7	45.7	45.7	58.9	46.8	46.8	17.7	17.7	17.7	24.5	24.5	24.5
Effective Green, g (s)	56.7	45.7	45.7	58.9	46.8	46.8	17.7	17.7	17.7	24.5	24.5	24.5
Actuated g/C Ratio	0.47	0.38	0.38	0.49	0.39	0.39	0.15	0.15	0.15	0.20	0.20	0.20
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	395	1347	589	408	1380	608	247	257	233	343	359	319
v/s Ratio Prot	0.03	0.17		c0.04	c0.18		c0.10	0.10		0.15	c0.15	
v/s Ratio Perm	0.14		0.06	0.17		0.10			0.03			0.02
v/c Ratio	0.38	0.46	0.15	0.43	0.46	0.25	0.67	0.66	0.20	0.73	0.74	0.08
Uniform Delay, d1	18.7	27.8	24.4	17.9	27.1	24.7	48.4	48.3	45.0	44.7	44.7	38.6
Progression 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
Incremental Delay, d2	0.6	1.1	0.5	0.7	1.1	1.0	7.0	6.0	0.4	7.9	7.6	0.1
Delay (s)	19.3	28.9	24.9	18.7	28.2	25.7	55.4	54.2	45.4	52.6	52.3	38.7
Level of Service	B	C	C	B	C	C	E	D	D	D	D	D
Approach Delay (s)		26.6			26.0			51.2			49.9	
Approach LOS		C			C			D			D	
Intersection Summary												
HCM 2000 Control Delay			34.8				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.56									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			20.0		
Intersection Capacity Utilization			70.6%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

8: State Highway 9 & Dillon Dam Road

















2027 Background - PM Peak Hour

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	269	127	188	65	61	797	359	87	675	260
Future Volume (vph)	269	127	188	65	61	797	359	87	675	260
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases					2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	14.0	14.0	5.0	14.0	14.0
Minimum Split (s)	9.5	38.0	9.5	24.0	10.0	24.0	24.0	10.0	36.0	36.0
Total Split (s)	19.0	38.0	14.0	33.0	10.0	38.0	38.0	10.0	38.0	38.0
Total Split (%)	19.0%	38.0%	14.0%	33.0%	10.0%	38.0%	38.0%	10.0%	38.0%	38.0%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.7	17.1	9.7	13.1	53.6	46.4	46.4	54.8	47.0	47.0
Actuated g/C Ratio	0.14	0.17	0.10	0.13	0.54	0.46	0.46	0.55	0.47	0.47
v/c Ratio	0.69	0.71	0.68	0.65	0.17	0.55	0.43	0.28	0.43	0.32

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 95
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 25.2
 Intersection Capacity Utilization 72.8%
 Analysis Period (min) 15

Splits and Phases: 8: State Highway 9 & Dillon Dam Road

							
10 s	38 s	14 s	38 s	10 s	38 s	19 s	33 s
							
10 s	38 s	19 s	33 s	10 s	38 s	19 s	33 s

Queues
Lake Hill Development Traffic Impact Study - Frisco, CO























8: State Highway 9 & Dillon Dam Road
2027 Background - PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	320	221	227	180	69	896	403	91	703	271
v/c Ratio	0.69	0.71	0.68	0.65	0.17	0.55	0.43	0.28	0.43	0.32
Control Delay	49.4	46.2	54.6	37.0	11.9	23.2	3.9	13.0	20.8	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	46.2	54.6	37.0	11.9	23.2	3.9	13.0	20.8	3.8
Queue Length 50th (ft)	100	119	73	71	18	220	0	24	158	0
Queue Length 95th (ft)	134	168	103	117	43	328	59	55	246	52
Internal Link Dist (ft)		215		327		1020			467	
Turn Bay Length (ft)	145		205		165		200	115		240
Base Capacity (vph)	505	566	343	503	402	1627	943	327	1631	856
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.39	0.66	0.36	0.17	0.55	0.43	0.28	0.43	0.32
Intersection Summary										

HCM 6th Signalized Intersection Summary
Lake Hill Development Traffic Impact Study - Frisco, CO











8: State Highway 9 & Dillon Dam Road
2027 Background - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	127	59	188	65	85	61	797	359	87	675	260
Future Volume (veh/h)	269	127	59	188	65	85	61	797	359	87	675	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1870	1870	1870	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	320	151	70	227	78	102	69	896	403	91	703	271
Peak Hour Factor	0.84	0.84	0.84	0.83	0.83	0.83	0.89	0.89	0.89	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	2	2	2	3	3	3	4	4	4
Cap, veh/h	395	285	132	295	152	199	304	1467	653	243	1467	653
Arrive On Green	0.12	0.24	0.24	0.09	0.21	0.21	0.04	0.42	0.42	0.05	0.42	0.42
Sat Flow, veh/h	3401	1174	544	3456	717	937	1767	3526	1569	1753	3497	1556
Grp Volume(v), veh/h	320	0	221	227	0	180	69	896	403	91	703	271
Grp Sat Flow(s),veh/h/ln	1700	0	1719	1728	0	1654	1767	1763	1569	1753	1749	1556
Q Serve(g_s), s	9.2	0.0	11.2	6.4	0.0	9.6	2.2	19.9	20.2	2.9	14.6	12.2
Cycle Q Clear(g_c), s	9.2	0.0	11.2	6.4	0.0	9.6	2.2	19.9	20.2	2.9	14.6	12.2
Prop In Lane	1.00		0.32	1.00		0.57	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	0	417	295	0	350	304	1467	653	243	1467	653
V/C Ratio(X)	0.81	0.00	0.53	0.77	0.00	0.51	0.23	0.61	0.62	0.37	0.48	0.42
Avail Cap(c_a), veh/h	510	0	550	346	0	447	317	1467	653	250	1467	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.95	0.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.1	0.0	32.9	44.8	0.0	34.9	16.4	22.9	22.9	17.8	21.1	20.4
Incr Delay (d2), s/veh	7.5	0.0	1.0	8.3	0.0	1.1	0.4	1.9	4.3	1.0	1.1	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	4.7	3.1	0.0	3.9	0.9	8.0	8.0	1.2	5.7	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	0.0	34.0	53.1	0.0	36.0	16.8	24.8	27.3	18.7	22.2	22.3
LnGrp LOS	D	A	C	D	A	D	B	C	C	B	C	C
Approach Vol, veh/h		541			407			1368			1065	
Approach Delay, s/veh		43.8			45.5			25.1			21.9	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	47.6	12.5	30.2	9.3	48.0	15.6	27.2				
Change Period (Y+Rc), s	5.0	6.0	4.0	6.0	5.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	5.0	32.0	10.0	32.0	5.0	32.0	15.0	27.0				
Max Q Clear Time (g_c+I1), s	4.9	22.2	8.4	13.2	4.2	16.6	11.2	11.6				
Green Ext Time (p_c), s	0.0	5.0	0.1	1.2	0.0	4.8	0.4	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			29.6									
HCM 6th LOS			C									

***Intersection Capacity Worksheets:
2042 Background***

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

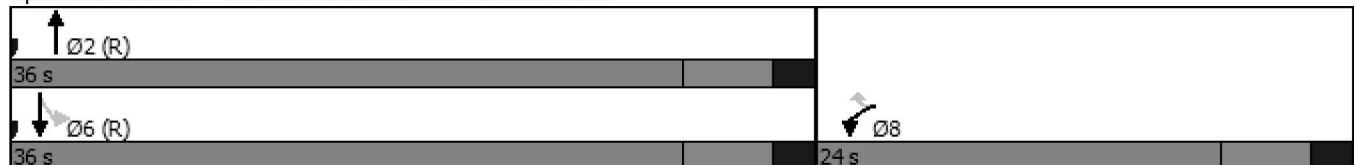
1: Dillon Dam Road & N. Ten Mile Road
2042 Background - Mid-Day

					
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	25	205	215	120	325
Future Volume (vph)	25	205	215	120	325
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0
Total Split (s)	24.0	24.0	36.0	36.0	36.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	7.4	7.4	40.6		40.6
Actuated g/C Ratio	0.12	0.12	0.68		0.68
v/c Ratio	0.12	0.56	0.27		0.45

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.56
 Intersection Signal Delay: 7.1
 Intersection Capacity Utilization 59.4%
 Analysis Period (min) 15

Splits and Phases: 1: Dillon Dam Road & N. Ten Mile Road



















Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	26	216	326	464
v/c Ratio	0.12	0.56	0.27	0.45
Control Delay	23.2	10.1	4.3	6.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.2	10.1	4.3	6.8
Queue Length 50th (ft)	9	0	28	57
Queue Length 95th (ft)	25	48	74	144
Internal Link Dist (ft)	227		327	780
Turn Bay Length (ft)		100		
Base Capacity (vph)	531	626	1227	1034
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.05	0.35	0.27	0.45
Intersection Summary				

HCM 6th Signalized Intersection Summary
Lake Hill Development Traffic Impact Study - Frisco, CO

1: Dillon Dam Road & N. Ten Mile Road
2042 Background - Mid-Day




						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	25	205	215	85	120	325
Future Volume (veh/h)	25	205	215	85	120	325
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	216	234	92	125	339
Peak Hour Factor	0.95	0.95	0.92	0.92	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	302	269	806	317	301	780
Arrive On Green	0.17	0.17	0.63	0.63	0.63	0.63
Sat Flow, veh/h	1781	1585	1278	502	357	1236
Grp Volume(v), veh/h	26	216	0	326	464	0
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1780	1594	0
Q Serve(g_s), s	0.7	7.9	0.0	5.0	2.5	0.0
Cycle Q Clear(g_c), s	0.7	7.9	0.0	5.0	7.9	0.0
Prop In Lane	1.00	1.00		0.28	0.27	
Lane Grp Cap(c), veh/h	302	269	0	1122	1081	0
V/C Ratio(X)	0.09	0.80	0.00	0.29	0.43	0.00
Avail Cap(c_a), veh/h	534	476	0	1122	1081	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.0	24.0	0.0	5.0	5.5	0.0
Incr Delay (d2), s/veh	0.1	5.6	0.0	0.7	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.2	0.0	1.5	2.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.1	29.5	0.0	5.7	6.7	0.0
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	242		326		464	
Approach Delay, s/veh	28.6		5.7		6.7	
Approach LOS	C		A		A	
Timer - Assigned Phs	2		6		8	
Phs Duration (G+Y+Rc), s	43.8		43.8		16.2	
Change Period (Y+Rc), s	6.0		6.0		6.0	
Max Green Setting (Gmax), s	30.0		30.0		18.0	
Max Q Clear Time (g_c+l1), s	7.0		9.9		9.9	
Green Ext Time (p_c), s	2.0		3.1		0.5	
Intersection Summary						
HCM 6th Ctrl Delay			11.5			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	470	10	5	440
Future Vol, veh/h	5	5	470	10	5	440
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	511	11	5	463

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	990	517	0	0	522	0
Stage 1	517	-	-	-	-	-
Stage 2	473	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	273	558	-	-	1044	-
Stage 1	598	-	-	-	-	-
Stage 2	627	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	271	558	-	-	1044	-
Mov Cap-2 Maneuver	271	-	-	-	-	-
Stage 1	598	-	-	-	-	-
Stage 2	623	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.2	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	365	1044
HCM Lane V/C Ratio	-	-	0.03	0.005
HCM Control Delay (s)	-	-	15.2	8.5
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	5	455	15	5	425
Future Vol, veh/h	15	5	455	15	5	425
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	5	495	16	5	457

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	970	503	0
Stage 1	503	-	-
Stage 2	467	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	281	569	-
Stage 1	607	-	-
Stage 2	631	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	279	569	-
Mov Cap-2 Maneuver	279	-	-
Stage 1	607	-	-
Stage 2	627	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.1	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	320	1054
HCM Lane V/C Ratio	-	-	0.068	0.005
HCM Control Delay (s)	-	-	17.1	8.4
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	5	5	5	450	425	5
Future Vol, veh/h	5	5	5	450	425	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	93	93	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	5	484	462	5

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	959	465	467	0	-	0
Stage 1	465	-	-	-	-	-
Stage 2	494	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	285	597	1094	-	-	-
Stage 1	632	-	-	-	-	-
Stage 2	613	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	283	597	1094	-	-	-
Mov Cap-2 Maneuver	283	-	-	-	-	-
Stage 1	628	-	-	-	-	-
Stage 2	613	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0.1	0
HCM LOS	B		

























Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1094	-	384	-	-
HCM Lane V/C Ratio	0.005	-	0.028	-	-
HCM Control Delay (s)	8.3	0	14.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection			
Intersection Delay, s/veh	7.4		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	239	516	489
Demand Flow Rate, veh/h	244	526	498
Vehicles Circulating, veh/h	426	168	105
Vehicles Exiting, veh/h	268	435	565
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.0	8.0	6.9
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	244	526	498
Cap Entry Lane, veh/h	894	1163	1240
Entry HV Adj Factor	0.980	0.980	0.981
Flow Entry, veh/h	239	516	489
Cap Entry, veh/h	875	1140	1216
V/C Ratio	0.273	0.452	0.402
Control Delay, s/veh	7.0	8.0	6.9
LOS	A	A	A
95th %tile Queue, veh	1	2	2

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

7: Dillon Dam Road & State Highway 6







2042 Background - Mid-Day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	555	220	130	595	245	245	135	130	195	105	155
Future Volume (vph)	125	555	220	130	595	245	245	135	130	195	105	155
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	1.0	14.0	14.0	1.0	14.0	14.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Split (s)	5.5	20.0	20.0	5.5	20.0	20.0	7.0	7.0	7.0	7.0	7.0	7.0
Total Split (s)	14.0	34.0	34.0	13.0	33.0	33.0	41.0	41.0	41.0	42.0	42.0	42.0
Total Split (%)	10.8%	26.2%	26.2%	10.0%	25.4%	25.4%	31.5%	31.5%	31.5%	32.3%	32.3%	32.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	69.5	56.5	56.5	69.7	56.6	56.6	21.7	21.7	21.7	20.7	20.7	20.7
Actuated g/C Ratio	0.53	0.43	0.43	0.54	0.44	0.44	0.17	0.17	0.17	0.16	0.16	0.16
v/c Ratio	0.32	0.39	0.30	0.32	0.42	0.32	0.72	0.73	0.41	0.60	0.60	0.43

Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 86 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 31.1
 Intersection Capacity Utilization 71.4%
 Analysis Period (min) 15

Splits and Phases: 7: Dillon Dam Road & State Highway 6













 Ø1	 Ø2 (R)	 Ø4	 Ø8
13 s	34 s	42 s	41 s
 Ø5	 Ø6 (R)		
14 s	33 s		

Queues

7: Dillon Dam Road & State Highway 6

Lake Hill Development Traffic Impact Study - Frisco, CO

2042 Background - Mid-Day

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	136	603	239	141	647	266	202	211	141	161	165	168
v/c Ratio	0.32	0.39	0.30	0.32	0.42	0.32	0.72	0.73	0.41	0.60	0.60	0.43
Control Delay	19.2	30.0	5.6	19.1	30.4	5.5	65.0	64.9	18.3	58.7	58.1	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	30.0	5.6	19.1	30.4	5.5	65.0	64.9	18.3	58.7	58.1	9.2
Queue Length 50th (ft)	50	173	0	52	188	0	171	178	29	136	140	0
Queue Length 95th (ft)	124	325	70	129	#372	73	244	252	85	183	186	54
Internal Link Dist (ft)		817			836			345			494	
Turn Bay Length (ft)	500			150		420	110		70	120		
Base Capacity (vph)	435	1539	808	449	1541	839	465	482	511	478	496	561
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.39	0.30	0.31	0.42	0.32	0.43	0.44	0.28	0.34	0.33	0.30

Intersection Summary

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis Lake Hill Development Traffic Impact Study - Frisco, CO

7: Dillon Dam Road & State Highway 6

2042 Background - Mid-Day

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	555	220	130	595	245	245	135	130	195	105	155
Future Volume (vph)	125	555	220	130	595	245	245	135	130	195	105	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.99	1.00	0.95	0.98	1.00
Satd. Flow (prot)	1770	3539	1548	1769	3539	1583	1681	1743	1583	1681	1743	1549
Flt Permitted	0.33	1.00	1.00	0.35	1.00	1.00	0.95	0.99	1.00	0.95	0.98	1.00
Satd. Flow (perm)	609	3539	1548	652	3539	1583	1681	1743	1583	1681	1743	1549
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	603	239	141	647	266	266	147	141	212	114	168
RTOR Reduction (vph)	0	0	135	0	0	150	0	0	84	0	0	141
Lane Group Flow (vph)	136	603	104	141	647	116	202	211	57	161	165	27
Confl. Peds. (#/hr)			1	1			9					9
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Actuated Green, G (s)	67.5	56.5	56.5	67.7	56.6	56.6	21.7	21.7	21.7	20.7	20.7	20.7
Effective Green, g (s)	67.5	56.5	56.5	67.7	56.6	56.6	21.7	21.7	21.7	20.7	20.7	20.7
Actuated g/C Ratio	0.52	0.43	0.43	0.52	0.44	0.44	0.17	0.17	0.17	0.16	0.16	0.16
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	414	1538	672	434	1540	689	280	290	264	267	277	246
v/s Ratio Prot	c0.03	0.17		0.03	c0.18		0.12	c0.12		c0.10	0.09	
v/s Ratio Perm	0.14		0.07	0.14		0.07			0.04			0.02
v/c Ratio	0.33	0.39	0.15	0.32	0.42	0.17	0.72	0.73	0.22	0.60	0.60	0.11
Uniform Delay, d1	16.8	25.0	22.3	16.7	25.4	22.4	51.3	51.3	46.8	50.8	50.8	46.8
Progression 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
Incremental Delay, d2	0.5	0.8	0.5	0.4	0.8	0.5	8.8	8.8	0.4	3.8	3.4	0.2
Delay (s)	17.3	25.8	22.8	17.1	26.2	22.9	60.1	60.1	47.2	54.6	54.2	47.0
Level of Service	B	C	C	B	C	C	E	E	D	D	D	D
Approach Delay (s)		23.9			24.2			56.8			51.9	
Approach LOS		C			C			E			D	
Intersection Summary												
HCM 2000 Control Delay			34.4				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			130.0				Sum of lost time (s)			20.0		
Intersection Capacity Utilization			71.4%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↘	↗	↘		↗	↘
Traffic Vol, veh/h	0	0	360	0	0	350	105	715	300	0	755	340
Future Vol, veh/h	0	0	360	0	0	350	105	715	300	0	755	340
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	165	-	200	-	-	240
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	95	96	96	96	97	97	97
Heavy Vehicles, %	2	2	4	2	2	3	5	5	5	2	5	5
Mvmt Flow	0	0	391	0	0	368	109	745	313	0	778	351











Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	389	-	-	373	1129	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.98	-	-	6.96	4.2	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.34	-	-	3.33	2.25	-
Pot Cap-1 Maneuver	0	0	604	0	0	622	597	-
Stage 1	0	0	-	0	0	-	-	0
Stage 2	0	0	-	0	0	-	-	0
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	604	-	-	622	597	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.3	18.8	1.2	0
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	597	-	-	604	622	-
HCM Lane V/C Ratio	0.183	-	-	0.648	0.592	-
HCM Control Delay (s)	12.4	-	-	21.3	18.8	-
HCM Lane LOS	B	-	-	C	C	-
HCM 95th %tile Q(veh)	0.7	-	-	4.7	3.9	-

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

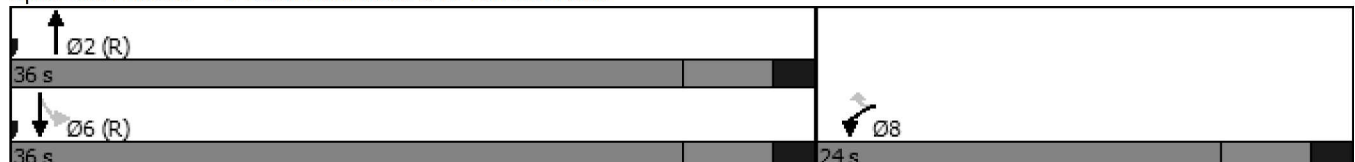
1: Dillon Dam Road & N. Ten Mile Road
2042 Background - PM Peak Hour

					
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	30	215	420	100	395
Future Volume (vph)	30	215	420	100	395
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0
Total Split (s)	24.0	24.0	36.0	36.0	36.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	7.6	7.6	40.4		40.4
Actuated g/C Ratio	0.13	0.13	0.67		0.67
v/c Ratio	0.15	0.58	0.44		0.53

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 8.0
 Intersection Capacity Utilization 72.5%
 Analysis Period (min) 15

Splits and Phases: 1: Dillon Dam Road & N. Ten Mile Road



Queues
Lake Hill Development Traffic Impact Study - Frisco, CO












1: Dillon Dam Road & N. Ten Mile Road
2042 Background - PM Peak Hour






Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	33	234	544	538
v/c Ratio	0.15	0.58	0.44	0.53
Control Delay	23.4	10.0	6.2	8.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.4	10.0	6.2	8.0
Queue Length 50th (ft)	11	0	64	73
Queue Length 95th (ft)	29	49	156	188
Internal Link Dist (ft)	227		327	780
Turn Bay Length (ft)		100		
Base Capacity (vph)	531	638	1230	1015
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.06	0.37	0.44	0.53
Intersection Summary				

HCM 6th Signalized Intersection Summary
Lake Hill Development Traffic Impact Study - Frisco, CO

1: Dillon Dam Road & N. Ten Mile Road
2042 Background - PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	30	215	420	80	100	395
Future Volume (veh/h)	30	215	420	80	100	395
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	234	457	87	109	429
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	324	288	944	180	212	791
Arrive On Green	0.18	0.18	0.62	0.62	0.62	0.62
Sat Flow, veh/h	1781	1585	1527	291	226	1279
Grp Volume(v), veh/h	33	234	0	544	538	0
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1818	1504	0
Q Serve(g_s), s	0.9	8.5	0.0	9.8	3.2	0.0
Cycle Q Clear(g_c), s	0.9	8.5	0.0	9.8	12.9	0.0
Prop In Lane	1.00	1.00		0.16	0.20	
Lane Grp Cap(c), veh/h	324	288	0	1124	1002	0
V/C Ratio(X)	0.10	0.81	0.00	0.48	0.54	0.00
Avail Cap(c_a), veh/h	534	476	0	1124	1002	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.5	23.6	0.0	6.2	6.4	0.0
Incr Delay (d2), s/veh	0.1	5.5	0.0	1.5	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.4	0.0	3.2	3.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.6	29.1	0.0	7.7	8.5	0.0
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	267		544			538
Approach Delay, s/veh	28.0		7.7			8.5
Approach LOS	C		A			A
Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	43.1				43.1	16.9
Change Period (Y+Rc), s	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0				30.0	18.0
Max Q Clear Time (g_c+l1), s	11.8				14.9	10.5
Green Ext Time (p_c), s	3.5				3.5	0.5
Intersection Summary						
HCM 6th Ctrl Delay			12.0			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	10	5	750	5	5	350
Future Vol, veh/h	10	5	750	5	5	350
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	5	815	5	5	380
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1208	818	0	0	820	0
Stage 1	818	-	-	-	-	-
Stage 2	390	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	202	376	-	-	809	-
Stage 1	434	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	200	376	-	-	809	-
Mov Cap-2 Maneuver	200	-	-	-	-	-
Stage 1	434	-	-	-	-	-
Stage 2	679	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	21.3	0	0.1			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	237	809	-	
HCM Lane V/C Ratio	-	-	0.069	0.007	-	
HCM Control Delay (s)	-	-	21.3	9.5	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	5	740	15	5	340
Future Vol, veh/h	10	5	740	15	5	340
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	5	804	16	5	370

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1192	812	0
Stage 1	812	-	-
Stage 2	380	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	207	379	-
Stage 1	437	-	-
Stage 2	691	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	205	379	-
Mov Cap-2 Maneuver	205	-	-
Stage 1	437	-	-
Stage 2	685	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.9	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	242	809
HCM Lane V/C Ratio	-	-	0.067	0.007
HCM Control Delay (s)	-	-	20.9	9.5
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.2	0

























Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	5	5	10	735	340	5
Future Vol, veh/h	5	5	10	735	340	5
Conflicting Peds, #/hr	1	7	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	11	799	370	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1195	380	375	0	-	0
Stage 1	373	-	-	-	-	-
Stage 2	822	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	206	667	1183	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	432	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	202	663	1183	-	-	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	684	-	-	-	-	-
Stage 2	432	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	17	0.1		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1183	-	310	-	-	
HCM Lane V/C Ratio	0.009	-	0.035	-	-	
HCM Control Delay (s)	8.1	0	17	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection			
Intersection Delay, s/veh	20.3		
Intersection LOS	C		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	174	785	708
Demand Flow Rate, veh/h	178	801	722
Vehicles Circulating, veh/h	543	430	89
Vehicles Exiting, veh/h	688	381	632
Ped Vol Crossing Leg, #/h	1	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.1	32.8	9.6
Approach LOS	A	D	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	178	801	722
Cap Entry Lane, veh/h	793	890	1260
Entry HV Adj Factor	0.978	0.980	0.981
Flow Entry, veh/h	174	785	708
Cap Entry, veh/h	775	873	1236
V/C Ratio	0.224	0.900	0.573
Control Delay, s/veh	7.1	32.8	9.6
LOS	A	D	A
95th %tile Queue, veh	1	13	4

Timings
Lake Hill Development Traffic Impact Study - Frisco, CO

7: Dillon Dam Road & State Highway 6







2042 Background - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	655	245	185	670	415	230	130	225	300	250	130
Future Volume (vph)	160	655	245	185	670	415	230	130	225	300	250	130
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	1.0	14.0	14.0	1.0	14.0	14.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Split (s)	5.5	20.0	20.0	5.5	20.0	20.0	7.0	7.0	7.0	7.0	7.0	7.0
Total Split (s)	13.0	34.0	34.0	13.0	34.0	34.0	36.0	36.0	36.0	37.0	37.0	37.0
Total Split (%)	10.8%	28.3%	28.3%	10.8%	28.3%	28.3%	30.0%	30.0%	30.0%	30.8%	30.8%	30.8%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	52.3	37.5	37.5	57.4	40.3	40.3	20.0	20.0	20.0	26.9	26.9	26.9
Actuated g/C Ratio	0.44	0.31	0.31	0.48	0.34	0.34	0.17	0.17	0.17	0.22	0.22	0.22
v/c Ratio	0.51	0.64	0.40	0.55	0.61	0.55	0.69	0.69	0.58	0.78	0.77	0.31

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 92 (77%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 34.5
 Intersection Capacity Utilization 75.4%
 Analysis Period (min) 15

Splits and Phases: 7: Dillon Dam Road & State Highway 6













 Ø1	 Ø2 (R)	 Ø4	 Ø8
13 s	34 s	37 s	36 s
 Ø5	 Ø6 (R)		
13 s	34 s		

Queues

7: Dillon Dam Road & State Highway 6

Lake Hill Development Traffic Impact Study - Frisco, CO

2042 Background - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	174	712	266	201	728	451	192	199	245	293	305	141
v/c Ratio	0.51	0.64	0.40	0.55	0.61	0.55	0.69	0.69	0.58	0.78	0.77	0.31
Control Delay	26.3	41.0	6.4	27.9	38.9	6.3	58.9	58.3	17.0	57.7	56.7	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.3	41.0	6.4	27.9	38.9	6.3	58.9	58.3	17.0	57.7	56.7	7.3
Queue Length 50th (ft)	76	260	0	89	257	0	149	154	38	222	230	0
Queue Length 95th (ft)	147	#376	69	#180	#391	91	215	221	111	316	326	49
Internal Link Dist (ft)		817			836			345			494	
Turn Bay Length (ft)	500			150		420	110		70	120		
Base Capacity (vph)	339	1105	666	363	1188	823	434	450	549	448	469	520
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.64	0.40	0.55	0.61	0.55	0.44	0.44	0.45	0.65	0.65	0.27

























Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis Lake Hill Development Traffic Impact Study - Frisco, CO

7: Dillon Dam Road & State Highway 6
2042 Background - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	655	245	185	670	415	230	130	225	300	250	130
Future Volume (vph)	160	655	245	185	670	415	230	130	225	300	250	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.99	1.00	0.95	0.99	1.00
Satd. Flow (prot)	1769	3539	1548	1769	3539	1560	1681	1744	1583	1681	1760	1563
Flt Permitted	0.25	1.00	1.00	0.21	1.00	1.00	0.95	0.99	1.00	0.95	0.99	1.00
Satd. Flow (perm)	461	3539	1548	384	3539	1560	1681	1744	1583	1681	1760	1563
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	712	266	201	728	451	250	141	245	326	272	141
RTOR Reduction (vph)	0	0	183	0	0	300	0	0	158	0	0	109
Lane Group Flow (vph)	174	712	83	201	728	151	192	199	88	293	305	32
Confl. Peds. (#/hr)	2		1	1		2	1					1
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Actuated Green, G (s)	50.3	37.5	37.5	55.9	40.3	40.3	20.0	20.0	20.0	26.9	26.9	26.9
Effective Green, g (s)	50.3	37.5	37.5	55.9	40.3	40.3	20.0	20.0	20.0	26.9	26.9	26.9
Actuated g/C Ratio	0.42	0.31	0.31	0.47	0.34	0.34	0.17	0.17	0.17	0.22	0.22	0.22
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	332	1105	483	358	1188	523	280	290	263	376	394	350
v/s Ratio Prot	0.06	0.20		c0.07	c0.21		c0.11	0.11		c0.17	0.17	
v/s Ratio Perm	0.16		0.05	0.19		0.10			0.06			0.02
v/c Ratio	0.52	0.64	0.17	0.56	0.61	0.29	0.69	0.69	0.33	0.78	0.77	0.09
Uniform Delay, d1	23.4	35.5	30.0	21.3	33.3	29.3	47.0	47.0	44.1	43.8	43.7	36.9
Progression 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
Incremental Delay, d2	1.5	2.9	0.8	2.0	2.4	1.4	6.8	6.6	0.7	9.8	9.2	0.1
Delay (s)	24.8	38.4	30.7	23.3	35.7	30.7	53.8	53.6	44.9	53.6	52.9	37.0
Level of Service	C	D	C	C	D	C	D	D	D	D	D	D
Approach Delay (s)		34.6			32.3			50.3			50.1	
Approach LOS		C			C			D			D	
Intersection Summary												
HCM 2000 Control Delay			39.3				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			20.0		
Intersection Capacity Utilization			75.4%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												











Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↰			↰	↰	↰	↰		↰	↰
Traffic Vol, veh/h	0	0	285	0	0	410	70	925	415	0	785	400
Future Vol, veh/h	0	0	285	0	0	410	70	925	415	0	785	400
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	165	-	200	-	-	240
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	2	2	2	3	3	3	4	4	4
Mvmt Flow	0	0	297	0	0	427	73	964	432	0	818	417

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	409	-	-	482	1235	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.98	-	-	6.94	4.16	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.34	-	-	3.32	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	586	0	0	530	554	-	0	0	-	-
Stage 1	0	0	-	0	0	-	-	-	0	0	-	-
Stage 2	0	0	-	0	0	-	-	-	0	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	586	-	-	530	554	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.3	34.2	0.9	0
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	554	-	586	530	-	-
HCM Lane V/C Ratio	0.132	-	0.507	0.806	-	-
HCM Control Delay (s)	12.5	-	17.3	34.2	-	-
HCM Lane LOS	B	-	C	D	-	-
HCM 95th %tile Q(veh)	0.5	-	2.9	7.8	-	-




***Intersection Capacity Worksheets:
2027 Background + Project***





					
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	93	114	378	74	491
Future Volume (vph)	93	114	378	74	491
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0
Total Split (s)	24.0	24.0	36.0	36.0	36.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max












Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Splits and Phases: 1: Dillon Dam Road & N. Ten Mile Road




	Ø2 (R)		
36 s			
	Ø6 (R)		
36 s			
			Ø8
		24 s	

				
Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	98	120	544	588
v/c Ratio	0.39	0.37	0.42	0.50
Control Delay	27.0	8.5	6.1	7.7
Queue Delay	0.0	0.0	0.2	0.0
Total Delay	27.0	8.5	6.4	7.7
Queue Length 50th (ft)	33	0	72	93
Queue Length 95th (ft)	67	36	153	197
Internal Link Dist (ft)	227		327	780
Turn Bay Length (ft)		100		
Base Capacity (vph)	520	549	1296	1179
Starvation Cap Reductn	0	0	243	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.19	0.22	0.52	0.50
Intersection Summary				

























						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	93	114	378	117	74	491
Future Volume (veh/h)	93	114	378	117	74	491
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1870	1870	1885	1885
Adj Flow Rate, veh/h	98	120	415	129	77	511
Peak Hour Factor	0.95	0.95	0.91	0.91	0.96	0.96
Percent Heavy Veh, %	4	4	2	2	1	1
Cap, veh/h	197	176	941	292	170	1074
Arrive On Green	0.11	0.11	0.69	0.69	0.69	0.69
Sat Flow, veh/h	1753	1560	1368	425	149	1562
Grp Volume(v), veh/h	98	120	0	544	588	0
Grp Sat Flow(s),veh/h/ln	1753	1560	0	1794	1711	0
Q Serve(g_s), s	3.2	4.4	0.0	8.2	0.0	0.0
Cycle Q Clear(g_c), s	3.2	4.4	0.0	8.2	8.5	0.0
Prop In Lane	1.00	1.00		0.24	0.13	
Lane Grp Cap(c), veh/h	197	176	0	1233	1244	0
V/C Ratio(X)	0.50	0.68	0.00	0.44	0.47	0.00
Avail Cap(c_a), veh/h	526	468	0	1233	1244	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	0.91	1.00	0.00
Uniform Delay (d), s/veh	25.0	25.6	0.0	4.2	4.3	0.0
Incr Delay (d2), s/veh	1.9	4.6	0.0	1.0	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.8	0.0	2.2	2.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.0	30.2	0.0	5.2	5.5	0.0
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	218		544		588	
Approach Delay, s/veh	28.8		5.2		5.5	
Approach LOS	C		A		A	
Timer - Assigned Phs	2		6		8	
Phs Duration (G+Y+Rc), s	47.2		47.2		12.8	
Change Period (Y+Rc), s	6.0		6.0		6.0	
Max Green Setting (Gmax), s	30.0		30.0		18.0	
Max Q Clear Time (g_c+l1), s	10.2		10.5		6.4	
Green Ext Time (p_c), s	3.6		4.2		0.5	
Intersection Summary						
HCM 6th Ctrl Delay			9.2			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	3	2	492	8	0	556
Future Vol, veh/h	3	2	492	8	0	556
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	42	42	88	88	95	95
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	7	5	559	9	0	585
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1149	564	0	0	568	0
Stage 1	564	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	220	527	-	-	1009	-
Stage 1	571	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	220	527	-	-	1009	-
Mov Cap-2 Maneuver	220	-	-	-	-	-
Stage 1	571	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	18.1	0	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	287	1009	-	
HCM Lane V/C Ratio	-	-	0.041	-	-	
HCM Control Delay (s)	-	-	18.1	0	-	
HCM Lane LOS	-	-	C	A	-	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	12	2	481	13	5	545
Future Vol, veh/h	12	2	481	13	5	545
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	81	81	91	91	93	93
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	15	2	529	14	5	586
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1132	536	0	0	543	0
Stage 1	536	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	226	547	-	-	1031	-
Stage 1	589	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	224	547	-	-	1031	-
Mov Cap-2 Maneuver	224	-	-	-	-	-
Stage 1	589	-	-	-	-	-
Stage 2	548	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	20.8	0	0.1			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	245	1031	-	
HCM Lane V/C Ratio	-	-	0.071	0.005	-	
HCM Control Delay (s)	-	-	20.8	8.5	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	5	6	477	545	4
Future Vol, veh/h	4	5	6	477	545	4
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	56	56	93	93	87	87
Heavy Vehicles, %	11	11	1	1	1	1
Mvmt Flow	7	9	6	513	626	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1154	629	631	0	-	0
Stage 1	629	-	-	-	-	-
Stage 2	525	-	-	-	-	-
Critical Hdwy	6.51	6.31	4.11	-	-	-
Critical Hdwy Stg 1	5.51	-	-	-	-	-
Critical Hdwy Stg 2	5.51	-	-	-	-	-
Follow-up Hdwy	3.599	3.399	2.209	-	-	-
Pot Cap-1 Maneuver	209	466	956	-	-	-
Stage 1	515	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	207	466	956	-	-	-
Mov Cap-2 Maneuver	207	-	-	-	-	-
Stage 1	510	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	17.7	0.1		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	956	-	299	-	-	
HCM Lane V/C Ratio	0.007	-	0.054	-	-	
HCM Control Delay (s)	8.8	0	17.7	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Intersection			
Intersection Delay, s/veh	7.7		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	248	585	469
Demand Flow Rate, veh/h	250	591	473
Vehicles Circulating, veh/h	488	140	112
Vehicles Exiting, veh/h	243	445	626
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.6	8.4	6.7
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	250	591	473
Cap Entry Lane, veh/h	839	1196	1231
Entry HV Adj Factor	0.992	0.990	0.991
Flow Entry, veh/h	248	585	469
Cap Entry, veh/h	832	1184	1220
V/C Ratio	0.298	0.494	0.384
Control Delay, s/veh	7.6	8.4	6.7
LOS	A	A	A
95th %tile Queue, veh	1	3	2

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	478	214	128	513	212	260	132	146	168	98	135
Future Volume (vph)	106	478	214	128	513	212	260	132	146	168	98	135
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	2.0	14.0	14.0	2.0	14.0	14.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Split (s)	6.0	20.0	20.0	6.0	20.0	20.0	7.0	7.0	7.0	7.0	7.0	7.0
Total Split (s)	14.0	34.0	34.0	13.0	33.0	33.0	41.0	41.0	41.0	42.0	42.0	42.0
Total Split (%)	10.8%	26.2%	26.2%	10.0%	25.4%	25.4%	31.5%	31.5%	31.5%	32.3%	32.3%	32.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 130









Actuated Cycle Length: 130













Offset: 86 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 7: Dillon Dam Road & State Highway 6

				
Ø1	Ø2 (R)		Ø4	Ø8
13 s	34 s		42 s	41 s
				
Ø5	Ø6 (R)			
14 s	33 s			

























												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	115	520	233	139	558	230	209	217	159	143	147	147
v/c Ratio	0.25	0.33	0.29	0.28	0.35	0.27	0.73	0.73	0.44	0.57	0.56	0.41
Control Delay	18.3	28.4	5.6	18.5	28.3	5.5	64.9	64.6	20.1	58.3	57.8	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.3	28.4	5.6	18.5	28.3	5.5	64.9	64.6	20.1	58.3	57.8	9.7
Queue Length 50th (ft)	41	142	0	50	152	0	176	184	38	122	125	0
Queue Length 95th (ft)	108	276	69	128	297	67	250	258	97	164	167	52
Internal Link Dist (ft)		817			836			345			494	
Turn Bay Length (ft)	500			150		420	110		70	120		
Base Capacity (vph)	483	1573	817	495	1591	838	465	481	515	478	497	546
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.33	0.29	0.28	0.35	0.27	0.45	0.45	0.31	0.30	0.30	0.27
Intersection Summary												

HCM Signalized Intersection Capacity Analysis

05/31/2023





















7: Dillon Dam Road & State Highway 6

2027 Background + Project - Mid-Day

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	478	214	128	513	212	260	132	146	168	98	135
Future Volume (vph)	106	478	214	128	513	212	260	132	146	168	98	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.98	1.00	0.95	0.99	1.00
Satd. Flow (prot)	1770	3539	1548	1769	3539	1583	1681	1740	1583	1681	1746	1549
Flt Permitted	0.39	1.00	1.00	0.40	1.00	1.00	0.95	0.98	1.00	0.95	0.99	1.00
Satd. Flow (perm)	721	3539	1548	744	3539	1583	1681	1740	1583	1681	1746	1549
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	115	520	233	139	558	230	283	143	159	183	107	147
RTOR Reduction (vph)	0	0	130	0	0	127	0	0	89	0	0	125
Lane Group Flow (vph)	115	520	103	139	558	103	209	217	70	143	147	22
Confl. Peds. (#/hr)			1	1			9					9
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Actuated Green, G (s)	67.5	57.7	57.7	68.9	58.4	58.4	22.3	22.3	22.3	19.5	19.5	19.5
Effective Green, g (s)	67.5	57.7	57.7	68.9	58.4	58.4	22.3	22.3	22.3	19.5	19.5	19.5
Actuated g/C Ratio	0.52	0.44	0.44	0.53	0.45	0.45	0.17	0.17	0.17	0.15	0.15	0.15
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	453	1570	687	477	1589	711	288	298	271	252	261	232
v/s Ratio Prot	0.02	0.15		c0.02	c0.16		0.12	c0.12		c0.09	0.08	
v/s Ratio Perm	0.11		0.07	0.13		0.07			0.04			0.01
v/c Ratio	0.25	0.33	0.15	0.29	0.35	0.15	0.73	0.73	0.26	0.57	0.56	0.10
Uniform Delay, d1	16.3	23.6	21.5	15.9	23.4	21.1	51.0	51.0	46.7	51.3	51.3	47.6
Progression 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
Incremental Delay, d2	0.3	0.6	0.5	0.3	0.6	0.4	8.8	8.6	0.5	2.9	2.8	0.2
Delay (s)	16.6	24.1	22.0	16.2	24.0	21.5	59.7	59.6	47.2	54.2	54.1	47.8
Level of Service	B	C	C	B	C	C	E	E	D	D	D	D
Approach Delay (s)		22.6			22.2			56.3			52.0	
Approach LOS		C			C			E			D	
Intersection Summary												
HCM 2000 Control Delay			34.0				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.46									
Actuated Cycle Length (s)			130.0				Sum of lost time (s)			20.0		
Intersection Capacity Utilization			70.9%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

Intersection			
Intersection Delay, s/veh 6.6			
Intersection LOS A			
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	174	523	478
Demand Flow Rate, veh/h	178	533	487
Vehicles Circulating, veh/h	470	39	76
Vehicles Exiting, veh/h	93	609	496
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.5	6.6	6.5
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	178	533	487
Cap Entry Lane, veh/h	854	1326	1277
Entry HV Adj Factor	0.978	0.981	0.981
Flow Entry, veh/h	174	523	478
Cap Entry, veh/h	835	1301	1253
V/C Ratio	0.208	0.402	0.381
Control Delay, s/veh	6.5	6.6	6.5
LOS	A	A	A
95th %tile Queue, veh	1	2	2

Intersection			
Intersection Delay, s/veh 6.4			
Intersection LOS A			
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	168	486	461
Demand Flow Rate, veh/h	171	496	470
Vehicles Circulating, veh/h	417	100	35
Vehicles Exiting, veh/h	88	488	561
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.0	6.9	6.0
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	171	496	470
Cap Entry Lane, veh/h	902	1246	1331
Entry HV Adj Factor	0.982	0.980	0.980
Flow Entry, veh/h	168	486	461
Cap Entry, veh/h	886	1221	1305
V/C Ratio	0.190	0.398	0.353
Control Delay, s/veh	6.0	6.9	6.0
LOS	A	A	A
95th %tile Queue, veh	1	2	2

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	202	87	342	110	89	615	305	102	648	207
Future Volume (vph)	202	87	342	110	89	615	305	102	648	207
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases					2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	14.0	14.0	5.0	14.0	14.0
Minimum Split (s)	9.5	38.0	9.5	11.0	10.0	20.0	20.0	10.0	36.0	36.0
Total Split (s)	15.0	36.0	17.0	38.0	10.0	36.0	36.0	11.0	37.0	37.0
Total Split (%)	15.0%	36.0%	17.0%	38.0%	10.0%	36.0%	36.0%	11.0%	37.0%	37.0%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 100











Actuated Cycle Length: 100











Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Splits and Phases: 10: State Highway 9 & Dillon Dam Road

				
Ø1	Ø2 (R)		Ø3	Ø4
11 s	36 s		17 s	36 s
				
Ø5	Ø6 (R)		Ø7	Ø8
10 s	37 s		15 s	38 s























										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	232	172	360	255	93	641	318	105	668	213
v/c Ratio	0.66	0.60	0.83	0.74	0.23	0.42	0.37	0.25	0.43	0.27
Control Delay	52.3	38.6	59.5	41.6	13.0	22.3	4.2	13.0	22.2	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	38.6	59.5	41.6	13.0	22.3	4.2	13.0	22.2	4.3
Queue Length 50th (ft)	74	81	117	118	25	148	0	29	154	0
Queue Length 95th (ft)	109	130	#186	187	58	237	60	64	246	50
Internal Link Dist (ft)		279		327		602			402	
Turn Bay Length (ft)	145		205		165		200	115		240
Base Capacity (vph)	370	533	442	584	407	1540	864	423	1552	796
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.32	0.81	0.44	0.23	0.42	0.37	0.25	0.43	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
05/31/2023

10: State Highway 9 & Dillon Dam Road
2027 Background + Project - Mid-Day











												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	87	63	342	110	132	89	615	305	102	648	207
Future Volume (veh/h)	202	87	63	342	110	132	89	615	305	102	648	207
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	232	100	72	360	116	139	93	641	318	105	668	213
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	3	3	3	5	5	5	5	5	5
Cap, veh/h	301	189	136	425	173	207	331	1467	654	328	1484	661
Arrive On Green	0.09	0.19	0.19	0.12	0.23	0.23	0.05	0.42	0.42	0.05	0.43	0.43
Sat Flow, veh/h	3401	982	707	3428	758	908	1739	3469	1546	1739	3469	1546
Grp Volume(v), veh/h	232	0	172	360	0	255	93	641	318	105	668	213
Grp Sat Flow(s),veh/h/ln	1700	0	1689	1714	0	1666	1739	1735	1546	1739	1735	1546
Q Serve(g_s), s	6.7	0.0	9.2	10.3	0.0	14.0	3.0	13.1	14.9	3.4	13.6	9.1
Cycle Q Clear(g_c), s	6.7	0.0	9.2	10.3	0.0	14.0	3.0	13.1	14.9	3.4	13.6	9.1
Prop In Lane	1.00		0.42	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	301	0	325	425	0	379	331	1467	654	328	1484	661
V/C Ratio(X)	0.77	0.00	0.53	0.85	0.00	0.67	0.28	0.44	0.49	0.32	0.45	0.32
Avail Cap(c_a), veh/h	374	0	507	446	0	533	338	1467	654	343	1484	661
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.87	0.00	0.87	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	0.0	36.3	42.9	0.0	35.2	15.9	20.4	21.0	15.8	20.3	19.0
Incr Delay (d2), s/veh	7.6	0.0	1.3	12.2	0.0	1.8	0.5	0.9	2.6	0.6	1.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	3.9	5.0	0.0	5.8	1.1	5.1	5.7	1.3	5.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	0.0	37.7	55.0	0.0	37.0	16.4	21.4	23.5	16.3	21.3	20.3
LnGrp LOS	D	A	D	E	A	D	B	C	C	B	C	C
Approach Vol, veh/h		404			615			1052			986	
Approach Delay, s/veh		46.0			47.6			21.6			20.5	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	48.3	16.4	25.2	9.6	48.8	12.8	28.8				
Change Period (Y+Rc), s	5.0	6.0	4.0	6.0	5.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	6.0	30.0	13.0	30.0	5.0	31.0	11.0	32.0				
Max Q Clear Time (g_c+l1), s	5.4	16.9	12.3	11.2	5.0	15.6	8.7	16.0				
Green Ext Time (p_c), s	0.0	4.2	0.1	0.9	0.0	4.3	0.2	1.4				

Intersection Summary

HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

Notes




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





					
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	88	132	670	62	354
Future Volume (vph)	88	132	670	62	354
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0
Total Split (s)	24.0	24.0	36.0	36.0	36.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max












Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated

Splits and Phases: 1: Dillon Dam Road & N. Ten Mile Road

	Ø2 (R)			
36 s				
	Ø6 (R)			
36 s				
			Ø8	
		24 s		

				
Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	101	152	868	472
v/c Ratio	0.39	0.42	0.66	0.46
Control Delay	26.9	8.6	10.4	7.6
Queue Delay	0.0	0.0	0.8	0.0
Total Delay	26.9	8.6	11.2	7.6
Queue Length 50th (ft)	34	1	163	72
Queue Length 95th (ft)	65	38	339	153
Internal Link Dist (ft)	227		327	780
Turn Bay Length (ft)		100		
Base Capacity (vph)	536	584	1318	1018
Starvation Cap Reductn	0	0	190	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.19	0.26	0.77	0.46
Intersection Summary				




						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	88	132	670	102	62	354
Future Volume (veh/h)	88	132	670	102	62	354
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	101	152	753	115	70	402
Peak Hour Factor	0.87	0.87	0.89	0.89	0.88	0.88
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	237	211	1067	163	150	810
Arrive On Green	0.13	0.13	0.67	0.67	0.67	0.67
Sat Flow, veh/h	1795	1598	1597	244	121	1213
Grp Volume(v), veh/h	101	152	0	868	472	0
Grp Sat Flow(s),veh/h/ln	1795	1598	0	1841	1334	0
Q Serve(g_s), s	3.1	5.5	0.0	17.8	3.2	0.0
Cycle Q Clear(g_c), s	3.1	5.5	0.0	17.8	21.0	0.0
Prop In Lane	1.00	1.00		0.13	0.15	
Lane Grp Cap(c), veh/h	237	211	0	1230	960	0
V/C Ratio(X)	0.43	0.72	0.00	0.71	0.49	0.00
Avail Cap(c_a), veh/h	539	479	0	1230	960	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.80	1.00	0.00
Uniform Delay (d), s/veh	23.9	25.0	0.0	6.3	5.0	0.0
Incr Delay (d2), s/veh	1.2	4.6	0.0	2.8	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.2	0.0	5.3	2.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.2	29.5	0.0	9.0	6.8	0.0
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	253		868		472	
Approach Delay, s/veh	27.8		9.0		6.8	
Approach LOS	C		A		A	
Timer - Assigned Phs	2		6		8	
Phs Duration (G+Y+Rc), s	46.1		46.1		13.9	
Change Period (Y+Rc), s	6.0		6.0		6.0	
Max Green Setting (Gmax), s	30.0		30.0		18.0	
Max Q Clear Time (g_c+l1), s	19.8		23.0		7.5	
Green Ext Time (p_c), s	4.7		1.9		0.6	
Intersection Summary						
HCM 6th Ctrl Delay			11.3			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	7	2	785	6	2	401
Future Vol, veh/h	7	2	785	6	2	401
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	56	56	92	92	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	13	4	853	7	2	472

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1333	857	0
Stage 1	857	-	-
Stage 2	476	-	-
Critical Hdwy	6.41	6.21	4.11
Critical Hdwy Stg 1	5.41	-	-
Critical Hdwy Stg 2	5.41	-	-
Follow-up Hdwy	3.509	3.309	2.209
Pot Cap-1 Maneuver	171	358	786
Stage 1	417	-	-
Stage 2	627	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	170	358	786
Mov Cap-2 Maneuver	170	-	-
Stage 1	417	-	-
Stage 2	625	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.5	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	192	786
HCM Lane V/C Ratio	-	-	0.084	0.003
HCM Control Delay (s)	-	-	25.5	9.6
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	5	776	12	6	393
Future Vol, veh/h	9	5	776	12	6	393
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	88	88	92	92	84	84
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	10	6	843	13	7	468

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1332	850	0	0	856	0
Stage 1	850	-	-	-	-	-
Stage 2	482	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	171	362	-	-	788	-
Stage 1	421	-	-	-	-	-
Stage 2	623	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	169	362	-	-	788	-
Mov Cap-2 Maneuver	169	-	-	-	-	-
Stage 1	421	-	-	-	-	-
Stage 2	616	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.6	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	209	788
HCM Lane V/C Ratio	-	-	0.076	0.009
HCM Control Delay (s)	-	-	23.6	9.6
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.2	0

























Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	5	4	7	774	395	6
Future Vol, veh/h	5	4	7	774	395	6
Conflicting Peds, #/hr	1	7	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	92	92	81	81
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	7	5	8	841	488	7

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1350	499	495	0	-	0
Stage 1	492	-	-	-	-	-
Stage 2	858	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	167	574	1074	-	-	-
Stage 1	617	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	165	570	1074	-	-	-
Mov Cap-2 Maneuver	165	-	-	-	-	-
Stage 1	608	-	-	-	-	-
Stage 2	417	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.7	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1074	-	241	-	-
HCM Lane V/C Ratio	0.007	-	0.05	-	-
HCM Control Delay (s)	8.4	0	20.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection			
Intersection Delay, s/veh	16.5		
Intersection LOS	C		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	166	792	690
Demand Flow Rate, veh/h	168	800	697
Vehicles Circulating, veh/h	558	368	90
Vehicles Exiting, veh/h	610	419	636
Ped Vol Crossing Leg, #/h	1	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.0	24.8	9.2
Approach LOS	A	C	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	168	800	697
Cap Entry Lane, veh/h	781	948	1259
Entry HV Adj Factor	0.988	0.991	0.990
Flow Entry, veh/h	166	792	690
Cap Entry, veh/h	772	939	1246
V/C Ratio	0.215	0.844	0.554
Control Delay, s/veh	7.0	24.8	9.2
LOS	A	C	A
95th %tile Queue, veh	1	10	4

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	565	250	187	578	358	229	118	213	260	225	112
Future Volume (vph)	138	565	250	187	578	358	229	118	213	260	225	112
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	2.0	14.0	14.0	2.0	14.0	14.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Split (s)	6.0	20.0	20.0	6.0	20.0	20.0	7.0	7.0	7.0	7.0	7.0	7.0
Total Split (s)	13.0	34.0	34.0	13.0	34.0	34.0	36.0	36.0	36.0	37.0	37.0	37.0
Total Split (%)	10.8%	28.3%	28.3%	10.8%	28.3%	28.3%	30.0%	30.0%	30.0%	30.8%	30.8%	30.8%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120







Actuated Cycle Length: 120













Offset: 92 (77%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 7: Dillon Dam Road & State Highway 6

 Ø1	 Ø2 (R)	 Ø4	 Ø8
13 s	34 s	37 s	36 s
 Ø5	 Ø6 (R)		
13 s	34 s		

























												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	150	614	272	203	628	389	184	193	232	255	273	122
v/c Ratio	0.39	0.50	0.38	0.49	0.47	0.47	0.68	0.69	0.57	0.73	0.75	0.29
Control Delay	21.8	35.3	6.0	23.5	33.1	5.7	59.6	59.8	16.2	56.3	56.9	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	35.3	6.0	23.5	33.1	5.7	59.6	59.8	16.2	56.3	56.9	7.9
Queue Length 50th (ft)	60	202	0	84	195	0	143	150	32	194	209	0
Queue Length 95th (ft)	125	300	70	166	308	84	209	217	103	273	290	47
Internal Link Dist (ft)		817			836			345			494	
Turn Bay Length (ft)	500			150		420	110		70	120		
Base Capacity (vph)	393	1238	718	413	1328	828	434	449	546	448	469	506
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.50	0.38	0.49	0.47	0.47	0.42	0.43	0.42	0.57	0.58	0.24
Intersection Summary												

HCM Signalized Intersection Capacity Analysis

05/31/2023





















7: Dillon Dam Road & State Highway 6

2027 Background + Project - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	565	250	187	578	358	229	118	213	260	225	112
Future Volume (vph)	138	565	250	187	578	358	229	118	213	260	225	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.98	1.00	0.95	0.99	1.00
Satd. Flow (prot)	1769	3539	1548	1769	3539	1560	1681	1740	1583	1681	1761	1563
Flt Permitted	0.34	1.00	1.00	0.29	1.00	1.00	0.95	0.98	1.00	0.95	0.99	1.00
Satd. Flow (perm)	626	3539	1548	537	3539	1560	1681	1740	1583	1681	1761	1563
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	614	272	203	628	389	249	128	232	283	245	122
RTOR Reduction (vph)	0	0	177	0	0	243	0	0	155	0	0	97
Lane Group Flow (vph)	150	614	95	203	628	146	184	193	77	255	273	25
Confl. Peds. (#/hr)	2		1	1		2	1					1
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Actuated Green, G (s)	52.8	42.0	42.0	58.8	45.0	45.0	19.3	19.3	19.3	24.9	24.9	24.9
Effective Green, g (s)	52.8	42.0	42.0	58.8	45.0	45.0	19.3	19.3	19.3	24.9	24.9	24.9
Actuated g/C Ratio	0.44	0.35	0.35	0.49	0.38	0.38	0.16	0.16	0.16	0.21	0.21	0.21
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	378	1238	541	404	1327	585	270	279	254	348	365	324
v/s Ratio Prot	0.04	0.17		c0.06	0.18		0.11	c0.11		0.15	c0.16	
v/s Ratio Perm	0.14		0.06	c0.19		0.09			0.05			0.02
v/c Ratio	0.40	0.50	0.18	0.50	0.47	0.25	0.68	0.69	0.30	0.73	0.75	0.08
Uniform Delay, d1	20.9	30.7	27.0	18.7	28.5	25.9	47.5	47.5	44.4	44.4	44.6	38.3
Progression 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
Incremental Delay, d2	0.7	1.4	0.7	1.0	1.2	1.0	6.9	7.2	0.7	7.8	8.1	0.1
Delay (s)	21.6	32.1	27.7	19.7	29.7	26.9	54.4	54.8	45.1	52.2	52.7	38.4
Level of Service	C	C	C	B	C	C	D	D	D	D	D	D
Approach Delay (s)		29.4			27.1			51.0			49.8	
Approach LOS		C			C			D			D	
Intersection Summary												
HCM 2000 Control Delay			36.1				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.61									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			20.0		
Intersection Capacity Utilization			73.5%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

Intersection			
Intersection Delay, s/veh 8.8			
Intersection LOS A			
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	98	846	386
Demand Flow Rate, veh/h	100	863	394
Vehicles Circulating, veh/h	367	21	106
Vehicles Exiting, veh/h	133	446	778
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.9	10.6	5.9
Approach LOS	A	B	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	100	863	394
Cap Entry Lane, veh/h	949	1351	1238
Entry HV Adj Factor	0.980	0.980	0.979
Flow Entry, veh/h	98	846	386
Cap Entry, veh/h	930	1324	1213
V/C Ratio	0.105	0.639	0.318
Control Delay, s/veh	4.9	10.6	5.9
LOS	A	B	A
95th %tile Queue, veh	0	5	1

Intersection			
Intersection Delay, s/veh 8.2			
Intersection LOS A			
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	93	763	424
Demand Flow Rate, veh/h	95	778	433
Vehicles Circulating, veh/h	354	55	52
Vehicles Exiting, veh/h	131	394	781
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.7	9.9	5.8
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	95	778	433
Cap Entry Lane, veh/h	962	1305	1309
Entry HV Adj Factor	0.979	0.980	0.979
Flow Entry, veh/h	93	763	424
Cap Entry, veh/h	941	1279	1282
V/C Ratio	0.099	0.596	0.331
Control Delay, s/veh	4.7	9.9	5.8
LOS	A	A	A
95th %tile Queue, veh	0	4	1

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	269	154	242	84	61	795	435	111	673	260
Future Volume (vph)	269	154	242	84	61	795	435	111	673	260
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases					2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	14.0	14.0	5.0	14.0	14.0
Minimum Split (s)	9.5	38.0	9.5	24.0	10.0	24.0	24.0	10.0	36.0	36.0
Total Split (s)	19.0	37.0	15.0	33.0	10.0	38.0	38.0	10.0	38.0	38.0
Total Split (%)	19.0%	37.0%	15.0%	33.0%	10.0%	38.0%	38.0%	10.0%	38.0%	38.0%
Yellow Time (s)	3.0	4.0	3.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max

Intersection Summary

Cycle Length: 100













Actuated Cycle Length: 100











Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Splits and Phases: 10: State Highway 9 & Dillon Dam Road

					
Ø1	Ø2 (R)	Ø3	Ø4	Ø5	Ø6 (R)
10 s	38 s	15 s	37 s	10 s	38 s
					
Ø7	Ø8	Ø9	Ø10	Ø11	Ø12
19 s	33 s				

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	320	253	292	225	69	893	489	116	701	271
v/c Ratio	0.69	0.73	0.78	0.69	0.18	0.63	0.53	0.39	0.46	0.33
Control Delay	49.4	47.0	59.3	39.4	13.7	27.9	4.7	16.3	23.3	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	47.0	59.3	39.4	13.7	27.9	4.7	16.3	23.3	4.3
Queue Length 50th (ft)	100	141	94	100	20	237	0	34	167	0
Queue Length 95th (ft)	134	189	#130	149	47	343	67	72	261	56
Internal Link Dist (ft)		215		327		1020			467	
Turn Bay Length (ft)	145		205		165		200	115		240
Base Capacity (vph)	505	550	377	502	378	1412	923	301	1519	816
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.46	0.77	0.45	0.18	0.63	0.53	0.39	0.46	0.33

Intersection Summary























95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

05/31/2023

10: State Highway 9 & Dillon Dam Road

2027 Background + Project - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	154	59	242	84	103	61	795	435	111	673	260
Future Volume (veh/h)	269	154	59	242	84	103	61	795	435	111	673	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1870	1870	1870	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	320	183	70	292	101	124	69	893	489	116	701	271
Peak Hour Factor	0.84	0.84	0.84	0.83	0.83	0.83	0.89	0.89	0.89	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	2	2	2	3	3	3	4	4	4
Cap, veh/h	395	307	117	358	174	213	290	1380	614	231	1395	621
Arrive On Green	0.12	0.24	0.24	0.10	0.23	0.23	0.04	0.39	0.39	0.05	0.40	0.40
Sat Flow, veh/h	3401	1254	480	3456	747	917	1767	3526	1568	1753	3497	1556
Grp Volume(v), veh/h	320	0	253	292	0	225	69	893	489	116	701	271
Grp Sat Flow(s),veh/h/ln	1700	0	1734	1728	0	1663	1767	1763	1568	1753	1749	1556
Q Serve(g_s), s	9.2	0.0	12.9	8.3	0.0	12.0	2.3	20.6	27.6	4.0	15.1	12.7
Cycle Q Clear(g_c), s	9.2	0.0	12.9	8.3	0.0	12.0	2.3	20.6	27.6	4.0	15.1	12.7
Prop In Lane	1.00		0.28	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	0	425	358	0	387	290	1380	614	231	1395	621
V/C Ratio(X)	0.81	0.00	0.60	0.82	0.00	0.58	0.24	0.65	0.80	0.50	0.50	0.44
Avail Cap(c_a), veh/h	510	0	537	380	0	449	303	1380	614	231	1395	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.89	0.00	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.1	0.0	33.4	43.9	0.0	34.1	17.8	24.8	26.9	19.7	22.6	21.9
Incr Delay (d2), s/veh	7.5	0.0	1.3	11.1	0.0	1.2	0.4	2.4	10.3	1.7	1.3	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	5.5	4.1	0.0	4.9	0.9	8.4	11.7	1.6	6.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	0.0	34.7	55.0	0.0	35.3	18.2	27.1	37.2	21.5	23.9	24.1
LnGrp LOS	D	A	C	E	A	D	B	C	D	C	C	C
Approach Vol, veh/h		573			517			1451			1088	
Approach Delay, s/veh		43.6			46.4			30.1			23.7	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	45.1	14.4	30.5	9.3	45.9	15.6	29.2				
Change Period (Y+Rc), s	5.0	6.0	4.0	6.0	5.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	5.0	32.0	11.0	31.0	5.0	32.0	15.0	27.0				
Max Q Clear Time (g_c+l1), s	6.0	29.6	10.3	14.9	4.3	17.1	11.2	14.0				
Green Ext Time (p_c), s	0.0	1.7	0.1	1.3	0.0	4.7	0.4	1.1				











Intersection Summary

HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

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




***Intersection Capacity Worksheets:
2042 Background + Project***





					
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	22	215	261	134	356
Future Volume (vph)	22	215	261	134	356
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0
Total Split (s)	24.0	24.0	36.0	36.0	36.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max












Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Splits and Phases: 1: Dillon Dam Road & N. Ten Mile Road




	Ø2 (R)		
36 s			
	Ø6 (R)		
36 s			
			Ø8
		24 s	

				
Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	23	226	376	511
v/c Ratio	0.11	0.58	0.31	0.51
Control Delay	22.8	10.2	4.7	7.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.8	10.2	4.7	7.6
Queue Length 50th (ft)	8	0	35	66
Queue Length 95th (ft)	23	49	92	173
Internal Link Dist (ft)	227		327	780
Turn Bay Length (ft)		100		
Base Capacity (vph)	531	633	1231	1005
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.04	0.36	0.31	0.51
Intersection Summary				

























						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	22	215	261	85	134	356
Future Volume (veh/h)	22	215	261	85	134	356
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	226	284	92	140	371
Peak Hour Factor	0.95	0.95	0.92	0.92	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	313	279	845	274	294	741
Arrive On Green	0.18	0.18	0.62	0.62	0.62	0.62
Sat Flow, veh/h	1781	1585	1353	438	349	1188
Grp Volume(v), veh/h	23	226	0	376	511	0
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1791	1536	0
Q Serve(g_s), s	0.6	8.2	0.0	6.0	4.7	0.0
Cycle Q Clear(g_c), s	0.6	8.2	0.0	6.0	10.7	0.0
Prop In Lane	1.00	1.00		0.24	0.27	
Lane Grp Cap(c), veh/h	313	279	0	1118	1035	0
V/C Ratio(X)	0.07	0.81	0.00	0.34	0.49	0.00
Avail Cap(c_a), veh/h	534	476	0	1118	1035	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.6	23.8	0.0	5.4	6.1	0.0
Incr Delay (d2), s/veh	0.1	5.6	0.0	0.8	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.4	0.0	1.9	2.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.7	29.4	0.0	6.2	7.7	0.0
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	249		376		511	
Approach Delay, s/veh	28.6		6.2		7.7	
Approach LOS	C		A		A	
Timer - Assigned Phs	2		6		8	
Phs Duration (G+Y+Rc), s	43.4		43.4		16.6	
Change Period (Y+Rc), s	6.0		6.0		6.0	
Max Green Setting (Gmax), s	30.0		30.0		18.0	
Max Q Clear Time (g_c+l1), s	8.0		12.7		10.2	
Green Ext Time (p_c), s	2.4		3.4		0.5	
Intersection Summary						
HCM 6th Ctrl Delay			11.8			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙↘		↑			↖↗
Traffic Vol, veh/h	5	5	558	10	5	618
Future Vol, veh/h	5	5	558	10	5	618
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	607	11	5	651
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1274	613	0	0	618	0
Stage 1	613	-	-	-	-	-
Stage 2	661	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	184	492	-	-	962	-
Stage 1	541	-	-	-	-	-
Stage 2	514	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	183	492	-	-	962	-
Mov Cap-2 Maneuver	183	-	-	-	-	-
Stage 1	541	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	19.1	0	0.1			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	267	962	-	
HCM Lane V/C Ratio	-	-	0.041	0.005	-	
HCM Control Delay (s)	-	-	19.1	8.8	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		Y			Y
Traffic Vol, veh/h	15	5	543	15	5	603
Future Vol, veh/h	15	5	543	15	5	603
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	5	590	16	5	648
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1256	598	0	0	606	0
Stage 1	598	-	-	-	-	-
Stage 2	658	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	189	502	-	-	972	-
Stage 1	549	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	187	502	-	-	972	-
Mov Cap-2 Maneuver	187	-	-	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	511	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	23	0		0.1		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	222		972	-	
HCM Lane V/C Ratio	-	0.098		0.006	-	
HCM Control Delay (s)	-	23		8.7	0	
HCM Lane LOS	-	C		A	A	
HCM 95th %tile Q(veh)	-	0.3		0	-	

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	538	603	5
Future Vol, veh/h	5	5	5	538	603	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	93	93	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	5	578	655	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1246	658	660	0	-	0
Stage 1	658	-	-	-	-	-
Stage 2	588	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	192	464	928	-	-	-
Stage 1	515	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	190	464	928	-	-	-
Mov Cap-2 Maneuver	190	-	-	-	-	-
Stage 1	511	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	18.9	0.1		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	928	-	270	-	-	
HCM Lane V/C Ratio	0.006	-	0.04	-	-	
HCM Control Delay (s)	8.9	0	18.9	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection			
Intersection Delay, s/veh	8.8		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	247	639	538
Demand Flow Rate, veh/h	252	652	548
Vehicles Circulating, veh/h	537	168	113
Vehicles Exiting, veh/h	283	493	676
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.3	9.9	7.6
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	252	652	548
Cap Entry Lane, veh/h	798	1163	1230
Entry HV Adj Factor	0.980	0.981	0.981
Flow Entry, veh/h	247	639	538
Cap Entry, veh/h	782	1140	1206
V/C Ratio	0.316	0.561	0.446
Control Delay, s/veh	8.3	9.9	7.6
LOS	A	A	A
95th %tile Queue, veh	1	4	2

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	555	244	146	595	245	296	149	164	195	111	155
Future Volume (vph)	125	555	244	146	595	245	296	149	164	195	111	155
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	2.0	14.0	14.0	2.0	14.0	14.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Split (s)	6.0	20.0	20.0	6.0	20.0	20.0	7.0	7.0	7.0	7.0	7.0	7.0
Total Split (s)	14.0	34.0	34.0	13.0	33.0	33.0	41.0	41.0	41.0	42.0	42.0	42.0
Total Split (%)	10.8%	26.2%	26.2%	10.0%	25.4%	25.4%	31.5%	31.5%	31.5%	32.3%	32.3%	32.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 130







Actuated Cycle Length: 130













Offset: 86 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

























Splits and Phases: 7: Dillon Dam Road & State Highway 6

 Ø1	 Ø2 (R)	 Ø4	 Ø8
13 s	34 s	42 s	41 s
 Ø5	 Ø6 (R)		
14 s	33 s		

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	136	603	265	159	647	266	238	246	178	163	170	168
v/c Ratio	0.34	0.42	0.34	0.38	0.44	0.33	0.75	0.75	0.46	0.61	0.61	0.43
Control Delay	21.5	32.4	5.8	21.9	32.3	5.7	63.3	62.8	22.1	58.6	58.4	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	32.4	5.8	21.9	32.3	5.7	63.3	62.8	22.1	58.6	58.4	9.2
Queue Length 50th (ft)	53	185	0	62	196	0	201	208	53	138	145	0
Queue Length 95th (ft)	131	325	73	151	#380	73	275	283	114	186	191	54
Internal Link Dist (ft)		817			836			345			494	
Turn Bay Length (ft)	500			150		420	110		70	120		
Base Capacity (vph)	408	1443	788	425	1468	812	465	481	514	478	496	561
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.42	0.34	0.37	0.44	0.33	0.51	0.51	0.35	0.34	0.34	0.30

Intersection Summary











95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	555	244	146	595	245	296	149	164	195	111	155
Future Volume (vph)	125	555	244	146	595	245	296	149	164	195	111	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.98	1.00	0.95	0.99	1.00
Satd. Flow (prot)	1770	3539	1548	1769	3539	1583	1681	1740	1583	1681	1744	1549
Flt Permitted	0.32	1.00	1.00	0.33	1.00	1.00	0.95	0.98	1.00	0.95	0.99	1.00
Satd. Flow (perm)	601	3539	1548	623	3539	1583	1681	1740	1583	1681	1744	1549
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	603	265	159	647	266	322	162	178	212	121	168
RTOR Reduction (vph)	0	0	157	0	0	156	0	0	85	0	0	141
Lane Group Flow (vph)	136	603	108	159	647	110	238	246	93	163	170	27
Confl. Peds. (#/hr)			1	1			9					9
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Actuated Green, G (s)	63.5	53.0	53.0	65.3	53.9	53.9	24.7	24.7	24.7	20.9	20.9	20.9
Effective Green, g (s)	63.5	53.0	53.0	65.3	53.9	53.9	24.7	24.7	24.7	20.9	20.9	20.9
Actuated g/C Ratio	0.49	0.41	0.41	0.50	0.41	0.41	0.19	0.19	0.19	0.16	0.16	0.16
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	387	1442	631	413	1467	656	319	330	300	270	280	249
v/s Ratio Prot	0.03	0.17		c0.03	c0.18		c0.14	0.14		0.10	c0.10	
v/s Ratio Perm	0.14		0.07	0.16		0.07			0.06			0.02
v/c Ratio	0.35	0.42	0.17	0.38	0.44	0.17	0.75	0.75	0.31	0.60	0.61	0.11
Uniform Delay, d1	19.0	27.5	24.5	18.3	27.3	23.9	49.7	49.7	45.3	50.7	50.7	46.6
Progression 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
Incremental Delay, d2	0.6	0.9	0.6	0.6	1.0	0.6	9.1	8.8	0.6	3.8	3.7	0.2
Delay (s)	19.5	28.4	25.1	18.9	28.2	24.5	58.8	58.5	45.9	54.5	54.4	46.8
Level of Service	B	C	C	B	C	C	E	E	D	D	D	D
Approach Delay (s)		26.3			25.9			55.2			51.9	
Approach LOS		C			C			E			D	
Intersection Summary												
HCM 2000 Control Delay			36.1				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.54									
Actuated Cycle Length (s)			130.0				Sum of lost time (s)			20.0		
Intersection Capacity Utilization			74.1%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

Intersection			
Intersection Delay, s/veh 7.4			
Intersection LOS A			
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	184	595	548
Demand Flow Rate, veh/h	188	607	559
Vehicles Circulating, veh/h	535	44	82
Vehicles Exiting, veh/h	105	679	569
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.2	7.4	7.3
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	188	607	559
Cap Entry Lane, veh/h	800	1319	1269
Entry HV Adj Factor	0.979	0.980	0.981
Flow Entry, veh/h	184	595	548
Cap Entry, veh/h	783	1293	1245
V/C Ratio	0.235	0.460	0.440
Control Delay, s/veh	7.2	7.4	7.3
LOS	A	A	A
95th %tile Queue, veh	1	2	2

Intersection			
Intersection Delay, s/veh 7.2			
Intersection LOS A			
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	178	559	531
Demand Flow Rate, veh/h	181	570	541
Vehicles Circulating, veh/h	482	105	40
Vehicles Exiting, veh/h	99	558	635
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.6	7.8	6.7
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	181	570	541
Cap Entry Lane, veh/h	844	1240	1325
Entry HV Adj Factor	0.983	0.980	0.981
Flow Entry, veh/h	178	559	531
Cap Entry, veh/h	830	1215	1299
V/C Ratio	0.214	0.460	0.408
Control Delay, s/veh	6.6	7.8	6.7
LOS	A	A	A
95th %tile Queue, veh	1	2	2

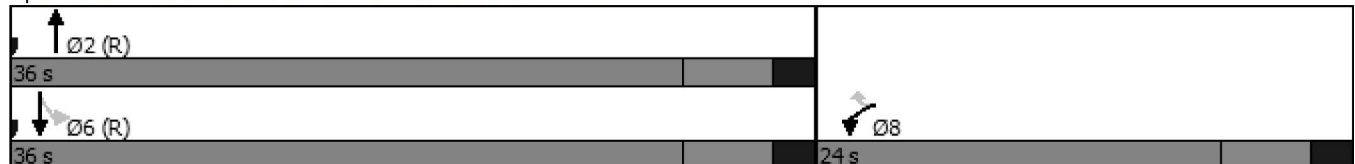
Intersection													
Int Delay, s/veh	7.2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations			↗			↗	↘	↗	↘		↗	↘	
Traffic Vol, veh/h	0	0	436	0	0	373	105	715	323	0	755	347	
Future Vol, veh/h	0	0	436	0	0	373	105	715	323	0	755	347	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	0	-	-	0	165	-	200	-	-	240	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	95	96	96	96	97	97	97	
Heavy Vehicles, %	2	2	4	2	2	3	5	5	5	2	5	5	
Mvmt Flow	0	0	474	0	0	393	109	745	336	0	778	358	
Major/Minor	Minor2		Minor1		Major1		Major2						
Conflicting Flow All	-	-	389	-	-	373	1136	0	0	-	-	0	
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	
Critical Hdwy	-	-	6.98	-	-	6.96	4.2	-	-	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	
Follow-up Hdwy	-	-	3.34	-	-	3.33	2.25	-	-	-	-	-	
Pot Cap-1 Maneuver	0	0	604	0	0	622	594	-	-	0	-	-	
Stage 1	0	0	-	0	0	-	-	-	-	0	-	-	
Stage 2	0	0	-	0	0	-	-	-	-	0	-	-	
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	-	-	604	-	-	622	594	-	-	-	-	-	
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	
Approach	EB		WB		NB		SB						
HCM Control Delay, s	29.2		20.2		1.1		0						
HCM LOS	D		C										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBT	SBR							
Capacity (veh/h)	594	-	-	604	622	-	-						
HCM Lane V/C Ratio	0.184	-	-	0.785	0.631	-	-						
HCM Control Delay (s)	12.4	-	-	29.2	20.2	-	-						
HCM Lane LOS	B	-	-	D	C	-	-						
HCM 95th %tile Q(veh)	0.7	-	-	7.5	4.4	-	-						





					
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	28	228	496	108	413
Future Volume (vph)	28	228	496	108	413
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0
Total Split (s)	24.0	24.0	36.0	36.0	36.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated












Splits and Phases: 1: Dillon Dam Road & N. Ten Mile Road






				
Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	30	248	626	566
v/c Ratio	0.13	0.59	0.51	0.58
Control Delay	23.1	10.1	7.1	9.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.1	10.1	7.1	9.0
Queue Length 50th (ft)	10	0	79	80
Queue Length 95th (ft)	28	50	196	214
Internal Link Dist (ft)	227		327	780
Turn Bay Length (ft)		100		
Base Capacity (vph)	531	648	1233	979
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.06	0.38	0.51	0.58
Intersection Summary				

HCM 6th Signalized Intersection Summary
05/31/2023

1: Dillon Dam Road & N. Ten Mile Road
2042 Background + Project - PM Peak Hour




						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	28	228	496	80	108	413
Future Volume (veh/h)	28	228	496	80	108	413
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	248	539	87	117	449
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	339	302	957	155	195	707
Arrive On Green	0.19	0.19	0.61	0.61	0.61	0.61
Sat Flow, veh/h	1781	1585	1571	254	201	1160
Grp Volume(v), veh/h	30	248	0	626	566	0
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1824	1361	0
Q Serve(g_s), s	0.8	9.0	0.0	12.2	6.7	0.0
Cycle Q Clear(g_c), s	0.8	9.0	0.0	12.2	19.0	0.0
Prop In Lane	1.00	1.00		0.14	0.21	
Lane Grp Cap(c), veh/h	339	302	0	1112	902	0
V/C Ratio(X)	0.09	0.82	0.00	0.56	0.63	0.00
Avail Cap(c_a), veh/h	534	476	0	1112	902	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.0	23.3	0.0	7.0	7.7	0.0
Incr Delay (d2), s/veh	0.1	6.3	0.0	2.1	3.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.7	0.0	4.1	3.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.1	29.6	0.0	9.0	11.0	0.0
LnGrp LOS	C	C	A	A	B	A
Approach Vol, veh/h	278		626		566	
Approach Delay, s/veh	28.6		9.0		11.0	
Approach LOS	C		A		B	
Timer - Assigned Phs	2		6		8	
Phs Duration (G+Y+Rc), s	42.6		42.6		17.4	
Change Period (Y+Rc), s	6.0		6.0		6.0	
Max Green Setting (Gmax), s	30.0		30.0		18.0	
Max Q Clear Time (g_c+l1), s	14.2		21.0		11.0	
Green Ext Time (p_c), s	3.9		2.8		0.5	
Intersection Summary						
HCM 6th Ctrl Delay			13.5			
HCM 6th LOS			B			




Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	5	890	5	5	451
Future Vol, veh/h	10	5	890	5	5	451
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	5	967	5	5	490

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1470	970	0	0	972	0
Stage 1	970	-	-	-	-	-
Stage 2	500	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	140	307	-	-	709	-
Stage 1	368	-	-	-	-	-
Stage 2	609	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	139	307	-	-	709	-
Mov Cap-2 Maneuver	139	-	-	-	-	-
Stage 1	368	-	-	-	-	-
Stage 2	603	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.4	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	170	709
HCM Lane V/C Ratio	-	-	0.096	0.008
HCM Control Delay (s)	-	-	28.4	10.1
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q(veh)	-	-	0.3	0

























Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	5	880	15	5	441
Future Vol, veh/h	10	5	880	15	5	441
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	5	957	16	5	479
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1454	965	0	0	973	0
Stage 1	965	-	-	-	-	-
Stage 2	489	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	143	309	-	-	709	-
Stage 1	370	-	-	-	-	-
Stage 2	616	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	142	309	-	-	709	-
Mov Cap-2 Maneuver	142	-	-	-	-	-
Stage 1	370	-	-	-	-	-
Stage 2	610	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	28	0	0.1			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	173	709	-	
HCM Lane V/C Ratio	-	-	0.094	0.008	-	
HCM Control Delay (s)	-	-	28	10.1	0	
HCM Lane LOS	-	-	D	B	A	
HCM 95th %tile Q(veh)	-	-	0.3	0	-	

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	10	875	441	5
Future Vol, veh/h	5	5	10	875	441	5
Conflicting Peds, #/hr	1	7	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	11	951	479	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1456	489	484	0	-	0
Stage 1	482	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	143	579	1079	-	-	-
Stage 1	621	-	-	-	-	-
Stage 2	366	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	140	575	1079	-	-	-
Mov Cap-2 Maneuver	140	-	-	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	366	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	21.8	0.1		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1079	-	225	-	-	
HCM Lane V/C Ratio	0.01	-	0.048	-	-	
HCM Control Delay (s)	8.4	0	21.8	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Intersection			
Intersection Delay, s/veh	21.5		
Intersection LOS	C		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	186	844	790
Demand Flow Rate, veh/h	190	861	805
Vehicles Circulating, veh/h	598	430	101
Vehicles Exiting, veh/h	693	476	687
Ped Vol Crossing Leg, #/h	1	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.8	34.0	11.4
Approach LOS	A	D	B
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.520	4.976
Entry Flow, veh/h	190	861	805
Cap Entry Lane, veh/h	750	940	1245
Entry HV Adj Factor	0.979	0.981	0.981
Flow Entry, veh/h	186	844	790
Cap Entry, veh/h	734	922	1221
V/C Ratio	0.253	0.916	0.647
Control Delay, s/veh	7.8	34.0	11.4
LOS	A	D	B
95th %tile Queue, veh	1	14	5

Timings
05/31/2023

7: Dillon Dam Road & State Highway 6
2042 Background + Project - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	655	285	212	670	415	261	138	244	300	261	130
Future Volume (vph)	160	655	285	212	670	415	261	138	244	300	261	130
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2		2	6		6			8			4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	2.0	14.0	14.0	2.0	14.0	14.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Split (s)	6.0	20.0	20.0	6.0	20.0	20.0	7.0	7.0	7.0	7.0	7.0	7.0
Total Split (s)	13.0	34.0	34.0	13.0	34.0	34.0	36.0	36.0	36.0	37.0	37.0	37.0
Total Split (%)	10.8%	28.3%	28.3%	10.8%	28.3%	28.3%	30.0%	30.0%	30.0%	30.8%	30.8%	30.8%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120







Actuated Cycle Length: 120













Offset: 92 (77%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 7: Dillon Dam Road & State Highway 6

 Ø1	 Ø2 (R)	 Ø4	 Ø8
13 s	34 s	37 s	36 s
 Ø5	 Ø6 (R)		
13 s	34 s		

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	174	712	310	230	728	451	213	221	265	293	317	141
v/c Ratio	0.54	0.74	0.48	0.63	0.64	0.56	0.70	0.70	0.61	0.77	0.79	0.30
Control Delay	29.4	46.7	6.9	33.3	40.3	6.5	58.0	57.6	19.7	56.5	57.9	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.4	46.7	6.9	33.3	40.3	6.5	58.0	57.6	19.7	56.5	57.9	7.3
Queue Length 50th (ft)	79	277	0	107	264	0	165	171	55	220	240	0
Queue Length 95th (ft)	151	#376	74	#292	#391	91	233	241	133	316	340	49
Internal Link Dist (ft)		817			836			345			494	
Turn Bay Length (ft)	500			150		420	110		70	120		
Base Capacity (vph)	321	957	645	365	1143	809	434	449	545	448	469	520
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.74	0.48	0.63	0.64	0.56	0.49	0.49	0.49	0.65	0.68	0.27

Intersection Summary

























95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

05/31/2023

7: Dillon Dam Road & State Highway 6

2042 Background + Project - PM Peak Hour

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	160	655	285	212	670	415	261	138	244	300	261	130	
Future Volume (vph)	160	655	285	212	670	415	261	138	244	300	261	130	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.98	1.00	0.95	0.99	1.00	
Satd. Flow (prot)	1769	3539	1548	1770	3539	1560	1681	1742	1583	1681	1760	1563	
Flt Permitted	0.26	1.00	1.00	0.16	1.00	1.00	0.95	0.98	1.00	0.95	0.99	1.00	
Satd. Flow (perm)	490	3539	1548	300	3539	1560	1681	1742	1583	1681	1760	1563	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	174	712	310	230	728	451	284	150	265	326	284	141	
RTOR Reduction (vph)	0	0	226	0	0	306	0	0	151	0	0	109	
Lane Group Flow (vph)	174	712	84	230	728	145	213	221	114	293	317	32	
Confl. Peds. (#/hr)	2		1	1		2	1					1	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm	
Protected Phases	5	2		1	6		8	8		4	4		
Permitted Phases	2		2	6		6			8			4	
Actuated Green, G (s)	44.7	32.4	32.4	55.0	38.7	38.7	21.7	21.7	21.7	27.3	27.3	27.3	
Effective Green, g (s)	44.7	32.4	32.4	55.0	38.7	38.7	21.7	21.7	21.7	27.3	27.3	27.3	
Actuated g/C Ratio	0.37	0.27	0.27	0.46	0.32	0.32	0.18	0.18	0.18	0.23	0.23	0.23	
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	313	955	417	365	1141	503	303	315	286	382	400	355	
v/s Ratio Prot	0.06	c0.20		c0.10	0.21		0.13	c0.13		0.17	c0.18		
v/s Ratio Perm	0.15		0.05	0.19		0.09			0.07			0.02	
v/c Ratio	0.56	0.75	0.20	0.63	0.64	0.29	0.70	0.70	0.40	0.77	0.79	0.09	
Uniform Delay, d1	26.7	40.0	33.8	23.0	34.7	30.4	46.1	46.1	43.4	43.4	43.7	36.6	
Progression 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	
Incremental Delay, d2	2.1	5.3	1.1	3.5	2.7	1.4	7.2	6.9	0.9	8.9	10.3	0.1	
Delay (s)	28.9	45.3	34.9	26.5	37.4	31.8	53.3	53.0	44.3	52.3	54.0	36.7	
Level of Service	C	D	C	C	D	C	D	D	D	D	D	D	
Approach Delay (s)		40.2			33.8			49.8			50.1		
Approach LOS		D			C			D			D		
Intersection Summary													
HCM 2000 Control Delay			41.5									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.73										
Actuated Cycle Length (s)			120.0							20.0			
Intersection Capacity Utilization			78.3%									ICU Level of Service	D
Analysis Period (min)			15										
c Critical Lane Group													

Intersection			
Intersection Delay, s/veh10.8			
Intersection LOS B			
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	109	962	445
Demand Flow Rate, veh/h	112	981	454
Vehicles Circulating, veh/h	421	27	112
Vehicles Exiting, veh/h	145	506	896
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.3	13.4	6.6
Approach LOS	A	B	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	112	981	454
Cap Entry Lane, veh/h	898	1342	1231
Entry HV Adj Factor	0.973	0.981	0.980
Flow Entry, veh/h	109	962	445
Cap Entry, veh/h	874	1316	1206
V/C Ratio	0.125	0.731	0.369
Control Delay, s/veh	5.3	13.4	6.6
LOS	A	B	A
95th %tile Queue, veh	0	7	2

Intersection			
Intersection Delay, s/veh 9.9			
Intersection LOS A			
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	105	879	483
Demand Flow Rate, veh/h	107	896	493
Vehicles Circulating, veh/h	408	61	58
Vehicles Exiting, veh/h	143	454	899
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.2	12.4	6.4
Approach LOS	A	B	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	107	896	493
Cap Entry Lane, veh/h	910	1297	1301
Entry HV Adj Factor	0.981	0.981	0.980
Flow Entry, veh/h	105	879	483
Cap Entry, veh/h	893	1271	1274
V/C Ratio	0.118	0.691	0.379
Control Delay, s/veh	5.2	12.4	6.4
LOS	A	B	A
95th %tile Queue, veh	0	6	2

Intersection												
Int Delay, s/veh	8.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↘	↗	↗		↗	↗
Traffic Vol, veh/h	0	0	339	0	0	428	70	923	491	0	783	424
Future Vol, veh/h	0	0	339	0	0	428	70	923	491	0	783	424
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	165	-	200	-	-	240
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	2	2	2	3	3	3	4	4	4
Mvmt Flow	0	0	353	0	0	446	73	961	511	0	816	442

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	408	-	-	481	1258	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.98	-	-	6.94	4.16	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.34	-	-	3.32	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	587	0	0	531	543	-	0	0	-	-
Stage 1	0	0	-	0	0	-	-	-	0	0	-	-
Stage 2	0	0	-	0	0	-	-	-	0	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	587	-	-	531	543	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20	37.9	0.9	0
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	543	-	587	531	-	-
HCM Lane V/C Ratio	0.134	-	0.602	0.84	-	-
HCM Control Delay (s)	12.7	-	20	37.9	-	-
HCM Lane LOS	B	-	C	E	-	-
HCM 95th %tile Q(veh)	0.5	-	4	8.7	-	-