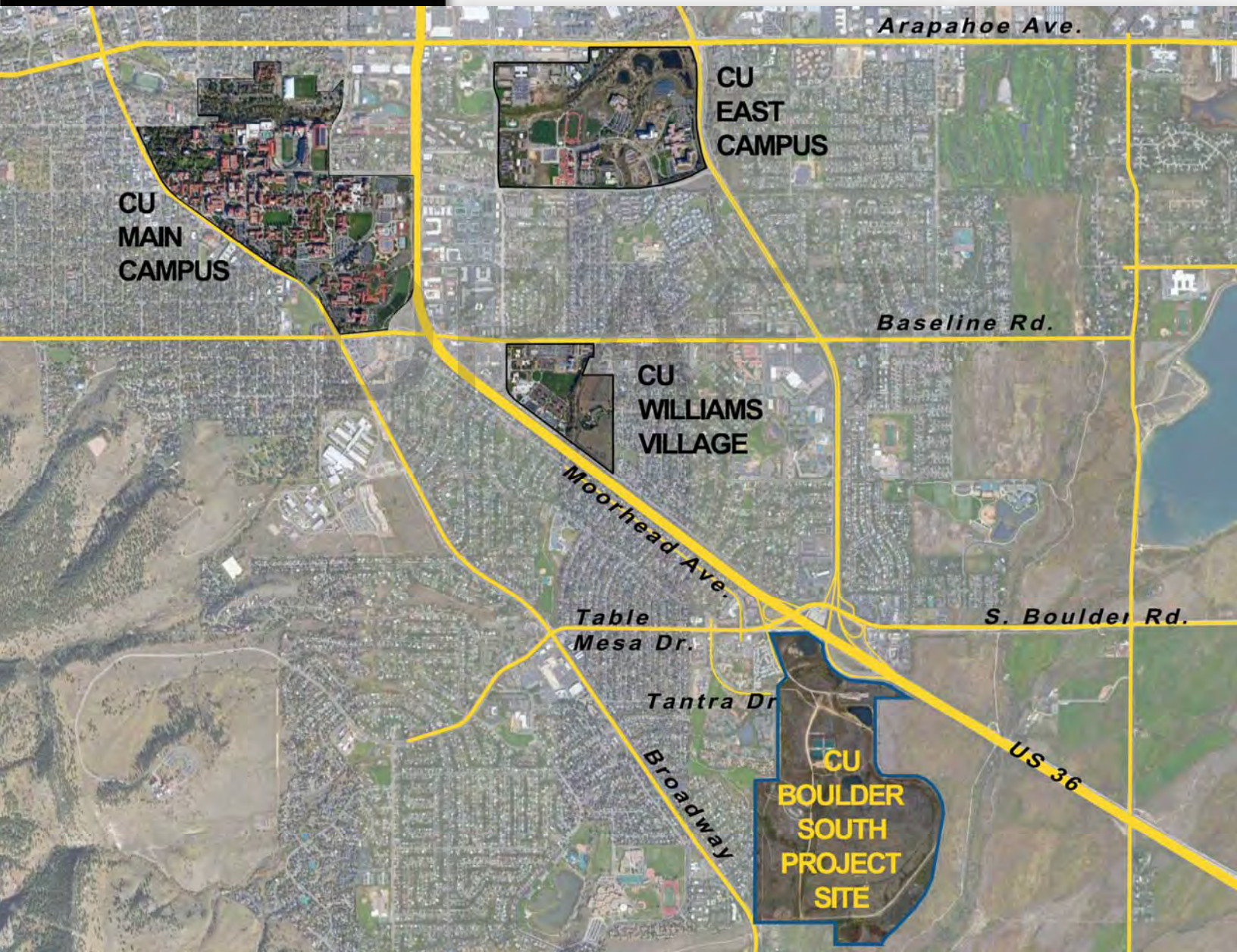


CU Boulder South DRAFT Traffic Impact Study



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CU BOULDER SOUTH DEVELOPMENT

TRAFFIC IMPACT STUDY

1.0 Introduction

The Fox Tuttle Transportation Group has prepared this traffic impact study for the proposed development of the University of Colorado (CU) Boulder South Campus. The property is bounded by Table Mesa Drive to the north, US 36 to the northeast, South Boulder Creek and Boulder Open Space property to the east, Marshall Road to the south, Broadway and South Boulder neighborhoods to the west. It is understood that this expansion of CU Boulder will include housing for graduate students, married students, faculty, and staff; academic buildings; a transit hub; and continue with recreational use. **Figure 1** provides a vicinity map for the proposed project and location relative to the existing CU Boulder campuses.

The purpose of this study is to quantify the anticipated new automobile traffic generated by the CU Boulder South Campus when it is built out, and to assist in identifying potential traffic impacts within the study area. The traffic study has incorporated *University of Colorado Boulder, South Campus – Guiding Principles from the Boulder Valley Comprehensive Plan (BVCP)*. In addition, the scope, key assumptions, and parameters utilized in this traffic study have been developed in concert with City of Boulder and CU Boulder staffs. The study addresses existing and long-term 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 to inform the public review process, and to assist the City of Boulder and CU Boulder staffs in identifying any intersection or roadway deficiencies and potential improvements for the build-out of the CU Boulder South Campus. This study focused on the weekday AM and PM peak hours which represent the periods of highest traffic volumes on the adjacent streets.

It should be noted that this study has only analyzed a single future year planning scenario, the 20-year horizon of Year 2041. It is our understanding that it is unlikely that CU's development of the CU Boulder South Campus will be complete within the next 20 years, but for purposes of this analysis it has been assumed to be so.

2.0 Project Description

The plan for CU Boulder South anticipates including the following:

- 550 apartment/condo units for faculty, staff, and graduate student housing
- 550 graduate student apartment units (assume 2 bedrooms on average)
- 500,000 sq. ft. of floor area of academic facilities (like East Campus Sustainable Energy building)
- a transit/mobility hub
- continued recreational facilities, such as the tennis courts and trail access that exists currently.

A detailed site plan of proposed uses on the CU Boulder South Campus has not yet been developed for the site, but the site area is depicted on **Figure 2**. It is our understanding that the majority of uses will be develop in the area labeled as "Public", south of the future flood mitigations on the site.

The CU Boulder South site currently is mostly vacant and utilized for recreational purpose. There are 12 tennis courts, a cross country course for CU Boulder athletics, trails and open space used by the public, several small detention ponds, and an old storage building. It is proposed that the primary access continues to be on Table Mesa Drive at Loop Drive, with secondary access on Broadway (a new access onto SH 93 south of Chambers Drive). It is anticipated that Tantra Drive will also provide a tertiary access, although site design will limit the amount of traffic that will use this access. The existing intersections of Table Mesa Drive at US 36 Southbound Off-Ramp / Loop Drive and at Tantra Drive are signalized. The future access intersection on Broadway (SH 93) is planned to be side-street stop-controlled since projected volumes are not anticipated to meet signal warrants.

3.0 Study Considerations

3.1 Data Collection

The study area for this project includes nine (9) existing intersections and one (1) future intersection (see Section 4.2 for a list of these intersections). Existing (pre-COVID) traffic counts were available at six (6) of the intersections. Weekday AM and PM peak hour turning movement volumes were collected in November 2020 at the other three (3) of the nine (9) existing intersections where no pre-COVID count data was available. Two of the intersections where pre-COVID counts were available were also recounted in November 2020 to enable a pre-COVID/during COVID comparison.

Pre-COVID daily traffic volumes were gathered from the Colorado Department of Transportation's (CDOT) Transportation Data Management System and the City of Boulder's traffic count database. Daily traffic counts were taken at two locations during November 2020, again to allow a comparison of pre-COVID and during COVID conditions. Refer to **Section 4.3** for details on the comparison of pre-COVID/during COVID traffic counts, and the adjustments made to develop representative existing counts assuming no influence of the COVID-19 pandemic.

Signal-related information for the existing signalized intersections were provided by the City of Boulder staff and utilized within the analysis. All traffic count data are provided in the **Appendix**.

3.2 Evaluation Methodology

The traffic operations analysis addressed the signalized and unsignalized intersection operations using the procedures and methodologies set forth by the Highway Capacity Manual (HCM)¹. Existing peak hour factors were applied to the intersections for the existing and long-term scenarios. The saturation flow rate factor (the maximum number of passenger cars per lane per hour (pcplph) that can pass through a location at traffic saturation) is utilized in the analysis process. Historic observations of peak hour traffic in Boulder (most recently as part of the East Arapahoe Corridor Project) have determined that the saturation flow rate of Boulder drivers is 2,100 pcplph. This value was utilized in the traffic operational analysis. Study intersections were evaluated using Synchro software (v10).

¹ Highway Capacity Manual, Highway Research Board Special Report 209, Transportation Research Board, National Research Council, 6th Edition (2016).

3.3 Level of Service Capacity Analysis

A Level of Service analysis was conducted to determine the existing and projected future performance of the study area intersections and accesses, and to determine any traffic control adjustments or mitigation measures that may be needed in the future.

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.

Typically, LOS A through D are considered to be acceptable for the overall intersection operations and for individual movements during the peak hours. Individual movements may be allowed to fall to LOS E at signalized intersections. Minor movements at unsignalized intersections, such as left turns onto a major arterial, may be allowed to fall below LOS D. Criteria contained in the *HCM* was applied for these analyses in order to determine peak hour LOS for each scenario. A more detailed discussion of LOS methodology is contained in the **Appendix** for reference.

4.0 Existing Conditions

4.1 Roadways

The study area for this project was determined by City of Boulder staff to include portions of the Table Mesa Road / South Boulder Road corridor, and the Broadway / SH 93 corridor. The primary public roadways that serve the project site are discussed in the following text and illustrated on **Figure 1**.

US 36 is a four-lane, divided, east-west highway (CDOT Classification of FW: Freeway) that provides access between Denver and Boulder. Adjacent to the project site, the highway has an ADT of 90,000 vehicles per day (vpd) south of the interchange of Table Mesa Drive/S. Boulder Road (Year 2019, CDOT)². North of this interchange, US 36 serves approximately 58,500 vpd. The

² Source: Colorado Department of Transportation’s Transportation Data Management System (TDMS).

posted speed limit on US 36 is 65 miles per hour (mph) south of the study area and reduces to 55 mph north of the study area. The highway is the eastern boundary of the proposed site. The eastbound and westbound on-ramp and off-ramp intersections along Table Mesa Drive / South Boulder Road are included in the study area for this project. US 36 will provide access between CU Boulder South and the east side of the CU Boulder Main Campus.

Foothills Parkway (SH 157) is a four-lane, divided, north-south highway (CDOT Classification of E-X: Expressway) that extends across the east side of Boulder connecting US 36 to the Diagonal Highway and several arterial roadways in between. North of Table Mesa Drive / S. Boulder Road, the highway has an ADT of 47,500 vpd (Year 2019, CDOT). The posted speed limit on Foothills Parkway is 45 mph. The northbound on-ramp and southbound off-ramp intersections along Table Mesa Drive / South Boulder Road are included in the study area. Foothills Parkway will provide access between CU Boulder South and the CU Boulder East Campus.

Table Mesa Drive / S. Boulder Road is a four-lane, east-west arterial that travels across the south end of Boulder and to several Boulder neighborhoods, the Table Mesa Shopping Center, small retail centers, the post office, religious establishments, and office spaces. Table Mesa Drive / S. Boulder Road provides direct access to US 36, Foothills Parkway, and Broadway. S. Boulder Road leads to the Town of Louisville and Lafayette to the east. Adjacent to the project site, Table Mesa Drive has a paved cross-section that ranges from 66-feet to 92 feet that includes 11-foot through lanes (two per direction); 5-foot bike lanes, varying width of center median / left-turn lane; and right-turn deceleration and acceleration lanes. This arterial has an ADT of 29,800 vpd west of Loop Drive. The posted speed limit on Table Mesa Drive / S. Boulder Road is 35 mph within the vicinity of the CU Boulder South Campus. Table Mesa Drive provides connectivity to the Broadway corridor which connects to the west side of the CU Boulder Main Campus.

Broadway (SH 93) is the primary north-south arterial roadway in the western portion of Boulder, extending from SH 93 in the Marshall area south of town to US 36 at the north edge of Boulder. SH 93 continues south through Boulder and Jefferson Counties to Golden. In the study area it typically has two through lanes in each direction. The CDOT Classification is NR-A: Non-Rural Regional Highway in the study area as the roadway enters the south edge of Boulder. Currently the posted speed limit transitions between 50 mph south of town and 40 mph in town, in the vicinity of the proposed new access to the CU Boulder South site. This roadway currently serves approximately 22,000 vpd within the study area (Year 2019, count). In the vicinity of the proposed new CU access, the paved roadway is approximately 50-feet that includes 11-foot through lanes

(two per direction) and 3-foot shoulders. The intersection of Broadway and Table Mesa Road has two through lanes on all approaches and varying auxiliary turn lanes.

Loop Drive currently provides the only roadway access to the CU Boulder South Campus site. It is a paved roadway (approximately 24 feet wide with narrow gravel shoulders) with room for a single lane in each direction, although there is no centerline striping currently. Its southern terminus is at a small parking lot that serves existing tennis and recreational use on the property. In this capacity, Loop Drive currently carries less than 1,000 vehicles per day. The north end aligns with the signalized US 36 southbound off-ramp intersection on Table Mesa Road. It is anticipated that Loop Drive continue to be the main access to the site, although the alignment and configuration will be modified and reconstructed in association with future flood mitigation improvement in the north end of the site.

Tantra Drive is a two-lane roadway with a curving alignment that extends south of Table Mesa Drive and eventually terminates at the western edge of the CU Boulder South site and its intersection with E. Moorhead Circle. Tantra Drive provides access to commercial developments on the south edge of Table Mesa Drive before continuing south to access residential neighborhoods. The paved width varies along its length, with some segments allowing on-street parking, and others with short medians where parking is prohibited. It currently carries approximately 4,000 vehicles per day just south of Table Mesa Road. There is a school zone and pedestrian crossings adjacent to the Summit Middle School. It is anticipated that Tantra Drive will be extended east into the CU Boulder South site, but it is also anticipated that the site design will be such that Tantra Drive will only serve a relatively small portion of the CU site automobile access traffic.

4.2 Intersections

The study area includes nine existing intersections and one future intersection (listed below with the current traffic control) that were analyzed for existing and future year traffic operations (as appropriate):

1. Table Mesa Drive at Tantra Drive [signalized]
2. Table Mesa Drive at Moorhead Avenue [signalized]
3. Table Mesa Drive at Loop Drive / US 36 SB Off-Ramp (West) [signalized]
4. Table Mesa Drive at US 36 SB On-Ramps [not applicable]
5. Table Mesa Drive at US 36 NB On-Ramp [not applicable]

6. Table Mesa Drive at Foothills Parkway SB Off-Ramp / RTD Park-n-Ride [signalized]
7. S. Boulder Road at Foothills Parkway NB On-Ramps [not applicable]
8. S. Boulder Road at US 36 NB Off-Ramp (East) [signalized]
9. Broadway at Table Mesa Drive [signalized]
10. SH 93 (Broadway) at the new CU Boulder South access [unsignalized]

The existing lane configuration at each of the study locations are illustrated on **Figure 3**.

4.3 Existing Traffic Volumes (Adjusted to Represent Pre-COVID Conditions)

As noted above, existing traffic volume data available for this study included both pre-COVID and during-COVID conditions. Given that the COVID pandemic has resulted in less automobile travel during peak traffic periods than existed previously, it was necessary to develop an adjusted set of existing traffic volumes to represent conditions without the influence of COVID-19. This adjustment process included the following steps:

- Peak hour traffic counts available in the City of Boulder traffic count database at the signalized intersections in the study area were generally considered to be representative.
- The City of Boulder maintains a database of historic daily traffic counts taken monthly on some roadways in town, including a count station on Table Mesa Drive in this study area. A comparison of traffic during the fall of 2019 and 2020 indicates that current during-COVID traffic is approximately 75% of historic levels. This suggests that counts for this study taken in November of 2020 should be inflated by a factor of 1.33 ($1/0.75$).
- A comparison of pre-COVID and during-COVID peak hour counts at select intersections indicate that the 1.33 conversion factor is also appropriate for peak hour conditions.
- As a result, peak hour counts taken where no pre-COVID data was available were inflated using this factor.
- All of the pre-COVID and adjusted COVID counts at study area intersections along Table Mesa Drive / South Boulder Road were then smoothed between intersections for use in this traffic study.

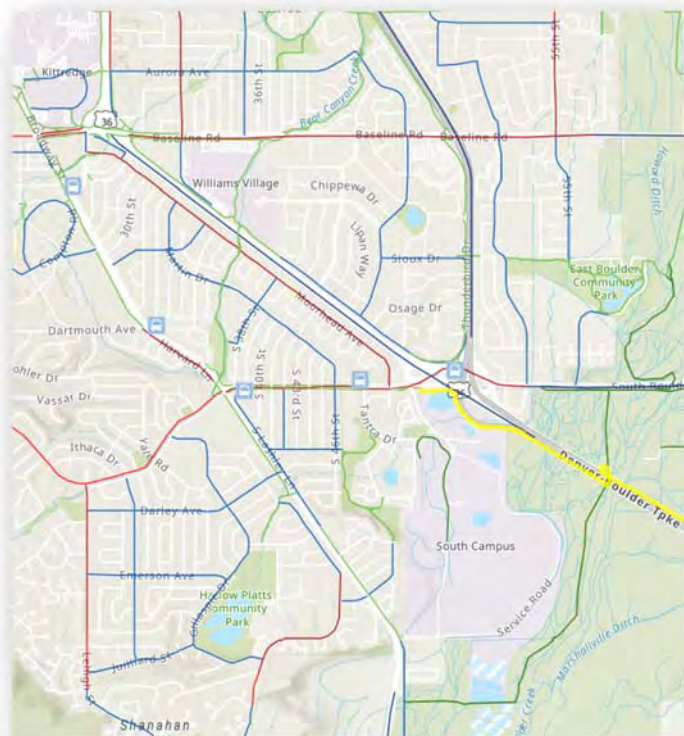
- On SH 93 in the vicinity of the new access to CU Boulder South, previous daily count data from the City's traffic count database was compared to counts taken for this study during COVID conditions. It was determined that the current traffic is only 60% of previous levels accessing Boulder to/from the south. As a result, traffic counts at this location were increased by a factor of 1.7 (1/0.6).

The resulting estimated pre-COVID existing traffic volumes for use in this study are detailed on **Figure 3**.

4.4 Pedestrian and Bicycle Access

Pre-COVID existing pedestrian and bicycle traffic counts at the signalized study area intersections are illustrated on **Figure 4**. The nearby pedestrian and bike facilities are shown in **Map 1**. There are sidewalks on both sides of Table Mesa Drive with a mix of attached and detached segments. Between Moorhead Avenue and Loop Drive there is a multi-use path on the south side of Table Mesa Drive that leads to the US 36 Bikeway. Tantra Drive has sidewalks on both sides of the road that link the project site to Table Mesa Drive.

There are several paved and soft surface trails near and within the CU Boulder South property that provide mobility and connectivity for people walking and biking. Off of Tantra Drive there is the Tantra Park Path that leads to Broadway via on-street connections at Darley Avenue and Brookfield Drive. Along Broadway there is the Broadway Path that connects South Boulder to downtown Boulder, while providing access to CU Boulder Main Campus, employment centers, schools, neighborhoods, and other local and regional trails. Along the west and south sides of the CU Boulder South property, there are gravel paths that connects to the Broadway Path and several other trails on the east side of the City. On the west side of Foothills Parkway, the multi-use path connects the CU Boulder South



Map 1: Existing Pedestrian and Bicycle Infrastructure

property to the CU East Campus. At the intersection of Broadway and Table Mesa Drive is the Bear Creek Path that leads to CU Williams Village and then to the CU East Campus. On the CU Boulder South property, there are many soft surface trails that are utilized for recreational purposes and cross-country practices/races by the CU Athletics.

In addition to the sidewalks and multi-use path, there are on-street bike lanes on Table Mesa Drive and Moorehead Avenue. In recent years, the US 36 Bikeway was constructed along the north and east side of the CU Boulder South property. This 12-foot multi-use trail is 18 miles in length beginning at the US 36 & Table Mesa Station and leading to Westminster. The US 36 Bikeway is parallel to US 36 highway and provides connectivity between Boulder, Superior, Lafayette, Broomfield, and Westminster for places of work, recreation, shopping, and several RTD Stations.

4.5 Transit Access

The US 36 & Table Mesa Park-n-Ride is located on the south side of Table Mesa Drive where Foothills Parkway begins. There is a pedestrian bridge that traverses US 36 to Gate A four southbound buses which is on the north boundary of the CU Boulder South property. This park-n-ride is serviced by the following routes:

- **Route DASH (Boulder/Lafayette via Louisville):** This route travels along Broadway from the Downtown Boulder Station to the US 36 & Table Mesa Park-n-Ride via Table Mesa Drive. The bus continues east to the neighboring communities of Louisville and Lafayette via South Boulder Road.
- **Route FF1 (Flatiron Flyer):** This bus rapid transit (BRT) service travels between downtown Boulder and downtown Denver (Union Station) via Broadway, Table Mesa Drive, and US 36. The bus stops at all of the US 36 Stations between the two cities.
- **Route FF5 (Flatiron Flyer):** This BRT service travels between downtown Boulder and the Anschutz Medical Campus via Broadway, Table Mesa Drive, US 36, and I-70. The bus stops at all of the US 36 Stations between the two cities.
- **Route AB1 (DIA/Boulder):** This route travels between downtown Boulder and Denver International Airport via Broadway, Table Mesa Drive, US 36, and E-470.

In addition to this transit hub, there is a smaller park-n-ride located in the northwest corner of Table Mesa Drive at Tantra Drive. This park-n-ride is served by Route 204, Route FF1, and Route FF5. Route 204 links

north Boulder to downtown via 19th Street. The route continues between the Downtown Boulder Station to the Table Mesa Shopping Center via Broadway, Moorhead Avenue, and Table Mesa Drive.

There is a westbound bus stop on Table Mesa Drive just west of Loop Drive. Currently no buses are stopping but previous to the pandemic this stop was serviced by several local bus routes for connections around and adjacent to Boulder.

Each of the bus routes link to other park-n-rides, stations, and stops that provide the opportunity to transfer. Prior to COVID, there were several other bus routes that picked-up and dropped-off patrons at the nearby park-n-rides and bus stops. These were suspended due to low ridership and may be reintroduced once the demand for transit service returns.

4.6 Existing Intersection Capacity Analysis

The existing volumes, lane configuration, and traffic control are illustrated on **Figure 3**. The results of the LOS calculations for the intersections are summarized in **Table 1**. The 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 currently operate overall at LOS D or better in both peak hours. There are two intersections that currently have movements that operate below LOS D in the PM peak hour as described below:

- **#5 – Table Mesa Drive at US 36 Northbound On-Ramp:** This unsignalized ramp intersection operates overall at LOS A during the PM peak hour; however, the eastbound left-turn movement operates at LOS E. The 95th percentile queue was estimated to be approximately 165 feet (about 7 vehicles) which is maintained within the existing storage length.

Recommendations: Install a “continuous green T-intersection” signal to provide a protected phase for the eastbound left-turn movement. This would stop the westbound direction for the eastbound left-turn and allow the eastbound direction to remain free-flowing. This mitigation measure will improve the eastbound left-turn to LOS B and reduce the queue length by one vehicle. The improved operations are summarized in **Table 1** and the queues are in **Table 2**.

With a high-level analysis, the addition of this partial signal will not negatively impact the progression on Table Mesa Drive. It is recommended that the cycle length of 60 seconds to implemented. Refer to the Signal Progression Analysis in **Section 10.0**.

- **#10 – Broadway at Table Mesa Drive:** This signalized intersection operates overall at LOS C in the AM peak hour and LOS D in the PM peak hour. During the evening peak, the left-turns on the eastbound, westbound, and northbound approaches operate at LOS E. The 95th percentile queues for these movements are maintained within the existing storage lengths. Although the southbound left-turn operates at LOS C in both peak hours, the 95th percentile queue in the evening extends beyond the existing storage length.

Recommendations: Lengthen the southbound left-turn lane to 550 feet (increase of 390 feet). There is room in the existing median to allow this extended turn lane. No mitigation measures are recommended for the other left-turn movements that operate at LOS E in the PM peak hour. Adjustments in signal timing did not easily improve these movements without compromising the pedestrian clearance times or increasing the delay on Broadway.

5.0 Future Background Conditions

5.1 Methodology for Projecting Future Background Volumes

To forecast the future background peak hour traffic volumes, it was necessary to project the change in traffic over the next 20 years (without the influence of CU Boulder South). This step utilized information in the City of Boulder's traffic count database, where count stations have been monitoring traffic since the early 1980s. The historic trends in traffic growth are useful in projecting future traffic volumes, but the process also needs to consider land use changes in the next 20 years that may be different than the past 20 years.

For example, as an area approaches buildout, the annual growth in traffic will be reduced. Changes in trip making characteristics (such as the reduced use of automobiles due to TDM efforts in the community) should also be considered. The lasting influence of COVID travel pattern changes (such as increased use of home offices and telecommuting) even after the pandemic is behind us will also influence future traffic. Based on discussions with City of Boulder staff, the following considerations have been incorporated:

- **Table Mesa Drive:** Traffic growth along this corridor has been nearly flat over the past 20-years (see historic data in the **Appendix**). For this analysis, a 20-year increase of 10% on east/west through traffic has been assumed.

- **Side-Streets:** Traffic on side streets in areas that are built out have been assumed to remain the same as existing traffic volumes.
- **Broadway (SH 93):** Traffic growth to/from the south has increased over the past 20-years but has seemed to flatten in recent years (see historic data in the **Appendix**). To be conservative, an increase of 20% over the next 20-years has been assumed.
- **Broadway at Table Mesa Drive Intersection:** Background growth in traffic has been estimated by considering the two corridor estimates described above and the historic count information north of Table Mesa Drive that indicates that traffic volume in the corridor has been relatively stable in recent years (see historic data in the **Appendix**).

This information has been applied to the existing traffic volumes in Figure 3 to result in the Year 2041 background traffic projections in **Figure 5**. It is anticipated that these background traffic volumes are conservatively high given the many factors that will influence how people will travel in the future.

5.2 Year 2041 Background Intersection Capacity Analysis

The study area intersections were evaluated to determine baseline operations for the Year 2041 background scenario and to identify any capacity constraints associated with background traffic in the long-term scenario. The long-term background volumes, lane configuration, and traffic control are illustrated on **Figure 5**.

The Level of Service criteria discussed previously was applied to the study area intersections to determine the impacts with the long-term background volumes. The results of capacity analysis are shown in **Table 1** with the overall LOS and for each movement. The average and 95th percentile queues are summarized in **Table 2**. The intersection Level of Service worksheets are attached in the **Appendix**.

In summary, the majority of the study intersections are anticipated to operate similarly to existing conditions with minor additional delay associated with higher background volumes. There are two exceptions where the overall intersection or movements operate below LOS D in one or both peak hours. The following summarizes these study intersections:

- **#5 – Table Mesa Drive at US 36 Northbound On-Ramp:** This unsignalized ramp intersection operates overall at LOS B during the PM peak hour; however, the eastbound left-turn movement begins to operate at LOS F. The 95th percentile queue was estimated to be approximately 333 feet (about 13 vehicles) which extends beyond the existing storage length by up to four vehicles.

Recommendations: Install a “continuous green T-intersection” signal to provide a protected phase for the eastbound left-turn movement. This would stop the westbound direction for the eastbound left-turn and allow the eastbound direction to remain free-flowing. This mitigation measure will improve the eastbound left-turn to LOS C and reduce the queue length by approximately 208 feet (about nine vehicles) and to a length that will be maintained in the existing storage length.

With a high-level analysis, the addition of this partial signal will not negatively impact the progression on Table Mesa Drive. It is recommended that the cycle length be 60 seconds. Refer to the Signal Progression Analysis in **Section 10.0**.

- **#10 – Broadway at Table Mesa Drive:** This signalized intersection begins to operate overall at LOS E in the AM peak hour and continues to operate overall at LOS D in the PM peak hour. During the AM peak hour, the northbound through movement begins to operate at LOS F due to the volume-to-capacity (v/c) ratio being 1.16. During the evening peak, the left-turns on the eastbound, westbound, and northbound approaches continue to operate at LOS E. The southbound through movement begins to operate at LOS E with a v/c ratio of 1.04. The 95th percentile queues for the left-turn movements are maintained within the existing storage length, except for the southbound left-turn.

Recommendations: Lengthen the southbound left-turn lane to 550 feet (increase of 390 feet). During the AM peak hour, it is recommended that the cycle length and northbound/southbound phases be increased by 10 seconds. This improves the northbound performance from LOS F to LOS D, but impacts the eastbound and westbound left-turn movements to operate at LOS E. During the PM peak hour, increase the northbound/southbound phase by three seconds by taking from the eastbound/westbound phase. This improves the southbound performance from LOS E to LOS D, but impacts the westbound left-turn to operate at LOS F with the queue maintained in the storage length.

The improved operations are summarized in **Table 1** and the queues are in **Table 2**. It is understood that all changes to the signal timing would need to be evaluated with adjacent signalized intersections and understand the impacts to progression. An increase in cycle length may impact the entire signal system since the City has the same cycle length throughout the majority of the roadway network. But it is likely that traffic signal operations will be reevaluated and adjusted city-wide over the next 20 years, and these recommendations should be considered in the process.

6.0 Proposed Development Traffic

6.1 Travel Demand Management (TDM) Plan

The university goals for Transportation Demand Management included in the 2019 Transportation Master Plan are included for all Boulder campus properties:

- Improving multimodal transportation options to encourage transit, carpooling, walking and biking.
- Encouraging alternative ways of going to school or working via rideshare and remote learning/telework.
- Incentivizing mode shift away from driving single occupant vehicles (SOVs) through parking and land use management.
- Improving the environment and reduce emissions through lessened SOV use and an increase in low emissions vehicles.

These goals encompass the TDM programs and policies currently in place for the CU Boulder Main, East and Williams Village campuses helping to inform transportation decisions made by students, staff, faculty and visitors to the Boulder campus properties. Current programs include a campus wide bus pass program providing transit passes to all staff and faculty, commuting options in CU Commute and vanpool, a guaranteed ride home program and CU NightRide offering ride service after hours along with on campus carshare.

Bike programs include bike registration, bike parking at all facilities, repair stations offering Buff Bike daily and semester rental & bike share locations on each campus coordinated with bike share located within the city of Boulder. Automobile parking is limited and managed within the campus, and a low stress network of pedestrian and bike paths exist within each campus property to encourage walking and biking. All current programs, infrastructure and design will be extended to CU Boulder South as it is developed to continue and expand TDM goals.

As noted above in **Section 4.4**, and below in **Section 7.2**, the CU Boulder South Campus will include a variety of on-site facilities that will access the network of facilities for pedestrians, bicyclists, and RTD transit riders that surround the site and provide connectivity city-wide. The planned multimodal/transit hub at the core of site development will be served by high frequency CU Boulder bus service (anticipated

as 10-minute service for 15 hours per day) to link the CU Boulder South campus with the other CU campuses in Boulder.

CU Boulder South will include parking for residents at a rate of 1 space per dwelling unit (regardless of the number of bedrooms), and 1 space per 600 square feet of floor area for academic facilities. These parking supply ratios are well below what the City parking code would require for other developments in Boulder, and there will be a fee to utilize these parking spaces, consistent with CU's approach to pricing and managing parking at all CU Boulder campuses. These supply and management practices will help reduce future vehicle ownership and use generated by the CU Boulder South Campus and the automobile use between campuses.

The net result of all these TDM considerations will be to minimize the automobile traffic that is generated by future uses on the CU Boulder South Campus.

6.2 Trip Generation

Trip generation rates are used to estimate the amount of automobile traffic that will be generated by the future uses on the CU Boulder South site. The attached **Table 3** details the land uses and the trip rates selected.

The initial trip rates selected for the residential uses are based on national average information in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual* (10th Edition) and include:

- *ITE Code 220, Apartment/Condo*: This rate has been applied to graduate students, faculty, staff, and married student housing.
- *ITE Code 225, Off Campus Graduate Student Apartment*: This rate has assumed an average apartment size of 2 bedrooms each.

These residential automobile trip rates were then reduced by 20% to account for site access by transit, bicycle and/or as a pedestrian. This type of reduction is consistent with normal multimodal trip reductions taken in Boulder to account for the network of multimodal facilities, historic TDM efforts and the multimodal culture in Boulder. It also accounts for the high frequency transit service (every 10 minutes) by CU Boulder buses, and the TDM programs that will be put in place by CU Boulder as described above (including bus passes for all, and the limited supply and cost of parking on the other CU Boulder campuses).

The residential rates at the CU Boulder South Campus were also reduced an additional 10% to account for the trips that will start and end within the site without every accessing the surrounding roadway network. These trips include travel between the housing and academic facilities, between the housing and recreational facilities, and trip linking between various components of the academic facilities.

It should be noted that the net trip rates developed for the residential component of CU Boulder South approximate or exceed actual trip rates observed during previous studies at other similar CU residential housing in Boulder that serves married students, graduate students and/or faculty. On this basis the residential trip rates proposed are grounded in ITE information and adjusted/verified for conditions in Boulder.

The trip rates for the Academic mixed-use facilities are not based on any ITE trip rates because there are no comparable national average trip rates for this type of land use. Rather, these trip rates are based on actual trip rates documented at similar facilities on the CU Boulder East Campus during a previous study where actual trips accessing different facilities were counted and compared to the floor area of the buildings. As such, no additional multimodal or internal capture trip reductions have been applied to these specific CU Boulder trip rates.

Lastly, trip generation estimates have been made to account for the continued use of the site for recreational activities and the amount of CU Boulder bus traffic that will be accessing the site.

Using these rates and considerations it is projected that when built out, the CU Boulder South Campus will generate approximately 7,000 vehicle trips per day, with 450 occurring during the AM peak hour and 650 occurring during the PM peak hour. Refer to **Table 3** for trip generation details.

6.3 Trip Distribution and Assignment

An estimate of vehicle trip distribution pattern was made to allow the trips generated by the site to be assigned to the surrounding roadway network. This anticipated trip distribution pattern was developed based on a review of:

- the trip distribution of trips that currently access the site on Loop Drive
- the proximity of the CU Boulder South parcel to the roadway links that connect this site to the CU Boulder Main Campus, the CU Boulder East Campus and the CU Boulder Williams Village Campus

- the location of the CU Boulder South parcel to the roadways that serve the rest of the City of Boulder
- the location of the CU Boulder South parcel to the roadways that serve the entire Boulder/Denver region
- the probable density and location of land uses on the CU Boulder South site relative to the main access points onto the adjacent roadway network
- a discussion of site access and anticipated site users with CU Boulder staff.

The resulting trip distribution pattern is illustrated on **Figure 6** and summarized in **Table 4**.

Table 4: Trip Distribution Summary

To/From	Distribution	To/From	Distribution
East S. Boulder Road	3%	North US 36	25%
West Table Mesa Drive via Loop Drive	7%	South US 36	20%
West Table Mesa Drive via Tantra Drive	3%	North Broadway	20%
North Foothills Parkway	20%	South Broadway	2%

Using these distribution assumptions, the projected site traffic was assigned to the study area roadway network and appropriate accesses for the weekday AM and PM peak hour periods. The site-generated volumes are shown on **Figure 7**.

7.0 Future Conditions with CU Boulder South

7.1 Proposed Roadway Network and Access

Primary access to the CU Boulder South Campus is planned on Table Mesa Drive via Loop Drive and a new roadway to Broadway (SH 93). There will be secondary access to Table Mesa Drive via Tantra Drive. The intersections on Table Mesa Drive at Loop Drive and at Tantra Drive are currently signalized. The new access on Broadway (SH 93) is planned to be located approximately ¼-mile north of the low volume Marshall Road intersection. Based on peak hour signal warrant considerations, it is anticipated that this intersection will not warrant a traffic signal. It is anticipated that the intersection will be full-movement

with side-street stop-control. Comparing projected turning movement volumes with auxiliary turn lane criteria in CDOT's State Highway Access Code, it is anticipated that this access will need to provide one southbound left-turn deceleration lane, one northbound right-turn acceleration lane, and the westbound approach will include one left-turn lane and one right-turn lane. Refer to **Section 9.0** for the auxiliary lane evaluation for the new access on Broadway. The proposed accesses are illustrated on **Figure 8** with the anticipated lane configurations and traffic control. The design of the new access on Broadway is illustrated on **Figure 9**.

7.2 Facilities to Promote and Support Pedestrian, Bicyclist, and Transit Rider Access

The CU Boulder South project proposes to have sidewalks, multi-use paths, on-street bike lanes, and off-street bike facilities throughout the property. These features will provide internal circulation between residential, research and recreational uses, and connections to the CU Boulder South transit hub (which anticipates having 10-minute service frequency to link this campus to the other CU Boulder campuses in Boulder. There will also be new or enhanced connections to the extensive system of multi-modal facilities that surround the site (see **Section 4.4** and **Map 1**). Future multimodal enhancements at CU Boulder South will include:

- connectivity to existing RTD transit plaza
- a new path connection to the US 36 Bikeway
- potential improvements to the existing gravel path connections to Ludlow Street, Moorhead Circle, and Tantra Drive
- potential to work with City of Boulder Open Space Department to provide a trail connection to the South Boulder Creek Path along the eastern edge of the property.

[Many of these connections will need to be coordinated with the flood mitigation efforts on the site, so no graphical illustration has been provided at this time.]

7.3 Year 2041 Background + Project Intersection Capacity Analysis

This section discusses impacts associated with the addition of the CU Boulder South trips in the build-out, long-term scenario. The site-generated volumes were added to the Year 2041 background volumes and are illustrated on **Figure 8**. The figure illustrates the anticipated and proposed traffic control and lane configurations for all the study intersections and proposed access. The details of the LOS for each

movement are listed in **Table 1**. The average and 95th percentile queues are summarized in **Table 2**. The intersection Level of Service worksheets are attached in the **Appendix**.

The majority of the study intersections operate similarly to the Year 2041 Background scenario. The most significant impacts are at the intersection of Table Mesa Drive at Loop Drive / US 36 Southbound Off-Ramp (west ramp). The two study intersections that previously had movements operating at LOS E will continue to do so and one additional intersection will begin to have movements operating at LOS E. The following summarizes the operates of these study intersections:

- **#3 – Table Mesa Drive at Loop Drive / US 36 Southbound Off-Ramp:** This signalized intersection begins to operate overall at LOS C during the PM peak hour due to the northbound and southbound left-turns beginning to operate at LOS E/F. The 95th percentile queues were estimated to extend beyond the existing storage lengths. The westbound left-turn operates at LOS C during the PM peak hour, but the 95th percentile queue extends beyond the existing storage length.

Recommendations: Increase the northbound/southbound phase by 9 seconds by taking the time from the eastbound/westbound phase. This improves the northbound and southbound left-turns to operate at LOS D. Extend the southbound left-turn pavement markings on the off-ramp by 150 feet to increase the storage length. Build the northbound approach to include a left-turn lane with a minimum of 100-feet of storage. Lengthen the westbound left-turn by 60 feet, which will contain the queue and is the longest this lane can be until impacting the eastbound left-turn at the adjacent intersection.

- **#5 – Table Mesa Drive at US 36 Northbound On-Ramp:** This unsignalized ramp intersection will begin to operate overall at LOS E during the PM peak hour due to the eastbound left-turn movement beginning to operate at LOS F with delays over six minutes. The 95th percentile queue was estimated to be approximately 708 feet (about 28 vehicles) which extends well beyond the existing storage length and into the upstream intersection at Loop Drive.

Recommendations: Install a “continuous green T-intersection” signal to provide a protected phase for the eastbound left-turn movement. This would stop the westbound direction for the eastbound left-turn phase and allow the eastbound direction to remain free-flowing. This mitigation measure will improve the overall performance to LOS A and the eastbound left-turn to LOS C. The 95th percentile queue is estimated to be reduce by approximately 550 feet (about 22 vehicles) and be maintained in the existing storage length.

With a high-level analysis, the addition of this partial signal will not negatively impact the progression on Table Mesa Drive. It is recommended that the cycle length be 60 seconds. Refer to the Signal Progression Analysis in **Section 10.0**.

- **#9 – Broadway at New CU Boulder South Access:** This proposed side-street stop-controlled intersection is anticipated to operate overall at LOS A in both peak hours; however, the westbound left-turn is estimated to operate at LOS F in both peak hours. The 95th percentile queue was calculated to be one vehicle or less.

Recommendations: Construct this new intersection with one southbound left-turn deceleration lane, one northbound right-turn acceleration lane, and the westbound approach with one left-turn lane and one right-turn lane. No mitigation measures are needed for the westbound left-turn delay since the queues is minimal and the volumes are low.

- **#10 – Broadway at Table Mesa Drive:** This signalized intersection is anticipated to operate overall at LOS E in both peak hours. During the AM peak hour, the northbound through movement is calculated to operate at LOS F due to the volume-to-capacity (v/c) ratio being 1.20. The southbound left-turn begins to operate at LOS E. During the evening peak, the left-turns on all four approaches are estimated to operate at LOS E. The southbound through movement is anticipated to operate at LOS E with a v/c ratio of 1.08. The 95th percentile queues for the left-turn movements are maintained within the existing storage length, except for the southbound left-turn.

Recommendations: Lengthen the southbound left-turn lane to 550 feet (increase of 390 feet). During the AM peak hour, it is recommended that the cycle length and northbound/southbound phases be increased by 15 seconds. This improves the overall performance to LOS D and improves the northbound through movement to LOS D, but impacts all the left-turn movements to operate at LOS E. During the PM peak hour, increase the northbound/southbound phase by five seconds by taking from the eastbound/westbound phase. This improves the southbound performance to LOS D, but impacts the westbound left-turn to operate at LOS F with the queue maintained in the storage length.

The improved operations are summarized in **Table 1** and the queues are in **Table 2**. It is understood that all changes to the signal timing would need to be evaluated with adjacent signalized intersections and understand the impacts to progression. An increase in cycle length may impact the entire signal system since the City has the same cycle length throughout the majority of the roadway network.

8.0 Queuing Analysis

A queuing analysis was performed to determine if the average and 95th percentile queues would be accommodated by the existing storage length, to determine the storage lengths for future auxiliary lanes, and if any of the queues would impact an upstream intersection/access. **Table 2** provides the existing and proposed storage lengths, as well as the average and 95th percentile queues for each existing and future scenario as calculated by Synchro (assuming each vehicle utilizes 25 feet of space). 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.

As shown in **Table 2**, the majority of the queues are shorter than the provided storage length in all scenarios. As discussed previously, the 95th percentile queues at the following intersections were calculated to extend beyond the existing storage length and need to be considered for extension:

- **#10 – Broadway at Table Mesa Drive: [existing condition]**
 - Southbound Left-Turn – Lengthen to 550 feet (increase of 390 feet) by reconstructing median.
- **#3 – Table Mesa Drive at Loop Drive / US 36 Southbound Off-Ramp: [with project]**
 - Northbound Left-Turn – Construct with a minimum of 100-feet of storage.
 - Southbound Left-Turn – Extend pavement markings to 275 feet (increase of 150 feet).
 - Westbound Left-Turn – Lengthen to 150 feet (increase by 60 feet) by reconstructing median. Note this is the longest this lane can be lengthened since it is back-to-back with the eastbound left-turn lane at the US 36 Northbound On-Ramp.

The southbound left-turn at the intersection of Table Mesa Drive at Moorhead Avenue was estimated to extend beyond the existing storage length of 85 feet. This lane cannot be extended since there is an existing access to the Coronado Apartments.

9.0 Auxiliary Lane Analysis

Broadway (SH 93) is maintained and operated by CDOT, which requires compliance with the current State Highway Access Code³ auxiliary lane criteria. The purpose of the criteria is to enhance safety and access along state facilities. The forecasted volumes on Broadway at the proposed access were reviewed to determine if auxiliary lane requirement thresholds are met.

Within the study area, Broadway is classified as NR-A (Non-Rural Regional Highway) and current posted speed limit transitions between 50 mph and 40 mph just north of the proposed access. It is proposed that the speed limit transition be relocated south of the new access intersection to increase safety for all those travel through the intersection.

Per the Access Code requirements, a left-turn deceleration lane is required if the volume is greater than 10 vph, a right-turn deceleration lane is required if the volume is greater than 25 vph, and a right-turn acceleration lane is required if the volume is greater than 50 vph. The Access Code requires a deceleration length of 370 feet that includes the taper (12:1), plus additional storage length. An acceleration lane is required to be 380 feet in length including the taper (12:1). An upgrade factor of 1.3 was applied to the acceleration lane length. **Table 5** summarizes the auxiliary lane needs and analysis.

Table 5. Auxiliary Lane Evaluation

Movement	Highest Hourly Volume	Volume Threshold Met?	CDOT Design Criteria			
			Accel. / Decel. Length	Storage Length	Taper Length	Total
Proposed Access						
NB Right Decel	6		-	-	-	-
NB Right Accel	68		305'	n/a	145'	450'
SB Left Decel	63		225'	60'	145'	430'
SB Left Accel	7		-	-	-	-

As shown in **Table 5**, a northbound right-turn acceleration lane and a southbound left-turn lane are required. The table provides the recommended lengths of the auxiliary lanes. A conceptual design of the

³ State Highway Access Code, State of Colorado, August 31, 1998, updated March 2002.

new access on Broadway is illustrated on **Figure 9** and proposes to expand the width of the road by 8-feet on each side of the roadway. The southbound left-turn lane is proposed to include a 12-foot lane and a 4-foot painted median. The northbound right-turn is proposed to be 12-foot in width. The westbound approach is anticipated to have one left-turn lane (minimum of 100-feet in length) and one right-turn lane that are 12-foot in width. Based on the speed limit, the redirect taper to accommodate the new auxiliary lanes is at a ratio of 30:1.

10.0 Signal Progression Analysis

Since it was recommended that a signal be installed at the intersection of Table Mesa Drive at US 36 Northbound On-Ramp to reduce the eastbound left-turn delay and queuing, a signal progression analysis was performed for the westbound direction along the Table Mesa Drive corridor. The proposed signal will allow eastbound traffic to be free-flowing and the bandwidth will not be impacted. The time-space diagrams from each of the analysis scenarios on Table Mesa Drive between Tantra Drive and Us 36 Northbound Off-Ramp were evaluated and compared. **Table 6** summarizes the westbound bandwidth without and with the new signal at US 36 Northbound On-Ramp intersection.

Table 6: Bandwidth Evaluation

Scenario		Westbound Bandwidth	
		Through New Signal	Corridor (Tantra to US 36 NB Off-Ramp)
Existing & 2041 Bkgrd AM Peak	No Signal	43 sec	36 sec
	With New Signal	38 sec	36 sec
Existing & 2041 Bkgrd PM Peak	No Signal	39 sec	22 sec
	With New Signal	32 sec	22 sec
2041 Project AM Peak	No Signal	43 sec	36 sec
	With New Signal	38 sec	36 sec
2041 Project PM Peak	No Signal	22 sec	22 sec
	With New Signal	38 sec	31 sec
	Optimized Offset	26 sec	24 sec

Data in **Table 6** indicates that **the new signal has little to no impact on the progression along the entire corridor**. Since it is proposed that the new signal be a short cycle length (60 seconds), the maximum green time on the westbound approach is theoretically 38 seconds. This slightly reduces the westbound bandwidth between the intersections of US 36 SB Off-Ramp/Loop Drive and Foothills Southbound Off-Ramp/RTD Access. In the Year 2041 Background + Project scenario during the PM peak hour, the offsets were also optimized to provide greater bandwidth in both directions. The time-space diagrams for each scenario and peak hour are provided in the **Appendix**.

11.0 Conclusions

The CU Boulder South project proposes to provide 550 apartment/condo units for faculty, staff, and graduate student housing, 550 graduate student apartment units, 500,000 sq. ft. of academic facilities, a transit/mobility hub, and recreational facilities (existing tennis courts and trail access). The property is bounded by Table Mesa Drive to the north, US 36 to the northeast, South Boulder Creek and Boulder Open Space property to the east, Marshall Road to the south, Broadway and South Boulder neighborhoods to the west. It is proposed that the primary access continues to be on Table Mesa Drive at Loop Drive, with secondary new access on Broadway (south of Chambers Drive). It is anticipated that Tantra Drive will also provide a tertiary access, although site design will limit the amount of traffic that will use this access.

The project is estimated to generate approximately 7,000 daily trips with about 450 trips occurring in the AM peak hour and 650 trips occurring in the PM peak hour. **It was determined that the existing roadway system can adequately accommodate the projected traffic volumes, although some traffic mitigations have been identified.**

The following mitigation measures should be considered to improve the existing and background traffic deficiencies, independent of the proposed CU Boulder South Campus development:

- **Table Mesa Drive at US 36 Northbound On-Ramp**
 - Install a “continuous green T-intersection” signal to provide a protected phase for the eastbound left-turn movement. Time with a half-cycle.
- **Broadway at Table Mesa Drive**
 - Lengthen the southbound left-turn to 550 feet (increase of 390 feet) by reconstructing median. *[Existing Condition]*

- o Increase the cycle length and northbound/southbound phases by 10 seconds during AM peak period. *[Future Background Condition]*
- o Increase the northbound/southbound phase by three (3) seconds from the eastbound/westbound phase during the PM peak period. *[Future Background Condition]*

The following additional mitigation measures should be considered to accommodate the project trips:

- **Table Mesa Drive at Loop Drive / US 36 Southbound Off-Ramp**
 - o Construct northbound left-turn with a minimum of 100-feet of storage.
 - o Extend southbound left-turn pavement markings to 275 feet (increase of 150 feet) on the existing off-ramp.
 - o Lengthen westbound left-turn to 150 feet (increase by 60 feet) by reconstructing median.
- **Broadway at Table Mesa Drive**
 - o Increase the cycle length and northbound/southbound phases by 15 seconds during AM peak period.
 - o Increase the northbound/southbound through phase by five (5) seconds taken from the eastbound/westbound phase during the PM peak period.
- **Broadway at New CU Boulder South Access**
 - o Shift the existing 40 mph/50 mph speed limit transition point to be south of the proposed new CU Boulder South access.
 - o Construct one southbound left-turn deceleration lane (285 feet of storage/deceleration + 145-foot taper)
 - o Construct one northbound right-turn acceleration lane (305 feet of acceleration + 145-foot taper)
 - o Construct the westbound approach with one left-turn lane (minimum of 100-foot storage) and one right-turn lane.
- Implement Transportation Demand Management Plan components.
- Provide adequate pedestrian and bicyclist facilities to link to existing infrastructure and provide connectivity throughout the site.

Tables and Figures:

Table 1 – Peak Hour Intersection LOS Summary

Table 2 – Peak Hour Estimated Queue Lengths

Table 3 – Trip Generation Summary

Table 4 – Trip Distribution Summary [IN REPORT]

Table 5 – Auxiliary Lane Evaluation [IN REPORT]

Table 6 – Bandwidth Evaluation [IN REPORT]

Figure 1 – Vicinity Map

Figure 2 – Proposed Site Plan and Access

Figure 3 – Existing Traffic Volumes

Figure 4 – Existing Pedestrian and Bicyclist Volumes

Figure 5 – Year 2041 Background Traffic Volumes

Figure 6 – Trip Distribution

Figure 7 – Site-Generated Traffic Volumes

Figure 8 – Year 2041 Background + Site-Generated Traffic Volumes

Figure 9 – New Access to CU Boulder South – State Highway 93 (Broadway)



Table 1 - Peak Hour Intersection Level of Service Summary

Intersection and Critical Lane Groups	Year 2020 Existing				Mitigation	Year 2020 Existing with Improvements				Mitigation	Year 2041 Background				Mitigation	Year 2041 Background with Improvements				2041 Background + Project				Mitigation	Year 2041 Background + Project with Improvements			
	AM Peak		PM Peak			AM Peak		PM Peak			AM Peak		PM Peak			AM Peak		PM Peak		AM Peak		PM Peak			AM Peak		PM Peak	
	Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS
STOP SIGN CONTROL																												
#5. Table Mesa Dr. at US 36 NB On-Ramp	2	A	4	A	Partial Signal w/ Half-Cycle	3	A	6	A	3	A	11	B	4	A	7	A	8	A	39	E	Partial Signal w/ Half-Cycle	6	A	10	A		
Eastbound Left	19	C	39	E		3	A	19	B	33	D	118	F	9	A	22	C	87	F	>120	F		21	C	26	C		
Eastbound Through	0	A	0	A		0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A		0	A	0	A		
Westbound Through	0	A	0	A		4	A	8	A	0	A	0	A	6	A	10	A	0	A	0	A		7	A	13	B		
Westbound Right	0	A	0	A		3	A	9	A	0	A	0	A	4	A	9	A	0	A	0	A		5	A	10	A		
#9. Broadway at New CU South Access																		1	A	1	A							
Westbound Left																		>120	F	115	F							
Westbound Right																		22	C	13	B							
Northbound Through+Right																		0	A	0	A							
Southbound Left																		18	C	11	B							
Southbound Through																		0	A	0	A							
SIGNAL CONTROL																												
#1. Table Mesa Dr. at Tantra Dr.	4	A	7	A					4	A	8	A					4	A	4	A								
Eastbound Left	0	A	4	A					0	A	5	A					0	A	0	A								
Eastbound Through+Right	1	A	7	A					1	A	8	A					1	A	1	A								
Westbound Left	3	A	5	A					3	A	6	A					4	A	4	A								
Westbound Through+Right	1	A	1	A					1	A	1	A					1	A	1	A								
Northbound Left+Through	41	D	50	D					39	D	49	D					39	D	49	D								
Northbound Right	41	D	50	D					40	D	49	D					39	D	48	D								
Southbound Left	43	D	53	D					42	D	52	D					43	D	53	D								
Southbound Through+Right	38	D	47	D					36	D	45	D					36	D	45	D								
#2. Table Mesa Dr. at Moorhead Ave.	7	A	20	C					5	A	17	B					5	A	17	B								
Eastbound Left	6	A	12	B					6	A	12	B					6	A	12	B								
Eastbound Through+Right	5	A	1	A					1	A	2	A					1	A	2	A								
Westbound Left	6	A	8	A					6	A	8	A					6	A	8	A								
Westbound Through	1	A	32	C					1	A	23	C					1	A	24	C								
Westbound Right	0	A	21	C					0	A	15	B					0	A	15	B								
Northbound Left	33	C	39	D					32	C	38	D					32	C	38	D								
Northbound Through+Right	32	C	38	D					32	C	38	D					32	C	38	D								
Southbound Left	38	D	52	D					38	D	53	D					38	D	53	D								
Southbound Through+Right	32	C	37	D					31	C	36	D					31	C	36	D								



Table 1 - Peak Hour Intersection Level of Service Summary

Intersection and Critical Lane Groups	Year 2020 Existing				Mitigation	Year 2020 Existing with Improvements				Mitigation	Year 2041 Background				Mitigation	Year 2041 Background with Improvements				2041 Background + Project				Mitigation	Year 2041 Background + Project with Improvements			
	AM Peak		PM Peak			AM Peak		PM Peak			AM Peak		PM Peak			AM Peak		PM Peak		AM Peak		PM Peak						
	Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS
#3. Table Mesa Dr. at Loop Dr. / US 36 SB Off-Ramp (W)	4	A	15	B						4	A	17	B						8	A	27	C				27	C	
Eastbound Through	1	A	5	A						1	A	7	A						1	A	24	C	PM: Increase NB/SB by 9s from EB/WB	N/A	30	C		
Eastbound Right	0	A	0	A						0	A	0	A					0	A	0	A	0			A			
Westbound Left	2	A	6	A						3	A	7	A					5	A	31	C	31			C			
Westbound Through	0	A	15	B						1	A	16	B					1	A	6	A	9			A			
Northbound Left	39	D	40	D						37	D	39	D					35	C	96	F	53			D			
Northbound Right	40	D	40	D						38	D	40	D					40	D	45	D	42			D			
Southbound Left	43	D	50	D						41	D	54	D					55	D	66	E	53			D			
Southbound Left+Through	43	D	50	D						41	D	54	D					31	C	62	E	52			D			
Southbound Right	0	A	0	A						0	A	0	A					0	A	43	D	41			D			
#6. Table Mesa Dr. at Foothills SB Off-Ramp / RTD Access	9	A	17	B						11	B	17	B						10	A	17	B						
Eastbound Through	7	A	10	A						8	A	11	B						5	A	12	B						
Eastbound Right	20	B	7	A						17	B	8	A						7	A	8	A						
Westbound Left	2	A	8	A						5	A	10	A						5	A	10	A						
Westbound Through	3	A	12	B						7	A	14	B						7	A	14	B						
Northbound Left	45	D	53	D						45	D	53	D						45	D	53	D						
Northbound Right	44	D	52	D						44	D	52	D						44	D	52	D						
Southbound Left	43	D	55	D						43	D	55	D						43	D	55	D						
Southbound Left+Through	43	D	54	D						43	D	55	D						43	D	55	D						
Southbound Right	0	A	1	A						0	A	1	A						0	A	1	A						
#8. S. Boulder Rd. at US 36 NB Off-Ramp	5	A	9	A						5	A	9	A						6	A	10	A						
Eastbound Through	0	A	0	A						0	A	1	A						0	A	1	A						
Westbound Through	0	A	3	A						0	A	3	A						0	A	4	A						
Northbound Left	44	D	51	D						44	D	51	D						43	D	50	D						
Northbound Right	0	A	0	A						0	A	0	A						0	A	0	A						
#10. Broadway at Table Mesa Dr.	35	C	41	D						58	E	53	D						44	D	50	D			47	D	53	D
Eastbound Left	48	D	61	E						48	D	61	E	AM: Increase NB/SB & Cycle by 10s. PM: Increase NB/SB by 3s from EB/WB Thru and Left	57	E	61	E	48	D	61	E	AM: Increase NB/SB & Cycle by 15s. PM: Increase NB/SB & Cycle by 5s	66	E	60	E	
Eastbound Through+Right	34	C	47	D					34	C	48	D	41		D	49	D	35	C	48	D	45		D	51	D		
Westbound Left	51	D	63	E					55	D	67	E	65		E	85	F	55	D	67	E	79		E	93	F		
Westbound Through+Right	40	D	46	D					39	D	46	D	37		D	48	D	40	D	46	D	40		D	41	D		
Northbound Left	49	D	58	E					49	D	58	E	54		D	58	E	49	D	58	E	56		E	60	E		
Northbound Through	37	D	34	C					115	F	42	D	53		D	8	A	>120	F	52	D	51		D	40	D		
Northbound Right	8	A	9	A					9	A	11	B	8		A	10	B	9	A	13	B	8		A	11	B		
Southbound Left	27	C	30	C					39	D	47	D	54		D	44	D	57	E	58	E	80		E	71	E		
Southbound Through	24	C	36	D					27	C	68	E	25		C	53	D	28	C	83	F	25		C	54	D		
Southbound Right	0	A	0	A					0	A	0	A	0		A	0	A	0	A	0	A	0		A	0	A		

Note: Delay represented in average seconds per vehicle.



Table 2 - Peak Hour Estimated 95th Percentile Queue Lengths

Intersection and Cricital Lane Groups	Ex. Storage Length	Prop. Storage Length	Year 2020 Existing				Year 2020 Existing with Improvements				Year 2041 Background				Year 2041 Background with Improvements				Year 2041 Background + Project				Year 2041 Background + Project with Improvements																	
			AM Peak Hr		PM Peak Hr		Mitigation	AM Peak Hr		PM Peak Hr		AM Peak Hr		PM Peak Hr		Mitigation	AM Peak Hr		PM Peak Hr		AM Peak Hr		PM Peak Hr		Mitigation	AM Peak Hr		PM Peak Hr												
			Avg.	95 th	Avg.	95 th		Avg.	95 th	Avg.	95 th	Avg.	95 th	Avg.	95 th		Avg.	95 th	Avg.	95 th	Avg.	95 th	Avg.	95 th		Avg.	95 th	Avg.	95 th	Avg.	95 th									
#1. Table Mesa Dr. at Tantra Dr.			Signalized				DRAFT				Signalized				DRAFT				Signalized																					
Eastbound Left	80'		0'	1'	0'	3'					1'	2'	1'	5'					1'	2'	1'	2'																		
Eastbound Through+Right	-		69'	114'	165'	257'					78'	128'	195'	303'					95'	140'	202'	271'																		
Westbound Left	215'		5'	9'	21'	36'					5'	9'	24'	45'					5'	10'	22'	54'																		
Westbound Through+Right	-		46'	48'	134'	168'					53'	54'	163'	172'					52'	67'	172'	175'																		
Northbound Left+Through	-		57'	103'	71'	107'					59'	106'	74'	109'					64'	112'	84'	120'																		
Northbound Right	105'		0'	49'	0'	36'					0'	50'	0'	36'					0'	49'	0'	36'																		
Southbound Left	35'		4'	10'	1'	6'					5'	13'	2'	8'					5'	12'	2'	8'																		
Southbound Through+Right	-		2'	8'	0'	0'					2'	9'	0'	0'					2'	9'	0'	0'																		
#2. Table Mesa Dr. at Moorhead Ave.			Signalized								Signalized								Signalized																					
Eastbound Left	100'		1'	4'	1'	4'					1'	4'	1'	3'					1'	4'	1'	3'																		
Eastbound Through+Right	-		20'	151'	226'	352'					49'	167'	274'	404'					19'	181'	240'	310'																		
Westbound Left	200'		6'	13'	7'	22'					6'	12'	7'	24'					5'	12'	7'	24'																		
Westbound Through	-		65'	195'	196'	346'					68'	201'	219'	417'					73'	141'	220'	420'																		
Westbound Right	-		0'	1'	0'	21'					0'	1'	0'	25'					0'	1'	0'	25'																		
Northbound Left	50'		16'	24'	21'	37'					19'	27'	22'	38'					19'	27'	22'	38'																		
Northbound Through+Right	-		5'	14'	10'	32'					9'	17'	13'	35'					9'	17'	15'	36'																		
Southbound Left	85'		100'	143'	133'	206'					102'	145'	136'	227'					102'	145'	136'	227'																		
Southbound Through+Right	-		8'	30'	12'	50'	10'	33'	13'	53'	10'	33'	13'	53'																										
#3. Table Mesa Dr. at Loop Dr. / US 36 SB Off			Signalized								Signalized								Signalized				PM: Increase NB/SB by 9s from EBWB				N/A				531' 0' 79' 314' 39' 73' 223' 223' 77'				763' 0' 157' 349' 71' 115' 280' 278' 124'					
Eastbound Through	-		64'	77'	361'	537'					98'	80'	401'	613'					206'	297'	406'	620'																		
Eastbound Right	160'		0'	0'	0'	10'					0'	0'	0'	10'					1'	1'	5'	30'																		
Westbound Left	90'		5'	13'	4'	8'					1'	4'	5'	10'					17'	24'	71'	104'																		
Westbound Through	-		249'	320'	125'	164'					40'	78'	149'	180'					285'	238'	163'	185'																		
Northbound Left	50'		14'	29'	16'	38'					16'	32'	16'	39'					27'	46'	40'	98'																		
Northbound Right	-		0'	0'	0'	0'					0'	0'	0'	0'					9'	28'	84'	140'																		
Southbound Left	125'		50'	90'	166'	257'					55'	95'	190'	307'					77'	169'	224'	326'																		
Southbound Left+Through	-		52'	92'	168'	267'					57'	98'	194'	320'					71'	123'	224'	310'																		
Southbound Right	80'		0'	36'	39'	91'	4'	41'	64'	122'	4'	37'	64'	122'																										
#5. Table Mesa Dr. at US 36 NB On-Ramp							Signalized								Signalized												Signalized													
Eastbound Left	255'		-	68'	-	165'	Partial Signal w/ Half-Cycle	0'	15'	84'	122'	-	125'	-	333'	Partial Signal w/ Half-Cycle	8'	55'	101'	125'	-	285'	-	708'	Partial Signal w/ Half-Cycle	53'	108'	132'	160'											
Eastbound Through	-		-	0'	-	0'		0'	0'	0'	0'	-	0'	-	0'		0'	0'	0'	-	0'	-	0'	0'		0'	0'	0'												
Westbound Through	-		-	0'	-	0'		76'	133'	161'	402'	-	0'	-	0'		109'	188'	232'	487'	-	0'	-	0'		223'	223'	331'	585'											
Westbound Right	350'		-	0'	-	0'		0'	17'	30'	148'	-	0'	-	0'		6'	32'	61'	204'	-	0'	-	0'		51'	51'	92'	233'											



Table 2 - Peak Hour Estimated 95th Percentile Queue Lengths

Intersection and Cricital Lane Groups	Ex. Storage Length	Prop. Storage Length	Year 2020 Existing				Year 2020 Existing with Improvements				Year 2041 Background				Year 2041 Background with Improvements				Year 2041 Background + Project				Year 2041 Background + Project with Improvements						
			AM Peak Hr		PM Peak Hr		Mitigation	AM Peak Hr		PM Peak Hr		AM Peak Hr		PM Peak Hr		Mitigation	AM Peak Hr		PM Peak Hr		AM Peak Hr		PM Peak Hr		Mitigation	AM Peak Hr		PM Peak Hr	
			Avg.	95 th	Avg.	95 th		Avg.	95 th	Avg.	95 th	Avg.	95 th	Avg.	95 th		Avg.	95 th	Avg.	95 th	Avg.	95 th	Avg.	95 th		Avg.	95 th	Avg.	95 th
#6. Table Mesa Dr. at Foothills SB Off-Ramp							Signalized				Signalized				Signalized				Signalized				Signalized						
Eastbound Through	-		117'	208'	130'	260'					140'	253'	164'	347'					148'	148'	204'	440'							
Eastbound Right	100'		2'	15'	0'	0'					3'	19'	0'	0'					2'	2'	0'	0'							
Westbound Left	110'		1'	6'	4'	13'					3'	14'	6'	19'					3'	3'	7'	17'							
Westbound Through	-		45'	112'	308'	361'					168'	200'	346'	402'					183'	183'	388'	444'							
Northbound Left	100'		15'	28'	44'	61'					18'	32'	46'	62'					18'	18'	46'	62'							
Northbound Right	-		0'	0'	12'	42'					0'	0'	16'	47'					0'	0'	16'	47'							
Southbound Left	-		82'	135'	183'	260'					87'	145'	198'	276'					87'	87'	198'	276'							
Southbound Left+Through	-		82'	136'	181'	256'					89'	147'	200'	277'					89'	89'	200'	277'							
Southbound Right	60'		0'	0'	0'	0'					0'	0'	0'	0'					0'	0'	0'	0'							
#8. S. Boulder Rd. at US 36 NB Off-Ramp							Signalized				Signalized				Signalized				Signalized				Signalized						
Eastbound Through	-		3'	4'	60'	106'					3'	4'	110'	128'					4'	5'	160'	166'							
Westbound Through	-		159'	196'	51'	76'					65'	91'	59'	87'					71'	100'	66'	99'							
Northbound Left	115'		79'	115'	148'	187'					87'	124'	163'	203'					102'	140'	190'	229'							
Northbound Right	125'		0'	58'	15'	59'					0'	60'	33'	79'					0'	59'	33'	77'							
#9. Broadway at New CU South Access																			Stop-Controlled										
Westbound Left	-	150'																-	15'	-	15'								
Westbound Right	-	-																-	18'	-	13'								
Northbound Through+Right	-	-																-	0'	-	0'								
Southbound Left	-	285'																-	13'	-	8'								
Southbound Through	-	-																-	0'	-	0'								
#10. Broadway at Table Mesa Dr.			Signalized								Signalized				Signalized				Signalized				Signalized						
Eastbound Left	300'		184'	235'	165'	226'					184'	235'	165'	226'	AM: Increase NB/SB & Cycle by 10s. PM: Increase NB/SB by 3s from EB/WB Thru and Left	208'	284'	165'	226'	184'	235'	165'	226'	AM: Increase NB/SB & Cycle by 15s. PM: Increase NB/SB & Cycle by 5s	220'	305'	170'	217'	
Eastbound Through+Right	-		221'	253'	264'	311'				228'	264'	272'	321'	255'		300'	272'	324'	228'	263'	272'	321'	269'		317'	285'	334'		
Westbound Left	400'		141'	200'	206'	280'				165'	251'	225'	318'	179'		285'	225'	345'	165'	250'	225'	319'	191'		304'	231'	360'		
Westbound Through+Right	-		201'	270'	245'	314'				247'	300'	270'	340'	268'		378'	272'	341'	258'	313'	278'	352'	303'		433'	273'	350'		
Northbound Left	400'		28'	47'	46'	92'				28'	50'	46'	92'	30'		67'	46'	92'	28'	50'	46'	92'	32'		70'	49'	96'		
Northbound Through	-		295'	514'	229'	304'				603'	745'	322'	400'	585'		723'	311'	386'	641'	785'	360'	482'	605'		765'	343'	420'		
Northbound Right	425'		83'	167'	48'	91'				100'	191'	60'	110'	73'		134'	60'	106'	100'	190'	60'	110'	77'		134'	64'	114'		
Southbound Left	160'		56'	92'	172'	260'				71'	124'	244'	417'	71'		140'	238'	408'	83'	162'	274'	474'	96'		180'	331'	539'		
Southbound Through	-		166'	198'	510'	617'				226'	246'	773'	912'	226'		343'	731'	870'	246'	266'	832'	971'	247'		260'	811'	950'		
Southbound Right	500'		0'	0'	0'	0'				0'	0'	0'	0'	0'		0'	0'	0'	0'	0'	0'	0'	0'		0'	0'	0'	0'	

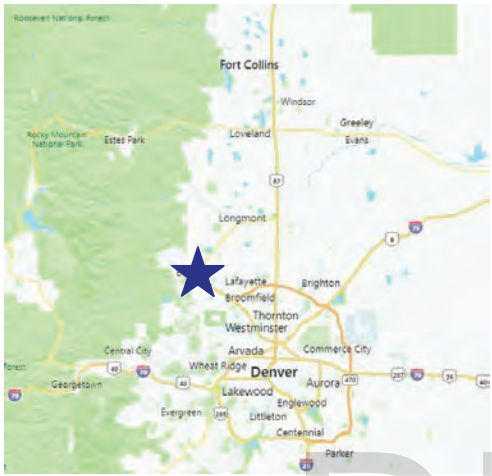
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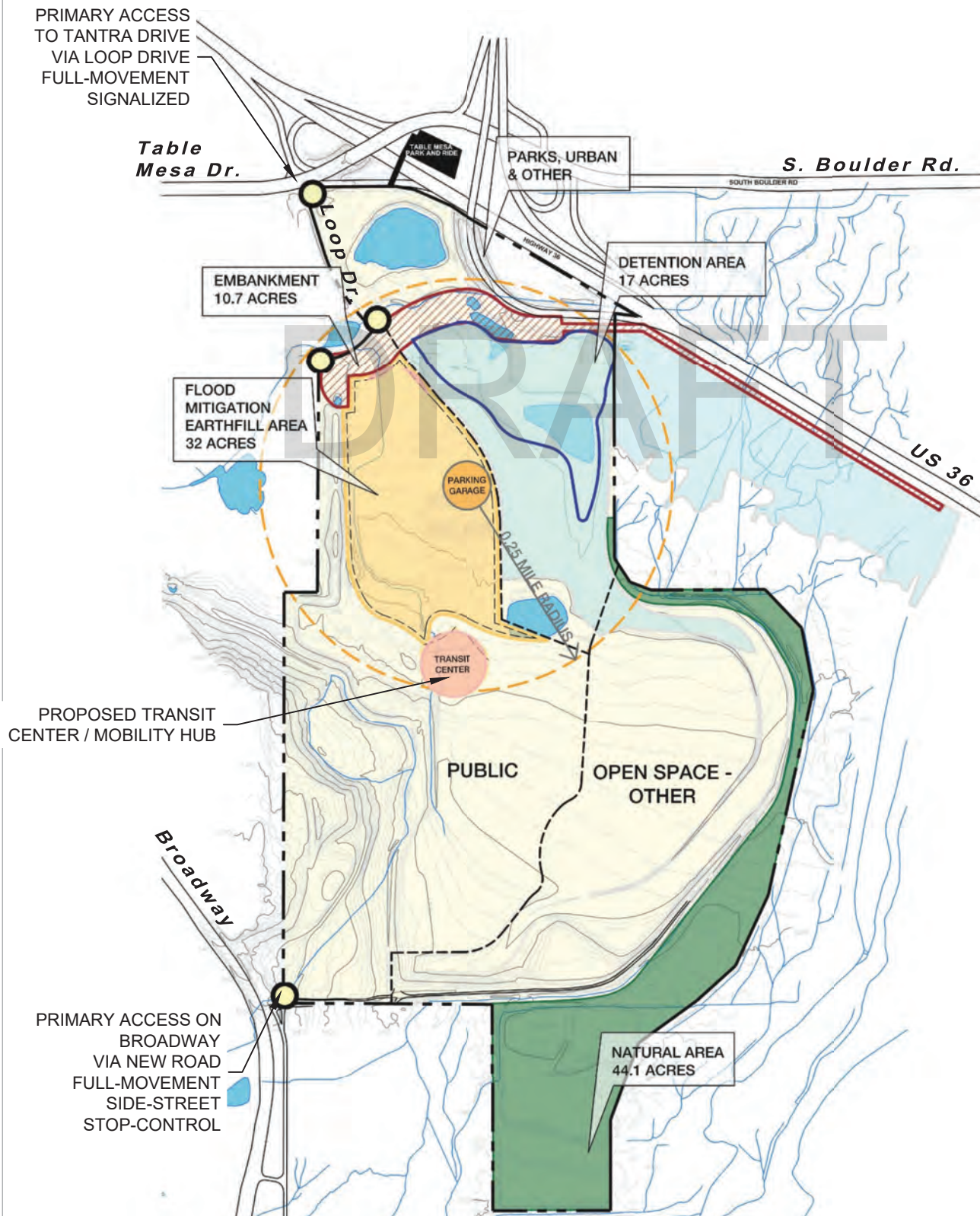


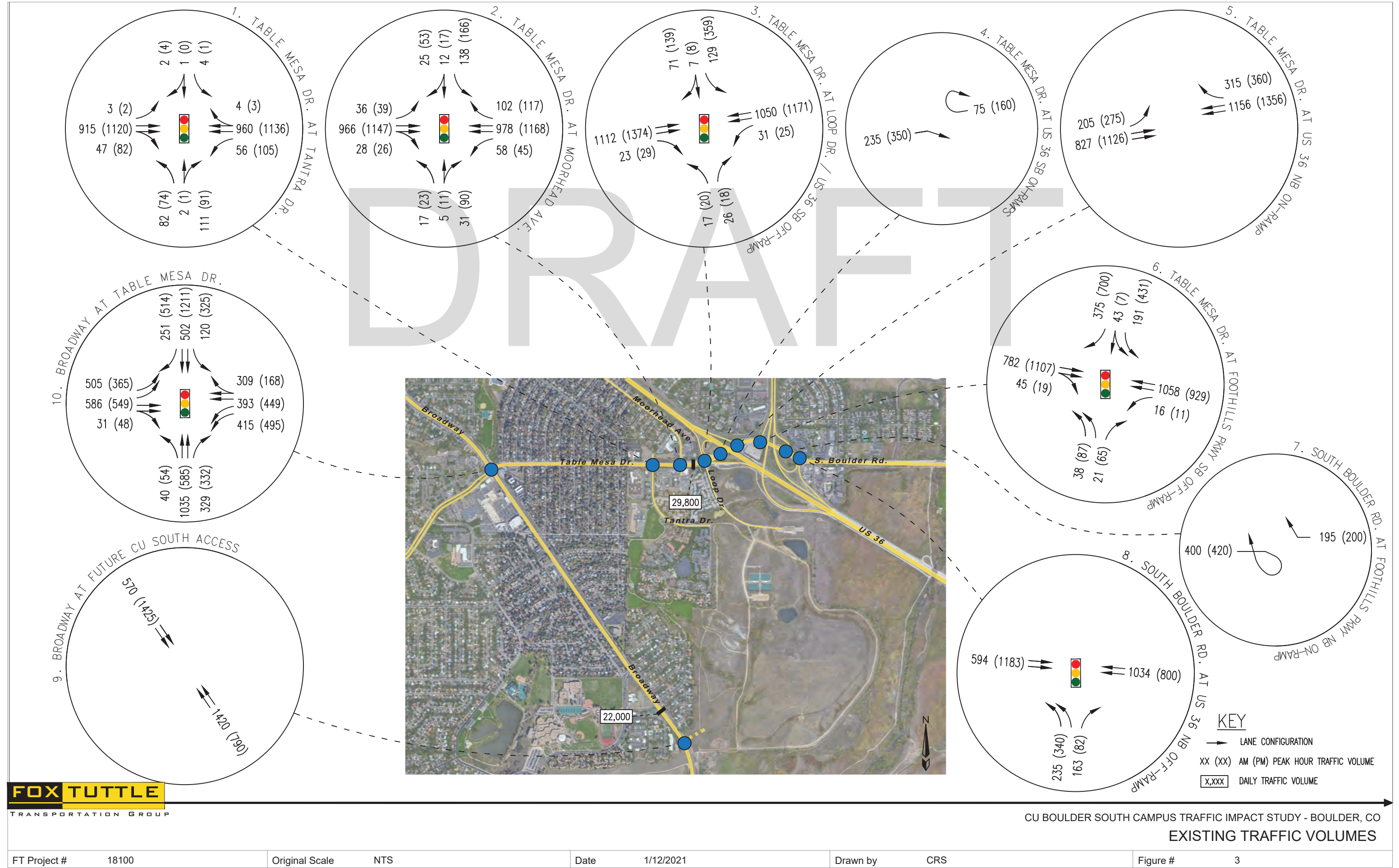
Table 3. Trip Generation Model for CU Boulder South - Possible Mix of Residential, Academic/Research, Recreational and Mobility Uses

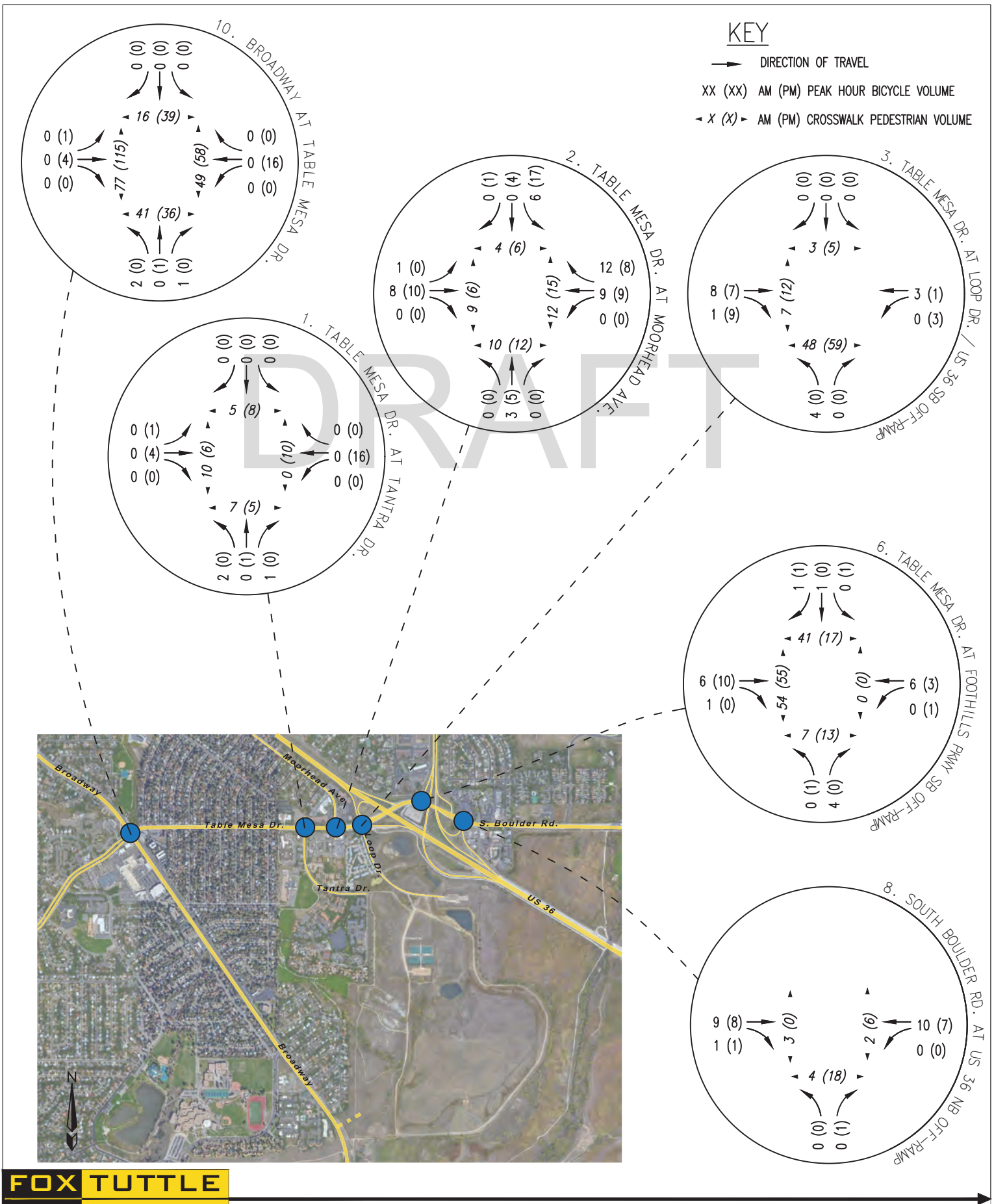
Table 3: Trip Generation Model for 2035 Boulder County - 7 Second Mile of Northbound - Residential Search, Recreational and Mobility Uses																		
Parcel	ITE Code	Land Use	Size	Unit	Reduction Factors ¹		Average Daily Trips				A.M. Peak Hour Trips				P.M. Peak Hour Trips			
					Multi-modal	Internal	Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
ITE and/or CU Specific Trip Rates and Projected Land Uses																		
	220	Apartment / Condo (Graduate, faculty, staff or married students)	550	Dwelling Units	0.20	0.10	7.32	2,899	1,450	1,449	0.46	182	42	140	0.56	222	140	82
	225	Off Campus Graduate Student Apartment (assume 2 bedrooms avg.)	550	Dwelling Units	0.20	0.10	6.30	2,495	1,248	1,247	0.24	95	39	56	0.50	198	99	99
	700 CU	Academic / MU (Like East Campus Sustainable Energy)	500	1,000 SF	0.00	0.00	1.92	960	480	480	0.25	125	100	25	0.28	140	32	108
	--	Transit Access ²	--	--	--	--	--	180	90	90	--	12	6	6	--	12	6	6
	--	Recreational Use ³	--	--	--	--	--	400	200	200	--	40	27	13	--	80	36	44
		Subtotal:						6,934	3,468	3,466		454	214	240		652	313	339

1. A 20% multimodal reduction factor and a 10% internal capture factor applied to the base ITE residential rates. The result approximates or exceeds trip making observations at other comparable CU facilities. No reductions applied to academic use rates because they already reflect actual observations at CU in Boulder.
2. Transit trips based on bus service every 10 minutes during a 15 hour service day
3. Recreational users assumed to be similar to existing use on an average day (particularly during peak hours when organized events are not likely to be scheduled)



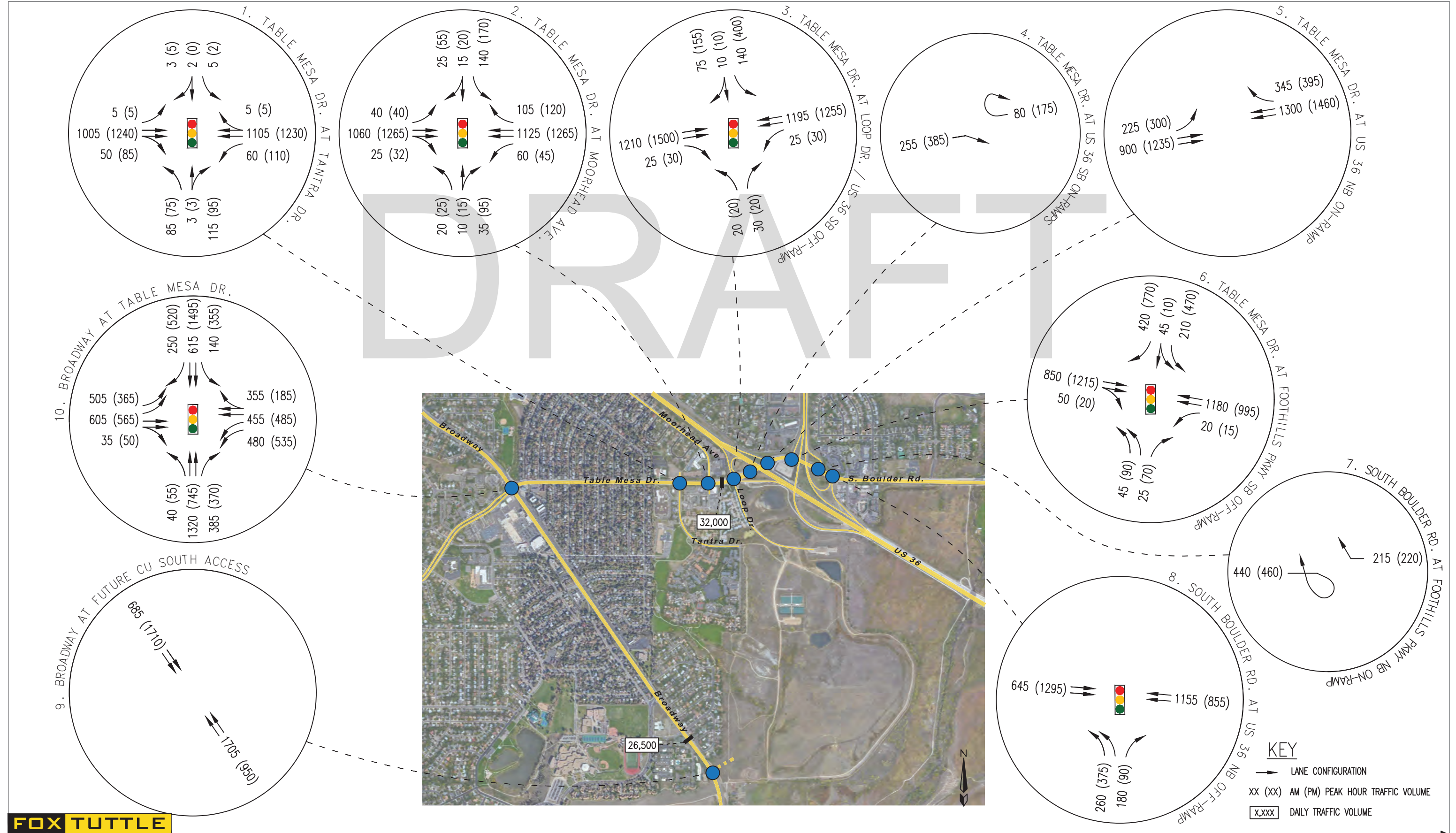






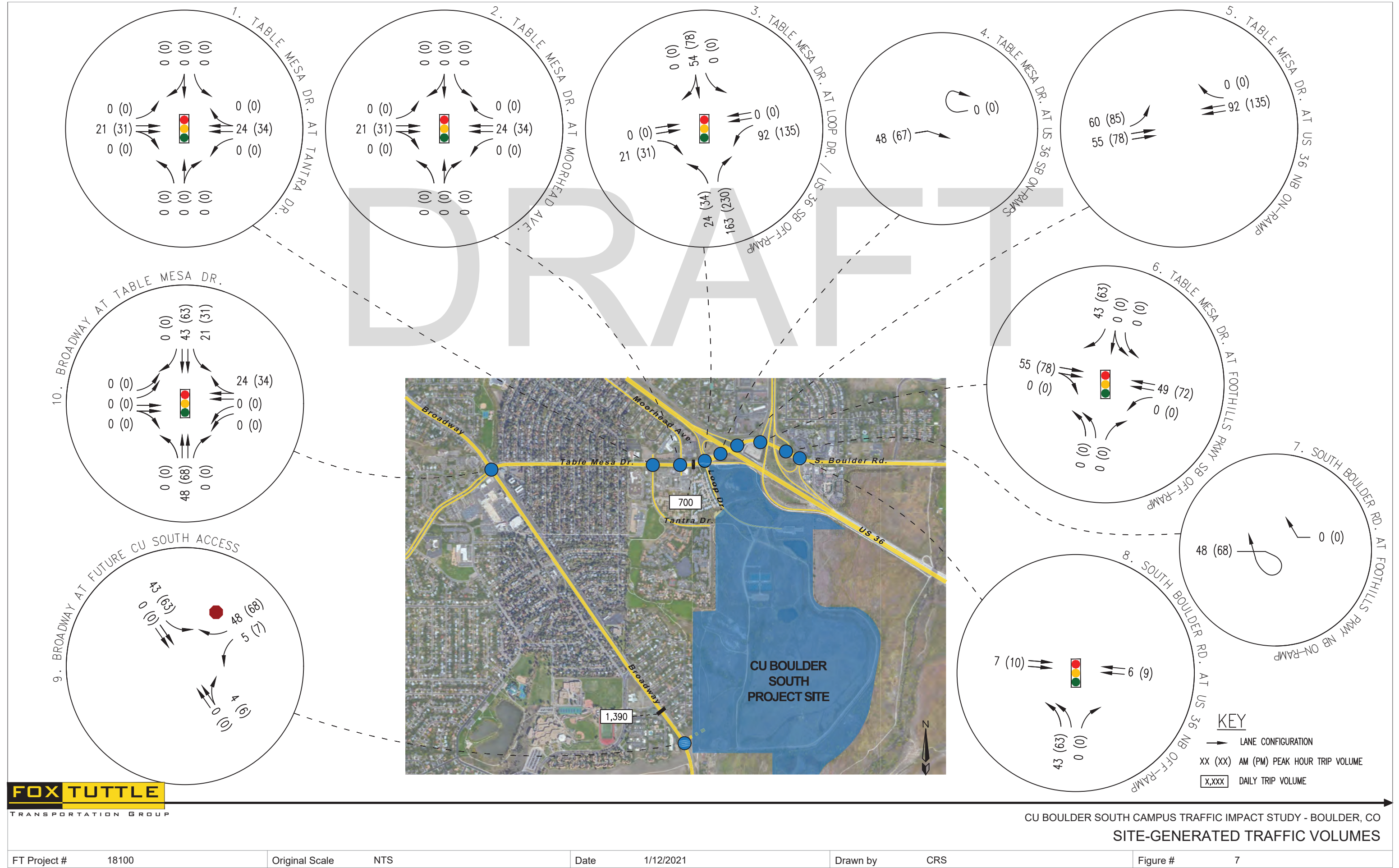
CU BOULDER SOUTH CAMPUS TRAFFIC IMPACT STUDY - BOULDER, CO
EXISTING PEDESTRIAN AND BICYCLIST VOLUMES

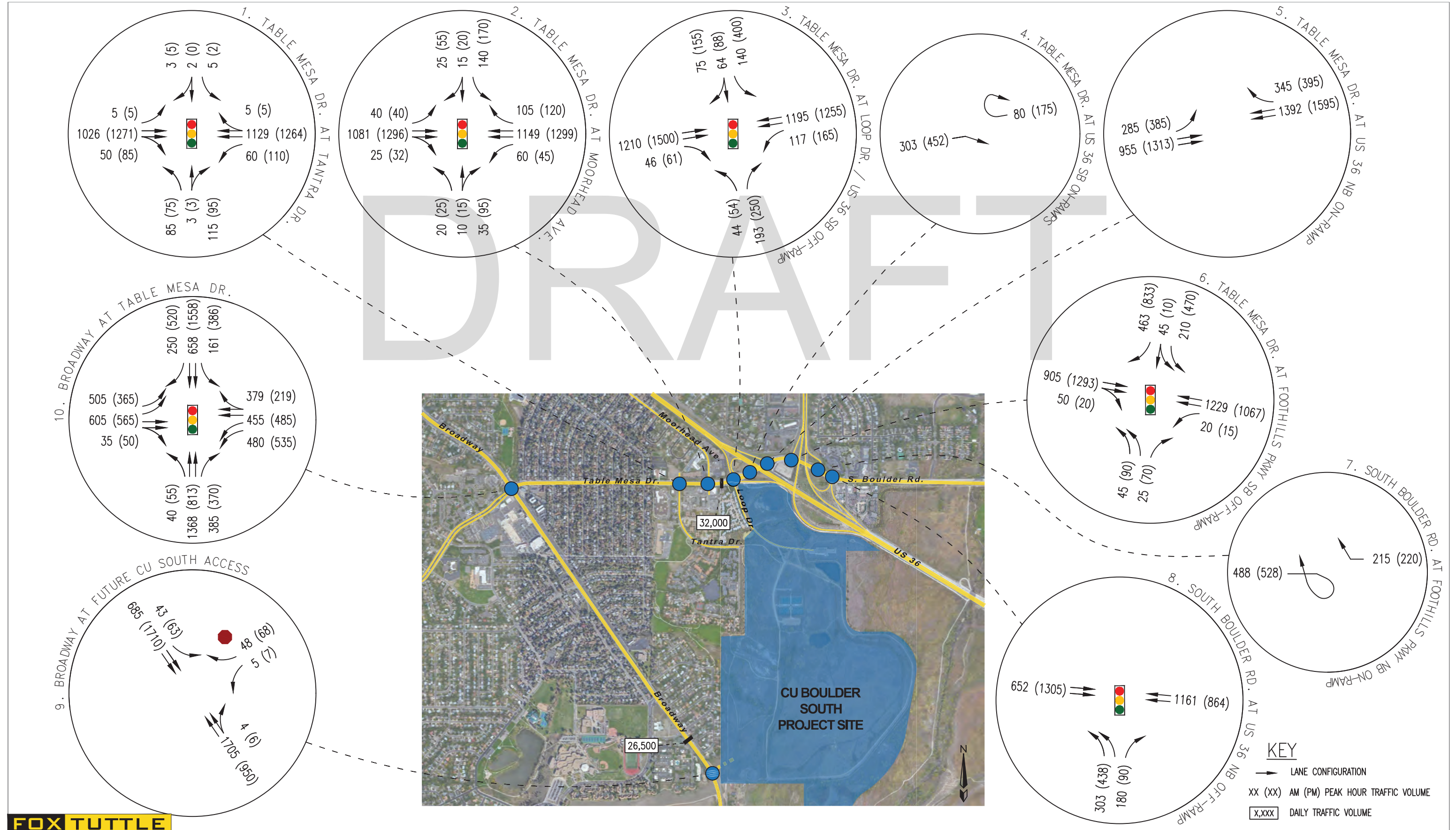
Project #	18100	Original Scale	NTS	Date	12/15/2020	Drawn by	CRS	Figure #	4
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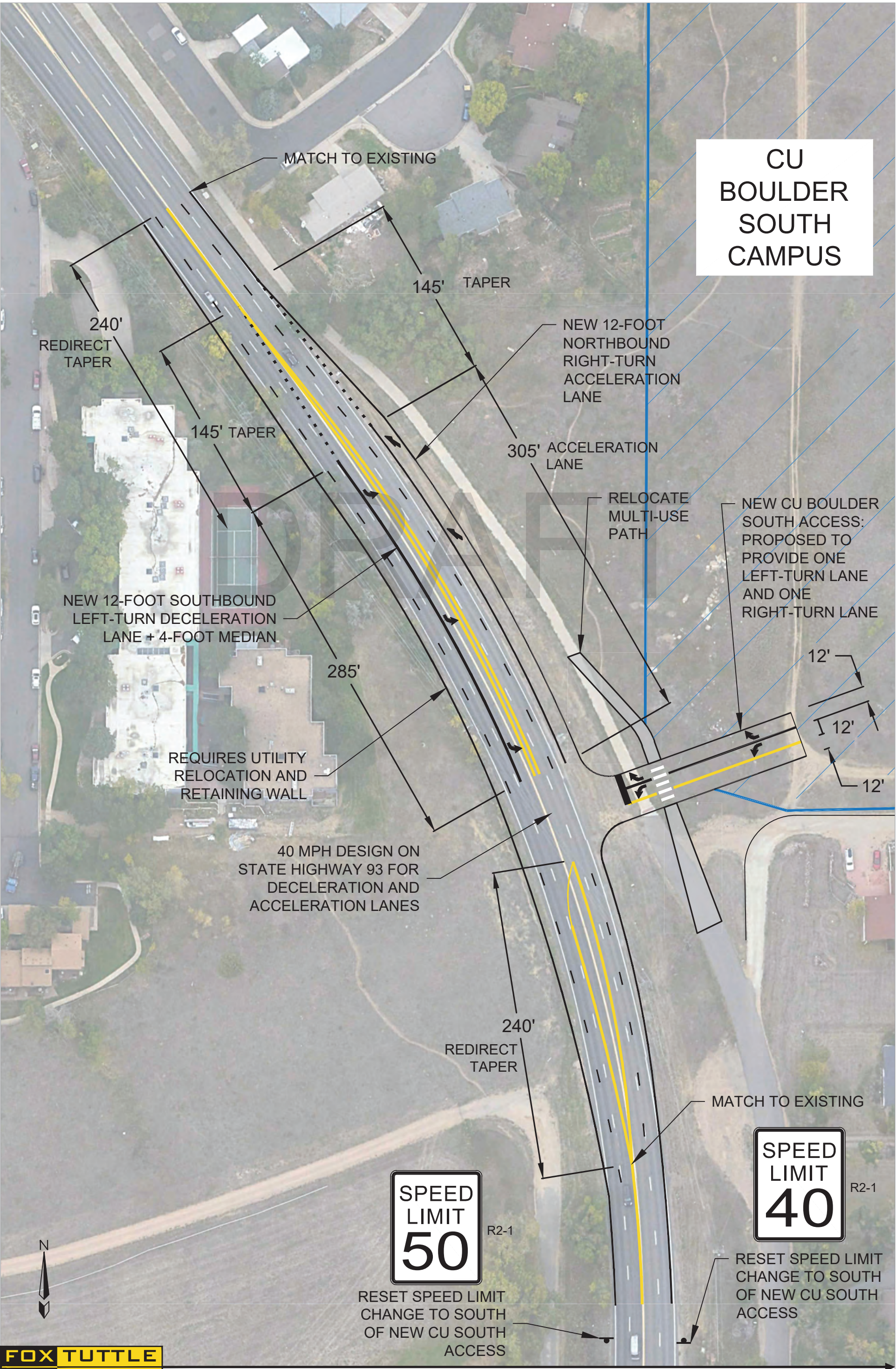
CU BOULDER SOUTH CAMPUS TRAFFIC IMPACT STUDY - BOULDER, CO
YEAR 2041 BACKGROUND TRAFFIC VOLUMES







CU BOULDER SOUTH CAMPUS TRAFFIC IMPACT STUDY - BOULDER, CO
YEAR 2041 BACKGROUND + SITE-GENERATED TRAFFIC VOLUMES



CU
BOULDER
SOUTH
CAMPUS

SPEED
LIMIT
40

R2-1

SPEED
LIMIT
50

R2-1

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Appendix:

Level of Service Definitions

Existing Traffic Data

Intersection Capacity Worksheets

Level of Service Definitions

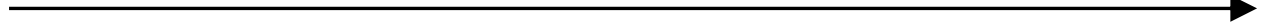
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LEVEL OF SERVICE DEFINITIONS

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.



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Existing Traffic Data



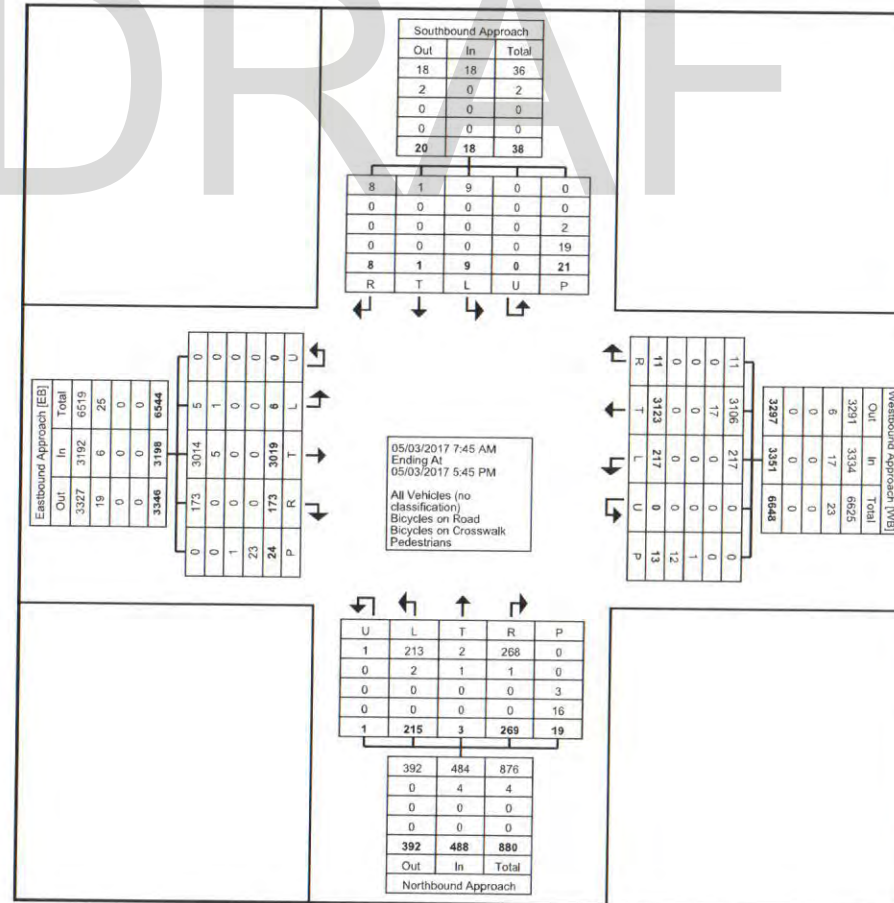
City of Boulder (CO)
1777 Broadway
P.O. Box 791
Boulder, Colorado, United States 80306
303.441.3266 stringham@bouldercolorado.gov

Count Name: Tantra and Table Mesa TMC 5-3-2017
Site Code: 100
Start Date: 05/03/2017
Page No: 1

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:45 AM	0	0	1	0	0	1	1	360	12	0	0	373	22	0	33	0	0	55	9	275	0	0	1	284	713
Hourly Total	0	0	1	0	0	1	1	360	12	0	0	373	22	0	33	0	0	55	9	275	0	0	1	284	713
8:00 AM	1	0	1	0	2	2	0	232	7	0	0	239	37	1	16	0	2	54	13	354	2	0	3	369	664
8:15 AM	1	0	2	0	2	3	2	281	15	0	0	298	23	0	20	0	3	43	14	274	1	0	2	289	633
8:30 AM	0	1	0	0	1	1	1	275	22	0	0	298	30	1	15	0	2	46	11	264	0	0	4	275	620
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	2	1	3	0	5	6	3	788	44	0	0	835	90	2	51	0	7	143	38	892	3	0	9	933	1917
12:00 PM	0	0	1	0	2	1	1	163	12	0	0	176	18	0	20	0	1	38	6	172	0	0	0	178	393
12:15 PM	0	0	0	0	2	0	0	196	15	0	0	211	14	0	6	0	2	20	12	186	1	0	3	199	430
12:30 PM	1	0	2	0	2	3	2	166	13	0	1	181	15	0	13	0	1	28	16	197	0	0	2	213	425
12:45 PM	1	0	1	0	2	2	1	201	16	0	2	218	19	0	18	0	3	37	10	174	0	0	3	184	441
Hourly Total	2	0	4	0	8	6	4	726	56	0	3	786	66	0	57	0	7	123	44	729	1	0	8	774	1689
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:45 PM	0	0	0	0	2	0	2	280	22	0	6	304	33	0	20	0	1	53	16	302	0	0	0	318	675
Hourly Total	0	0	0	0	2	0	2	280	22	0	6	304	33	0	20	0	1	53	16	302	0	0	0	318	675
5:00 PM	2	0	0	0	5	2	1	292	24	0	3	317	20	0	19	0	2	39	17	292	0	0	3	309	667
5:15 PM	1	0	0	0	1	1	0	356	28	0	0	384	19	0	16	0	1	35	24	292	0	0	2	316	736
5:30 PM	1	0	1	0	0	2	0	321	31	0	1	352	19	1	19	1	1	40	25	237	2	0	1	264	658
Grand Total	8	1	9	0	21	18	11	3123	217	0	13	3351	269	3	215	1	19	488	173	3019	6	0	24	3198	7055
Approach %	44.4	5.6	50.0	0.0	-	-	0.3	93.2	6.5	0.0	-	-	55.1	0.6	44.1	0.2	-	-	5.4	94.4	0.2	0.0	-	-	-
Total %	0.1	0.0	0.1	0.0	-	0.3	0.2	44.3	3.1	0.0	-	47.5	3.8	0.0	3.0	0.0	-	6.9	2.5	42.8	0.1	0.0	-	45.3	-
All Vehicles (no classification)	8	1	9	0	-	18	11	3106	217	0	-	3334	268	2	213	1	-	484	173	3014	5	0	-	3192	7028
% All Vehicles (no classification)	100.0	100.0	100.0	-	-	100.0	100.0	99.5	100.0	-	-	99.5	99.6	66.7	99.1	100.0	-	99.2	100.0	99.8	83.3	-	-	99.8	99.6
Bicycles on Road	0	0	0	0	-	0	0	17	0	0	-	17	1	1	2	0	-	4	0	5	1	0	-	6	27
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.5	0.0	-	-	0.5	0.4	33.3	0.9	0.0	-	0.8	0.0	0.2	16.7	-	-	0.2	0.4
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	9.5	-	-	-	-	-	7.7	-	-	-	-	-	15.8	-	-	-	-	-	4.2	-	-
Pedestrians	-	-	-	-	19	-	-	-	-	-	12	-	-	-	-	-	16	-	-	-	-	-	23	-	-
% Pedestrians	-	-	-	-	90.5	-	-	-	-	-	92.3	-	-	-	-	-	84.2	-	-	-	-	-	95.8	-	-

City of Boulder (CO)
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Count Name: Tantra and Table Mesa TMC 5-3-2017
Site Code: 100
Start Date: 05/03/2017
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Turning Movement Data Plot

City of Boulder (CO)
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Count Name: Tantra and Table Mesa TMC 5-3-2017
Site Code: 100
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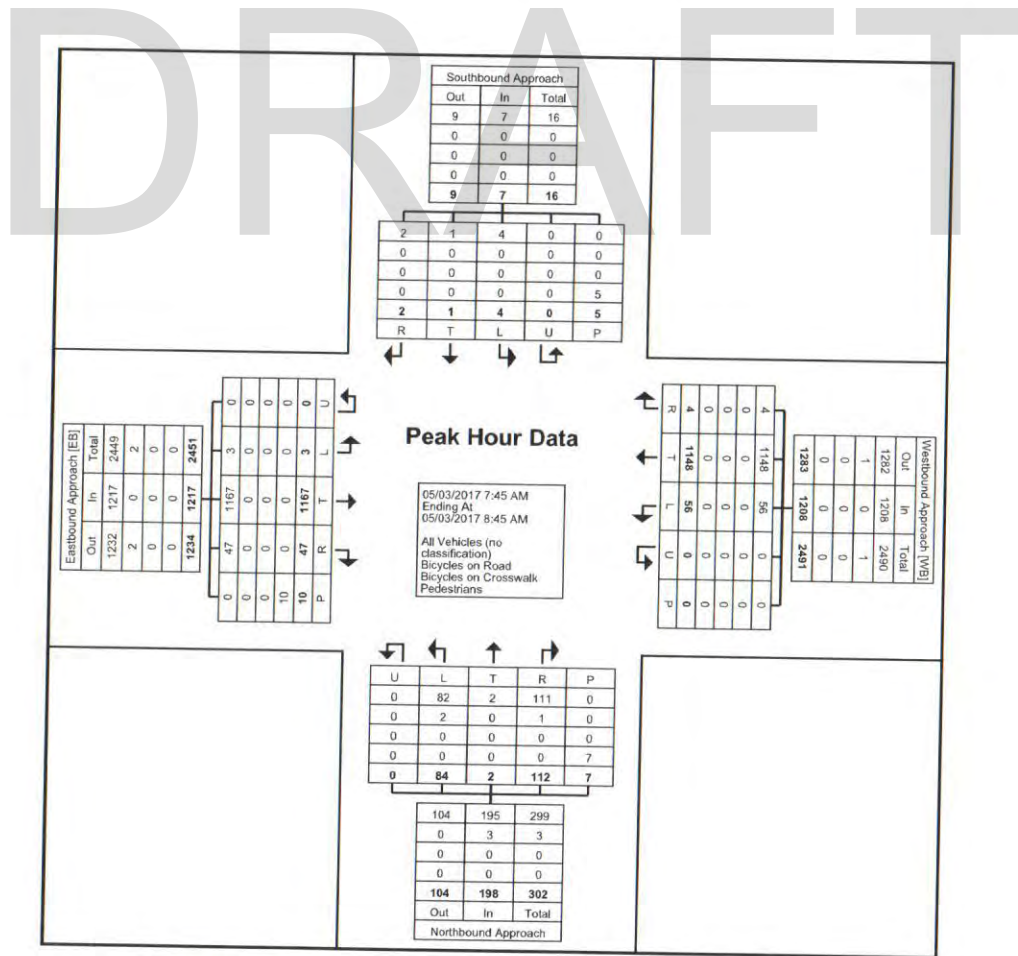
DRAFT

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Southbound Approach						Westbound Approach						Northbound Approach						Eastbound Approach						Int. Total
	Southbound						Westbound						Northbound						Eastbound						
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:45 AM	0	0	1	0	0	1	1	360	12	0	0	373	22	0	33	0	0	55	9	275	0	0	1	284	713
8:00 AM	1	0	1	0	2	2	0	232	7	0	0	239	37	1	16	0	2	54	13	354	2	0	3	369	664
8:15 AM	1	0	2	0	2	3	2	281	15	0	0	298	23	0	20	0	3	43	14	274	1	0	2	289	633
8:30 AM	0	1	0	0	1	1	1	275	22	0	0	298	30	1	15	0	2	46	11	264	0	0	4	275	620
Total	2	1	4	0	5	7	4	1148	56	0	0	1208	112	2	84	0	7	198	47	1167	3	0	10	1217	2630
Approach %	28.6	14.3	57.1	0.0	-	-	0.3	95.0	4.6	0.0	-	-	56.6	1.0	42.4	0.0	-	-	3.9	95.9	0.2	0.0	-	-	-
Total %	0.1	0.0	0.2	0.0	-	0.3	0.2	43.7	2.1	0.0	-	45.9	4.3	0.1	3.2	0.0	-	7.5	1.8	44.4	0.1	0.0	-	46.3	-
PHF	0.500	0.250	0.500	0.000	-	0.583	0.500	0.797	0.636	0.000	-	0.810	0.757	0.500	0.636	0.000	-	0.900	0.839	0.824	0.375	0.000	-	0.825	0.922
All Vehicles (no classification)	2	1	4	0	-	7	4	1148	56	0	-	1208	111	2	82	0	-	195	47	1167	3	0	-	1217	2627
% All Vehicles (no classification)	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	99.1	100.0	97.6	-	-	98.5	100.0	100.0	100.0	-	-	100.0	99.9
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	1	0	2	0	-	3	0	0	0	0	-	0	3
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.9	0.0	2.4	-	-	1.5	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	10	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Tantra and Table Mesa TMC 5-3-2017
 Site Code: 100
 Start Date: 05/03/2017
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Turning Movement Peak Hour Data Plot (7:45 AM)

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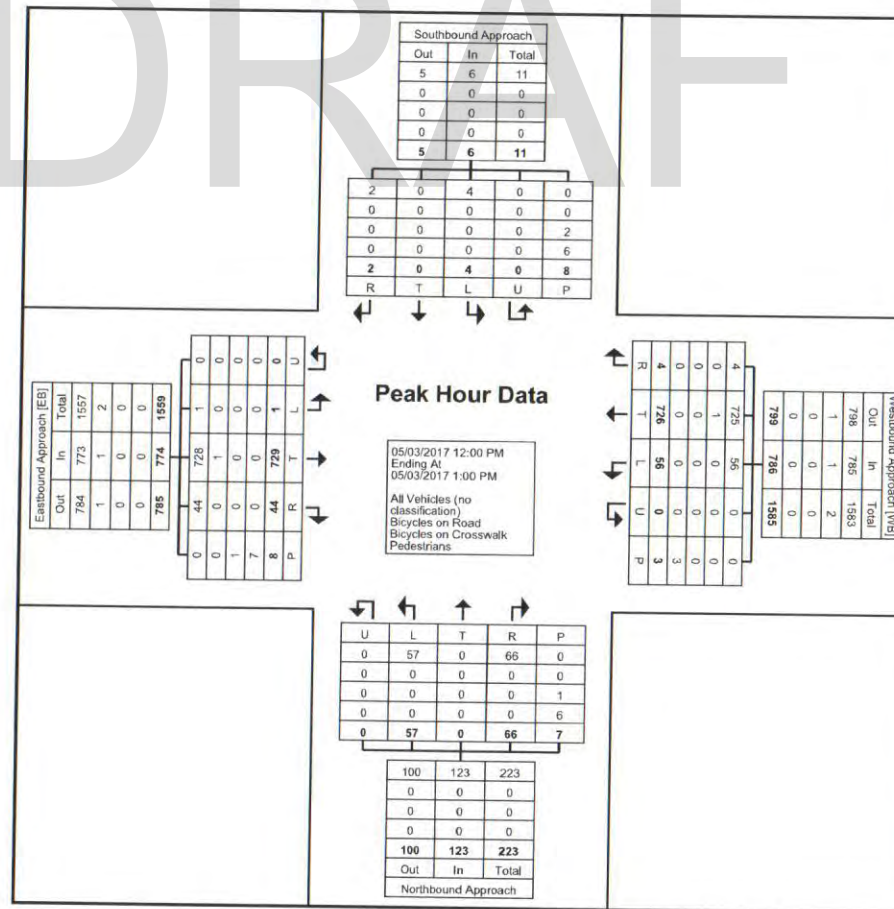
Count Name: Tantra and Table Mesa TMC 5-3-2017
Site Code: 100
Start Date: 05/03/2017
Page No: 5

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	0	0	1	0	2	1	1	163	12	0	0	176	18	0	20	0	1	38	6	172	0	0	0	178	393
12:15 PM	0	0	0	0	2	0	0	196	15	0	0	211	14	0	6	0	2	20	12	186	1	0	3	199	430
12:30 PM	1	0	2	0	2	3	2	166	13	0	1	181	15	0	13	0	1	28	16	197	0	0	2	213	425
12:45 PM	1	0	1	0	2	2	1	201	16	0	2	218	19	0	18	0	3	37	10	174	0	0	3	184	441
Total	2	0	4	0	8	6	4	726	56	0	3	786	66	0	57	0	7	123	44	729	1	0	8	774	1689
Approach %	33.3	0.0	66.7	0.0	-	-	0.5	92.4	7.1	0.0	-	-	53.7	0.0	46.3	0.0	-	-	5.7	94.2	0.1	0.0	-	-	-
Total %	0.1	0.0	0.2	0.0	-	0.4	0.2	43.0	3.3	0.0	-	46.5	3.9	0.0	3.4	0.0	-	7.3	2.6	43.2	0.1	0.0	-	-	-
PHF	0.500	0.000	0.500	0.000	-	0.500	0.500	0.903	0.875	0.000	-	0.901	0.868	0.000	0.713	0.000	-	0.809	0.688	0.925	0.250	0.000	-	0.908	0.957
All Vehicles (no classification)	2	0	4	0	-	6	4	725	56	0	-	785	66	0	57	0	-	123	44	728	1	0	-	773	1687
% All Vehicles (no classification)	100.0	-	100.0	-	-	100.0	100.0	99.9	100.0	-	-	99.9	100.0	-	100.0	-	-	100.0	100.0	99.9	100.0	-	-	99.9	99.9
Bicycles on Road	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	1	0	0	-	1	2
% Bicycles on Road	0.0	-	0.0	-	-	0.0	0.0	0.1	0.0	-	-	0.1	0.0	-	0.0	-	-	0.0	0.0	0.1	0.0	-	-	0.1	0.1
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	25.0	-	-	-	-	-	0.0	-	-	-	-	-	14.3	-	-	-	-	-	12.5	-	-
Pedestrians	-	-	-	-	6	-	-	-	-	-	3	-	-	-	-	-	6	-	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	75.0	-	-	-	-	-	100.0	-	-	-	-	-	85.7	-	-	-	-	-	87.5	-	-

City of Boulder (CO)
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Count Name: Tantra and Table Mesa TMC 5-3-2017
 Site Code: 100
 Start Date: 05/03/2017
 Page No: 6



Turning Movement Peak Hour Data Plot (12:00 PM)

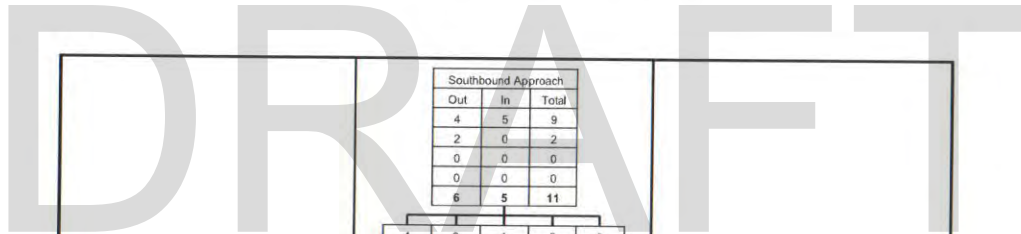
DRAFT

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:45 PM	0	0	0	0	2	0	2	280	22	0	6	304	33	0	20	0	1	53	16	302	0	0	0	318	675
5:00 PM	2	0	0	0	5	2	1	292	24	0	3	317	20	0	19	0	2	39	17	292	0	0	3	309	667
5:15 PM	1	0	0	0	1	1	0	356	28	0	0	384	19	0	16	0	1	35	24	292	0	0	2	316	736
5:30 PM	1	0	1	0	0	2	0	321	31	0	1	352	19	1	19	1	1	40	25	237	2	0	1	264	658
Total	4	0	1	0	8	5	3	1249	105	0	10	1357	91	1	74	1	5	167	82	1123	2	0	6	1207	2736
Approach %	80.0	0.0	20.0	0.0	-	-	0.2	92.0	7.7	0.0	-	-	54.5	0.6	44.3	0.6	-	-	6.8	93.0	0.2	0.0	-	-	-
Total %	0.1	0.0	0.0	0.0	-	0.2	0.1	45.7	3.8	0.0	-	49.6	3.3	0.0	2.7	0.0	-	6.1	3.0	41.0	0.1	0.0	-	44.1	-
PHF	0.500	0.000	0.250	0.000	-	0.625	0.375	0.877	0.847	0.000	-	0.883	0.689	0.250	0.925	0.250	-	0.788	0.820	0.930	0.250	0.000	-	0.949	0.929
All Vehicles (no classification)	4	0	1	0	-	5	3	1233	105	0	-	1341	91	0	74	1	-	166	82	1119	1	0	-	1202	2714
% All Vehicles (no classification)	100.0	-	100.0	-	-	100.0	100.0	98.7	100.0	-	-	98.8	100.0	0.0	100.0	100.0	-	99.4	100.0	99.6	50.0	-	-	99.6	99.2
Bicycles on Road	0	0	0	0	-	0	0	16	0	0	-	16	0	1	0	0	-	1	0	4	1	0	-	5	22
% Bicycles on Road	0.0	-	0.0	-	-	0.0	0.0	1.3	0.0	-	-	1.2	0.0	100.0	0.0	0.0	-	0.6	0.0	0.4	50.0	-	-	0.4	0.8
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	10.0	-	-	-	-	-	40.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	8	-	-	-	-	-	9	-	-	-	-	-	3	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	90.0	-	-	-	-	-	60.0	-	-	-	-	-	100.0	-	-

Out	In	Total
4	5	9
2	0	2
0	0	0
0	0	0
6	5	11

Out	In	Total
4	5	9
2	0	2
0	0	0
0	0	0
6	5	11



Out	In	Total
4	5	9
2	0	2
0	0	0
0	0	0
6	5	11

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Count Name: 91_Table Mesa Dr and Moorhead
Ave_TMC_6-11-2019
Site Code: 91
Start Date: 06/11/2019
Page No: 1

Turning Movement Data

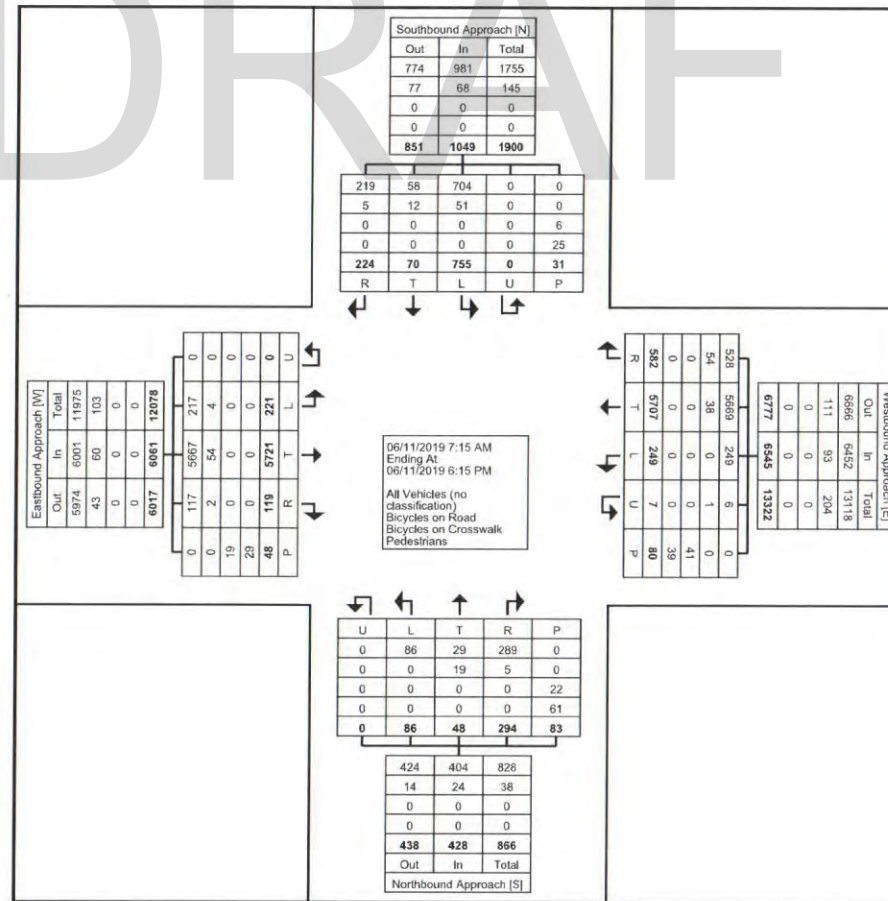
Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:15 AM	6	0	31	0	2	37	8	158	6	1	0	173	4	1	3	0	9	8	5	209	4	0	3	218	436
7:30 AM	6	2	40	0	0	48	18	163	10	0	7	191	6	2	1	0	4	9	1	210	5	0	2	216	464
7:45 AM	7	4	32	0	3	43	24	197	20	0	3	241	16	6	0	0	7	22	1	220	7	0	1	228	534
Hourly Total	19	6	103	0	5	128	50	518	36	1	10	605	26	9	4	0	20	39	7	639	16	0	6	662	1434
8:00 AM	8	0	30	0	2	38	16	233	13	0	4	262	9	3	0	0	5	12	3	249	9	0	5	261	573
8:15 AM	7	4	35	0	1	46	16	241	14	0	2	271	6	1	0	0	2	7	6	227	8	0	4	241	565
8:30 AM	3	5	30	0	1	38	31	258	13	0	3	302	13	1	9	0	4	23	10	273	11	0	1	294	657
8:45 AM	6	2	45	0	0	53	32	277	13	0	2	322	4	3	2	0	2	9	7	261	8	0	0	276	660
Hourly Total	24	11	140	0	4	175	95	1009	53	0	11	1157	32	8	11	0	13	51	26	1010	36	0	10	1072	2455
9:00 AM	9	1	28	0	2	38	23	266	18	0	5	307	8	0	6	0	2	14	2	205	9	0	4	216	575
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	9	1	28	0	2	38	23	266	18	0	5	307	8	0	6	0	2	14	2	205	9	0	4	216	575
11:30 AM	6	3	20	0	1	29	18	194	8	1	1	221	11	1	2	0	3	14	1	214	8	0	1	223	487
11:45 AM	10	0	22	0	2	32	26	209	13	0	3	248	11	1	4	0	2	16	5	226	10	0	0	241	537
Hourly Total	16	3	42	0	3	61	44	403	21	1	4	469	22	2	6	0	5	30	6	440	18	0	1	464	1024
12:00 PM	13	2	25	0	0	40	22	236	9	0	5	267	13	2	6	0	5	21	6	231	8	0	1	245	573
12:15 PM	6	3	25	0	0	34	19	220	10	1	5	250	10	2	1	0	2	13	8	202	9	0	1	219	516
12:30 PM	8	4	26	0	2	38	21	223	6	0	3	250	14	1	4	0	2	19	7	231	8	0	3	246	553
12:45 PM	6	0	20	0	1	26	24	220	10	0	2	254	9	1	6	0	2	16	2	237	11	0	1	250	546
Hourly Total	33	9	96	0	3	138	86	899	35	1	15	1021	46	6	17	0	11	69	23	901	36	0	6	960	2188
1:00 PM	12	5	31	0	1	48	12	223	9	0	5	244	10	3	4	0	3	17	6	222	14	0	0	242	551
1:15 PM	7	2	23	0	0	32	20	200	9	0	0	229	9	2	3	0	1	14	5	219	9	0	1	233	508
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	19	7	54	0	1	80	32	423	18	0	5	473	19	5	7	0	4	31	11	441	23	0	1	475	1059
4:15 PM	11	5	36	0	3	52	33	253	6	1	1	293	10	1	5	0	2	16	5	248	18	0	6	271	632
4:30 PM	20	4	32	0	2	56	36	232	4	2	2	274	15	3	1	0	3	19	5	236	14	0	2	255	604
4:45 PM	12	2	39	0	3	53	22	266	16	1	4	305	15	7	6	0	2	28	6	285	12	0	1	303	689
Hourly Total	43	11	107	0	8	161	91	751	26	4	7	872	40	11	12	0	7	63	16	769	44	0	9	829	1925
5:00 PM	13	2	45	0	1	60	33	276	13	0	2	322	31	2	10	0	2	43	9	277	11	0	1	297	722
5:15 PM	17	6	37	0	1	60	25	297	8	0	3	330	23	2	3	0	7	28	4	297	11	0	3	312	730
5:30 PM	11	7	45	0	1	63	37	303	8	0	6	348	21	0	4	0	1	25	7	263	5	0	1	275	711
5:45 PM	10	4	22	0	1	36	39	308	7	0	7	354	14	2	4	0	4	20	2	260	4	0	3	266	676
Hourly Total	51	19	149	0	4	219	134	1184	36	0	18	1354	89	6	21	0	14	116	22	1097	31	0	8	1150	2839
6:00 PM	10	3	36	0	1	49	27	254	6	0	5	287	12	1	2	0	7	15	6	219	8	0	3	233	584
Grand Total	224	70	755	0	31	1049	582	5707	249	7	80	6545	294	48	86	0	83	428	119	5721	221	0	48	6061	14083
Approach %	21.4	6.7	72.0	0.0	-	-	8.9	87.2	3.8	0.1	-	-	68.7	11.2	20.1	0.0	-	-	2.0	94.4	3.6	0.0	-	-	-
Total %	1.6	0.5	5.4	0.0	-	7.4	4.1	40.5	1.8	0.0	-	46.5	2.1	0.3	0.6	0.0	-	3.0	0.8	40.6	1.6	0.0	-	43.0	-
All Vehicles (no classification)	219	58	704	0	-	981	528	5669	249	6	-	6452	289	29	86	0	-	404	117	5667	217	0	-	6001	13838
% All Vehicles (no classification)	97.8	82.9	93.2	-	-	93.5	90.7	99.3	100.0	85.7	-	98.6	98.3	60.4	100.0	-	-	94.4	98.3	99.1	98.2	-	-	99.0	98.3

Bicycles on Road	5	12	51	0	-	68	54	38	0	1	-	93	5	19	0	0	-	24	2	54	4	0	-	60	245
% Bicycles on Road	2.2	17.1	6.8	-	-	6.5	9.3	0.7	0.0	14.3	-	1.4	1.7	39.6	0.0	-	-	5.6	1.7	0.9	1.8	-	-	1.0	1.7
Bicycles on Crosswalk	-	-	-	-	6	-	-	-	-	-	41	-	-	-	-	-	22	-	-	-	-	-	19	-	-
% Bicycles on Crosswalk	-	-	-	-	19.4	-	-	-	-	-	51.3	-	-	-	-	-	26.5	-	-	-	-	-	39.6	-	-
Pedestrians	-	-	-	-	25	-	-	-	-	-	39	-	-	-	-	-	61	-	-	-	-	-	29	-	-
% Pedestrians	-	-	-	-	80.6	-	-	-	-	-	48.8	-	-	-	-	-	78.5	-	-	-	-	-	60.4	-	-

DRAFT

City of Boulder (CO)
1777 Broadway
P.O. Box 791
Boulder, Colorado, United States 80306
303.441.3266 riceb@bouldercolorado.gov

Count Name: 91_Table Mesa Dr and Moorhead
Ave_TMC_6-11-2019
Site Code: 91
Start Date: 06/11/2019
Page No: 3



Turning Movement Data Plot

City of Boulder (CO)
1777 Broadway
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Boulder, Colorado, United States 80306
303.441.3266 riceb@bouldercolorado.gov

Count Name: 91_Table Mesa Dr and Moorhead Ave_TMC_6-11-2019
Site Code: 91
Start Date: 06/11/2019
Page No: 4

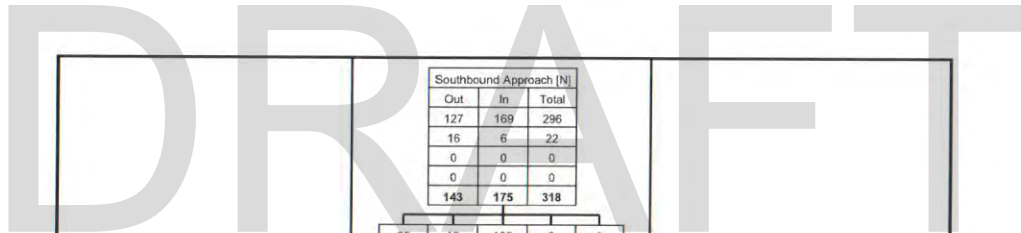
DRAFT

Turning Movement Peak Hour Data (8:15 AM)

Start Time	Southbound Approach						Westbound Approach						Northbound Approach						Eastbound Approach						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
8:15 AM	7	4	35	0	1	46	16	241	14	0	2	271	6	1	0	0	2	7	6	227	8	0	4	241	565
8:30 AM	3	5	30	0	1	38	31	258	13	0	3	302	13	1	9	0	4	23	10	273	11	0	1	294	657
8:45 AM	6	2	45	0	0	53	32	277	13	0	2	322	4	3	2	0	2	9	7	261	8	0	0	276	660
9:00 AM	9	1	28	0	2	38	23	266	18	0	5	307	8	0	6	0	2	14	2	205	9	0	4	216	575
Total	25	12	138	0	4	175	102	1042	58	0	12	1202	31	5	17	0	10	53	25	966	36	0	9	1027	2457
Approach %	14.3	6.9	78.9	0.0	-	-	8.5	86.7	4.8	0.0	-	-	58.5	9.4	32.1	0.0	-	-	2.4	94.1	3.5	0.0	-	-	-
Total %	1.0	0.5	5.6	0.0	-	7.1	4.2	42.4	2.4	0.0	-	48.9	1.3	0.2	0.7	0.0	-	2.2	1.0	39.3	1.5	0.0	-	41.8	-
PHF	0.694	0.600	0.767	0.000	-	0.825	0.797	0.940	0.806	0.000	-	0.933	0.596	0.417	0.472	0.000	-	0.576	0.625	0.885	0.818	0.000	-	0.873	0.931
All Vehicles (no classification)	25	12	132	0	-	169	90	1033	58	0	-	1181	31	2	17	0	-	50	25	958	35	0	-	1018	2418
% All Vehicles (no classification)	100.0	100.0	95.7	-	-	96.6	88.2	99.1	100.0	-	-	98.3	100.0	40.0	100.0	-	-	94.3	100.0	99.2	97.2	-	-	99.1	98.4
Bicycles on Road	0	0	6	0	-	6	12	9	0	0	-	21	0	3	0	0	-	3	0	8	1	0	-	9	39
% Bicycles on Road	0.0	0.0	4.3	-	-	3.4	11.8	0.9	0.0	-	-	1.7	0.0	60.0	0.0	-	-	5.7	0.0	0.8	2.8	-	-	0.9	1.6
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	11	-	-	-	-	-	4	-	-	-	-	-	3	-	-
% Bicycles on Crosswalk	-	-	-	-	25.0	-	-	-	-	-	91.7	-	-	-	-	-	40.0	-	-	-	-	-	33.3	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	75.0	-	-	-	-	-	8.3	-	-	-	-	-	60.0	-	-	-	-	-	66.7	-	-

Out	In	Total
127	169	296
16	6	22
0	0	0
0	0	0
143	175	318

Out	In	Total
127	169	296
16	6	22
0	0	0
0	0	0
143	175	318



Out	In	Total
127	169	296
16	6	22
0	0	0
0	0	0
143	175	318

City of Boulder (CO)
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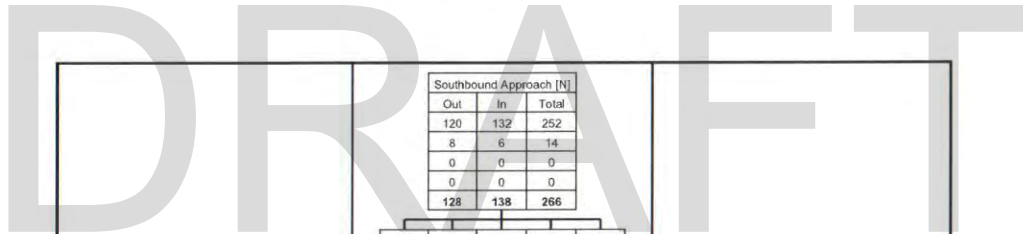
Count Name: 91_Table Mesa Dr and Moorhead
Ave_TMC_6-11-2019
Site Code: 91
Start Date: 06/11/2019
Page No: 6

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Southbound Approach						Westbound Approach						Northbound Approach						Eastbound Approach						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	13	2	25	0	0	40	22	236	9	0	5	267	13	2	6	0	5	21	6	231	8	0	1	245	573
12:15 PM	6	3	25	0	0	34	19	220	10	1	5	250	10	2	1	0	2	13	8	202	9	0	1	219	516
12:30 PM	8	4	26	0	2	38	21	223	6	0	3	250	14	1	4	0	2	19	7	231	8	0	3	246	553
12:45 PM	6	0	20	0	1	26	24	220	10	0	2	254	9	1	6	0	2	16	2	237	11	0	1	250	546
Total	33	9	96	0	3	138	86	899	35	1	15	1021	46	6	17	0	11	69	23	901	36	0	6	960	2188
Approach %	23.9	6.5	69.6	0.0	-	-	8.4	88.1	3.4	0.1	-	-	66.7	8.7	24.6	0.0	-	-	2.4	93.9	3.8	0.0	-	-	-
Total %	1.5	0.4	4.4	0.0	-	6.3	3.9	41.1	1.6	0.0	-	46.7	2.1	0.3	0.8	0.0	-	3.2	1.1	41.2	1.6	0.0	-	43.9	-
PHF	0.635	0.563	0.923	0.000	-	0.863	0.896	0.952	0.875	0.250	-	0.956	0.821	0.750	0.708	0.000	-	0.821	0.719	0.950	0.818	0.000	-	0.960	0.955
All Vehicles (no classification)	33	8	91	0	-	132	79	893	35	1	-	1008	46	6	17	0	-	69	23	898	35	0	-	956	2165
% All Vehicles (no classification)	100.0	88.9	94.8	-	-	95.7	91.9	99.3	100.0	100.0	-	98.7	100.0	100.0	100.0	-	-	100.0	100.0	99.7	97.2	-	-	99.6	98.9
Bicycles on Road	0	1	5	0	-	6	7	6	0	0	-	13	0	0	0	0	-	0	0	3	1	0	-	4	23
% Bicycles on Road	0.0	11.1	5.2	-	-	4.3	8.1	0.7	0.0	0.0	-	1.3	0.0	0.0	0.0	-	-	0.0	0.0	0.3	2.8	-	-	0.4	1.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	1	-	-	-	-	-	3	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	40.0	-	-	-	-	-	9.1	-	-	-	-	-	50.0	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	9	-	-	-	-	-	10	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	60.0	-	-	-	-	-	90.9	-	-	-	-	-	50.0	-	-

Out	In	Total
120	132	252
8	6	14
0	0	0
0	0	0
128	138	266

Out	In	Total
120	132	252
8	6	14
0	0	0
0	0	0
128	138	266



Out	In	Total
120	132	252
8	6	14
0	0	0
0	0	0
128	138	266

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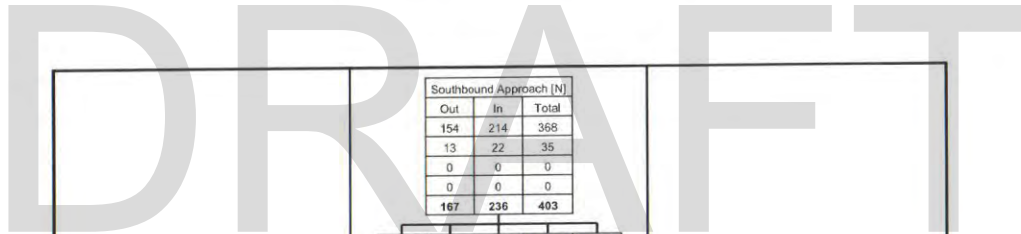
Count Name: 91 Table Mesa Dr and Moorhead
Ave_TMC_6-11-2019
Site Code: 91
Start Date: 06/11/2019
Page No: 8

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:45 PM	12	2	39	0	3	53	22	266	16	1	4	305	15	7	6	0	2	28	6	285	12	0	1	303	689
5:00 PM	13	2	45	0	1	60	33	276	13	0	2	322	31	2	10	0	2	43	9	277	11	0	1	297	722
5:15 PM	17	6	37	0	1	60	25	297	8	0	3	330	23	2	3	0	7	28	4	297	11	0	3	312	730
5:30 PM	11	7	45	0	1	63	37	303	8	0	6	348	21	0	4	0	1	25	7	263	5	0	1	275	711
Total	53	17	166	0	6	236	117	1142	45	1	15	1305	90	11	23	0	12	124	26	1122	39	0	6	1187	2852
Approach %	22.5	7.2	70.3	0.0	-	-	9.0	87.5	3.4	0.1	-	-	72.6	8.9	18.5	0.0	-	-	2.2	94.5	3.3	0.0	-	-	-
Total %	1.9	0.6	5.8	0.0	-	8.3	4.1	40.0	1.6	0.0	-	45.8	3.2	0.4	0.8	0.0	-	4.3	0.9	39.3	1.4	0.0	-	41.6	-
PHF	0.779	0.607	0.922	0.000	-	0.937	0.791	0.942	0.703	0.250	-	0.938	0.726	0.393	0.575	0.000	-	0.721	0.722	0.944	0.813	0.000	-	0.951	0.977
All Vehicles (no classification)	52	13	149	0	-	214	109	1133	45	1	-	1288	90	6	23	0	-	119	26	1112	39	0	-	1177	2798
% All Vehicles (no classification)	98.1	76.5	89.8	-	-	90.7	93.2	99.2	100.0	100.0	-	98.7	100.0	54.5	100.0	-	-	96.0	100.0	99.1	100.0	-	-	99.2	98.1
Bicycles on Road	1	4	17	0	-	22	8	9	0	0	-	17	0	5	0	0	-	5	0	10	0	0	-	10	54
% Bicycles on Road	1.9	23.5	10.2	-	-	9.3	6.8	0.8	0.0	0.0	-	1.3	0.0	45.5	0.0	-	-	4.0	0.0	0.9	0.0	-	-	0.8	1.9
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	9	-	-	-	-	-	6	-	-	-	-	-	3	-	-
% Bicycles on Crosswalk	-	-	-	-	33.3	-	-	-	-	-	60.0	-	-	-	-	-	50.0	-	-	-	-	-	50.0	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	6	-	-	-	-	-	6	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	66.7	-	-	-	-	-	40.0	-	-	-	-	-	50.0	-	-	-	-	-	50.0	-	-

Out	In	Total
154	214	368
13	22	35
0	0	0
0	0	0
167	236	403

Out	In	Total
154	214	368
13	22	35
0	0	0
0	0	0
167	236	403



Out	In	Total
154	214	368
13	22	35
0	0	0
0	0	0
167	236	403

City of Boulder (CO)
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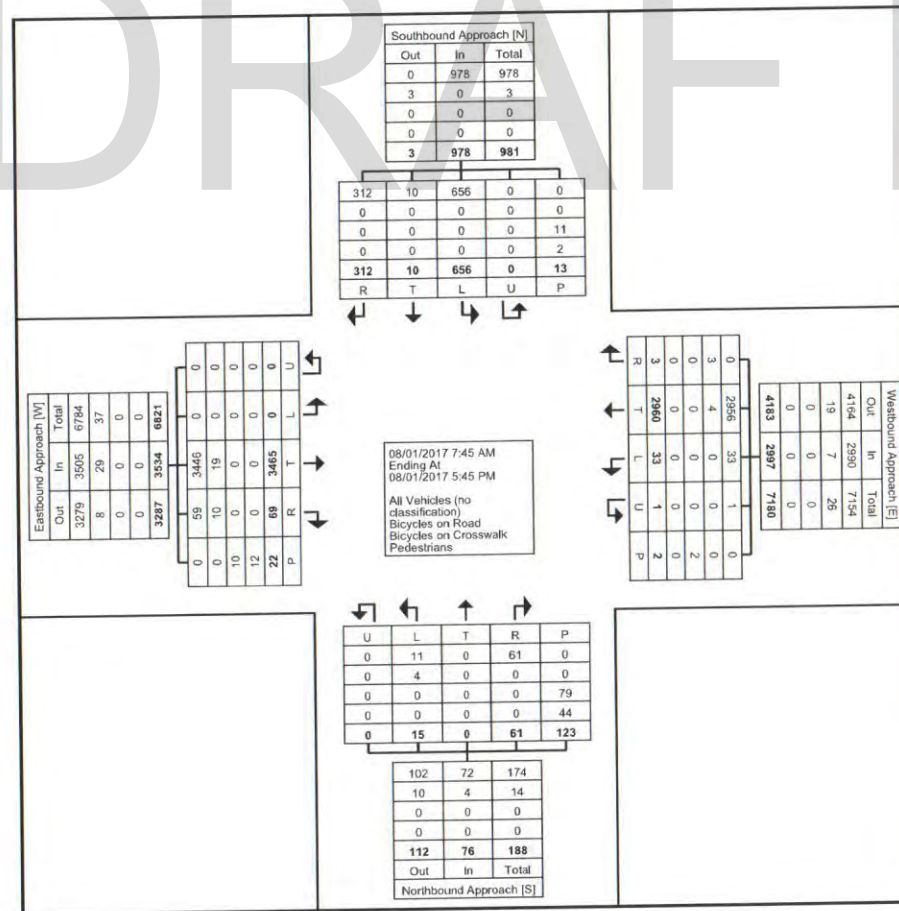
Count Name: Table Mesa and U.S.36 East
Ramps TMC 8-1-2017
Site Code: 92
Start Date: 08/01/2017
Page No: 1

Turning Movement Data

Start Time	Southbound Approach						Westbound Approach						Northbound Approach						Eastbound Approach						Int. Total
	Southbound						Westbound						Northbound						Eastbound						
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:45 AM	11	1	30	0	1	42	0	236	1	0	1	237	3	0	3	0	12	6	5	278	0	0	2	283	568
Hourly Total	11	1	30	0	1	42	0	236	1	0	1	237	3	0	3	0	12	6	5	278	0	0	2	283	568
8:00 AM	18	0	29	0	0	47	0	216	6	0	0	222	9	0	5	0	14	14	9	265	0	0	0	274	557
8:15 AM	11	0	47	0	0	58	0	243	3	1	0	247	8	0	2	0	13	10	6	270	0	0	3	276	591
8:30 AM	16	6	23	0	0	45	0	267	11	0	0	278	6	0	2	0	9	8	3	288	0	0	2	291	622
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	45	6	99	0	0	150	0	726	20	1	0	747	23	0	9	0	36	32	18	823	0	0	5	841	1770
12:00 PM	22	0	39	0	2	61	0	225	4	0	0	229	4	0	0	0	6	4	5	256	0	0	1	261	555
12:15 PM	26	0	44	0	0	70	0	221	0	0	0	221	3	0	1	0	1	4	5	249	0	0	0	254	549
12:30 PM	39	1	40	0	2	80	0	201	2	0	0	203	8	0	0	0	3	8	5	240	0	0	2	245	536
12:45 PM	30	1	45	0	3	76	0	206	1	0	0	207	2	0	1	0	6	3	2	245	0	0	0	247	533
Hourly Total	117	2	168	0	7	287	0	853	7	0	0	860	17	0	2	0	16	19	17	990	0	0	3	1007	2173
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:45 PM	34	0	88	0	2	122	1	281	1	0	0	283	3	0	0	0	14	3	9	324	0	0	3	333	741
Hourly Total	34	0	88	0	2	122	1	281	1	0	0	283	3	0	0	0	14	3	9	324	0	0	3	333	741
5:00 PM	39	1	85	0	2	125	2	270	0	0	0	272	6	0	0	0	12	6	12	347	0	0	4	359	762
5:15 PM	26	0	105	0	0	131	0	315	2	0	0	317	5	0	1	0	15	6	3	339	0	0	1	342	796
5:30 PM	40	0	81	0	1	121	0	279	2	0	1	281	4	0	0	0	17	4	5	364	0	0	4	369	775
Grand Total	312	10	656	0	13	978	3	2960	33	1	2	2997	61	0	15	0	123	76	69	3465	0	0	22	3534	7585
Approach %	31.9	1.0	67.1	0.0	-	-	0.1	98.8	1.1	0.0	-	-	80.3	0.0	19.7	0.0	-	-	2.0	98.0	0.0	0.0	-	-	-
Total %	4.1	0.1	8.6	0.0	-	12.9	0.0	39.0	0.4	0.0	-	39.5	0.8	0.0	0.2	0.0	-	1.0	0.9	45.7	0.0	0.0	-	46.6	-
All Vehicles (no classification)	312	10	656	0	-	978	0	2956	33	1	-	2990	61	0	11	0	-	72	59	3446	0	0	-	3505	7545
% All Vehicles (no classification)	100.0	100.0	100.0	-	-	100.0	0.0	99.9	100.0	100.0	-	99.8	100.0	-	73.3	-	-	94.7	85.5	99.5	-	-	-	99.2	99.5
Bicycles on Road	0	0	0	0	-	0	3	4	0	0	-	7	0	0	4	0	-	4	10	19	0	0	-	29	40
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	100.0	0.1	0.0	0.0	-	0.2	0.0	-	26.7	-	-	5.3	14.5	0.5	-	-	-	0.8	0.5
Bicycles on Crosswalk	-	-	-	-	11	-	-	-	-	-	2	-	-	-	-	-	79	-	-	-	-	-	10	-	-
% Bicycles on Crosswalk	-	-	-	-	84.6	-	-	-	-	-	100.0	-	-	-	-	-	64.2	-	-	-	-	-	45.5	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	44	-	-	-	-	-	12	-	-
% Pedestrians	-	-	-	-	15.4	-	-	-	-	-	0.0	-	-	-	-	-	35.8	-	-	-	-	-	54.5	-	-

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Count Name: Table Mesa and U.S.36 East
Ramps TMC 8-1-2017
Site Code: 92
Start Date: 08/01/2017
Page No: 2



Turning Movement Data Plot

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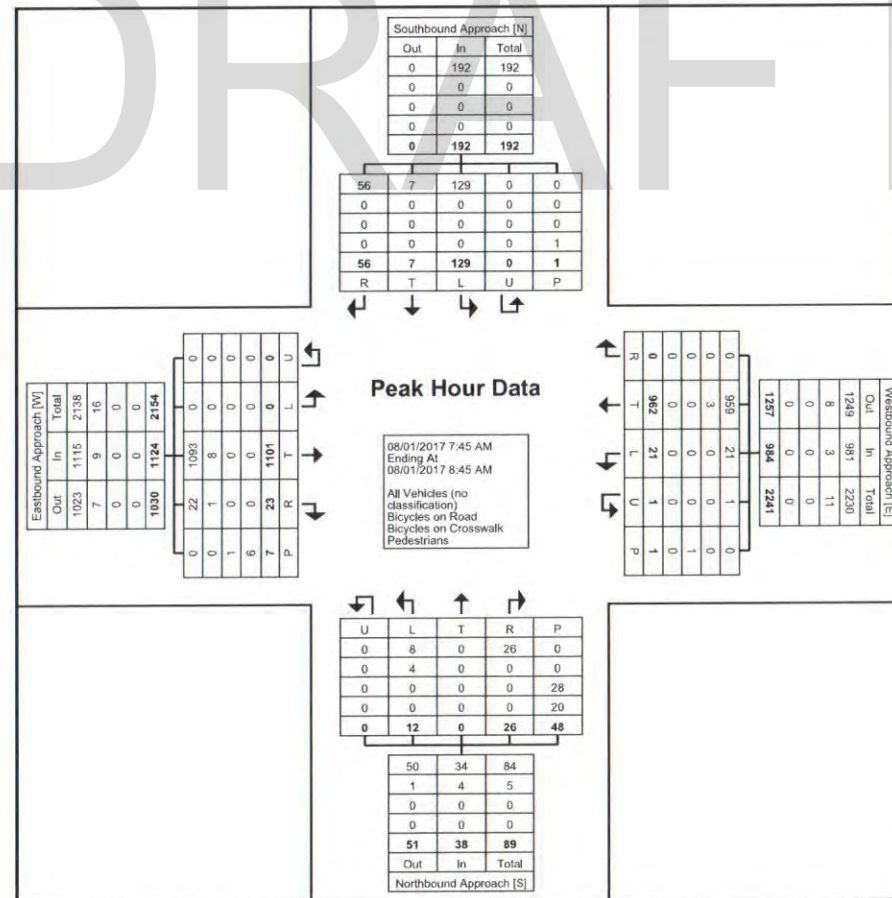
Count Name: Table Mesa and U.S.36 East
Ramps TMC 8-1-2017
Site Code: 92
Start Date: 08/01/2017
Page No: 3

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:45 AM	11	1	30	0	1	42	0	236	1	0	1	237	3	0	3	0	12	6	5	278	0	0	2	283	568
8:00 AM	18	0	29	0	0	47	0	216	6	0	0	222	9	0	5	0	14	14	9	265	0	0	0	274	591
8:15 AM	11	0	47	0	0	58	0	243	3	1	0	247	8	0	2	0	9	8	3	288	0	0	2	291	622
8:30 AM	16	6	23	0	0	45	0	267	11	0	0	278	6	0	2	0	9	8	23	1101	0	0	7	1124	2338
Total	56	7	129	0	1	192	0	962	21	1	1	984	26	0	12	0	48	38	23	1101	0	0	7	1124	2338
Approach %	29.2	3.6	67.2	0.0	-	-	0.0	97.8	2.1	0.1	-	-	68.4	0.0	31.6	0.0	-	-	2.0	98.0	0.0	0.0	-	-	-
Total %	2.4	0.3	5.5	0.0	-	8.2	0.0	41.1	0.9	0.0	-	42.1	1.1	0.0	0.5	0.0	-	1.6	1.0	47.1	0.0	0.0	-	48.1	-
PHF	0.778	0.292	0.686	0.000	-	0.828	0.000	0.901	0.477	0.250	-	0.885	0.722	0.000	0.600	0.000	-	0.679	0.639	0.956	0.000	0.000	-	0.966	0.940
All Vehicles (no classification)	56	7	129	0	-	192	0	959	21	1	-	981	26	0	8	0	-	34	22	1093	0	0	-	1115	2322
% All Vehicles (no classification)	100.0	100.0	100.0	-	-	100.0	-	99.7	100.0	100.0	-	99.7	100.0	-	66.7	-	-	89.5	95.7	99.3	-	-	-	99.2	99.3
Bicycles on Road	0	0	0	0	-	0	0	3	0	0	-	3	0	0	4	0	-	4	1	8	0	0	-	9	16
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	-	0.3	0.0	0.0	-	0.3	0.0	-	33.3	-	-	10.5	4.3	0.7	-	-	-	0.8	0.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	28	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	100.0	-	-	-	-	-	58.3	-	-	-	-	-	14.3	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	20	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	0.0	-	-	-	-	-	41.7	-	-	-	-	-	85.7	-	-

City of Boulder (CO)
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Count Name: Table Mesa and U.S.36 East
Ramps TMC 8-1-2017
Site Code: 92
Start Date: 08/01/2017
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Turning Movement Peak Hour Data Plot (7:45 AM)

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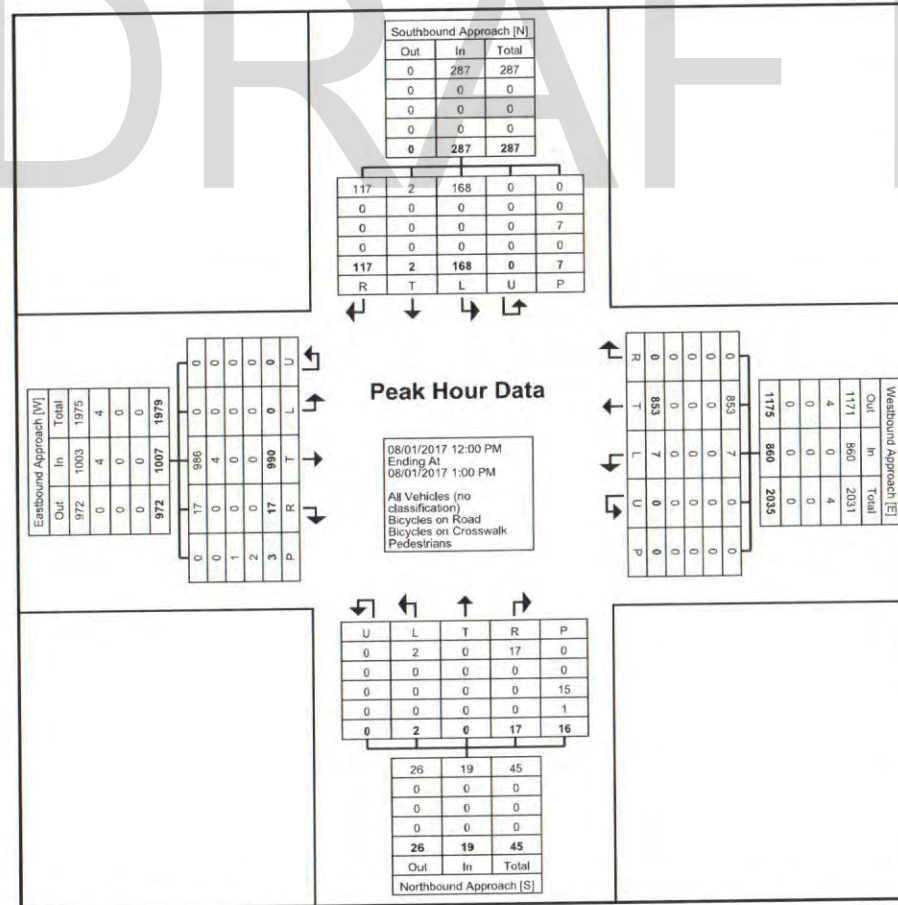
DRAFT

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Southbound Approach						Westbound Approach						Northbound Approach						Eastbound Approach						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	22	0	39	0	2	61	0	225	4	0	0	229	4	0	0	0	6	4	5	256	0	0	1	261	555
12:15 PM	26	0	44	0	0	70	0	221	0	0	0	221	3	0	1	0	1	4	5	249	0	0	0	254	549
12:30 PM	39	1	40	0	2	80	0	201	2	0	0	203	8	0	0	0	3	8	5	240	0	0	0	247	533
12:45 PM	30	1	45	0	3	76	0	206	1	0	0	207	2	0	1	0	6	3	2	245	0	0	0	247	533
Total	117	2	168	0	7	287	0	853	7	0	0	860	17	0	2	0	16	19	17	990	0	0	3	1007	2173
Approach %	40.8	0.7	58.5	0.0	-	-	0.0	99.2	0.8	0.0	-	-	89.5	0.0	10.5	0.0	-	-	1.7	98.3	0.0	0.0	-	-	-
Total %	5.4	0.1	7.7	0.0	-	13.2	0.0	39.3	0.3	0.0	-	39.6	0.8	0.0	0.1	0.0	-	0.9	0.8	45.6	0.0	0.0	-	-	46.3
PHF	0.750	0.500	0.933	0.000	-	0.897	0.000	0.948	0.438	0.000	-	0.939	0.531	0.000	0.500	0.000	-	0.594	0.850	0.967	0.000	0.000	-	-	0.965
All Vehicles (no classification)	117	2	168	0	-	287	0	853	7	0	-	860	17	0	2	0	-	19	17	986	0	0	-	-	1003
% All Vehicles (no classification)	100.0	100.0	100.0	-	-	100.0	-	100.0	100.0	-	-	100.0	100.0	-	100.0	-	-	100.0	100.0	99.6	-	-	-	-	99.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	4	0	0	-	-	4
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	0.4	-	-	-	-	0.4
Bicycles on Crosswalk	-	-	-	-	7	-	-	-	-	-	0	-	-	-	-	-	15	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	93.8	-	-	-	-	-	33.3	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	6.3	-	-	-	-	-	66.7	-	-

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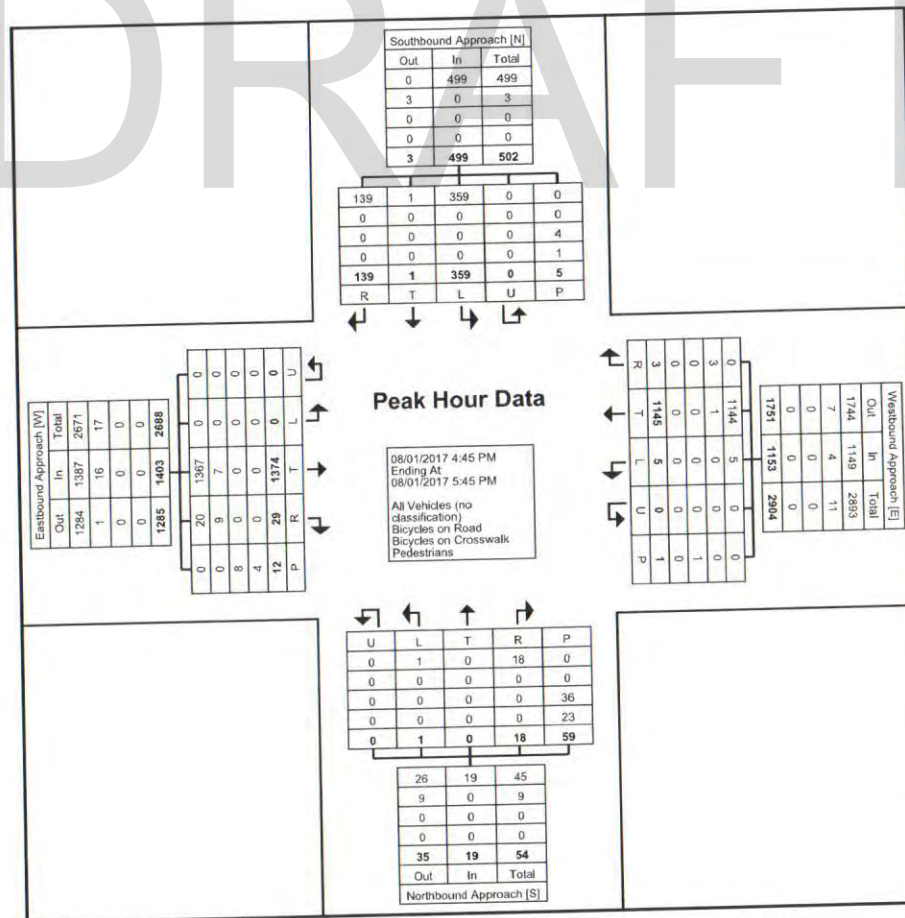
Count Name: Table Mesa and U.S.36 East
Ramps TMC 8-1-2017
Site Code: 92
Start Date: 08/01/2017
Page No: 7

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Southbound Approach						Westbound Approach						Northbound Approach						Eastbound Approach						Int. Total
	Southbound						Westbound						Northbound						Eastbound						
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:45 PM	34	0	88	0	2	122	1	281	1	0	0	283	3	0	0	0	14	3	9	324	0	0	3	333	741
5:00 PM	39	1	85	0	2	125	2	270	0	0	0	272	6	0	0	0	12	6	12	347	0	0	4	359	762
5:15 PM	26	0	105	0	0	131	0	315	2	0	0	317	5	0	1	0	16	6	3	339	0	0	1	342	796
5:30 PM	40	0	81	0	1	121	0	279	2	0	1	281	4	0	0	0	17	4	5	364	0	0	4	369	775
Total	139	1	359	0	5	499	3	1145	5	0	1	1153	18	0	1	0	59	19	29	1374	0	0	12	1403	3074
Approach %	27.9	0.2	71.9	0.0	-	-	0.3	99.3	0.4	0.0	-	-	94.7	0.0	5.3	0.0	-	-	2.1	97.9	0.0	0.0	-	-	-
Total %	4.5	0.0	11.7	0.0	-	16.2	0.1	37.2	0.2	0.0	-	37.5	0.6	0.0	0.0	0.0	-	0.6	0.9	44.7	0.0	0.0	-	-	45.6
PHF	0.869	0.250	0.855	0.000	-	0.952	0.375	0.909	0.625	0.000	-	0.909	0.750	0.000	0.250	0.000	-	0.792	0.604	0.944	0.000	0.000	-	-	0.951
All Vehicles (no classification)	139	1	359	0	-	499	0	1144	5	0	-	1149	18	0	1	0	-	19	20	1367	0	0	-	-	1387
% All Vehicles (no classification)	100.0	100.0	100.0	-	-	100.0	0.0	99.9	100.0	-	-	99.7	100.0	-	100.0	-	-	100.0	69.0	99.5	-	-	-	-	98.9
Bicycles on Road	0	0	0	0	-	0	3	1	0	0	-	4	0	0	0	0	-	0	9	7	0	0	-	-	16
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	100.0	0.1	0.0	-	-	0.3	0.0	-	0.0	-	-	0.0	31.0	0.5	-	-	-	-	1.1
Bicycles on Crosswalk	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	36	-	-	-	-	-	8	-	-
% Bicycles on Crosswalk	-	-	-	-	80.0	-	-	-	-	-	100.0	-	-	-	-	-	61.0	-	-	-	-	-	66.7	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	23	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	20.0	-	-	-	-	-	0.0	-	-	-	-	-	39.0	-	-	-	-	-	33.3	-	-

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Turning Movement Peak Hour Data Plot (4:45 PM)

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Count Name: Table Mesa and Foothills Pkwy
West Ramp (RTD) TMC 8-1-2017
Site Code: 93
Start Date: 08/01/2017
Page No: 1

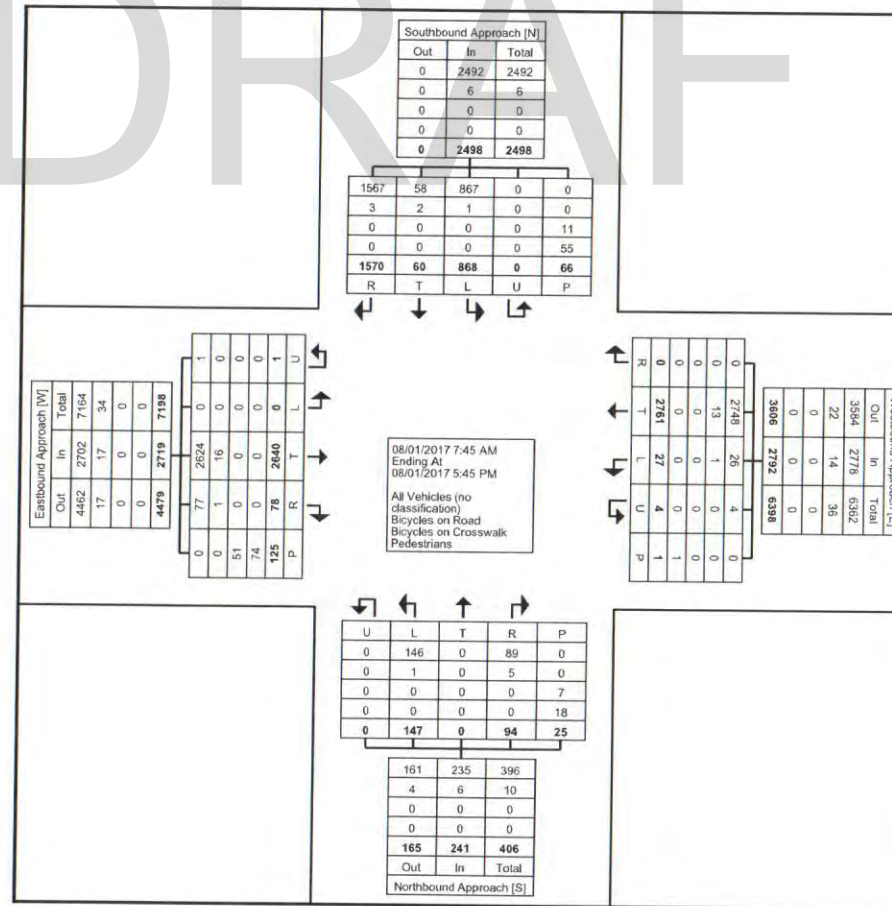
Turning Movement Data

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:45 AM	100	9	48	0	6	157	0	267	6	0	0	273	4	0	9	0	3	13	13	166	0	0	12	179	622
Hourly Total	100	9	48	0	6	157	0	267	6	0	0	273	4	0	9	0	3	13	13	166	0	0	12	179	622
8:00 AM	98	19	48	0	4	165	0	236	1	0	0	237	4	0	9	0	2	13	15	169	0	0	11	184	599
8:15 AM	97	5	46	0	9	148	0	264	5	0	0	269	8	0	11	0	0	19	12	192	0	0	8	204	640
8:30 AM	80	10	49	0	22	139	0	289	4	0	0	293	5	0	9	0	2	14	5	197	0	0	23	202	648
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	275	34	143	0	35	452	0	789	10	0	0	799	17	0	29	0	4	46	32	558	0	0	42	590	1887
12:00 PM	123	3	51	0	4	177	0	199	0	0	0	199	2	0	7	0	2	9	5	188	0	1	5	194	579
12:15 PM	109	3	53	0	3	165	0	175	0	1	0	176	4	0	4	0	1	8	2	177	0	0	4	179	528
12:30 PM	114	2	62	0	0	178	0	169	0	0	0	169	1	0	4	0	0	5	5	185	0	0	3	190	542
12:45 PM	112	2	80	0	1	194	0	185	0	0	0	185	1	0	7	0	2	8	2	180	0	0	4	182	569
Hourly Total	458	10	246	0	8	714	0	728	0	1	0	729	8	0	22	0	5	30	14	730	0	1	16	745	2218
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:45 PM	185	2	110	0	0	297	0	233	2	0	0	235	9	0	24	0	5	33	6	257	0	0	14	263	828
Hourly Total	185	2	110	0	0	297	0	233	2	0	0	235	9	0	24	0	5	33	6	257	0	0	14	263	828
5:00 PM	181	3	112	0	5	296	0	241	4	1	1	246	12	0	12	0	3	24	5	334	0	0	15	339	905
5:15 PM	199	0	115	0	8	314	0	266	2	1	0	269	16	0	35	0	4	51	4	278	0	0	15	282	916
5:30 PM	172	2	94	0	4	268	0	237	3	1	0	241	28	0	16	0	1	44	4	317	0	0	11	321	874
Grand Total	1570	60	868	0	66	2498	0	2761	27	4	1	2792	94	0	147	0	25	241	78	2640	0	1	125	2719	8250
Approach %	62.9	2.4	34.7	0.0	-	-	0.0	98.9	1.0	0.1	-	-	39.0	0.0	61.0	0.0	-	-	2.9	97.1	0.0	0.0	-	-	-
Total %	19.0	0.7	10.5	0.0	-	30.3	0.0	33.5	0.3	0.0	-	33.8	1.1	0.0	1.8	0.0	-	2.9	0.9	32.0	0.0	0.0	-	33.0	-
All Vehicles (no classification)	1567	58	867	0	-	2492	0	2748	26	4	-	2778	89	0	146	0	-	235	77	2624	0	1	-	2702	8207
% All Vehicles (no classification)	99.8	96.7	99.9	-	-	99.8	-	99.5	96.3	100.0	-	99.5	94.7	-	99.3	-	-	97.5	98.7	99.4	-	100.0	-	99.4	99.5
Bicycles on Road	3	2	1	0	-	6	0	13	1	0	-	14	5	0	1	0	-	6	1	16	0	0	-	17	43
% Bicycles on Road	0.2	3.3	0.1	-	-	0.2	-	0.5	3.7	0.0	-	0.5	5.3	-	0.7	-	-	2.5	1.3	0.6	-	0.0	-	0.6	0.5
Bicycles on Crosswalk	-	-	-	-	11	-	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	51	-	-
% Bicycles on Crosswalk	-	-	-	-	16.7	-	-	-	-	-	0.0	-	-	-	-	-	28.0	-	-	-	-	-	40.8	-	-
Pedestrians	-	-	-	-	55	-	-	-	-	-	1	-	-	-	-	-	18	-	-	-	-	-	74	-	-
% Pedestrians	-	-	-	-	83.3	-	-	-	-	-	100.0	-	-	-	-	-	72.0	-	-	-	-	-	59.2	-	-

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Turning Movement Data Plot

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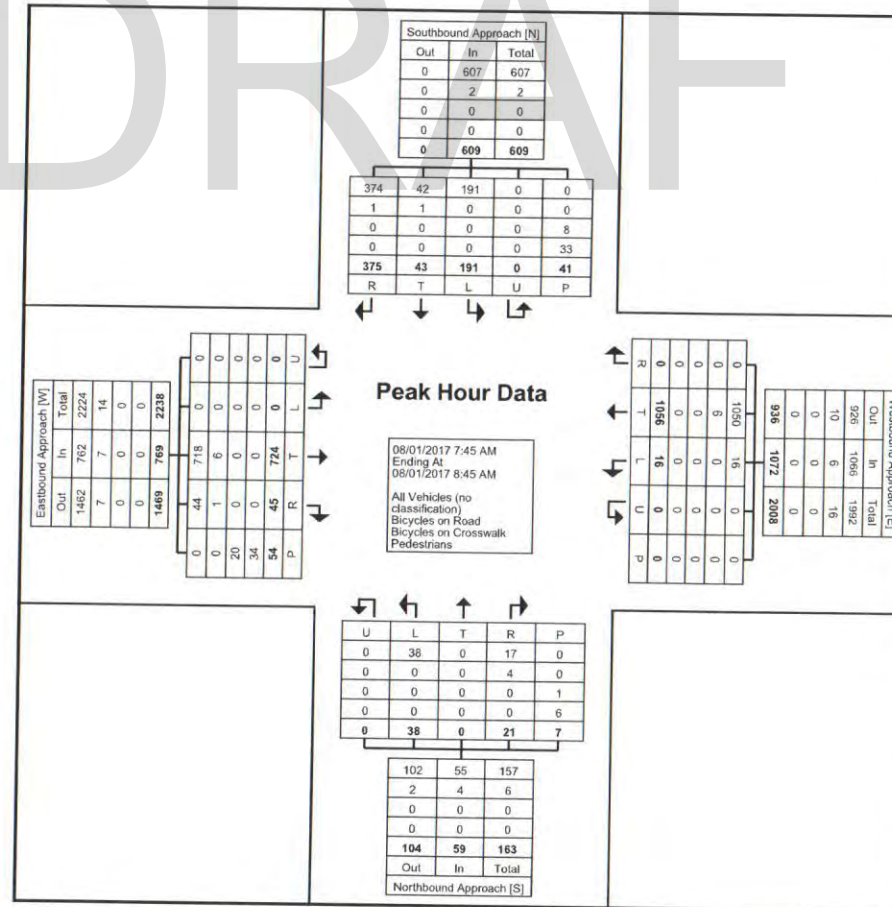
Count Name: Table Mesa and Foothills Pkwy
West Ramp (RTD) TMC 8-1-2017
Site Code: 93
Start Date: 08/01/2017
Page No: 3

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:45 AM	100	9	48	0	6	157	0	267	6	0	0	273	4	0	9	0	3	13	13	166	0	0	12	179	622
8:00 AM	98	19	48	0	4	165	0	236	1	0	0	237	4	0	9	0	2	13	15	169	0	0	11	184	599
8:15 AM	97	5	46	0	9	148	0	264	5	0	0	269	8	0	11	0	0	19	12	192	0	0	8	204	640
8:30 AM	80	10	49	0	22	139	0	289	4	0	0	293	5	0	9	0	2	14	5	197	0	0	23	202	648
Total	375	43	191	0	41	609	0	1056	16	0	0	1072	21	0	38	0	7	59	45	724	0	0	54	769	2509
Approach %	61.6	7.1	31.4	0.0	-	-	0.0	98.5	1.5	0.0	-	-	35.6	0.0	64.4	0.0	-	-	5.9	94.1	0.0	0.0	-	-	-
Total %	14.9	1.7	7.6	0.0	-	24.3	0.0	42.1	0.6	0.0	-	42.7	0.8	0.0	1.5	0.0	-	2.4	1.8	28.9	0.0	0.0	-	30.6	-
PHF	0.938	0.566	0.974	0.000	-	0.923	0.000	0.913	0.667	0.000	-	0.915	0.656	0.000	0.864	0.000	-	0.776	0.750	0.919	0.000	0.000	-	0.942	0.968
All Vehicles (no classification)	374	42	191	0	-	607	0	1050	16	0	-	1066	17	0	38	0	-	55	44	718	0	0	-	762	2490
% All Vehicles (no classification)	99.7	97.7	100.0	-	-	99.7	-	99.4	100.0	-	-	99.4	81.0	-	100.0	-	-	93.2	97.8	99.2	-	-	-	99.1	99.2
Bicycles on Road	1	1	0	0	-	2	0	6	0	0	-	6	4	0	0	0	-	4	1	6	0	0	-	7	19
% Bicycles on Road	0.3	2.3	0.0	-	-	0.3	-	0.6	0.0	-	-	0.6	19.0	-	0.0	-	-	6.8	2.2	0.8	-	-	-	0.9	0.8
Bicycles on Crosswalk	-	-	-	-	8	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	20	-	-
% Bicycles on Crosswalk	-	-	-	-	19.5	-	-	-	-	-	-	-	-	-	-	-	14.3	-	-	-	-	-	37.0	-	-
Pedestrians	-	-	-	-	33	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	34	-	-
% Pedestrians	-	-	-	-	80.5	-	-	-	-	-	-	-	-	-	-	-	85.7	-	-	-	-	-	63.0	-	-

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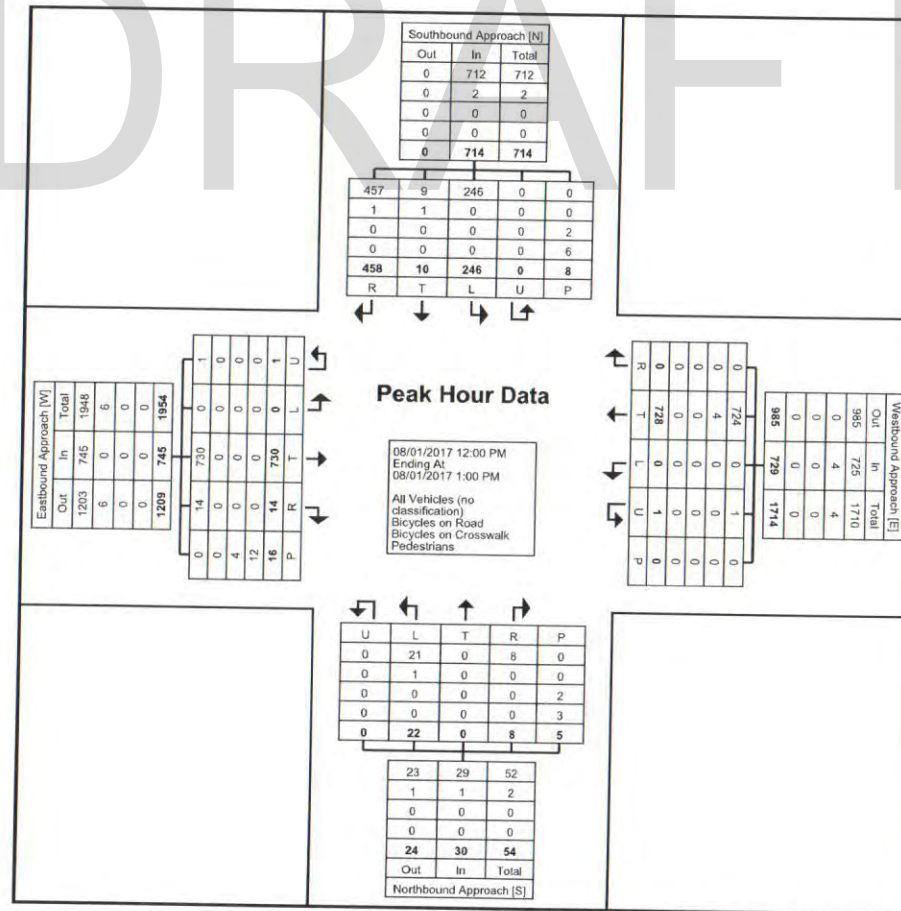
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Turning Movement Peak Hour Data (12:00 PM)

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	123	3	51	0	4	177	0	199	0	0	0	199	2	0	7	0	2	9	5	188	0	1	5	194	579
12:15 PM	109	3	53	0	3	165	0	175	0	1	0	176	4	0	4	0	1	8	2	177	0	0	4	179	528
12:30 PM	114	2	62	0	0	178	0	169	0	0	0	169	1	0	4	0	0	5	5	185	0	0	3	190	542
12:45 PM	112	2	80	0	1	194	0	185	0	0	0	185	1	0	7	0	2	8	2	180	0	0	4	182	569
Total	458	10	246	0	8	714	0	728	0	1	0	729	8	0	22	0	5	30	14	730	0	1	16	745	2218
Approach %	64.1	1.4	34.5	0.0	-	-	0.0	99.9	0.0	0.1	-	-	26.7	0.0	73.3	0.0	-	-	1.9	98.0	0.0	0.1	-	-	-
Total %	20.6	0.5	11.1	0.0	-	32.2	0.0	32.8	0.0	0.0	-	32.9	0.4	0.0	1.0	0.0	-	1.4	0.6	32.9	0.0	0.0	-	33.6	-
PHF	0.931	0.833	0.769	0.000	-	0.920	0.000	0.915	0.000	0.250	-	0.916	0.500	0.000	0.786	0.000	-	0.833	0.700	0.971	0.000	0.250	-	0.960	0.958
All Vehicles (no classification)	457	9	246	0	-	712	0	724	0	1	-	725	8	0	21	0	-	29	14	730	0	1	-	745	2211
% All Vehicles (no classification)	99.8	90.0	100.0	-	-	99.7	-	99.5	-	100.0	-	99.5	100.0	-	95.5	-	-	96.7	100.0	100.0	-	100.0	-	100.0	99.7
Bicycles on Road	1	1	0	0	-	2	0	4	0	0	-	4	0	0	1	0	-	1	0	0	0	0	0	0	7
% Bicycles on Road	0.2	10.0	0.0	-	-	0.3	-	0.5	-	0.0	-	0.5	0.0	-	4.5	-	-	3.3	0.0	0.0	-	0.0	-	0.0	0.3
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	4	-	-
% Bicycles on Crosswalk	-	-	-	-	25.0	-	-	-	-	-	-	-	-	-	-	-	40.0	-	-	-	-	-	25.0	-	-
Pedestrians	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	12	-	-
% Pedestrians	-	-	-	-	75.0	-	-	-	-	-	-	-	-	-	-	-	60.0	-	-	-	-	-	75.0	-	-

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Count Name: Table Mesa and Foothills Pkwy
West Ramp (RTD) TMC 8-1-2017
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Turning Movement Peak Hour Data Plot (12:00 PM)

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Count Name: Table Mesa and Foothills Pkwy
West Ramp (RTD) TMC 8-1-2017
Site Code: 93
Start Date: 08/01/2017
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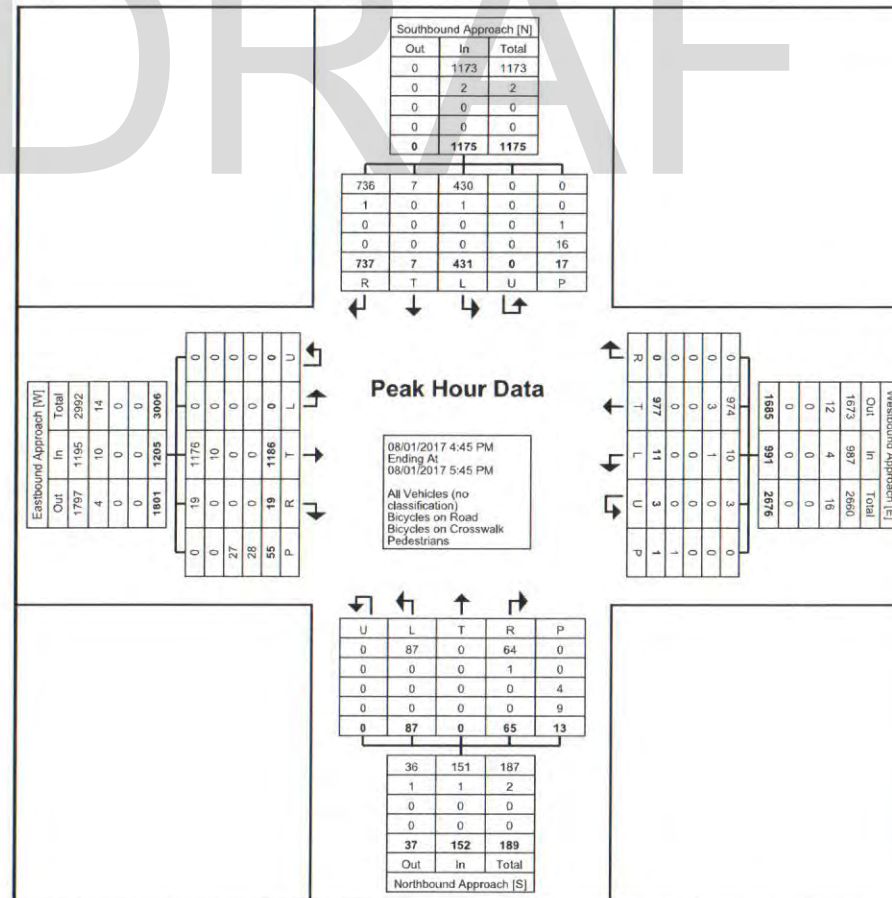
Turning Movement Peak Hour Data (4:45 PM)

Start Time	Southbound Approach						Westbound Approach						Northbound Approach						Eastbound Approach						Int. Total
	Southbound						Westbound						Northbound						Eastbound						
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:45 PM	185	2	110	0	0	297	0	233	2	0	0	235	9	0	24	0	5	33	6	257	0	0	14	263	828
5:00 PM	181	3	112	0	5	296	0	241	4	1	1	246	12	0	12	0	3	24	5	334	0	0	15	339	905
5:15 PM	199	0	115	0	8	314	0	266	2	1	0	269	16	0	35	0	4	51	4	278	0	0	15	282	916
5:30 PM	172	2	94	0	4	268	0	237	3	1	0	241	28	0	16	0	1	44	4	317	0	0	11	321	874
Total	737	7	431	0	17	1175	0	977	11	3	1	991	65	0	87	0	13	152	19	1186	0	0	55	1205	3523
Approach %	62.7	0.6	36.7	0.0	-	-	0.0	98.6	1.1	0.3	-	-	42.8	0.0	57.2	0.0	-	-	1.6	98.4	0.0	0.0	-	-	-
Total %	20.9	0.2	12.2	0.0	-	33.4	0.0	27.7	0.3	0.1	-	28.1	1.8	0.0	2.5	0.0	-	4.3	0.5	33.7	0.0	0.0	-	34.2	-
PHF	0.926	0.583	0.937	0.000	-	0.936	0.000	0.918	0.688	0.750	-	0.921	0.580	0.000	0.621	0.000	-	0.745	0.792	0.888	0.000	0.000	-	0.889	0.962
All Vehicles (no classification)	736	7	430	0	-	1173	0	974	10	3	-	987	64	0	87	0	-	151	19	1176	0	0	-	1195	3506
% All Vehicles (no classification)	99.9	100.0	99.8	-	-	99.8	-	99.7	90.9	100.0	-	99.6	98.5	-	100.0	-	-	99.3	100.0	99.2	-	-	-	99.2	99.5
Bicycles on Road	1	0	1	0	-	2	0	3	1	0	-	4	1	0	0	0	-	1	0	10	0	0	-	10	17
% Bicycles on Road	0.1	0.0	0.2	-	-	0.2	-	0.3	9.1	0.0	-	0.4	1.5	-	0.0	-	-	0.7	0.0	0.8	-	-	-	0.8	0.5
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	27	-	-
% Bicycles on Crosswalk	-	-	-	-	5.9	-	-	-	-	-	0.0	-	-	-	-	-	30.8	-	-	-	-	-	49.1	-	-
Pedestrians	-	-	-	-	16	-	-	-	-	-	1	-	-	-	-	-	9	-	-	-	-	-	28	-	-
% Pedestrians	-	-	-	-	94.1	-	-	-	-	-	100.0	-	-	-	-	-	69.2	-	-	-	-	-	50.9	-	-

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West Ramp (RTD) TMC 8-1-2017
Site Code: 93
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Count Name: South Boulder Rd and U.S. 36
East Ramp TMC 8-2-2017
Site Code: 94
Start Date: 08/02/2017
Page No: 1

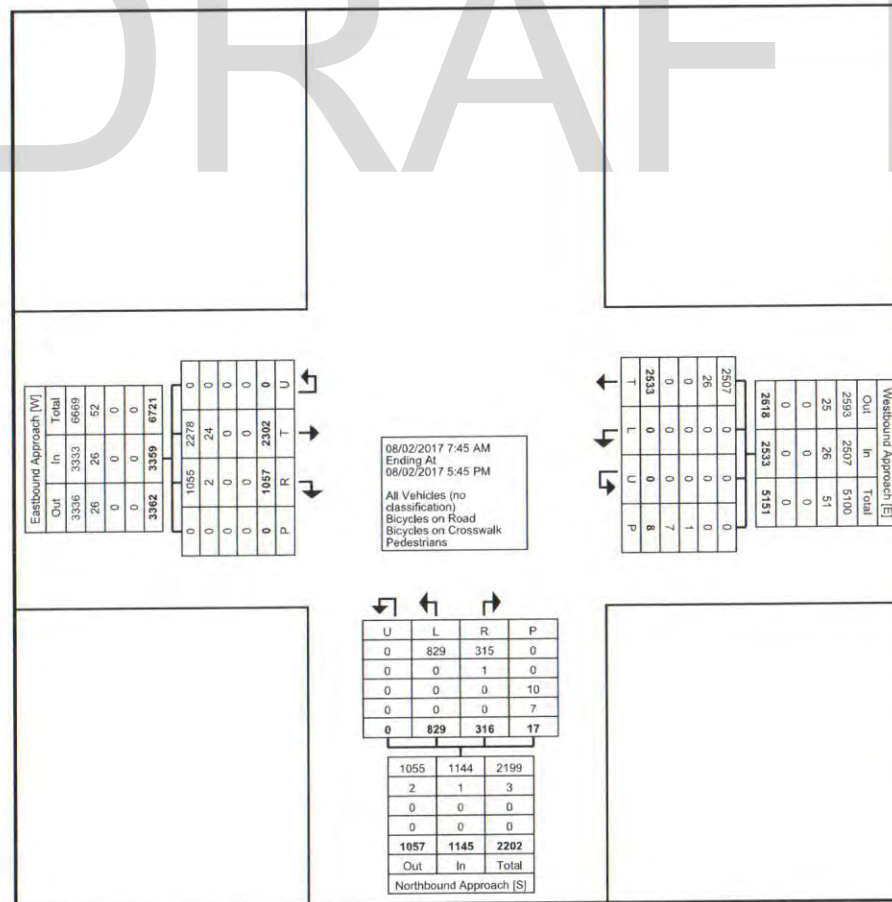
Turning Movement Data

Start Time	Westbound Approach					Northbound Approach					Eastbound Approach				
	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total
7:45 AM	257	0	0	0	257	42	45	0	0	87	77	131	0	0	208
Hourly Total	257	0	0	0	257	42	45	0	0	87	77	131	0	0	208
8:00 AM	227	0	0	0	227	48	63	0	1	111	87	133	0	0	220
8:15 AM	270	0	0	1	270	37	55	0	1	92	65	151	0	0	216
8:30 AM	250	0	0	1	250	36	72	0	1	108	98	145	0	0	243
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	747	0	0	2	747	121	190	0	3	311	250	429	0	0	679
12:00 PM	180	0	0	2	180	11	52	0	1	63	88	114	0	0	202
12:15 PM	152	0	0	1	152	18	57	0	1	75	81	150	0	0	231
12:30 PM	181	0	0	0	181	17	53	0	0	70	83	126	0	0	209
12:45 PM	173	0	0	1	173	25	62	0	1	87	85	163	0	0	248
Hourly Total	686	0	0	4	686	71	224	0	3	295	337	553	0	0	890
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:45 PM	198	0	0	0	198	16	85	0	2	101	97	310	0	0	407
Hourly Total	198	0	0	0	198	16	85	0	2	101	97	310	0	0	407
5:00 PM	210	0	0	0	210	21	111	0	4	132	87	285	0	0	372
5:15 PM	240	0	0	1	240	20	68	0	3	88	111	306	0	0	417
5:30 PM	195	0	0	1	195	25	106	0	2	131	98	288	0	0	386
Grand Total	2533	0	0	8	2533	316	829	0	17	1145	1057	2302	0	0	3359
Approach %	100.0	0.0	0.0	-	-	27.6	72.4	0.0	-	-	31.5	68.5	0.0	-	-
Total %	36.0	0.0	0.0	-	36.0	4.5	11.8	0.0	-	16.3	15.0	32.7	0.0	-	47.7
All Vehicles (no classification)	2507	0	0	-	2507	315	829	0	-	1144	1055	2278	0	-	3333
% All Vehicles (no classification)	99.0	-	-	-	99.0	99.7	100.0	-	-	99.9	99.8	99.0	-	-	99.2
Bicycles on Road	26	0	0	-	26	1	0	0	-	1	2	24	0	-	26
% Bicycles on Road	1.0	-	-	-	1.0	0.3	0.0	-	-	0.1	0.2	1.0	-	-	0.8
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	10	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	12.5	-	-	-	-	58.8	-	-	-	-	-	-
Pedestrians	-	-	-	7	-	-	-	-	7	-	-	-	-	0	-
% Pedestrians	-	-	-	87.5	-	-	-	-	41.2	-	-	-	-	-	-

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Count Name: South Boulder Rd and U.S. 36
 East Ramp TMC 8-2-2017
 Site Code: 94
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Turning Movement Data Plot

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Count Name: South Boulder Rd and U.S. 36
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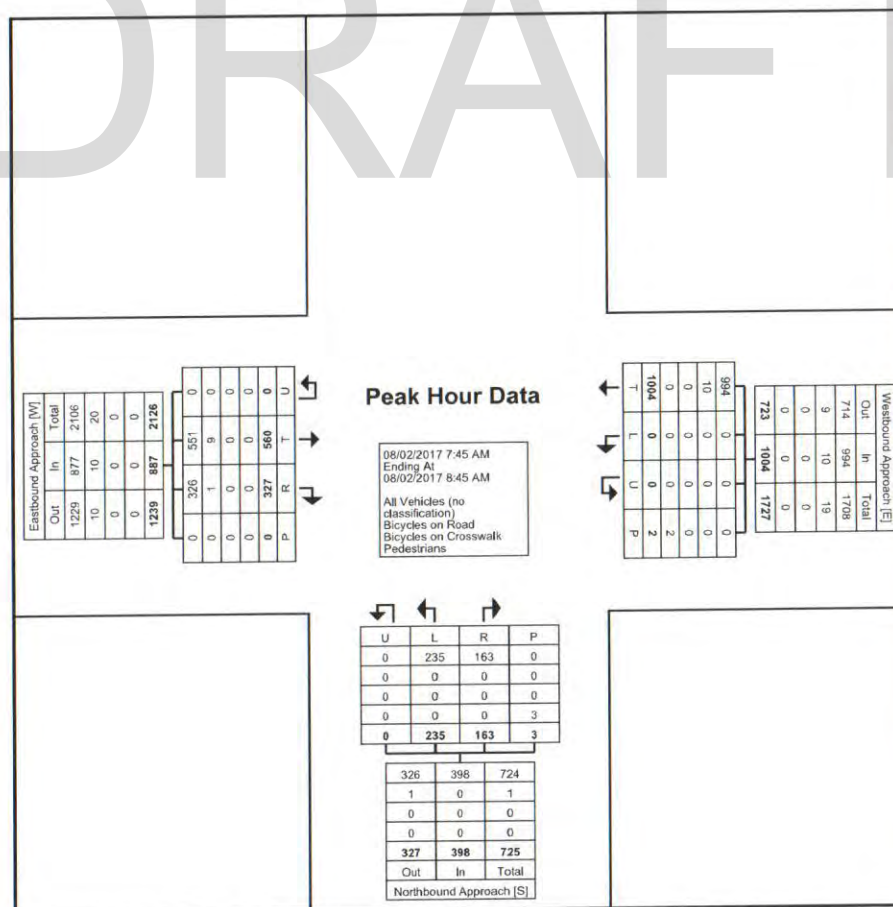
Turning Movement Peak Hour Data (7:45 AM)

Start Time	Westbound Approach Westbound					Northbound Approach Northbound					Eastbound Approach Eastbound					Int. Total
	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	
7:45 AM	257	0	0	0	257	42	45	0	0	87	77	131	0	0	208	552
8:00 AM	227	0	0	0	227	48	63	0	1	111	87	133	0	0	220	558
8:15 AM	270	0	0	1	270	37	55	0	1	92	65	151	0	0	216	578
8:30 AM	250	0	0	1	250	36	72	0	1	108	98	145	0	0	243	601
Total	1004	0	0	2	1004	163	235	0	3	398	327	560	0	0	887	2289
Approach %	100.0	0.0	0.0	-	-	41.0	59.0	0.0	-	-	36.9	63.1	0.0	-	-	-
Total %	43.9	0.0	0.0	-	43.9	7.1	10.3	0.0	-	17.4	14.3	24.5	0.0	-	38.8	-
PHF	0.930	0.000	0.000	-	0.930	0.849	0.816	0.000	-	0.896	0.834	0.927	0.000	-	0.913	0.952
All Vehicles (no classification)	994	0	0	-	994	163	235	0	-	398	326	551	0	-	877	2269
% All Vehicles (no classification)	99.0	-	-	-	99.0	100.0	100.0	-	-	100.0	99.7	98.4	-	-	98.9	99.1
Bicycles on Road	10	0	0	-	10	0	0	0	-	0	1	9	0	-	10	20
% Bicycles on Road	1.0	-	-	-	1.0	0.0	0.0	-	-	0.0	0.3	1.6	-	-	1.1	0.9
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	0.0	-	-	-	-	-	-	-
Pedestrians	-	-	-	2	-	-	-	-	3	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-

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East Ramp TMC 8-2-2017
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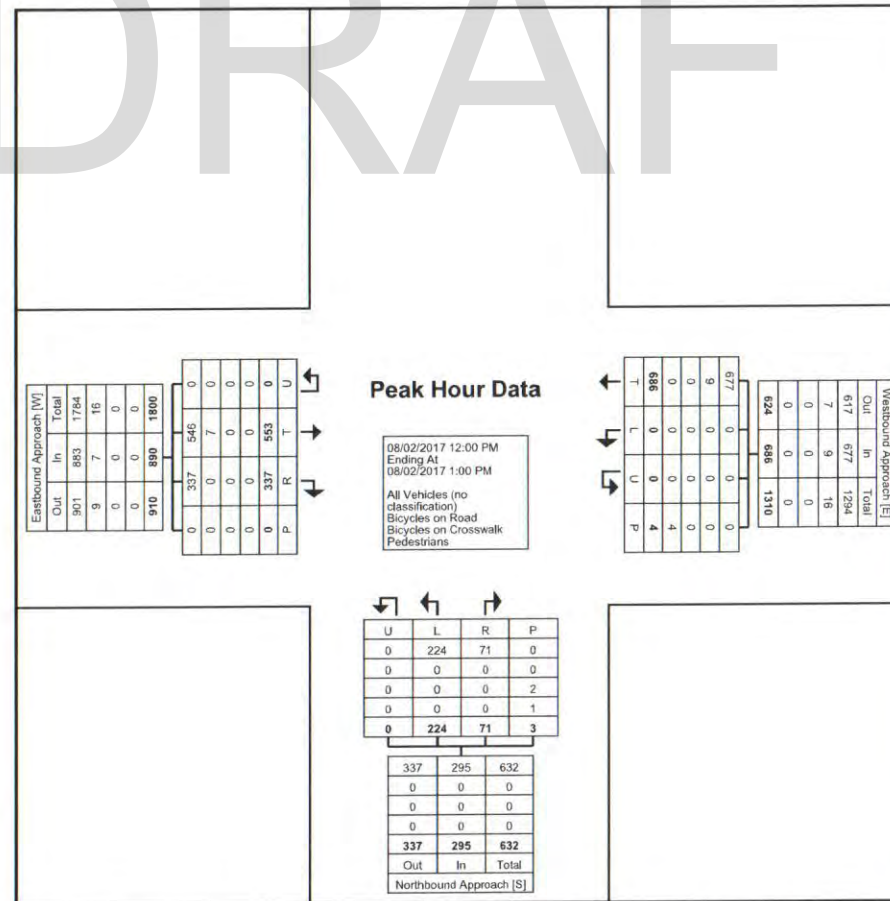
Turning Movement Peak Hour Data (12:00 PM)

Start Time	Westbound Approach Westbound					Northbound Approach Northbound					Eastbound Approach Eastbound					Int. Total
	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	
12:00 PM	180	0	0	2	180	11	52	0	1	63	88	114	0	0	202	445
12:15 PM	152	0	0	1	152	18	57	0	1	75	81	150	0	0	231	458
12:30 PM	181	0	0	0	181	17	53	0	0	70	83	126	0	0	209	460
12:45 PM	173	0	0	1	173	25	62	0	1	87	85	163	0	0	248	508
Total	686	0	0	4	686	71	224	0	3	295	337	553	0	0	890	1871
Approach %	100.0	0.0	0.0	-	-	24.1	75.9	0.0	-	-	37.9	62.1	0.0	-	-	-
Total %	36.7	0.0	0.0	-	36.7	3.8	12.0	0.0	-	15.8	18.0	29.6	0.0	-	47.6	-
PHF	0.948	0.000	0.000	-	0.948	0.710	0.903	0.000	-	0.848	0.957	0.848	0.000	-	0.897	0.921
All Vehicles (no classification)	677	0	0	-	677	71	224	0	-	295	337	546	0	-	883	1855
% All Vehicles (no classification)	98.7	-	-	-	98.7	100.0	100.0	-	-	100.0	100.0	98.7	-	-	99.2	99.1
Bicycles on Road	9	0	0	-	9	0	0	0	-	0	0	7	0	-	7	16
% Bicycles on Road	1.3	-	-	-	1.3	0.0	0.0	-	-	0.0	0.0	1.3	-	-	0.8	0.9
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	2	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	66.7	-	-	-	-	-	-	-
Pedestrians	-	-	-	4	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	33.3	-	-	-	-	-	-	-

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Turning Movement Peak Hour Data Plot (12:00 PM)

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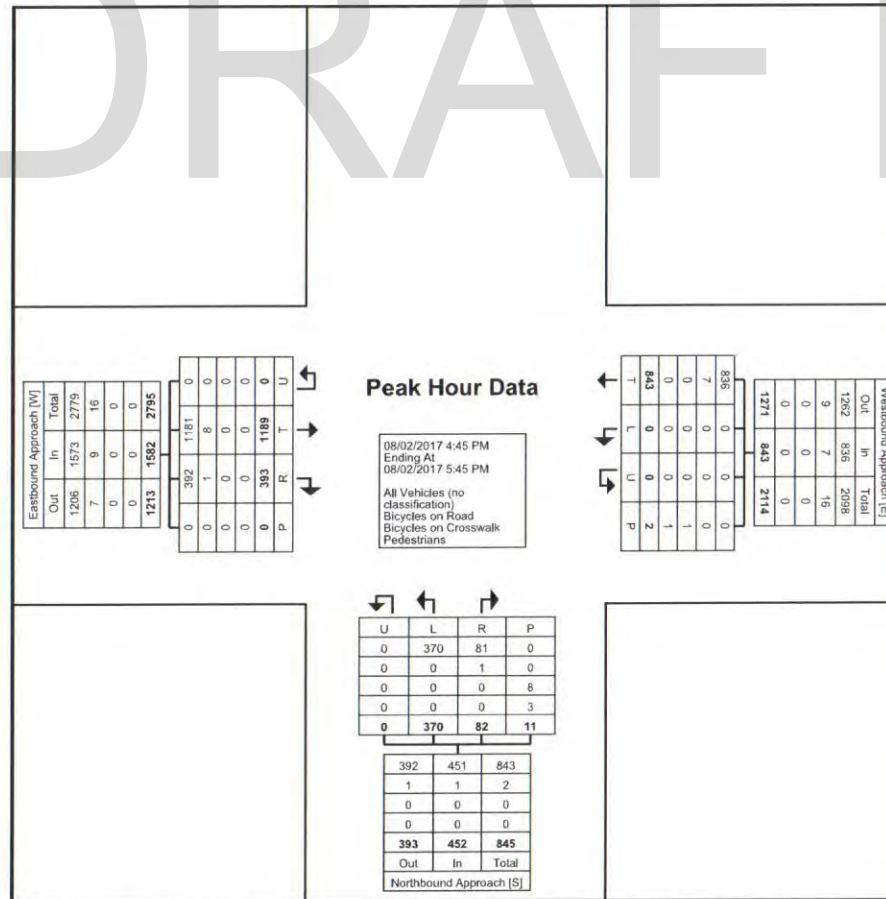
Turning Movement Peak Hour Data (4:45 PM)

Start Time	Westbound Approach Westbound					Northbound Approach Northbound					Eastbound Approach Eastbound					Int. Total
	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	
4:45 PM	198	0	0	0	198	16	85	0	2	101	97	310	0	0	407	706
5:00 PM	210	0	0	0	210	21	111	0	4	132	87	285	0	0	372	714
5:15 PM	240	0	0	1	240	20	68	0	3	88	111	306	0	0	417	745
5:30 PM	195	0	0	1	195	25	106	0	2	131	98	288	0	0	386	712
Total	843	0	0	2	843	82	370	0	11	452	393	1189	0	0	1582	2877
Approach %	100.0	0.0	0.0	-	-	18.1	81.9	0.0	-	-	24.8	75.2	0.0	-	-	-
Total %	29.3	0.0	0.0	-	29.3	2.9	12.9	0.0	-	15.7	13.7	41.3	0.0	-	55.0	-
PHF	0.878	0.000	0.000	-	0.878	0.820	0.833	0.000	-	0.856	0.885	0.959	0.000	-	0.948	0.965
All Vehicles (no classification)	836	0	0	-	836	81	370	0	-	451	392	1181	0	-	1573	2860
% All Vehicles (no classification)	99.2	-	-	-	99.2	98.8	100.0	-	-	99.8	99.7	99.3	-	-	99.4	99.4
Bicycles on Road	7	0	0	-	7	1	0	0	-	1	1	8	0	-	9	17
% Bicycles on Road	0.8	-	-	-	0.8	1.2	0.0	-	-	0.2	0.3	0.7	-	-	0.6	0.6
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	8	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	50.0	-	-	-	-	72.7	-	-	-	-	0	-	-
Pedestrians	-	-	-	1	-	-	-	-	3	-	-	-	-	0	-	-
% Pedestrians	-	-	-	50.0	-	-	-	-	27.3	-	-	-	-	-	-	-

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East Ramp TMC 8-2-2017
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Station No. 10 - South Broadway North of Table Mesa Drive Linear Regression Analysis

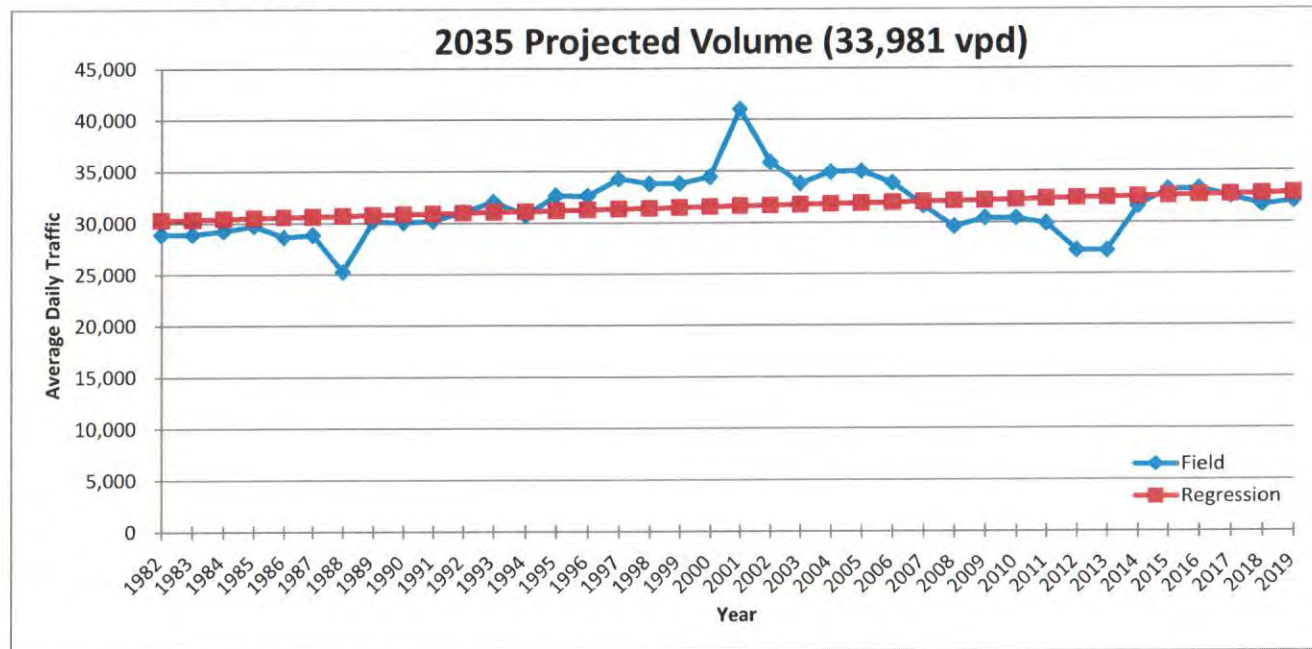
Year	Field	Regression
1982	28,893	30,293
1983	28,909	30,363
1984	29,226	30,432
1985	29,713	30,502
1986	28,626	30,571
1987	28,818	30,641
1988	25,256	30,711
1989	30,147	30,780
1990	30,050	30,850
1991	30,186	30,919
1992	31,044	30,989
1993	32,034	31,058
1994	30,736	31,128
1995	32,629	31,198
1996	32,606	31,267
1997	34,247	31,337
1998	33,777	31,406
1999	33,792	31,476
2000	34,422	31,545
2001	41,027	31,615
2002	35,863	31,685
2003	33,792	31,754
2004	34,883	31,824
2005	34,984	31,893
2006	33,842	31,963
2007	31,590	32,032
2008	29,590	32,102
2009	30,414	32,172
2010	30,400	32,241
2011	29,897	32,311
2012	27,232	32,380
2013	27,232	32,450
2014	31,529	32,519
2015	33,175	32,589
2016	33,269	32,659
2017	32,509	32,728
2018	31,681	32,798
2019	32,031	32,867
2035		33,981

Regression Statistics	
Multiple R	0.267866773
R Square	0.071752608
Adjusted R Square	0.045967958
Standard Error	2819.329157
Observations	38

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	22119128.91	22119128.9	2.7827645	0.103960105
Residual	36	286150208.2	7948616.89		
Total	37	308269337.1			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-107603.434	83436.58535	-1.28964331	0.20539851	-276820.6726	61613.8	-276821	61613.8
X Variable 1	69.57443192	41.70723912	1.66816201	0.1039601	-15.01176953	154.1606	-15.0118	154.1606

Linear Regression Growth Rate: 0.22%



Station No. 18 - Table Mesa Drive East of 40th Street Linear Regression Analysis

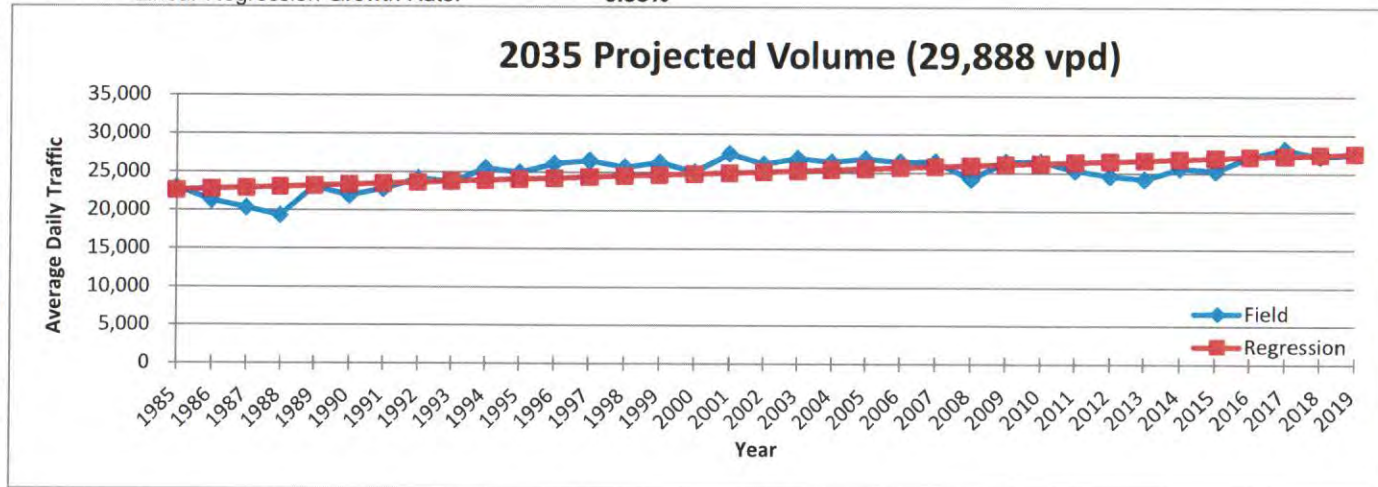
Year	Field	Regression
1985	22,973	22,610
1986	21,257	22,755
1987	20,314	22,901
1988	19,311	23,046
1989	23,075	23,192
1990	21,907	23,338
1991	22,746	23,483
1992	24,176	23,629
1993	23,684	23,774
1994	25,478	23,920
1995	24,956	24,065
1996	26,103	24,211
1997	26,492	24,357
1998	25,623	24,502
1999	26,281	24,648
2000	25,056	24,793
2001	27,467	24,939
2002	26,096	25,084
2003	26,833	25,230
2004	26,413	25,376
2005	26,826	25,521
2006	26,417	25,667
2007	26,444	25,812
2008	24,198	25,958
2009	26,443	26,103
2010	26,486	26,249
2011	25,297	26,395
2012	24,580	26,540
2013	24,201	26,686
2014	25,637	26,831
2015	25,273	26,977
2016	27,095	27,122
2017	28,131	27,268
2018	27,167	27,414
2019	27,520	27,559
2035		29,888

Regression Statistics	
Multiple R	0.709483334
R Square	0.503366601
Adjusted R Square	0.488317104
Standard Error	1503.914186
Observations	35

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	75649929.2	75649929.2	33.4474038	1.82609E-06
Residual	33	74638010.05	2261757.88		
Total	34	150287939.3			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-266345.524	50391.64633	-5.28550947	7.9449E-06	-368868.0992	-163823	-368868	-163823
X Variable 1	145.5694211	25.17033223	5.78337305	1.8261E-06	94.35999513	196.7788	94.36	196.7788

Linear Regression Growth Rate: 0.58%



Station No. 2404 - Broadway South of City Limits Linear Regression Analysis

Year	Field	Regression
1982	12,430	12,311
1983	10,267	12,565
1984	12,460	12,820
1985	12,248	13,075
1986	10,900	13,330
1987	13,828	13,584
1988	13,968	13,839
1989	13,679	14,094
1990	12,751	14,349
1991	14,842	14,604
1992	15,157	14,858
1993	17,305	15,113
1994	17,100	15,368
1995	18,218	15,623
1996	17,065	15,878
1997	16,704	16,132
1998	16,324	16,387
1999	15,912	16,642
2000	18,061	16,897
2001	20,030	17,152
2002	18,706	17,406
2003	18,115	17,661
2004	17,728	17,916
2005	17,366	18,171
2006	18,425	18,425
2007	18,120	18,680
2008	17,679	18,935
2009	18,725	19,190
2010	20,761	19,445
2011	18,771	19,699
2012	18,825	19,954
2013	18,234	20,209
2014	19,153	20,464
2015	20,811	20,719
2016	22,012	20,973
2017	21,487	21,228
2018	20,283	21,483
2019	22,465	21,738
2035		25,814

Regression Statistics

Multiple R	0.9136611
R Square	0.8347766
Adjusted R Square	0.8301871
Standard Error	1277.0677
Observations	38

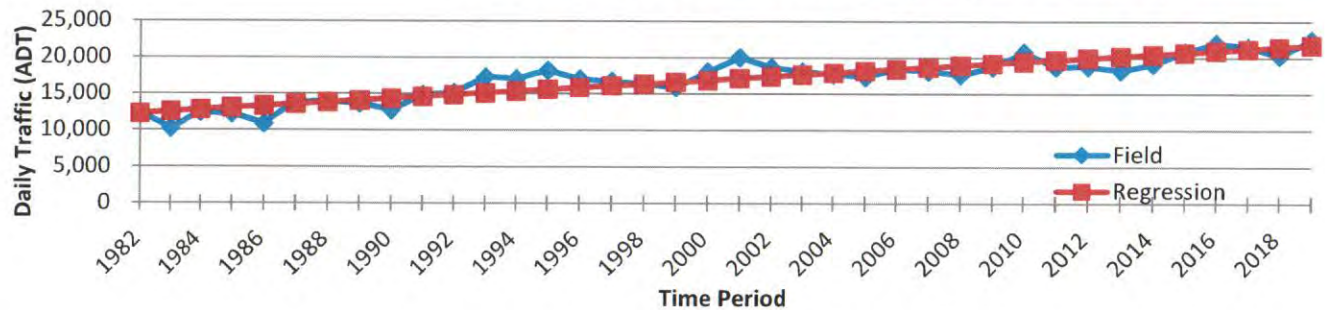
ANOVA

	df	SS	MS	F	Significance F
Regression	1	2.97E+08	2.97E+08	181.8869	1.21E-15
Residual	36	58712468	1630902		
Total	37	3.55E+08			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-492680.8	37794.16	-13.0359	3.36E-15	-569331	-416031	-569331	-416031
X Variable 1	254.78874	18.89207	13.48654	1.21E-15	216.4738	293.1036	216.4738	293.1036

Linear Regression Growth Rate: 1.5%

2035 Projected Volume (25,8014 vpd)



2019 Boulder Valley Count Program
 Count Station No. 2404
 Broadway s/o City Limits
 Date of Counts: 9/24/2019 - 9/26/2019

Direction 1 = Northbound
 Direction 2 = Southbound

Time Period	Average Weekday Daily Traffic (vph)		
	Combined	Northbound	Southbound
00:00-01:00	182	142	40
01:00-02:00	32	19	13
02:00-03:00	21	10	11
03:00-04:00	17	8	9
04:00-05:00	44	24	20
05:00-06:00	207	128	79
06:00-07:00	602	385	217
07:00-08:00	1,384	960	424
08:00-09:00	1,991	1,421	570
09:00-10:00	1,506	959	547
10:00-11:00	1,162	677	485
11:00-12:00	1,172	647	525
12:00-13:00	1,213	631	582
13:00-14:00	1,235	609	626
14:00-15:00	1,300	565	735
15:00-16:00	1,629	660	970
16:00-17:00	2,171	729	1,442
17:00-18:00	2,217	791	1,427
18:00-19:00	1,739	687	1,052
19:00-20:00	1,034	476	558
20:00-21:00	672	277	395
21:00-22:00	438	188	250
22:00-23:00	282	127	155
23:00-24:00	213	127	86
Total(s)	22,465	11,246	11,218

AM

WB Table Mesa
@ Foothills PKing

Nov-17	9,338	-8%	15,040	2%	12,537	-3%	15,449	52%	12,529	10%
Dec-17	9,673	-1%	15,716	7%	13,101	3%	15,683	95%	12,726	7%
Jan-18	8,974	-6%	14,710	11%	12,175	-3%	14,182	57%	12,134	1%
Feb-18	8,948	-7%	15,012	3%	12,490	1%	14,883	24%	12,251	3%
Mar-18	9,524	-4%	15,818	1%	13,040	0%	15,639	25%	12,852	2%
Apr-18	9,724	-4%	15,960	0%	13,177	1%	15,923	28%	13,022	2%
May-18	9,649	-3%	16,312	2%	13,289	3%	15,959	#DIV/0!	13,007	3%
Jun-18	8,937	-6%	15,939	1%	13,341	7%	15,942	11%	12,155	2%
Jul-18	8,824	-2%	16,008	1%	13,320	0%	16,086	9%	11,840	1%
Aug-18	9,472	4%	15,971	0%	13,451	-3%	16,404	25%	12,784	5%
Sep-18	9,276	-2%	15,691	0%	13,204	3%	15,942	3%	12,939	#DIV/0!
Oct-18	9,385	-2%	15,532	-1%	13,164	2%	15,973	2%	12,785	1%
Nov-18	9,898	6%	15,472	3%	13,163	5%	15,825	2%	12,774	2%
Dec-18	9,884	2%	15,968	2%	13,561	4%	15,831	1%	12,823	1%
Jan-19	9,227	3%	14,849	1%	12,420	2%	14,415	2%	12,100	0%
Feb-19	9,420	5%	15,291	2%	12,794	2%	15,236	2%	12,498	2%
Mar-19	9,905	4%	15,724	-1%	13,122	1%	15,631	0%	12,622	-2%
Apr-19	10,005	3%	15,880	-1%	13,291	1%	16,063	1%	12,543	-4%
May-19	9,837	2%	16,136	-1%	13,336	0%	15,690	-2%	12,429	-4%
Jun-19	9,859	10%	16,482	3%	13,560	2%	15,518	-3%	11,826	-3%
Jul-19	9,350	6%	16,333	2%	13,132	-1%	15,571	-3%	11,780	-1%
Aug-19	9,912	5%	16,487	3%	13,479	0%	16,073	-2%	12,337	-3%
Sep-19	9,987	8%	16,093	3%	13,639	3%	15,874	0%	12,651	-2%
Oct-19	9,997	7%	16,047	3%	13,328	1%	15,749	-1%	12,440	-3%
Nov-19	9,866	0%	15,404	0%	12,985	-1%	14,950	-6%	12,373	-3%
Dec-19	10,048	2%	15,774	-1%	13,325	-2%	15,023	-5%	12,635	-1%
Jan-20	9,294	1%	15,238	3%	12,903	4%	14,734	2%	12,363	2%
Feb-20	8,876	-6%	14,616	-4%	12,668	-1%	14,053	-8%	11,983	-4%
Mar-20	7,371	-26%	12,474	-21%	10,704	-18%	12,249	-22%	9,722	-23%
Apr-20	3,963	-60%	7,719	-51%	6,288	-53%	6,801	-58%	5,232	-58%
May-20	5,694	-42%	11,180	-31%	8,983	-33%	9,750	-38%	7,148	-42%
Jun-20	7,050	-28%	13,622	-17%	11,178	-18%	11,327	-27%	8,308	-30%
Jul-20	7,219	-23%	14,459	-11%	12,091	-8%	12,161	-22%	8,962	-24%
Aug-20	7,523	-24%	14,656	-11%	12,156	-10%	13,371	-17%	9,045	-27%
Sep-20	7,399	-26%	14,619	-9%	12,031	-12%	12,397	-22%	9,148	-28%
Oct-20	7,345	-27%	13,963	-13%	11,761	-12%	12,333	22%	9,288	-25%
Nov-20	6,837	-31%	13,024	-15%	10,988	-15%	11,428	-24%	8,576	-31%
Dec-20										

WB Table Mesa at
Foothills Park
Fall 2020
≈ 75% of
Fall 2019

Daily Vehicle Volume Report

Study Date: Tuesday, 11/17/2020

Unit ID: RDC 75

Location: Boulder, CO

Comments: EB Table Mesa between Moorhead and Loop

	Eastbound Volume
00:00 - 00:59	37
01:00 - 01:59	16
02:00 - 02:59	17
03:00 - 03:59	16
04:00 - 04:59	31
05:00 - 05:59	126
06:00 - 06:59	353
07:00 - 07:59	613
08:00 - 08:59	796
09:00 - 09:59	732
10:00 - 10:59	685
11:00 - 11:59	718
12:00 - 12:59	770
13:00 - 13:59	770
14:00 - 14:59	874
15:00 - 15:59	701
16:00 - 16:59	0
17:00 - 17:59	0
18:00 - 18:59	0
19:00 - 19:59	0
20:00 - 20:59	0
21:00 - 21:59	0
22:00 - 22:59	47
23:00 - 23:59	65
Totals	7367
AM Peak Time	08:10 - 09:09
AM Peak Volume	802
PM Peak Time	14:42 - 15:41
PM Peak Volume	986

DRAFT

Daily Vehicle Volume Report

Study Date: Wednesday, 11/18/2020

Unit ID: RDC 75

Location: Boulder, CO

Comments: EB Table Mesa between Moorhead and Loop

	Eastbound Volume
00:00 - 00:59	22
01:00 - 01:59	13
02:00 - 02:59	9
03:00 - 03:59	23
04:00 - 04:59	40
05:00 - 05:59	134
06:00 - 06:59	342
07:00 - 07:59	583
08:00 - 08:59	819
09:00 - 09:59	711
10:00 - 10:59	643
11:00 - 11:59	687
12:00 - 12:59	795
13:00 - 13:59	851
14:00 - 14:59	853
15:00 - 15:59	1068
16:00 - 16:59	1012
17:00 - 17:59	836
18:00 - 18:59	578
19:00 - 19:59	357
20:00 - 20:59	245
21:00 - 21:59	162
22:00 - 22:59	120
23:00 - 23:59	53
Totals	10956
AM Peak Time	08:03 - 09:02
AM Peak Volume	835
PM Peak Time	15:15 - 16:14
PM Peak Volume	1127

DRAFT

Daily Vehicle Volume Report

Study Date: Thursday, 11/19/2020

Unit ID: RDC 75

Location: Boulder, CO

Comments: EB Table Mesa between Moorhead and Loop

	Eastbound Volume
00:00 - 00:59	38
01:00 - 01:59	16
02:00 - 02:59	15
03:00 - 03:59	27
04:00 - 04:59	30
05:00 - 05:59	143
06:00 - 06:59	346
07:00 - 07:59	583
08:00 - 08:59	825
09:00 - 09:59	701
10:00 - 10:59	719
11:00 - 11:59	770
12:00 - 12:59	787
13:00 - 13:59	799
14:00 - 14:59	846
15:00 - 15:59	1086
16:00 - 16:59	991
17:00 - 17:59	879
18:00 - 18:59	601
19:00 - 19:59	373
20:00 - 20:59	232
21:00 - 21:59	189
22:00 - 22:59	124
23:00 - 23:59	54
Totals	11174
AM Peak Time	07:58 - 08:57
AM Peak Volume	839
PM Peak Time	15:15 - 16:14
PM Peak Volume	1128

DRAFT

Daily Vehicle Volume Report

Study Date: Tuesday, 11/17/2020

Unit ID: RDC 76

Location: Boulder, CO

Comments: SH 93 South of Chambers Dr

	Northbound Volume	Southbound Volume	Total Volume
00:00 - 00:59	15	15	30
01:00 - 01:59	10	13	23
02:00 - 02:59	10	8	18
03:00 - 03:59	7	2	9
04:00 - 04:59	17	16	33
05:00 - 05:59	82	62	144
06:00 - 06:59	269	152	421
07:00 - 07:59	469	239	708
08:00 - 08:59	509	306	815
09:00 - 09:59	419	367	786
10:00 - 10:59	381	358	739
11:00 - 11:59	474	402	876
12:00 - 12:59	443	415	858
13:00 - 13:59	449	476	925
14:00 - 14:59	493	539	1032
15:00 - 15:59	542	620	1162
16:00 - 16:59	579	628	1207
17:00 - 17:59	513	556	1069
18:00 - 18:59	293	346	639
19:00 - 19:59	175	179	354
20:00 - 20:59	135	103	238
21:00 - 21:59	80	89	169
22:00 - 22:59	90	52	142
23:00 - 23:59	38	32	70
Totals	6492	5975	12467
AM Peak Time	07:43 - 08:42	11:00 - 11:59	11:00 - 11:59
AM Peak Volume	546	402	876
PM Peak Time	15:46 - 16:45	15:41 - 16:40	15:41 - 16:40
PM Peak Volume	619	667	1273

Daily Vehicle Volume Report

Study Date: Wednesday, 11/18/2020

Unit ID: RDC 76

Location: Boulder, CO

Comments: SH 93 South of Chambers Dr

	Northbound Volume	Southbound Volume	Total Volume
00:00 - 00:59	18	10	28
01:00 - 01:59	15	14	29
02:00 - 02:59	5	7	12
03:00 - 03:59	8	9	17
04:00 - 04:59	17	15	32
05:00 - 05:59	94	69	163
06:00 - 06:59	256	189	445
07:00 - 07:59	441	289	730
08:00 - 08:59	500	334	834
09:00 - 09:59	468	406	874
10:00 - 10:59	423	373	796
11:00 - 11:59	451	408	859
12:00 - 12:59	454	433	887
13:00 - 13:59	494	477	971
14:00 - 14:59	486	534	1020
15:00 - 15:59	585	644	1229
16:00 - 16:59	602	624	1226
17:00 - 17:59	545	528	1073
18:00 - 18:59	321	323	644
19:00 - 19:59	204	176	380
20:00 - 20:59	151	134	285
21:00 - 21:59	75	84	159
22:00 - 22:59	62	56	118
23:00 - 23:59	29	33	62
Totals	6704	6169	12873
AM Peak Time	07:40 - 08:39	09:03 - 10:02	08:21 - 09:20
AM Peak Volume	551	417	918
PM Peak Time	15:30 - 16:29	15:12 - 16:11	15:15 - 16:14
PM Peak Volume	628	663	1275

Daily Vehicle Volume Report

Study Date: Thursday, 11/19/2020

Unit ID: RDC 76

Location: Boulder, CO

Comments: SH 93 South of Chambers Dr

	Northbound Volume	Southbound Volume	Total Volume
00:00 - 00:59	18	16	34
01:00 - 01:59	6	9	15
02:00 - 02:59	4	12	16
03:00 - 03:59	9	12	21
04:00 - 04:59	16	19	35
05:00 - 05:59	85	76	161
06:00 - 06:59	244	162	406
07:00 - 07:59	435	286	721
08:00 - 08:59	486	364	850
09:00 - 09:59	413	419	832
10:00 - 10:59	462	400	862
11:00 - 11:59	488	423	911
12:00 - 12:59	514	487	1001
13:00 - 13:59	523	475	998
14:00 - 14:59	490	538	1028
15:00 - 15:59	622	680	1302
16:00 - 16:59	628	667	1295
17:00 - 17:59	582	562	1144
18:00 - 18:59	348	329	677
19:00 - 19:59	208	183	391
20:00 - 20:59	139	149	288
21:00 - 21:59	69	88	157
22:00 - 22:59	61	49	110
23:00 - 23:59	32	40	72
Totals	6882	6445	13327
AM Peak Time	07:50 - 08:49	10:55 - 11:54	10:33 - 11:32
AM Peak Volume	517	435	927
PM Peak Time	15:39 - 16:38	15:34 - 16:33	15:39 - 16:38
PM Peak Volume	683	732	1391

Daily Vehicle Volume Report

Study Date: Tuesday, 11/17/2020

Unit ID: RDC 43

Location: Boulder, CO

Comments: WB Table Mesa between Moorhead and Loop

	Westbound Volume
00:00 - 00:59	32
01:00 - 01:59	16
02:00 - 02:59	21
03:00 - 03:59	14
04:00 - 04:59	33
05:00 - 05:59	115
06:00 - 06:59	275
07:00 - 07:59	533
08:00 - 08:59	792
09:00 - 09:59	681
10:00 - 10:59	670
11:00 - 11:59	696
12:00 - 12:59	731
13:00 - 13:59	750
14:00 - 14:59	808
15:00 - 15:59	963
16:00 - 16:59	933
17:00 - 17:59	841
18:00 - 18:59	660
19:00 - 19:59	431
20:00 - 20:59	311
21:00 - 21:59	237
22:00 - 22:59	119
23:00 - 23:59	82
Totals	10744
AM Peak Time	08:18 - 09:17
AM Peak Volume	802
PM Peak Time	15:09 - 16:08
PM Peak Volume	974

DRAFT

Daily Vehicle Volume Report

Study Date: Wednesday, 11/18/2020

Unit ID: RDC 43

Location: Boulder, CO

Comments: WB Table Mesa between Moorhead and Loop

	Westbound Volume
00:00 - 00:59	33
01:00 - 01:59	22
02:00 - 02:59	22
03:00 - 03:59	17
04:00 - 04:59	36
05:00 - 05:59	113
06:00 - 06:59	288
07:00 - 07:59	549
08:00 - 08:59	800
09:00 - 09:59	703
10:00 - 10:59	684
11:00 - 11:59	662
12:00 - 12:59	725
13:00 - 13:59	770
14:00 - 14:59	808
15:00 - 15:59	966
16:00 - 16:59	968
17:00 - 17:59	1014
18:00 - 18:59	700
19:00 - 19:59	404
20:00 - 20:59	319
21:00 - 21:59	236
22:00 - 22:59	162
23:00 - 23:59	87
Totals	11088
AM Peak Time	07:48 - 08:47
AM Peak Volume	818
PM Peak Time	16:54 - 17:53
PM Peak Volume	1027

DRAFT

Daily Vehicle Volume Report

Study Date: Thursday, 11/19/2020

Unit ID: RDC 43

Location: Boulder, CO

Comments: WB Table Mesa between Moorhead and Loop

	Westbound Volume
00:00 - 00:59	56
01:00 - 01:59	27
02:00 - 02:59	16
03:00 - 03:59	29
04:00 - 04:59	31
05:00 - 05:59	114
06:00 - 06:59	300
07:00 - 07:59	582
08:00 - 08:59	825
09:00 - 09:59	683
10:00 - 10:59	678
11:00 - 11:59	743
12:00 - 12:59	808
13:00 - 13:59	759
14:00 - 14:59	783
15:00 - 15:59	958
16:00 - 16:59	987
17:00 - 17:59	972
18:00 - 18:59	678
19:00 - 19:59	501
20:00 - 20:59	310
21:00 - 21:59	241
22:00 - 22:59	155
23:00 - 23:59	88
Totals	11324
AM Peak Time	07:59 - 08:58
AM Peak Volume	826
PM Peak Time	15:35 - 16:34
PM Peak Volume	1033

DRAFT



Boulder, CO
CU South
AM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 1

DRAFT

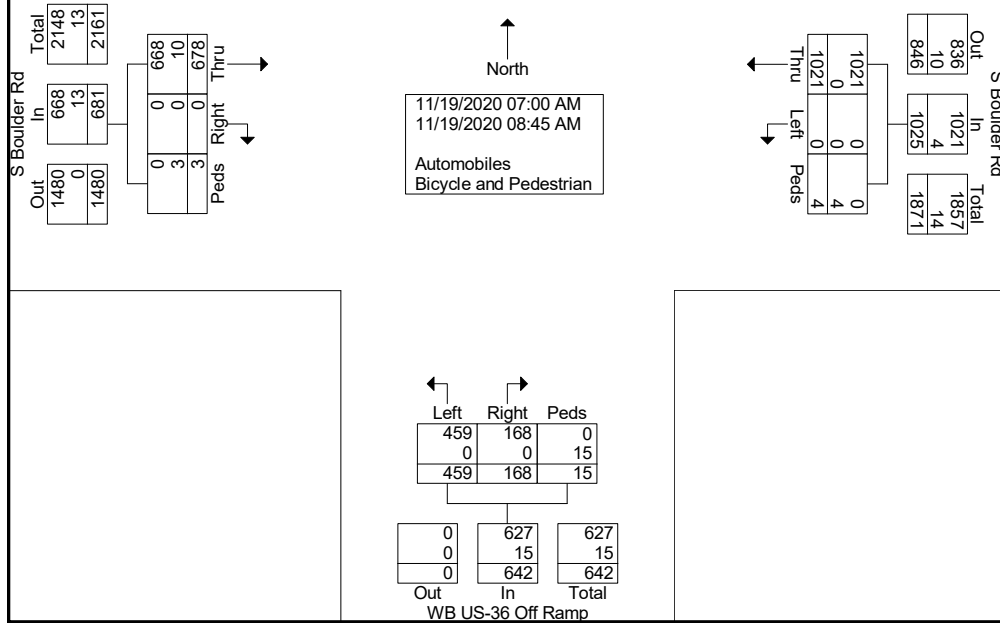
Groups Printed- Automobiles - Bicycle and Pedestrian

Start Time	S Boulder Rd Eastbound				S Boulder Rd Westbound				WB US-36 Off Ramp Northbound				Int. Total
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	
07:00 AM	42	0	0	42	0	82	0	82	39	15	2	56	180
07:15 AM	52	0	0	52	0	90	2	92	44	18	2	64	208
07:30 AM	68	0	0	68	0	116	0	116	54	9	6	69	253
07:45 AM	78	0	0	78	0	133	0	133	63	31	1	95	306
Total	240	0	0	240	0	421	2	423	200	73	11	284	947
08:00 AM	92	0	0	92	0	123	0	123	69	23	0	92	307
08:15 AM	119	0	0	119	0	179	0	179	70	23	0	93	391
08:30 AM	105	0	1	106	0	143	1	144	59	27	2	88	338
08:45 AM	122	0	2	124	0	155	1	156	61	22	2	85	365
Total	438	0	3	441	0	600	2	602	259	95	4	358	1401
Grand Total	678	0	3	681	0	1021	4	1025	459	168	15	642	2348
Apprch %	99.6	0	0.4		0	99.6	0.4		71.5	26.2	2.3		
Total %	28.9	0	0.1	29	0	43.5	0.2	43.7	19.5	7.2	0.6	27.3	
Automobiles	668	0	0	668	0	1021	0	1021	459	168	0	627	2316
% Automobiles	98.5	0	0	98.1	0	100	0	99.6	100	100	0	97.7	98.6
Bicycle and Pedestrian	10	0	3	13	0	0	4	4	0	0	15	15	32
% Bicycle and Pedestrian	1.5	0	100	1.9	0	0	100	0.4	0	0	100	2.3	1.4

Boulder, CO
CU South
AM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
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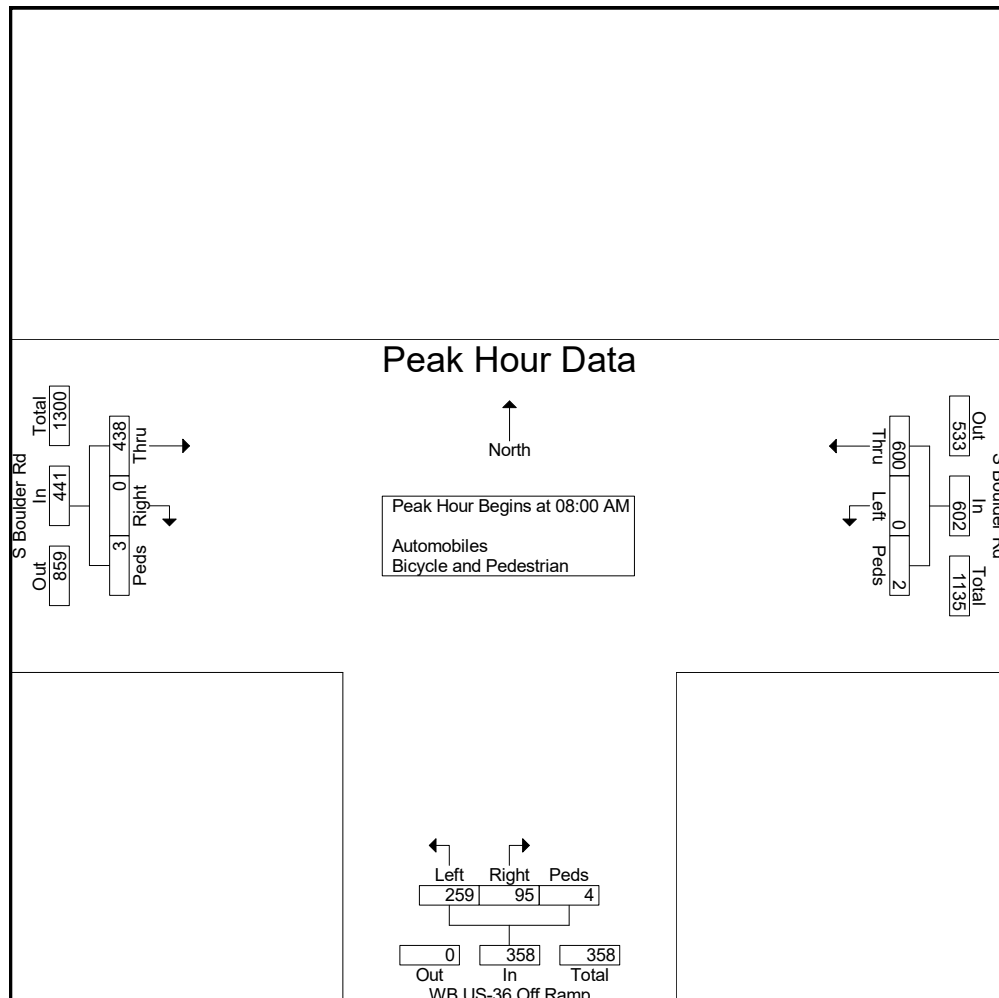


Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 3

	S Boulder Rd Eastbound				S Boulder Rd Westbound				WB US-36 Off Ramp Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	92	0	0	92	0	123	0	123	69	23	0	92	307
08:15 AM	119	0	0	119	0	179	0	179	70	23	0	93	391
08:30 AM	105	0	1	106	0	143	1	144	59	27	2	88	338
08:45 AM	122	0	2	124	0	155	1	156	61	22	2	85	365
Total Volume	438	0	3	441	0	600	2	602	259	95	4	358	1401
% App. Total	99.3	0	0.7		0	99.7	0.3		72.3	26.5	1.1		
PHF	.898	.000	.375	.889	.000	.838	.500	.841	.925	.880	.500	.962	.896





Boulder, CO
CU South
PM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
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Groups Printed- Automobiles - Bicycle and Pedestrian

Start Time	S Boulder Rd Eastbound				S Boulder Rd Westbound				WB US-36 Off Ramp Northbound				Int. Total
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	
04:00 PM	165	0	0	165	0	165	1	166	56	15	2	73	404
04:15 PM	150	0	0	150	0	147	2	149	72	16	2	90	389
04:30 PM	135	0	0	135	0	174	0	174	47	13	3	63	372
04:45 PM	153	0	0	153	0	162	1	163	58	14	2	74	390
Total	603	0	0	603	0	648	4	652	233	58	9	300	1555
05:00 PM	173	0	0	173	0	164	3	167	62	13	3	78	418
05:15 PM	148	0	0	148	0	149	0	149	68	13	1	82	379
05:30 PM	126	0	0	126	0	120	2	122	57	11	2	70	318
05:45 PM	89	0	0	89	0	102	1	103	74	11	3	88	280
Total	536	0	0	536	0	535	6	541	261	48	9	318	1395
Grand Total	1139	0	0	1139	0	1183	10	1193	494	106	18	618	2950
Apprch %	100	0	0		0	99.2	0.8		79.9	17.2	2.9		
Total %	38.6	0	0	38.6	0	40.1	0.3	40.4	16.7	3.6	0.6	20.9	
Automobiles	1137	0	0	1137	0	1176	0	1176	494	106	0	600	2913
% Automobiles	99.8	0	0	99.8	0	99.4	0	98.6	100	100	0	97.1	98.7
Bicycle and Pedestrian	2	0	0	2	0	7	10	17	0	0	18	18	37
% Bicycle and Pedestrian	0.2	0	0	0.2	0	0.6	100	1.4	0	0	100	2.9	1.3

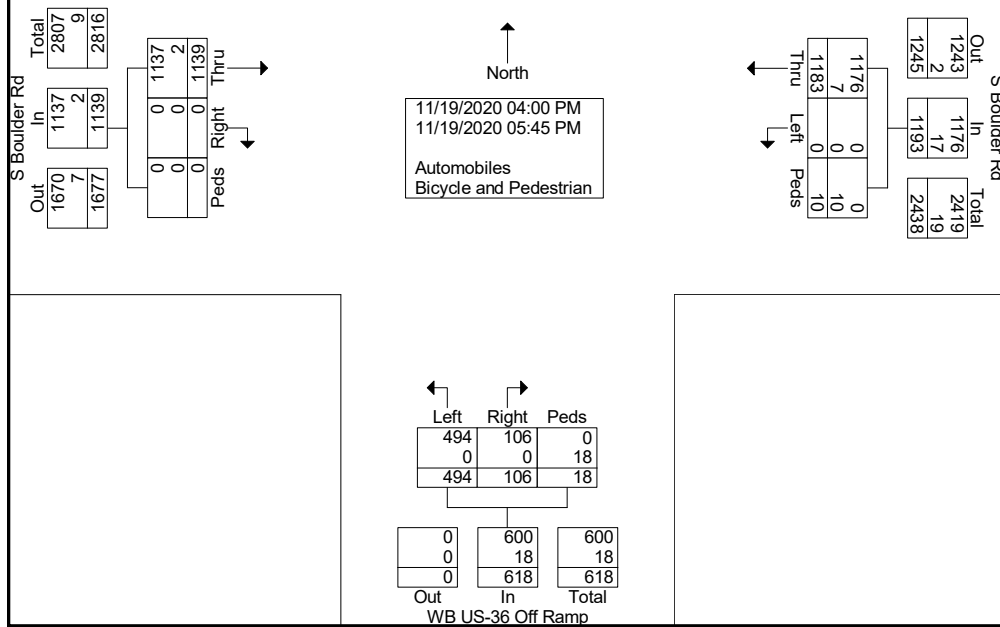


Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
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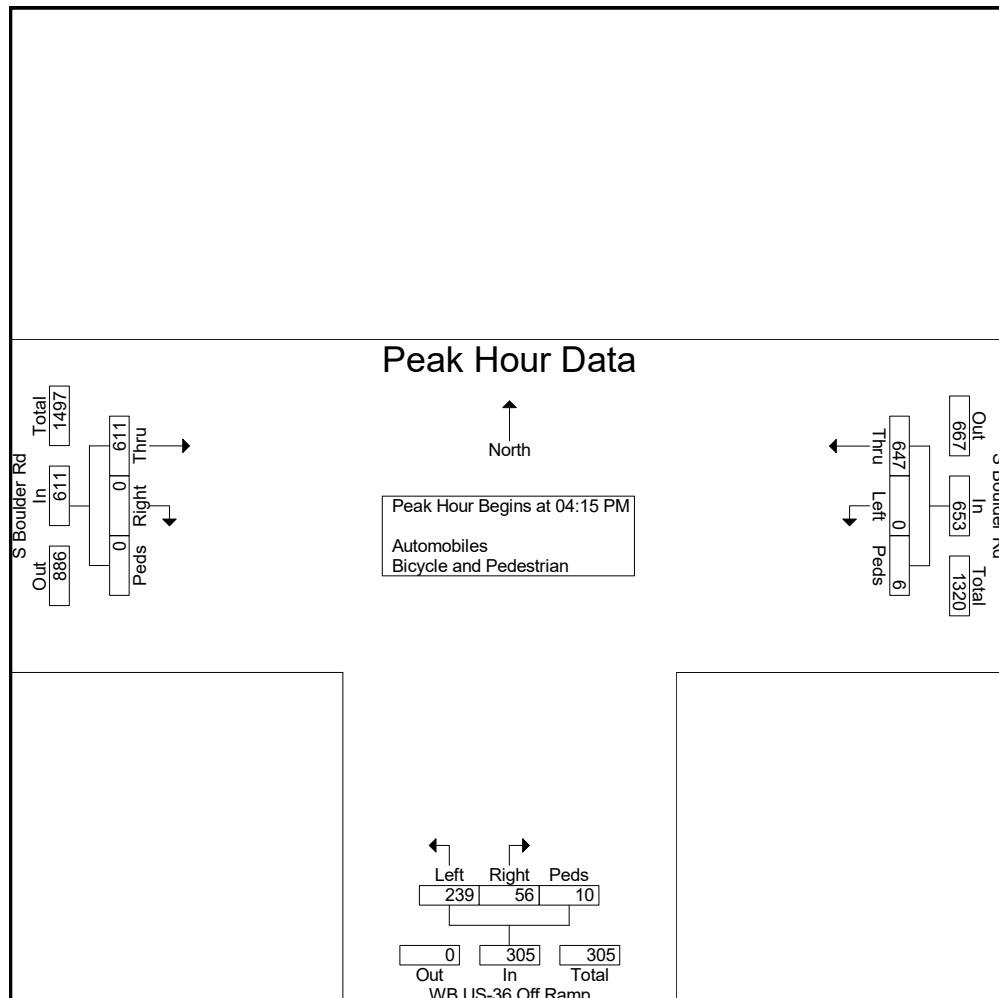
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Boulder, CO
CU South
PM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 3

	S Boulder Rd Eastbound				S Boulder Rd Westbound				WB US-36 Off Ramp Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	150	0	0	150	0	147	2	149	72	16	2	90	389
04:30 PM	135	0	0	135	0	174	0	174	47	13	3	63	372
04:45 PM	153	0	0	153	0	162	1	163	58	14	2	74	390
05:00 PM	173	0	0	173	0	164	3	167	62	13	3	78	418
Total Volume	611	0	0	611	0	647	6	653	239	56	10	305	1569
% App. Total	100	0	0		0	99.1	0.9		78.4	18.4	3.3		
PHF	.883	.000	.000	.883	.000	.930	.500	.938	.830	.875	.833	.847	.938





Boulder, CO
CU South
AM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
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Groups Printed- Automobiles - Bicycle and Pedestrian

Start Time	S Boulder Rd Eastbound				S Boulder Rd Westbound				WB US-36 Off Ramp Northbound				Int. Total
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	
07:00 AM	40	0	0	40	0	73	0	73	30	20	1	51	164
07:15 AM	59	0	0	59	0	79	0	79	35	19	0	54	192
07:30 AM	70	0	0	70	0	91	1	92	46	21	1	68	230
07:45 AM	73	0	0	73	0	150	0	150	62	37	0	99	322
Total	242	0	0	242	0	393	1	394	173	97	2	272	908
08:00 AM	100	0	0	100	0	115	0	115	54	17	2	73	288
08:15 AM	106	0	0	106	0	169	1	170	69	19	1	89	365
08:30 AM	94	0	0	94	0	146	1	147	53	21	0	74	315
08:45 AM	101	0	0	101	0	136	2	138	50	21	1	72	311
Total	401	0	0	401	0	566	4	570	226	78	4	308	1279
Grand Total	643	0	0	643	0	959	5	964	399	175	6	580	2187
Apprch %	100	0	0		0	99.5	0.5		68.8	30.2	1		
Total %	29.4	0	0	29.4	0	43.9	0.2	44.1	18.2	8	0.3	26.5	
Automobiles	637	0	0	637	0	955	0	955	399	175	0	574	2166
% Automobiles	99.1	0	0	99.1	0	99.6	0	99.1	100	100	0	99	99
Bicycle and Pedestrian	6	0	0	6	0	4	5	9	0	0	6	6	21
% Bicycle and Pedestrian	0.9	0	0	0.9	0	0.4	100	0.9	0	0	100	1	1

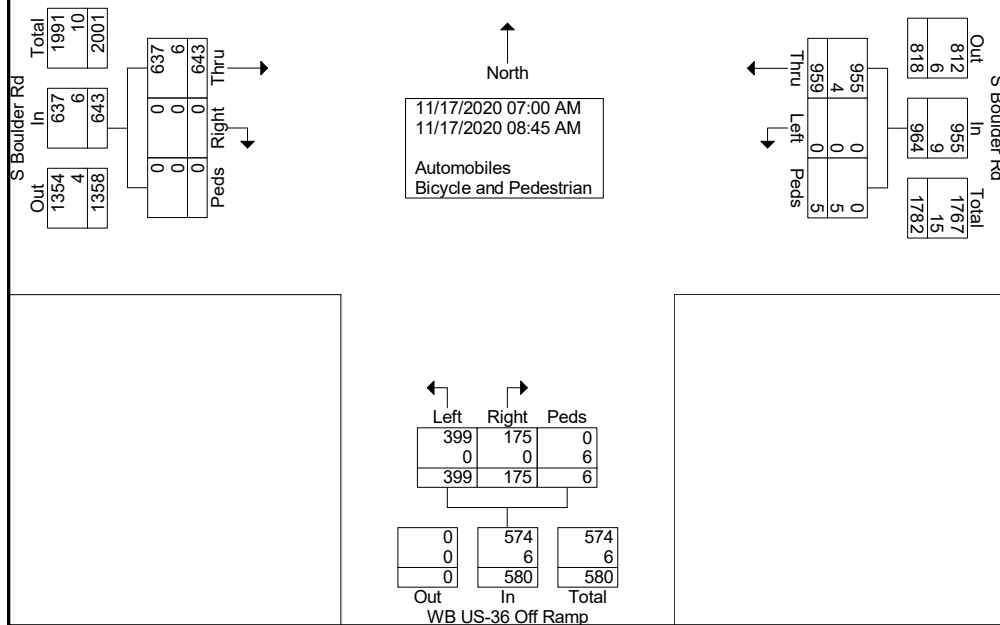


Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
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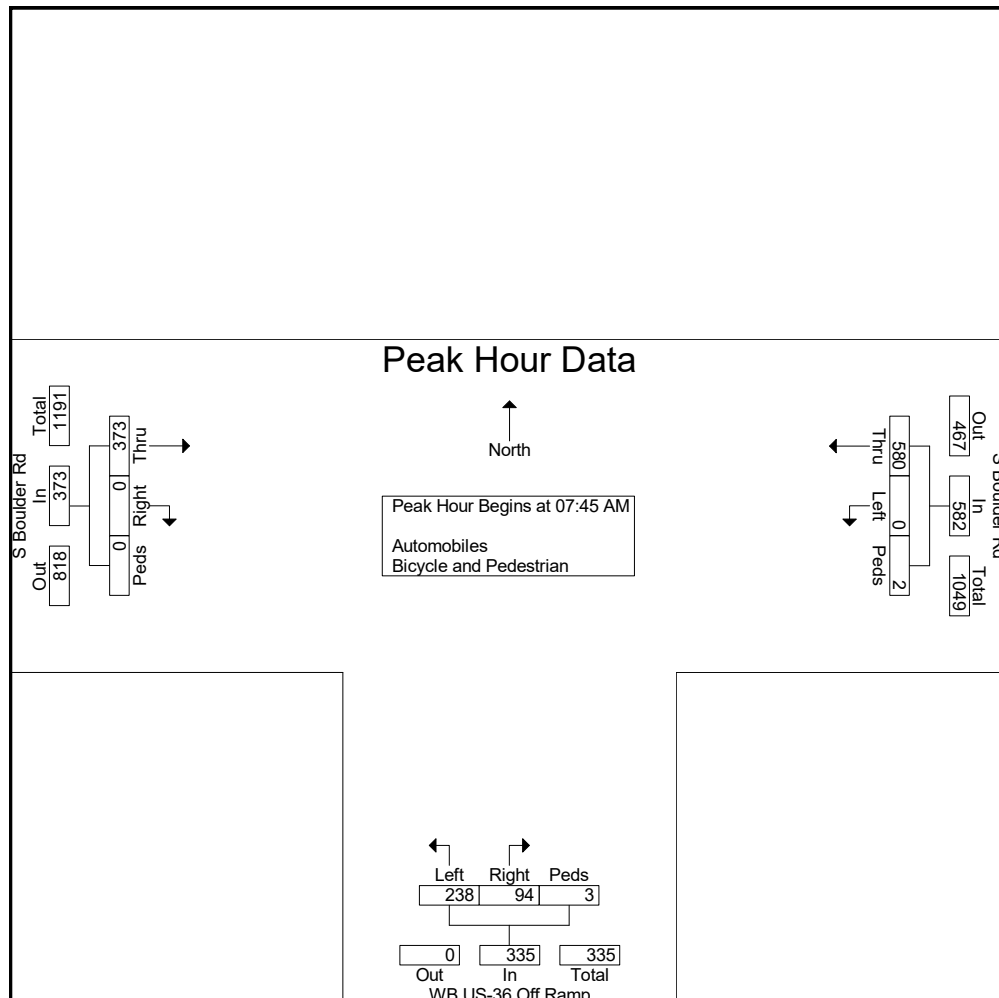
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Boulder, CO
CU South
AM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 3

	S Boulder Rd Eastbound				S Boulder Rd Westbound				WB US-36 Off Ramp Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	73	0	0	73	0	150	0	150	62	37	0	99	322
08:00 AM	100	0	0	100	0	115	0	115	54	17	2	73	288
08:15 AM	106	0	0	106	0	169	1	170	69	19	1	89	365
08:30 AM	94	0	0	94	0	146	1	147	53	21	0	74	315
Total Volume	373	0	0	373	0	580	2	582	238	94	3	335	1290
% App. Total	100	0	0		0	99.7	0.3		71	28.1	0.9		
PHF	.880	.000	.000	.880	.000	.858	.500	.856	.862	.635	.375	.846	.884





Boulder, CO
CU South
PM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
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Groups Printed- Automobiles - Bicycle and Pedestrian

Start Time	S Boulder Rd Eastbound				S Boulder Rd Westbound				WB US-36 Off Ramp Northbound				Int. Total
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	
04:00 PM	148	0	0	148	0	131	0	131	50	11	2	63	342
04:15 PM	152	0	0	152	0	138	0	138	60	10	2	72	362
04:30 PM	128	0	0	128	0	151	1	152	58	13	5	76	356
04:45 PM	151	0	0	151	0	168	0	168	62	9	4	75	394
Total	579	0	0	579	0	588	1	589	230	43	13	286	1454
05:00 PM	173	0	0	173	0	159	1	160	66	14	4	84	417
05:15 PM	153	0	0	153	0	167	1	168	71	8	5	84	405
05:30 PM	129	0	0	129	0	105	0	105	77	15	2	94	328
05:45 PM	131	0	0	131	0	100	0	100	44	9	1	54	285
Total	586	0	0	586	0	531	2	533	258	46	12	316	1435
Grand Total	1165	0	0	1165	0	1119	3	1122	488	89	25	602	2889
Apprch %	100	0	0		0	99.7	0.3		81.1	14.8	4.2		
Total %	40.3	0	0	40.3	0	38.7	0.1	38.8	16.9	3.1	0.9	20.8	
Automobiles	1160	0	0	1160	0	1115	0	1115	488	89	0	577	2852
% Automobiles	99.6	0	0	99.6	0	99.6	0	99.4	100	100	0	95.8	98.7
Bicycle and Pedestrian	5	0	0	5	0	4	3	7	0	0	25	25	37
% Bicycle and Pedestrian	0.4	0	0	0.4	0	0.4	100	0.6	0	0	100	4.2	1.3

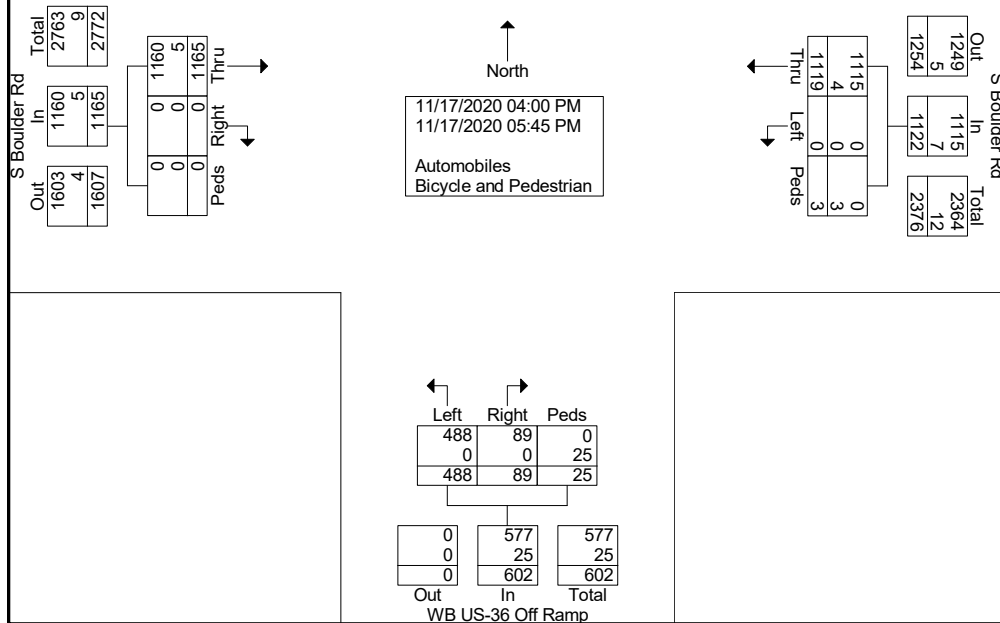


Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
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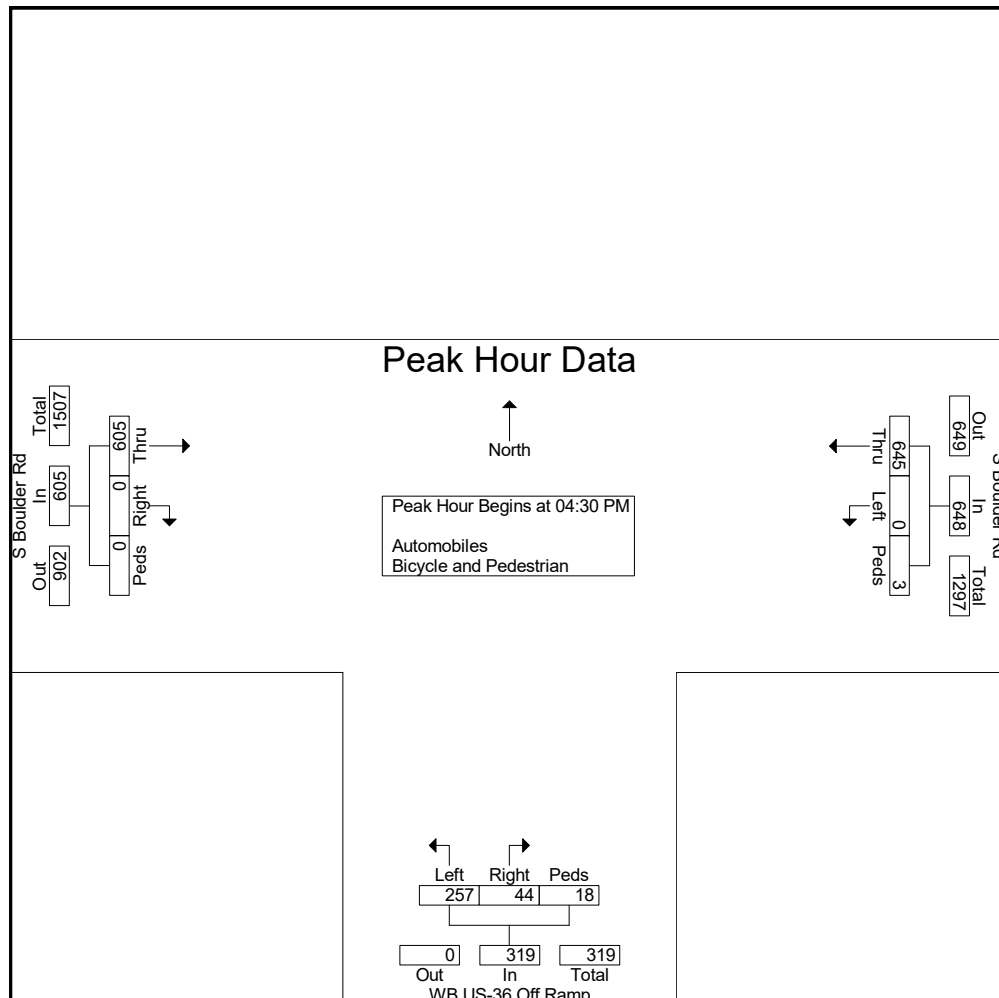
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Boulder, CO
CU South
PM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 3

	S Boulder Rd Eastbound				S Boulder Rd Westbound				WB US-36 Off Ramp Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	128	0	0	128	0	151	1	152	58	13	5	76	356
04:45 PM	151	0	0	151	0	168	0	168	62	9	4	75	394
05:00 PM	173	0	0	173	0	159	1	160	66	14	4	84	417
05:15 PM	153	0	0	153	0	167	1	168	71	8	5	84	405
Total Volume	605	0	0	605	0	645	3	648	257	44	18	319	1572
% App. Total	100	0	0		0	99.5	0.5		80.6	13.8	5.6		
PHF	.874	.000	.000	.874	.000	.960	.750	.964	.905	.786	.900	.949	.942





Boulder, CO
CU South
AM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Wed AM
Site Code : IPO 81
Start Date : 11/18/2020
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Groups Printed- Automobiles - Bicycle and Pedestrian

Start Time	S Boulder Rd Eastbound				S Boulder Rd Westbound				WB US-36 Off Ramp Northbound				Int. Total
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	
07:00 AM	49	0	0	49	0	56	0	56	44	22	1	67	172
07:15 AM	44	0	0	44	0	84	0	84	38	20	1	59	187
07:30 AM	91	0	0	91	0	122	0	122	51	18	1	70	283
07:45 AM	77	0	0	77	0	141	0	141	68	24	2	94	312
Total	261	0	0	261	0	403	0	403	201	84	5	290	954
08:00 AM	97	0	0	97	0	133	0	133	72	17	1	90	320
08:15 AM	110	0	0	110	0	154	0	154	68	14	0	82	346
08:30 AM	112	0	0	112	0	140	0	140	65	24	0	89	341
08:45 AM	106	0	0	106	0	139	0	139	64	24	0	88	333
Total	425	0	0	425	0	566	0	566	269	79	1	349	1340
Grand Total	686	0	0	686	0	969	0	969	470	163	6	639	2294
Apprch %	100	0	0		0	100	0		73.6	25.5	0.9		
Total %	29.9	0	0	29.9	0	42.2	0	42.2	20.5	7.1	0.3	27.9	
Automobiles	679	0	0	679	0	962	0	962	470	163	0	633	2274
% Automobiles	99	0	0	99	0	99.3	0	99.3	100	100	0	99.1	99.1
Bicycle and Pedestrian	7	0	0	7	0	7	0	7	0	0	6	6	20
% Bicycle and Pedestrian	1	0	0	1	0	0.7	0	0.7	0	0	100	0.9	0.9

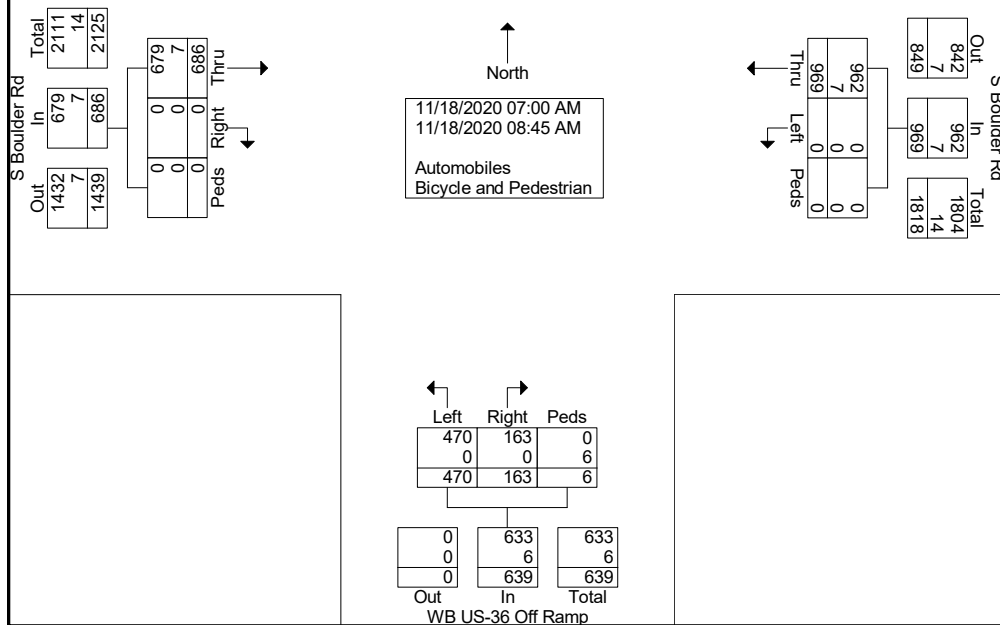


Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Wed AM
Site Code : IPO 81
Start Date : 11/18/2020
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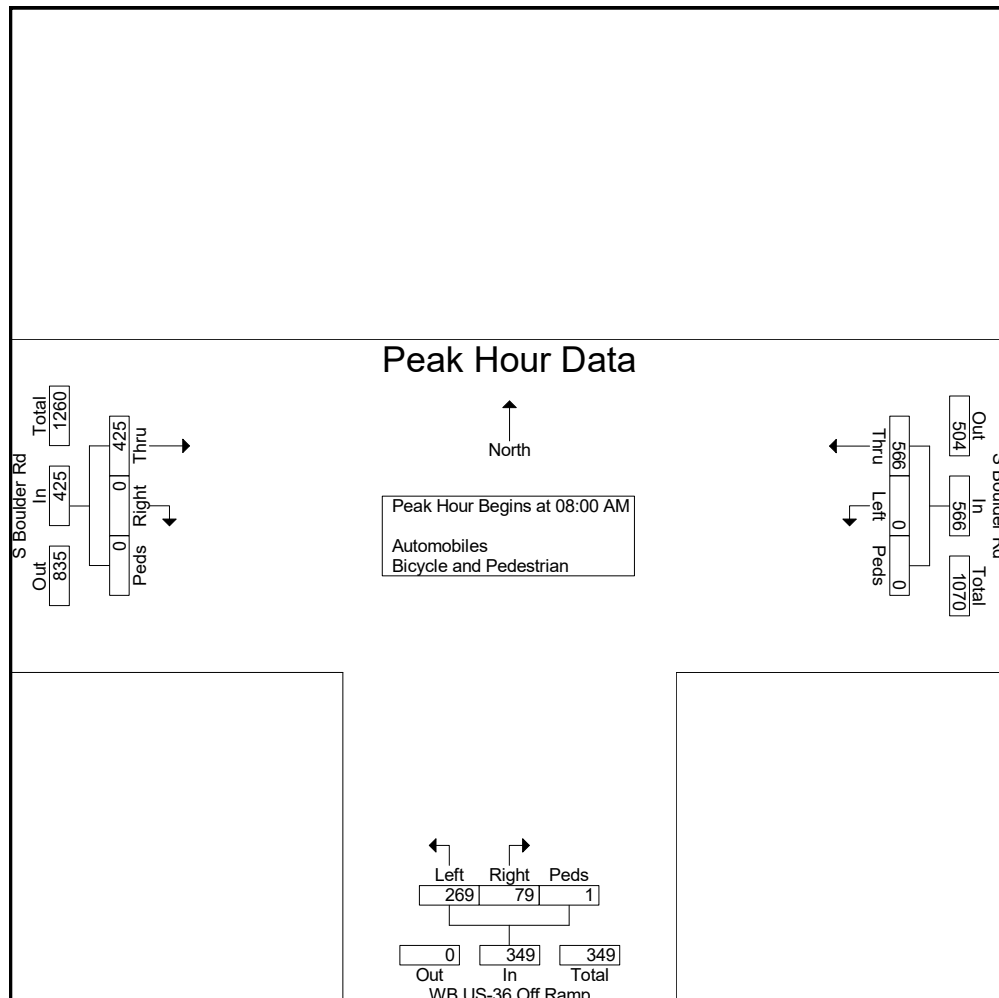


Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Wed AM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 3

	S Boulder Rd Eastbound				S Boulder Rd Westbound				WB US-36 Off Ramp Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	97	0	0	97	0	133	0	133	72	17	1	90	320
08:15 AM	110	0	0	110	0	154	0	154	68	14	0	82	346
08:30 AM	112	0	0	112	0	140	0	140	65	24	0	89	341
08:45 AM	106	0	0	106	0	139	0	139	64	24	0	88	333
Total Volume	425	0	0	425	0	566	0	566	269	79	1	349	1340
% App. Total	100	0	0		0	100	0		77.1	22.6	0.3		
PHF	.949	.000	.000	.949	.000	.919	.000	.919	.934	.823	.250	.969	.968





Boulder, CO
CU South
PM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Wed PM
Site Code : IPO 81
Start Date : 11/18/2020
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Groups Printed- Automobiles - Bicycle and Pedestrian

Start Time	S Boulder Rd Eastbound				S Boulder Rd Westbound				WB US-36 Off Ramp Northbound				Int. Total
	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	
04:00 PM	181	0	0	181	0	153	0	153	53	27	6	86	420
04:15 PM	150	0	0	150	0	153	1	154	67	22	3	92	396
04:30 PM	129	0	0	129	0	145	0	145	49	14	2	65	339
04:45 PM	158	0	0	158	0	163	0	163	63	19	2	84	405
Total	618	0	0	618	0	614	1	615	232	82	13	327	1560
05:00 PM	178	0	0	178	0	182	1	183	55	15	2	72	433
05:15 PM	156	0	0	156	0	146	0	146	83	10	2	95	397
05:30 PM	122	0	0	122	0	149	0	149	54	11	2	67	338
05:45 PM	121	0	0	121	0	114	1	115	79	19	0	98	334
Total	577	0	0	577	0	591	2	593	271	55	6	332	1502
Grand Total	1195	0	0	1195	0	1205	3	1208	503	137	19	659	3062
Apprch %	100	0	0		0	99.8	0.2		76.3	20.8	2.9		
Total %	39	0	0	39	0	39.4	0.1	39.5	16.4	4.5	0.6	21.5	
Automobiles	1189	0	0	1189	0	1192	0	1192	502	137	0	639	3020
% Automobiles	99.5	0	0	99.5	0	98.9	0	98.7	99.8	100	0	97	98.6
Bicycle and Pedestrian	6	0	0	6	0	13	3	16	1	0	19	20	42
% Bicycle and Pedestrian	0.5	0	0	0.5	0	1.1	100	1.3	0.2	0	100	3	1.4

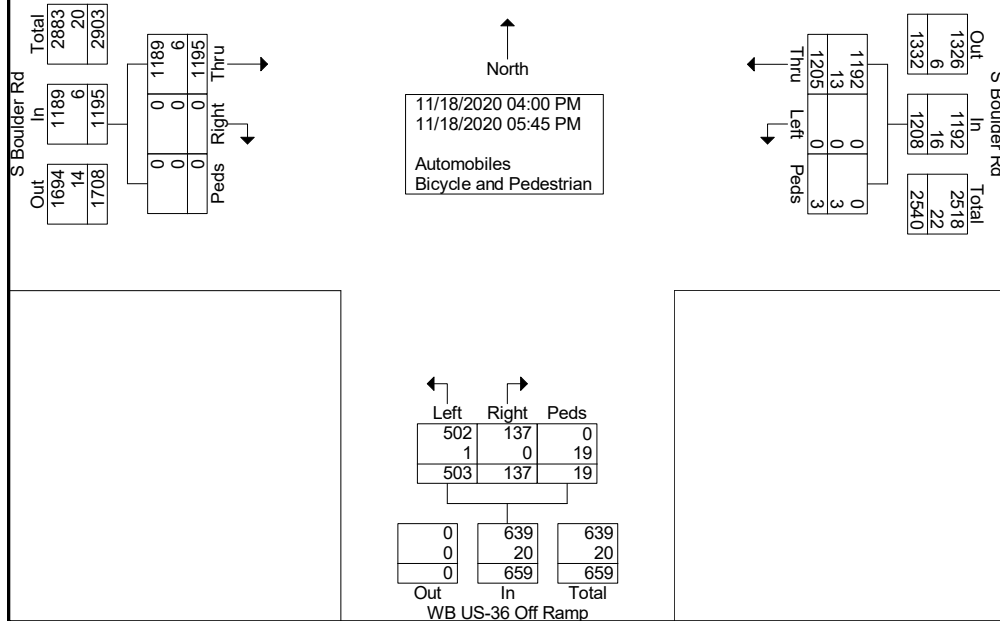


Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Wed PM
Site Code : IPO 81
Start Date : 11/18/2020
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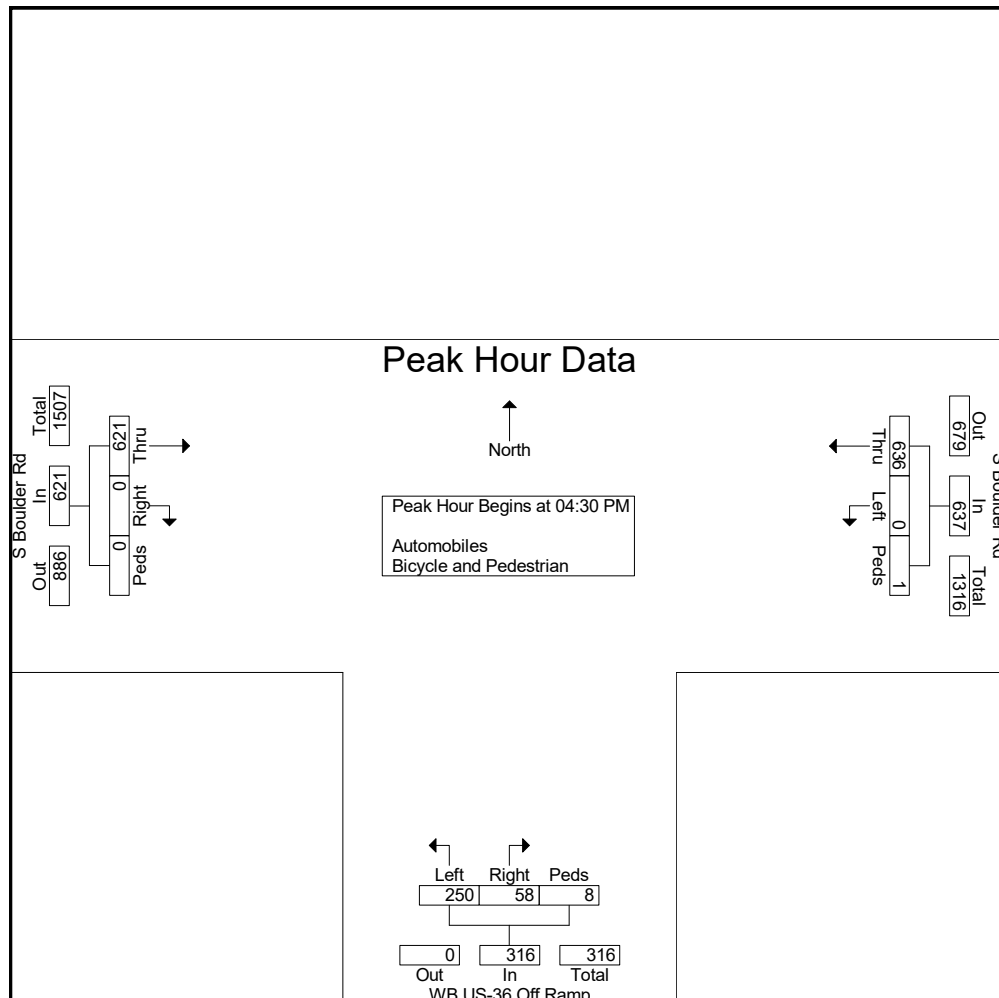


Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
S Boulder Rd & WB US36 Off Ramp

File Name : S Boulder and WB 36 Off Ramp Wed PM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 3

	S Boulder Rd Eastbound				S Boulder Rd Westbound				WB US-36 Off Ramp Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	129	0	0	129	0	145	0	145	49	14	2	65	339
04:45 PM	158	0	0	158	0	163	0	163	63	19	2	84	405
05:00 PM	178	0	0	178	0	182	1	183	55	15	2	72	433
05:15 PM	156	0	0	156	0	146	0	146	83	10	2	95	397
Total Volume	621	0	0	621	0	636	1	637	250	58	8	316	1574
% App. Total	100	0	0		0	99.8	0.2		79.1	18.4	2.5		
PHF	.872	.000	.000	.872	.000	.874	.250	.870	.753	.763	1.00	.832	.909





File Name : S Boulder to NB Foothills Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 1

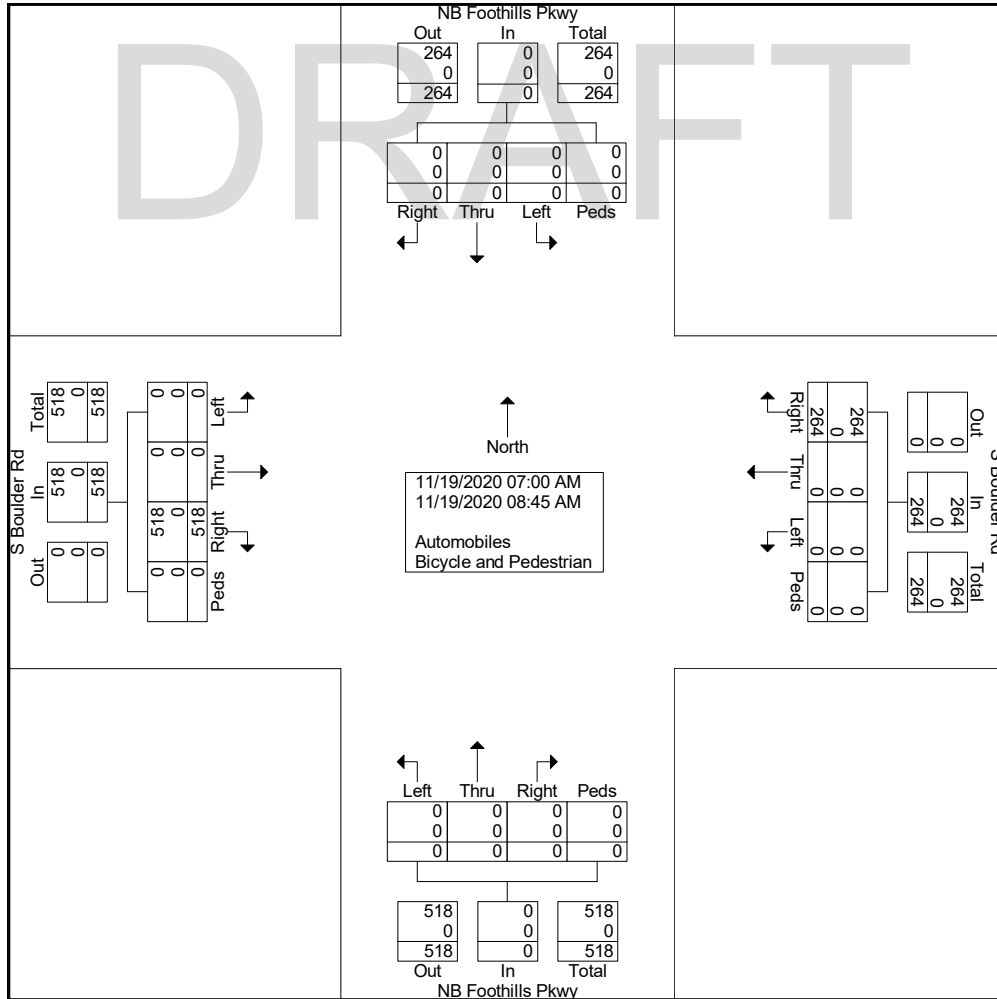
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Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
S Boulder Rd to NB Foothills Pkwy

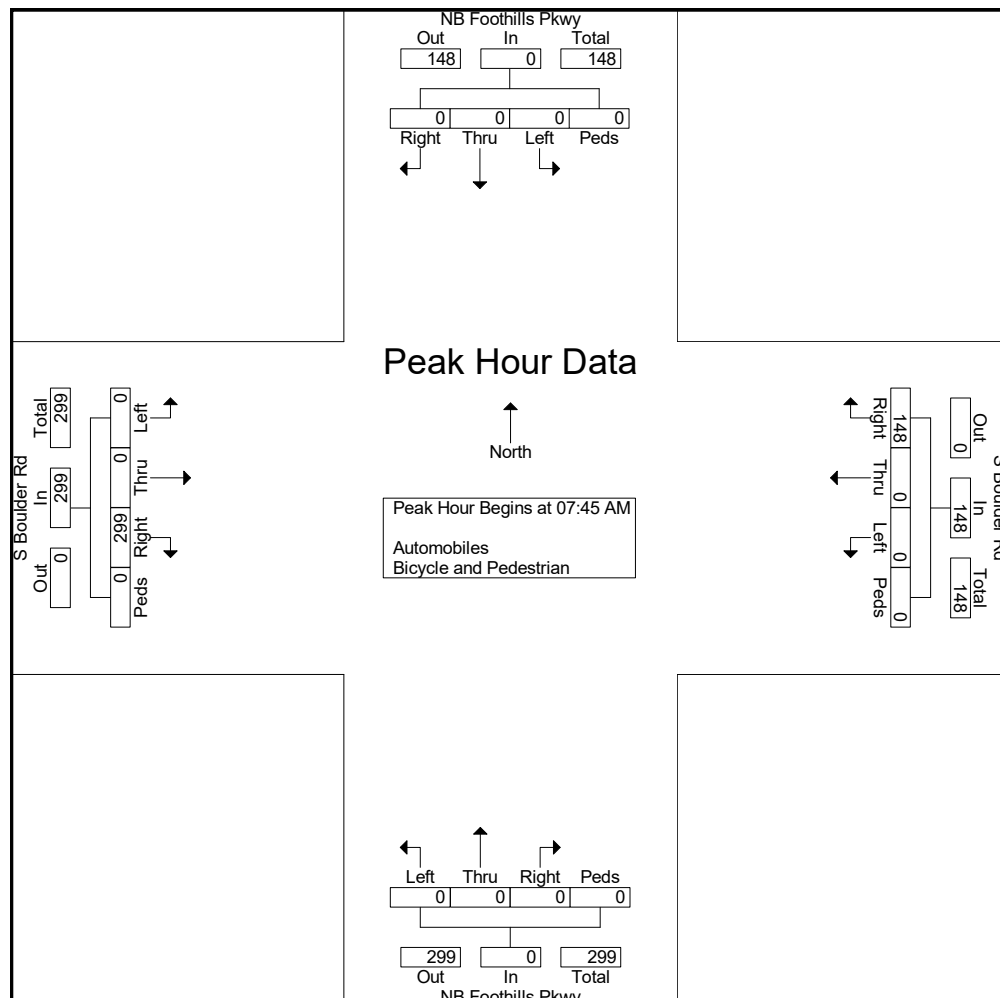
File Name : S Boulder to NB Foothills Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 2



Boulder, CO
CU South
AM Peak
S Boulder Rd to NB Foothills Pkwy

File Name : S Boulder to NB Foothills Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 3

	S Boulder Rd Eastbound					S Boulder Rd Westbound					NB Foothills Pkwy Northbound					NB Foothills Pkwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	78	0	78	0	0	47	0	47	0	0	0	0	0	0	0	0	0	0	125
08:00 AM	0	0	75	0	75	0	0	39	0	39	0	0	0	0	0	0	0	0	0	0	114
08:15 AM	0	0	63	0	63	0	0	31	0	31	0	0	0	0	0	0	0	0	0	0	94
08:30 AM	0	0	83	0	83	0	0	31	0	31	0	0	0	0	0	0	0	0	0	0	114
Total Volume	0	0	299	0	299	0	0	148	0	148	0	0	0	0	0	0	0	0	0	0	447
% App. Total	0	0	100	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.901	.000	.901	.000	.000	.787	.000	.787	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.894





File Name : S Boulder to NB Foothills Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 1

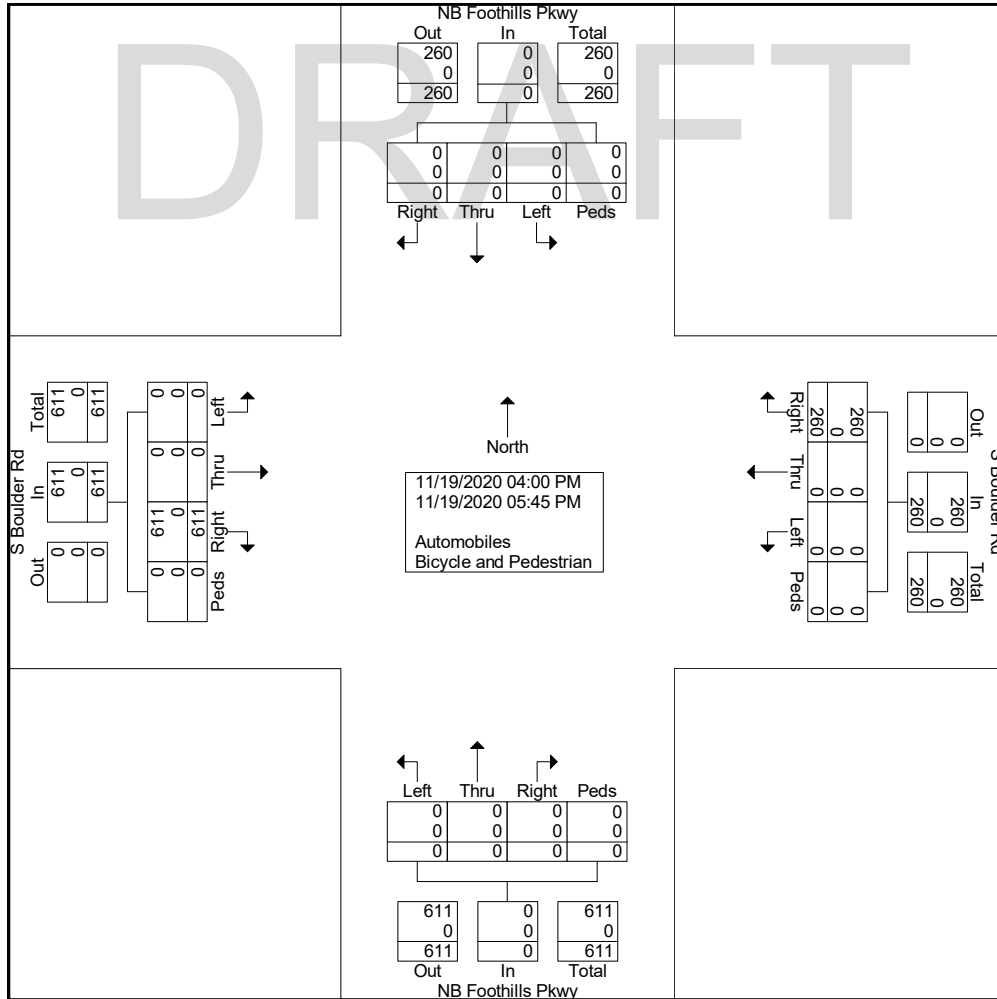
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Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
S Boulder Rd to NB Foothills Pkwy

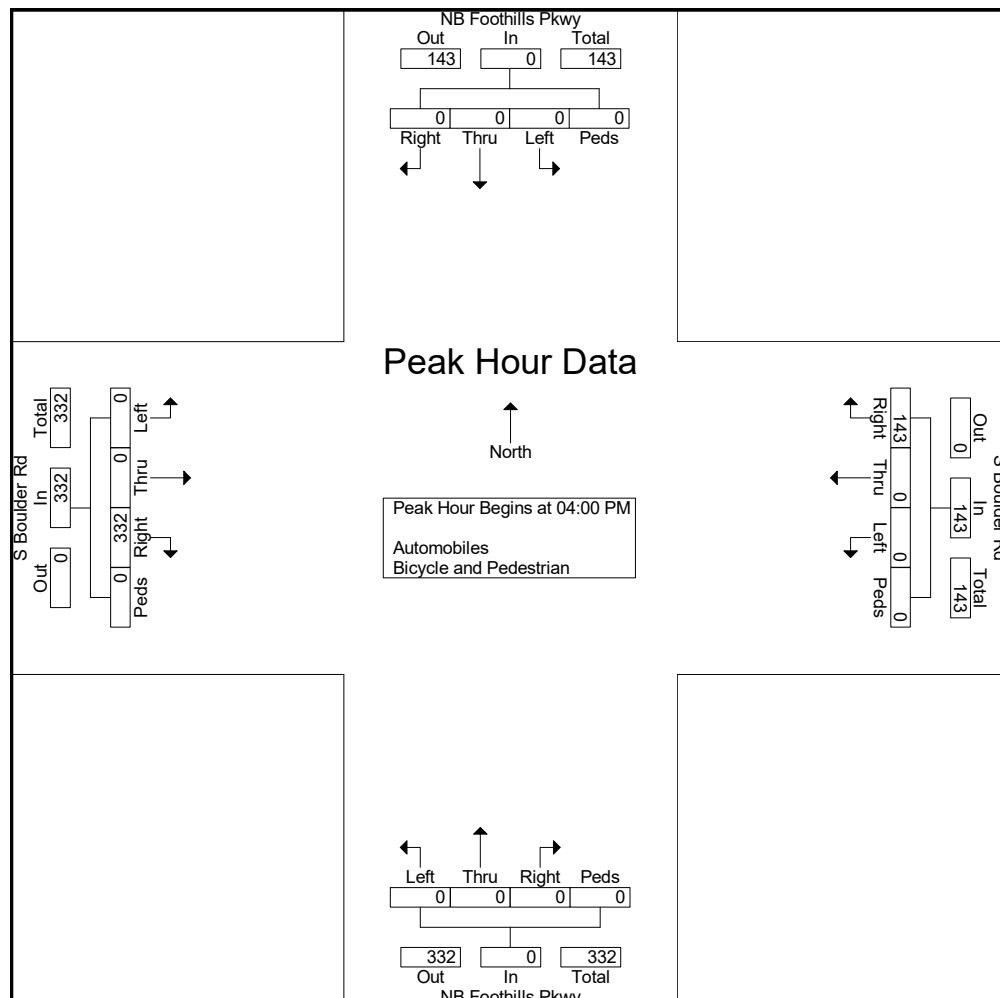
File Name : S Boulder to NB Foothills Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 2



Boulder, CO
CU South
PM Peak
S Boulder Rd to NB Foothills Pkwy

File Name : S Boulder to NB Foothills Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 3

	S Boulder Rd Eastbound					S Boulder Rd Westbound					NB Foothills Pkwy Northbound					NB Foothills Pkwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	95	0	95	0	0	38	0	38	0	0	0	0	0	0	0	0	0	0	133
04:15 PM	0	0	88	0	88	0	0	32	0	32	0	0	0	0	0	0	0	0	0	0	120
04:30 PM	0	0	72	0	72	0	0	35	0	35	0	0	0	0	0	0	0	0	0	0	107
04:45 PM	0	0	77	0	77	0	0	38	0	38	0	0	0	0	0	0	0	0	0	0	115
Total Volume	0	0	332	0	332	0	0	143	0	143	0	0	0	0	0	0	0	0	0	0	475
% App. Total	0	0	100	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.874	.000	.874	.000	.000	.941	.000	.941	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.893





File Name : S Boulder to NB Foothills Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 1

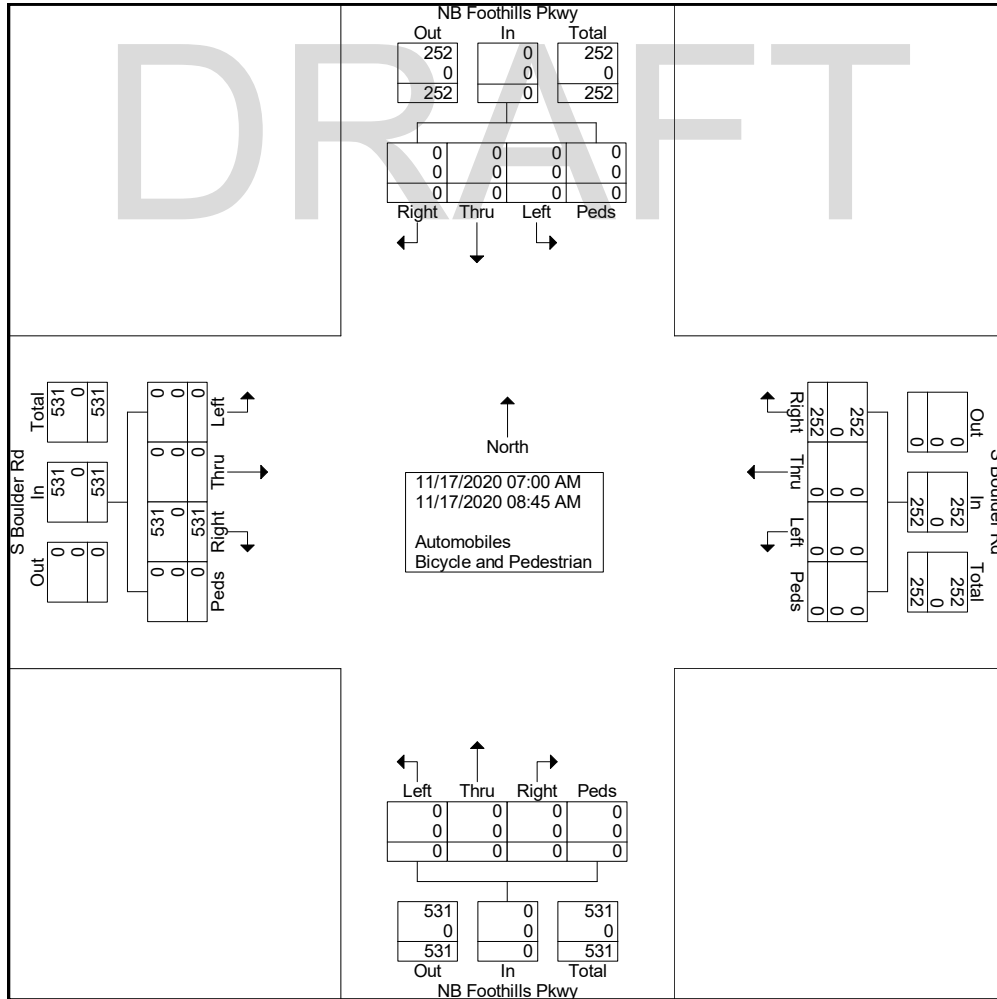
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Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
S Boulder Rd to NB Foothills Pkwy

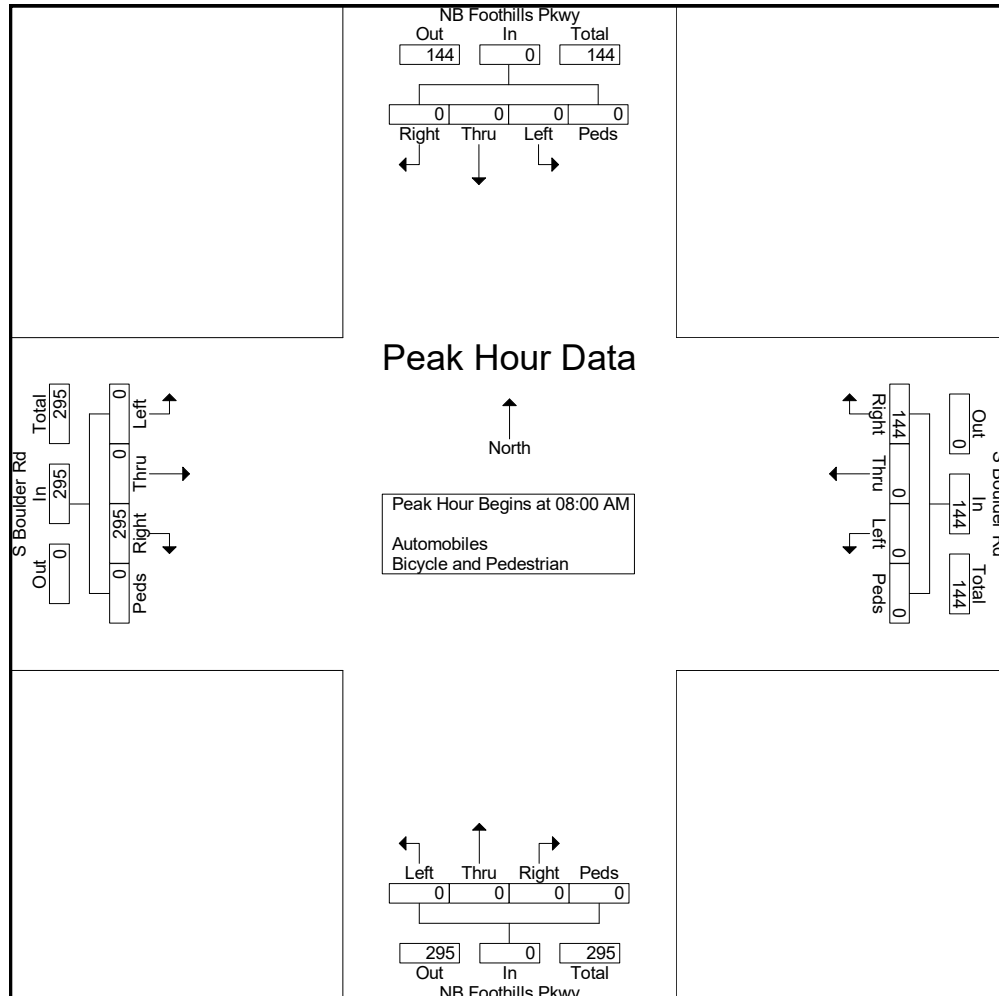
File Name : S Boulder to NB Foothills Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 2



Boulder, CO
CU South
AM Peak
S Boulder Rd to NB Foothills Pkwy

File Name : S Boulder to NB Foothills Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 3

	S Boulder Rd Eastbound					S Boulder Rd Westbound					NB Foothills Pkwy Northbound					NB Foothills Pkwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	75	0	75	0	0	26	0	26	0	0	0	0	0	0	0	0	0	0	101
08:15 AM	0	0	64	0	64	0	0	35	0	35	0	0	0	0	0	0	0	0	0	0	99
08:30 AM	0	0	80	0	80	0	0	46	0	46	0	0	0	0	0	0	0	0	0	0	126
08:45 AM	0	0	76	0	76	0	0	37	0	37	0	0	0	0	0	0	0	0	0	0	113
Total Volume	0	0	295	0	295	0	0	144	0	144	0	0	0	0	0	0	0	0	0	0	439
% App. Total	0	0	100	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.922	.000	.922	.000	.000	.783	.000	.783	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.871





File Name : S Boulder to NB Foothills Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 1

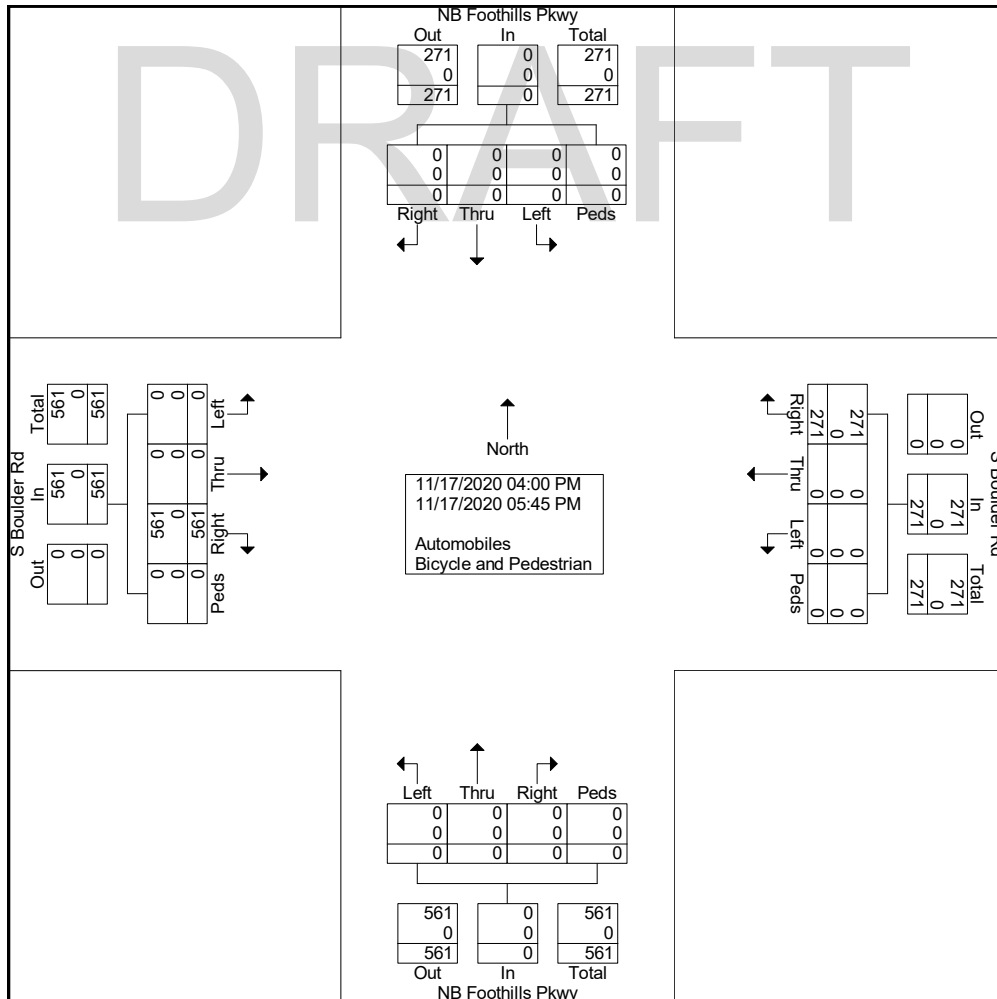
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Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
S Boulder Rd to NB Foothills Pkwy

File Name : S Boulder to NB Foothills Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 2



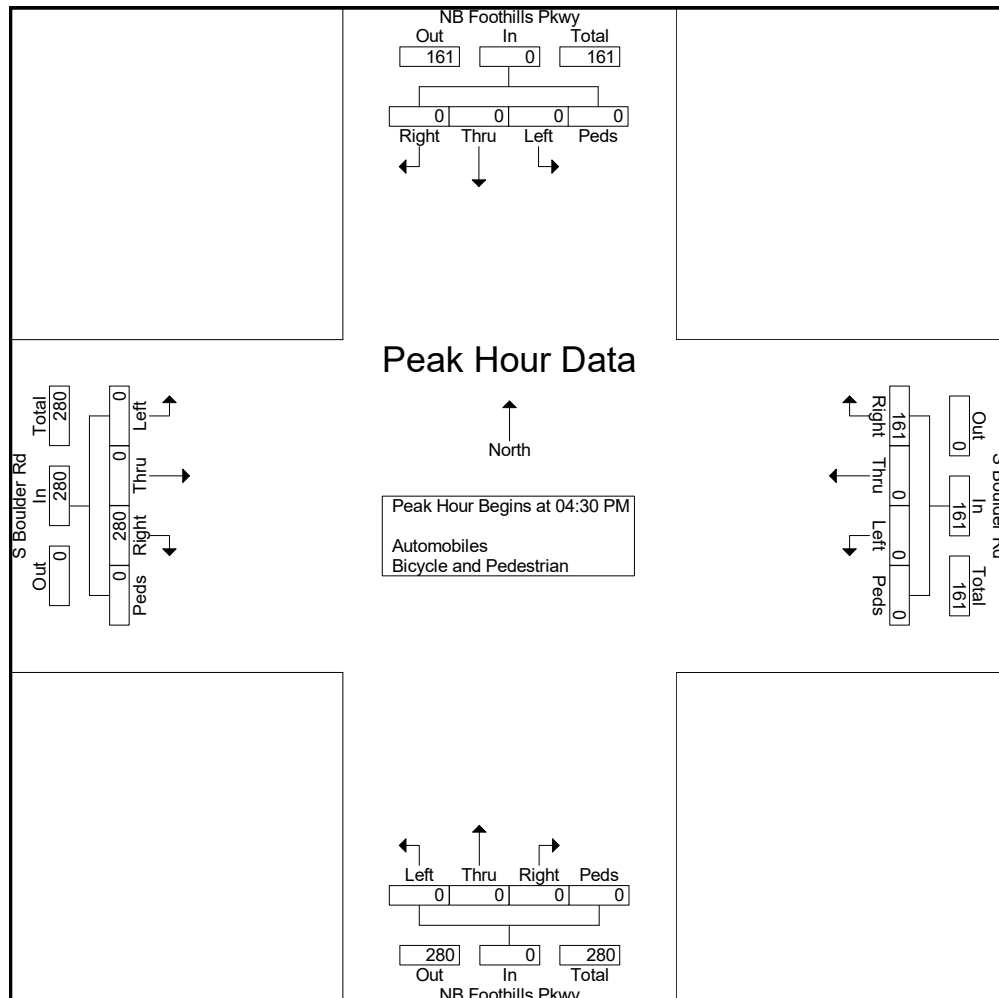


Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
S Boulder Rd to NB Foothills Pkwy

File Name : S Boulder to NB Foothills Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 3

	S Boulder Rd Eastbound					S Boulder Rd Westbound					NB Foothills Pkwy Northbound					NB Foothills Pkwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	65	0	65	0	0	33	0	33	0	0	0	0	0	0	0	0	0	0	98
04:45 PM	0	0	59	0	59	0	0	38	0	38	0	0	0	0	0	0	0	0	0	0	97
05:00 PM	0	0	74	0	74	0	0	38	0	38	0	0	0	0	0	0	0	0	0	0	112
05:15 PM	0	0	82	0	82	0	0	52	0	52	0	0	0	0	0	0	0	0	0	0	134
Total Volume	0	0	280	0	280	0	0	161	0	161	0	0	0	0	0	0	0	0	0	0	441
% App. Total	0	0	100	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.854	.000	.854	.000	.000	.774	.000	.774	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.823





File Name : S Boulder to NB Foothills Wed AM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 1

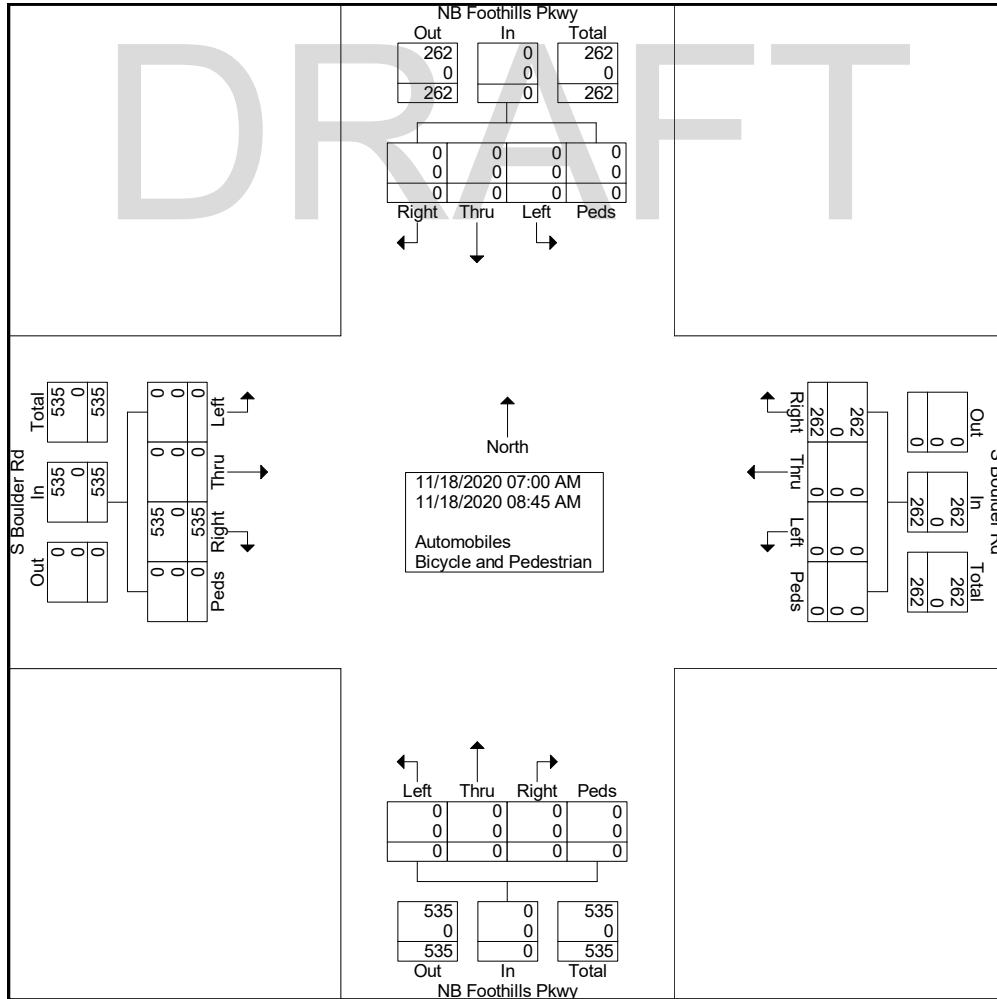
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Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
S Boulder Rd to NB Foothills Pkwy

File Name : S Boulder to NB Foothills Wed AM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 2



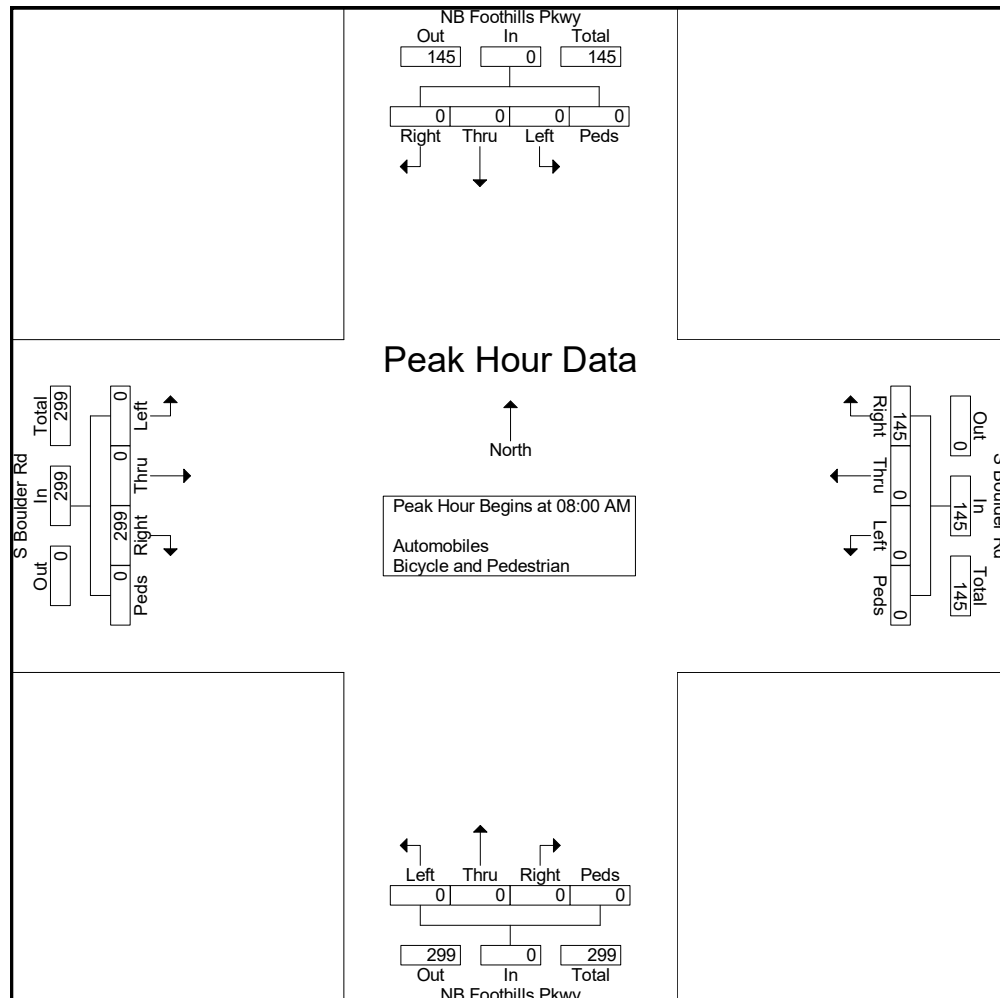


Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
S Boulder Rd to NB Foothills Pkwy

File Name : S Boulder to NB Foothills Wed AM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 3

	S Boulder Rd Eastbound					S Boulder Rd Westbound					NB Foothills Pkwy Northbound					NB Foothills Pkwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	78	0	78	0	0	29	0	29	0	0	0	0	0	0	0	0	0	0	107
08:15 AM	0	0	80	0	80	0	0	33	0	33	0	0	0	0	0	0	0	0	0	0	113
08:30 AM	0	0	61	0	61	0	0	35	0	35	0	0	0	0	0	0	0	0	0	0	96
08:45 AM	0	0	80	0	80	0	0	48	0	48	0	0	0	0	0	0	0	0	0	0	128
Total Volume	0	0	299	0	299	0	0	145	0	145	0	0	0	0	0	0	0	0	0	0	444
% App. Total	0	0	100	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.934	.000	.934	.000	.000	.755	.000	.755	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.867





File Name : S Boulder to NB Foothills Wed PM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 1

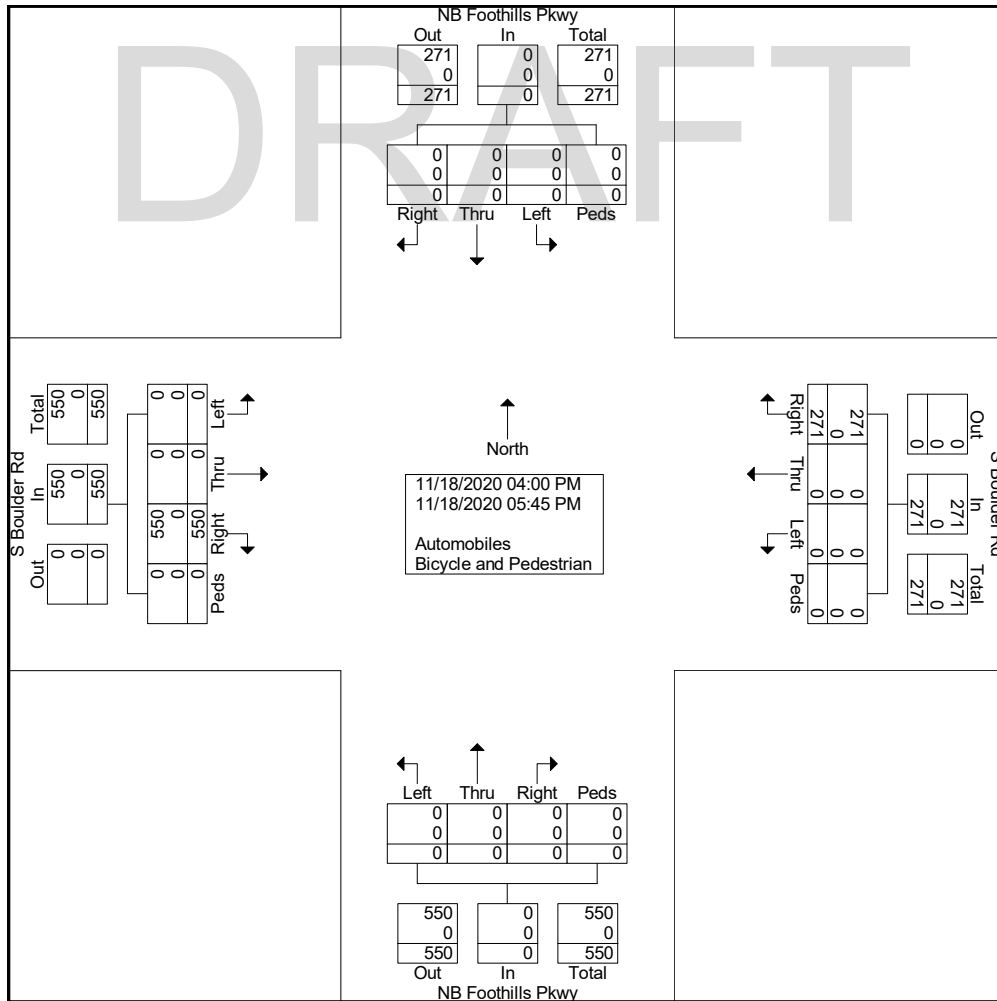
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Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
S Boulder Rd to NB Foothills Pkwy

File Name : S Boulder to NB Foothills Wed PM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 2



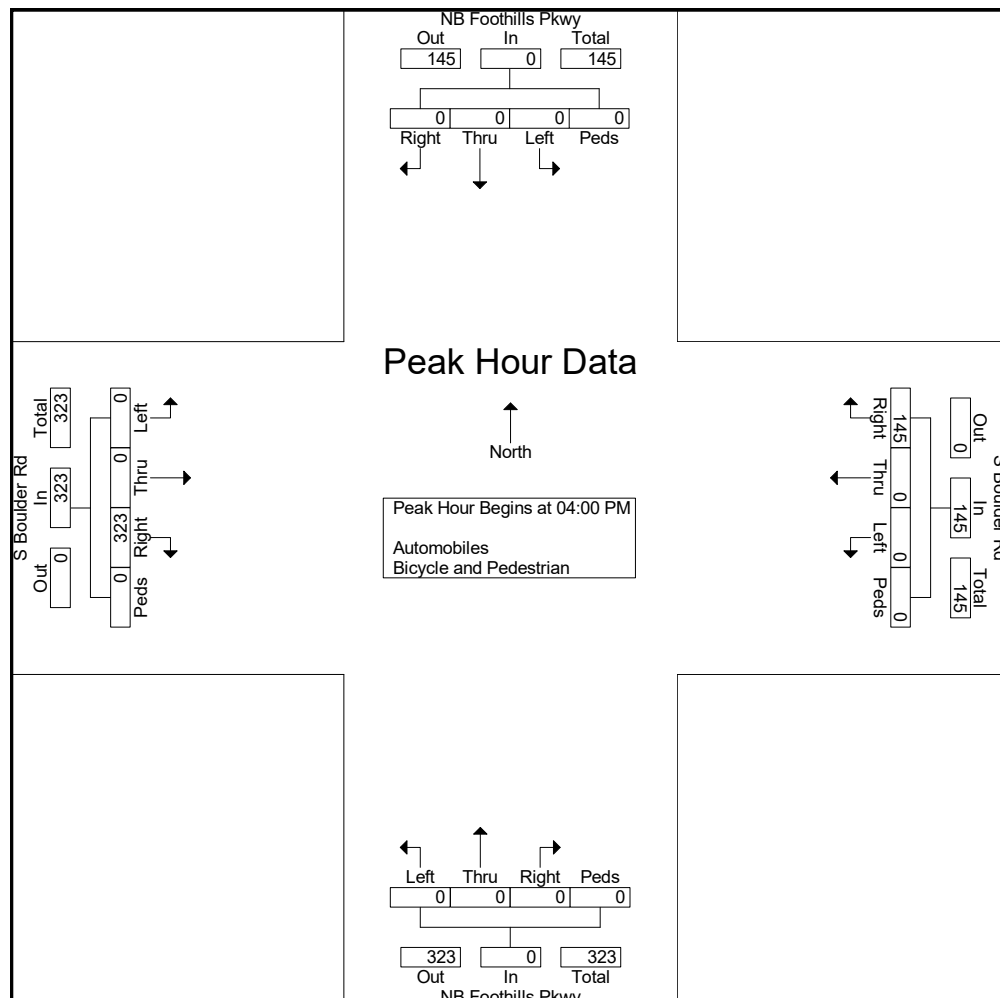


Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
S Boulder Rd to NB Foothills Pkwy

File Name : S Boulder to NB Foothills Wed PM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 3

	S Boulder Rd Eastbound					S Boulder Rd Westbound					NB Foothills Pkwy Northbound					NB Foothills Pkwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	98	0	98	0	0	35	0	35	0	0	0	0	0	0	0	0	0	0	133
04:15 PM	0	0	82	0	82	0	0	41	0	41	0	0	0	0	0	0	0	0	0	0	123
04:30 PM	0	0	72	0	72	0	0	26	0	26	0	0	0	0	0	0	0	0	0	0	98
04:45 PM	0	0	71	0	71	0	0	43	0	43	0	0	0	0	0	0	0	0	0	0	114
Total Volume	0	0	323	0	323	0	0	145	0	145	0	0	0	0	0	0	0	0	0	0	468
% App. Total	0	0	100	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.824	.000	.824	.000	.000	.843	.000	.843	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.880





Boulder, CO
CU South
AM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 1

Groups Printed- Automobiles - Bicycle and Pedestrian

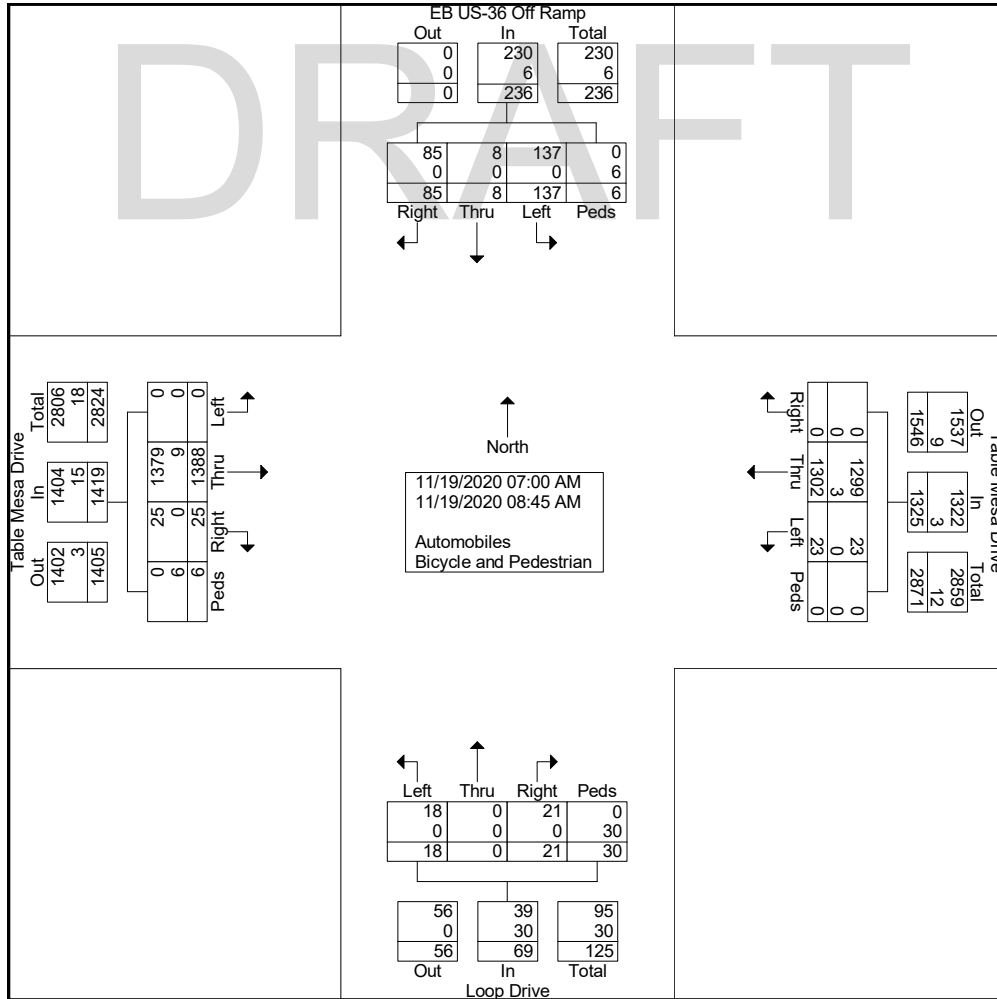
Start Time	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					Loop Drive Northbound					EB US-36 Off Ramp Southbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	98	4	1	103	3	97	0	0	100	1	0	0	3	4	11	0	9	1	21	228
07:15 AM	0	136	0	0	136	4	122	0	0	126	3	0	2	2	7	11	0	8	1	20	289
07:30 AM	0	164	0	0	164	1	140	0	0	141	3	0	2	7	12	11	1	11	1	24	341
07:45 AM	0	171	3	0	174	1	162	0	0	163	2	0	4	1	7	20	3	11	1	35	379
Total	0	569	7	1	577	9	521	0	0	530	9	0	8	13	30	53	4	39	4	100	1237
08:00 AM	0	193	4	1	198	4	177	0	0	181	2	0	0	3	5	24	0	12	1	37	421
08:15 AM	0	210	3	0	213	2	217	0	0	219	2	0	5	2	9	18	1	16	0	35	476
08:30 AM	0	216	7	2	225	6	180	0	0	186	2	0	6	1	9	15	1	8	1	25	445
08:45 AM	0	200	4	2	206	2	207	0	0	209	3	0	2	11	16	27	2	10	0	39	470
Total	0	819	18	5	842	14	781	0	0	795	9	0	13	17	39	84	4	46	2	136	1812
Grand Total	0	1388	25	6	1419	23	1302	0	0	1325	18	0	21	30	69	137	8	85	6	236	3049
Apprch %	0	97.8	1.8	0.4		1.7	98.3	0	0		26.1	0	30.4	43.5		58.1	3.4	36	2.5		
Total %	0	45.5	0.8	0.2	46.5	0.8	42.7	0	0	43.5	0.6	0	0.7	1	2.3	4.5	0.3	2.8	0.2	7.7	
Automobiles	0	1379	25	0	1404	23	1299	0	0	1322	18	0	21	0	39	137	8	85	0	230	2995
% Automobiles	0	99.4	100	0	98.9	100	99.8	0	0	99.8	100	0	100	0	56.5	100	100	100	0	97.5	98.2
Bicycle and Pedestrian	0	9	0	6	15	0	3	0	0	3	0	0	0	30	30	0	0	0	6	6	54
% Bicycle and Pedestrian	0	0.6	0	100	1.1	0	0.2	0	0	0.2	0	0	0	100	43.5	0	0	0	100	2.5	1.8



Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

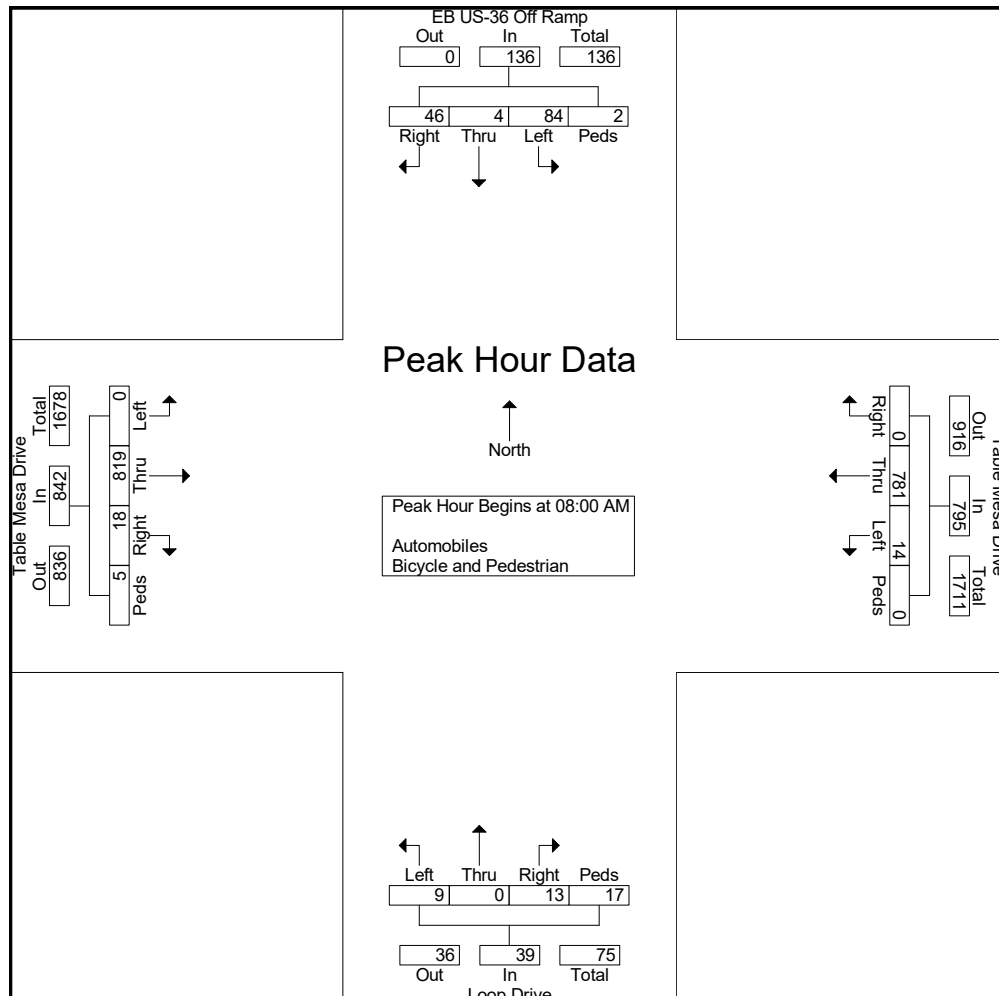
File Name : Table Mesa and Loop Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 2



Boulder, CO
CU South
AM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 3

	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					Loop Drive Northbound					EB US-36 Off Ramp Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	193	4	1	198	4	177	0	0	181	2	0	0	3	5	24	0	12	1	37	421
08:15 AM	0	210	3	0	213	2	217	0	0	219	2	0	5	2	9	18	1	16	0	35	476
08:30 AM	0	216	7	2	225	6	180	0	0	186	2	0	6	1	9	15	1	8	1	25	445
08:45 AM	0	200	4	2	206	2	207	0	0	209	3	0	2	11	16	27	2	10	0	39	470
Total Volume	0	819	18	5	842	14	781	0	0	795	9	0	13	17	39	84	4	46	2	136	1812
% App. Total	0	97.3	2.1	0.6		1.8	98.2	0	0		23.1	0	33.3	43.6		61.8	2.9	33.8	1.5		
PHF	.000	.948	.643	.625	.936	.583	.900	.000	.000	.908	.750	.000	.542	.386	.609	.778	.500	.719	.500	.872	.952



Boulder, CO
CU South
PM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 1

Groups Printed- Automobiles - Bicycle and Pedestrian

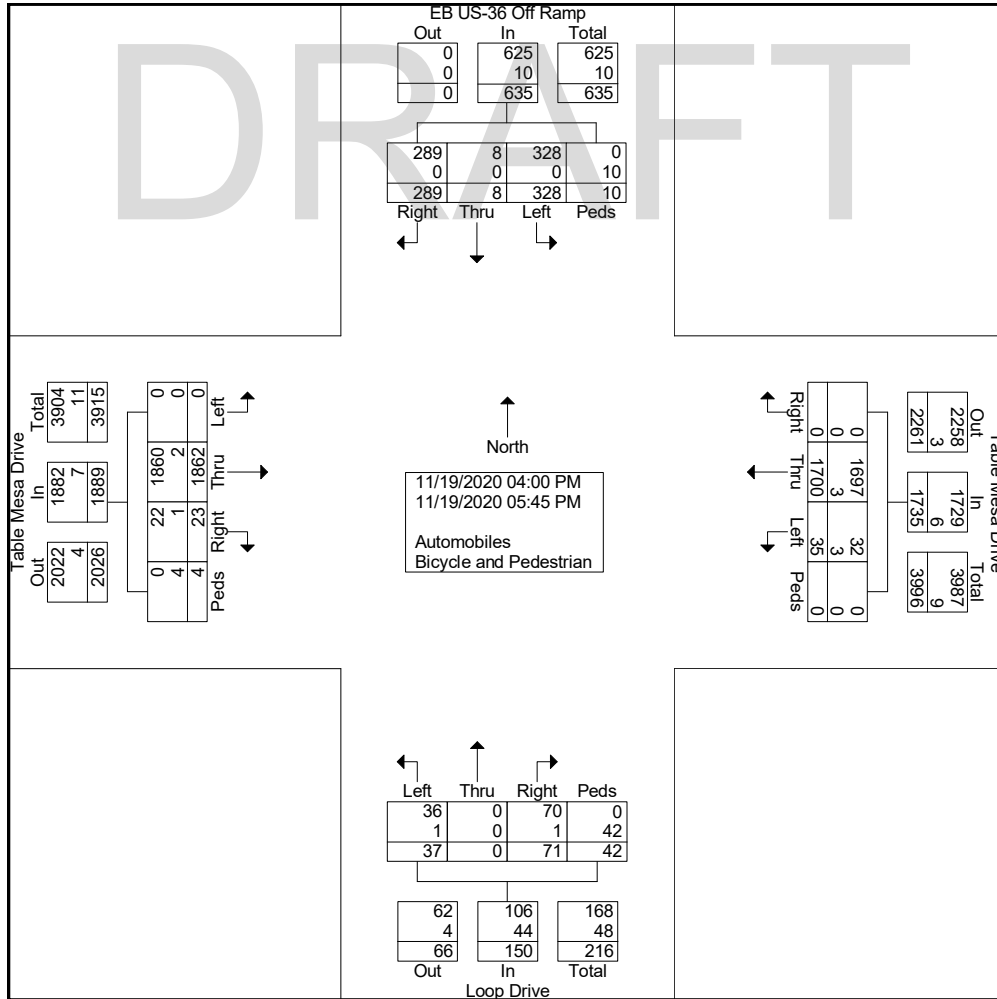
Start Time	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					Loop Drive Northbound					EB US-36 Off Ramp Southbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
04:00 PM	0	261	5	2	268	12	237	0	0	249	6	0	6	8	20	43	1	26	1	71	608
04:15 PM	0	258	3	0	261	5	221	0	0	226	7	0	12	4	23	43	3	31	0	77	587
04:30 PM	0	196	4	0	200	8	233	0	0	241	4	0	13	7	24	36	1	30	0	67	532
04:45 PM	0	262	3	1	266	3	178	0	0	181	6	0	16	2	24	33	3	46	2	84	555
Total	0	977	15	3	995	28	869	0	0	897	23	0	47	21	91	155	8	133	3	299	2282
05:00 PM	0	241	4	1	246	1	228	0	0	229	5	0	5	6	16	50	0	35	2	87	578
05:15 PM	0	236	2	0	238	2	217	0	0	219	4	0	8	5	17	41	0	43	3	87	561
05:30 PM	0	205	2	0	207	0	201	0	0	201	3	0	8	5	16	45	0	39	0	84	508
05:45 PM	0	203	0	0	203	4	185	0	0	189	2	0	3	5	10	37	0	39	2	78	480
Total	0	885	8	1	894	7	831	0	0	838	14	0	24	21	59	173	0	156	7	336	2127
Grand Total	0	1862	23	4	1889	35	1700	0	0	1735	37	0	71	42	150	328	8	289	10	635	4409
Apprch %	0	98.6	1.2	0.2		2	98	0	0		24.7	0	47.3	28		51.7	1.3	45.5	1.6		
Total %	0	42.2	0.5	0.1	42.8	0.8	38.6	0	0	39.4	0.8	0	1.6	1	3.4	7.4	0.2	6.6	0.2	14.4	
Automobiles	0	1860	22	0	1882	32	1697	0	0	1729	36	0	70	0	106	328	8	289	0	625	4342
% Automobiles	0	99.9	95.7	0	99.6	91.4	99.8	0	0	99.7	97.3	0	98.6	0	70.7	100	100	100	0	98.4	98.5
Bicycle and Pedestrian	0	2	1	4	7	3	3	0	0	6	1	0	1	42	44	0	0	0	10	10	67
% Bicycle and Pedestrian	0	0.1	4.3	100	0.4	8.6	0.2	0	0	0.3	2.7	0	1.4	100	29.3	0	0	0	100	1.6	1.5



Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
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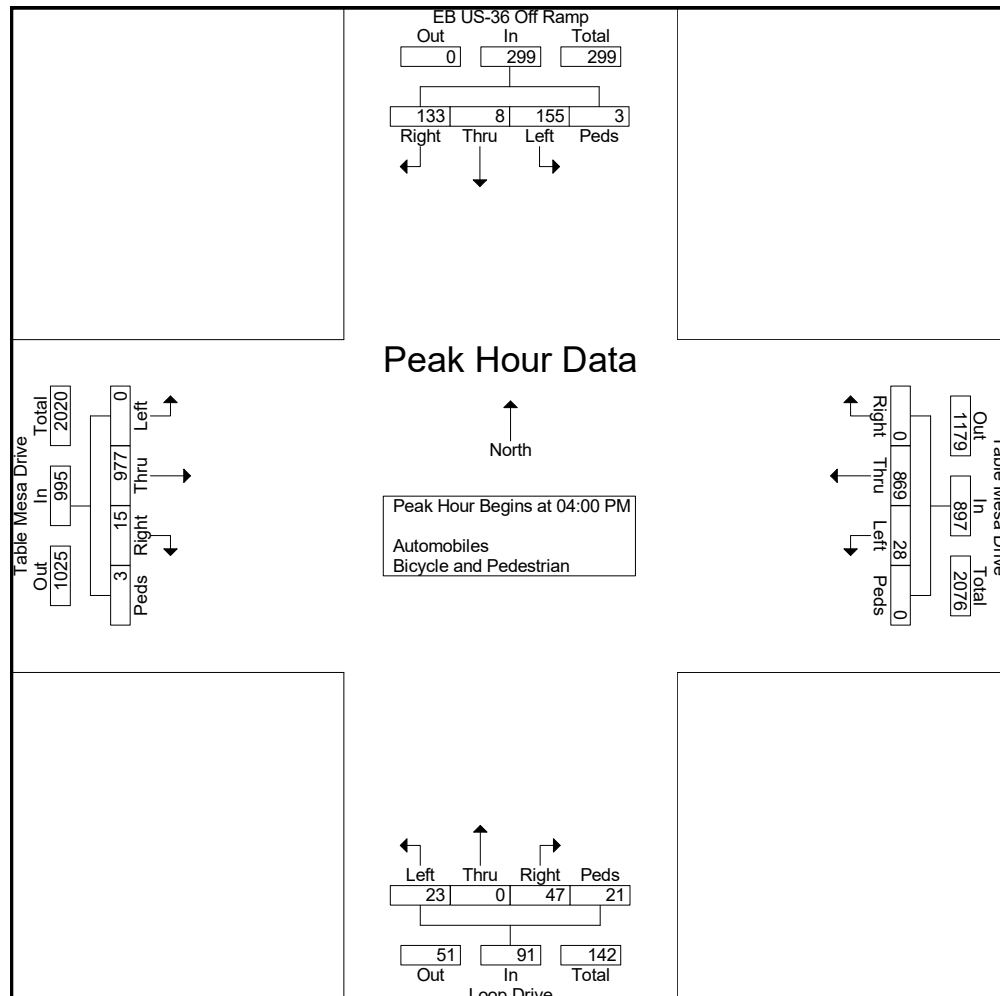


Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 3

	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					Loop Drive Northbound					EB US-36 Off Ramp Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	261	5	2	268	12	237	0	0	249	6	0	6	8	20	43	1	26	1	71	608
04:15 PM	0	258	3	0	261	5	221	0	0	226	7	0	12	4	23	43	3	31	0	77	587
04:30 PM	0	196	4	0	200	8	233	0	0	241	4	0	13	7	24	36	1	30	0	67	532
04:45 PM	0	262	3	1	266	3	178	0	0	181	6	0	16	2	24	33	3	46	2	84	555
Total Volume	0	977	15	3	995	28	869	0	0	897	23	0	47	21	91	155	8	133	3	299	2282
% App. Total	0	98.2	1.5	0.3		3.1	96.9	0	0		25.3	0	51.6	23.1		51.8	2.7	44.5	1		
PHF	.000	.932	.750	.375	.928	.583	.917	.000	.000	.901	.821	.000	.734	.656	.948	.901	.667	.723	.375	.890	.938





Boulder, CO
CU South
AM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
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Groups Printed- Automobiles - Bicycle and Pedestrian

	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					Loop Drive Northbound					EB US-36 Off Ramp Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	116	1	0	117	3	80	0	0	83	0	0	1	6	7	5	1	6	0	12	219
07:15 AM	0	136	6	1	143	2	101	0	0	103	4	0	5	2	11	11	2	9	0	22	279
07:30 AM	0	165	5	0	170	5	132	0	0	137	1	0	4	1	6	9	0	9	0	18	331
07:45 AM	0	176	4	2	182	1	160	0	0	161	2	0	5	1	8	18	0	13	2	33	384
Total	0	593	16	3	612	11	473	0	0	484	7	0	15	10	32	43	3	37	2	85	1213
08:00 AM	0	179	3	1	183	4	157	0	0	161	1	0	2	3	6	32	2	14	1	49	399
08:15 AM	0	184	3	0	187	5	220	0	0	225	1	0	4	4	9	31	1	15	0	47	468
08:30 AM	0	207	6	0	213	7	161	0	0	168	7	0	7	3	17	13	1	19	0	33	431
08:45 AM	0	202	3	2	207	4	179	0	0	183	5	0	4	5	14	24	2	14	2	42	446
Total	0	772	15	3	790	20	717	0	0	737	14	0	17	15	46	100	6	62	3	171	1744
Grand Total	0	1365	31	6	1402	31	1190	0	0	1221	21	0	32	25	78	143	9	99	5	256	2957
Apprch %	0	97.4	2.2	0.4		2.5	97.5	0	0		26.9	0	41	32.1		55.9	3.5	38.7	2		
Total %	0	46.2	1	0.2	47.4	1	40.2	0	0	41.3	0.7	0	1.1	0.8	2.6	4.8	0.3	3.3	0.2	8.7	
Automobiles	0	1359	30	0	1389	30	1187	0	0	1217	21	0	32	0	53	143	9	99	0	251	2910
% Automobiles	0	99.6	96.8	0	99.1	96.8	99.7	0	0	99.7	100	0	100	0	67.9	100	100	100	0	98	98.4
Bicycle and Pedestrian	0	6	1	6	13	1	3	0	0	4	0	0	0	25	25	0	0	0	5	5	47
% Bicycle and Pedestrian	0	0.4	3.2	100	0.9	3.2	0.3	0	0	0.3	0	0	0	100	32.1	0	0	0	100	2	1.6

Ridgeview Data
Collection

Boulder, CO

CU South

AM Peak

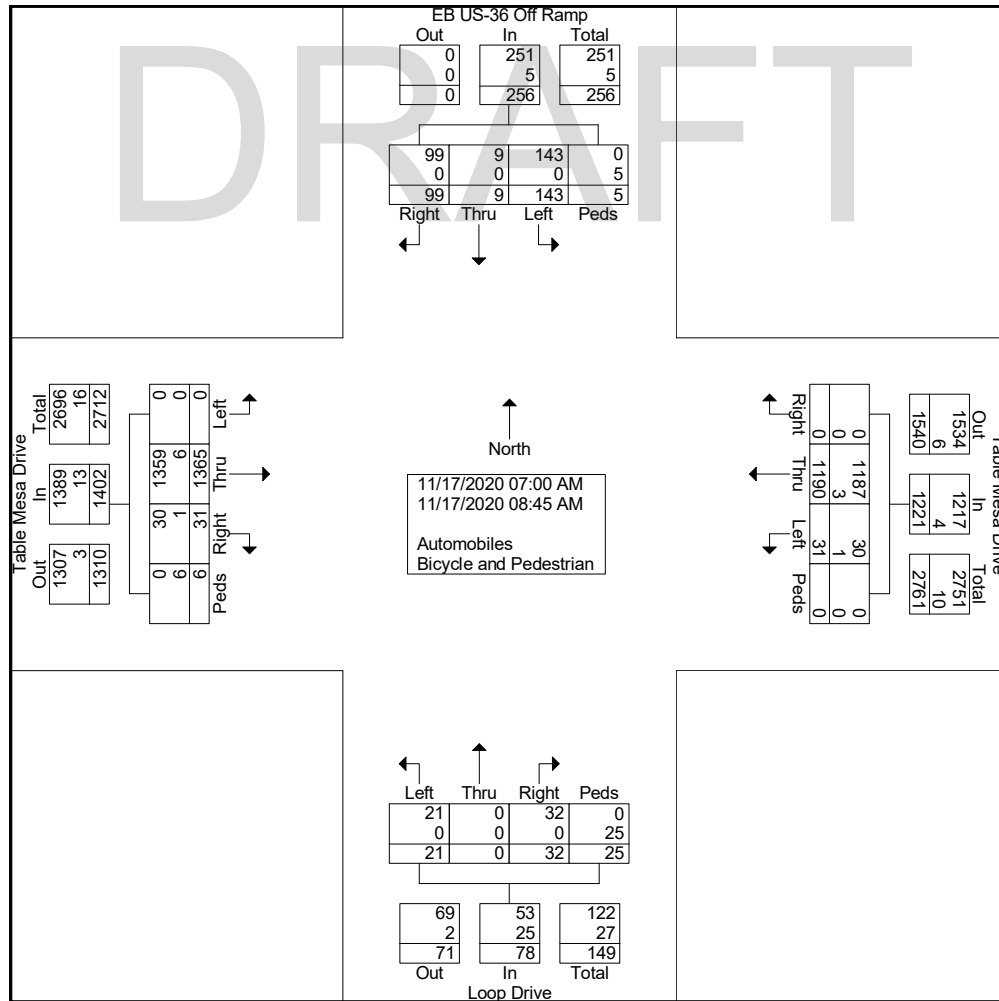
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Tues AM

Site Code : IPO 81

Start Date : 11/17/2020

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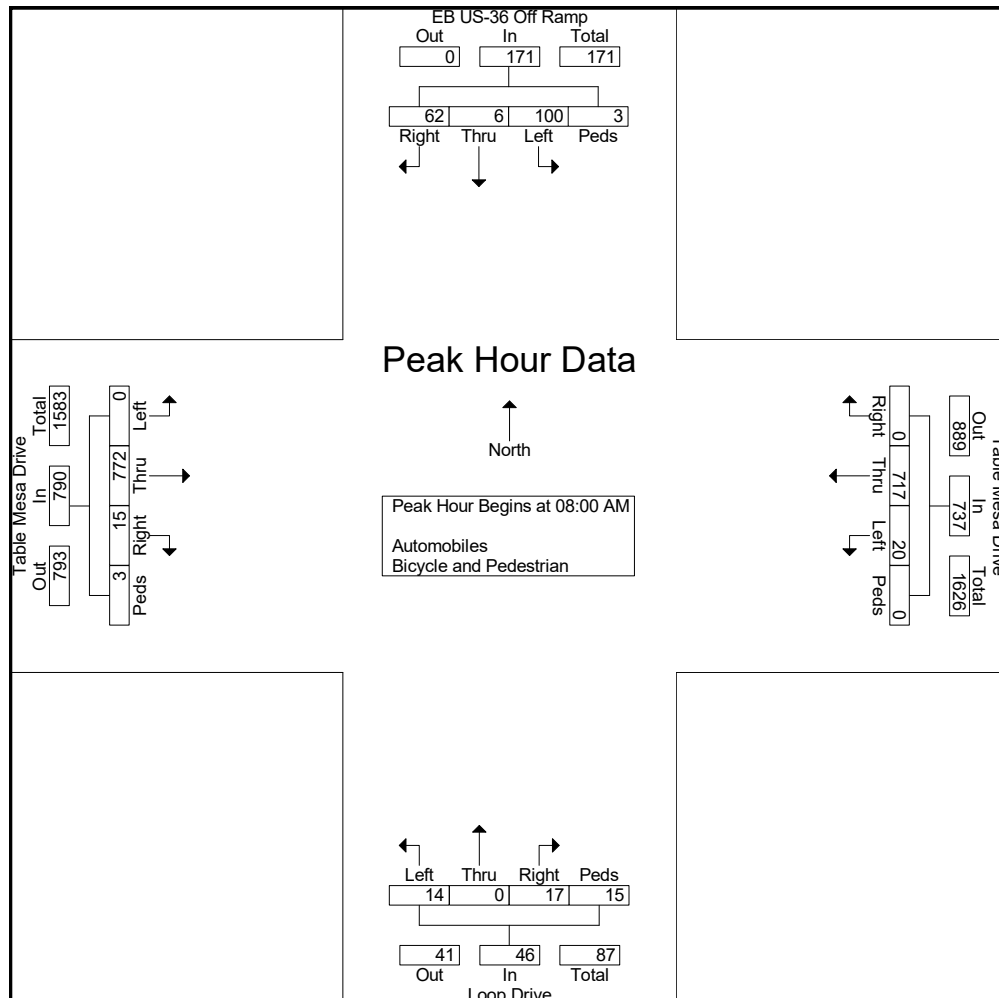


Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
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	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					Loop Drive Northbound					EB US-36 Off Ramp Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	179	3	1	183	4	157	0	0	161	1	0	2	3	6	32	2	14	1	49	399
08:15 AM	0	184	3	0	187	5	220	0	0	225	1	0	4	4	9	31	1	15	0	47	468
08:30 AM	0	207	6	0	213	7	161	0	0	168	7	0	7	3	17	13	1	19	0	33	431
08:45 AM	0	202	3	2	207	4	179	0	0	183	5	0	4	5	14	24	2	14	2	42	446
Total Volume	0	772	15	3	790	20	717	0	0	737	14	0	17	15	46	100	6	62	3	171	1744
% App. Total	0	97.7	1.9	0.4		2.7	97.3	0	0		30.4	0	37	32.6		58.5	3.5	36.3	1.8		
PHF	.000	.932	.625	.375	.927	.714	.815	.000	.000	.819	.500	.000	.607	.750	.676	.781	.750	.816	.375	.872	.932





Boulder, CO
CU South
PM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
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Groups Printed- Automobiles - Bicycle and Pedestrian

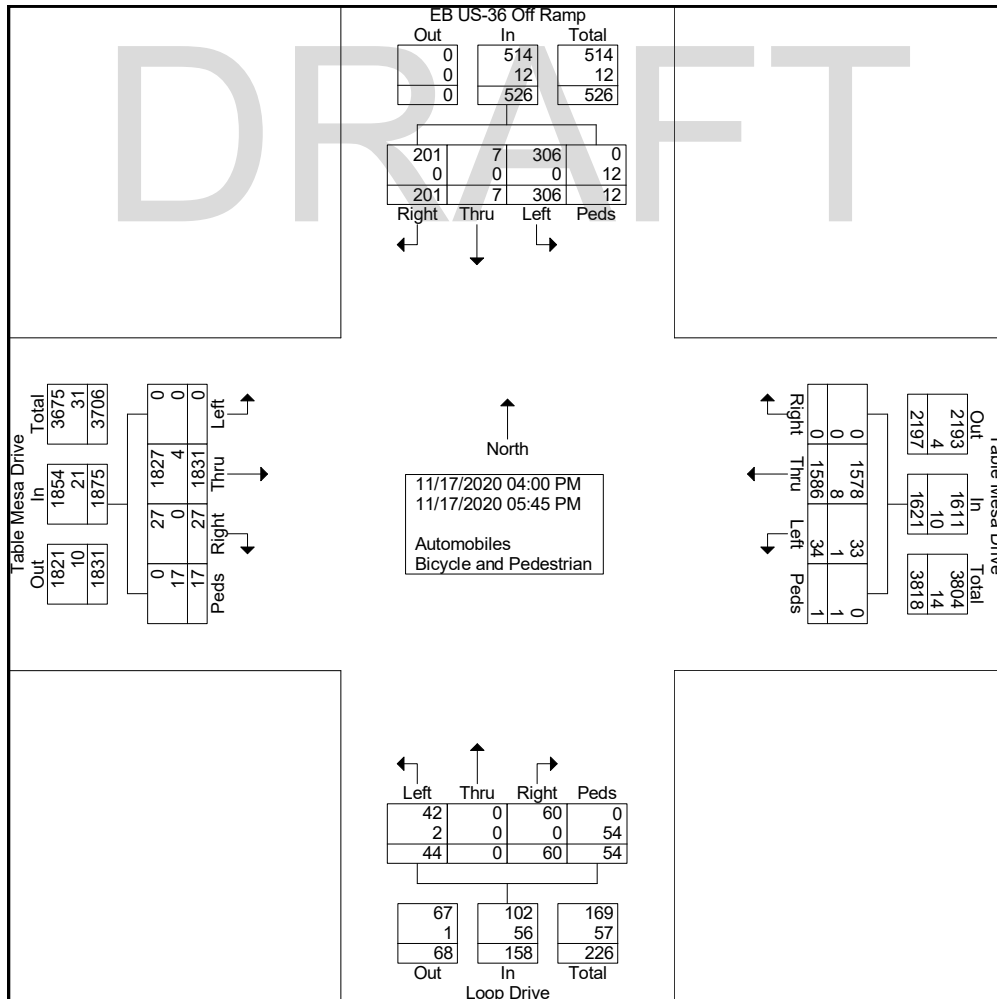
	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					Loop Drive Northbound					EB US-36 Off Ramp Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	235	9	2	246	9	192	0	1	202	7	0	8	16	31	47	3	27	1	78	557
04:15 PM	0	247	8	1	256	9	228	0	0	237	2	0	11	5	18	29	4	25	2	60	571
04:30 PM	0	201	2	3	206	5	205	0	0	210	6	0	13	13	32	39	0	36	5	80	528
04:45 PM	0	245	2	4	251	6	201	0	0	207	10	0	9	3	22	35	0	26	0	61	541
Total	0	928	21	10	959	29	826	0	1	856	25	0	41	37	103	150	7	114	8	279	2197
05:00 PM	0	259	3	2	264	2	193	0	0	195	10	0	8	7	25	47	0	21	2	70	554
05:15 PM	0	250	0	3	253	2	216	0	0	218	7	0	3	5	15	36	0	20	2	58	544
05:30 PM	0	190	1	1	192	1	202	0	0	203	2	0	4	4	10	39	0	23	0	62	467
05:45 PM	0	204	2	1	207	0	149	0	0	149	0	0	4	1	5	34	0	23	0	57	418
Total	0	903	6	7	916	5	760	0	0	765	19	0	19	17	55	156	0	87	4	247	1983
Grand Total	0	1831	27	17	1875	34	1586	0	1	1621	44	0	60	54	158	306	7	201	12	526	4180
Apprch %	0	97.7	1.4	0.9		2.1	97.8	0	0.1		27.8	0	38	34.2		58.2	1.3	38.2	2.3		
Total %	0	43.8	0.6	0.4	44.9	0.8	37.9	0	0	38.8	1.1	0	1.4	1.3	3.8	7.3	0.2	4.8	0.3	12.6	
Automobiles	0	1827	27	0	1854	33	1578	0	0	1611	42	0	60	0	102	306	7	201	0	514	4081
% Automobiles	0	99.8	100	0	98.9	97.1	99.5	0	0	99.4	95.5	0	100	0	64.6	100	100	100	0	97.7	97.6
Bicycle and Pedestrian	0	4	0	17	21	1	8	0	1	10	2	0	0	54	56	0	0	0	12	12	99
% Bicycle and Pedestrian	0	0.2	0	100	1.1	2.9	0.5	0	100	0.6	4.5	0	0	100	35.4	0	0	0	100	2.3	2.4



Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Tues PM
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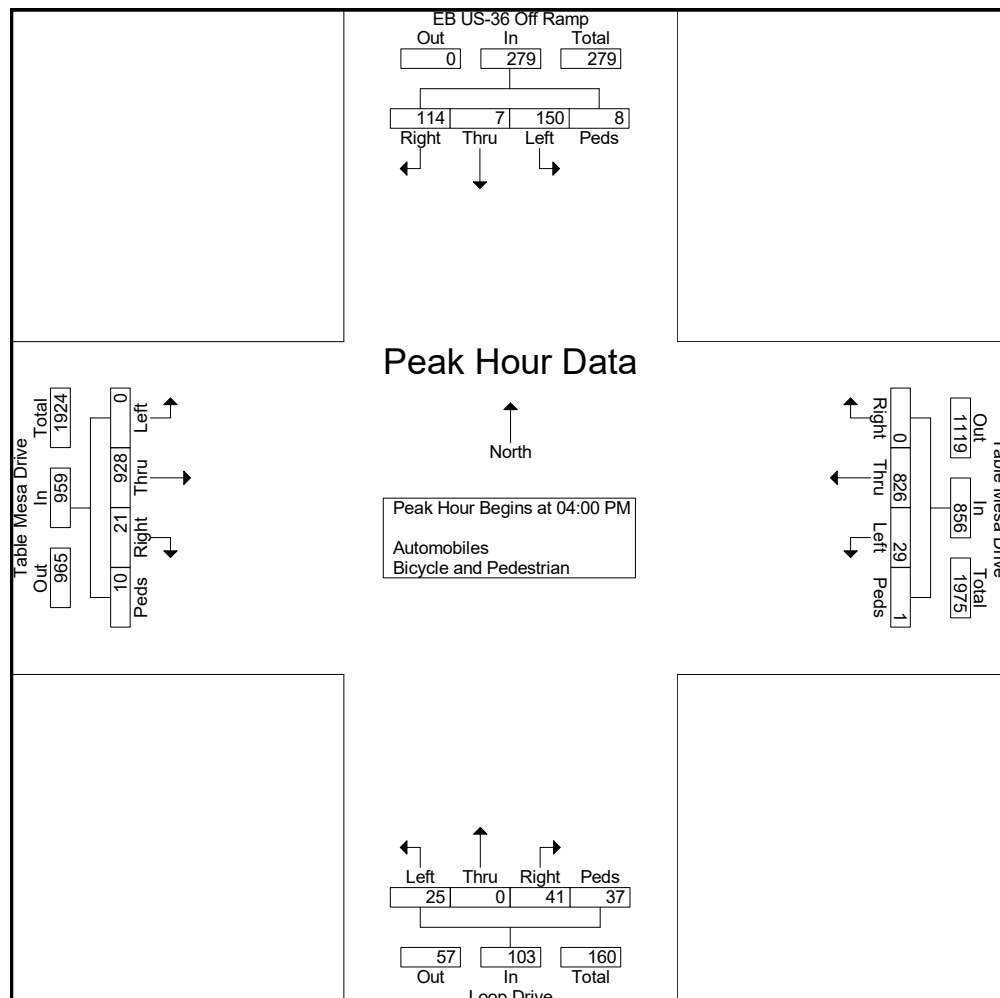


Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
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	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					Loop Drive Northbound					EB US-36 Off Ramp Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	235	9	2	246	9	192	0	1	202	7	0	8	16	31	47	3	27	1	78	557
04:15 PM	0	247	8	1	256	9	228	0	0	237	2	0	11	5	18	29	4	25	2	60	571
04:30 PM	0	201	2	3	206	5	205	0	0	210	6	0	13	13	32	39	0	36	5	80	528
04:45 PM	0	245	2	4	251	6	201	0	0	207	10	0	9	3	22	35	0	26	0	61	541
Total Volume	0	928	21	10	959	29	826	0	1	856	25	0	41	37	103	150	7	114	8	279	2197
% App. Total	0	96.8	2.2	1		3.4	96.5	0	0.1		24.3	0	39.8	35.9		53.8	2.5	40.9	2.9		
PHF	.000	.939	.583	.625	.937	.806	.906	.000	.250	.903	.625	.000	.788	.578	.805	.798	.438	.792	.400	.872	.962





Boulder, CO
CU South
AM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Wed AM
Site Code : IPO 81
Start Date : 11/18/2020
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Groups Printed- Automobiles - Bicycle and Pedestrian

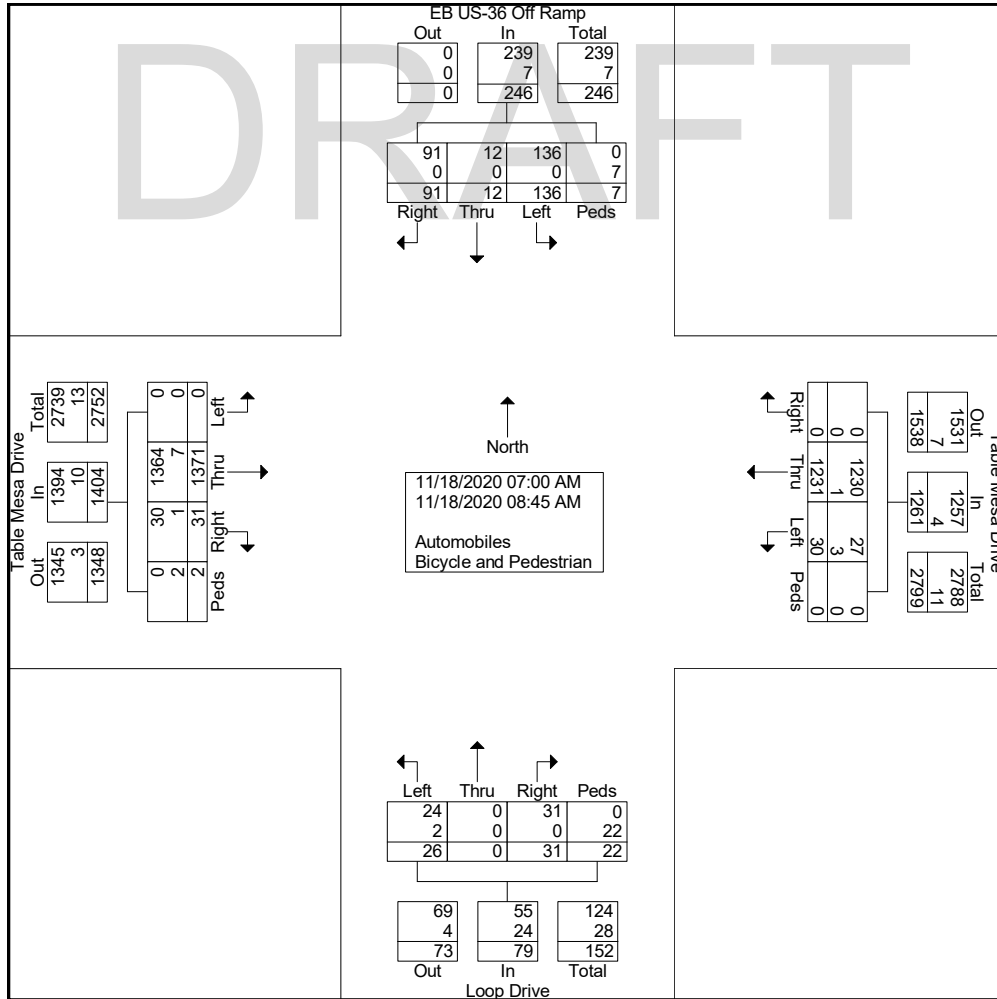
	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					Loop Drive Northbound					EB US-36 Off Ramp Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	100	3	0	103	3	75	0	0	78	0	0	2	3	5	7	1	4	0	12	198
07:15 AM	0	121	5	0	126	6	111	0	0	117	3	0	1	1	5	7	0	8	2	17	265
07:30 AM	0	151	4	0	155	7	145	0	0	152	5	0	3	6	14	15	3	11	1	30	351
07:45 AM	0	190	5	0	195	2	173	0	0	175	4	0	6	2	12	11	2	7	1	21	403
Total	0	562	17	0	579	18	504	0	0	522	12	0	12	12	36	40	6	30	4	80	1217
08:00 AM	0	194	0	2	196	3	187	0	0	190	4	0	6	3	13	27	1	13	2	43	442
08:15 AM	0	210	3	0	213	2	199	0	0	201	2	0	8	3	13	28	2	21	1	52	479
08:30 AM	0	200	8	0	208	4	179	0	0	183	3	0	3	2	8	17	0	17	0	34	433
08:45 AM	0	205	3	0	208	3	162	0	0	165	5	0	2	2	9	24	3	10	0	37	419
Total	0	809	14	2	825	12	727	0	0	739	14	0	19	10	43	96	6	61	3	166	1773
Grand Total	0	1371	31	2	1404	30	1231	0	0	1261	26	0	31	22	79	136	12	91	7	246	2990
Apprch %	0	97.6	2.2	0.1		2.4	97.6	0	0		32.9	0	39.2	27.8		55.3	4.9	37	2.8		
Total %	0	45.9	1	0.1	47	1	41.2	0	0	42.2	0.9	0	1	0.7	2.6	4.5	0.4	3	0.2	8.2	
Automobiles	0	1364	30	0	1394	27	1230	0	0	1257	24	0	31	0	55	136	12	91	0	239	2945
% Automobiles	0	99.5	96.8	0	99.3	90	99.9	0	0	99.7	92.3	0	100	0	69.6	100	100	100	0	97.2	98.5
Bicycle and Pedestrian	0	7	1	2	10	3	1	0	0	4	2	0	0	22	24	0	0	0	7	7	45
% Bicycle and Pedestrian	0	0.5	3.2	100	0.7	10	0.1	0	0	0.3	7.7	0	0	100	30.4	0	0	0	100	2.8	1.5



Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Wed AM
Site Code : IPO 81
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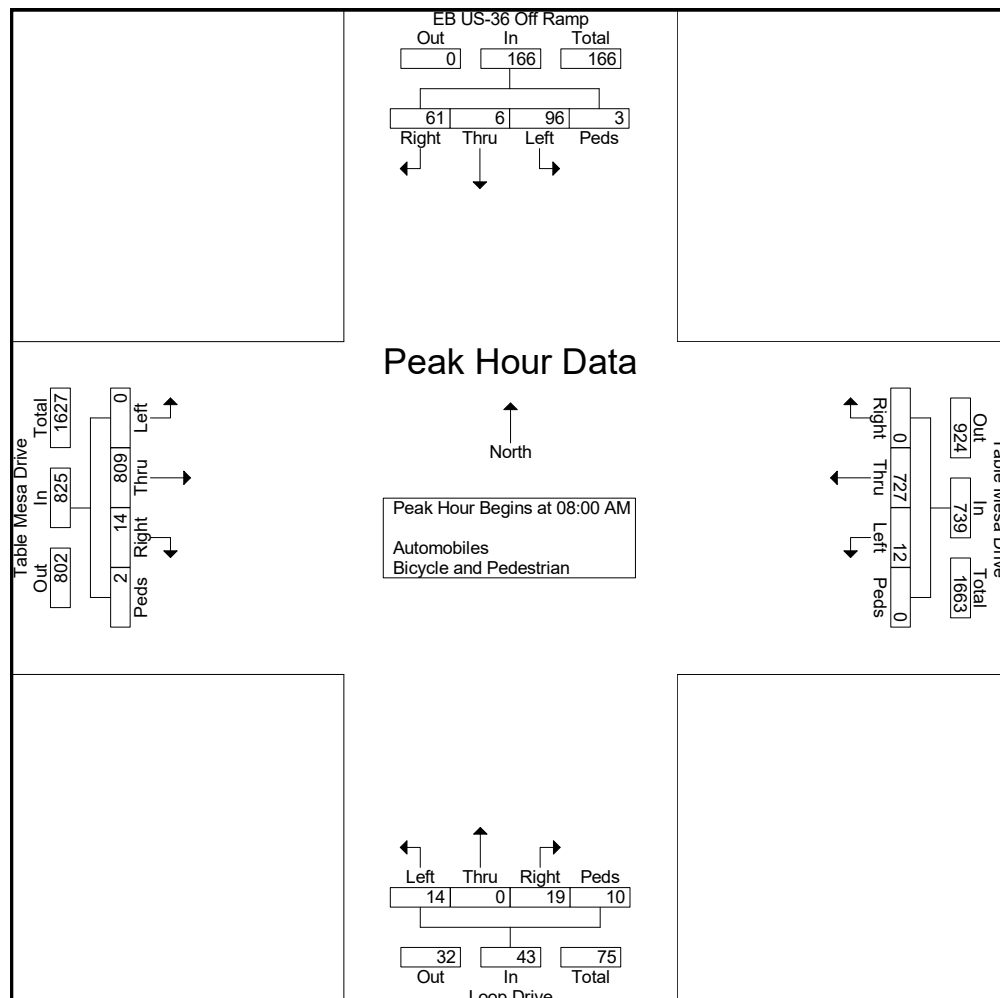


Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Wed AM
Site Code : IPO 81
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	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					Loop Drive Northbound					EB US-36 Off Ramp Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	194	0	2	196	3	187	0	0	190	4	0	6	3	13	27	1	13	2	43	442
08:15 AM	0	210	3	0	213	2	199	0	0	201	2	0	8	3	13	28	2	21	1	52	479
08:30 AM	0	200	8	0	208	4	179	0	0	183	3	0	3	2	8	17	0	17	0	34	433
08:45 AM	0	205	3	0	208	3	162	0	0	165	5	0	2	2	9	24	3	10	0	37	419
Total Volume	0	809	14	2	825	12	727	0	0	739	14	0	19	10	43	96	6	61	3	166	1773
% App. Total	0	98.1	1.7	0.2		1.6	98.4	0	0		32.6	0	44.2	23.3		57.8	3.6	36.7	1.8		
PHF	.000	.963	.438	.250	.968	.750	.913	.000	.000	.919	.700	.000	.594	.833	.827	.857	.500	.726	.375	.798	.925





Boulder, CO
CU South
PM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Wed PM
Site Code : IPO 81
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Groups Printed- Automobiles - Bicycle and Pedestrian

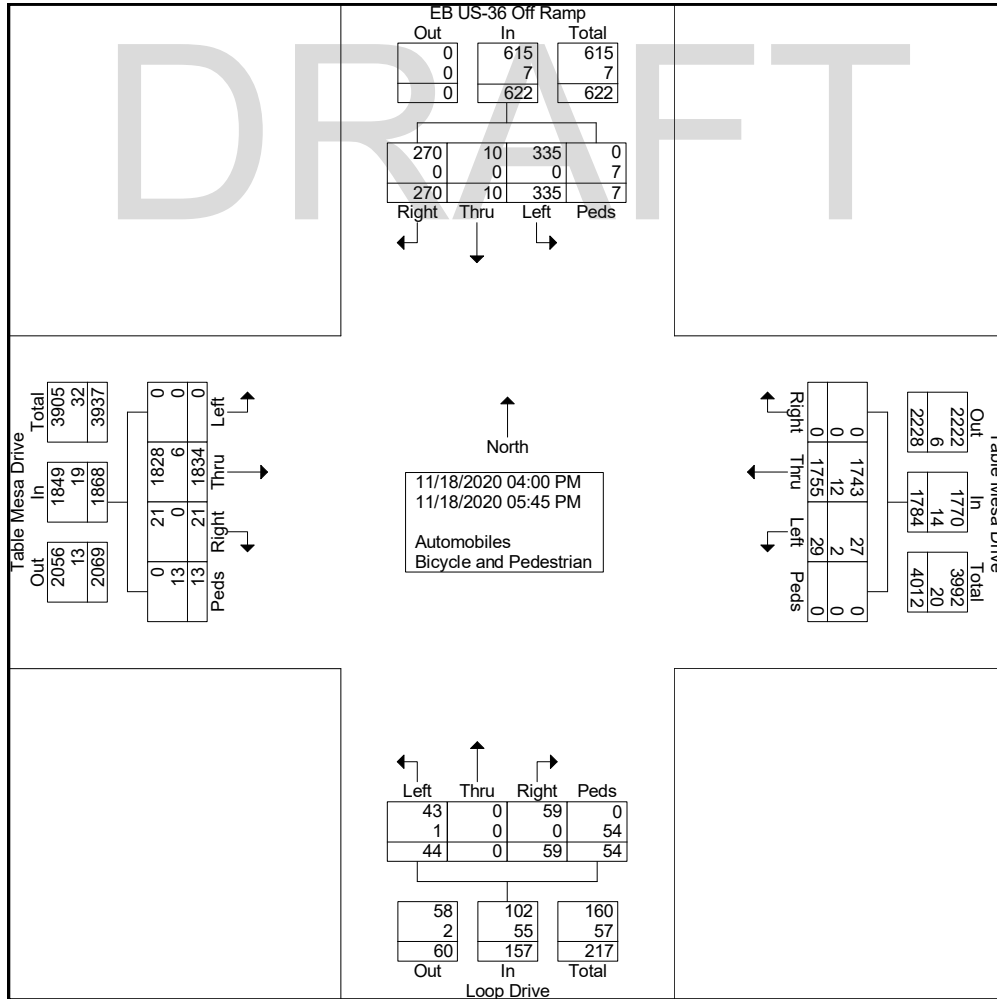
	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					Loop Drive Northbound					EB US-36 Off Ramp Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	273	2	1	276	5	196	0	0	201	1	0	7	15	23	49	1	29	0	79	579
04:15 PM	0	240	5	0	245	8	238	0	0	246	6	0	4	10	20	34	1	37	1	73	584
04:30 PM	0	226	4	4	234	4	212	0	0	216	8	0	19	7	34	34	2	30	3	69	553
04:45 PM	0	262	3	1	266	3	228	0	0	231	2	0	5	9	16	42	4	23	1	70	583
Total	0	1001	14	6	1021	20	874	0	0	894	17	0	35	41	93	159	8	119	5	291	2299
05:00 PM	0	237	2	1	240	6	228	0	0	234	6	0	7	4	17	55	1	41	0	97	588
05:15 PM	0	226	2	2	230	1	221	0	0	222	8	0	7	7	22	33	0	35	0	68	542
05:30 PM	0	193	2	2	197	2	220	0	0	222	11	0	8	2	21	48	0	34	2	84	524
05:45 PM	0	177	1	2	180	0	212	0	0	212	2	0	2	0	4	40	1	41	0	82	478
Total	0	833	7	7	847	9	881	0	0	890	27	0	24	13	64	176	2	151	2	331	2132
Grand Total	0	1834	21	13	1868	29	1755	0	0	1784	44	0	59	54	157	335	10	270	7	622	4431
Apprch %	0	98.2	1.1	0.7		1.6	98.4	0	0		28	0	37.6	34.4		53.9	1.6	43.4	1.1		
Total %	0	41.4	0.5	0.3	42.2	0.7	39.6	0	0	40.3	1	0	1.3	1.2	3.5	7.6	0.2	6.1	0.2	14	
Automobiles	0	1828	21	0	1849	27	1743	0	0	1770	43	0	59	0	102	335	10	270	0	615	4336
% Automobiles	0	99.7	100	0	99	93.1	99.3	0	0	99.2	97.7	0	100	0	65	100	100	100	0	98.9	97.9
Bicycle and Pedestrian	0	6	0	13	19	2	12	0	0	14	1	0	0	54	55	0	0	0	7	7	95
% Bicycle and Pedestrian	0	0.3	0	100	1	6.9	0.7	0	0	0.8	2.3	0	0	100	35	0	0	0	100	1.1	2.1



Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Wed PM
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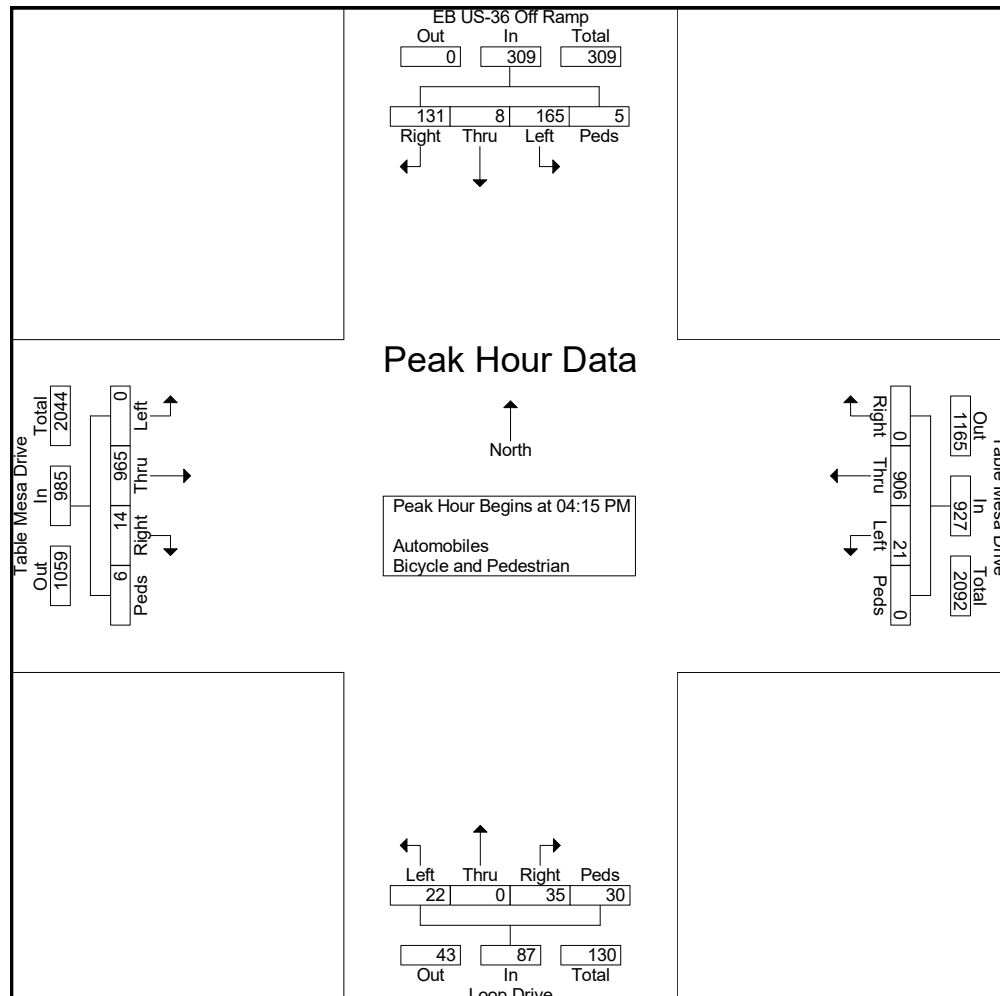


Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
Table Mesa & Loop Drive/EB US36 Off Ramp

File Name : Table Mesa and Loop Wed PM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 3

	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					Loop Drive Northbound					EB US-36 Off Ramp Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	240	5	0	245	8	238	0	0	246	6	0	4	10	20	34	1	37	1	73	584
04:30 PM	0	226	4	4	234	4	212	0	0	216	8	0	19	7	34	34	2	30	3	69	553
04:45 PM	0	262	3	1	266	3	228	0	0	231	2	0	5	9	16	42	4	23	1	70	583
05:00 PM	0	237	2	1	240	6	228	0	0	234	6	0	7	4	17	55	1	41	0	97	588
Total Volume	0	965	14	6	985	21	906	0	0	927	22	0	35	30	87	165	8	131	5	309	2308
% App. Total	0	98	1.4	0.6		2.3	97.7	0	0		25.3	0	40.2	34.5		53.4	2.6	42.4	1.6		
PHF	.000	.921	.700	.375	.926	.656	.952	.000	.000	.942	.688	.000	.461	.750	.640	.750	.500	.799	.417	.796	.981





Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 1

Groups Printed- Automobiles - Bicycle and Pedestrian

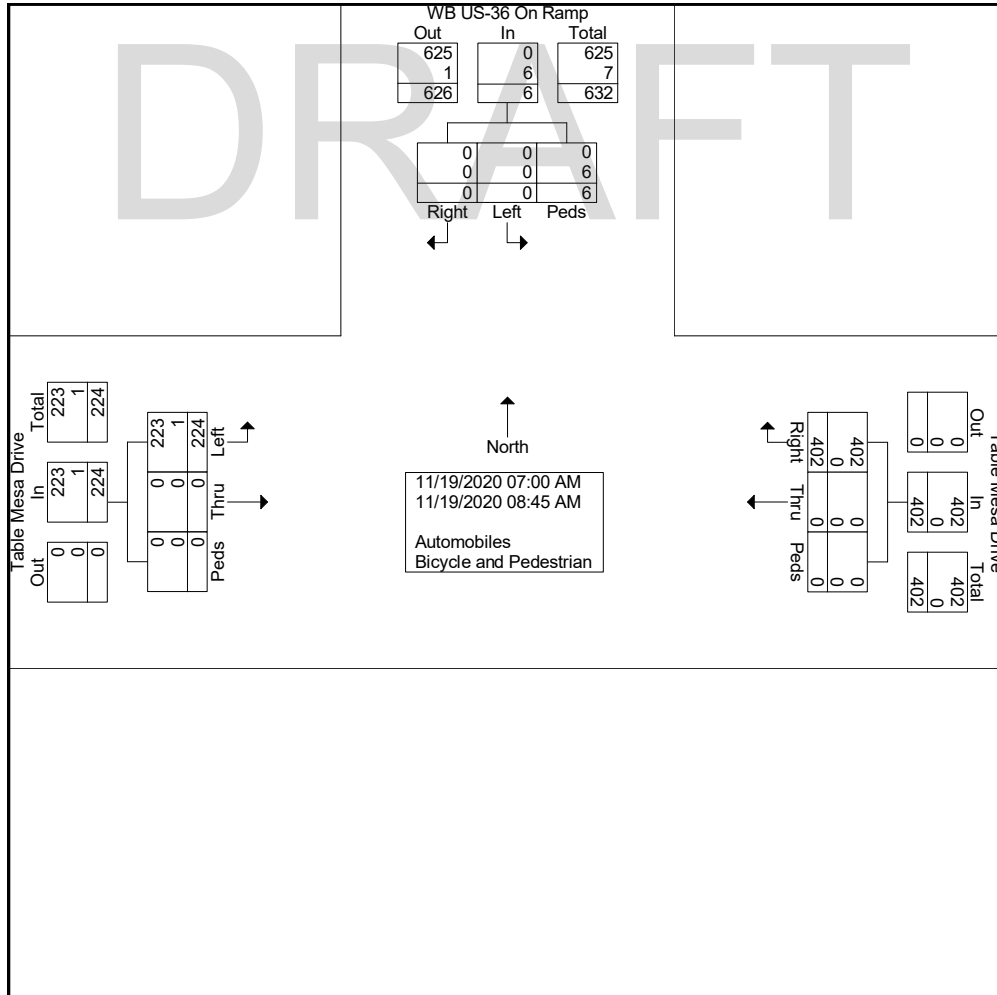
Start Time	Table Mesa Drive Eastbound				Table Mesa Drive Westbound				WB US-36 On Ramp Southbound				Int. Total
	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	
07:00 AM	17	0	0	17	0	28	0	28	0	0	0	0	45
07:15 AM	26	0	0	26	0	43	0	43	0	0	1	1	70
07:30 AM	17	0	0	17	0	46	0	46	0	0	1	1	64
07:45 AM	24	0	0	24	0	48	0	48	0	0	1	1	73
Total	84	0	0	84	0	165	0	165	0	0	3	3	252
08:00 AM	29	0	0	29	0	47	0	47	0	0	1	1	77
08:15 AM	40	0	0	40	0	65	0	65	0	0	0	0	105
08:30 AM	32	0	0	32	0	59	0	59	0	0	2	2	93
08:45 AM	39	0	0	39	0	66	0	66	0	0	0	0	105
Total	140	0	0	140	0	237	0	237	0	0	3	3	380
Grand Total	224	0	0	224	0	402	0	402	0	0	6	6	632
Apprch %	100	0	0		0	100	0		0	0	100		
Total %	35.4	0	0	35.4	0	63.6	0	63.6	0	0	0.9	0.9	
Automobiles	223	0	0	223	0	402	0	402	0	0	0	0	625
% Automobiles	99.6	0	0	99.6	0	100	0	100	0	0	0	0	98.9
Bicycle and Pedestrian	1	0	0	1	0	0	0	0	0	0	6	6	7
% Bicycle and Pedestrian	0.4	0	0	0.4	0	0	0	0	0	0	100	100	1.1



Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 2



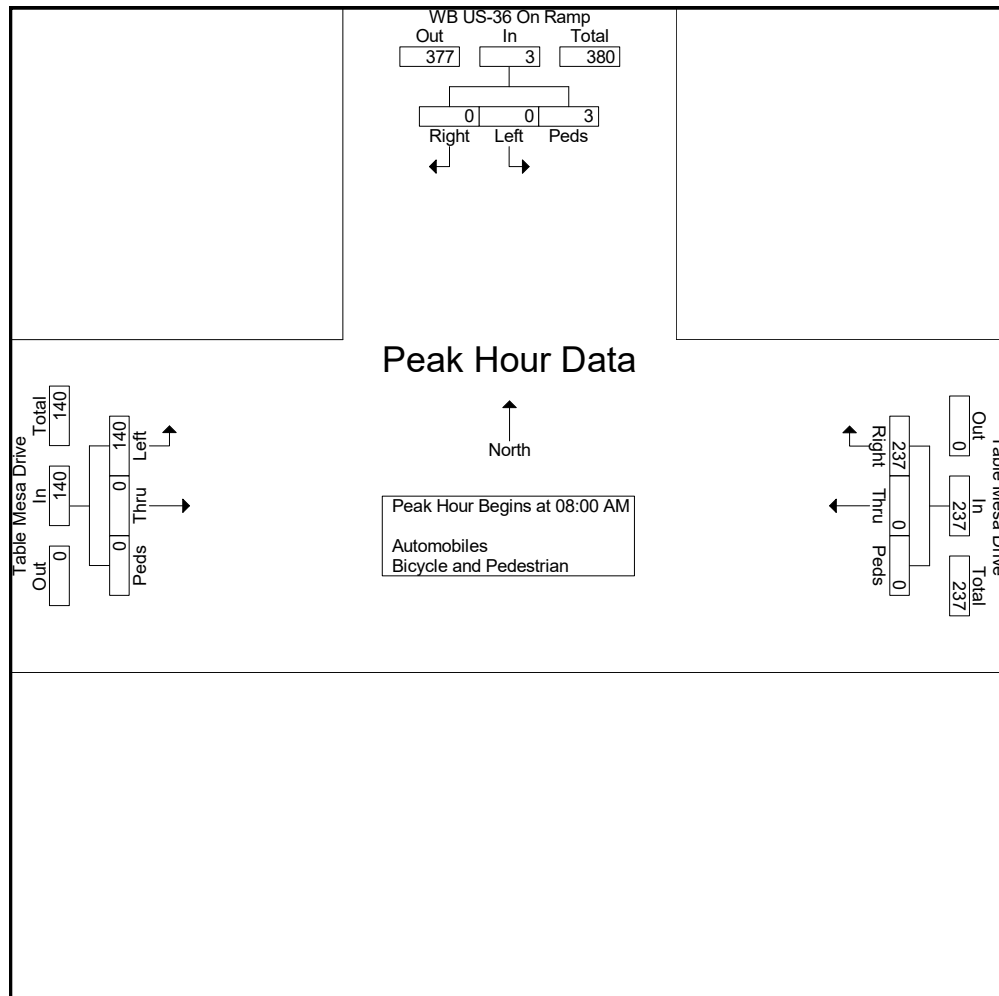


Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 3

	Table Mesa Drive Eastbound				Table Mesa Drive Westbound				WB US-36 On Ramp Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	29	0	0	29	0	47	0	47	0	0	1	1	77
08:15 AM	40	0	0	40	0	65	0	65	0	0	0	0	105
08:30 AM	32	0	0	32	0	59	0	59	0	0	2	2	93
08:45 AM	39	0	0	39	0	66	0	66	0	0	0	0	105
Total Volume	140	0	0	140	0	237	0	237	0	0	3	3	380
% App. Total	100	0	0		0	100	0		0	0	100		
PHF	.875	.000	.000	.875	.000	.898	.000	.898	.000	.000	.375	.375	.905





Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
Table Mesa & WB US36 On Ramp

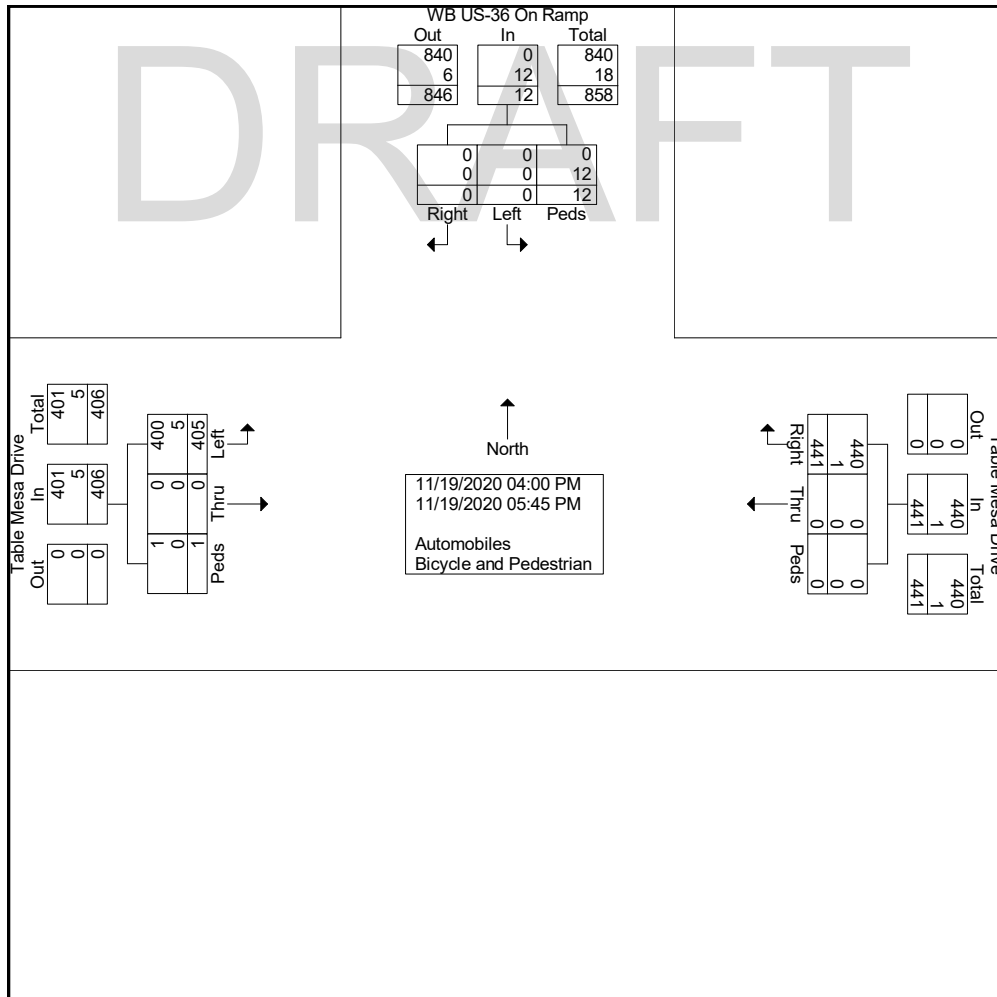
File Name : Table Mesa and WB 36 On Ramp Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 1

Groups Printed- Automobiles - Bicycle and Pedestrian

Start Time	Table Mesa Drive Eastbound				Table Mesa Drive Westbound				WB US-36 On Ramp Southbound				Int. Total
	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	
04:00 PM	52	0	0	52	0	55	0	55	0	0	1	1	108
04:15 PM	56	0	0	56	0	56	0	56	0	0	0	0	112
04:30 PM	52	0	0	52	0	68	0	68	0	0	1	1	121
04:45 PM	54	0	0	54	0	64	0	64	0	0	2	2	120
Total	214	0	0	214	0	243	0	243	0	0	4	4	461
05:00 PM	43	0	0	43	0	53	0	53	0	0	2	2	98
05:15 PM	47	0	1	48	0	54	0	54	0	0	3	3	105
05:30 PM	44	0	0	44	0	40	0	40	0	0	0	0	84
05:45 PM	57	0	0	57	0	51	0	51	0	0	3	3	111
Total	191	0	1	192	0	198	0	198	0	0	8	8	398
Grand Total	405	0	1	406	0	441	0	441	0	0	12	12	859
Apprch %	99.8	0	0.2		0	100	0		0	0	100		
Total %	47.1	0	0.1	47.3	0	51.3	0	51.3	0	0	1.4	1.4	
Automobiles	400	0	1	401	0	440	0	440	0	0	0	0	841
% Automobiles	98.8	0	100	98.8	0	99.8	0	99.8	0	0	0	0	97.9
Bicycle and Pedestrian	5	0	0	5	0	1	0	1	0	0	12	12	18
% Bicycle and Pedestrian	1.2	0	0	1.2	0	0.2	0	0.2	0	0	100	100	2.1



File Name : Table Mesa and WB 36 On Ramp Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 2



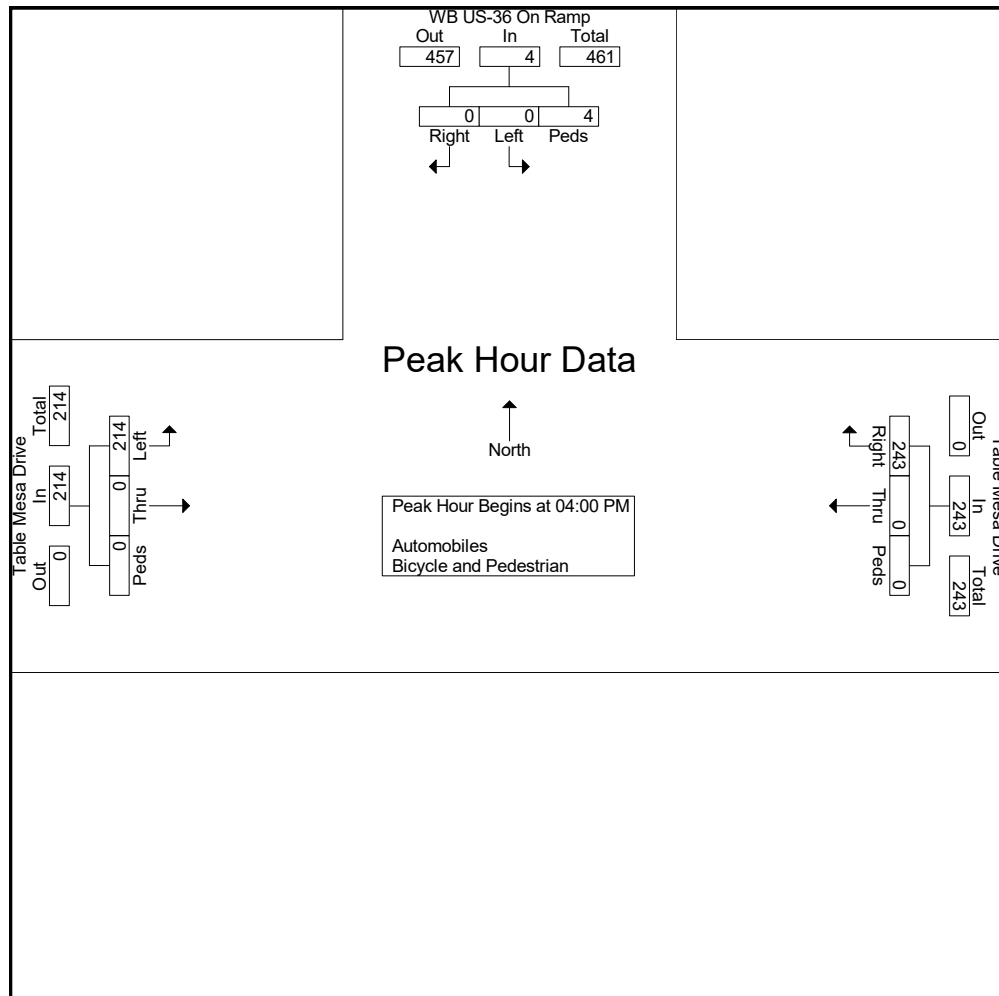


Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 3

	Table Mesa Drive Eastbound				Table Mesa Drive Westbound				WB US-36 On Ramp Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	52	0	0	52	0	55	0	55	0	0	1	1	108
04:15 PM	56	0	0	56	0	56	0	56	0	0	0	0	112
04:30 PM	52	0	0	52	0	68	0	68	0	0	1	1	121
04:45 PM	54	0	0	54	0	64	0	64	0	0	2	2	120
Total Volume	214	0	0	214	0	243	0	243	0	0	4	4	461
% App. Total	100	0	0		0	100	0		0	0	100		
PHF	.955	.000	.000	.955	.000	.893	.000	.893	.000	.000	.500	.500	.952



Boulder, CO
CU South
AM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 1

Groups Printed- Automobiles - Bicycle and Pedestrian

Start Time	Table Mesa Drive Eastbound				Table Mesa Drive Westbound				WB US-36 On Ramp Southbound				Int. Total
	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	
07:00 AM	16	0	0	16	0	31	0	31	0	0	0	0	47
07:15 AM	18	0	0	18	0	36	0	36	0	0	0	0	54
07:30 AM	23	0	0	23	0	43	0	43	0	0	0	0	66
07:45 AM	33	0	0	33	0	61	0	61	0	0	1	1	95
Total	90	0	0	90	0	171	0	171	0	0	1	1	262
08:00 AM	27	0	0	27	0	43	0	43	0	0	2	2	72
08:15 AM	45	0	0	45	0	53	0	53	0	0	0	0	98
08:30 AM	40	0	0	40	0	70	0	70	0	0	2	2	112
08:45 AM	52	0	0	52	0	63	0	63	0	0	0	0	115
Total	164	0	0	164	0	229	0	229	0	0	4	4	397
Grand Total	254	0	0	254	0	400	0	400	0	0	5	5	659
Apprch %	100	0	0		0	100	0		0	0	100		
Total %	38.5	0	0	38.5	0	60.7	0	60.7	0	0	0.8	0.8	
Automobiles	253	0	0	253	0	399	0	399	0	0	0	0	652
% Automobiles	99.6	0	0	99.6	0	99.8	0	99.8	0	0	0	0	98.9
Bicycle and Pedestrian	1	0	0	1	0	1	0	1	0	0	5	5	7
% Bicycle and Pedestrian	0.4	0	0	0.4	0	0.2	0	0.2	0	0	100	100	1.1



File Name : Table Mesa and WB 36 On Ramp Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 2

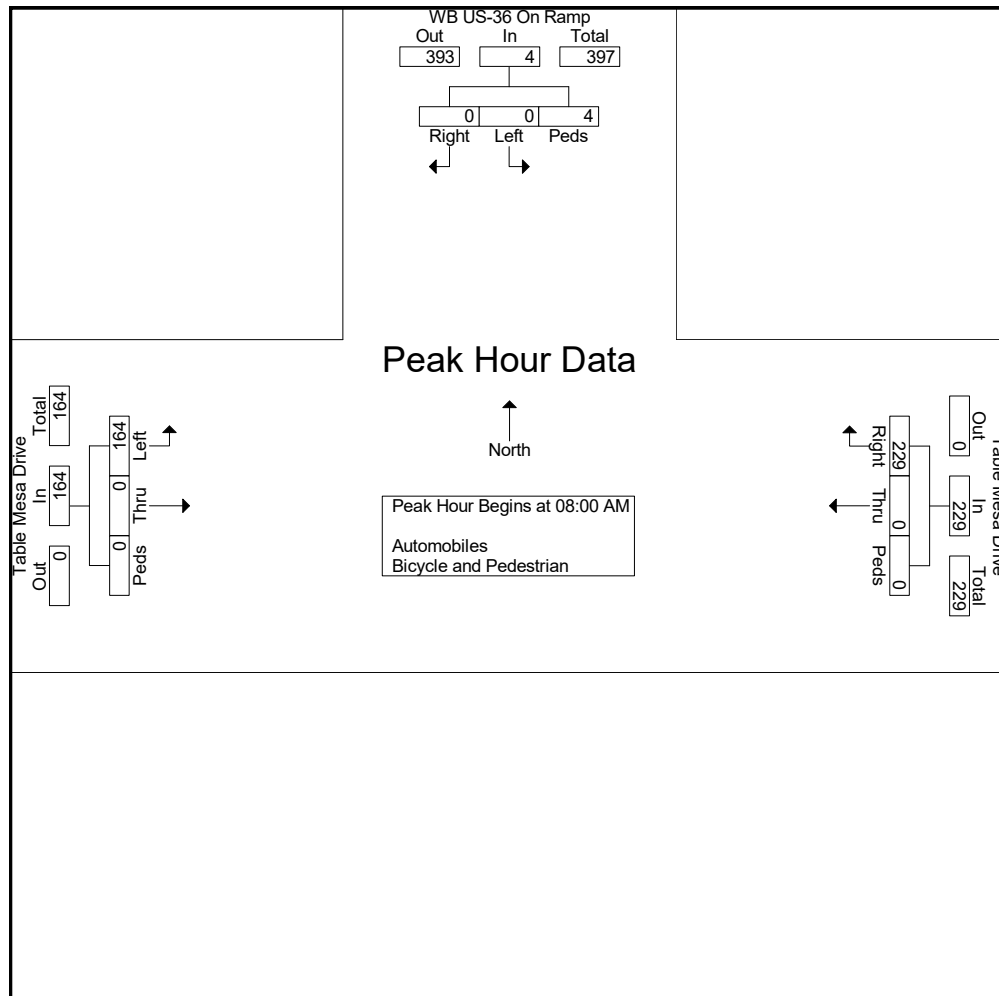


Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 3

	Table Mesa Drive Eastbound				Table Mesa Drive Westbound				WB US-36 On Ramp Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	27	0	0	27	0	43	0	43	0	0	2	2	72
08:15 AM	45	0	0	45	0	53	0	53	0	0	0	0	98
08:30 AM	40	0	0	40	0	70	0	70	0	0	2	2	112
08:45 AM	52	0	0	52	0	63	0	63	0	0	0	0	115
Total Volume	164	0	0	164	0	229	0	229	0	0	4	4	397
% App. Total	100	0	0		0	100	0		0	0	100		
PHF	.788	.000	.000	.788	.000	.818	.000	.818	.000	.000	.500	.500	.863





Boulder, CO
CU South
PM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 1

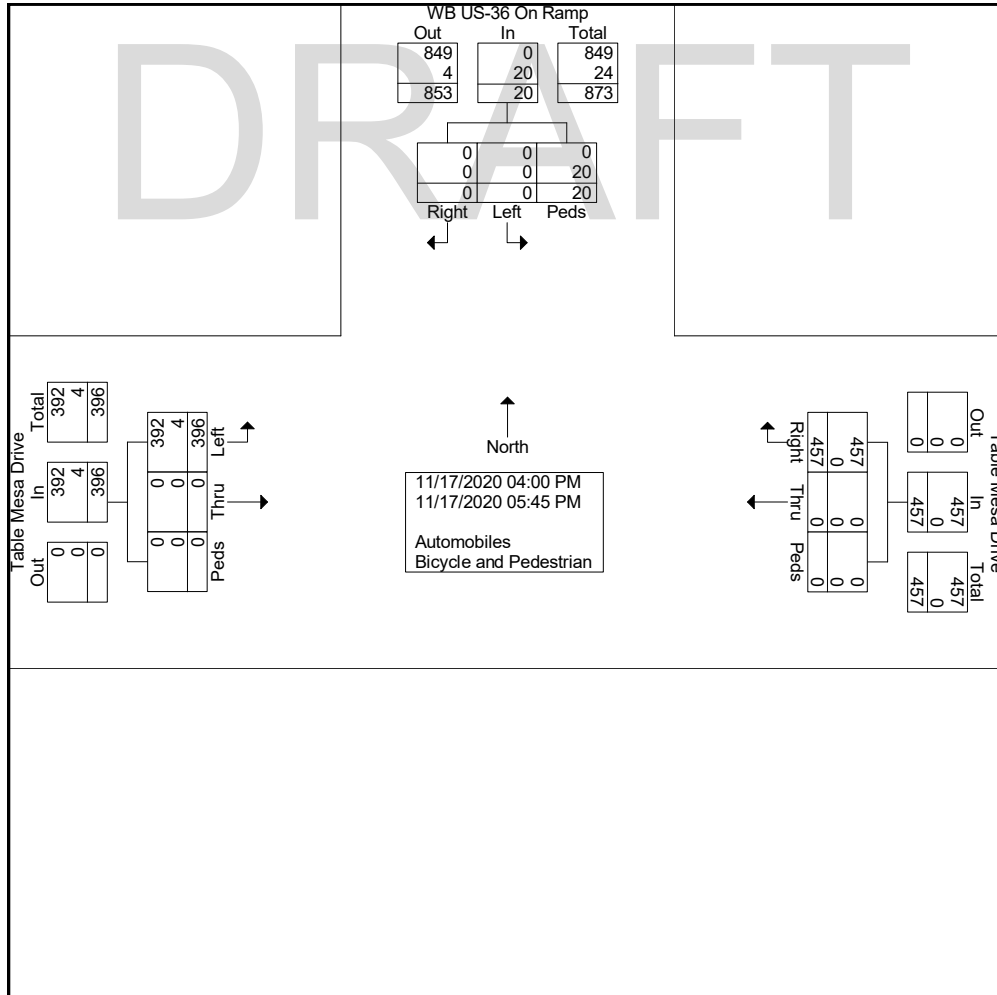
Groups Printed- Automobiles - Bicycle and Pedestrian													
	Table Mesa Drive Eastbound				Table Mesa Drive Westbound				WB US-36 On Ramp Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
04:00 PM	52	0	0	52	0	49	0	49	0	0	6	6	107
04:15 PM	45	0	0	45	0	45	0	45	0	0	1	1	91
04:30 PM	62	0	0	62	0	66	0	66	0	0	4	4	132
04:45 PM	48	0	0	48	0	67	0	67	0	0	3	3	118
Total	207	0	0	207	0	227	0	227	0	0	14	14	448
05:00 PM	53	0	0	53	0	68	0	68	0	0	3	3	124
05:15 PM	37	0	0	37	0	81	0	81	0	0	2	2	120
05:30 PM	38	0	0	38	0	41	0	41	0	0	0	0	79
05:45 PM	61	0	0	61	0	40	0	40	0	0	1	1	102
Total	189	0	0	189	0	230	0	230	0	0	6	6	425
Grand Total	396	0	0	396	0	457	0	457	0	0	20	20	873
Apprch %	100	0	0		0	100	0		0	0	100		
Total %	45.4	0	0	45.4	0	52.3	0	52.3	0	0	2.3	2.3	
Automobiles	392	0	0	392	0	457	0	457	0	0	0	0	849
% Automobiles	99	0	0	99	0	100	0	100	0	0	0	0	97.3
Bicycle and Pedestrian	4	0	0	4	0	0	0	0	0	0	20	20	24
% Bicycle and Pedestrian	1	0	0	1	0	0	0	0	0	0	100	100	2.7



Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 2



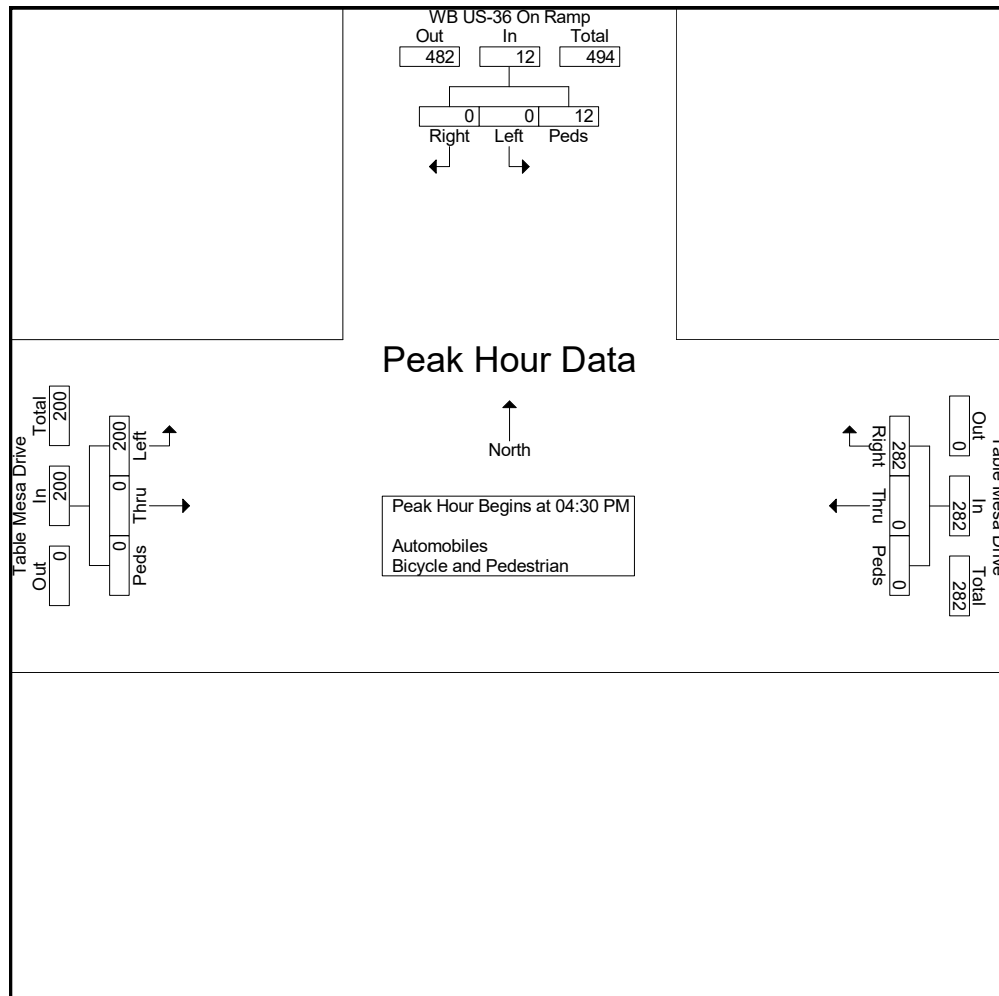


Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 3

	Table Mesa Drive Eastbound				Table Mesa Drive Westbound				WB US-36 On Ramp Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	62	0	0	62	0	66	0	66	0	0	4	4	132
04:45 PM	48	0	0	48	0	67	0	67	0	0	3	3	118
05:00 PM	53	0	0	53	0	68	0	68	0	0	3	3	124
05:15 PM	37	0	0	37	0	81	0	81	0	0	2	2	120
Total Volume	200	0	0	200	0	282	0	282	0	0	12	12	494
% App. Total	100	0	0		0	100	0		0	0	100		
PHF	.806	.000	.000	.806	.000	.870	.000	.870	.000	.000	.750	.750	.936





Boulder, CO
CU South
AM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Wed AM
Site Code : IPO 81
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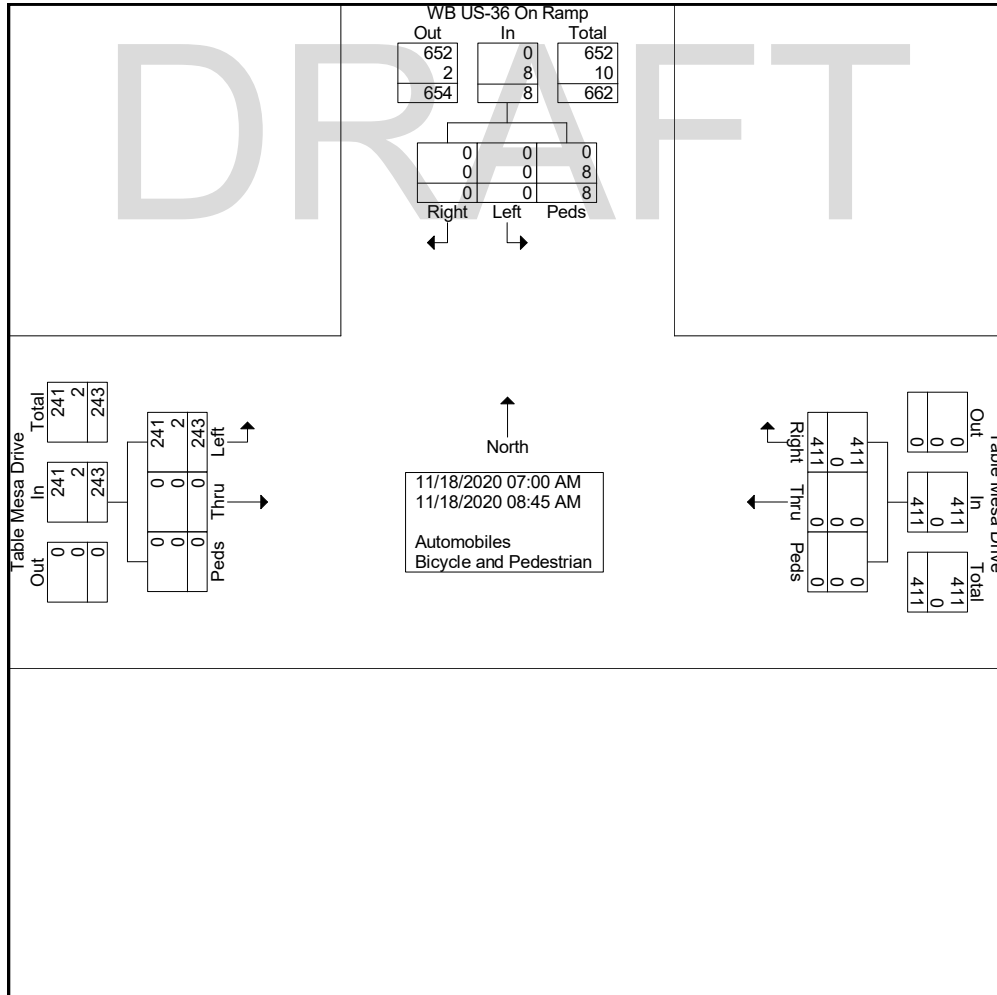
Groups Printed- Automobiles - Bicycle and Pedestrian													
	Table Mesa Drive Eastbound				Table Mesa Drive Westbound				WB US-36 On Ramp Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	15	0	0	15	0	27	0	27	0	0	0	0	42
07:15 AM	14	0	0	14	0	33	0	33	0	0	2	2	49
07:30 AM	26	0	0	26	0	53	0	53	0	0	1	1	80
07:45 AM	33	0	0	33	0	58	0	58	0	0	2	2	93
Total	88	0	0	88	0	171	0	171	0	0	5	5	264
08:00 AM	31	0	0	31	0	48	0	48	0	0	2	2	81
08:15 AM	45	0	0	45	0	62	0	62	0	0	1	1	108
08:30 AM	46	0	0	46	0	61	0	61	0	0	0	0	107
08:45 AM	33	0	0	33	0	69	0	69	0	0	0	0	102
Total	155	0	0	155	0	240	0	240	0	0	3	3	398
Grand Total	243	0	0	243	0	411	0	411	0	0	8	8	662
Apprch %	100	0	0		0	100	0		0	0	100		
Total %	36.7	0	0	36.7	0	62.1	0	62.1	0	0	1.2	1.2	
Automobiles	241	0	0	241	0	411	0	411	0	0	0	0	652
% Automobiles	99.2	0	0	99.2	0	100	0	100	0	0	0	0	98.5
Bicycle and Pedestrian	2	0	0	2	0	0	0	0	0	0	8	8	10
% Bicycle and Pedestrian	0.8	0	0	0.8	0	0	0	0	0	0	100	100	1.5



Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Wed AM
Site Code : IPO 81
Start Date : 11/18/2020
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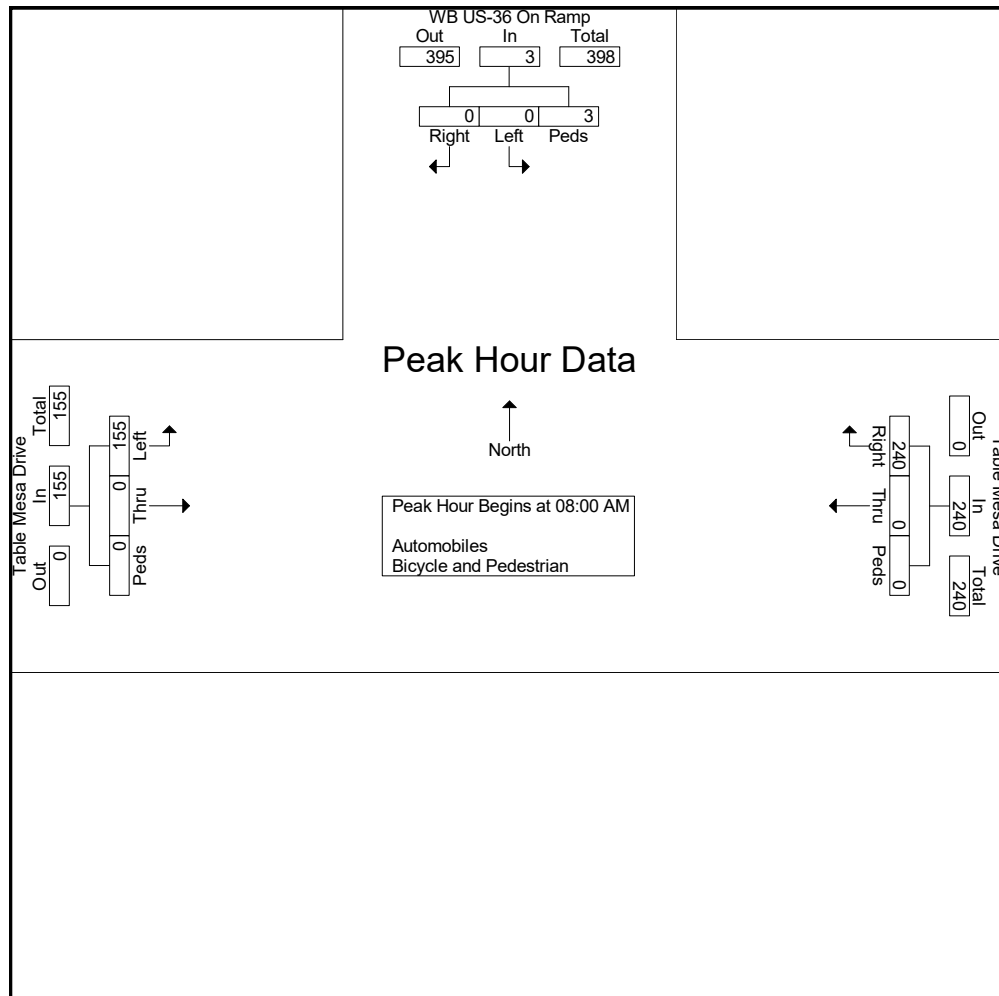


Ridgeview Data
Collection

Boulder, CO
CU South
AM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Wed AM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 3

	Table Mesa Drive Eastbound				Table Mesa Drive Westbound				WB US-36 On Ramp Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	31	0	0	31	0	48	0	48	0	0	2	2	81
08:15 AM	45	0	0	45	0	62	0	62	0	0	1	1	108
08:30 AM	46	0	0	46	0	61	0	61	0	0	0	0	107
08:45 AM	33	0	0	33	0	69	0	69	0	0	0	0	102
Total Volume	155	0	0	155	0	240	0	240	0	0	3	3	398
% App. Total	100	0	0		0	100	0		0	0	100		
PHF	.842	.000	.000	.842	.000	.870	.000	.870	.000	.000	.375	.375	.921





Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Wed PM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 1

Groups Printed- Automobiles - Bicycle and Pedestrian

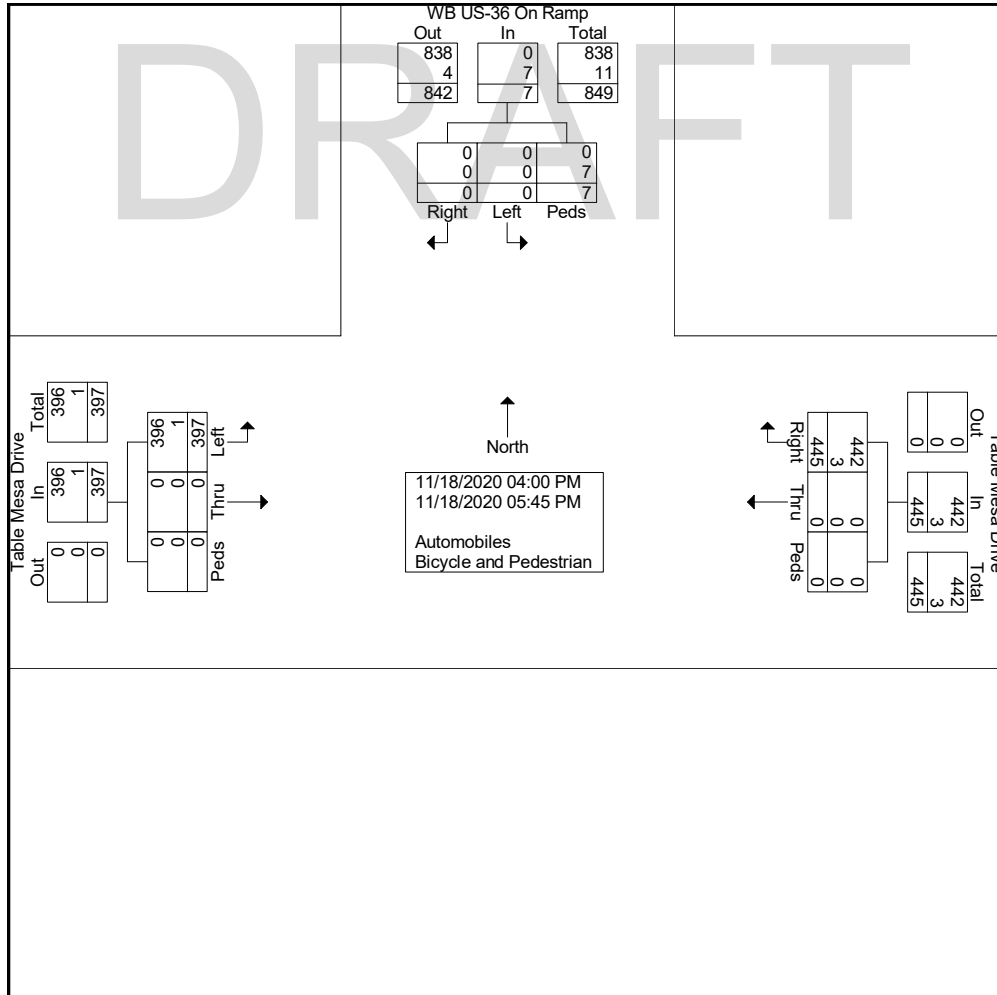
Start Time	Table Mesa Drive Eastbound				Table Mesa Drive Westbound				WB US-36 On Ramp Southbound				Int. Total
	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	
04:00 PM	47	0	0	47	0	47	0	47	0	0	0	0	94
04:15 PM	42	0	0	42	0	53	0	53	0	0	1	1	96
04:30 PM	57	0	0	57	0	56	0	56	0	0	3	3	116
04:45 PM	43	0	0	43	0	60	0	60	0	0	0	0	103
Total	189	0	0	189	0	216	0	216	0	0	4	4	409
05:00 PM	48	0	0	48	0	63	0	63	0	0	1	1	112
05:15 PM	55	0	0	55	0	69	0	69	0	0	0	0	124
05:30 PM	53	0	0	53	0	53	0	53	0	0	1	1	107
05:45 PM	52	0	0	52	0	44	0	44	0	0	1	1	97
Total	208	0	0	208	0	229	0	229	0	0	3	3	440
Grand Total	397	0	0	397	0	445	0	445	0	0	7	7	849
Apprch %	100	0	0		0	100	0		0	0	100		
Total %	46.8	0	0	46.8	0	52.4	0	52.4	0	0	0.8	0.8	
Automobiles	396	0	0	396	0	442	0	442	0	0	0	0	838
% Automobiles	99.7	0	0	99.7	0	99.3	0	99.3	0	0	0	0	98.7
Bicycle and Pedestrian	1	0	0	1	0	3	0	3	0	0	7	7	11
% Bicycle and Pedestrian	0.3	0	0	0.3	0	0.7	0	0.7	0	0	100	100	1.3



Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Wed PM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 2



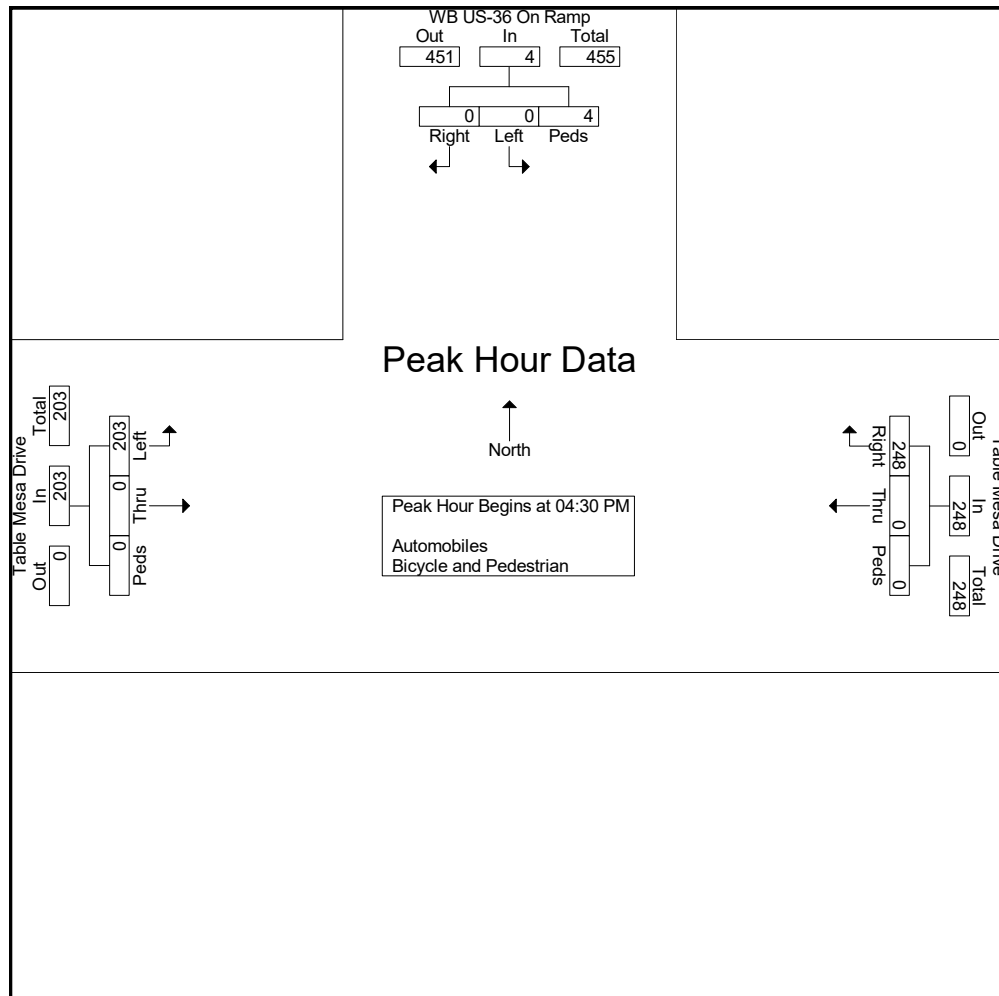


Ridgeview Data
Collection

Boulder, CO
CU South
PM Peak
Table Mesa & WB US36 On Ramp

File Name : Table Mesa and WB 36 On Ramp Wed PM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 3

	Table Mesa Drive Eastbound				Table Mesa Drive Westbound				WB US-36 On Ramp Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	57	0	0	57	0	56	0	56	0	0	3	3	116
04:45 PM	43	0	0	43	0	60	0	60	0	0	0	0	103
05:00 PM	48	0	0	48	0	63	0	63	0	0	1	1	112
05:15 PM	55	0	0	55	0	69	0	69	0	0	0	0	124
Total Volume	203	0	0	203	0	248	0	248	0	0	4	4	455
% App. Total	100	0	0		0	100	0		0	0	100		
PHF	.890	.000	.000	.890	.000	.899	.000	.899	.000	.000	.333	.333	.917



Ridgeview Data
Collection

Boulder, CO

CU South

AM Peak

Table Mesa to EB US-36

File Name : Table Mesa to EB 36 Thurs AM

Site Code : IPO 81

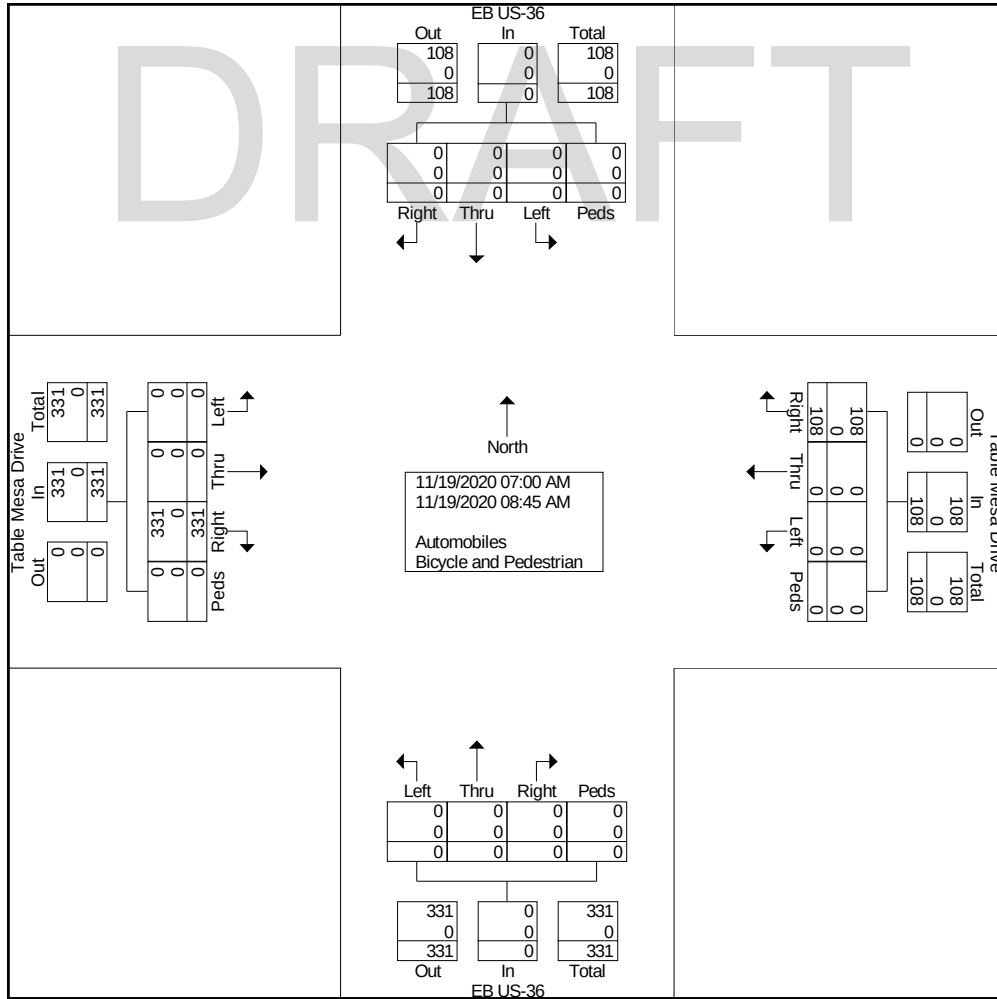
Start Date : 11/19/2020

Page No : 1

[illegible]

Boulder, CO
CU South
AM Peak
Table Mesa to EB US-36

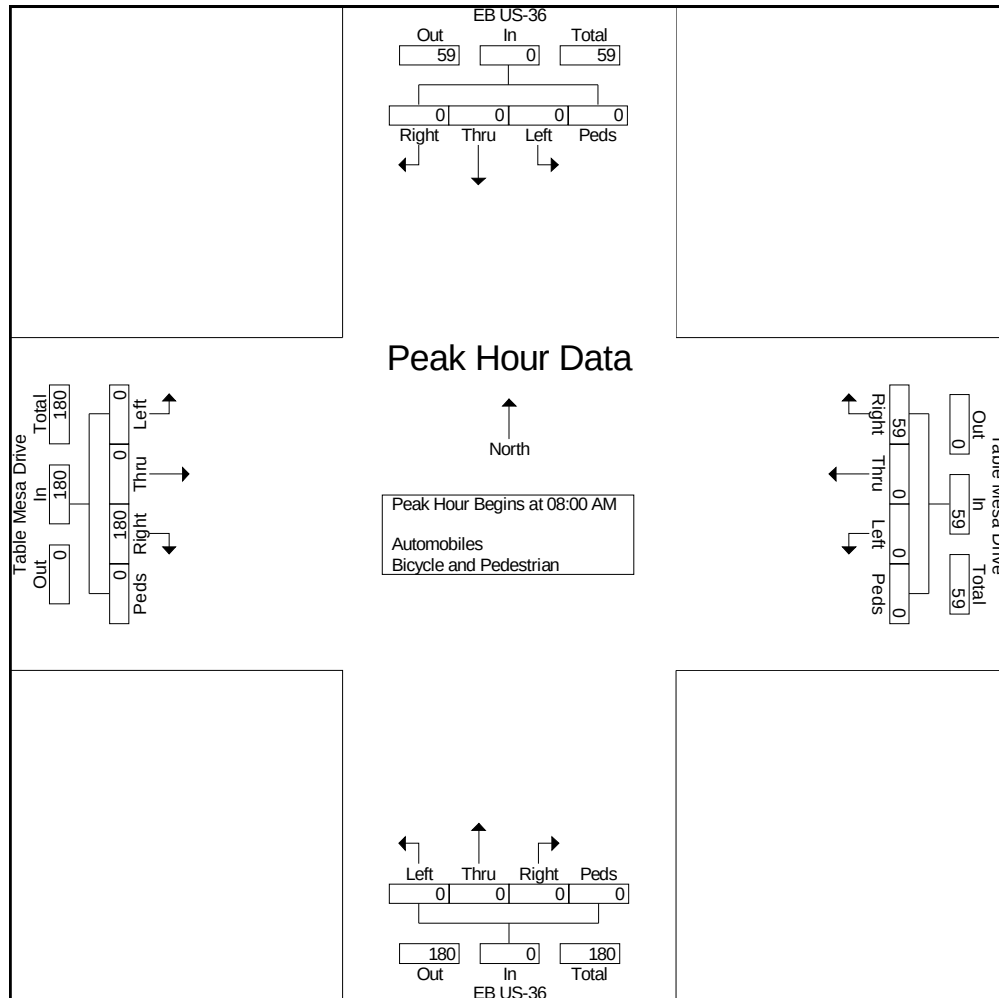
File Name : Table Mesa to EB 36 Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 2



Boulder, CO
CU South
AM Peak
Table Mesa to EB US-36

File Name : Table Mesa to EB 36 Thurs AM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 3

	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					EB US-36 Northbound					EB US-36 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	52	0	52	0	0	15	0	15	0	0	0	0	0	0	0	0	0	0	67
08:15 AM	0	0	40	0	40	0	0	18	0	18	0	0	0	0	0	0	0	0	0	0	58
08:30 AM	0	0	47	0	47	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	57
08:45 AM	0	0	41	0	41	0	0	16	0	16	0	0	0	0	0	0	0	0	0	0	57
Total Volume	0	0	180	0	180	0	0	59	0	59	0	0	0	0	0	0	0	0	0	0	239
% App. Total	0	0	100	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.865	.000	.865	.000	.000	.819	.000	.819	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.892



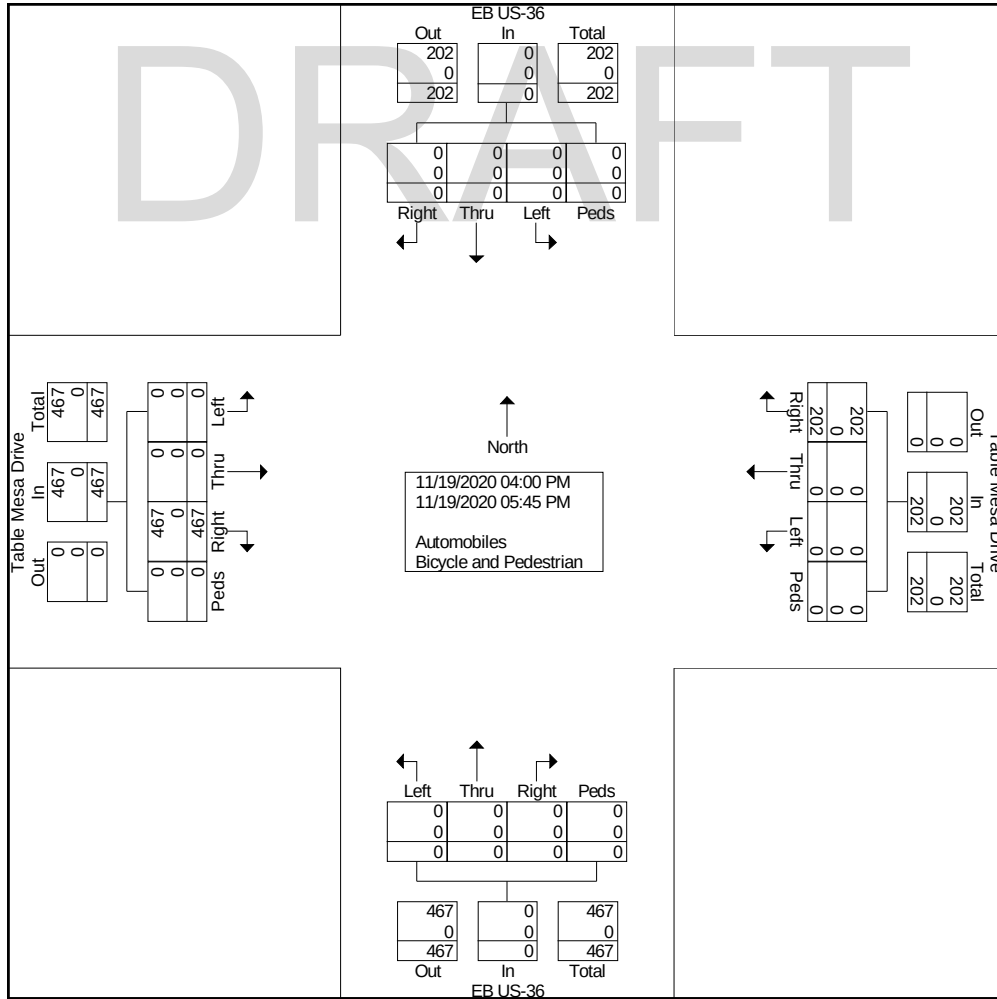


File Name : Table Mesa to EB 36 Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 1

[illegible]

Boulder, CO
CU South
PM Peak
Table Mesa to EB US-36

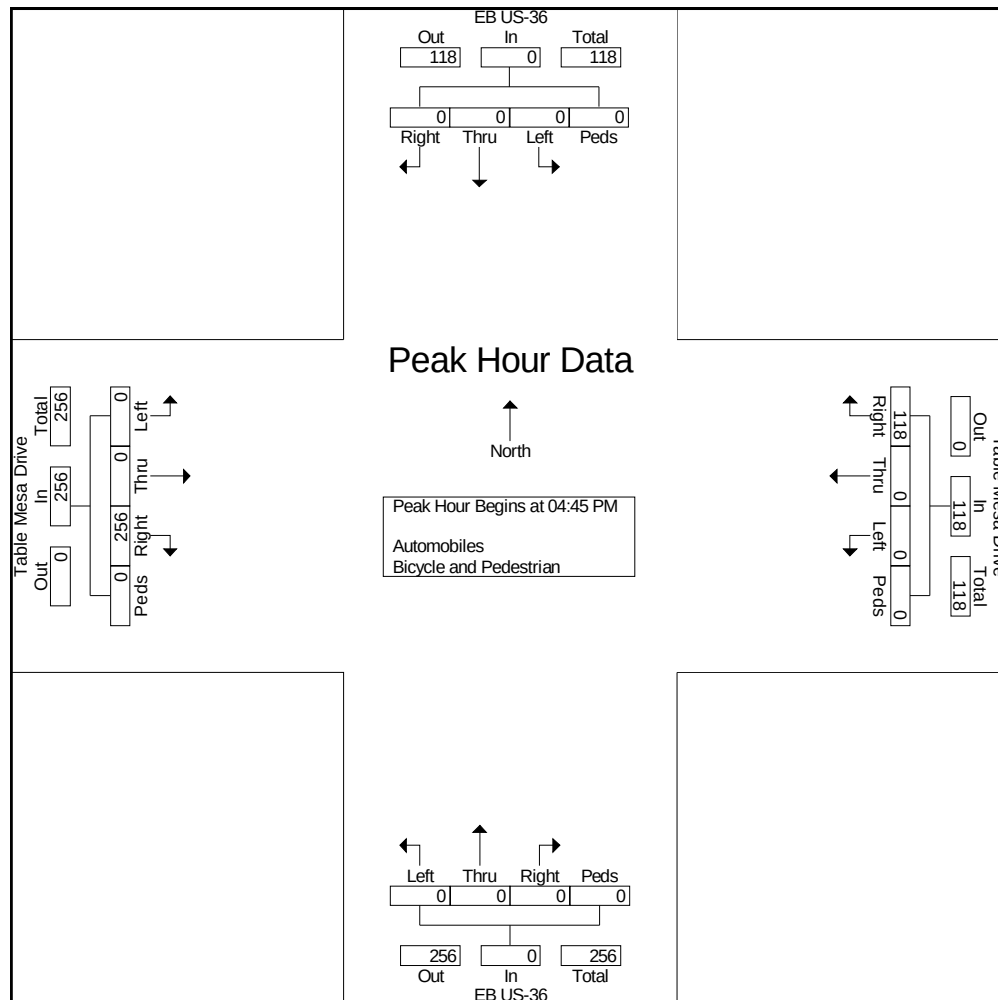
File Name : Table Mesa to EB 36 Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 2



Boulder, CO
CU South
PM Peak
Table Mesa to EB US-36

File Name : Table Mesa to EB 36 Thurs PM
Site Code : IPO 81
Start Date : 11/19/2020
Page No : 3

	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					EB US-36 Northbound					EB US-36 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	73	0	73	0	0	21	0	21	0	0	0	0	0	0	0	0	0	0	94
05:00 PM	0	0	55	0	55	0	0	35	0	35	0	0	0	0	0	0	0	0	0	0	90
05:15 PM	0	0	71	0	71	0	0	37	0	37	0	0	0	0	0	0	0	0	0	0	108
05:30 PM	0	0	57	0	57	0	0	25	0	25	0	0	0	0	0	0	0	0	0	0	82
Total Volume	0	0	256	0	256	0	0	118	0	118	0	0	0	0	0	0	0	0	0	0	374
% App. Total	0	0	100	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.877	.000	.877	.000	.000	.797	.000	.797	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.866



Ridgeview Data
Collection

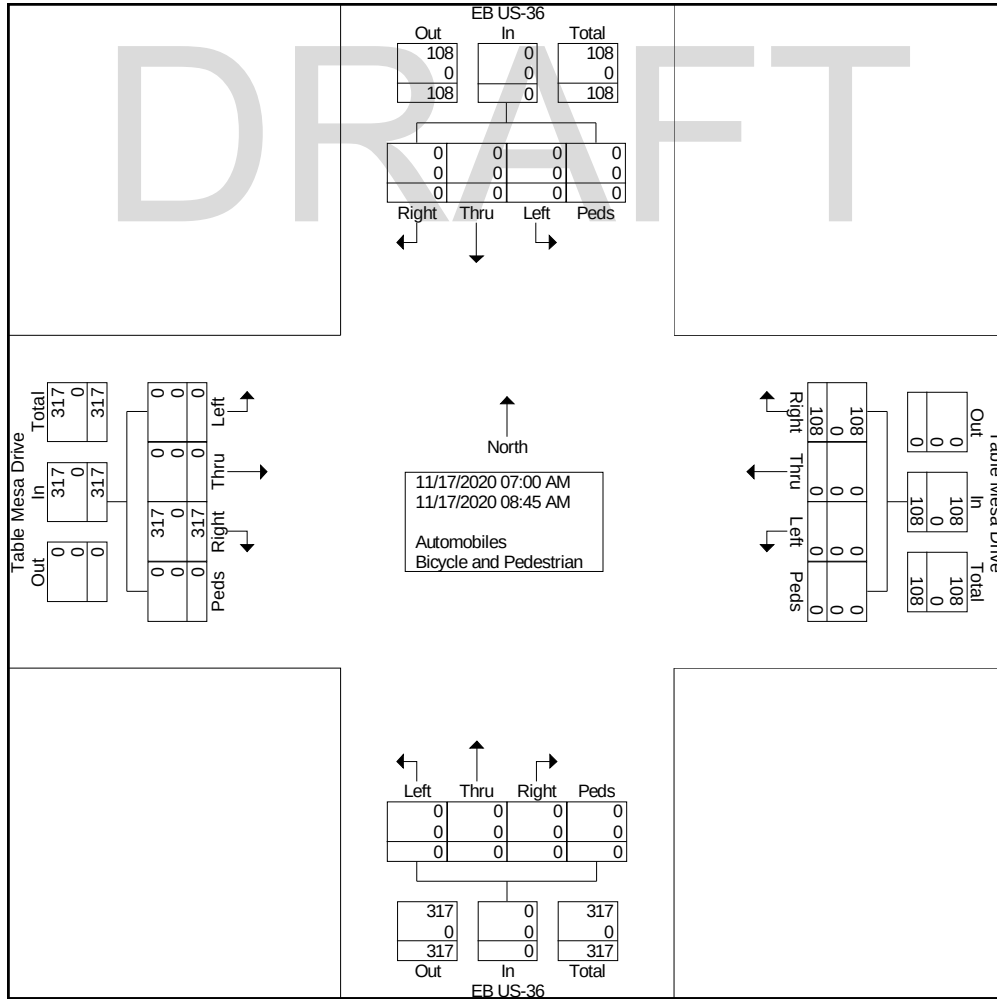
Boulder, CO
CU South
AM Peak
Table Mesa to EB US-36

File Name : Table Mesa to EB 36 Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 1

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Boulder, CO
CU South
AM Peak
Table Mesa to EB US-36

File Name : Table Mesa to EB 36 Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 2

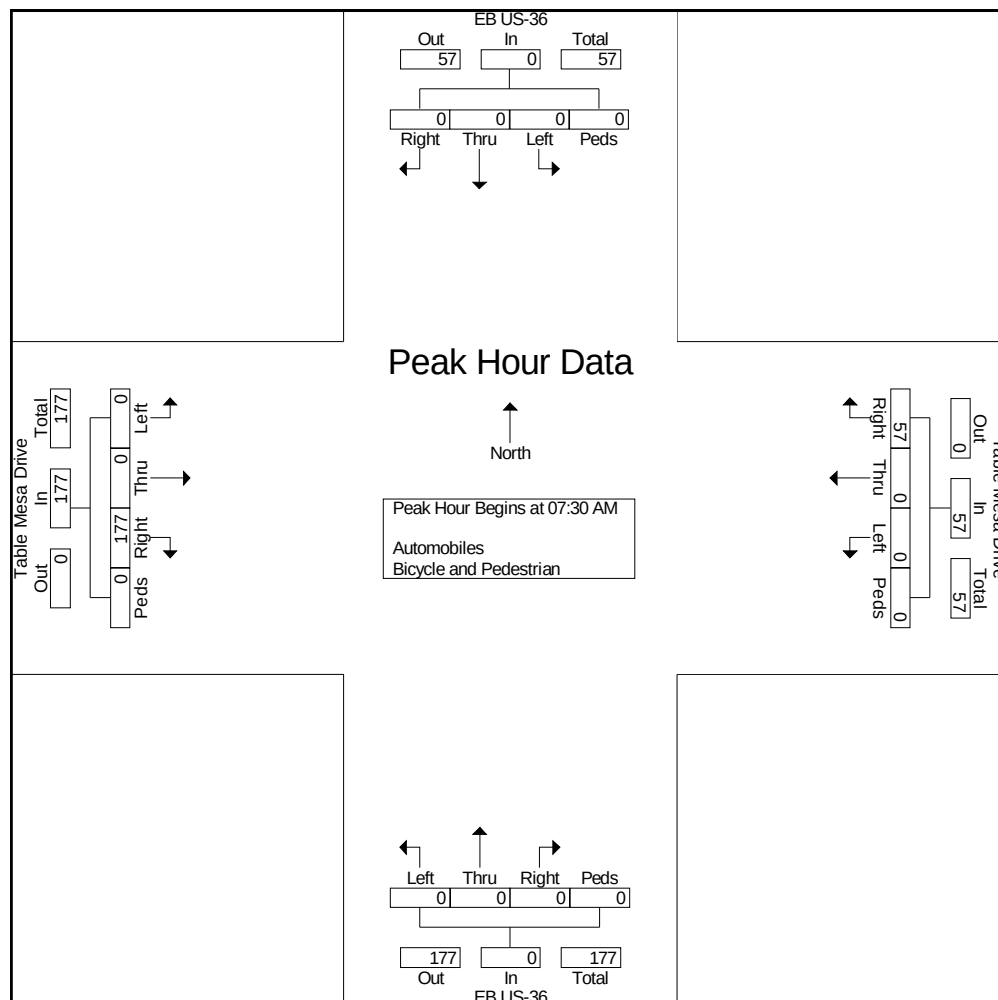




Boulder, CO
CU South
AM Peak
Table Mesa to EB US-36

File Name : Table Mesa to EB 36 Tues AM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 3

	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					EB US-36 Northbound					EB US-36 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	51	0	51	0	0	13	0	13	0	0	0	0	0	0	0	0	0	0	64
07:45 AM	0	0	43	0	43	0	0	11	0	11	0	0	0	0	0	0	0	0	0	0	54
08:00 AM	0	0	48	0	48	0	0	16	0	16	0	0	0	0	0	0	0	0	0	0	64
08:15 AM	0	0	35	0	35	0	0	17	0	17	0	0	0	0	0	0	0	0	0	0	52
Total Volume	0	0	177	0	177	0	0	57	0	57	0	0	0	0	0	0	0	0	0	0	234
% App. Total	0	0	100	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.868	.000	.868	.000	.000	.838	.000	.838	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.914





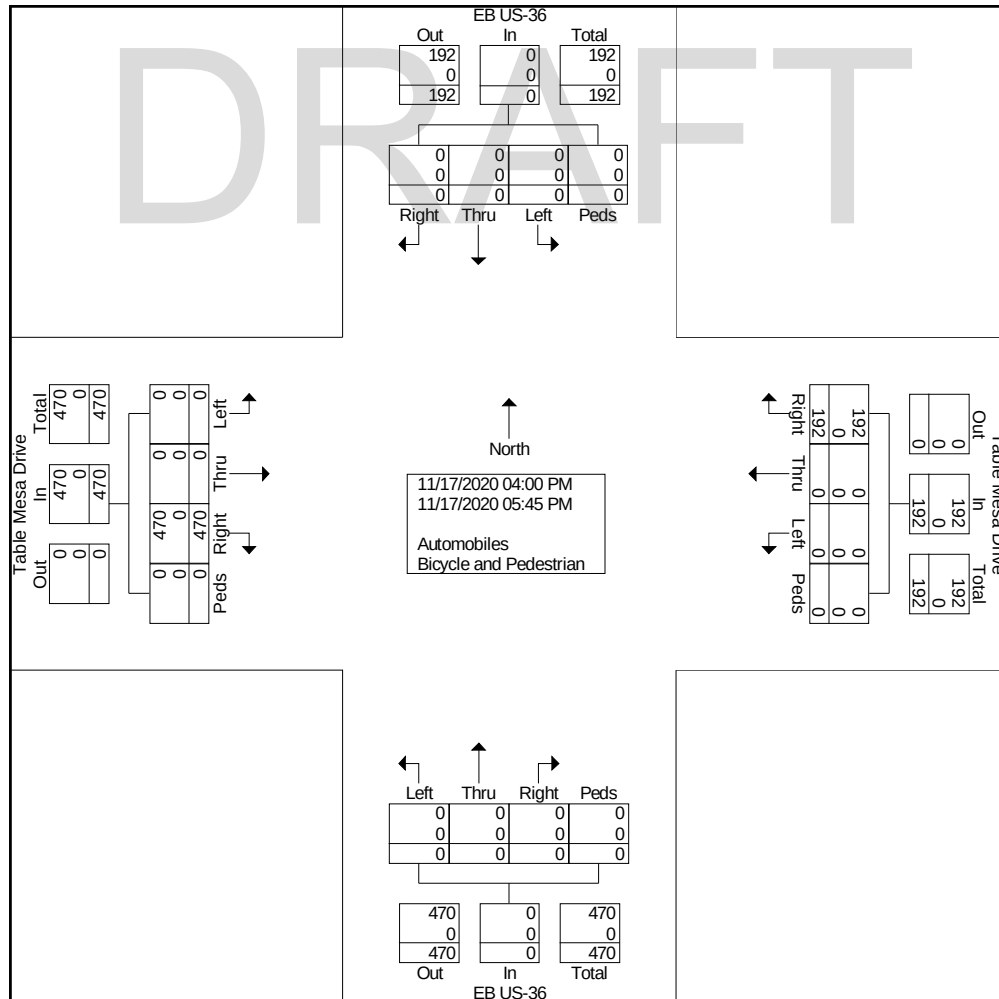
File Name : Table Mesa to EB 36 Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 1

[illegible]



Boulder, CO
CU South
PM Peak
Table Mesa to EB US-36

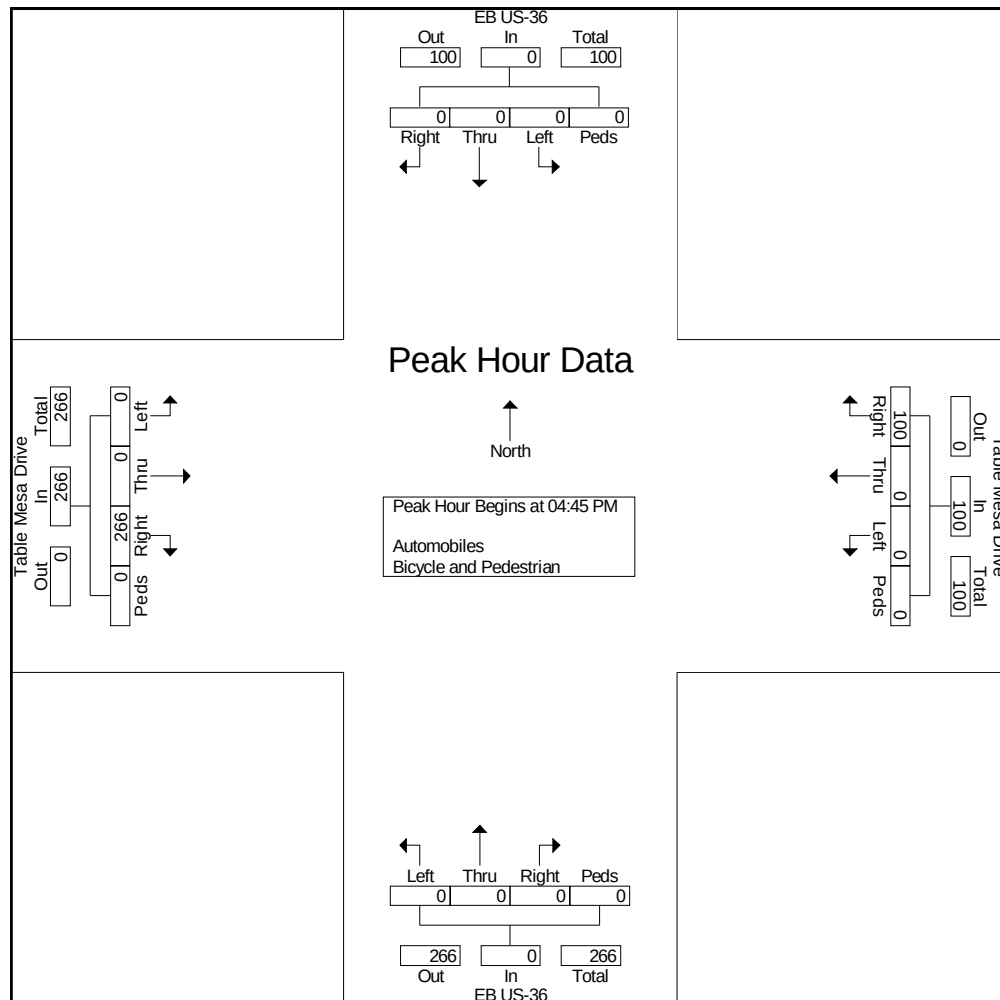
File Name : Table Mesa to EB 36 Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 2



Boulder, CO
CU South
PM Peak
Table Mesa to EB US-36

File Name : Table Mesa to EB 36 Tues PM
Site Code : IPO 81
Start Date : 11/17/2020
Page No : 3

	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					EB US-36 Northbound					EB US-36 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	70	0	70	0	0	33	0	33	0	0	0	0	0	0	0	0	0	0	103
05:00 PM	0	0	77	0	77	0	0	22	0	22	0	0	0	0	0	0	0	0	0	0	99
05:15 PM	0	0	69	0	69	0	0	25	0	25	0	0	0	0	0	0	0	0	0	0	94
05:30 PM	0	0	50	0	50	0	0	20	0	20	0	0	0	0	0	0	0	0	0	0	70
Total Volume	0	0	266	0	266	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0	366
% App. Total	0	0	100	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.864	.000	.864	.000	.000	.758	.000	.758	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.888



Ridgeview Data
Collection

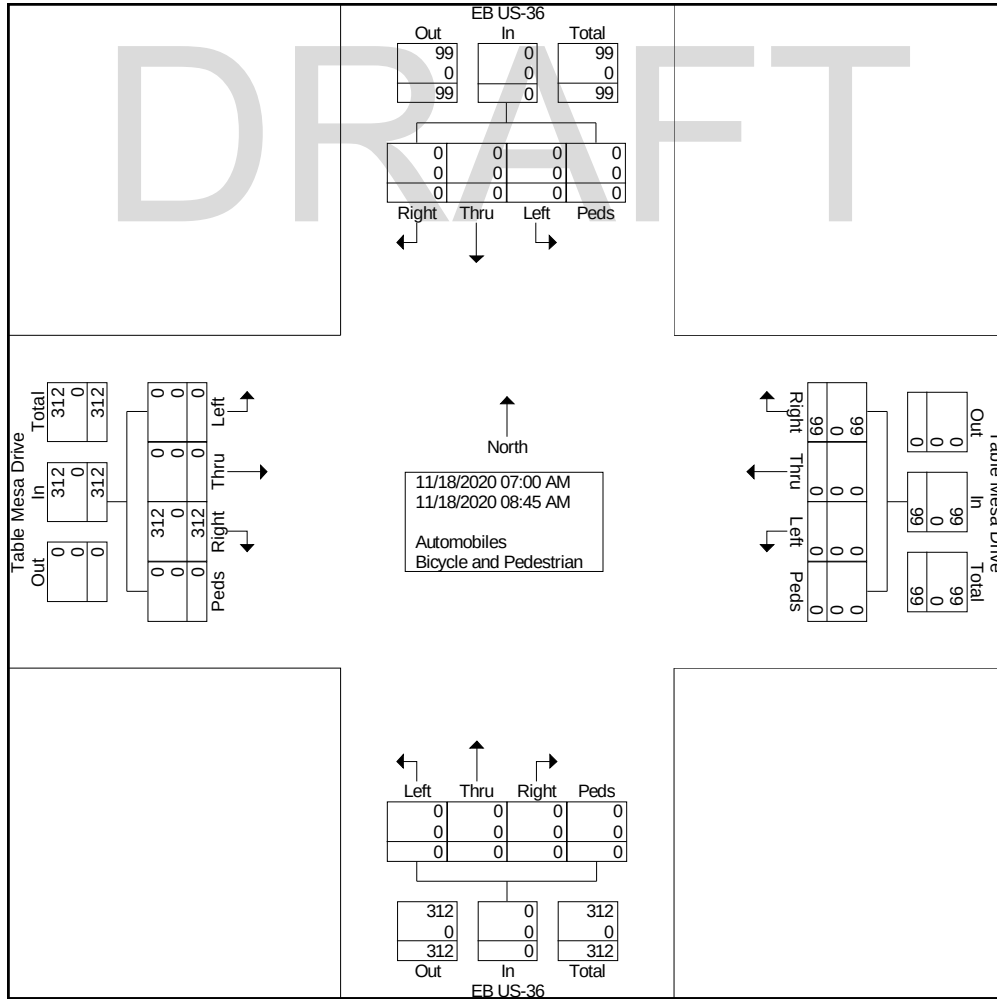
Boulder, CO
CU South
AM Peak
Table Mesa to EB US-36

File Name : Table Mesa to EB 36 Wed AM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 1

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Boulder, CO
CU South
AM Peak
Table Mesa to EB US-36

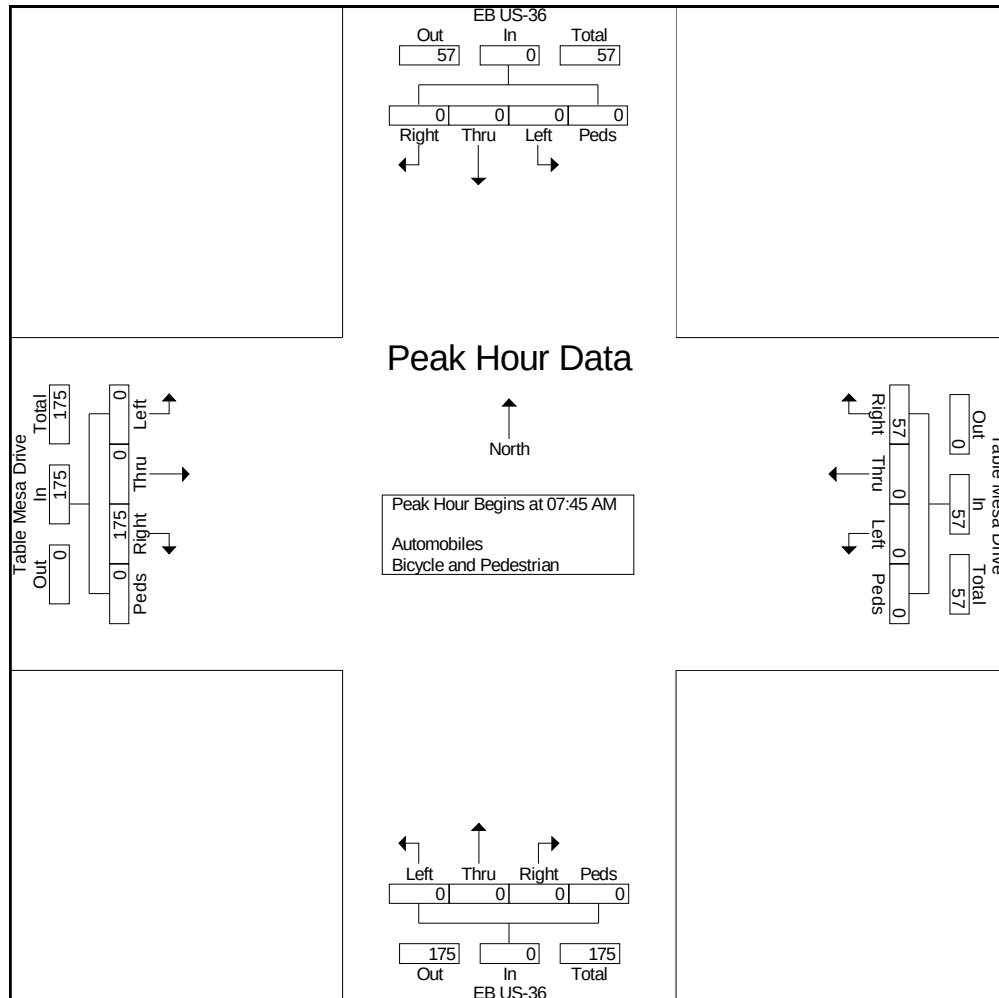
File Name : Table Mesa to EB 36 Wed AM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 2



Boulder, CO
CU South
AM Peak
Table Mesa to EB US-36

File Name : Table Mesa to EB 36 Wed AM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 3

	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					EB US-36 Northbound					EB US-36 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	49	0	49	0	0	16	0	16	0	0	0	0	0	0	0	0	0	0	65
08:00 AM	0	0	44	0	44	0	0	15	0	15	0	0	0	0	0	0	0	0	0	0	59
08:15 AM	0	0	45	0	45	0	0	13	0	13	0	0	0	0	0	0	0	0	0	0	58
08:30 AM	0	0	37	0	37	0	0	13	0	13	0	0	0	0	0	0	0	0	0	0	50
Total Volume	0	0	175	0	175	0	0	57	0	57	0	0	0	0	0	0	0	0	0	0	232
% App. Total	0	0	100	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.893	.000	.893	.000	.000	.891	.000	.891	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.892



Ridgeview Data
Collection

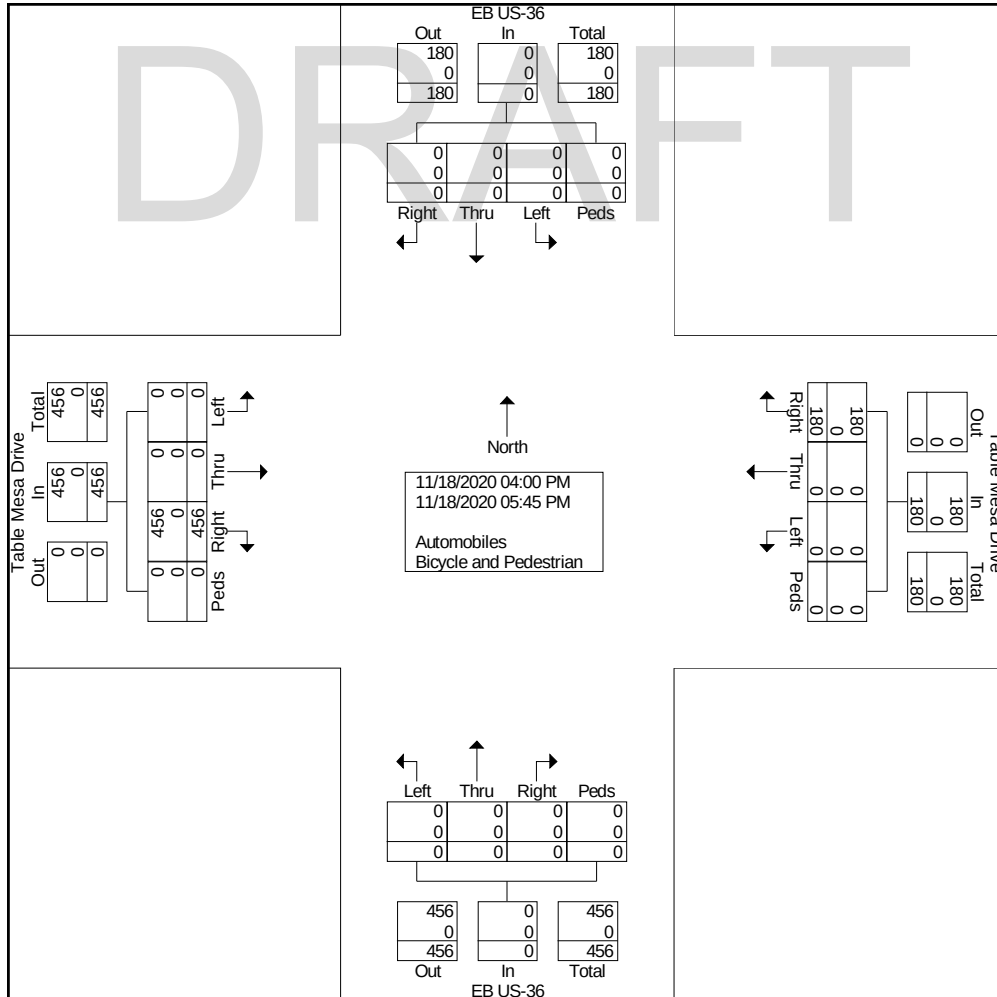
Boulder, CO
CU South
PM Peak
Table Mesa to EB US-36

File Name : Table Mesa to EB 36 Wed PM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 1

[illegible]

Boulder, CO
CU South
PM Peak
Table Mesa to EB US-36

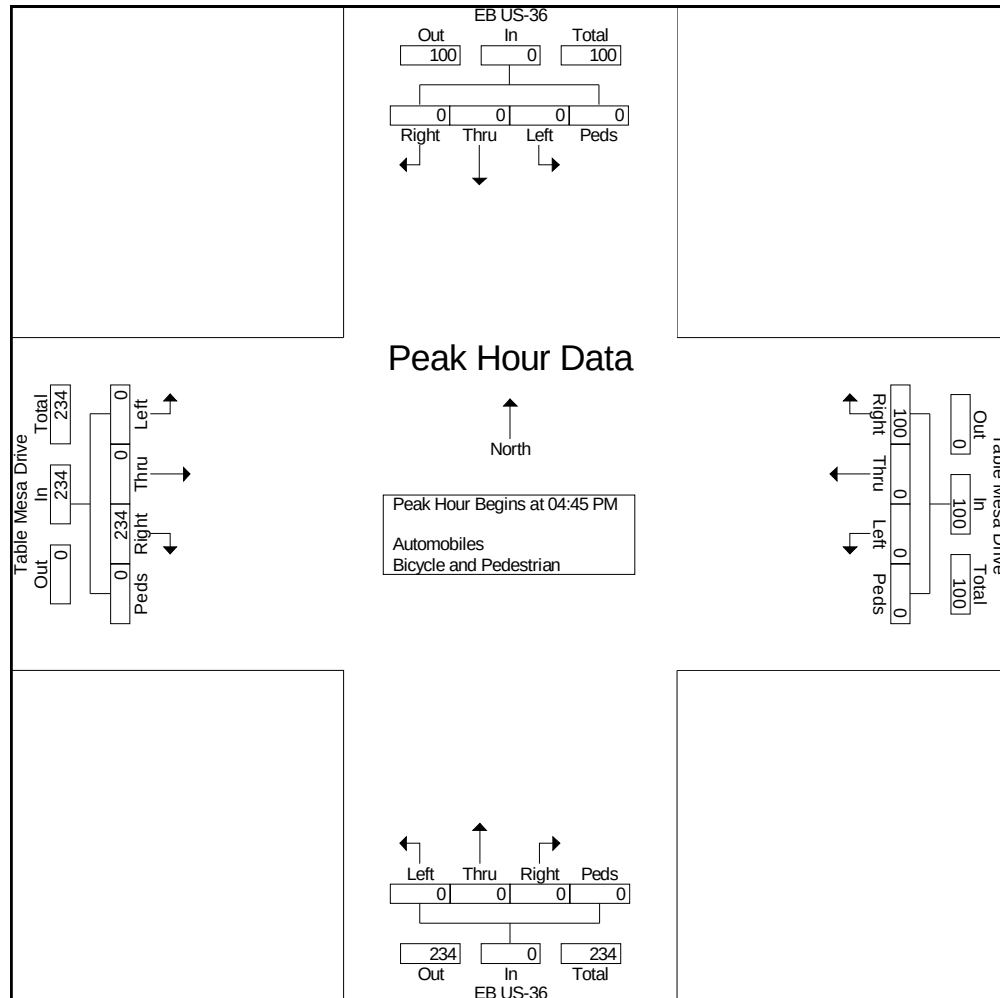
File Name : Table Mesa to EB 36 Wed PM
Site Code : IPO 81
Start Date : 11/18/2020
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Boulder, CO
CU South
PM Peak
Table Mesa to EB US-36

File Name : Table Mesa to EB 36 Wed PM
Site Code : IPO 81
Start Date : 11/18/2020
Page No : 3

	Table Mesa Drive Eastbound					Table Mesa Drive Westbound					EB US-36 Northbound					EB US-36 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	64	0	64	0	0	13	0	13	0	0	0	0	0	0	0	0	0	0	77
05:00 PM	0	0	62	0	62	0	0	38	0	38	0	0	0	0	0	0	0	0	0	0	100
05:15 PM	0	0	52	0	52	0	0	27	0	27	0	0	0	0	0	0	0	0	0	0	79
05:30 PM	0	0	56	0	56	0	0	22	0	22	0	0	0	0	0	0	0	0	0	0	78
Total Volume	0	0	234	0	234	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0	334
% App. Total	0	0	100	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.914	.000	.914	.000	.000	.658	.000	.658	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.835



Intersection Capacity Worksheets:
Existing

DRAFT

Timings
12/28/2020

2020 Existing - AM Peak Hour

1: Tantra Dr. & Table Mesa Dr.

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	3	915	56	960	82	2	111	4	2
Future Volume (vph)	3	915	56	960	82	2	111	4	2
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA
Protected Phases		6	5	2		4			8
Permitted Phases	6		2		4		4	8	
Detector Phase	6	6	5	2	4	4	4	8	8
Switch Phase									
Minimum Initial (s)	10.0	10.0	4.0	10.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	29.0	29.0	9.0	29.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	54.0	54.0	18.0	72.0	28.0	28.0	28.0	28.0	28.0
Total Split (%)	54.0%	54.0%	18.0%	72.0%	28.0%	28.0%	28.0%	28.0%	28.0%
Yellow Time (s)	3.8	3.8	3.0	3.8	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.8	-1.8	-1.0	-1.8		-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effect Green (s)	73.1	73.1	80.4	80.4		11.6	11.6	11.6	11.6
Actuated g/C Ratio	0.73	0.73	0.80	0.80		0.12	0.12	0.12	0.12
v/c Ratio	0.01	0.41	0.17	0.38		0.54	0.40	0.05	0.03

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 67 (67%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.54
 Intersection Signal Delay: 5.2
 Intersection Capacity Utilization 55.7%
 Analysis Period (min) 15

Splits and Phases: 1: Tantra Dr. & Table Mesa Dr.

 Ø2 (R)		 Ø4
72 s		28 s
 Ø5	 Ø6 (R)	 Ø8
18 s	54 s	28 s

								
Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	4	1159	69	1190	93	123	7	6
v/c Ratio	0.01	0.41	0.17	0.38	0.54	0.40	0.05	0.03
Control Delay	4.3	3.9	2.4	1.9	52.3	11.2	37.5	29.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	3.9	2.4	2.0	52.3	11.2	37.5	29.3
Queue Length 50th (ft)	0	69	5	46	57	0	4	2
Queue Length 95th (ft)	m1	114	9	48	103	49	10	8
Internal Link Dist (ft)		2843		426	327			315
Turn Bay Length (ft)	80		215			105	35	
Base Capacity (vph)	355	2835	545	3142	359	501	316	459
Starvation Cap Reductn	0	0	0	394	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.41	0.13	0.43	0.26	0.25	0.02	0.01
Intersection Summary								
m Volume for 95th percentile queue is metered by upstream signal.								

HCM 6th Signalized Intersection Summary

12/28/2020

2020 Existing - AM Peak Hour

1: Tantra Dr. & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	915	47	56	960	4	82	2	111	4	2	2
Future Volume (veh/h)	3	915	47	56	960	4	82	2	111	4	2	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.98		0.96	0.99		0.98
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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	4	1102	57	69	1185	5	91	2	123	7	3	3
Peak Hour Factor	0.83	0.83	0.83	0.81	0.81	0.81	0.90	0.90	0.90	0.58	0.58	0.58
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	401	2658	137	494	3144	13	252	5	229	162	127	127
Arrive On Green	1.00	1.00	1.00	0.09	1.00	1.00	0.14	0.14	0.14	0.14	0.14	0.13
Sat Flow, veh/h	470	3798	196	1969	4011	17	1332	36	1685	1248	936	936
Grp Volume(v), veh/h	4	570	589	69	580	610	93	0	123	7	0	6
Grp Sat Flow(s),veh/h/ln	470	1964	2031	1969	1964	2064	1367	0	1685	1248	0	1872
Q Serve(g_s), s	0.0	0.0	0.0	0.9	0.0	0.0	6.1	0.0	6.8	0.5	0.0	0.3
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.9	0.0	0.0	6.4	0.0	6.8	7.0	0.0	0.3
Prop In Lane	1.00		0.10	1.00		0.01	0.98		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	401	1374	1421	494	1539	1618	257	0	229	162	0	255
V/C Ratio(X)	0.01	0.41	0.41	0.14	0.38	0.38	0.36	0.00	0.54	0.04	0.00	0.02
Avail Cap(c_a), veh/h	401	1374	1421	683	1539	1618	402	0	404	291	0	449
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	0.93	0.93	0.93	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	3.0	0.0	0.0	40.2	0.0	40.3	43.3	0.0	37.7
Incr Delay (d2), s/veh	0.0	0.7	0.7	0.0	0.7	0.6	0.3	0.0	0.7	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.3	0.3	0.3	0.3	2.1	0.0	2.8	0.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.7	0.7	3.0	0.7	0.6	40.5	0.0	41.0	43.4	0.0	37.7
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h	1163			1259				216		13		
Approach Delay, s/veh	0.7			0.8				40.8		40.7		
Approach LOS	A			A				D		D		
Timer - Assigned Phs	2			4		5		6		8		
Phs Duration (G+Y+Rc), s	82.4			17.6		8.4		74.0		17.6		
Change Period (Y+Rc), s	* 5.8			5.0		5.0		* 5.8		5.0		
Max Green Setting (Gmax), s	* 66			23.0		13.0		* 48		23.0		
Max Q Clear Time (g_c+I1), s	2.0			8.8		2.9		2.0		9.0		
Green Ext Time (p_c), s	0.3			0.4		0.0		0.3		0.0		

Intersection Summary

HCM 6th Ctrl Delay	4.2
HCM 6th LOS	A

Notes

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

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	36	966	58	978	102	17	5	138	12
Future Volume (vph)	36	966	58	978	102	17	5	138	12
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		8
Permitted Phases	6		2		2	4		8	
Detector Phase	1	6	5	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	4.0	10.0	4.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.0	25.0	9.0	25.0	25.0	34.0	34.0	34.0	34.0
Total Split (s)	11.0	55.0	11.0	55.0	55.0	34.0	34.0	34.0	34.0
Total Split (%)	11.0%	55.0%	11.0%	55.0%	55.0%	34.0%	34.0%	34.0%	34.0%
Yellow Time (s)	3.0	3.7	3.0	3.7	3.7	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.7	-1.0	-1.7	-1.7	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	C-Max	Min	Min	Min	Min
Act Effect Green (s)	71.7	67.5	73.0	69.5	69.5	16.8	16.8	16.8	16.8
Actuated g/C Ratio	0.72	0.68	0.73	0.70	0.70	0.17	0.17	0.17	0.17
v/c Ratio	0.10	0.44	0.16	0.39	0.09	0.12	0.18	0.68	0.13

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 75 (75%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 7.8
 Intersection Capacity Utilization 54.7%
 Analysis Period (min) 15

Splits and Phases: 2: Moorhead Ave & Table Mesa Dr.

		
Ø1	Ø2 (R)	Ø4
11 s	55 s	34 s
		
Ø5	Ø6 (R)	Ø8
11 s	55 s	34 s

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	41	1142	62	1052	110	29	62	166	44
v/c Ratio	0.10	0.44	0.16	0.39	0.09	0.12	0.18	0.68	0.13
Control Delay	2.0	3.2	3.6	5.5	0.3	33.7	12.7	52.1	16.7
Queue Delay	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	2.0	3.3	3.6	5.6	0.3	33.7	12.7	52.1	16.7
Queue Length 50th (ft)	1	20	6	65	0	16	5	100	8
Queue Length 95th (ft)	4	151	13	195	1	24	14	143	30
Internal Link Dist (ft)		426		356			311		338
Turn Bay Length (ft)	100		200			50		85	
Base Capacity (vph)	453	2625	407	2719	1195	445	563	437	566
Starvation Cap Reductn	0	277	0	561	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.49	0.15	0.49	0.09	0.07	0.11	0.38	0.08
Intersection Summary									

HCM 6th Signalized Intersection Summary

12/28/2020

2020 Existing - AM Peak Hour
2: Moorhead Ave & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	966	28	58	978	102	17	5	31	138	12	25
Future Volume (veh/h)	36	966	28	58	978	102	17	5	31	138	12	25
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		0.96	0.98		0.97	0.99		0.96
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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	41	1110	32	62	1052	110	29	9	53	166	14	30
Peak Hour Factor	0.87	0.87	0.87	0.93	0.93	0.93	0.58	0.58	0.58	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	442	2423	70	420	2467	1056	334	54	320	317	123	263
Arrive On Green	0.05	0.83	0.81	0.09	1.00	1.00	0.21	0.21	0.20	0.21	0.21	0.20
Sat Flow, veh/h	1969	3894	112	1969	3928	1682	1342	253	1488	1321	571	1223
Grp Volume(v), veh/h	41	560	582	62	1052	110	29	0	62	166	0	44
Grp Sat Flow(s),veh/h/ln	1969	1964	2042	1969	1964	1682	1342	0	1741	1321	0	1794
Q Serve(g_s), s	0.7	7.9	8.0	1.1	0.0	0.0	1.8	0.0	2.9	11.7	0.0	2.0
Cycle Q Clear(g_c), s	0.7	7.9	8.0	1.1	0.0	0.0	3.8	0.0	2.9	14.6	0.0	2.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.85	1.00		0.68
Lane Grp Cap(c), veh/h	442	1222	1271	420	2467	1056	334	0	374	317	0	385
V/C Ratio(X)	0.09	0.46	0.46	0.15	0.43	0.10	0.09	0.00	0.17	0.52	0.00	0.11
Avail Cap(c_a), veh/h	507	1222	1271	473	2467	1056	448	0	522	430	0	538
HCM Platoon Ratio	1.33	1.33	1.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.94	0.94	0.94	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.1	3.9	4.0	6.1	0.0	0.0	33.1	0.0	32.3	37.9	0.0	31.9
Incr Delay (d2), s/veh	0.0	1.1	1.1	0.1	0.5	0.2	0.0	0.0	0.1	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.6	2.7	0.4	0.2	0.1	0.6	0.0	1.3	3.8	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.1	5.1	5.1	6.2	0.5	0.2	33.2	0.0	32.4	38.4	0.0	31.9
LnGrp LOS	A	A	A	A	A	A	C	A	C	D	A	C
Approach Vol, veh/h	1183			1224			91			210		
Approach Delay, s/veh	5.1			0.8			32.6			37.1		
Approach LOS	A			A			C			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	66.8		25.5	8.3	66.2		25.5				
Change Period (Y+Rc), s	5.0	* 5.7		5.0	5.0	* 5.7		5.0				
Max Green Setting (Gmax), s	6.0	* 49		29.0	6.0	* 49		29.0				
Max Q Clear Time (g_c+I1), s	2.7	2.0		5.8	3.1	10.0		16.6				
Green Ext Time (p_c), s	0.0	0.5		0.2	0.0	0.3		0.4				

Intersection Summary

HCM 6th Ctrl Delay 6.5
HCM 6th LOS A

Notes

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

Timings
01/13/2021

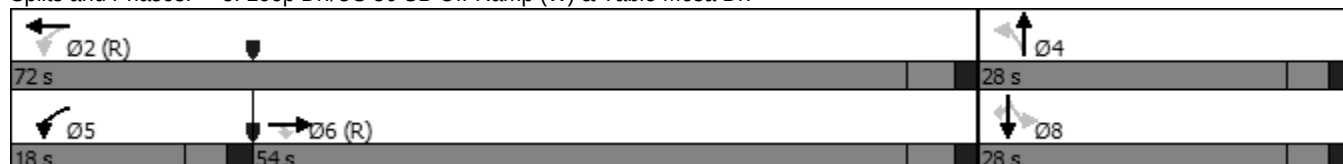
2020 Existing - AM Peak Hour
3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

	→	↘	↙	←	↖	↑	↗	↓	↘
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑	↘	↖	↑
Traffic Volume (vph)	1112	23	31	1050	17	0	129	7	71
Future Volume (vph)	1112	23	31	1050	17	0	129	7	71
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	6		5	2		4		8	
Permitted Phases		6	2		4		8		8
Detector Phase	6	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	10.0	10.0	12.0	10.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	17.4	17.4	17.0	17.4	28.0	28.0	28.0	28.0	28.0
Total Split (s)	54.0	54.0	18.0	72.0	28.0	28.0	28.0	28.0	28.0
Total Split (%)	54.0%	54.0%	18.0%	72.0%	28.0%	28.0%	28.0%	28.0%	28.0%
Yellow Time (s)	3.7	3.7	3.0	3.7	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.7	1.7	2.0	1.7	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.4	-1.4	-1.4	-1.4	-1.0	0.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	3.6	4.0	4.0	5.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	Min	Min	Min
Act Effect Green (s)	70.7	70.7	81.3	80.9	11.1	10.1	11.1	11.1	11.1
Actuated g/C Ratio	0.71	0.71	0.81	0.81	0.11	0.10	0.11	0.11	0.11
v/c Ratio	0.42	0.02	0.07	0.38	0.16	0.09	0.50	0.52	0.32

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 84 (84%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 8.9
 Intersection Capacity Utilization 49.3%
 Analysis Period (min) 15

Splits and Phases: 3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.



									
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	1171	24	35	1193	24	37	79	81	84
v/c Ratio	0.42	0.02	0.07	0.38	0.16	0.09	0.50	0.52	0.32
Control Delay	4.5	0.0	3.2	7.0	40.8	0.4	51.6	52.9	12.0
Queue Delay	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.6	0.0	3.2	7.0	40.8	0.4	51.6	52.9	12.0
Queue Length 50th (ft)	64	0	5	249	14	0	50	52	0
Queue Length 95th (ft)	77	m0	13	320	29	0	90	92	36
Internal Link Dist (ft)	356			214		324		350	
Turn Bay Length (ft)		160	90		10		125		80
Base Capacity (vph)	2764	1140	541	3163	331	599	344	337	476
Starvation Cap Reductn	302	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.02	0.06	0.38	0.07	0.06	0.23	0.24	0.18
Intersection Summary									
m Volume for 95th percentile queue is metered by upstream signal.									

HCM 6th Signalized Intersection Summary

01/13/2021

2020 Existing - AM Peak Hour

3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖	↗		↖	↗	↗
Traffic Volume (veh/h)	0	1112	23	31	1050	0	17	0	26	129	7	71
Future Volume (veh/h)	0	1112	23	31	1050	0	17	0	26	129	7	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.97	0.98		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	0	2067	2067	2067	2067	0	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	0	1171	0	35	1193	0	24	0	37	158	0	0
Peak Hour Factor	0.95	0.95	0.95	0.88	0.88	0.88	0.71	0.71	0.71	0.85	0.85	0.85
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	2630		567	3120	0	248	0	196	430	0	
Arrive On Green	0.00	1.00	0.00	0.18	1.00	0.00	0.13	0.00	0.13	0.13	0.00	0.00
Sat Flow, veh/h	0	4031	1752	1969	4031	0	1401	0	1698	2694	0	1752
Grp Volume(v), veh/h	0	1171	0	35	1193	0	24	0	37	158	0	0
Grp Sat Flow(s),veh/h/ln	0	1964	1752	1969	1964	0	1401	0	1698	1347	0	1752
Q Serve(g_s), s	0.0	0.0	0.0	0.4	0.0	0.0	1.5	0.0	2.0	5.6	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.4	0.0	0.0	1.5	0.0	2.0	7.5	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	2630		567	3120	0	248	0	196	430	0	
V/C Ratio(X)	0.00	0.45		0.06	0.38	0.00	0.10	0.00	0.19	0.37	0.00	
Avail Cap(c_a), veh/h	0	2630		676	3120	0	408	0	391	738	0	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.88	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	2.3	0.0	0.0	38.9	0.0	39.5	42.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.4	0.0	0.2	0.0	0.5	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.0	0.1	0.2	0.0	0.5	0.0	0.8	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.5	0.0	2.3	0.4	0.0	39.1	0.0	40.0	42.6	0.0	0.0
LnGrp LOS	A	A		A	A	A	D	A	D	D	A	
Approach Vol, veh/h		1171	A		1228			61			158	A
Approach Delay, s/veh		0.5			0.4			39.6			42.6	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		83.4		16.6	12.5	71.0		16.6				
Change Period (Y+Rc), s		5.4		5.0	5.0	5.4		5.0				
Max Green Setting (Gmax), s		66.6		23.0	13.0	48.6		23.0				
Max Q Clear Time (g_c+I1), s		2.0		3.5	2.4	2.0		9.5				
Green Ext Time (p_c), s		7.4		0.0	0.0	7.1		0.3				

Intersection Summary

HCM 6th Ctrl Delay 3.9

HCM 6th LOS A

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection				
Int Delay, s/veh	1.6			
Movement	EBL	EBT	WBT	WBR
Lane Configurations	↰	↑↑	↑↑	↱
Traffic Vol, veh/h	205	827	1156	315
Future Vol, veh/h	205	827	1156	315
Conflicting Peds, #/hr	4	0	0	4
Sign Control	Free	Free	Free	Free
RT Channelized	-	None	-	None
Storage Length	255	-	-	0
Veh in Median Storage, #	-	0	0	-
Grade, %	-	0	0	-
Peak Hour Factor	84	84	86	86
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	244	985	1344	366
DRAFT				
Major/Minor	Major1	Major2		
Conflicting Flow All	1714	0	-	
Stage 1	-	-	-	
Stage 2	-	-	-	
Critical Hdwy	4.14	-	-	
Critical Hdwy Stg 1	-	-	-	
Critical Hdwy Stg 2	-	-	-	
Follow-up Hdwy	2.22	-	-	
Pot Cap-1 Maneuver	492	-	-	
Stage 1	-	-	-	
Stage 2	-	-	-	
Platoon blocked, %	1	-	-	
Mov Cap-1 Maneuver	491	-	-	
Mov Cap-2 Maneuver	-	-	-	
Stage 1	-	-	-	
Stage 2	-	-	-	
Approach	EB	WB		
HCM Control Delay, s	3.8	0		
HCM LOS				
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR
Capacity (veh/h)	491	-	-	-
HCM Lane V/C Ratio	0.497	-	-	-
HCM Control Delay (s)	19.4	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	2.7	-	-	-
Notes				
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon				

Timings
01/13/2021

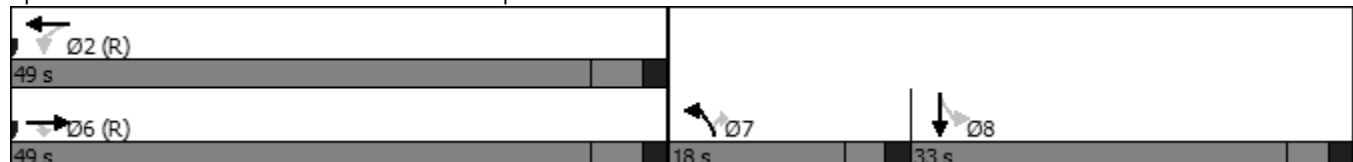
2020 Existing - AM Peak Hour
6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑	↘	↖	↑
Traffic Volume (vph)	782	45	16	1058	38	21	191	43	375
Future Volume (vph)	782	45	16	1058	38	21	191	43	375
Turn Type	NA	Perm	Perm	NA	Prot	Perm	Perm	NA	Free
Protected Phases	6			2	7			8	
Permitted Phases		6	2			7	8		Free
Detector Phase	6	6	2	2	7	7	8	8	
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	30.0	30.0	30.0	30.0	9.0	9.0	33.0	33.0	
Total Split (s)	49.0	49.0	49.0	49.0	18.0	18.0	33.0	33.0	
Total Split (%)	49.0%	49.0%	49.0%	49.0%	18.0%	18.0%	33.0%	33.0%	
Yellow Time (s)	3.8	3.8	3.8	3.8	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.8	-1.8	-1.8	-1.8	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag					Lead	Lead	Lag	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	Min	Min	
Act Effect Green (s)	70.9	70.9	70.9	70.9	6.7	6.7	12.3	12.3	100.0
Actuated g/C Ratio	0.71	0.71	0.71	0.71	0.07	0.07	0.12	0.12	1.00
v/c Ratio	0.30	0.04	0.04	0.41	0.19	0.14	0.56	0.55	0.24

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 39 (39%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.56
 Intersection Signal Delay: 8.9
 Intersection Capacity Utilization 58.8%
 Analysis Period (min) 15

Splits and Phases: 6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.



Queues
01/13/2021

2020 Existing - AM Peak Hour
6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

									
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	832	48	17	1150	49	27	127	128	408
v/c Ratio	0.30	0.04	0.04	0.41	0.19	0.14	0.56	0.55	0.24
Control Delay	7.7	3.1	2.2	2.7	45.4	1.5	50.1	49.6	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	3.1	2.2	2.7	45.4	1.5	50.1	49.6	0.3
Queue Length 50th (ft)	117	2	1	45	15	0	82	82	0
Queue Length 95th (ft)	208	15	6	112	28	0	135	136	0
Internal Link Dist (ft)	362			410				605	
Turn Bay Length (ft)		100	110		100	100			60
Base Capacity (vph)	2773	1213	452	2773	531	313	538	549	1700
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.04	0.04	0.41	0.09	0.09	0.24	0.23	0.24
Intersection Summary									

HCM Signalized Intersection Capacity Analysis

01/13/2021

2020 Existing - AM Peak Hour

6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑		↑↑		↑	↑	↑	↑
Traffic Volume (vph)	0	782	45	16	1058	0	38	0	21	191	43	375
Future Volume (vph)	0	782	45	16	1058	0	38	0	21	191	43	375
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0		4.0	4.0	4.0	3.0
Lane Util. Factor		0.95	1.00	1.00	0.95		0.97		1.00	0.95	0.95	1.00
Frpb, ped/bikes		1.00	0.96	1.00	1.00		1.00		0.97	1.00	1.00	0.97
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	0.97	1.00
Satd. Flow (prot)		3912	1684	1948	3912		3794		1702	1858	1896	1700
Flt Permitted		1.00	1.00	0.31	1.00		0.95		1.00	0.95	0.97	1.00
Satd. Flow (perm)		3912	1684	638	3912		3794		1702	1858	1896	1700
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.78	0.78	0.78	0.92	0.92	0.92
Adj. Flow (vph)	0	832	48	17	1150	0	49	0	27	208	47	408
RTOR Reduction (vph)	0	0	14	0	0	0	0	0	25	0	0	0
Lane Group Flow (vph)	0	832	34	17	1150	0	49	0	2	127	128	408
Confl. Peds. (#/hr)	41		7	7		41	54					54
Confl. Bikes (#/hr)			7			6			4			2
Turn Type		NA	Perm	Perm	NA		Prot		Perm	Perm	NA	Free
Protected Phases		6			2		7				8	
Permitted Phases			6	2					7	8		Free
Actuated Green, G (s)		68.1	68.1	68.1	68.1		4.8		4.8	11.3	11.3	100.0
Effective Green, g (s)		69.9	69.9	69.9	69.9		5.8		5.8	12.3	12.3	100.0
Actuated g/C Ratio		0.70	0.70	0.70	0.70		0.06		0.06	0.12	0.12	1.00
Clearance Time (s)		5.8	5.8	5.8	5.8		5.0		5.0	5.0	5.0	
Vehicle Extension (s)		0.2	0.2	0.2	0.2		2.0		2.0	2.0	2.0	
Lane Grp Cap (vph)		2734	1177	445	2734		220		98	228	233	1700
v/s Ratio Prot		0.21			c0.29		0.01					
v/s Ratio Perm			0.02	0.03					0.00	c0.07	0.07	c0.24
v/c Ratio		0.30	0.03	0.04	0.42		0.22		0.02	0.56	0.55	0.24
Uniform Delay, d1		5.8	4.6	4.7	6.4		44.9		44.4	41.3	41.2	0.0
Progression Factor		1.17	4.24	0.32	0.32		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		0.3	0.0	0.2	0.5		0.2		0.0	1.7	1.4	0.3
Delay (s)		7.0	19.6	1.7	2.5		45.1		44.4	43.0	42.7	0.3
Level of Service		A	B	A	A		D		D	D	D	A
Approach Delay (s)		7.7			2.5			44.9			16.7	
Approach LOS		A			A			D			B	
Intersection Summary												
HCM 2000 Control Delay	8.7			HCM 2000 Level of Service					A			
HCM 2000 Volume to Capacity ratio	0.44											
Actuated Cycle Length (s)	100.0			Sum of lost time (s)					12.0			
Intersection Capacity Utilization	58.8%			ICU Level of Service					B			
Analysis Period (min)	15											
c Critical Lane Group												

	→	←	↶	↷
Lane Group	EBT	WBT	NBL	NBR
Lane Configurations	↑↑	↑↑↑	↶↷	↷
Traffic Volume (vph)	594	1034	235	163
Future Volume (vph)	594	1034	235	163
Turn Type	NA	NA	Prot	Perm
Protected Phases	6	2	4	
Permitted Phases				4
Detector Phase	6	2	4	4
Switch Phase				
Minimum Initial (s)	10.0	10.0	4.0	4.0
Minimum Split (s)	19.0	19.0	34.0	34.0
Total Split (s)	66.0	66.0	34.0	34.0
Total Split (%)	66.0%	66.0%	34.0%	34.0%
Yellow Time (s)	3.6	3.6	3.0	3.0
All-Red Time (s)	1.7	1.7	2.0	2.0
Lost Time Adjust (s)	-1.3	-1.3	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Min	Min
Act Effect Green (s)	79.9	79.9	12.1	12.1
Actuated g/C Ratio	0.80	0.80	0.12	0.12
v/c Ratio	0.21	0.26	0.55	0.48

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 30 (30%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 10.8
 Intersection Capacity Utilization 32.0%
 Analysis Period (min) 15

Splits and Phases: 8: US 36 NB Off-Ramp (E) & Table Mesa Dr.

← Ø2 (R)	↶ Ø4
66 s	34 s
→ Ø6 (R)	
66 s	

	→	←	↖	↗
Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	653	1189	253	175
v/c Ratio	0.21	0.26	0.55	0.48
Control Delay	0.7	8.9	45.7	10.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	0.7	8.9	45.7	10.9
Queue Length 50th (ft)	3	159	79	0
Queue Length 95th (ft)	4	196	115	58
Internal Link Dist (ft)	184	628	402	
Turn Bay Length (ft)			115	125
Base Capacity (vph)	3125	4491	1138	636
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	0.21	0.26	0.22	0.28
Intersection Summary				

HCM 6th Signalized Intersection Summary
12/28/2020

2020 Existing - AM Peak Hour
8: US 36 NB Off-Ramp (E) & Table Mesa Dr.

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑↑	↘↙	↗
Traffic Volume (veh/h)	594	0	0	1034	235	163
Future Volume (veh/h)	594	0	0	1034	235	163
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	2067	0	0	2067	2067	2067
Adj Flow Rate, veh/h	653	0	0	1189	253	0
Peak Hour Factor	0.91	0.91	0.87	0.87	0.93	0.93
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	3220	0	0	4626	383	
Arrive On Green	1.00	0.00	0.00	1.00	0.10	0.00
Sat Flow, veh/h	4134	0	0	6016	3819	1752
Grp Volume(v), veh/h	653	0	0	1189	253	0
Grp Sat Flow(s),veh/h/ln	1964	0	0	1881	1910	1752
Q Serve(g_s), s	0.0	0.0	0.0	0.0	6.4	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	6.4	0.0
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	3220	0	0	4626	383	
V/C Ratio(X)	0.20	0.00	0.00	0.26	0.66	
Avail Cap(c_a), veh/h	3220	0	0	4626	1146	
HCM Platoon Ratio	2.00	1.00	1.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.87	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	43.3	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	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	0.1	0.0	0.0	0.1	3.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.1	0.0	0.0	0.1	44.1	0.0
LnGrp LOS	A	A	A	A	D	
Approach Vol, veh/h	653			1189	253	A
Approach Delay, s/veh	0.1			0.1	44.1	
Approach LOS	A			A	D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		86.0		14.0		86.0
Change Period (Y+Rc), s		* 5.3		5.0		* 5.3
Max Green Setting (Gmax), s		* 61		29.0		* 61
Max Q Clear Time (g_c+I1), s		2.0		8.4		2.0
Green Ext Time (p_c), s		7.2		0.6		3.3
Intersection Summary						
HCM 6th Ctrl Delay			5.4			
HCM 6th LOS			A			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						
Unsignalized Delay for [NBR, WBT] is excluded from calculations of the approach delay and intersection delay.						

Timings
01/14/2021

2020 Existing - AM Peak Hour
43: Broadway & Table Mesa Dr.

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	505	586	415	393	40	1035	329	120	502	251
Future Volume (vph)	505	586	415	393	40	1035	329	120	502	251
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	pm+pt	NA	Free
Protected Phases	3	8	7	4	1	6	7	5	2	
Permitted Phases							6	2		Free
Detector Phase	3	8	7	4	1	6	7	5	2	
Switch Phase										
Minimum Initial (s)	4.0	8.0	4.0	8.0	4.0	10.0	4.0	4.0	10.0	
Minimum Split (s)	9.2	34.0	9.2	31.0	9.0	33.0	9.2	9.0	33.0	
Total Split (s)	23.0	34.0	20.0	31.0	12.0	34.0	20.0	12.0	34.0	
Total Split (%)	23.0%	34.0%	20.0%	31.0%	12.0%	34.0%	20.0%	12.0%	34.0%	
Yellow Time (s)	3.2	3.7	3.2	3.7	3.0	3.9	3.2	3.0	3.9	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.2	-1.7	-1.2	-1.7	-1.0	-1.9	-1.2	-1.0	-1.9	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	
Act Effect Green (s)	18.1	24.5	16.7	23.1	6.6	35.1	51.8	45.0	40.0	100.0
Actuated g/C Ratio	0.18	0.24	0.17	0.23	0.07	0.35	0.52	0.45	0.40	1.00
v/c Ratio	0.85	0.75	0.70	0.79	0.34	0.84	0.40	0.66	0.41	0.19
Control Delay	52.2	40.0	38.7	28.1	52.4	40.9	10.7	33.1	24.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.2	40.0	38.7	28.1	52.4	40.9	10.7	33.1	24.9	0.2
LOS	D	D	D	C	D	D	B	C	C	A
Approach Delay		45.4		32.0		34.2			18.9	
Approach LOS		D		C		C			B	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 92 (92%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 33.2

Intersection LOS: C

Intersection Capacity Utilization 78.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 43: Broadway & Table Mesa Dr.

			
Ø1	Ø2 (R)	Ø3	Ø4
12 s	34 s	23 s	31 s
			
Ø5	Ø6 (R)	Ø8	Ø7
12 s	34 s	34 s	20 s

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	580	710	441	747	44	1150	366	154	644	322
v/c Ratio	0.85	0.75	0.70	0.79	0.34	0.84	0.40	0.66	0.41	0.19
Control Delay	52.2	40.0	38.7	28.1	52.4	40.9	10.7	33.1	24.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.2	40.0	38.7	28.1	52.4	40.9	10.7	33.1	24.9	0.2
Queue Length 50th (ft)	184	221	139	196	28	295	83	56	166	0
Queue Length 95th (ft)	235	253	198	265	m47	#514	167	92	198	0
Internal Link Dist (ft)		438		2843		1401			2060	
Turn Bay Length (ft)	300		400		400		425	160		
Base Capacity (vph)	720	1161	652	1082	156	1372	923	242	1563	1704
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	0.81	0.61	0.68	0.69	0.28	0.84	0.40	0.64	0.41	0.19
Intersection Summary										
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.									
m	Volume for 95th percentile queue is metered by upstream signal.									

HCM 6th Signalized Intersection Summary
01/14/2021

2020 Existing - AM Peak Hour
43: Broadway & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	586	31	415	393	309	40	1035	329	120	502	251
Future Volume (veh/h)	505	586	31	415	393	309	40	1035	329	120	502	251
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		1.00	1.00		0.92	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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	580	674	36	441	418	0	44	1150	366	154	644	0
Peak Hour Factor	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	688	1018	54	566	952		78	1334	795	245	1483	
Arrive On Green	0.18	0.27	0.25	0.05	0.08	0.00	0.04	0.34	0.33	0.08	0.38	0.00
Sat Flow, veh/h	3819	3778	202	3819	4031	0	1969	3928	1611	1969	3928	1752
Grp Volume(v), veh/h	580	350	360	441	418	0	44	1150	366	154	644	0
Grp Sat Flow(s),veh/h/ln	1910	1964	2016	1910	1964	0	1969	1964	1611	1969	1964	1752
Q Serve(g_s), s	14.7	15.8	15.9	11.4	10.1	0.0	2.2	27.3	3.1	4.9	12.2	0.0
Cycle Q Clear(g_c), s	14.7	15.8	15.9	11.4	10.1	0.0	2.2	27.3	3.1	4.9	12.2	0.0
Prop In Lane	1.00		0.10	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	688	529	543	566	952		78	1334	795	245	1483	
V/C Ratio(X)	0.84	0.66	0.66	0.78	0.44		0.56	0.86	0.46	0.63	0.43	
Avail Cap(c_a), veh/h	726	589	605	611	1060		158	1334	795	249	1483	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.00	0.74	0.74	0.74	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.6	32.5	32.6	45.9	39.5	0.0	47.2	30.8	6.3	23.6	23.2	0.0
Incr Delay (d2), s/veh	7.9	1.7	1.6	4.8	0.1	0.0	1.8	5.7	1.4	3.6	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	7.6	7.8	6.2	5.2	0.0	1.1	13.2	2.7	2.3	5.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	34.1	34.2	50.8	39.6	0.0	48.9	36.6	7.7	27.2	24.1	0.0
LnGrp LOS	D	C	C	D	D		D	D	A	C	C	
Approach Vol, veh/h	1290			859			1560			798		
Approach Delay, s/veh	40.2			45.3			30.1			24.7		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	41.8	22.0	28.2	11.8	38.0	19.3	30.9				
Change Period (Y+Rc), s	5.0	5.9	* 5.2	* 5.7	5.0	5.9	* 5.7	* 5.7				
Max Green Setting (Gmax), s	7.0	28.1	* 18	* 25	7.0	28.1	* 15	* 28				
Max Q Clear Time (g_c+I1), s	4.2	14.2	16.7	12.1	6.9	29.3	13.4	17.9				
Green Ext Time (p_c), s	0.0	0.2	0.1	0.9	0.0	0.0	0.2	1.3				
Intersection Summary												
HCM 6th Ctrl Delay	35.0											
HCM 6th LOS	C											
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
12/28/2020

2020 Existing - PM Peak Hour
1: Tantra Dr. & Table Mesa Dr.

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	2	1120	105	1136	74	1	91	1	0
Future Volume (vph)	2	1120	105	1136	74	1	91	1	0
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA
Protected Phases		6	5	2		4			8
Permitted Phases	6		2		4		4	8	
Detector Phase	6	6	5	2	4	4	4	8	8
Switch Phase									
Minimum Initial (s)	10.0	10.0	4.0	10.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	29.0	29.0	9.0	29.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	74.0	74.0	18.0	92.0	28.0	28.0	28.0	28.0	28.0
Total Split (%)	61.7%	61.7%	15.0%	76.7%	23.3%	23.3%	23.3%	23.3%	23.3%
Yellow Time (s)	3.8	3.8	3.0	3.8	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.8	-1.8	-1.0	-1.8		-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effect Green (s)	89.3	89.3	98.9	98.9		13.1	13.1	13.1	13.1
Actuated g/C Ratio	0.74	0.74	0.82	0.82		0.11	0.11	0.11	0.11
v/c Ratio	0.01	0.44	0.32	0.40		0.59	0.40	0.02	0.02

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 43 (36%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 7.7
 Intersection Capacity Utilization 59.7%
 Analysis Period (min) 15

Splits and Phases: 1: Tantra Dr. & Table Mesa Dr.

 Ø2 (R)		 Ø4
92 s		28 s
 Ø5	 Ø6 (R)	 Ø8
18 s	74 s	28 s

								
Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	2	1265	119	1294	95	115	2	6
v/c Ratio	0.01	0.44	0.32	0.40	0.59	0.40	0.02	0.02
Control Delay	5.5	6.8	6.2	4.0	65.0	12.5	45.0	0.2
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	5.5	6.8	6.2	4.1	65.0	12.5	45.0	0.2
Queue Length 50th (ft)	0	165	21	134	71	0	1	0
Queue Length 95th (ft)	3	257	36	168	107	36	6	0
Internal Link Dist (ft)		2843		426	327			315
Turn Bay Length (ft)	80		215			105	35	
Base Capacity (vph)	326	2878	485	3224	295	432	240	425
Starvation Cap Reductn	0	0	0	440	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.44	0.25	0.46	0.32	0.27	0.01	0.01
Intersection Summary								

HCM 6th Signalized Intersection Summary
12/28/2020

2020 Existing - PM Peak Hour

1: Tantra Dr. & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	1120	82	105	1136	3	74	1	91	1	0	4
Future Volume (veh/h)	2	1120	82	105	1136	3	74	1	91	1	0	4
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	0.98		0.96	0.99		0.97
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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	2	1179	86	119	1291	3	94	1	115	2	0	6
Peak Hour Factor	0.95	0.95	0.95	0.88	0.88	0.88	0.79	0.79	0.79	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	372	2715	198	404	3245	8	228	2	213	133	0	215
Arrive On Green	0.73	0.73	0.72	0.08	1.00	1.00	0.13	0.13	0.13	0.13	0.00	0.12
Sat Flow, veh/h	426	3704	270	1969	4020	9	1334	14	1687	1257	0	1707
Grp Volume(v), veh/h	2	624	641	119	631	663	95	0	115	2	0	6
Grp Sat Flow(s),veh/h/ln	426	1964	2009	1969	1964	2065	1348	0	1687	1257	0	1707
Q Serve(g_s), s	0.2	14.9	15.1	1.7	0.0	0.0	7.8	0.0	7.7	0.2	0.0	0.4
Cycle Q Clear(g_c), s	0.2	14.9	15.1	1.7	0.0	0.0	8.1	0.0	7.7	8.3	0.0	0.4
Prop In Lane	1.00		0.13	1.00		0.00	0.99		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	372	1439	1473	404	1586	1667	229	0	213	133	0	215
V/C Ratio(X)	0.01	0.43	0.43	0.29	0.40	0.40	0.41	0.00	0.54	0.02	0.00	0.03
Avail Cap(c_a), veh/h	372	1439	1473	553	1586	1667	332	0	337	226	0	341
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	0.89	0.89	0.89	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.3	6.3	6.3	4.4	0.0	0.0	49.6	0.0	49.2	53.3	0.0	46.4
Incr Delay (d2), s/veh	0.0	0.7	0.7	0.1	0.7	0.6	0.4	0.0	0.8	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.6	5.8	0.5	0.3	0.3	2.7	0.0	3.3	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.3	7.0	7.1	4.6	0.7	0.6	50.0	0.0	50.0	53.3	0.0	46.5
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h	1267				1413				210		8	
Approach Delay, s/veh	7.0				1.0				50.0		48.2	
Approach LOS	A				A				D		D	
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	100.9		19.1		8.9		92.0		19.1			
Change Period (Y+Rc), s	* 5.8		5.0		5.0		* 5.8		5.0			
Max Green Setting (Gmax), s	* 86		23.0		13.0		* 68		23.0			
Max Q Clear Time (g_c+I1), s	2.0		10.1		3.7		17.1		10.3			
Green Ext Time (p_c), s	0.3		0.4		0.0		0.3		0.0			

Intersection Summary

HCM 6th Ctrl Delay	7.3
HCM 6th LOS	A

Notes

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

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	39	1147	45	1168	117	23	11	166	17
Future Volume (vph)	39	1147	45	1168	117	23	11	166	17
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		8
Permitted Phases	6		2		2	4		8	
Detector Phase	1	6	5	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	4.0	10.0	4.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.0	25.0	9.0	25.0	25.0	34.0	34.0	34.0	34.0
Total Split (s)	11.0	75.0	11.0	75.0	75.0	34.0	34.0	34.0	34.0
Total Split (%)	9.2%	62.5%	9.2%	62.5%	62.5%	28.3%	28.3%	28.3%	28.3%
Yellow Time (s)	3.0	3.7	3.0	3.7	3.7	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.7	-1.0	-1.7	-1.7	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	C-Max	Min	Min	Min	Min
Act Effect Green (s)	86.0	81.7	86.2	81.8	81.8	22.7	22.7	22.7	22.7
Actuated g/C Ratio	0.72	0.68	0.72	0.68	0.68	0.19	0.19	0.19	0.19
v/c Ratio	0.13	0.47	0.15	0.47	0.10	0.12	0.33	0.85	0.19

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 52 (43%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 12.4
 Intersection Capacity Utilization 57.2%
 Analysis Period (min) 15

Splits and Phases: 2: Moorhead Ave & Table Mesa Dr.

		
Ø1	Ø2 (R)	Ø4
11 s	75 s	34 s
		
Ø5	Ø6 (R)	Ø8
11 s	75 s	34 s

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	41	1234	48	1243	124	32	140	177	74
v/c Ratio	0.13	0.47	0.15	0.47	0.10	0.12	0.33	0.85	0.19
Control Delay	2.1	5.8	5.6	9.6	1.6	38.4	10.5	79.2	14.8
Queue Delay	0.0	0.1	0.0	0.5	0.0	0.0	0.1	1.8	0.0
Total Delay	2.1	5.9	5.6	10.1	1.6	38.4	10.6	80.9	14.8
Queue Length 50th (ft)	1	226	7	196	0	21	10	133	12
Queue Length 95th (ft)	4	352	22	346	21	37	32	206	50
Internal Link Dist (ft)		426		356			311		338
Turn Bay Length (ft)	100		200			50		85	
Base Capacity (vph)	352	2651	355	2665	1181	359	525	276	490
Starvation Cap Reductn	0	281	0	891	0	0	0	0	0
Spillback Cap Reductn	0	263	0	0	0	0	54	28	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.52	0.14	0.70	0.10	0.09	0.30	0.71	0.15
Intersection Summary									

HCM 6th Signalized Intersection Summary

12/28/2020

2020 Existing - PM Peak Hour
2: Moorhead Ave & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	1147	26	45	1168	117	23	11	90	166	17	53
Future Volume (veh/h)	39	1147	26	45	1168	117	23	11	90	166	17	53
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	0.98		0.96	0.99		0.97
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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	41	1207	27	48	1243	124	32	15	125	177	18	56
Peak Hour Factor	0.95	0.95	0.95	0.94	0.94	0.94	0.72	0.72	0.72	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	261	2454	55	408	2463	1062	329	44	369	272	103	321
Arrive On Green	0.07	1.00	1.00	0.01	0.21	0.21	0.24	0.24	0.23	0.24	0.24	0.23
Sat Flow, veh/h	1969	3924	88	1969	3928	1694	1305	184	1537	1232	430	1339
Grp Volume(v), veh/h	41	604	630	48	1243	124	32	0	140	177	0	74
Grp Sat Flow(s),veh/h/ln	1969	1964	2048	1969	1964	1694	1305	0	1722	1232	0	1769
Q Serve(g_s), s	0.9	0.0	0.0	1.0	33.6	7.1	2.4	0.0	8.1	16.7	0.0	4.0
Cycle Q Clear(g_c), s	0.9	0.0	0.0	1.0	33.6	7.1	6.4	0.0	8.1	24.8	0.0	4.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.89	1.00		0.76
Lane Grp Cap(c), veh/h	261	1228	1281	408	2463	1062	329	0	413	272	0	424
V/C Ratio(X)	0.16	0.49	0.49	0.12	0.50	0.12	0.10	0.00	0.34	0.65	0.00	0.17
Avail Cap(c_a), veh/h	310	1228	1281	454	2463	1062	343	0	430	285	0	442
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.91	0.91	0.91	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.1	0.0	0.0	7.5	31.1	20.6	38.7	0.0	38.1	48.0	0.0	36.5
Incr Delay (d2), s/veh	0.1	1.3	1.2	0.0	0.7	0.2	0.0	0.0	0.2	3.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.4	0.4	0.4	17.9	3.0	0.8	0.0	3.5	5.4	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.2	1.3	1.2	7.6	31.8	20.8	38.8	0.0	38.3	51.7	0.0	36.6
LnGrp LOS	B	A	A	A	C	C	D	A	D	D	A	D
Approach Vol, veh/h	1275			1415			172			251		
Approach Delay, s/veh	1.6			30.0			38.4			47.2		
Approach LOS	A			C			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	79.2		32.8	8.2	79.0		32.8				
Change Period (Y+Rc), s	5.0	* 5.7		5.0	5.0	* 5.7		5.0				
Max Green Setting (Gmax), s	6.0	* 69		29.0	6.0	* 69		29.0				
Max Q Clear Time (g_c+I1), s	2.9	35.6		10.1	3.0	2.0		26.8				
Green Ext Time (p_c), s	0.0	0.6		0.4	0.0	0.3		0.2				

Intersection Summary

HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

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

Timings
01/13/2021

2020 Existing - PM Peak Hour
3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

	→	↘	↙	←	↖	↑	↗	↓	↘
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑	↘	↖	↑
Traffic Volume (vph)	1374	29	25	1171	20	0	359	8	139
Future Volume (vph)	1374	29	25	1171	20	0	359	8	139
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	6		5	2		4		8	
Permitted Phases		6	2		4		8		8
Detector Phase	6	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	10.0	10.0	12.0	10.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	17.4	17.4	17.0	17.4	28.0	28.0	28.0	28.0	28.0
Total Split (s)	74.0	74.0	18.0	92.0	28.0	28.0	28.0	28.0	28.0
Total Split (%)	61.7%	61.7%	15.0%	76.7%	23.3%	23.3%	23.3%	23.3%	23.3%
Yellow Time (s)	3.7	3.7	3.0	3.7	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.7	1.7	2.0	1.7	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.4	-1.4	-1.4	-1.4	-1.0	0.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	3.6	4.0	4.0	5.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	Min	Min	Min
Act Effect Green (s)	79.9	79.9	90.5	90.1	21.9	20.9	21.9	21.9	21.9
Actuated g/C Ratio	0.67	0.67	0.75	0.75	0.18	0.17	0.18	0.18	0.18
v/c Ratio	0.57	0.03	0.07	0.44	0.20	0.05	0.83	0.86	0.41

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 20.9
 Intersection Capacity Utilization 57.0%
 Analysis Period (min) 15

Splits and Phases: 3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

↖ Ø2 (R)	↖ Ø4
92 s	28 s
↘ Ø5	↘ Ø8
18 s	28 s
↘ Ø6 (R)	
74 s	

	→	↘	↙	←	↖	↑	↗	↓	↘
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	1477	31	27	1287	25	23	215	216	164
v/c Ratio	0.57	0.03	0.07	0.44	0.20	0.05	0.83	0.86	0.41
Control Delay	18.6	4.0	4.9	5.3	44.9	0.2	72.4	77.2	19.7
Queue Delay	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	4.0	4.9	5.3	44.9	0.2	72.4	77.2	19.7
Queue Length 50th (ft)	361	0	4	125	16	0	166	168	39
Queue Length 95th (ft)	537	m10	m8	m164	38	0	#257	#267	91
Internal Link Dist (ft)	356			214		324		350	
Turn Bay Length (ft)		160	90		10		125		80
Base Capacity (vph)	2605	942	376	2937	135	487	285	276	428
Starvation Cap Reductn	755	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	54	0	0	0	0	1
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.03	0.07	0.45	0.19	0.05	0.75	0.78	0.38
Intersection Summary									
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.								
m	Volume for 95th percentile queue is metered by upstream signal.								

HCM 6th Signalized Intersection Summary

01/13/2021

2020 Existing - PM Peak Hour

3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖	↗		↖	↗	↗
Traffic Volume (veh/h)	0	1374	29	25	1171	0	20	0	18	359	8	139
Future Volume (veh/h)	0	1374	29	25	1171	0	20	0	18	359	8	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.98	0.98		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	0	2067	2067	2067	2067	0	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	0	1477	0	27	1287	0	25	0	22	428	0	0
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.80	0.80	0.80	0.85	0.85	0.85
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	2511		388	2907	0	330	0	319	615	0	
Arrive On Green	0.00	0.85	0.00	0.05	0.50	0.00	0.19	0.00	0.19	0.19	0.00	0.00
Sat Flow, veh/h	0	4031	1752	1969	4031	0	1396	0	1725	2711	0	1752
Grp Volume(v), veh/h	0	1477	0	27	1287	0	25	0	22	428	0	0
Grp Sat Flow(s),veh/h/ln	0	1964	1752	1969	1964	0	1396	0	1725	1356	0	1752
Q Serve(g_s), s	0.0	13.5	0.0	0.5	25.4	0.0	1.8	0.0	1.3	18.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	13.5	0.0	0.5	25.4	0.0	1.8	0.0	1.3	19.6	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	2511		388	2907	0	330	0	319	615	0	
V/C Ratio(X)	0.00	0.59		0.07	0.44	0.00	0.08	0.00	0.07	0.70	0.00	
Avail Cap(c_a), veh/h	0	2511		485	2907	0	339	0	331	634	0	
HCM Platoon Ratio	1.00	1.33	1.33	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	4.3	0.0	5.8	14.3	0.0	39.8	0.0	40.0	47.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.1	0.5	0.0	0.1	0.0	0.1	2.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.5	0.0	0.2	12.3	0.0	0.6	0.0	0.5	6.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.1	0.0	5.8	14.7	0.0	39.9	0.0	40.1	50.2	0.0	0.0
LnGrp LOS	A	A		A	B	A	D	A	D	D	A	
Approach Vol, veh/h		1477	A		1314			47			428	A
Approach Delay, s/veh		5.1			14.6			40.0			50.2	
Approach LOS		A			B			D			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		92.8		27.2	12.1	80.7		27.2				
Change Period (Y+Rc), s		5.4		5.0	5.0	5.4		5.0				
Max Green Setting (Gmax), s		86.6		23.0	13.0	68.6		23.0				
Max Q Clear Time (g_c+I1), s		27.4		3.8	2.5	15.5		21.6				
Green Ext Time (p_c), s		8.3		0.0	0.0	10.5		0.2				

Intersection Summary

HCM 6th Ctrl Delay 15.3

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection				
Int Delay, s/veh	3.5			
Movement	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Vol, veh/h	275	1126	1356	360
Future Vol, veh/h	275	1126	1356	360
Conflicting Peds, #/hr	12	0	0	12
Sign Control	Free	Free	Free	Free
RT Channelized	-	None	-	None
Storage Length	255	-	-	0
Veh in Median Storage, #	-	0	0	-
Grade, %	-	0	0	-
Peak Hour Factor	89	89	89	89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	309	1265	1524	404
DRAFT				
Major/Minor	Major1	Major2		
Conflicting Flow All	1940	0	-	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.22	-	-	-
Pot Cap-1 Maneuver	401	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	1	-	-	-
Mov Cap-1 Maneuver	397	-	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Approach	EB	WB		
HCM Control Delay, s	7.7	0		
HCM LOS				
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR
Capacity (veh/h)	397	-	-	-
HCM Lane V/C Ratio	0.778	-	-	-
HCM Control Delay (s)	39.4	-	-	-
HCM Lane LOS	E	-	-	-
HCM 95th %tile Q(veh)	6.6	-	-	-
Notes				
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon				

Timings
01/13/2021

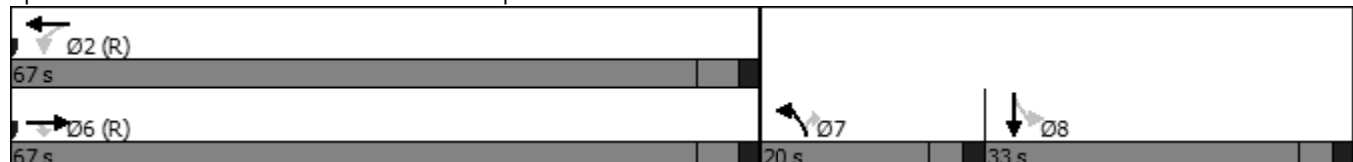
2020 Existing - PM Peak Hour
6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↗	↘	↗	↗
Traffic Volume (vph)	1107	19	11	929	87	65	431	7	700
Future Volume (vph)	1107	19	11	929	87	65	431	7	700
Turn Type	NA	Perm	Perm	NA	Prot	Perm	Perm	NA	Free
Protected Phases	6			2	7			8	
Permitted Phases		6	2			7	8		Free
Detector Phase	6	6	2	2	7	7	8	8	
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	30.0	30.0	30.0	30.0	9.0	9.0	33.0	33.0	
Total Split (s)	67.0	67.0	67.0	67.0	20.0	20.0	33.0	33.0	
Total Split (%)	55.8%	55.8%	55.8%	55.8%	16.7%	16.7%	27.5%	27.5%	
Yellow Time (s)	3.8	3.8	3.8	3.8	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.8	-1.8	-1.8	-1.8	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag					Lead	Lead	Lag	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	Min	Min	
Act Effect Green (s)	78.5	78.5	78.5	78.5	9.1	9.1	20.5	20.5	120.0
Actuated g/C Ratio	0.65	0.65	0.65	0.65	0.08	0.08	0.17	0.17	1.00
v/c Ratio	0.49	0.02	0.06	0.44	0.41	0.45	0.74	0.73	0.44

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 26 (22%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 17.2
 Intersection Capacity Utilization 62.8%
 Analysis Period (min) 15

Splits and Phases: 6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.



									
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1244	21	13	1133	116	87	234	232	745
v/c Ratio	0.49	0.02	0.06	0.44	0.41	0.45	0.74	0.73	0.44
Control Delay	10.7	0.1	10.6	13.2	56.7	23.8	61.0	60.3	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	0.1	10.6	13.2	56.7	23.8	61.0	60.3	0.8
Queue Length 50th (ft)	130	0	4	308	44	12	183	181	0
Queue Length 95th (ft)	260	m0	m13	361	61	42	260	256	0
Internal Link Dist (ft)	362			410				605	
Turn Bay Length (ft)		100	110		100	100			60
Base Capacity (vph)	2558	1099	226	2558	505	291	448	450	1700
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.02	0.06	0.44	0.23	0.30	0.52	0.52	0.44
Intersection Summary									
m Volume for 95th percentile queue is metered by upstream signal.									

HCM Signalized Intersection Capacity Analysis

01/13/2021

2020 Existing - PM Peak Hour

6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖↗		↗	↖	↖↑	↗
Traffic Volume (vph)	0	1107	19	11	929	0	87	0	65	431	7	700
Future Volume (vph)	0	1107	19	11	929	0	87	0	65	431	7	700
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0		4.0	4.0	4.0	3.0
Lane Util. Factor		0.95	1.00	1.00	0.95		0.97		1.00	0.95	0.95	1.00
Frpb, ped/bikes		1.00	0.94	1.00	1.00		1.00		0.98	1.00	1.00	0.97
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	0.95	1.00
Satd. Flow (prot)		3912	1650	1949	3912		3794		1717	1856	1863	1700
Flt Permitted		1.00	1.00	0.17	1.00		0.95		1.00	0.95	0.95	1.00
Satd. Flow (perm)		3912	1650	345	3912		3794		1717	1856	1863	1700
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.75	0.75	0.75	0.94	0.94	0.94
Adj. Flow (vph)	0	1244	21	13	1133	0	116	0	87	459	7	745
RTOR Reduction (vph)	0	0	7	0	0	0	0	0	66	0	0	0
Lane Group Flow (vph)	0	1244	14	13	1133	0	116	0	21	234	232	745
Confl. Peds. (#/hr)	17		13	13		17	55		1	1		55
Confl. Bikes (#/hr)			10			4			1			2
Turn Type		NA	Perm	Perm	NA		Prot		Perm	Perm	NA	Free
Protected Phases		6			2		7				8	
Permitted Phases			6	2					7	8		Free
Actuated Green, G (s)		76.6	76.6	76.6	76.6		8.1		8.1	19.5	19.5	120.0
Effective Green, g (s)		78.4	78.4	78.4	78.4		9.1		9.1	20.5	20.5	120.0
Actuated g/C Ratio		0.65	0.65	0.65	0.65		0.08		0.08	0.17	0.17	1.00
Clearance Time (s)		5.8	5.8	5.8	5.8		5.0		5.0	5.0	5.0	
Vehicle Extension (s)		0.2	0.2	0.2	0.2		2.0		2.0	2.0	2.0	
Lane Grp Cap (vph)		2555	1078	225	2555		287		130	317	318	1700
v/s Ratio Prot		c0.32			0.29		0.03					
v/s Ratio Perm			0.01	0.04					0.01	c0.13	0.12	c0.44
v/c Ratio		0.49	0.01	0.06	0.44		0.40		0.16	0.74	0.73	0.44
Uniform Delay, d1		10.6	7.3	7.5	10.2		52.9		51.9	47.2	47.1	0.0
Progression Factor		0.88	1.00	1.00	1.14		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		0.5	0.0	0.5	0.6		0.3		0.2	7.5	6.9	0.8
Delay (s)		9.9	7.3	8.0	12.1		53.2		52.1	54.7	54.1	0.8
Level of Service		A	A	A	B		D		D	D	D	A
Approach Delay (s)		9.8			12.1			52.7			21.4	
Approach LOS		A			B			D			C	
Intersection Summary												
HCM 2000 Control Delay	16.5			HCM 2000 Level of Service					B			
HCM 2000 Volume to Capacity ratio	0.55											
Actuated Cycle Length (s)	120.0			Sum of lost time (s)					12.0			
Intersection Capacity Utilization	62.8%			ICU Level of Service					B			
Analysis Period (min)	15											
c Critical Lane Group												

	→	←	↶	↷
Lane Group	EBT	WBT	NBL	NBR
Lane Configurations	↑↑	↑↑↑	↶↷	↷
Traffic Volume (vph)	1183	800	340	82
Future Volume (vph)	1183	800	340	82
Turn Type	NA	NA	Prot	Perm
Protected Phases	6	2	4	
Permitted Phases				4
Detector Phase	6	2	4	4
Switch Phase				
Minimum Initial (s)	10.0	10.0	4.0	4.0
Minimum Split (s)	19.0	19.0	34.0	34.0
Total Split (s)	86.0	86.0	34.0	34.0
Total Split (%)	71.7%	71.7%	28.3%	28.3%
Yellow Time (s)	3.6	3.6	3.0	3.0
All-Red Time (s)	1.7	1.7	2.0	2.0
Lost Time Adjust (s)	-1.3	-1.3	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Min	Min
Act Effect Green (s)	94.4	94.4	17.6	17.6
Actuated g/C Ratio	0.79	0.79	0.15	0.15
v/c Ratio	0.44	0.20	0.69	0.30

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 15 (13%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 11.2
 Intersection Capacity Utilization 47.8%
 Analysis Period (min) 15

Splits and Phases: 8: US 36 NB Off-Ramp (E) & Table Mesa Dr.

← Ø2 (R)	↶ Ø4
86 s	34 s
→ Ø6 (R)	
86 s	

	→	←	↶	↷
Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1360	870	386	93
v/c Ratio	0.44	0.20	0.69	0.30
Control Delay	3.1	3.5	55.2	17.4
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	3.1	3.5	55.2	17.4
Queue Length 50th (ft)	60	51	148	15
Queue Length 95th (ft)	106	76	187	59
Internal Link Dist (ft)	184	628	402	
Turn Bay Length (ft)			115	125
Base Capacity (vph)	3077	4421	948	482
Starvation Cap Reductn	369	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.50	0.20	0.41	0.19
Intersection Summary				

HCM 6th Signalized Intersection Summary
12/28/2020

2020 Existing - PM Peak Hour
8: US 36 NB Off-Ramp (E) & Table Mesa Dr.

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑↑	↘↙	↗
Traffic Volume (veh/h)	1183	0	0	800	340	82
Future Volume (veh/h)	1183	0	0	800	340	82
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	2067	0	0	2067	2067	2067
Adj Flow Rate, veh/h	1360	0	0	870	386	0
Peak Hour Factor	0.87	0.87	0.92	0.92	0.88	0.88
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	3152	0	0	4529	499	
Arrive On Green	1.00	0.00	0.00	0.80	0.13	0.00
Sat Flow, veh/h	4134	0	0	6016	3819	1752
Grp Volume(v), veh/h	1360	0	0	870	386	0
Grp Sat Flow(s),veh/h/ln	1964	0	0	1881	1910	1752
Q Serve(g_s), s	0.0	0.0	0.0	4.3	11.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.3	11.7	0.0
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	3152	0	0	4529	499	
V/C Ratio(X)	0.43	0.00	0.00	0.19	0.77	
Avail Cap(c_a), veh/h	3152	0	0	4529	955	
HCM Platoon Ratio	2.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	2.8	50.4	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.1	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.2	5.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.4	0.0	0.0	2.9	51.4	0.0
LnGrp LOS	A	A	A	A	D	
Approach Vol, veh/h	1360			870	386	A
Approach Delay, s/veh	0.4			2.9	51.4	
Approach LOS	A			A	D	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	100.3		19.7		100.3	
Change Period (Y+Rc), s	* 5.3		5.0		* 5.3	
Max Green Setting (Gmax), s	* 81		29.0		* 81	
Max Q Clear Time (g_c+I1), s	6.3		13.7		2.0	
Green Ext Time (p_c), s	4.7		1.0		9.2	

Intersection Summary

HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Notes

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

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

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	365	549	495	449	54	585	332	325	1211	514
Future Volume (vph)	365	549	495	449	54	585	332	325	1211	514
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	pm+pt	NA	Free
Protected Phases	3	8	7	4	1	6	7	5	2	
Permitted Phases							6	2		Free
Detector Phase	3	8	7	4	1	6	7	5	2	
Switch Phase										
Minimum Initial (s)	4.0	8.0	4.0	8.0	4.0	10.0	4.0	4.0	10.0	
Minimum Split (s)	9.2	34.0	9.2	31.0	9.0	33.0	9.2	9.0	33.0	
Total Split (s)	20.0	34.0	24.0	38.0	12.0	34.0	24.0	28.0	50.0	
Total Split (%)	16.7%	28.3%	20.0%	31.7%	10.0%	28.3%	20.0%	23.3%	41.7%	
Yellow Time (s)	3.2	3.7	3.2	3.7	3.0	3.9	3.2	3.0	3.9	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.2	-1.7	-1.2	-1.7	-1.0	-1.9	-1.2	-1.0	-1.9	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	
Act Effect Green (s)	15.6	26.7	20.1	31.2	7.2	38.1	58.1	61.2	51.9	120.0
Actuated g/C Ratio	0.13	0.22	0.17	0.26	0.06	0.32	0.48	0.51	0.43	1.00
v/c Ratio	0.86	0.80	0.81	0.65	0.52	0.52	0.42	0.78	0.80	0.34

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 93 (78%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 37.9
 Intersection Capacity Utilization 85.8%
 Analysis Period (min) 15

Splits and Phases: 43: Broadway & Table Mesa Dr.

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	50 s	20 s	38 s
 Ø5	 Ø6 (R)	 Ø8	 Ø7
28 s	34 s	34 s	24 s

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	420	686	516	643	60	650	369	361	1346	571
v/c Ratio	0.86	0.80	0.81	0.65	0.52	0.52	0.42	0.78	0.80	0.34
Control Delay	68.4	51.7	60.7	41.2	70.2	37.3	7.6	31.7	35.5	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	51.7	60.7	41.2	70.2	37.3	7.6	31.7	35.5	0.6
Queue Length 50th (ft)	165	264	206	245	46	229	48	172	510	0
Queue Length 95th (ft)	#226	311	#280	314	92	304	91	260	#617	0
Internal Link Dist (ft)		438		2843		1401			2060	
Turn Bay Length (ft)	155		90		375		400	160		
Base Capacity (vph)	505	961	652	1074	130	1241	890	526	1690	1668
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	0.83	0.71	0.79	0.60	0.46	0.52	0.41	0.69	0.80	0.34

Intersection Summary

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

HCM 6th Signalized Intersection Summary
01/13/2021

2020 Existing - PM Peak Hour
43: Broadway & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	549	48	495	449	168	54	585	332	325	1211	514
Future Volume (veh/h)	365	549	48	495	449	168	54	585	332	325	1211	514
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.89	0.99		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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	420	631	55	516	468	0	60	650	369	361	1346	0
Peak Hour Factor	0.87	0.87	0.87	0.96	0.96	0.96	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	509	855	74	618	1051		96	1261	775	443	1638	
Arrive On Green	0.13	0.24	0.22	0.05	0.09	0.00	0.05	0.32	0.32	0.14	0.42	0.00
Sat Flow, veh/h	3819	3637	316	3819	4031	0	1969	3928	1560	1969	3928	1752
Grp Volume(v), veh/h	420	340	346	516	468	0	60	650	369	361	1346	0
Grp Sat Flow(s),veh/h/ln	1910	1964	1989	1910	1964	0	1969	1964	1560	1969	1964	1752
Q Serve(g_s), s	12.8	19.2	19.3	16.1	13.6	0.0	3.6	16.2	6.2	14.1	36.5	0.0
Cycle Q Clear(g_c), s	12.8	19.2	19.3	16.1	13.6	0.0	3.6	16.2	6.2	14.1	36.5	0.0
Prop In Lane	1.00		0.16	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	509	462	468	618	1051		96	1261	775	443	1638	
V/C Ratio(X)	0.82	0.74	0.74	0.84	0.45		0.63	0.52	0.48	0.82	0.82	
Avail Cap(c_a), veh/h	509	491	497	637	1113		131	1261	775	552	1638	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.00	0.74	0.74	0.74	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.6	42.5	42.6	55.2	46.2	0.0	56.0	33.1	7.3	23.9	31.0	0.0
Incr Delay (d2), s/veh	10.0	4.6	4.6	8.0	0.1	0.0	1.8	1.1	1.6	6.1	4.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	9.8	10.0	8.9	7.2	0.0	1.8	7.7	2.9	7.0	17.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	47.0	47.2	63.2	46.3	0.0	57.9	34.3	8.8	30.0	35.8	0.0
LnGrp LOS	E	D	D	E	D		E	C	A	C	D	
Approach Vol, veh/h	1106			984			1079			1707		
Approach Delay, s/veh	52.3			55.2			26.9			34.6		
Approach LOS	D			E			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	54.0	20.0	36.1	21.4	42.5	23.9	32.2				
Change Period (Y+Rc), s	5.0	5.9	* 5.2	* 5.7	5.0	5.9	* 5.7	* 5.7				
Max Green Setting (Gmax), s	7.0	44.1	* 15	* 32	23.0	28.1	* 19	* 28				
Max Q Clear Time (g_c+I1), s	5.6	38.5	14.8	15.6	16.1	18.2	18.1	21.3				
Green Ext Time (p_c), s	0.0	0.5	0.0	1.1	0.2	0.4	0.1	1.0				

Intersection Summary

HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Notes

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

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

Intersection Capacity Worksheets:
Existing
With Improvements

DRAFT

Timings
01/14/2021

2020 Existing (with Improvements) - AM Peak Hour

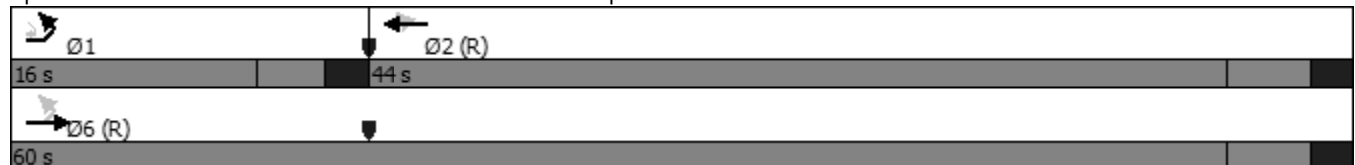
5: Table Mesa Dr. & US 36 NB On-Ramp

				
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations		 	 	
Traffic Volume (vph)	205	827	1156	315
Future Volume (vph)	205	827	1156	315
Turn Type	pm+pt	NA	NA	Perm
Protected Phases	1	6	2	
Permitted Phases	6			2
Detector Phase	1	6	2	2
Switch Phase				
Minimum Initial (s)	4.0	10.0	10.0	10.0
Minimum Split (s)	9.0	21.7	24.7	24.7
Total Split (s)	16.0	60.0	44.0	44.0
Total Split (%)	26.7%	100.0%	73.3%	73.3%
Yellow Time (s)	3.0	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.7
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	None	C-Max	C-Max	C-Max
Act Effect Green (s)	55.0	60.0	42.9	42.9
Actuated g/C Ratio	0.92	1.00	0.72	0.72
v/c Ratio	0.52	0.25	0.48	0.28

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Green
 Natural Cycle: 40
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 2.9
 Intersection Capacity Utilization 48.1%
 Analysis Period (min) 15

Splits and Phases: 5: Table Mesa Dr. & US 36 NB On-Ramp





Lane Group	EBL	EBT	WBT	WBR
Lane Group Flow (vph)	244	985	1344	366
v/c Ratio	0.52	0.25	0.48	0.28
Control Delay	5.6	0.2	4.6	1.0
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	5.6	0.2	4.9	1.0
Queue Length 50th (ft)	0	0	76	0
Queue Length 95th (ft)	15	0	133	17
Internal Link Dist (ft)		308	362	
Turn Bay Length (ft)	255			
Base Capacity (vph)	598	3912	2798	1321
Starvation Cap Reductn	0	0	687	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.41	0.25	0.64	0.28
Intersection Summary				

HCM Signalized Intersection Capacity Analysis 2020 Existing (with Improvements) - AM Peak Hour

01/14/2021

5: Table Mesa Dr. & US 36 NB On-Ramp



Movement	EBL	EBT	WBT	WBR
Lane Configurations	←	↑↑	↑↑	↑
Traffic Volume (vph)	205	827	1156	315
Future Volume (vph)	205	827	1156	315
Ideal Flow (vphpl)	2100	2100	2100	2100
Total Lost time (s)	5.0	5.7	5.7	5.7
Lane Util. Factor	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1956	3912	3912	1701
Flt Permitted	0.16	1.00	1.00	1.00
Satd. Flow (perm)	328	3912	3912	1701
Peak-hour factor, PHF	0.84	0.84	0.86	0.86
Adj. Flow (vph)	244	985	1344	366
RTOR Reduction (vph)	0	0	0	104
Lane Group Flow (vph)	244	985	1344	262
Confl. Peds. (#/hr)	4			4
Confl. Bikes (#/hr)				3
Turn Type	pm+pt	NA	NA	Perm
Protected Phases	1	6	2	
Permitted Phases	6			2
Actuated Green, G (s)	54.3	60.0	42.9	42.9
Effective Green, g (s)	54.3	60.0	42.9	42.9
Actuated g/C Ratio	0.90	1.00	0.71	0.71
Clearance Time (s)	5.0	5.7	5.7	5.7
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	470	3912	2797	1216
v/s Ratio Prot	c0.06	0.25	0.34	
v/s Ratio Perm	c0.41			0.15
v/c Ratio	0.52	0.25	0.48	0.22
Uniform Delay, d1	2.5	0.0	3.7	2.9
Progression Factor	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.2	0.6	0.4
Delay (s)	3.4	0.2	4.3	3.3
Level of Service	A	A	A	A
Approach Delay (s)		0.8	4.1	
Approach LOS		A	A	
Intersection Summary				
HCM 2000 Control Delay		2.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio		0.55		
Actuated Cycle Length (s)		60.0	Sum of lost time (s)	10.7
Intersection Capacity Utilization		48.1%	ICU Level of Service	A
Analysis Period (min)		15		
c Critical Lane Group				

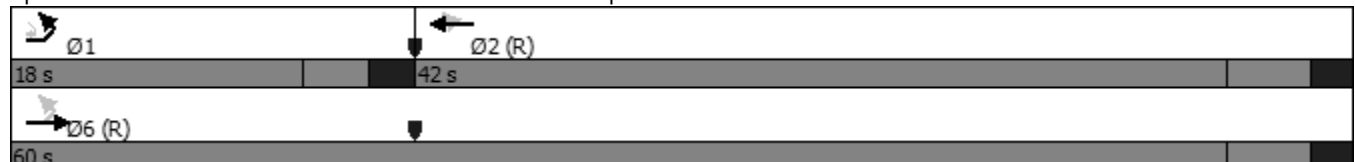
Timings
01/14/2021

2020 Existing (with Improvements) - PM Peak Hour

5: Table Mesa Dr. & US 36 NB On-Ramp

				
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations		 	 	
Traffic Volume (vph)	275	1126	1356	360
Future Volume (vph)	275	1126	1356	360
Turn Type	pm+pt	NA	NA	Perm
Protected Phases	1	6	2	
Permitted Phases	6			2
Detector Phase	1	6	2	2
Switch Phase				
Minimum Initial (s)	4.0	10.0	10.0	10.0
Minimum Split (s)	9.0	15.7	24.7	24.7
Total Split (s)	18.0	60.0	42.0	42.0
Total Split (%)	30.0%	100.0%	70.0%	70.0%
Yellow Time (s)	3.0	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.7
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	None	C-Max	C-Max	C-Max
Act Effect Green (s)	55.0	60.0	40.2	40.2
Actuated g/C Ratio	0.92	1.00	0.67	0.67
v/c Ratio	0.65	0.32	0.58	0.33
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				
Cycle Length: 60				
Actuated Cycle Length: 60				
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Green				
Natural Cycle: 45				
Control Type: Actuated-Coordinated				
Maximum v/c Ratio: 0.65				
Intersection Signal Delay: 5.5				
Intersection Capacity Utilization 56.6%				
Analysis Period (min) 15				

Splits and Phases: 5: Table Mesa Dr. & US 36 NB On-Ramp





Lane Group	EBL	EBT	WBT	WBR
Lane Group Flow (vph)	309	1265	1524	404
v/c Ratio	0.65	0.32	0.58	0.33
Control Delay	15.6	0.2	8.4	3.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.6	0.2	8.4	3.9
Queue Length 50th (ft)	84	0	161	30
Queue Length 95th (ft)	m122	0	402	148
Internal Link Dist (ft)		308	362	
Turn Bay Length (ft)	255			
Base Capacity (vph)	584	3912	2619	1217
Starvation Cap Reductn	0	0	38	0
Spillback Cap Reductn	0	42	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.53	0.33	0.59	0.33

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis 2020 Existing (with Improvements) - PM Peak Hour

01/14/2021

5: Table Mesa Dr. & US 36 NB On-Ramp



Movement	EBL	EBT	WBT	WBR
Lane Configurations	←	↑↑	↑↑	↑
Traffic Volume (vph)	275	1126	1356	360
Future Volume (vph)	275	1126	1356	360
Ideal Flow (vphpl)	2100	2100	2100	2100
Total Lost time (s)	5.0	5.7	5.7	5.7
Lane Util. Factor	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.96
Flpb, ped/bikes	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1956	3912	3912	1679
Flt Permitted	0.11	1.00	1.00	1.00
Satd. Flow (perm)	231	3912	3912	1679
Peak-hour factor, PHF	0.89	0.89	0.89	0.89
Adj. Flow (vph)	309	1265	1524	404
RTOR Reduction (vph)	0	0	0	94
Lane Group Flow (vph)	309	1265	1524	310
Confl. Peds. (#/hr)	12			12
Confl. Bikes (#/hr)				4
Turn Type	pm+pt	NA	NA	Perm
Protected Phases	1	6	2	
Permitted Phases	6			2
Actuated Green, G (s)	54.3	60.0	40.2	40.2
Effective Green, g (s)	54.3	60.0	40.2	40.2
Actuated g/C Ratio	0.90	1.00	0.67	0.67
Clearance Time (s)	5.0	5.7	5.7	5.7
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	470	3912	2621	1124
v/s Ratio Prot	c0.10	0.32	0.39	
v/s Ratio Perm	c0.49			0.18
v/c Ratio	0.66	0.32	0.58	0.28
Uniform Delay, d1	10.4	0.0	5.4	4.0
Progression Factor	1.54	1.00	1.28	2.21
Incremental Delay, d2	2.7	0.2	0.9	0.6
Delay (s)	18.7	0.2	7.7	9.4
Level of Service	B	A	A	A
Approach Delay (s)		3.8	8.1	
Approach LOS		A	A	
Intersection Summary				
HCM 2000 Control Delay		6.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio		0.69		
Actuated Cycle Length (s)		60.0	Sum of lost time (s)	10.7
Intersection Capacity Utilization		56.6%	ICU Level of Service	B
Analysis Period (min)		15		
c Critical Lane Group				

***Intersection Capacity Worksheets:
2041 Background***

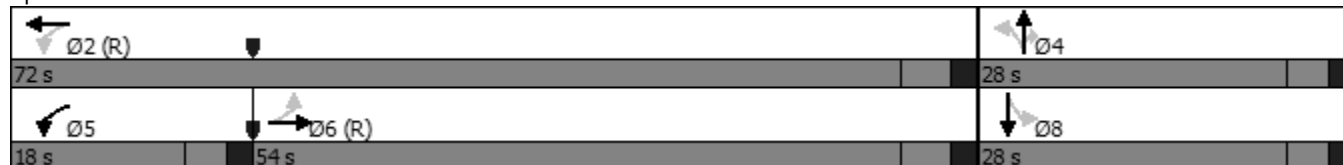
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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	5	1005	60	1105	85	3	115	5	2
Future Volume (vph)	5	1005	60	1105	85	3	115	5	2
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA
Protected Phases		6	5	2		4			8
Permitted Phases	6		2		4		4	8	
Detector Phase	6	6	5	2	4	4	4	8	8
Switch Phase									
Minimum Initial (s)	10.0	10.0	4.0	10.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	29.0	29.0	9.0	29.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	54.0	54.0	18.0	72.0	28.0	28.0	28.0	28.0	28.0
Total Split (%)	54.0%	54.0%	18.0%	72.0%	28.0%	28.0%	28.0%	28.0%	28.0%
Yellow Time (s)	3.8	3.8	3.0	3.8	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.8	-1.8	-1.0	-1.8		-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effect Green (s)	72.8	72.8	80.2	80.2		11.8	11.8	11.8	11.8
Actuated g/C Ratio	0.73	0.73	0.80	0.80		0.12	0.12	0.12	0.12
v/c Ratio	0.02	0.45	0.20	0.44		0.55	0.41	0.06	0.04

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 67 (67%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 5.2
 Intersection Capacity Utilization 60.4%
 Analysis Period (min) 15

Splits and Phases: 1: Tantra Dr. & Table Mesa Dr.



								
Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	6	1271	74	1370	97	128	9	8
v/c Ratio	0.02	0.45	0.20	0.44	0.55	0.41	0.06	0.04
Control Delay	4.6	4.2	2.7	2.0	52.6	11.1	37.4	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.6	4.2	2.7	2.1	52.6	11.1	37.4	26.6
Queue Length 50th (ft)	1	78	5	53	59	0	5	2
Queue Length 95th (ft)	m2	128	9	54	106	50	13	9
Internal Link Dist (ft)		2843		426	327			315
Turn Bay Length (ft)	80		215			105	35	
Base Capacity (vph)	291	2824	505	3133	359	502	307	451
Starvation Cap Reductn	0	0	0	198	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.45	0.15	0.47	0.27	0.25	0.03	0.02
Intersection Summary								
m Volume for 95th percentile queue is metered by upstream signal.								

HCM 6th Signalized Intersection Summary
12/28/2020

2041 Background - AM Peak Hour

1: Tantra Dr. & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1005	50	60	1105	5	85	3	115	5	2	3
Future Volume (veh/h)	5	1005	50	60	1105	5	85	3	115	5	2	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.97		0.95	0.98		0.97
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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	6	1211	60	74	1364	6	94	3	128	9	3	5
Peak Hour Factor	0.83	0.83	0.83	0.81	0.81	0.81	0.90	0.90	0.90	0.58	0.58	0.58
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	343	2602	129	454	3081	14	269	8	253	176	103	172
Arrive On Green	1.00	1.00	1.00	0.09	1.00	1.00	0.15	0.15	0.15	0.15	0.15	0.14
Sat Flow, veh/h	396	3807	188	1969	4010	18	1305	50	1668	1235	682	1137
Grp Volume(v), veh/h	6	624	647	74	668	702	97	0	128	9	0	8
Grp Sat Flow(s),veh/h/ln	396	1964	2032	1969	1964	2064	1355	0	1668	1235	0	1819
Q Serve(g_s), s	0.0	0.0	0.0	1.0	0.0	0.0	6.3	0.0	7.1	0.7	0.0	0.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.0	0.0	0.0	6.7	0.0	7.1	7.4	0.0	0.4
Prop In Lane	1.00		0.09	1.00		0.01	0.97		1.00	1.00		0.63
Lane Grp Cap(c), veh/h	343	1342	1389	454	1509	1586	276	0	253	176	0	276
V/C Ratio(X)	0.02	0.47	0.47	0.16	0.44	0.44	0.35	0.00	0.51	0.05	0.00	0.03
Avail Cap(c_a), veh/h	343	1342	1389	642	1509	1586	398	0	400	285	0	436
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	0.90	0.90	0.90	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	3.4	0.0	0.0	39.0	0.0	39.0	42.2	0.0	36.4
Incr Delay (d2), s/veh	0.1	0.9	0.9	0.1	0.8	0.8	0.3	0.0	0.6	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.3	0.3	0.4	0.4	2.2	0.0	2.9	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.1	0.9	0.9	3.4	0.8	0.8	39.2	0.0	39.6	42.3	0.0	36.4
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h	1277			1444				225		17		
Approach Delay, s/veh	0.9			1.0				39.4		39.5		
Approach LOS	A			A				D		D		
Timer - Assigned Phs	2			4		5		6		8		
Phs Duration (G+Y+Rc), s	80.8			19.2		8.5		72.3		19.2		
Change Period (Y+Rc), s	* 5.8			5.0		5.0		* 5.8		5.0		
Max Green Setting (Gmax), s	* 66			23.0		13.0		* 48		23.0		
Max Q Clear Time (g_c+I1), s	2.0			9.1		3.0		2.0		9.4		
Green Ext Time (p_c), s	0.3			0.4		0.0		0.3		0.0		

Intersection Summary

HCM 6th Ctrl Delay	4.1
HCM 6th LOS	A

Notes

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

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	40	1060	60	1125	105	20	10	140	15
Future Volume (vph)	40	1060	60	1125	105	20	10	140	15
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		8
Permitted Phases	6		2		2	4		8	
Detector Phase	1	6	5	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	4.0	10.0	4.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.0	25.0	9.0	25.0	25.0	34.0	34.0	34.0	34.0
Total Split (s)	11.0	55.0	11.0	55.0	55.0	34.0	34.0	34.0	34.0
Total Split (%)	11.0%	55.0%	11.0%	55.0%	55.0%	34.0%	34.0%	34.0%	34.0%
Yellow Time (s)	3.0	3.7	3.0	3.7	3.7	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.7	-1.0	-1.7	-1.7	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	C-Max	Min	Min	Min	Min
Act Effect Green (s)	71.3	67.0	72.6	69.1	69.1	17.2	17.2	17.2	17.2
Actuated g/C Ratio	0.71	0.67	0.73	0.69	0.69	0.17	0.17	0.17	0.17
v/c Ratio	0.13	0.48	0.19	0.45	0.10	0.13	0.22	0.68	0.14

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 75 (75%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 7.6
 Intersection Capacity Utilization 58.1%
 Analysis Period (min) 15

Splits and Phases: 2: Moorhead Ave & Table Mesa Dr.

		
Ø1	Ø2 (R)	Ø4
11 s	55 s	34 s
		
Ø5	Ø6 (R)	Ø8
11 s	55 s	34 s

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	46	1247	65	1210	113	34	77	169	48
v/c Ratio	0.13	0.48	0.19	0.45	0.10	0.13	0.22	0.68	0.14
Control Delay	2.2	3.4	3.6	5.2	0.3	33.7	13.4	52.3	17.4
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	2.2	3.4	3.6	5.3	0.3	33.7	13.4	52.3	17.4
Queue Length 50th (ft)	1	49	6	68	0	19	9	102	10
Queue Length 95th (ft)	4	167	12	201	1	27	17	145	33
Internal Link Dist (ft)		426		356			311		338
Turn Bay Length (ft)	100		200			50		85	
Base Capacity (vph)	388	2610	366	2701	1182	444	574	430	570
Starvation Cap Reductn	0	180	0	408	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.51	0.18	0.53	0.10	0.08	0.13	0.39	0.08
Intersection Summary									

HCM 6th Signalized Intersection Summary
12/28/2020

2041 Background - AM Peak Hour
2: Moorhead Ave & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1060	25	60	1125	105	20	10	35	140	15	25
Future Volume (veh/h)	40	1060	25	60	1125	105	20	10	35	140	15	25
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		0.95	0.98		0.96	0.98		0.96
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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	46	1218	29	65	1210	113	34	17	60	169	18	30
Peak Hour Factor	0.87	0.87	0.87	0.93	0.93	0.93	0.58	0.58	0.58	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	397	2382	57	425	2407	1023	348	89	313	323	155	258
Arrive On Green	0.08	1.00	1.00	0.09	1.00	1.00	0.23	0.23	0.22	0.23	0.23	0.22
Sat Flow, veh/h	1969	3916	93	1969	3928	1670	1333	388	1370	1301	677	1129
Grp Volume(v), veh/h	46	611	636	65	1210	113	34	0	77	169	0	48
Grp Sat Flow(s),veh/h/ln	1969	1964	2046	1969	1964	1670	1333	0	1758	1301	0	1806
Q Serve(g_s), s	0.8	0.0	0.0	1.2	0.0	0.0	2.1	0.0	3.6	12.1	0.0	2.1
Cycle Q Clear(g_c), s	0.8	0.0	0.0	1.2	0.0	0.0	4.2	0.0	3.6	15.6	0.0	2.1
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.78	1.00		0.63
Lane Grp Cap(c), veh/h	397	1195	1244	425	2407	1023	348	0	401	323	0	412
V/C Ratio(X)	0.12	0.51	0.51	0.15	0.50	0.11	0.10	0.00	0.19	0.52	0.00	0.12
Avail Cap(c_a), veh/h	459	1195	1244	477	2407	1023	444	0	527	416	0	542
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.91	0.91	0.91	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.4	0.0	0.0	6.2	0.0	0.0	32.3	0.0	31.5	37.5	0.0	30.8
Incr Delay (d2), s/veh	0.0	1.4	1.4	0.1	0.7	0.2	0.0	0.0	0.1	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.5	0.5	0.4	0.2	0.1	0.7	0.0	1.5	3.9	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	1.4	1.4	6.3	0.7	0.2	32.3	0.0	31.6	38.0	0.0	30.9
LnGrp LOS	A	A	A	A	A	A	C	A	C	D	A	C
Approach Vol, veh/h	1293				1388				111		217	
Approach Delay, s/veh	1.6				0.9				31.8		36.4	
Approach LOS	A				A				C		D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	65.3		26.8	8.3	64.8		26.8				
Change Period (Y+Rc), s	5.0	* 5.7		5.0	5.0	* 5.7		5.0				
Max Green Setting (Gmax), s	6.0	* 49		29.0	6.0	* 49		29.0				
Max Q Clear Time (g_c+I1), s	2.8	2.0		6.2	3.2	2.0		17.6				
Green Ext Time (p_c), s	0.0	0.6		0.2	0.0	0.3		0.4				

Intersection Summary

HCM 6th Ctrl Delay	4.9
HCM 6th LOS	A

Notes

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

Timings
01/13/2021

2041 Background - AM Peak Hour
3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

	→	↘	↙	←	↖	↑	↗	↓	↘
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑	↘	↖	↑
Traffic Volume (vph)	1210	25	25	1195	20	0	140	10	75
Future Volume (vph)	1210	25	25	1195	20	0	140	10	75
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	6		5	2		4		8	
Permitted Phases		6	2		4		8		8
Detector Phase	6	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	10.0	10.0	12.0	10.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	17.4	17.4	17.0	17.4	28.0	28.0	28.0	28.0	28.0
Total Split (s)	54.0	54.0	18.0	72.0	28.0	28.0	28.0	28.0	28.0
Total Split (%)	54.0%	54.0%	18.0%	72.0%	28.0%	28.0%	28.0%	28.0%	28.0%
Yellow Time (s)	3.7	3.7	3.0	3.7	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.7	1.7	2.0	1.7	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.4	-1.4	-1.4	-1.4	-1.0	0.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	3.6	4.0	4.0	5.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	Min	Min	Min
Act Effect Green (s)	70.1	70.1	80.7	80.3	11.7	10.7	11.7	11.7	11.7
Actuated g/C Ratio	0.70	0.70	0.81	0.80	0.12	0.11	0.12	0.12	0.12
v/c Ratio	0.46	0.02	0.06	0.43	0.18	0.10	0.52	0.55	0.33

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 84 (84%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 7.2
 Intersection Capacity Utilization 54.9%
 Analysis Period (min) 15

Splits and Phases: 3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

↖ Ø2 (R) 72 s	↖ Ø4 28 s
↘ Ø5 18 s	↘ Ø8 28 s
↗ Ø6 (R) 54 s	

									
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	1274	26	28	1358	28	42	87	90	88
v/c Ratio	0.46	0.02	0.06	0.43	0.18	0.10	0.52	0.55	0.33
Control Delay	4.7	0.0	1.8	3.0	40.9	0.5	52.0	53.2	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.8	0.0	1.8	3.0	40.9	0.5	52.0	53.2	13.7
Queue Length 50th (ft)	98	0	1	40	16	0	55	57	4
Queue Length 95th (ft)	80	m0	m4	78	32	0	95	98	41
Internal Link Dist (ft)	356			214		324		350	
Turn Bay Length (ft)		160	90		10		125		80
Base Capacity (vph)	2743	1112	503	3143	313	592	342	340	467
Starvation Cap Reductn	216	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	5	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.02	0.06	0.43	0.09	0.07	0.25	0.26	0.19
Intersection Summary									
m Volume for 95th percentile queue is metered by upstream signal.									

HCM 6th Signalized Intersection Summary

01/13/2021

2041 Background - AM Peak Hour
3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	0	1210	25	25	1195	0	20	0	30	140	10	75
Future Volume (veh/h)	0	1210	25	25	1195	0	20	0	30	140	10	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.96	0.97		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	0	2067	2067	2067	2067	0	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	0	1274	0	28	1358	0	28	0	42	174	0	0
Peak Hour Factor	0.95	0.95	0.95	0.88	0.88	0.88	0.71	0.71	0.71	0.85	0.85	0.85
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	2584		513	3035	0	276	0	231	476	0	
Arrive On Green	0.00	1.00	0.00	0.16	1.00	0.00	0.15	0.00	0.15	0.15	0.00	0.00
Sat Flow, veh/h	0	4031	1752	1969	4031	0	1389	0	1683	2649	0	1752
Grp Volume(v), veh/h	0	1274	0	28	1358	0	28	0	42	174	0	0
Grp Sat Flow(s),veh/h/ln	0	1964	1752	1969	1964	0	1389	0	1683	1324	0	1752
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.0	1.8	0.0	2.2	6.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.3	0.0	0.0	1.8	0.0	2.2	8.3	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	2584		513	3035	0	276	0	231	476	0	
V/C Ratio(X)	0.00	0.49		0.05	0.45	0.00	0.10	0.00	0.18	0.37	0.00	
Avail Cap(c_a), veh/h	0	2584		641	3035	0	405	0	387	722	0	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.86	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	2.8	0.0	0.0	37.1	0.0	37.7	40.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.5	0.0	0.2	0.0	0.4	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.0	0.1	0.2	0.0	0.6	0.0	0.9	2.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.6	0.0	2.8	0.5	0.0	37.3	0.0	38.1	41.1	0.0	0.0
LnGrp LOS	A	A		A	A	A	D	A	D	D	A	
Approach Vol, veh/h		1274	A		1386			70			174	A
Approach Delay, s/veh		0.6			0.5			37.8			41.1	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		81.3		18.7	11.5	69.8		18.7				
Change Period (Y+Rc), s		5.4		5.0	5.0	5.4		5.0				
Max Green Setting (Gmax), s		66.6		23.0	13.0	48.6		23.0				
Max Q Clear Time (g_c+I1), s		2.0		3.8	2.3	2.0		10.3				
Green Ext Time (p_c), s		9.2		0.0	0.0	8.1		0.3				

Intersection Summary

HCM 6th Ctrl Delay 3.9
HCM 6th LOS A

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection				
Int Delay, s/veh	2.7			
Movement	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Vol, veh/h	225	900	1300	345
Future Vol, veh/h	225	900	1300	345
Conflicting Peds, #/hr	5	0	0	5
Sign Control	Free	Free	Free	Free
RT Channelized	-	None	-	None
Storage Length	255	-	-	0
Veh in Median Storage, #	-	0	0	-
Grade, %	-	0	0	-
Peak Hour Factor	84	84	86	86
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	268	1071	1512	401
DRAFT				
Major/Minor	Major1	Major2		
Conflicting Flow All	1918	0	-	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.22	-	-	-
Pot Cap-1 Maneuver	390	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	1	-	-	-
Mov Cap-1 Maneuver	388	-	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Approach	EB	WB		
HCM Control Delay, s	6.5	0		
HCM LOS				
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR
Capacity (veh/h)	388	-	-	-
HCM Lane V/C Ratio	0.69	-	-	-
HCM Control Delay (s)	32.6	-	-	-
HCM Lane LOS	D	-	-	-
HCM 95th %tile Q(veh)	5	-	-	-
Notes				
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon				

Timings
01/13/2021

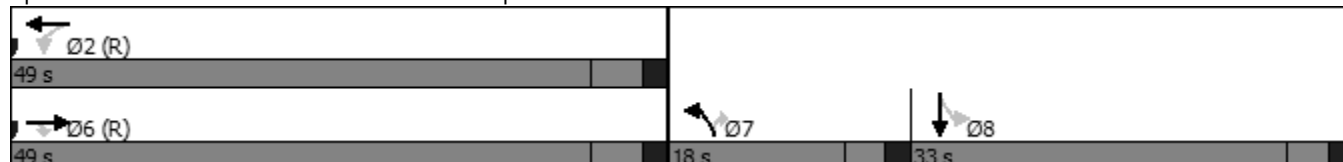
2041 Background - AM Peak Hour
6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑	↘	↑	↑
Traffic Volume (vph)	850	50	20	1180	45	25	210	45	420
Future Volume (vph)	850	50	20	1180	45	25	210	45	420
Turn Type	NA	Perm	Perm	NA	Prot	Perm	Perm	NA	Free
Protected Phases	6			2	7			8	
Permitted Phases		6	2			7	8		Free
Detector Phase	6	6	2	2	7	7	8	8	
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	30.0	30.0	30.0	30.0	9.0	9.0	33.0	33.0	
Total Split (s)	49.0	49.0	49.0	49.0	18.0	18.0	33.0	33.0	
Total Split (%)	49.0%	49.0%	49.0%	49.0%	18.0%	18.0%	33.0%	33.0%	
Yellow Time (s)	3.8	3.8	3.8	3.8	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.8	-1.8	-1.8	-1.8	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag					Lead	Lead	Lag	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	Min	Min	
Act Effect Green (s)	70.1	70.1	70.1	70.1	7.0	7.0	12.8	12.8	100.0
Actuated g/C Ratio	0.70	0.70	0.70	0.70	0.07	0.07	0.13	0.13	1.00
v/c Ratio	0.33	0.04	0.05	0.47	0.22	0.16	0.58	0.58	0.27

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 39 (39%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 11.1
 Intersection Capacity Utilization 59.7%
 Analysis Period (min) 15

Splits and Phases: 6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.



									
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	904	53	22	1283	58	32	137	140	457
v/c Ratio	0.33	0.04	0.05	0.47	0.22	0.16	0.58	0.58	0.27
Control Delay	8.4	3.2	6.2	7.5	45.5	1.8	50.1	49.9	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	3.2	6.2	7.5	45.5	1.8	50.1	49.9	0.4
Queue Length 50th (ft)	140	3	3	168	18	0	87	89	0
Queue Length 95th (ft)	253	19	14	200	32	0	145	147	0
Internal Link Dist (ft)	362			410				605	
Turn Bay Length (ft)		100	110		100	100			60
Base Capacity (vph)	2742	1189	406	2742	531	313	538	549	1694
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.04	0.05	0.47	0.11	0.10	0.25	0.26	0.27
Intersection Summary									

HCM Signalized Intersection Capacity Analysis

01/13/2021

2041 Background - AM Peak Hour
6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖↗		↗	↖	↖↗	↗
Traffic Volume (vph)	0	850	50	20	1180	0	45	0	25	210	45	420
Future Volume (vph)	0	850	50	20	1180	0	45	0	25	210	45	420
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0		4.0	4.0	4.0	3.0
Lane Util. Factor		0.95	1.00	1.00	0.95		0.97		1.00	0.95	0.95	1.00
Frpb, ped/bikes		1.00	0.95	1.00	1.00		1.00		0.97	1.00	1.00	0.97
Flpb, ped/bikes		1.00	1.00	0.99	1.00		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	0.97	1.00
Satd. Flow (prot)		3912	1670	1946	3912		3794		1697	1858	1894	1694
Flt Permitted		1.00	1.00	0.28	1.00		0.95		1.00	0.95	0.97	1.00
Satd. Flow (perm)		3912	1670	579	3912		3794		1697	1858	1894	1694
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.78	0.78	0.78	0.92	0.92	0.92
Adj. Flow (vph)	0	904	53	22	1283	0	58	0	32	228	49	457
RTOR Reduction (vph)	0	0	16	0	0	0	0	0	30	0	0	0
Lane Group Flow (vph)	0	904	37	22	1283	0	58	0	2	137	140	457
Confl. Peds. (#/hr)	45		10	10		45	65					65
Confl. Bikes (#/hr)			10			10			5			5
Turn Type		NA	Perm	Perm	NA		Prot		Perm	Perm	NA	Free
Protected Phases		6			2		7				8	
Permitted Phases			6	2					7	8		Free
Actuated Green, G (s)		67.3	67.3	67.3	67.3		5.1		5.1	11.8	11.8	100.0
Effective Green, g (s)		69.1	69.1	69.1	69.1		6.1		6.1	12.8	12.8	100.0
Actuated g/C Ratio		0.69	0.69	0.69	0.69		0.06		0.06	0.13	0.13	1.00
Clearance Time (s)		5.8	5.8	5.8	5.8		5.0		5.0	5.0	5.0	
Vehicle Extension (s)		0.2	0.2	0.2	0.2		2.0		2.0	2.0	2.0	
Lane Grp Cap (vph)		2703	1153	400	2703		231		103	237	242	1694
v/s Ratio Prot		0.23			c0.33		0.02					
v/s Ratio Perm			0.02	0.04					0.00	0.07	0.07	c0.27
v/c Ratio		0.33	0.03	0.06	0.47		0.25		0.02	0.58	0.58	0.27
Uniform Delay, d1		6.2	4.9	5.0	7.1		44.8		44.1	41.1	41.1	0.0
Progression Factor		1.18	3.46	0.87	0.89		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		0.3	0.0	0.3	0.6		0.2		0.0	2.1	2.1	0.4
Delay (s)		7.7	17.0	4.6	6.9		45.0		44.2	43.2	43.1	0.4
Level of Service		A	B	A	A		D		D	D	D	A
Approach Delay (s)		8.2			6.8			44.7			16.5	
Approach LOS		A			A			D			B	
Intersection Summary												
HCM 2000 Control Delay	10.7			HCM 2000 Level of Service					B			
HCM 2000 Volume to Capacity ratio	0.49											
Actuated Cycle Length (s)	100.0			Sum of lost time (s)					12.0			
Intersection Capacity Utilization	59.7%			ICU Level of Service					B			
Analysis Period (min)	15											
c Critical Lane Group												

	→	←	↶	↷
Lane Group	EBT	WBT	NBL	NBR
Lane Configurations	↑↑	↑↑↑	↶↷	↷
Traffic Volume (vph)	645	1155	260	180
Future Volume (vph)	645	1155	260	180
Turn Type	NA	NA	Prot	Perm
Protected Phases	6	2	4	
Permitted Phases				4
Detector Phase	6	2	4	4
Switch Phase				
Minimum Initial (s)	10.0	10.0	4.0	4.0
Minimum Split (s)	19.0	19.0	34.0	34.0
Total Split (s)	66.0	66.0	34.0	34.0
Total Split (%)	66.0%	66.0%	34.0%	34.0%
Yellow Time (s)	3.6	3.6	3.0	3.0
All-Red Time (s)	1.7	1.7	2.0	2.0
Lost Time Adjust (s)	-1.3	-1.3	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Min	Min
Act Effect Green (s)	79.2	79.2	12.8	12.8
Actuated g/C Ratio	0.79	0.79	0.13	0.13
v/c Ratio	0.23	0.30	0.58	0.50

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 30 (30%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 7.8
 Intersection Capacity Utilization 36.2%
 Analysis Period (min) 15

Splits and Phases: 8: US 36 NB Off-Ramp (E) & Table Mesa Dr.

← Ø2 (R)	↶ Ø4
66 s	34 s
→ Ø6 (R)	
66 s	

				
Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	709	1328	280	194
v/c Ratio	0.23	0.30	0.58	0.50
Control Delay	0.8	3.2	45.6	10.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	0.8	3.2	45.6	10.5
Queue Length 50th (ft)	3	65	87	0
Queue Length 95th (ft)	4	91	124	60
Internal Link Dist (ft)	184	628	402	
Turn Bay Length (ft)			115	125
Base Capacity (vph)	3098	4451	1138	646
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	0.23	0.30	0.25	0.30
Intersection Summary				

HCM 6th Signalized Intersection Summary
12/28/2020

2041 Background - AM Peak Hour
8: US 36 NB Off-Ramp (E) & Table Mesa Dr.

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑↑	↖↗	↗
Traffic Volume (veh/h)	645	0	0	1155	260	180
Future Volume (veh/h)	645	0	0	1155	260	180
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	2067	0	0	2067	2067	2067
Adj Flow Rate, veh/h	709	0	0	1328	280	0
Peak Hour Factor	0.91	0.91	0.87	0.87	0.93	0.93
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	3190	0	0	4584	412	
Arrive On Green	1.00	0.00	0.00	1.00	0.11	0.00
Sat Flow, veh/h	4134	0	0	6016	3819	1752
Grp Volume(v), veh/h	709	0	0	1328	280	0
Grp Sat Flow(s),veh/h/ln	1964	0	0	1881	1910	1752
Q Serve(g_s), s	0.0	0.0	0.0	0.0	7.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	7.1	0.0
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	3190	0	0	4584	412	
V/C Ratio(X)	0.22	0.00	0.00	0.29	0.68	
Avail Cap(c_a), veh/h	3190	0	0	4584	1146	
HCM Platoon Ratio	2.00	1.00	1.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	43.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	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	0.1	0.0	0.0	0.1	3.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.2	0.0	0.0	0.2	43.7	0.0
LnGrp LOS	A	A	A	A	D	
Approach Vol, veh/h	709			1328	280	A
Approach Delay, s/veh	0.2			0.2	43.7	
Approach LOS	A			A	D	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	85.2		14.8		85.2	
Change Period (Y+Rc), s	* 5.3		5.0		* 5.3	
Max Green Setting (Gmax), s	* 61		29.0		* 61	
Max Q Clear Time (g_c+I1), s	2.0		9.1		2.0	
Green Ext Time (p_c), s	8.5		0.7		3.6	
Intersection Summary						
HCM 6th Ctrl Delay			5.4			
HCM 6th LOS			A			

Notes

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

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

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	505	605	480	455	40	1320	385	140	615	250
Future Volume (vph)	505	605	480	455	40	1320	385	140	615	250
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	pm+pt	NA	Free
Protected Phases	3	8	7	4	1	6	7	5	2	
Permitted Phases							6	2		Free
Detector Phase	3	8	7	4	1	6	7	5	2	
Switch Phase										
Minimum Initial (s)	4.0	8.0	4.0	8.0	4.0	10.0	4.0	4.0	10.0	
Minimum Split (s)	9.2	34.0	9.2	31.0	9.0	33.0	9.2	9.0	33.0	
Total Split (s)	23.0	34.0	20.0	31.0	12.0	34.0	20.0	12.0	34.0	
Total Split (%)	23.0%	34.0%	20.0%	31.0%	12.0%	34.0%	20.0%	12.0%	34.0%	
Yellow Time (s)	3.2	3.7	3.2	3.7	3.0	3.9	3.2	3.0	3.9	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.2	-1.7	-1.2	-1.7	-1.0	-1.9	-1.2	-1.0	-1.9	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	
Act Effect Green (s)	18.1	25.0	18.1	25.1	6.6	33.1	51.2	42.8	38.0	100.0
Actuated g/C Ratio	0.18	0.25	0.18	0.25	0.07	0.33	0.51	0.43	0.38	1.00
v/c Ratio	0.85	0.76	0.74	0.85	0.34	1.13	0.47	0.76	0.53	0.19

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 92 (92%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.13
 Intersection Signal Delay: 50.0
 Intersection Capacity Utilization 88.9%
 Analysis Period (min) 15

Splits and Phases: 43: Broadway & Table Mesa Dr.

			
Ø1	Ø2 (R)	Ø3	Ø4
12 s	34 s	23 s	31 s
			
Ø5	Ø6 (R)	Ø8	Ø7
12 s	34 s	34 s	20 s

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	580	735	511	862	44	1467	428	179	788	321
v/c Ratio	0.85	0.76	0.74	0.85	0.34	1.13	0.47	0.76	0.53	0.19
Control Delay	52.2	40.0	38.6	30.3	52.6	104.7	11.6	42.5	27.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.2	40.0	38.6	30.3	52.6	104.7	11.6	42.5	27.7	0.2
Queue Length 50th (ft)	184	228	165	247	28	~603	100	71	226	0
Queue Length 95th (ft)	235	264	#251	300	m50	#745	191	#124	246	0
Internal Link Dist (ft)		438		2843		1401			2060	
Turn Bay Length (ft)	155		90		375		400	160		
Base Capacity (vph)	720	1160	689	1078	156	1293	903	240	1485	1701
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	0.81	0.63	0.74	0.80	0.28	1.13	0.47	0.75	0.53	0.19
Intersection Summary										
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.										
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.										
m Volume for 95th percentile queue is metered by upstream signal.										

HCM 6th Signalized Intersection Summary

01/12/2021

2041 Background - AM Peak Hour
43: Broadway & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	605	35	480	455	355	40	1320	385	140	615	250
Future Volume (veh/h)	505	605	35	480	455	355	40	1320	385	140	615	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		1.00	1.00		0.91	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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	580	695	40	511	484	0	44	1467	428	179	788	0
Peak Hour Factor	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	688	1030	59	611	1017		78	1260	778	230	1419	
Arrive On Green	0.18	0.27	0.26	0.05	0.09	0.00	0.04	0.32	0.31	0.08	0.36	0.00
Sat Flow, veh/h	3819	3758	216	3819	4031	0	1969	3928	1586	1969	3928	1752
Grp Volume(v), veh/h	580	363	372	511	484	0	44	1467	428	179	788	0
Grp Sat Flow(s),veh/h/ln	1910	1964	2010	1910	1964	0	1969	1964	1586	1969	1964	1752
Q Serve(g_s), s	14.7	16.5	16.5	13.3	11.7	0.0	2.2	32.1	4.0	5.9	16.0	0.0
Cycle Q Clear(g_c), s	14.7	16.5	16.5	13.3	11.7	0.0	2.2	32.1	4.0	5.9	16.0	0.0
Prop In Lane	1.00		0.11	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	688	538	551	611	1017		78	1260	778	230	1419	
V/C Ratio(X)	0.84	0.67	0.68	0.84	0.48		0.56	1.16	0.55	0.78	0.56	
Avail Cap(c_a), veh/h	726	589	603	611	1060		158	1260	778	230	1419	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.00	0.74	0.74	0.74	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.6	32.3	32.4	46.1	39.3	0.0	47.2	34.0	6.8	24.5	25.5	0.0
Incr Delay (d2), s/veh	7.9	2.0	2.0	8.5	0.1	0.0	1.8	80.7	2.1	14.4	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	7.9	8.1	7.5	6.2	0.0	1.1	28.5	3.4	3.5	7.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	34.3	34.4	54.5	39.4	0.0	48.9	114.6	8.9	39.0	27.1	0.0
LnGrp LOS	D	C	C	D	D		D	F	A	D	C	
Approach Vol, veh/h	1315			995			1939			967		
Approach Delay, s/veh	40.2			47.2			89.8			29.3		
Approach LOS	D			D			F			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	40.1	22.0	29.9	12.0	36.1	20.5	31.4				
Change Period (Y+Rc), s	5.0	5.9	* 5.2	* 5.7	5.0	5.9	* 5.7	* 5.7				
Max Green Setting (Gmax), s	7.0	28.1	* 18	* 25	7.0	28.1	* 15	* 28				
Max Q Clear Time (g_c+I1), s	4.2	18.0	16.7	13.7	7.9	34.1	15.3	18.5				
Green Ext Time (p_c), s	0.0	2.7	0.1	1.0	0.0	0.0	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay 57.9
HCM 6th LOS E

Notes

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

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

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	5	1240	110	1230	75	3	95	2	0
Future Volume (vph)	5	1240	110	1230	75	3	95	2	0
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA
Protected Phases		6	5	2		4			8
Permitted Phases	6		2		4		4	8	
Detector Phase	6	6	5	2	4	4	4	8	8
Switch Phase									
Minimum Initial (s)	10.0	10.0	4.0	10.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	29.0	29.0	9.0	29.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	74.0	74.0	18.0	92.0	28.0	28.0	28.0	28.0	28.0
Total Split (%)	61.7%	61.7%	15.0%	76.7%	23.3%	23.3%	23.3%	23.3%	23.3%
Yellow Time (s)	3.8	3.8	3.0	3.8	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.8	-1.8	-1.0	-1.8		-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effect Green (s)	88.9	88.9	98.6	98.6		13.4	13.4	13.4	13.4
Actuated g/C Ratio	0.74	0.74	0.82	0.82		0.11	0.11	0.11	0.11
v/c Ratio	0.02	0.49	0.38	0.44		0.60	0.41	0.02	0.03

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 43 (36%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 8.1
 Intersection Capacity Utilization 64.2%
 Analysis Period (min) 15

Splits and Phases: 1: Tantra Dr. & Table Mesa Dr.

 Ø2 (R)		 Ø4
92 s		28 s
 Ø5	 Ø6 (R)	 Ø8
18 s	74 s	28 s

								
Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	5	1394	125	1404	99	120	3	8
v/c Ratio	0.02	0.49	0.38	0.44	0.60	0.41	0.02	0.03
Control Delay	5.8	7.4	9.2	4.1	65.0	12.3	44.5	0.2
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	5.8	7.5	9.2	4.1	65.0	12.3	44.5	0.2
Queue Length 50th (ft)	1	195	24	163	74	0	2	0
Queue Length 95th (ft)	5	303	45	172	109	36	8	0
Internal Link Dist (ft)		2843		426	327			315
Turn Bay Length (ft)	80		215			105	35	
Base Capacity (vph)	287	2862	443	3210	295	431	233	406
Starvation Cap Reductn	0	0	0	392	0	0	0	0
Spillback Cap Reductn	0	64	0	0	0	2	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.50	0.28	0.50	0.34	0.28	0.01	0.02
Intersection Summary								

HCM 6th Signalized Intersection Summary
12/28/2020

2041 Background - PM Peak Hour

1: Tantra Dr. & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1240	85	110	1230	5	75	3	95	2	0	5
Future Volume (veh/h)	5	1240	85	110	1230	5	75	3	95	2	0	5
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		0.96	0.97		0.95	0.98		0.97
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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	5	1305	89	125	1398	6	95	4	120	3	0	8
Peak Hour Factor	0.95	0.95	0.95	0.88	0.88	0.88	0.79	0.79	0.79	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	336	2680	182	358	3186	14	237	9	231	146	0	235
Arrive On Green	0.72	0.72	0.71	0.08	1.00	1.00	0.14	0.14	0.14	0.14	0.00	0.13
Sat Flow, veh/h	383	3722	253	1969	4010	17	1287	65	1662	1241	0	1691
Grp Volume(v), veh/h	5	687	707	125	685	719	99	0	120	3	0	8
Grp Sat Flow(s),veh/h/ln	383	1964	2012	1969	1964	2063	1351	0	1662	1241	0	1691
Q Serve(g_s), s	0.4	18.1	18.3	1.9	0.0	0.0	7.9	0.0	8.0	0.3	0.0	0.5
Cycle Q Clear(g_c), s	0.4	18.1	18.3	1.9	0.0	0.0	8.4	0.0	8.0	8.6	0.0	0.5
Prop In Lane	1.00		0.13	1.00		0.01	0.96		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	336	1414	1448	358	1560	1639	246	0	231	146	0	235
V/C Ratio(X)	0.01	0.49	0.49	0.35	0.44	0.44	0.40	0.00	0.52	0.02	0.00	0.03
Avail Cap(c_a), veh/h	336	1414	1448	507	1560	1639	331	0	332	222	0	338
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	0.86	0.86	0.86	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.8	7.2	7.3	5.6	0.0	0.0	48.3	0.0	48.0	52.1	0.0	45.1
Incr Delay (d2), s/veh	0.1	0.9	0.9	0.2	0.8	0.7	0.4	0.0	0.7	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.9	7.2	0.6	0.3	0.3	2.8	0.0	3.4	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.8	8.1	8.2	5.8	0.8	0.7	48.7	0.0	48.6	52.1	0.0	45.2
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h	1399			1529			219			11		
Approach Delay, s/veh	8.2			1.2			48.6			47.1		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	2			4		5	6	8				
Phs Duration (G+Y+Rc), s	99.3			20.7		8.9	90.4	20.7				
Change Period (Y+Rc), s	* 5.8			5.0		5.0	* 5.8	5.0				
Max Green Setting (Gmax), s	* 86			23.0		13.0	* 68	23.0				
Max Q Clear Time (g_c+I1), s	2.0			10.4		3.9	20.3	10.6				
Green Ext Time (p_c), s	0.3			0.4		0.0	0.3	0.0				

Intersection Summary

HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

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

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	40	1265	45	1265	120	25	15	170	20
Future Volume (vph)	40	1265	45	1265	120	25	15	170	20
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		8
Permitted Phases	6		2		2	4		8	
Detector Phase	1	6	5	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	4.0	10.0	4.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.0	25.0	9.0	25.0	25.0	34.0	34.0	34.0	34.0
Total Split (s)	11.0	75.0	11.0	75.0	75.0	34.0	34.0	34.0	34.0
Total Split (%)	9.2%	62.5%	9.2%	62.5%	62.5%	28.3%	28.3%	28.3%	28.3%
Yellow Time (s)	3.0	3.7	3.0	3.7	3.7	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.7	-1.0	-1.7	-1.7	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	C-Max	Min	Min	Min	Min
Act Effect Green (s)	85.2	80.8	85.4	80.9	80.9	23.5	23.5	23.5	23.5
Actuated g/C Ratio	0.71	0.67	0.71	0.67	0.67	0.20	0.20	0.20	0.20
v/c Ratio	0.15	0.52	0.17	0.51	0.11	0.13	0.34	0.88	0.20

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 52 (43%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 14.0
 Intersection Capacity Utilization 58.2%
 Analysis Period (min) 15

Splits and Phases: 2: Moorhead Ave & Table Mesa Dr.

		
Ø1	Ø2 (R)	Ø4
11 s	75 s	34 s
		
Ø5	Ø6 (R)	Ø8
11 s	75 s	34 s



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	42	1366	48	1346	128	35	153	181	80
v/c Ratio	0.15	0.52	0.17	0.51	0.11	0.13	0.34	0.88	0.20
Control Delay	2.3	6.4	6.5	11.0	2.0	38.1	11.0	84.3	14.8
Queue Delay	0.0	0.1	0.0	0.7	0.0	0.0	0.4	14.9	0.0
Total Delay	2.3	6.5	6.5	11.6	2.0	38.1	11.4	99.2	14.8
Queue Length 50th (ft)	1	274	7	219	0	22	13	136	13
Queue Length 95th (ft)	m3	404	24	417	25	38	35	#227	53
Internal Link Dist (ft)		426		356			311		338
Turn Bay Length (ft)	100		200			50		85	
Base Capacity (vph)	313	2619	306	2636	1153	351	530	262	492
Starvation Cap Reductn	0	157	0	830	0	0	0	0	0
Spillback Cap Reductn	0	360	0	0	0	0	121	64	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.60	0.16	0.75	0.11	0.10	0.37	0.91	0.16

Intersection Summary

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

Queue shown is maximum after two cycles.

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

HCM 6th Signalized Intersection Summary
12/28/2020

2041 Background - PM Peak Hour
2: Moorhead Ave & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1265	32	45	1265	120	25	15	95	170	20	55
Future Volume (veh/h)	40	1265	32	45	1265	120	25	15	95	170	20	55
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	0.98		0.95	0.98		0.96
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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	42	1332	34	48	1346	128	35	21	132	181	21	59
Peak Hour Factor	0.95	0.95	0.95	0.94	0.94	0.94	0.72	0.72	0.72	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	2415	62	372	2433	1044	333	58	366	270	115	322
Arrive On Green	0.07	1.00	1.00	0.02	0.41	0.41	0.25	0.25	0.24	0.25	0.25	0.24
Sat Flow, veh/h	1969	3909	100	1969	3928	1686	1292	236	1481	1214	464	1303
Grp Volume(v), veh/h	42	669	697	48	1346	128	35	0	153	181	0	80
Grp Sat Flow(s),veh/h/ln	1969	1964	2045	1969	1964	1686	1292	0	1717	1214	0	1767
Q Serve(g_s), s	0.9	0.0	0.0	1.1	31.2	5.6	2.6	0.0	8.9	17.4	0.0	4.3
Cycle Q Clear(g_c), s	0.9	0.0	0.0	1.1	31.2	5.6	6.9	0.0	8.9	26.3	0.0	4.3
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.86	1.00		0.74
Lane Grp Cap(c), veh/h	253	1213	1263	372	2433	1044	333	0	425	270	0	437
V/C Ratio(X)	0.17	0.55	0.55	0.13	0.55	0.12	0.11	0.00	0.36	0.67	0.00	0.18
Avail Cap(c_a), veh/h	302	1213	1263	418	2433	1044	337	0	429	273	0	442
HCM Platoon Ratio	2.00	2.00	2.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	0.88	0.88	0.88	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.8	0.0	0.0	7.8	22.5	15.0	38.4	0.0	37.7	48.2	0.0	35.9
Incr Delay (d2), s/veh	0.1	1.6	1.5	0.1	0.8	0.2	0.1	0.0	0.2	5.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.5	0.5	0.4	15.5	2.2	0.9	0.0	3.8	5.7	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.9	1.6	1.5	7.8	23.3	15.2	38.4	0.0	37.9	53.2	0.0	36.0
LnGrp LOS	B	A	A	A	C	B	D	A	D	D	A	D
Approach Vol, veh/h	1408				1522				188			
Approach Delay, s/veh	1.9				22.1				38.0			
Approach LOS	A				C				D			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	78.3		33.7	8.2	78.1		33.7				
Change Period (Y+Rc), s	5.0	* 5.7		5.0	5.0	* 5.7		5.0				
Max Green Setting (Gmax), s	6.0	* 69		29.0	6.0	* 69		29.0				
Max Q Clear Time (g_c+I1), s	2.9	33.2		10.9	3.1	2.0		28.3				
Green Ext Time (p_c), s	0.0	0.7		0.4	0.0	0.3		0.1				

Intersection Summary

HCM 6th Ctrl Delay	16.6
HCM 6th LOS	B

Notes

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

Timings
01/13/2021

2041 Background - PM Peak Hour
3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

	→	↘	↙	←	↖	↑	↗	↓	↘
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑	↘	↖	↑
Traffic Volume (vph)	1500	30	30	1255	20	0	400	10	155
Future Volume (vph)	1500	30	30	1255	20	0	400	10	155
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	6		5	2		4		8	
Permitted Phases		6	2		4		8		8
Detector Phase	6	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	10.0	10.0	12.0	10.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	17.4	17.4	17.0	17.4	28.0	28.0	28.0	28.0	28.0
Total Split (s)	74.0	74.0	18.0	92.0	28.0	28.0	28.0	28.0	28.0
Total Split (%)	61.7%	61.7%	15.0%	76.7%	23.3%	23.3%	23.3%	23.3%	23.3%
Yellow Time (s)	3.7	3.7	3.0	3.7	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.7	1.7	2.0	1.7	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.4	-1.4	-1.4	-1.4	-1.0	0.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	3.6	4.0	4.0	5.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	Min	Min	Min
Act Effect Green (s)	78.7	78.7	89.3	88.9	23.1	22.1	23.1	23.1	23.1
Actuated g/C Ratio	0.66	0.66	0.74	0.74	0.19	0.18	0.19	0.19	0.19
v/c Ratio	0.63	0.04	0.10	0.48	0.22	0.05	0.88	0.92	0.46

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 24.3
 Intersection Capacity Utilization 61.5%
 Analysis Period (min) 15

Splits and Phases: 3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

↖ Ø2 (R)	↖ Ø4
92 s	28 s
↘ Ø5	↘ Ø8
18 s	28 s
↘ Ø6 (R)	
74 s	

									
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	1613	32	33	1379	25	25	240	243	182
v/c Ratio	0.63	0.04	0.10	0.48	0.22	0.05	0.88	0.92	0.46
Control Delay	21.1	4.6	5.3	6.1	46.0	0.2	78.3	86.0	25.9
Queue Delay	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	4.6	5.3	6.1	46.0	0.2	78.3	86.0	25.9
Queue Length 50th (ft)	401	0	5	149	16	0	190	194	64
Queue Length 95th (ft)	613	m10	m10	m180	39	0	#307	#320	122
Internal Link Dist (ft)	356			214		324		350	
Turn Bay Length (ft)		160	90		10		125		80
Base Capacity (vph)	2564	882	338	2896	117	478	283	274	412
Starvation Cap Reductn	755	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	87	0	0	0	0	1
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.04	0.10	0.49	0.21	0.05	0.85	0.89	0.44
Intersection Summary									
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.									
m Volume for 95th percentile queue is metered by upstream signal.									

HCM 6th Signalized Intersection Summary

01/13/2021

2041 Background - PM Peak Hour
3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖	↗		↖	↗	↗
Traffic Volume (veh/h)	0	1500	30	30	1255	0	20	0	20	400	10	155
Future Volume (veh/h)	0	1500	30	30	1255	0	20	0	20	400	10	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.98	0.96		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	0	2067	2067	2067	2067	0	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	0	1613	0	33	1379	0	25	0	25	480	0	0
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.80	0.80	0.80	0.85	0.85	0.85
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	2455		362	2880	0	337	0	328	623	0	
Arrive On Green	0.00	0.83	0.00	0.05	0.49	0.00	0.20	0.00	0.20	0.20	0.00	0.00
Sat Flow, veh/h	0	4031	1752	1969	4031	0	1386	0	1712	2674	0	1752
Grp Volume(v), veh/h	0	1613	0	33	1379	0	25	0	25	480	0	0
Grp Sat Flow(s),veh/h/ln	0	1964	1752	1969	1964	0	1386	0	1712	1337	0	1752
Q Serve(g_s), s	0.0	18.3	0.0	0.6	28.0	0.0	1.8	0.0	1.4	21.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	18.3	0.0	0.6	28.0	0.0	1.8	0.0	1.4	22.7	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	2455		362	2880	0	337	0	328	623	0	
V/C Ratio(X)	0.00	0.66		0.09	0.48	0.00	0.07	0.00	0.08	0.77	0.00	
Avail Cap(c_a), veh/h	0	2455		444	2880	0	337	0	328	623	0	
HCM Platoon Ratio	1.00	1.33	1.33	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.80	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	5.3	0.0	6.9	15.3	0.0	39.1	0.0	39.4	48.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.1	0.6	0.0	0.1	0.0	0.1	5.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.6	0.0	0.2	13.6	0.0	0.6	0.0	0.6	7.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.5	0.0	7.0	15.8	0.0	39.2	0.0	39.5	53.5	0.0	0.0
LnGrp LOS	A	A		A	B	A	D	A	D	D	A	
Approach Vol, veh/h		1613	A		1412			50			480	A
Approach Delay, s/veh		6.5			15.6			39.3			53.5	
Approach LOS		A			B			D			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		92.0		28.0	13.0	79.0		28.0				
Change Period (Y+Rc), s		5.4		5.0	5.0	5.4		5.0				
Max Green Setting (Gmax), s		86.6		23.0	13.0	68.6		23.0				
Max Q Clear Time (g_c+I1), s		30.0		3.8	2.6	20.3		24.7				
Green Ext Time (p_c), s		9.4		0.0	0.0	12.2		0.0				

Intersection Summary

HCM 6th Ctrl Delay 16.9
HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection				
Int Delay, s/veh	10.5			
Movement	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Vol, veh/h	300	1235	1460	395
Future Vol, veh/h	300	1235	1460	395
Conflicting Peds, #/hr	15	0	0	15
Sign Control	Free	Free	Free	Free
RT Channelized	-	None	-	None
Storage Length	255	-	-	0
Veh in Median Storage, #	-	0	0	-
Grade, %	-	0	0	-
Peak Hour Factor	89	89	89	89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	337	1388	1640	444
DRAFT				
Major/Minor	Major1	Major2		
Conflicting Flow All	2099	0	-	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.22	-	-	-
Pot Cap-1 Maneuver	~ 311	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	1	-	-	-
Mov Cap-1 Maneuver	~ 307	-	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Approach	EB	WB		
HCM Control Delay, s	23.1	0		
HCM LOS				
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR
Capacity (veh/h)	~ 307	-	-	-
HCM Lane V/C Ratio	1.098	-	-	-
HCM Control Delay (s)	118	-	-	-
HCM Lane LOS	F	-	-	-
HCM 95th %tile Q(veh)	13.3	-	-	-
Notes				
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon				

Timings
01/13/2021

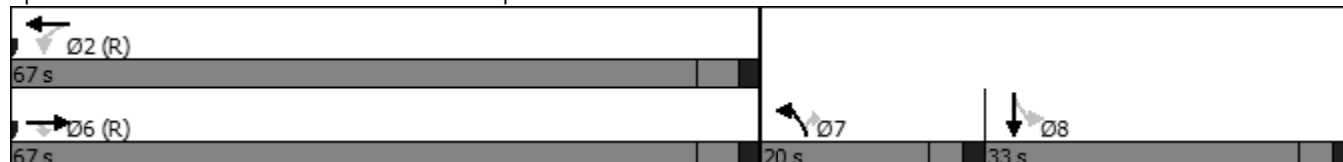
2041 Background - PM Peak Hour
6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑	↘	↙	↑
Traffic Volume (vph)	1215	20	15	995	90	70	470	10	770
Future Volume (vph)	1215	20	15	995	90	70	470	10	770
Turn Type	NA	Perm	Perm	NA	Prot	Perm	Perm	NA	Free
Protected Phases	6			2	7			8	
Permitted Phases		6	2			7	8		Free
Detector Phase	6	6	2	2	7	7	8	8	
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	30.0	30.0	30.0	30.0	9.0	9.0	33.0	33.0	
Total Split (s)	67.0	67.0	67.0	67.0	20.0	20.0	33.0	33.0	
Total Split (%)	55.8%	55.8%	55.8%	55.8%	16.7%	16.7%	27.5%	27.5%	
Yellow Time (s)	3.8	3.8	3.8	3.8	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.8	-1.8	-1.8	-1.8	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag					Lead	Lead	Lag	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	Min	Min	
Act Effect Green (s)	76.8	76.8	76.8	76.8	9.3	9.3	21.9	21.9	120.0
Actuated g/C Ratio	0.64	0.64	0.64	0.64	0.08	0.08	0.18	0.18	1.00
v/c Ratio	0.55	0.02	0.10	0.48	0.41	0.47	0.76	0.76	0.48

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 26 (22%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 18.1
 Intersection Capacity Utilization 66.9%
 Analysis Period (min) 15

Splits and Phases: 6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.



	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1365	22	18	1213	120	93	255	256	819
v/c Ratio	0.55	0.02	0.10	0.48	0.41	0.47	0.76	0.76	0.48
Control Delay	11.9	0.1	12.7	14.8	56.5	26.0	60.6	60.5	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	0.1	12.7	14.8	56.5	26.0	60.6	60.5	1.0
Queue Length 50th (ft)	164	0	6	346	46	16	198	200	0
Queue Length 95th (ft)	347	m0	m19	402	62	47	276	277	0
Internal Link Dist (ft)	362			410				605	
Turn Bay Length (ft)		100	110		100	100			60
Base Capacity (vph)	2504	1068	178	2504	505	287	446	448	1694
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.02	0.10	0.48	0.24	0.32	0.57	0.57	0.48
Intersection Summary									
m Volume for 95th percentile queue is metered by upstream signal.									

HCM Signalized Intersection Capacity Analysis

01/13/2021

2041 Background - PM Peak Hour
6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑		↑↑		↑	↑	↑	↑
Traffic Volume (vph)	0	1215	20	15	995	0	90	0	70	470	10	770
Future Volume (vph)	0	1215	20	15	995	0	90	0	70	470	10	770
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0		4.0	4.0	4.0	3.0
Lane Util. Factor		0.95	1.00	1.00	0.95		0.97		1.00	0.95	0.95	1.00
Frpb, ped/bikes		1.00	0.93	1.00	1.00		1.00		0.96	1.00	1.00	0.97
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	0.99	0.99	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	0.95	1.00
Satd. Flow (prot)		3912	1636	1956	3912		3794		1672	1846	1855	1694
Flt Permitted		1.00	1.00	0.13	1.00		0.95		1.00	0.95	0.95	1.00
Satd. Flow (perm)		3912	1636	278	3912		3794		1672	1846	1855	1694
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.75	0.75	0.75	0.94	0.94	0.94
Adj. Flow (vph)	0	1365	22	18	1213	0	120	0	93	500	11	819
RTOR Reduction (vph)	0	0	8	0	0	0	0	0	65	0	0	0
Lane Group Flow (vph)	0	1365	14	18	1213	0	120	0	28	255	256	819
Confl. Peds. (#/hr)	20		15	15		20	65		5	5		65
Confl. Bikes (#/hr)			15			5			5			5
Turn Type	NA	Perm	Perm	NA			Prot		Perm	Perm	NA	Free
Protected Phases	6			2			7				8	
Permitted Phases		6	2					7	8			Free
Actuated Green, G (s)	75.0	75.0	75.0	75.0			8.3		8.3	20.9	20.9	120.0
Effective Green, g (s)	76.8	76.8	76.8	76.8			9.3		9.3	21.9	21.9	120.0
Actuated g/C Ratio	0.64	0.64	0.64	0.64			0.08		0.08	0.18	0.18	1.00
Clearance Time (s)	5.8	5.8	5.8	5.8			5.0		5.0	5.0	5.0	
Vehicle Extension (s)	0.2	0.2	0.2	0.2			2.0		2.0	2.0	2.0	
Lane Grp Cap (vph)	2503	1047	177	2503			294		129	336	338	1694
v/s Ratio Prot	c0.35			0.31			0.03					
v/s Ratio Perm		0.01	0.06					0.02	c0.14	0.14	c0.48	
v/c Ratio	0.55	0.01	0.10	0.48			0.41		0.21	0.76	0.76	0.48
Uniform Delay, d1	11.9	7.8	8.3	11.3			52.7		51.9	46.5	46.5	0.0
Progression Factor	0.86	1.00	1.01	1.14			1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.0	1.1	0.7			0.3		0.3	8.4	8.3	1.0
Delay (s)	10.9	7.9	9.5	13.6			53.1		52.2	55.0	54.9	1.0
Level of Service	B	A	A	B			D		D	D	D	A
Approach Delay (s)	10.9			13.5			52.7				21.7	
Approach LOS	B			B			D				C	
Intersection Summary												
HCM 2000 Control Delay		17.3			HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio		0.60										
Actuated Cycle Length (s)		120.0			Sum of lost time (s)				12.0			
Intersection Capacity Utilization		66.9%			ICU Level of Service				C			
Analysis Period (min)		15										
c Critical Lane Group												

	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑	↘	↑	↑
Traffic Volume (vph)	1215	20	15	995	90	70	470	10	770
Future Volume (vph)	1215	20	15	995	90	70	470	10	770
Turn Type	NA	Perm	Perm	NA	Prot	Prot	Perm	NA	Perm
Protected Phases	6			2	7	7		8	
Permitted Phases		6	2			7	8		8
Detector Phase	6	6	2	2	7	7	8	8	8
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	30.0	30.0	30.0	30.0	9.0	9.0	33.0	33.0	33.0
Total Split (s)	67.0	67.0	67.0	67.0	20.0	20.0	33.0	33.0	33.0
Total Split (%)	55.8%	55.8%	55.8%	55.8%	16.7%	16.7%	27.5%	27.5%	27.5%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.8	-1.8	-1.8	-1.8	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	Min	Min	Min
Act Effect Green (s)	63.0	63.0	63.0	63.0	9.2	9.2	35.8	35.8	35.8
Actuated g/C Ratio	0.52	0.52	0.52	0.52	0.08	0.08	0.30	0.30	0.30
v/c Ratio	0.66	0.02	0.18	0.59	0.41	0.47	0.46	0.46	1.51

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 26 (22%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.51
 Intersection Signal Delay: 74.3
 Intersection Capacity Utilization 87.6%
 Analysis Period (min) 15

Splits and Phases: 6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

↖ Ø2 (R)	↘ Ø7	↓ Ø8
67 s	20 s	33 s
↗ Ø6 (R)		
67 s		

	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1365	22	18	1213	120	93	255	256	819
v/c Ratio	0.66	0.02	0.18	0.59	0.41	0.47	0.46	0.46	1.51
Control Delay	22.3	0.1	22.6	24.8	56.6	25.6	38.2	38.1	268.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.3	0.1	22.6	24.8	56.6	25.6	38.2	38.1	268.3
Queue Length 50th (ft)	445	0	10	402	46	16	169	169	~831
Queue Length 95th (ft)	438	m0	m26	420	62	47	263	264	#1101
Internal Link Dist (ft)	362			410				605	
Turn Bay Length (ft)		100	110		100	100			60
Base Capacity (vph)	2053	887	99	2053	505	294	550	552	542
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.02	0.18	0.59	0.24	0.32	0.46	0.46	1.51
Intersection Summary									
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.									
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.									
m Volume for 95th percentile queue is metered by upstream signal.									

HCM Signalized Intersection Capacity Analysis

12/28/2020

2041 Background - PM Peak Hour
6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖↗		↗	↖	↖	↗
Traffic Volume (vph)	0	1215	20	15	995	0	90	0	70	470	10	770
Future Volume (vph)	0	1215	20	15	995	0	90	0	70	470	10	770
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0		4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	0.95		0.97		1.00	0.95	0.95	1.00
Frpb, ped/bikes		1.00	0.93	1.00	1.00		1.00		1.00	1.00	1.00	0.90
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	0.99	0.99	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	0.95	1.00
Satd. Flow (prot)		3912	1633	1956	3912		3794		1750	1846	1855	1580
Flt Permitted		1.00	1.00	0.09	1.00		0.95		1.00	0.95	0.95	1.00
Satd. Flow (perm)		3912	1633	189	3912		3794		1750	1846	1855	1580
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.75	0.75	0.75	0.94	0.94	0.94
Adj. Flow (vph)	0	1365	22	18	1213	0	120	0	93	500	11	819
RTOR Reduction (vph)	0	0	10	0	0	0	0	0	66	0	0	72
Lane Group Flow (vph)	0	1365	12	18	1213	0	120	0	27	255	256	747
Confl. Peds. (#/hr)	20		15	15		20	65		5	5		65
Confl. Bikes (#/hr)			15			5			5			5
Turn Type		NA	Perm	Perm	NA		Prot		Prot	Perm	NA	Perm
Protected Phases		6			2		7		7		8	
Permitted Phases			6	2					7	8		8
Actuated Green, G (s)		61.2	61.2	61.2	61.2		8.2		8.2	34.8	34.8	34.8
Effective Green, g (s)		63.0	63.0	63.0	63.0		9.2		9.2	35.8	35.8	35.8
Actuated g/C Ratio		0.52	0.52	0.52	0.52		0.08		0.08	0.30	0.30	0.30
Clearance Time (s)		5.8	5.8	5.8	5.8		5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)		0.2	0.2	0.2	0.2		2.0		2.0	2.0	2.0	2.0
Lane Grp Cap (vph)		2053	857	99	2053		290		134	550	553	471
v/s Ratio Prot		c0.35			0.31		c0.03		0.02			
v/s Ratio Perm			0.01	0.10						0.14	0.14	c0.47
v/c Ratio		0.66	0.01	0.18	0.59		0.41		0.20	0.46	0.46	1.59
Uniform Delay, d1		20.8	13.6	15.0	19.6		52.8		52.0	34.3	34.3	42.1
Progression Factor		0.99	1.00	1.12	1.19		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		1.4	0.0	3.9	1.2		0.4		0.3	0.2	0.2	274.1
Delay (s)		22.0	13.7	20.7	24.5		53.2		52.2	34.5	34.5	316.2
Level of Service		C	B	C	C		D		D	C	C	F
Approach Delay (s)		21.9			24.5			52.8			207.9	
Approach LOS		C			C			D			F	
Intersection Summary												
HCM 2000 Control Delay	83.7			HCM 2000 Level of Service					F			
HCM 2000 Volume to Capacity ratio	0.95											
Actuated Cycle Length (s)	120.0			Sum of lost time (s)					12.0			
Intersection Capacity Utilization	87.6%			ICU Level of Service					E			
Analysis Period (min)	15											
c Critical Lane Group												

				
Lane Group	EBT	WBT	NBL	NBR
Lane Configurations	↑↑	↑↑↑	↙↘	↗
Traffic Volume (vph)	1295	855	375	90
Future Volume (vph)	1295	855	375	90
Turn Type	NA	NA	Prot	Perm
Protected Phases	6	2	4	
Permitted Phases				4
Detector Phase	6	2	4	4
Switch Phase				
Minimum Initial (s)	10.0	10.0	4.0	4.0
Minimum Split (s)	19.0	19.0	34.0	34.0
Total Split (s)	86.0	86.0	34.0	34.0
Total Split (%)	71.7%	71.7%	28.3%	28.3%
Yellow Time (s)	3.6	3.6	3.0	3.0
All-Red Time (s)	1.7	1.7	2.0	2.0
Lost Time Adjust (s)	-1.3	-1.3	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Min	Min
Act Effect Green (s)	93.1	93.1	18.9	18.9
Actuated g/C Ratio	0.78	0.78	0.16	0.16
v/c Ratio	0.49	0.21	0.71	0.33

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 15 (13%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 11.9
 Intersection Capacity Utilization 52.8%
 Analysis Period (min) 15

Splits and Phases: 8: US 36 NB Off-Ramp (E) & Table Mesa Dr.

 Ø2 (R)	 Ø4
86 s	34 s
 Ø6 (R)	
86 s	

	→	←	↶	↷
Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1489	929	426	102
v/c Ratio	0.49	0.21	0.71	0.33
Control Delay	3.5	3.9	54.8	25.2
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	3.6	3.9	54.8	25.2
Queue Length 50th (ft)	110	59	163	33
Queue Length 95th (ft)	128	87	203	79
Internal Link Dist (ft)	184	628	402	
Turn Bay Length (ft)			115	125
Base Capacity (vph)	3036	4362	948	464
Starvation Cap Reductn	354	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.56	0.21	0.45	0.22
Intersection Summary				

HCM 6th Signalized Intersection Summary
12/28/2020

2041 Background - PM Peak Hour
8: US 36 NB Off-Ramp (E) & Table Mesa Dr.

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑↑	↘↙	↗
Traffic Volume (veh/h)	1295	0	0	855	375	90
Future Volume (veh/h)	1295	0	0	855	375	90
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	2067	0	0	2067	2067	2067
Adj Flow Rate, veh/h	1489	0	0	929	426	0
Peak Hour Factor	0.87	0.87	0.92	0.92	0.88	0.88
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	3110	0	0	4468	541	
Arrive On Green	1.00	0.00	0.00	0.79	0.14	0.00
Sat Flow, veh/h	4134	0	0	6016	3819	1752
Grp Volume(v), veh/h	1489	0	0	929	426	0
Grp Sat Flow(s),veh/h/ln	1964	0	0	1881	1910	1752
Q Serve(g_s), s	0.0	0.0	0.0	4.9	12.9	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.9	12.9	0.0
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	3110	0	0	4468	541	
V/C Ratio(X)	0.48	0.00	0.00	0.21	0.79	
Avail Cap(c_a), veh/h	3110	0	0	4468	955	
HCM Platoon Ratio	2.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	3.1	49.8	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.5	6.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.5	0.0	0.0	3.2	50.7	0.0
LnGrp LOS	A	A	A	A	D	
Approach Vol, veh/h	1489			929	426	A
Approach Delay, s/veh	0.5			3.2	50.7	
Approach LOS	A			A	D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		99.0		21.0		99.0
Change Period (Y+Rc), s		* 5.3		5.0		* 5.3
Max Green Setting (Gmax), s		* 81		29.0		* 81
Max Q Clear Time (g_c+I1), s		6.9		14.9		2.0
Green Ext Time (p_c), s		5.1		1.1		10.9
Intersection Summary						
HCM 6th Ctrl Delay			8.9			
HCM 6th LOS			A			

Notes

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

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

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	365	565	535	485	55	745	370	355	1495	520
Future Volume (vph)	365	565	535	485	55	745	370	355	1495	520
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	pm+pt	NA	Free
Protected Phases	3	8	7	4	1	6	7	5	2	
Permitted Phases							6	2		Free
Detector Phase	3	8	7	4	1	6	7	5	2	
Switch Phase										
Minimum Initial (s)	4.0	8.0	4.0	8.0	4.0	10.0	4.0	4.0	10.0	
Minimum Split (s)	9.2	34.0	9.2	31.0	9.0	33.0	9.2	9.0	33.0	
Total Split (s)	20.0	34.0	24.0	38.0	12.0	34.0	24.0	28.0	50.0	
Total Split (%)	16.7%	28.3%	20.0%	31.7%	10.0%	28.3%	20.0%	23.3%	41.7%	
Yellow Time (s)	3.2	3.7	3.2	3.7	3.0	3.9	3.2	3.0	3.9	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.2	-1.7	-1.2	-1.7	-1.0	-1.9	-1.2	-1.0	-1.9	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	
Act Effect Green (s)	15.6	27.2	20.7	32.3	7.2	34.8	55.4	60.1	50.8	120.0
Actuated g/C Ratio	0.13	0.23	0.17	0.27	0.06	0.29	0.46	0.50	0.42	1.00
v/c Ratio	0.86	0.81	0.85	0.69	0.53	0.73	0.49	0.94	1.00	0.35

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 93 (78%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 47.0
 Intersection Capacity Utilization 89.2%
 Analysis Period (min) 15

Splits and Phases: 43: Broadway & Table Mesa Dr.

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	50 s	20 s	38 s
 Ø5	 Ø6 (R)	 Ø8	 Ø7
28 s	34 s	34 s	24 s

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	420	706	557	698	61	828	411	394	1661	578
v/c Ratio	0.86	0.81	0.85	0.69	0.53	0.73	0.49	0.94	1.00	0.35
Control Delay	68.4	51.9	62.4	41.3	70.7	44.3	9.1	64.4	58.8	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	51.9	62.4	41.3	70.7	44.3	9.1	64.4	58.8	0.6
Queue Length 50th (ft)	165	272	225	270	46	322	60	244	~773	0
Queue Length 95th (ft)	#226	321	#318	340	92	400	110	#417	#912	0
Internal Link Dist (ft)		438		2843		1401			2060	
Turn Bay Length (ft)	155		90		375		400	160		
Base Capacity (vph)	505	961	661	1069	130	1133	848	456	1655	1665
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	0.83	0.73	0.84	0.65	0.47	0.73	0.48	0.86	1.00	0.35
Intersection Summary										
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.										
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.										

HCM 6th Signalized Intersection Summary
01/13/2021

2041 Background - PM Peak Hour
43: Broadway & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	565	50	535	485	185	55	745	370	355	1495	520
Future Volume (veh/h)	365	565	50	535	485	185	55	745	370	355	1495	520
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		1.00	1.00		0.85	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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	420	649	57	557	505	0	61	828	411	394	1661	0
Peak Hour Factor	0.87	0.87	0.87	0.96	0.96	0.96	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	509	865	76	637	1084		97	1127	712	435	1603	
Arrive On Green	0.13	0.24	0.22	0.06	0.09	0.00	0.05	0.29	0.28	0.17	0.41	0.00
Sat Flow, veh/h	3819	3625	318	3819	4031	0	1969	3928	1496	1969	3928	1752
Grp Volume(v), veh/h	420	351	355	557	505	0	61	828	411	394	1661	0
Grp Sat Flow(s),veh/h/ln	1910	1964	1979	1910	1964	0	1969	1964	1496	1969	1964	1752
Q Serve(g_s), s	12.8	19.9	20.0	17.4	14.6	0.0	3.6	22.9	8.8	17.3	49.0	0.0
Cycle Q Clear(g_c), s	12.8	19.9	20.0	17.4	14.6	0.0	3.6	22.9	8.8	17.3	49.0	0.0
Prop In Lane	1.00		0.16	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	509	468	472	637	1084		97	1127	712	435	1603	
V/C Ratio(X)	0.82	0.75	0.75	0.87	0.47		0.63	0.73	0.58	0.90	1.04	
Avail Cap(c_a), veh/h	509	491	495	637	1113		131	1127	712	494	1603	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.00	0.74	0.74	0.74	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.6	42.4	42.5	55.5	46.1	0.0	56.0	38.7	8.5	29.5	35.5	0.0
Incr Delay (d2), s/veh	10.0	5.2	5.3	11.4	0.1	0.0	1.8	3.2	2.5	17.5	32.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	10.2	10.3	9.9	7.7	0.0	1.8	11.2	3.7	9.9	29.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	47.6	47.8	66.9	46.2	0.0	57.8	41.9	11.0	47.0	68.0	0.0
LnGrp LOS	E	D	D	E	D		E	D	B	D	F	
Approach Vol, veh/h	1126			1062			1300			2055		
Approach Delay, s/veh	52.5			57.1			32.9			64.0		
Approach LOS	D			E			C			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	53.0	20.0	37.1	24.5	38.4	24.5	32.6				
Change Period (Y+Rc), s	5.0	5.9	* 5.2	* 5.7	5.0	5.9	* 5.7	* 5.7				
Max Green Setting (Gmax), s	7.0	44.1	* 15	* 32	23.0	28.1	* 19	* 28				
Max Q Clear Time (g_c+I1), s	5.6	51.0	14.8	16.6	19.3	24.9	19.4	22.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.2	0.4	0.0	1.0				

Intersection Summary

HCM 6th Ctrl Delay	53.0
HCM 6th LOS	D

Notes

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

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

***Intersection Capacity Worksheets:
2041 Background
With Improvements***

Timings
01/14/2021

2041 Background (with Improvements) - AM Peak Hour

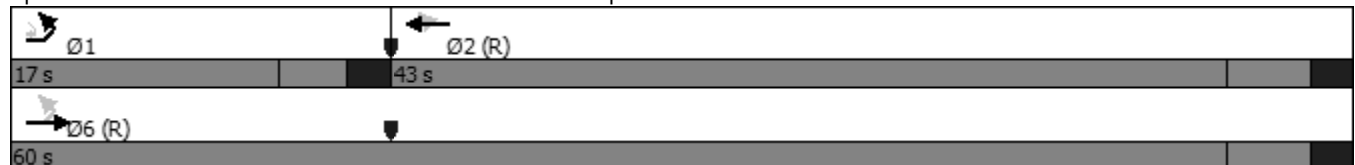
5: Table Mesa Dr. & US 36 NB On-Ramp

				
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations		 	 	
Traffic Volume (vph)	225	900	1300	345
Future Volume (vph)	225	900	1300	345
Turn Type	pm+pt	NA	NA	Perm
Protected Phases	1	6	2	
Permitted Phases	6			2
Detector Phase	1	6	2	2
Switch Phase				
Minimum Initial (s)	4.0	10.0	10.0	10.0
Minimum Split (s)	9.0	21.7	24.7	24.7
Total Split (s)	17.0	60.0	43.0	43.0
Total Split (%)	28.3%	100.0%	71.7%	71.7%
Yellow Time (s)	3.0	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.7
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	None	C-Max	C-Max	C-Max
Act Effect Green (s)	55.0	60.0	41.3	41.3
Actuated g/C Ratio	0.92	1.00	0.69	0.69
v/c Ratio	0.59	0.27	0.56	0.32

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Green
 Natural Cycle: 40
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 4.2
 Intersection Capacity Utilization 52.7%
 Analysis Period (min) 15

Splits and Phases: 5: Table Mesa Dr. & US 36 NB On-Ramp





Lane Group	EBL	EBT	WBT	WBR
Lane Group Flow (vph)	268	1071	1512	401
v/c Ratio	0.59	0.27	0.56	0.32
Control Delay	10.8	0.2	6.2	1.8
Queue Delay	0.0	0.0	0.4	0.0
Total Delay	10.8	0.2	6.6	1.8
Queue Length 50th (ft)	8	0	109	6
Queue Length 95th (ft)	55	0	188	32
Internal Link Dist (ft)		308	362	
Turn Bay Length (ft)	255			
Base Capacity (vph)	566	3912	2692	1269
Starvation Cap Reductn	0	0	558	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.47	0.27	0.71	0.32
Intersection Summary				

HCM Signalized Intersection Capacity Analysis Background (with Improvements) - AM Peak Hour

01/14/2021

5: Table Mesa Dr. & US 36 NB On-Ramp



Movement	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	225	900	1300	345
Future Volume (vph)	225	900	1300	345
Ideal Flow (vphpl)	2100	2100	2100	2100
Total Lost time (s)	5.0	5.7	5.7	5.7
Lane Util. Factor	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1956	3912	3912	1697
Flt Permitted	0.12	1.00	1.00	1.00
Satd. Flow (perm)	245	3912	3912	1697
Peak-hour factor, PHF	0.84	0.84	0.86	0.86
Adj. Flow (vph)	268	1071	1512	401
RTOR Reduction (vph)	0	0	0	103
Lane Group Flow (vph)	268	1071	1512	298
Confl. Peds. (#/hr)	5			5
Confl. Bikes (#/hr)				5
Turn Type	pm+pt	NA	NA	Perm
Protected Phases	1	6	2	
Permitted Phases	6			2
Actuated Green, G (s)	54.3	60.0	41.3	41.3
Effective Green, g (s)	54.3	60.0	41.3	41.3
Actuated g/C Ratio	0.90	1.00	0.69	0.69
Clearance Time (s)	5.0	5.7	5.7	5.7
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	449	3912	2692	1168
v/s Ratio Prot	c0.08	0.27	0.39	
v/s Ratio Perm	c0.46			0.18
v/c Ratio	0.60	0.27	0.56	0.26
Uniform Delay, d1	7.3	0.0	4.8	3.5
Progression Factor	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.1	0.2	0.9	0.5
Delay (s)	9.4	0.2	5.6	4.1
Level of Service	A	A	A	A
Approach Delay (s)		2.0	5.3	
Approach LOS		A	A	
Intersection Summary				
HCM 2000 Control Delay		3.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio		0.63		
Actuated Cycle Length (s)		60.0	Sum of lost time (s)	10.7
Intersection Capacity Utilization		52.7%	ICU Level of Service	A
Analysis Period (min)		15		
c Critical Lane Group				

Timings
01/14/2021

2041 Background (with Improvements) - AM Peak Hour

43: Broadway & Table Mesa Dr.

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	505	605	480	455	40	1320	385	140	615	250
Future Volume (vph)	505	605	480	455	40	1320	385	140	615	250
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	pm+pt	NA	Free
Protected Phases	3	8	7	4	1	6	7	5	2	
Permitted Phases							6	2		Free
Detector Phase	3	8	7	4	1	6	7	5	2	
Switch Phase										
Minimum Initial (s)	4.0	8.0	4.0	8.0	4.0	10.0	4.0	4.0	10.0	
Minimum Split (s)	9.2	34.0	9.2	31.0	9.0	33.0	9.2	9.0	33.0	
Total Split (s)	23.0	34.0	20.0	31.0	12.0	44.0	20.0	12.0	44.0	
Total Split (%)	20.9%	30.9%	18.2%	28.2%	10.9%	40.0%	18.2%	10.9%	40.0%	
Yellow Time (s)	3.2	3.7	3.2	3.7	3.0	3.9	3.2	3.0	3.9	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.2	-1.7	-1.2	-1.7	-1.0	-1.9	-1.2	-1.0	-1.9	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	
Act Effect Green (s)	18.6	26.4	18.5	26.3	6.7	41.2	59.7	50.6	44.2	110.0
Actuated g/C Ratio	0.17	0.24	0.17	0.24	0.06	0.37	0.54	0.46	0.40	1.00
v/c Ratio	0.90	0.79	0.80	0.91	0.37	1.00	0.46	0.83	0.50	0.19

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 92 (84%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 44.6
 Intersection Capacity Utilization 88.9%
 Analysis Period (min) 15

Splits and Phases: 43: Broadway & Table Mesa Dr.

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	44 s	23 s	31 s
 Ø5	 Ø6 (R)	 Ø8	 Ø7
12 s	44 s	34 s	20 s

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	580	735	511	862	44	1467	428	179	788	321
v/c Ratio	0.90	0.79	0.80	0.91	0.37	1.00	0.46	0.83	0.50	0.19
Control Delay	63.5	45.9	55.1	48.6	57.9	59.0	7.8	52.6	27.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	45.9	55.1	48.6	57.9	59.0	7.8	52.6	27.1	0.2
Queue Length 50th (ft)	208	255	179	268	30	~585	73	71	226	0
Queue Length 95th (ft)	#284	300	#285	#378	67	#723	134	#140	243	0
Internal Link Dist (ft)		438		2843		1401			2060	
Turn Bay Length (ft)	300		400		400		425	160		
Base Capacity (vph)	655	1054	637	975	142	1465	933	218	1570	1701
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	0.89	0.70	0.80	0.88	0.31	1.00	0.46	0.82	0.50	0.19
Intersection Summary										
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.										
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.										

HCM 6th Signalized Intersection Summary Background (with Improvements) - AM Peak Hour

01/14/2021

43: Broadway & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	605	35	480	455	355	40	1320	385	140	615	250
Future Volume (veh/h)	505	605	35	480	455	355	40	1320	385	140	615	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		1.00	1.00		0.92	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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	580	695	40	511	484	0	44	1467	428	179	788	0
Peak Hour Factor	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	660	962	55	556	917		76	1476	849	209	1609	
Arrive On Green	0.17	0.26	0.24	0.15	0.23	0.00	0.04	0.38	0.37	0.07	0.41	0.00
Sat Flow, veh/h	3819	3757	216	3819	4031	0	1969	3928	1608	1969	3928	1752
Grp Volume(v), veh/h	580	363	372	511	484	0	44	1467	428	179	788	0
Grp Sat Flow(s),veh/h/ln	1910	1964	2009	1910	1964	0	1969	1964	1608	1969	1964	1752
Q Serve(g_s), s	16.3	18.6	18.6	14.5	11.9	0.0	2.4	40.9	3.9	6.2	16.3	0.0
Cycle Q Clear(g_c), s	16.3	18.6	18.6	14.5	11.9	0.0	2.4	40.9	3.9	6.2	16.3	0.0
Prop In Lane	1.00		0.11	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	660	503	514	556	917		76	1476	849	209	1609	
V/C Ratio(X)	0.88	0.72	0.72	0.92	0.53		0.58	0.99	0.50	0.86	0.49	
Avail Cap(c_a), veh/h	660	536	548	556	964		143	1476	849	209	1609	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.00	0.74	0.74	0.74	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.4	37.3	37.4	46.4	36.9	0.0	52.0	34.2	6.5	27.1	24.0	0.0
Incr Delay (d2), s/veh	12.5	3.7	3.6	18.8	0.2	0.0	1.9	18.8	1.6	27.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	9.3	9.5	8.2	5.6	0.0	1.2	22.3	3.5	4.3	7.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.9	41.0	41.1	65.1	37.0	0.0	53.9	53.0	8.1	54.2	25.0	0.0
LnGrp LOS	E	D	D	E	D		D	D	A	D	C	
Approach Vol, veh/h	1315			995			1939			967		
Approach Delay, s/veh	48.0			51.5			43.1			30.4		
Approach LOS	D			D			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	49.1	23.0	29.7	12.0	45.3	20.5	32.2				
Change Period (Y+Rc), s	5.0	5.9	* 5.2	* 5.7	5.0	5.9	* 5.7	* 5.7				
Max Green Setting (Gmax), s	7.0	38.1	* 18	* 25	7.0	38.1	* 15	* 28				
Max Q Clear Time (g_c+I1), s	4.4	18.3	18.3	13.9	8.2	42.9	16.5	20.6				
Green Ext Time (p_c), s	0.0	3.6	0.0	1.0	0.0	0.0	0.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay	43.6											
HCM 6th LOS	D											
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
01/14/2021

2041 Background (with Improvements) - PM Peak Hour

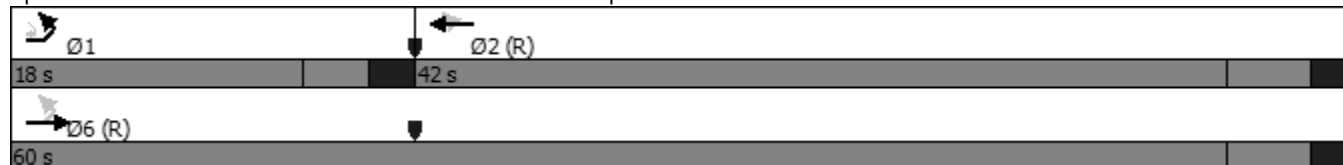
5: Table Mesa Dr. & US 36 NB On-Ramp

				
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations		 	 	
Traffic Volume (vph)	300	1235	1460	395
Future Volume (vph)	300	1235	1460	395
Turn Type	pm+pt	NA	NA	Perm
Protected Phases	1	6	2	
Permitted Phases	6			2
Detector Phase	1	6	2	2
Switch Phase				
Minimum Initial (s)	4.0	10.0	10.0	10.0
Minimum Split (s)	9.0	21.7	24.7	24.7
Total Split (s)	18.0	60.0	42.0	42.0
Total Split (%)	30.0%	100.0%	70.0%	70.0%
Yellow Time (s)	3.0	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.7
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	None	C-Max	C-Max	C-Max
Act Effect Green (s)	55.0	60.0	39.6	39.6
Actuated g/C Ratio	0.92	1.00	0.66	0.66
v/c Ratio	0.74	0.35	0.63	0.38

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Green
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 7.0
 Intersection Capacity Utilization 60.5%
 Analysis Period (min) 15

Splits and Phases: 5: Table Mesa Dr. & US 36 NB On-Ramp





Lane Group	EBL	EBT	WBT	WBR
Lane Group Flow (vph)	337	1388	1640	444
v/c Ratio	0.74	0.35	0.63	0.38
Control Delay	20.3	0.2	10.5	5.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	20.3	0.2	10.6	5.3
Queue Length 50th (ft)	101	0	232	61
Queue Length 95th (ft)	m125	0	487	204
Internal Link Dist (ft)		308	362	
Turn Bay Length (ft)	255			
Base Capacity (vph)	553	3912	2584	1180
Starvation Cap Reductn	0	0	35	0
Spillback Cap Reductn	0	84	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.61	0.36	0.64	0.38

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis Background (with Improvements) - PM Peak Hour

01/14/2021

5: Table Mesa Dr. & US 36 NB On-Ramp



Movement	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	300	1235	1460	395
Future Volume (vph)	300	1235	1460	395
Ideal Flow (vphpl)	2100	2100	2100	2100
Total Lost time (s)	5.0	5.7	5.7	5.7
Lane Util. Factor	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1956	3912	3912	1670
Flt Permitted	0.09	1.00	1.00	1.00
Satd. Flow (perm)	185	3912	3912	1670
Peak-hour factor, PHF	0.89	0.89	0.89	0.89
Adj. Flow (vph)	337	1388	1640	444
RTOR Reduction (vph)	0	0	0	78
Lane Group Flow (vph)	337	1388	1640	366
Confl. Peds. (#/hr)	15			15
Confl. Bikes (#/hr)				5
Turn Type	pm+pt	NA	NA	Perm
Protected Phases	1	6	2	
Permitted Phases	6			2
Actuated Green, G (s)	54.3	60.0	39.6	39.6
Effective Green, g (s)	54.3	60.0	39.6	39.6
Actuated g/C Ratio	0.90	1.00	0.66	0.66
Clearance Time (s)	5.0	5.7	5.7	5.7
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	453	3912	2581	1102
v/s Ratio Prot	c0.12	0.35	0.42	
v/s Ratio Perm	c0.55			0.22
v/c Ratio	0.74	0.35	0.64	0.33
Uniform Delay, d1	14.5	0.0	6.0	4.4
Progression Factor	1.19	1.00	1.46	1.90
Incremental Delay, d2	4.9	0.2	1.1	0.7
Delay (s)	22.2	0.2	9.8	9.2
Level of Service	C	A	A	A
Approach Delay (s)		4.5	9.7	
Approach LOS		A	A	
Intersection Summary				
HCM 2000 Control Delay		7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio		0.78		
Actuated Cycle Length (s)		60.0	Sum of lost time (s)	10.7
Intersection Capacity Utilization		60.5%	ICU Level of Service	B
Analysis Period (min)		15		
c Critical Lane Group				

Timings
01/14/2021

2041 Background (with Improvements) - PM Peak Hour

43: Broadway & Table Mesa Dr.

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	365	565	535	485	55	745	370	355	1495	520
Future Volume (vph)	365	565	535	485	55	745	370	355	1495	520
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	pm+pt	NA	Free
Protected Phases	3	8	7	4	1	6	7	5	2	
Permitted Phases							6	2		Free
Detector Phase	3	8	7	4	1	6	7	5	2	
Switch Phase										
Minimum Initial (s)	4.0	8.0	4.0	8.0	4.0	10.0	4.0	4.0	10.0	
Minimum Split (s)	9.2	34.0	9.2	31.0	9.0	33.0	9.2	9.0	33.0	
Total Split (s)	20.0	33.0	22.0	35.0	12.0	37.0	22.0	28.0	53.0	
Total Split (%)	16.7%	27.5%	18.3%	29.2%	10.0%	30.8%	18.3%	23.3%	44.2%	
Yellow Time (s)	3.2	3.7	3.2	3.7	3.0	3.9	3.2	3.0	3.9	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.2	-1.7	-1.2	-1.7	-1.0	-1.9	-1.2	-1.0	-1.9	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	
Act Effect Green (s)	15.6	26.8	19.6	30.8	7.2	36.0	55.6	61.6	52.3	120.0
Actuated g/C Ratio	0.13	0.22	0.16	0.26	0.06	0.30	0.46	0.51	0.44	1.00
v/c Ratio	0.86	0.82	0.90	0.72	0.53	0.71	0.49	0.93	0.97	0.35

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 93 (78%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 45.9
 Intersection Capacity Utilization 89.2%
 Analysis Period (min) 15

Splits and Phases: 43: Broadway & Table Mesa Dr.

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	53 s	20 s	35 s
 Ø5	 Ø6 (R)	 Ø8	 Ø7
28 s	37 s	33 s	22 s

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	420	706	557	698	61	828	411	394	1661	578
v/c Ratio	0.86	0.82	0.90	0.72	0.53	0.71	0.49	0.93	0.97	0.35
Control Delay	68.4	53.2	71.2	46.5	70.7	42.0	9.0	60.6	50.9	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	53.2	71.2	46.5	70.7	42.0	9.0	60.6	50.9	0.6
Queue Length 50th (ft)	165	272	225	272	46	311	60	238	~731	0
Queue Length 95th (ft)	#226	324	#345	341	92	386	106	#408	#870	0
Internal Link Dist (ft)		438		2843		1401			2060	
Turn Bay Length (ft)	300		400		400		425	160		
Base Capacity (vph)	505	928	619	978	130	1172	845	459	1704	1665
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	0.83	0.76	0.90	0.71	0.47	0.71	0.49	0.86	0.97	0.35
Intersection Summary										
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.										
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.										

HCM 6th Signalized Intersection Summary Background (with Improvements) - PM Peak Hour 01/14/2021

43: Broadway & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	565	50	535	485	185	55	745	370	355	1495	520
Future Volume (veh/h)	365	565	50	535	485	185	55	745	370	355	1495	520
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		1.00	1.00		0.87	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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	420	649	57	557	505	0	61	828	411	394	1661	0
Peak Hour Factor	0.87	0.87	0.87	0.96	0.96	0.96	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	509	848	74	573	1001		97	1243	734	436	1686	
Arrive On Green	0.13	0.23	0.22	0.05	0.08	0.00	0.05	0.32	0.31	0.16	0.43	0.00
Sat Flow, veh/h	3819	3625	318	3819	4031	0	1969	3928	1519	1969	3928	1752
Grp Volume(v), veh/h	420	351	355	557	505	0	61	828	411	394	1661	0
Grp Sat Flow(s),veh/h/ln	1910	1964	1979	1910	1964	0	1969	1964	1519	1969	1964	1752
Q Serve(g_s), s	12.8	20.0	20.1	17.5	14.8	0.0	3.6	21.9	8.3	16.3	50.2	0.0
Cycle Q Clear(g_c), s	12.8	20.0	20.1	17.5	14.8	0.0	3.6	21.9	8.3	16.3	50.2	0.0
Prop In Lane	1.00		0.16	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	509	459	463	573	1001		97	1243	734	436	1686	
V/C Ratio(X)	0.82	0.76	0.77	0.97	0.50		0.63	0.67	0.56	0.90	0.99	
Avail Cap(c_a), veh/h	509	475	478	573	1015		131	1243	734	510	1686	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.00	0.74	0.74	0.74	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.6	42.9	43.0	56.8	47.7	0.0	56.0	35.5	8.0	27.3	33.9	0.0
Incr Delay (d2), s/veh	10.0	6.2	6.3	28.6	0.1	0.0	1.8	2.1	2.3	16.4	18.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	10.4	10.5	11.2	7.8	0.0	1.8	10.6	3.5	9.2	26.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	49.1	49.4	85.4	47.8	0.0	57.8	37.6	10.3	43.6	52.5	0.0
LnGrp LOS	E	D	D	F	D		E	D	B	D	D	
Approach Vol, veh/h	1126			1062			1300			2055		
Approach Delay, s/veh	53.5			67.5			29.9			50.8		
Approach LOS	D			E			C			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	55.5	20.0	34.6	23.5	42.0	22.5	32.1				
Change Period (Y+Rc), s	5.0	5.9	* 5.2	* 5.7	5.0	5.9	* 5.7	* 5.7				
Max Green Setting (Gmax), s	7.0	47.1	* 15	* 29	23.0	31.1	* 17	* 27				
Max Q Clear Time (g_c+I1), s	5.6	52.2	14.8	16.8	18.3	23.9	19.5	22.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.2	0.5	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay	49.7											
HCM 6th LOS	D											
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

***Intersection Capacity Worksheets:
2041 Background +
Project***

DRAFT

Timings
01/12/2021

2041 Bkgrd + Project - AM Peak Hour

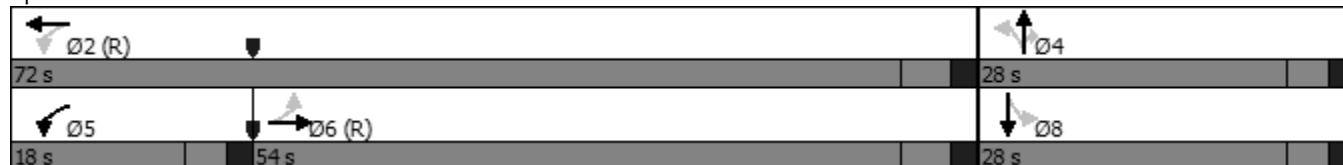
1: Tantra Dr. & Table Mesa Dr.

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	5	1020	60	1122	92	3	115	5	2
Future Volume (vph)	5	1020	60	1122	92	3	115	5	2
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA
Protected Phases		6	5	2		4			8
Permitted Phases	6		2		4		4	8	
Detector Phase	6	6	5	2	4	4	4	8	8
Switch Phase									
Minimum Initial (s)	10.0	10.0	4.0	10.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	29.0	29.0	9.0	29.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	54.0	54.0	18.0	72.0	28.0	28.0	28.0	28.0	28.0
Total Split (%)	54.0%	54.0%	18.0%	72.0%	28.0%	28.0%	28.0%	28.0%	28.0%
Yellow Time (s)	3.8	3.8	3.0	3.8	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.8	-1.8	-1.0	-1.8		-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effect Green (s)	72.2	72.2	79.6	79.6		12.4	12.4	12.4	12.4
Actuated g/C Ratio	0.72	0.72	0.80	0.80		0.12	0.12	0.12	0.12
v/c Ratio	0.02	0.46	0.21	0.45		0.57	0.40	0.06	0.03

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 67 (67%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.57
 Intersection Signal Delay: 5.4
 Intersection Capacity Utilization 61.0%
 Analysis Period (min) 15

Splits and Phases: 1: Tantra Dr. & Table Mesa Dr.



								
Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	6	1296	74	1391	105	128	9	8
v/c Ratio	0.02	0.46	0.21	0.45	0.57	0.40	0.06	0.03
Control Delay	4.8	4.3	2.9	2.2	52.5	10.7	36.8	26.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.8	4.3	2.9	2.2	52.5	10.7	36.8	26.0
Queue Length 50th (ft)	1	95	5	52	64	0	5	2
Queue Length 95th (ft)	m2	140	10	67	112	49	12	9
Internal Link Dist (ft)		2843		426	327			315
Turn Bay Length (ft)	80		215			105	35	
Base Capacity (vph)	280	2798	494	3112	359	502	296	451
Starvation Cap Reductn	0	0	0	154	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.46	0.15	0.47	0.29	0.25	0.03	0.02
Intersection Summary								
m Volume for 95th percentile queue is metered by upstream signal.								

HCM 6th Signalized Intersection Summary

01/12/2021

2041 Bkgrd + Project - AM Peak Hour

1: Tantra Dr. & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1020	56	60	1122	5	92	3	115	5	2	3
Future Volume (veh/h)	5	1020	56	60	1122	5	92	3	115	5	2	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.97		0.95	0.98		0.97
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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	6	1229	67	74	1385	6	102	3	128	9	3	5
Peak Hour Factor	0.83	0.83	0.83	0.81	0.81	0.81	0.90	0.90	0.90	0.58	0.58	0.58
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	336	2576	140	446	3069	13	273	7	258	173	106	176
Arrive On Green	1.00	1.00	1.00	0.09	1.00	1.00	0.15	0.15	0.15	0.15	0.15	0.14
Sat Flow, veh/h	388	3786	206	1969	4010	17	1309	46	1669	1236	682	1137
Grp Volume(v), veh/h	6	637	659	74	678	713	105	0	128	9	0	8
Grp Sat Flow(s),veh/h/ln	388	1964	2028	1969	1964	2064	1355	0	1669	1236	0	1819
Q Serve(g_s), s	0.0	0.0	0.0	1.0	0.0	0.0	6.9	0.0	7.0	0.7	0.0	0.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.0	0.0	0.0	7.3	0.0	7.0	7.9	0.0	0.4
Prop In Lane	1.00		0.10	1.00		0.01	0.97		1.00	1.00		0.63
Lane Grp Cap(c), veh/h	336	1336	1380	446	1503	1580	281	0	258	173	0	281
V/C Ratio(X)	0.02	0.48	0.48	0.17	0.45	0.45	0.37	0.00	0.50	0.05	0.00	0.03
Avail Cap(c_a), veh/h	336	1336	1380	633	1503	1580	398	0	401	279	0	437
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.67	0.90	0.90	0.90	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	3.4	0.0	0.0	38.9	0.0	38.7	42.5	0.0	36.2
Incr Delay (d2), s/veh	0.1	0.8	0.8	0.1	0.9	0.8	0.3	0.0	0.5	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.3	0.3	0.4	0.4	2.4	0.0	2.9	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.1	0.8	0.8	3.5	0.9	0.8	39.2	0.0	39.2	42.5	0.0	36.2
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h	1302			1465			233			17		
Approach Delay, s/veh	0.8			1.0			39.2			39.5		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	2			4		5		6		8		
Phs Duration (G+Y+Rc), s	80.5			19.5		8.5		72.0		19.5		
Change Period (Y+Rc), s	* 5.8			5.0		5.0		* 5.8		5.0		
Max Green Setting (Gmax), s	* 66			23.0		13.0		* 48		23.0		
Max Q Clear Time (g_c+I1), s	2.0			9.3		3.0		2.0		9.9		
Green Ext Time (p_c), s	0.3			0.5		0.0		0.3		0.0		

Intersection Summary

HCM 6th Ctrl Delay 4.1

HCM 6th LOS A

Notes

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

Timings
01/12/2021

2041 Bkgrd + Project - AM Peak Hour
2: Moorhead Ave & Table Mesa Dr.

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	40	1075	60	1142	105	20	10	140	15
Future Volume (vph)	40	1075	60	1142	105	20	10	140	15
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		8
Permitted Phases	6		2		2	4		8	
Detector Phase	1	6	5	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	4.0	10.0	4.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.0	25.0	9.0	25.0	25.0	34.0	34.0	34.0	34.0
Total Split (s)	11.0	55.0	11.0	55.0	55.0	34.0	34.0	34.0	34.0
Total Split (%)	11.0%	55.0%	11.0%	55.0%	55.0%	34.0%	34.0%	34.0%	34.0%
Yellow Time (s)	3.0	3.7	3.0	3.7	3.7	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.7	-1.0	-1.7	-1.7	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	C-Max	Min	Min	Min	Min
Act Effect Green (s)	71.3	67.0	72.6	69.1	69.1	17.2	17.2	17.2	17.2
Actuated g/C Ratio	0.71	0.67	0.73	0.69	0.69	0.17	0.17	0.17	0.17
v/c Ratio	0.13	0.48	0.20	0.45	0.10	0.13	0.22	0.68	0.14

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 75 (75%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 7.4
 Intersection Capacity Utilization 58.6%
 Analysis Period (min) 15

Splits and Phases: 2: Moorhead Ave & Table Mesa Dr.

		
Ø1	Ø2 (R)	Ø4
11 s	55 s	34 s
		
Ø5	Ø6 (R)	Ø8
11 s	55 s	34 s

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	46	1265	65	1228	113	34	77	169	48
v/c Ratio	0.13	0.48	0.20	0.45	0.10	0.13	0.22	0.68	0.14
Control Delay	2.2	3.4	3.5	4.8	0.2	33.7	13.4	52.3	17.4
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	2.2	3.4	3.5	4.9	0.2	33.7	13.4	52.3	17.4
Queue Length 50th (ft)	1	19	5	73	0	19	9	102	10
Queue Length 95th (ft)	4	181	12	141	1	27	17	145	33
Internal Link Dist (ft)		426		356			311		338
Turn Bay Length (ft)	100		200			50		85	
Base Capacity (vph)	383	2610	359	2701	1182	444	574	430	570
Starvation Cap Reductn	0	165	0	388	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.52	0.18	0.53	0.10	0.08	0.13	0.39	0.08
Intersection Summary									

HCM 6th Signalized Intersection Summary

01/12/2021

2041 Bkgrd + Project - AM Peak Hour
2: Moorhead Ave & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1075	25	60	1142	105	20	10	35	140	15	25
Future Volume (veh/h)	40	1075	25	60	1142	105	20	10	35	140	15	25
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		0.95	0.98		0.96	0.98		0.96
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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	46	1236	29	65	1228	113	34	17	60	169	18	30
Peak Hour Factor	0.87	0.87	0.87	0.93	0.93	0.93	0.58	0.58	0.58	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	2383	56	420	2407	1023	348	89	313	323	155	258
Arrive On Green	0.08	1.00	1.00	0.09	1.00	1.00	0.23	0.23	0.22	0.23	0.23	0.22
Sat Flow, veh/h	1969	3918	92	1969	3928	1670	1333	388	1370	1301	677	1129
Grp Volume(v), veh/h	46	619	646	65	1228	113	34	0	77	169	0	48
Grp Sat Flow(s),veh/h/ln	1969	1964	2046	1969	1964	1670	1333	0	1758	1301	0	1806
Q Serve(g_s), s	0.8	0.0	0.0	1.2	0.0	0.0	2.1	0.0	3.6	12.1	0.0	2.1
Cycle Q Clear(g_c), s	0.8	0.0	0.0	1.2	0.0	0.0	4.2	0.0	3.6	15.6	0.0	2.1
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.78	1.00		0.63
Lane Grp Cap(c), veh/h	393	1195	1245	420	2407	1023	348	0	401	323	0	412
V/C Ratio(X)	0.12	0.52	0.52	0.15	0.51	0.11	0.10	0.00	0.19	0.52	0.00	0.12
Avail Cap(c_a), veh/h	454	1195	1245	473	2407	1023	444	0	527	416	0	542
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.91	0.91	0.91	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.4	0.0	0.0	6.2	0.0	0.0	32.3	0.0	31.5	37.5	0.0	30.8
Incr Delay (d2), s/veh	0.0	1.4	1.4	0.1	0.7	0.2	0.0	0.0	0.1	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.5	0.5	0.4	0.2	0.1	0.7	0.0	1.5	3.9	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	1.4	1.4	6.3	0.7	0.2	32.3	0.0	31.6	38.0	0.0	30.9
LnGrp LOS	A	A	A	A	A	A	C	A	C	D	A	C
Approach Vol, veh/h	1311				1406				111		217	
Approach Delay, s/veh	1.6				0.9				31.8		36.4	
Approach LOS	A				A				C		D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	65.3		26.8	8.3	64.8		26.8				
Change Period (Y+Rc), s	5.0	* 5.7		5.0	5.0	* 5.7		5.0				
Max Green Setting (Gmax), s	6.0	* 49		29.0	6.0	* 49		29.0				
Max Q Clear Time (g_c+I1), s	2.8	2.0		6.2	3.2	2.0		17.6				
Green Ext Time (p_c), s	0.0	0.6		0.2	0.0	0.3		0.4				

Intersection Summary

HCM 6th Ctrl Delay 4.9
HCM 6th LOS A

Notes

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

Timings
01/13/2021

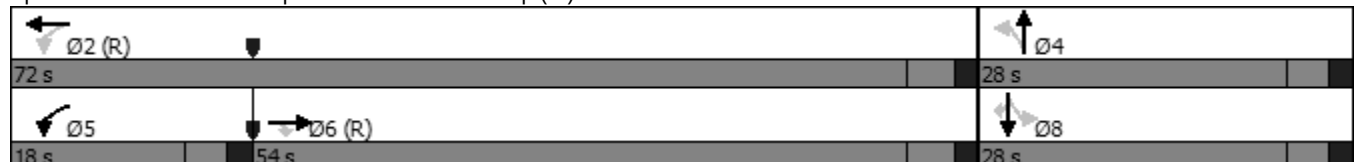
2041 Bkgrd + Project - AM Peak Hour
3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

	→	↘	↙	←	↖	↑	↗	↓	↘
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑	↘	↖	↗
Traffic Volume (vph)	1210	40	117	1195	37	0	140	64	75
Future Volume (vph)	1210	40	117	1195	37	0	140	64	75
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases	6		5	2		4		8	
Permitted Phases		6	2		4		8		8
Detector Phase	6	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	10.0	10.0	12.0	10.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	17.4	17.4	17.0	17.4	28.0	28.0	28.0	28.0	28.0
Total Split (s)	54.0	54.0	18.0	72.0	28.0	28.0	28.0	28.0	28.0
Total Split (%)	54.0%	54.0%	18.0%	72.0%	28.0%	28.0%	28.0%	28.0%	28.0%
Yellow Time (s)	3.7	3.7	3.0	3.7	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.7	1.7	2.0	1.7	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.4	-1.4	-1.4	-1.4	-1.0	0.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	3.6	4.0	4.0	5.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	Min	Min	Min
Act Effect Green (s)	55.2	55.2	72.6	72.2	19.8	18.8	19.8	19.8	19.8
Actuated g/C Ratio	0.55	0.55	0.73	0.72	0.20	0.19	0.20	0.20	0.20
v/c Ratio	0.59	0.05	0.33	0.48	0.21	0.51	1.00	0.58	0.22

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 84 (84%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 14.5
 Intersection Capacity Utilization 74.3%
 Analysis Period (min) 15

Splits and Phases: 3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.



	→	↘	↙	←	↖	↑	↗	↓	↘
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	1274	42	133	1358	52	272	119	121	88
v/c Ratio	0.59	0.05	0.33	0.48	0.21	0.51	1.00	0.58	0.22
Control Delay	10.6	0.5	6.2	7.6	33.7	8.9	122.8	46.4	9.7
Queue Delay	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	0.5	6.2	7.6	33.7	8.9	122.8	46.4	9.7
Queue Length 50th (ft)	206	1	17	285	27	9	77	71	4
Queue Length 95th (ft)	297	m1	m24	238	46	28	#169	123	37
Internal Link Dist (ft)	356			214		324		350	
Turn Bay Length (ft)		160	90		10		125		80
Base Capacity (vph)	2157	891	426	2822	294	592	144	254	467
Starvation Cap Reductn	160	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.05	0.31	0.48	0.18	0.46	0.83	0.48	0.19
Intersection Summary									
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.								
m	Volume for 95th percentile queue is metered by upstream signal.								

HCM 6th Signalized Intersection Summary

01/13/2021

2041 Bkgrd + Project - AM Peak Hour
3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖	↗		↖	↗	↗
Traffic Volume (veh/h)	0	1210	40	117	1195	0	37	0	193	140	64	75
Future Volume (veh/h)	0	1210	40	117	1195	0	37	0	193	140	64	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.97	0.99		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	0	2067	2067	2067	2067	0	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	0	1274	0	133	1358	0	52	0	272	120	138	0
Peak Hour Factor	0.95	0.95	0.95	0.88	0.88	0.88	0.71	0.71	0.71	0.85	0.85	0.85
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	2015		552	2671	0	302	0	391	176	496	
Arrive On Green	0.00	1.00	0.00	0.26	1.00	0.00	0.24	0.00	0.24	0.24	0.24	0.00
Sat Flow, veh/h	0	4031	1752	1969	4031	0	1240	0	1701	1101	2067	1752
Grp Volume(v), veh/h	0	1274	0	133	1358	0	52	0	272	120	138	0
Grp Sat Flow(s),veh/h/ln	0	1964	1752	1969	1964	0	1240	0	1701	1101	2067	1752
Q Serve(g_s), s	0.0	0.0	0.0	2.2	0.0	0.0	3.6	0.0	14.6	9.4	5.4	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.2	0.0	0.0	9.0	0.0	14.6	24.0	5.4	0.0
Prop In Lane	0.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	2015		552	2671	0	302	0	391	176	496	
V/C Ratio(X)	0.00	0.63		0.24	0.51	0.00	0.17	0.00	0.70	0.68	0.28	
Avail Cap(c_a), veh/h	0	2015		578	2671	0	302	0	391	176	496	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	5.1	0.0	0.0	34.6	0.0	34.8	45.9	30.9	0.0
Incr Delay (d2), s/veh	0.0	1.3	0.0	0.2	0.7	0.0	0.3	0.0	5.3	8.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.0	0.8	0.3	0.0	1.1	0.0	6.4	3.4	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.3	0.0	5.4	0.7	0.0	34.9	0.0	40.1	54.6	31.1	0.0
LnGrp LOS	A	A		A	A	A	C	A	D	D	C	
Approach Vol, veh/h		1274	A		1491			324			258	A
Approach Delay, s/veh		1.3			1.1			39.2			42.0	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		72.0		28.0	16.7	55.3		28.0				
Change Period (Y+Rc), s		5.4		5.0	5.0	5.4		5.0				
Max Green Setting (Gmax), s		66.6		23.0	13.0	48.6		23.0				
Max Q Clear Time (g_c+I1), s		2.0		11.0	4.2	2.0		26.0				
Green Ext Time (p_c), s		9.2		0.1	0.3	8.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay 8.0
HCM 6th LOS A

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection				
Int Delay, s/veh	8.4			
Movement	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Vol, veh/h	285	955	1392	345
Future Vol, veh/h	285	955	1392	345
Conflicting Peds, #/hr	5	0	0	5
Sign Control	Free	Free	Free	Free
RT Channelized	-	None	-	None
Storage Length	255	-	-	0
Veh in Median Storage, #	-	0	0	-
Grade, %	-	0	0	-
Peak Hour Factor	84	84	86	86
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	339	1137	1619	401
Major/Minor	Major1	Major2		
Conflicting Flow All	2025	0	-	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.22	-	-	-
Pot Cap-1 Maneuver	~ 338	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	1	-	-	-
Mov Cap-1 Maneuver	~ 337	-	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Approach	EB	WB		
HCM Control Delay, s	19.9	0		
HCM LOS				
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR
Capacity (veh/h)	~ 337	-	-	-
HCM Lane V/C Ratio	1.007	-	-	-
HCM Control Delay (s)	86.8	-	-	-
HCM Lane LOS	F	-	-	-
HCM 95th %tile Q(veh)	11.4	-	-	-
Notes				
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon				

Timings
01/13/2021

2041 Bkgrd + Project - AM Peak Hour

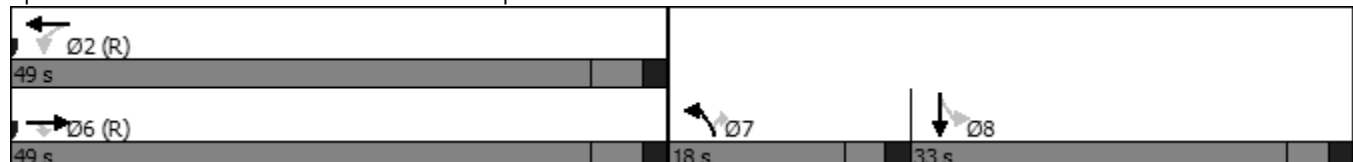
6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑	↘	↖	↑
Traffic Volume (vph)	905	50	20	1229	45	25	210	45	463
Future Volume (vph)	905	50	20	1229	45	25	210	45	463
Turn Type	NA	Perm	Perm	NA	Prot	Perm	Perm	NA	Free
Protected Phases	6			2	7			8	
Permitted Phases		6	2			7	8		Free
Detector Phase	6	6	2	2	7	7	8	8	
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	30.0	30.0	30.0	30.0	9.0	9.0	33.0	33.0	
Total Split (s)	49.0	49.0	49.0	49.0	18.0	18.0	33.0	33.0	
Total Split (%)	49.0%	49.0%	49.0%	49.0%	18.0%	18.0%	33.0%	33.0%	
Yellow Time (s)	3.8	3.8	3.8	3.8	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.8	-1.8	-1.8	-1.8	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag					Lead	Lead	Lag	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	Min	Min	
Act Effect Green (s)	70.1	70.1	70.1	70.1	7.0	7.0	12.8	12.8	100.0
Actuated g/C Ratio	0.70	0.70	0.70	0.70	0.07	0.07	0.13	0.13	1.00
v/c Ratio	0.35	0.04	0.06	0.49	0.22	0.16	0.58	0.58	0.30

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 39 (39%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 10.1
 Intersection Capacity Utilization 59.7%
 Analysis Period (min) 15

Splits and Phases: 6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.



	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	963	53	22	1336	58	32	137	140	503
v/c Ratio	0.35	0.04	0.06	0.49	0.22	0.16	0.58	0.58	0.30
Control Delay	5.9	1.3	6.2	7.7	45.5	1.8	50.1	49.9	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.9	1.3	6.2	7.7	45.5	1.8	50.1	49.9	0.4
Queue Length 50th (ft)	148	2	3	183	18	0	87	89	0
Queue Length 95th (ft)	237	m9	14	217	32	0	145	147	0
Internal Link Dist (ft)	362			410				605	
Turn Bay Length (ft)		100	110		100	100			60
Base Capacity (vph)	2742	1189	376	2742	531	313	538	549	1694
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.04	0.06	0.49	0.11	0.10	0.25	0.26	0.30
Intersection Summary									
m Volume for 95th percentile queue is metered by upstream signal.									

HCM Signalized Intersection Capacity Analysis

01/13/2021

2041 Bkgrd + Project - AM Peak Hour

6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑		↑↑		↑	↑	↑	↑
Traffic Volume (vph)	0	905	50	20	1229	0	45	0	25	210	45	463
Future Volume (vph)	0	905	50	20	1229	0	45	0	25	210	45	463
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0		4.0	4.0	4.0	3.0
Lane Util. Factor		0.95	1.00	1.00	0.95		0.97		1.00	0.95	0.95	1.00
Frpb, ped/bikes		1.00	0.95	1.00	1.00		1.00		0.97	1.00	1.00	0.97
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	0.97	1.00
Satd. Flow (prot)		3912	1670	1947	3912		3794		1697	1858	1894	1694
Flt Permitted		1.00	1.00	0.26	1.00		0.95		1.00	0.95	0.97	1.00
Satd. Flow (perm)		3912	1670	538	3912		3794		1697	1858	1894	1694
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.78	0.78	0.78	0.92	0.92	0.92
Adj. Flow (vph)	0	963	53	22	1336	0	58	0	32	228	49	503
RTOR Reduction (vph)	0	0	16	0	0	0	0	0	30	0	0	0
Lane Group Flow (vph)	0	963	37	22	1336	0	58	0	2	137	140	503
Confl. Peds. (#/hr)	45		10	10		45	65					65
Confl. Bikes (#/hr)			10			10			5			5
Turn Type	NA	Perm	Perm	NA			Prot		Perm	Perm	NA	Free
Protected Phases	6			2			7				8	
Permitted Phases		6	2						7	8		Free
Actuated Green, G (s)	67.3	67.3	67.3	67.3			5.1		5.1	11.8	11.8	100.0
Effective Green, g (s)	69.1	69.1	69.1	69.1			6.1		6.1	12.8	12.8	100.0
Actuated g/C Ratio	0.69	0.69	0.69	0.69			0.06		0.06	0.13	0.13	1.00
Clearance Time (s)	5.8	5.8	5.8	5.8			5.0		5.0	5.0	5.0	
Vehicle Extension (s)	0.2	0.2	0.2	0.2			2.0		2.0	2.0	2.0	
Lane Grp Cap (vph)	2703	1153	371	2703			231		103	237	242	1694
v/s Ratio Prot	0.25			c0.34			0.02					
v/s Ratio Perm		0.02	0.04						0.00	0.07	0.07	c0.30
v/c Ratio	0.36	0.03	0.06	0.49			0.25		0.02	0.58	0.58	0.30
Uniform Delay, d1	6.3	4.9	5.0	7.3			44.8		44.1	41.1	41.1	0.0
Progression Factor	0.81	1.38	0.85	0.88			1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.0	0.3	0.6			0.2		0.0	2.1	2.1	0.4
Delay (s)	5.4	6.8	4.5	7.0			45.0		44.2	43.2	43.1	0.4
Level of Service	A	A	A	A			D		D	D	D	A
Approach Delay (s)	5.5			7.0			44.7				15.6	
Approach LOS	A			A			D				B	
Intersection Summary												
HCM 2000 Control Delay		9.6					HCM 2000 Level of Service		A			
HCM 2000 Volume to Capacity ratio		0.51										
Actuated Cycle Length (s)		100.0					Sum of lost time (s)		12.0			
Intersection Capacity Utilization		59.7%					ICU Level of Service		B			
Analysis Period (min)		15										
c Critical Lane Group												

	→	←	↶	↷
Lane Group	EBT	WBT	NBL	NBR
Lane Configurations	↑↑	↑↑↑	↶↷	↷
Traffic Volume (vph)	652	1161	303	180
Future Volume (vph)	652	1161	303	180
Turn Type	NA	NA	Prot	Perm
Protected Phases	6	2	4	
Permitted Phases				4
Detector Phase	6	2	4	4
Switch Phase				
Minimum Initial (s)	10.0	10.0	4.0	4.0
Minimum Split (s)	19.0	19.0	34.0	34.0
Total Split (s)	66.0	66.0	34.0	34.0
Total Split (%)	66.0%	66.0%	34.0%	34.0%
Yellow Time (s)	3.6	3.6	3.0	3.0
All-Red Time (s)	1.7	1.7	2.0	2.0
Lost Time Adjust (s)	-1.3	-1.3	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Min	Min
Act Effect Green (s)	78.0	78.0	14.0	14.0
Actuated g/C Ratio	0.78	0.78	0.14	0.14
v/c Ratio	0.23	0.30	0.61	0.48

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 30 (30%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 8.5
 Intersection Capacity Utilization 37.3%
 Analysis Period (min) 15

Splits and Phases: 8: US 36 NB Off-Ramp (E) & Table Mesa Dr.

← Ø2 (R)	↶ Ø4
66 s	34 s
→ Ø6 (R)	
66 s	

	→	←	↶	↷
Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	716	1334	326	194
v/c Ratio	0.23	0.30	0.61	0.48
Control Delay	0.7	3.6	45.3	9.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	0.7	3.6	45.3	9.7
Queue Length 50th (ft)	4	71	102	0
Queue Length 95th (ft)	5	100	140	59
Internal Link Dist (ft)	184	628	402	
Turn Bay Length (ft)			115	125
Base Capacity (vph)	3051	4384	1138	646
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	0.23	0.30	0.29	0.30
Intersection Summary				

HCM 6th Signalized Intersection Summary
12/28/2020

2041 Bkgrd + Project - AM Peak Hour
8: US 36 NB Off-Ramp (E) & Table Mesa Dr.

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑↑	↖↗	↗
Traffic Volume (veh/h)	652	0	0	1161	303	180
Future Volume (veh/h)	652	0	0	1161	303	180
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	2067	0	0	2067	2067	2067
Adj Flow Rate, veh/h	716	0	0	1334	326	0
Peak Hour Factor	0.91	0.91	0.87	0.87	0.93	0.93
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	3140	0	0	4512	460	
Arrive On Green	1.00	0.00	0.00	1.00	0.12	0.00
Sat Flow, veh/h	4134	0	0	6016	3819	1752
Grp Volume(v), veh/h	716	0	0	1334	326	0
Grp Sat Flow(s),veh/h/ln	1964	0	0	1881	1910	1752
Q Serve(g_s), s	0.0	0.0	0.0	0.0	8.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	8.2	0.0
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	3140	0	0	4512	460	
V/C Ratio(X)	0.23	0.00	0.00	0.30	0.71	
Avail Cap(c_a), veh/h	3140	0	0	4512	1146	
HCM Platoon Ratio	2.00	1.00	1.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	42.3	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.8	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	0.1	0.0	0.0	0.1	3.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.2	0.0	0.0	0.2	43.0	0.0
LnGrp LOS	A	A	A	A	D	
Approach Vol, veh/h	716			1334	326	A
Approach Delay, s/veh	0.2			0.2	43.0	
Approach LOS	A			A	D	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	84.0		16.0		84.0	
Change Period (Y+Rc), s	* 5.3		5.0		* 5.3	
Max Green Setting (Gmax), s	* 61		29.0		* 61	
Max Q Clear Time (g_c+I1), s	2.0		10.2		2.0	
Green Ext Time (p_c), s	8.5		0.8		3.7	
Intersection Summary						
HCM 6th Ctrl Delay			6.1			
HCM 6th LOS			A			

Notes

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

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

Intersection

Int Delay, s/veh 1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	48	1705	4	43	685
Future Vol, veh/h	5	48	1705	4	43	685
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	-	-	275	-
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	52	1853	4	47	745

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2322	929	0 0 1857 0
Stage 1	1855	-	- - - -
Stage 2	467	-	- - - -
Critical Hdwy	6.84	6.94	- - 4.14 -
Critical Hdwy Stg 1	5.84	-	- - - -
Critical Hdwy Stg 2	5.84	-	- - - -
Follow-up Hdwy	3.52	3.32	- - 2.22 -
Pot Cap-1 Maneuver	31	269	- - 322 -
Stage 1	109	-	- - - -
Stage 2	597	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	26	269	- - 322 -
Mov Cap-2 Maneuver	26	-	- - - -
Stage 1	109	-	- - - -
Stage 2	510	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	36.3	0	1.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 26 269	322	-
HCM Lane V/C Ratio	-	- 0.209 0.194	0.145	-
HCM Control Delay (s)	-	- 176.9 21.6	18.1	-
HCM Lane LOS	-	- F C	C	-
HCM 95th %tile Q(veh)	-	- 0.6 0.7	0.5	-

Timings
01/13/2021

2041 Bkgrd + Project - AM Peak Hour
43: Broadway & Table Mesa Dr.

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	505	605	480	455	40	1368	385	161	658	250
Future Volume (vph)	505	605	480	455	40	1368	385	161	658	250
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	pm+pt	NA	Free
Protected Phases	3	8	7	4	1	6	7	5	2	
Permitted Phases							6	2		Free
Detector Phase	3	8	7	4	1	6	7	5	2	
Switch Phase										
Minimum Initial (s)	4.0	8.0	4.0	8.0	4.0	10.0	4.0	4.0	10.0	
Minimum Split (s)	9.2	34.0	9.2	31.0	9.0	33.0	9.2	9.0	33.0	
Total Split (s)	23.0	34.0	20.0	31.0	12.0	34.0	20.0	12.0	34.0	
Total Split (%)	23.0%	34.0%	20.0%	31.0%	12.0%	34.0%	20.0%	12.0%	34.0%	
Yellow Time (s)	3.2	3.7	3.2	3.7	3.0	3.9	3.2	3.0	3.9	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.2	-1.7	-1.2	-1.7	-1.0	-1.9	-1.2	-1.0	-1.9	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	
Act Effect Green (s)	18.1	25.0	18.5	25.4	6.6	32.0	50.5	42.4	37.6	100.0
Actuated g/C Ratio	0.18	0.25	0.18	0.25	0.07	0.32	0.50	0.42	0.38	1.00
v/c Ratio	0.85	0.76	0.73	0.87	0.34	1.21	0.48	0.84	0.57	0.19

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 92 (92%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.21
 Intersection Signal Delay: 58.6
 Intersection Capacity Utilization 91.8%
 Analysis Period (min) 15

Splits and Phases: 43: Broadway & Table Mesa Dr.

			
Ø1	Ø2 (R)	Ø3	Ø4
12 s	34 s	23 s	31 s
			
Ø5	Ø6 (R)	Ø8	Ø7
12 s	34 s	34 s	20 s

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	580	735	511	887	44	1520	428	206	844	321
v/c Ratio	0.85	0.76	0.73	0.87	0.34	1.21	0.48	0.84	0.57	0.19
Control Delay	52.2	40.0	37.3	30.9	52.4	136.9	11.6	51.0	28.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.2	40.0	37.3	30.9	52.4	136.9	11.6	51.0	28.6	0.2
Queue Length 50th (ft)	184	228	165	258	28	~641	100	83	246	0
Queue Length 95th (ft)	235	263	#250	313	m50	#785	190	#162	266	0
Internal Link Dist (ft)		438		2843		1401			2060	
Turn Bay Length (ft)	155		90		375		400	160		
Base Capacity (vph)	720	1160	701	1079	156	1252	899	246	1472	1704
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	0.81	0.63	0.73	0.82	0.28	1.21	0.48	0.84	0.57	0.19
Intersection Summary										
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.										
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.										
m Volume for 95th percentile queue is metered by upstream signal.										

HCM 6th Signalized Intersection Summary

01/13/2021

2041 Bkgrd + Project - AM Peak Hour
43: Broadway & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	605	35	480	455	379	40	1368	385	161	658	250
Future Volume (veh/h)	505	605	35	480	455	379	40	1368	385	161	658	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		1.00	1.00		0.92	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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	580	695	40	511	484	0	44	1520	428	206	844	0
Peak Hour Factor	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	688	1021	59	611	1007		78	1271	788	230	1429	
Arrive On Green	0.18	0.27	0.25	0.05	0.08	0.00	0.04	0.32	0.32	0.08	0.36	0.00
Sat Flow, veh/h	3819	3760	216	3819	4031	0	1969	3928	1604	1969	3928	1752
Grp Volume(v), veh/h	580	363	372	511	484	0	44	1520	428	206	844	0
Grp Sat Flow(s),veh/h/ln	1910	1964	2012	1910	1964	0	1969	1964	1604	1969	1964	1752
Q Serve(g_s), s	14.7	16.5	16.6	13.3	11.8	0.0	2.2	32.3	3.9	6.8	17.4	0.0
Cycle Q Clear(g_c), s	14.7	16.5	16.6	13.3	11.8	0.0	2.2	32.3	3.9	6.8	17.4	0.0
Prop In Lane	1.00		0.11	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	688	533	546	611	1007		78	1271	788	230	1429	
V/C Ratio(X)	0.84	0.68	0.68	0.84	0.48		0.56	1.20	0.54	0.90	0.59	
Avail Cap(c_a), veh/h	726	589	604	611	1060		158	1271	788	230	1429	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.00	0.74	0.74	0.74	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.6	32.5	32.6	46.1	39.4	0.0	47.2	33.8	6.7	24.7	25.8	0.0
Incr Delay (d2), s/veh	7.9	2.1	2.0	8.4	0.1	0.0	1.8	94.3	2.0	32.7	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	7.9	8.2	7.5	6.2	0.0	1.1	31.2	3.4	5.0	8.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	34.6	34.7	54.5	39.5	0.0	48.9	128.2	8.7	57.4	27.6	0.0
LnGrp LOS	D	C	C	D	D		D	F	A	E	C	
Approach Vol, veh/h	1315			995			1992			1050		
Approach Delay, s/veh	40.3			47.2			100.8			33.4		
Approach LOS	D			D			F			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	40.4	22.0	29.6	12.0	36.3	20.5	31.2				
Change Period (Y+Rc), s	5.0	5.9	* 5.2	* 5.7	5.0	5.9	* 5.7	* 5.7				
Max Green Setting (Gmax), s	7.0	28.1	* 18	* 25	7.0	28.1	* 15	* 28				
Max Q Clear Time (g_c+I1), s	4.2	19.4	16.7	13.8	8.8	34.3	15.3	18.6				
Green Ext Time (p_c), s	0.0	2.7	0.1	1.0	0.0	0.0	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay 62.7
HCM 6th LOS E

Notes

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

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

Timings
01/13/2021

2041 Bkgrd + Project - PM Peak Hour

1: Tantra Dr. & Table Mesa Dr.

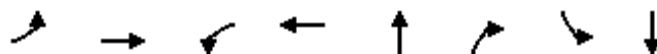
									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	5	1262	110	1254	85	3	95	2	0
Future Volume (vph)	5	1262	110	1254	85	3	95	2	0
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA
Protected Phases		6	5	2		4			8
Permitted Phases	6		2		4		4	8	
Detector Phase	6	6	5	2	4	4	4	8	8
Switch Phase									
Minimum Initial (s)	10.0	10.0	4.0	10.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	29.0	29.0	9.0	29.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	74.0	74.0	18.0	92.0	28.0	28.0	28.0	28.0	28.0
Total Split (%)	61.7%	61.7%	15.0%	76.7%	23.3%	23.3%	23.3%	23.3%	23.3%
Yellow Time (s)	3.8	3.8	3.0	3.8	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.8	-1.8	-1.0	-1.8		-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effect Green (s)	87.7	87.7	97.5	97.5		14.5	14.5	14.5	14.5
Actuated g/C Ratio	0.73	0.73	0.81	0.81		0.12	0.12	0.12	0.12
v/c Ratio	0.02	0.51	0.40	0.45		0.63	0.39	0.02	0.03

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 43 (36%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 8.3
 Intersection Capacity Utilization 65.0%
 Analysis Period (min) 15

Splits and Phases: 1: Tantra Dr. & Table Mesa Dr.

 Ø2 (R)		 Ø4
92 s		28 s
 Ø5	 Ø6 (R)	 Ø8
18 s	74 s	28 s



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	5	1427	125	1431	112	120	3	8
v/c Ratio	0.02	0.51	0.40	0.45	0.63	0.39	0.02	0.03
Control Delay	5.4	7.2	10.7	4.5	65.1	11.6	43.5	0.2
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	5.4	7.2	10.7	4.5	65.1	11.6	43.5	0.2
Queue Length 50th (ft)	1	202	22	172	84	0	2	0
Queue Length 95th (ft)	m2	m271	54	175	120	36	8	0
Internal Link Dist (ft)		2843		426	327			315
Turn Bay Length (ft)	80		215			105	35	
Base Capacity (vph)	271	2821	427	3175	295	431	219	403
Starvation Cap Reductn	0	0	0	350	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.51	0.29	0.51	0.38	0.28	0.01	0.02

Intersection Summary

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

HCM 6th Signalized Intersection Summary

01/13/2021

2041 Bkgrd + Project - PM Peak Hour

1: Tantra Dr. & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1262	94	110	1254	5	85	3	95	2	0	5
Future Volume (veh/h)	5	1262	94	110	1254	5	85	3	95	2	0	5
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		0.96	0.97		0.95	0.98		0.97
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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	5	1328	99	125	1425	6	108	4	120	3	0	8
Peak Hour Factor	0.95	0.95	0.95	0.88	0.88	0.88	0.79	0.79	0.79	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	327	2639	196	406	3162	13	247	7	241	141	0	246
Arrive On Green	1.00	1.00	1.00	0.08	1.00	1.00	0.14	0.14	0.14	0.14	0.00	0.14
Sat Flow, veh/h	374	3696	275	1969	4010	17	1295	48	1665	1243	0	1694
Grp Volume(v), veh/h	5	703	724	125	698	733	112	0	120	3	0	8
Grp Sat Flow(s),veh/h/ln	374	1964	2007	1969	1964	2063	1342	0	1665	1243	0	1694
Q Serve(g_s), s	0.0	0.0	0.0	2.0	0.0	0.0	9.1	0.0	8.0	0.3	0.0	0.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.0	0.0	0.0	9.6	0.0	8.0	9.9	0.0	0.5
Prop In Lane	1.00		0.14	1.00		0.01	0.96		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	327	1402	1433	406	1548	1627	254	0	241	141	0	246
V/C Ratio(X)	0.02	0.50	0.50	0.31	0.45	0.45	0.44	0.00	0.50	0.02	0.00	0.03
Avail Cap(c_a), veh/h	327	1402	1433	555	1548	1627	330	0	333	209	0	339
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.85	0.85	0.85	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	3.4	0.0	0.0	48.2	0.0	47.3	52.6	0.0	44.5
Incr Delay (d2), s/veh	0.0	0.7	0.7	0.1	0.8	0.8	0.5	0.0	0.6	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.3	0.6	0.3	0.3	3.2	0.0	3.3	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.7	0.7	3.5	0.8	0.8	48.6	0.0	47.9	52.6	0.0	44.5
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h	1432				1556				232			
Approach Delay, s/veh	0.7				1.0				48.2		46.7	
Approach LOS	A				A				D		D	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	98.6		21.4		8.9	89.7	21.4					
Change Period (Y+Rc), s	* 5.8		5.0		5.0	* 5.8	5.0					
Max Green Setting (Gmax), s	* 86		23.0		13.0	* 68	23.0					
Max Q Clear Time (g_c+I1), s	2.0		11.6		4.0	2.0	11.9					
Green Ext Time (p_c), s	0.3		0.4		0.0	0.3	0.0					

Intersection Summary

HCM 6th Ctrl Delay	4.4
HCM 6th LOS	A

Notes

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

Timings
01/13/2021

2041 Bkgrd + Project - PM Peak Hour

2: Moorhead Ave & Table Mesa Dr.

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	40	1287	45	1289	120	25	15	170	20
Future Volume (vph)	40	1287	45	1289	120	25	15	170	20
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		8
Permitted Phases	6		2		2	4		8	
Detector Phase	1	6	5	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	4.0	10.0	4.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.0	25.0	9.0	25.0	25.0	34.0	34.0	34.0	34.0
Total Split (s)	11.0	75.0	11.0	75.0	75.0	34.0	34.0	34.0	34.0
Total Split (%)	9.2%	62.5%	9.2%	62.5%	62.5%	28.3%	28.3%	28.3%	28.3%
Yellow Time (s)	3.0	3.7	3.0	3.7	3.7	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.7	-1.0	-1.7	-1.7	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	C-Max	Min	Min	Min	Min
Act Effect Green (s)	85.2	80.8	85.4	80.9	80.9	23.5	23.5	23.5	23.5
Actuated g/C Ratio	0.71	0.67	0.71	0.67	0.67	0.20	0.20	0.20	0.20
v/c Ratio	0.15	0.53	0.17	0.52	0.11	0.13	0.35	0.88	0.20

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 52 (43%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 14.6
 Intersection Capacity Utilization 58.2%
 Analysis Period (min) 15

Splits and Phases: 2: Moorhead Ave & Table Mesa Dr.

		
Ø1	Ø2 (R)	Ø4
11 s	75 s	34 s
		
Ø5	Ø6 (R)	Ø8
11 s	75 s	34 s

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	42	1389	48	1371	128	35	153	181	80
v/c Ratio	0.15	0.53	0.17	0.52	0.11	0.13	0.35	0.88	0.20
Control Delay	2.3	5.0	6.7	11.0	2.1	38.1	11.3	84.3	14.8
Queue Delay	0.0	0.2	0.0	0.8	0.0	0.0	0.6	35.2	0.0
Total Delay	2.3	5.2	6.7	11.8	2.1	38.1	11.9	119.5	14.8
Queue Length 50th (ft)	1	240	7	220	0	22	15	136	13
Queue Length 95th (ft)	m3	310	m24	420	m25	38	36	#227	53
Internal Link Dist (ft)		426		356			311		338
Turn Bay Length (ft)	100		200			50		85	
Base Capacity (vph)	305	2619	299	2636	1153	351	528	262	492
Starvation Cap Reductn	0	139	0	847	0	0	0	0	0
Spillback Cap Reductn	0	406	0	0	0	0	154	83	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.63	0.16	0.77	0.11	0.10	0.41	1.01	0.16
Intersection Summary									
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.									
m Volume for 95th percentile queue is metered by upstream signal.									

HCM 6th Signalized Intersection Summary
01/13/2021

2041 Bkgrd + Project - PM Peak Hour
2: Moorhead Ave & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1287	32	45	1289	120	25	15	95	170	20	55
Future Volume (veh/h)	40	1287	32	45	1289	120	25	15	95	170	20	55
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	0.98		0.95	0.98		0.96
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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	42	1355	34	48	1371	128	35	21	132	181	21	59
Peak Hour Factor	0.95	0.95	0.95	0.94	0.94	0.94	0.72	0.72	0.72	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	2416	61	367	2433	1044	333	58	366	270	115	322
Arrive On Green	0.07	1.00	1.00	0.02	0.41	0.41	0.25	0.25	0.24	0.25	0.25	0.24
Sat Flow, veh/h	1969	3911	98	1969	3928	1686	1292	236	1481	1214	464	1303
Grp Volume(v), veh/h	42	680	709	48	1371	128	35	0	153	181	0	80
Grp Sat Flow(s),veh/h/ln	1969	1964	2045	1969	1964	1686	1292	0	1717	1214	0	1767
Q Serve(g_s), s	0.9	0.0	0.0	1.1	32.0	5.6	2.6	0.0	8.9	17.4	0.0	4.3
Cycle Q Clear(g_c), s	0.9	0.0	0.0	1.1	32.0	5.6	6.9	0.0	8.9	26.3	0.0	4.3
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.86	1.00		0.74
Lane Grp Cap(c), veh/h	247	1213	1264	367	2433	1044	333	0	425	270	0	437
V/C Ratio(X)	0.17	0.56	0.56	0.13	0.56	0.12	0.11	0.00	0.36	0.67	0.00	0.18
Avail Cap(c_a), veh/h	296	1213	1264	413	2433	1044	337	0	429	273	0	442
HCM Platoon Ratio	2.00	2.00	2.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.87	0.87	0.87	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	0.0	0.0	7.8	22.7	15.0	38.4	0.0	37.7	48.2	0.0	35.9
Incr Delay (d2), s/veh	0.1	1.6	1.6	0.1	0.8	0.2	0.1	0.0	0.2	5.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.5	0.5	0.4	15.9	2.2	0.9	0.0	3.8	5.7	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.1	1.6	1.6	7.8	23.5	15.2	38.4	0.0	37.9	53.2	0.0	36.0
LnGrp LOS	B	A	A	A	C	B	D	A	D	D	A	D
Approach Vol, veh/h	1431				1547				188			
Approach Delay, s/veh	1.9				22.4				38.0			
Approach LOS	A				C				D			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	78.3		33.7	8.2	78.1		33.7				
Change Period (Y+Rc), s	5.0	* 5.7		5.0	5.0	* 5.7		5.0				
Max Green Setting (Gmax), s	6.0	* 69		29.0	6.0	* 69		29.0				
Max Q Clear Time (g_c+I1), s	2.9	34.0		10.9	3.1	2.0		28.3				
Green Ext Time (p_c), s	0.0	0.7		0.4	0.0	0.3		0.1				

Intersection Summary

HCM 6th Ctrl Delay	16.6
HCM 6th LOS	B

Notes

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

Timings
01/13/2021

2041 Bkgrd + Project - PM Peak Hour
3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑	↘	↖	↑
Traffic Volume (vph)	1500	52	165	1255	44	250	400	88	155
Future Volume (vph)	1500	52	165	1255	44	250	400	88	155
Turn Type	NA	Free	pm+pt	NA	Perm	Perm	Perm	NA	Perm
Protected Phases	6		5	2				8	
Permitted Phases		Free	2		4	4	8		8
Detector Phase	6		5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	10.0		12.0	10.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	17.4		17.0	17.4	28.0	28.0	28.0	28.0	28.0
Total Split (s)	74.0		18.0	92.0	28.0	28.0	28.0	28.0	28.0
Total Split (%)	61.7%		15.0%	76.7%	23.3%	23.3%	23.3%	23.3%	23.3%
Yellow Time (s)	3.7		3.0	3.7	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.7		2.0	1.7	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.4		-1.4	-1.4	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0		3.6	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead						
Lead-Lag Optimize?	Yes		Yes						
Recall Mode	C-Max		None	C-Max	None	None	Min	Min	Min
Act Effect Green (s)	72.4	120.0	90.2	89.8	22.2	22.2	22.2	22.2	22.2
Actuated g/C Ratio	0.60	1.00	0.75	0.75	0.18	0.18	0.18	0.18	0.18
v/c Ratio	0.68	0.03	0.57	0.47	0.82	0.67	0.86	0.83	0.47

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 30.7
 Intersection Capacity Utilization 76.4%
 Analysis Period (min) 15

Splits and Phases: 3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

↖ Ø2 (R)	↓	↗ Ø4
92 s		28 s
↘ Ø5	→ Ø6 (R)	↓ Ø8
18 s	74 s	28 s

	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1613	56	181	1379	55	313	287	288	182
v/c Ratio	0.68	0.03	0.57	0.47	0.82	0.67	0.86	0.83	0.47
Control Delay	24.8	0.0	24.7	6.5	114.4	24.6	71.1	68.0	26.4
Queue Delay	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.1	0.0	24.7	6.5	114.4	24.6	71.1	68.0	26.4
Queue Length 50th (ft)	406	0	71	163	40	84	224	224	64
Queue Length 95th (ft)	620	m0	m104	m185	#98	140	#326	#310	122
Internal Link Dist (ft)	356			214				350	
Turn Bay Length (ft)		160	90		10	10	125		80
Base Capacity (vph)	2361	1664	324	2927	73	490	362	373	412
Starvation Cap Reductn	758	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	92	0	0	0	0	2
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.03	0.56	0.49	0.75	0.64	0.79	0.77	0.44
Intersection Summary									
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.								
m	Volume for 95th percentile queue is metered by upstream signal.								

HCM Signalized Intersection Capacity Analysis

01/13/2021

2041 Bkgrd + Project - PM Peak Hour

3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖		↗	↖	↗	↖
Traffic Volume (vph)	0	1500	52	165	1255	0	44	0	250	400	88	155
Future Volume (vph)	0	1500	52	165	1255	0	44	0	250	400	88	155
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Total Lost time (s)		4.0	2.6	3.6	4.0		4.0		4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	0.95		1.00		1.00	0.95	0.95	1.00
Frpb, ped/bikes		1.00	0.95	1.00	1.00		1.00		0.96	1.00	1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	0.98	0.98	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	0.97	1.00
Satd. Flow (prot)		3912	1664	1956	3912		1949		1687	1814	1867	1716
Flt Permitted		1.00	1.00	0.07	1.00		0.18		1.00	0.95	0.97	1.00
Satd. Flow (perm)		3912	1664	142	3912		370		1687	1814	1867	1716
Peak-hour factor, PHF	0.93	0.93	0.93	0.91	0.91	0.91	0.80	0.80	0.80	0.85	0.85	0.85
Adj. Flow (vph)	0	1613	56	181	1379	0	55	0	312	471	104	182
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	156	0	0	70
Lane Group Flow (vph)	0	1613	56	181	1379	0	55	0	157	287	288	112
Confl. Peds. (#/hr)	10		45	45		10	5		15	15		5
Confl. Bikes (#/hr)			20			5						
Turn Type		NA	Free	pm+pt	NA		Perm		Perm	Perm	NA	Perm
Protected Phases		6		5	2						8	
Permitted Phases			Free	2			4		4	8		8
Actuated Green, G (s)		71.0	120.0	88.4	88.4		21.2		21.2	21.2	21.2	21.2
Effective Green, g (s)		72.4	120.0	89.8	89.8		22.2		22.2	22.2	22.2	22.2
Actuated g/C Ratio		0.60	1.00	0.75	0.75		0.18		0.18	0.18	0.18	0.18
Clearance Time (s)		5.4		5.0	5.4		5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)		3.0		3.0	3.0		3.0		3.0	2.0	2.0	2.0
Lane Grp Cap (vph)		2360	1664	314	2927		68		312	335	345	317
v/s Ratio Prot		c0.41		c0.07	0.35							
v/s Ratio Perm			0.03	0.36			0.15		0.09	c0.16	0.15	0.07
v/c Ratio		0.68	0.03	0.58	0.47		0.81		0.50	0.86	0.83	0.35
Uniform Delay, d1		16.1	0.0	24.5	5.9		46.9		44.0	47.4	47.1	42.6
Progression Factor		1.40	1.00	1.20	1.01		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		1.4	0.0	1.3	0.3		48.6		1.3	18.3	15.2	0.2
Delay (s)		23.8	0.0	30.8	6.2		95.5		45.2	65.6	62.3	42.9
Level of Service		C	A	C	A		F		D	E	E	D
Approach Delay (s)		23.0			9.1			52.8			58.9	
Approach LOS		C			A			D			E	
Intersection Summary												
HCM 2000 Control Delay			26.8		HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio			0.71									
Actuated Cycle Length (s)			120.0		Sum of lost time (s)					12.6		
Intersection Capacity Utilization			76.4%		ICU Level of Service					D		
Analysis Period (min)			15									
c Critical Lane Group												

Intersection				
Int Delay, s/veh	39			
Movement	EBL	EBT	WBT	WBR
Lane Configurations	↰	↑↑	↑↑	↱
Traffic Vol, veh/h	385	1313	1595	395
Future Vol, veh/h	385	1313	1595	395
Conflicting Peds, #/hr	15	0	0	15
Sign Control	Free	Free	Free	Free
RT Channelized	-	None	-	None
Storage Length	255	-	-	0
Veh in Median Storage, #	-	0	0	-
Grade, %	-	0	0	-
Peak Hour Factor	89	89	89	89
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	433	1475	1792	444
Major/Minor	Major1	Major2		
Conflicting Flow All	2251	0	-	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.22	-	-	-
Pot Cap-1 Maneuver	~ 255	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	1	-	-	-
Mov Cap-1 Maneuver	~ 252	-	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Approach	EB	WB		
HCM Control Delay, s	84.6	0		
HCM LOS				
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR
Capacity (veh/h)	~ 252	-	-	-
HCM Lane V/C Ratio	1.717	-	-	-
HCM Control Delay (s)	\$ 373	-	-	-
HCM Lane LOS	F	-	-	-
HCM 95th %tile Q(veh)	28.3	-	-	-
Notes				
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon				

Timings
01/13/2021

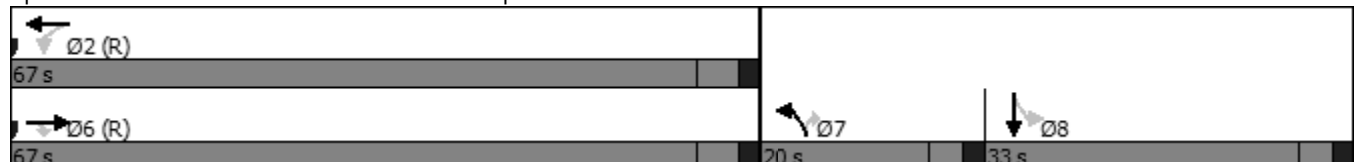
2041 Bkgrd + Project - PM Peak Hour
6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑	↘	↑	↑
Traffic Volume (vph)	1293	20	15	1067	90	70	470	10	833
Future Volume (vph)	1293	20	15	1067	90	70	470	10	833
Turn Type	NA	Perm	Perm	NA	Prot	Perm	Perm	NA	Free
Protected Phases	6			2	7			8	
Permitted Phases		6	2			7	8		Free
Detector Phase	6	6	2	2	7	7	8	8	
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	30.0	30.0	30.0	30.0	9.0	9.0	33.0	33.0	
Total Split (s)	67.0	67.0	67.0	67.0	20.0	20.0	33.0	33.0	
Total Split (%)	55.8%	55.8%	55.8%	55.8%	16.7%	16.7%	27.5%	27.5%	
Yellow Time (s)	3.8	3.8	3.8	3.8	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.8	-1.8	-1.8	-1.8	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag					Lead	Lead	Lag	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	Min	Min	
Act Effect Green (s)	76.8	76.8	76.8	76.8	9.3	9.3	21.9	21.9	120.0
Actuated g/C Ratio	0.64	0.64	0.64	0.64	0.08	0.08	0.18	0.18	1.00
v/c Ratio	0.58	0.02	0.12	0.52	0.41	0.47	0.76	0.76	0.52

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 26 (22%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 18.4
 Intersection Capacity Utilization 68.8%
 Analysis Period (min) 15

Splits and Phases: 6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.



	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1453	22	18	1301	120	93	255	256	886
v/c Ratio	0.58	0.02	0.12	0.52	0.41	0.47	0.76	0.76	0.52
Control Delay	13.3	0.5	13.2	15.4	56.5	26.0	60.6	60.5	1.2
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	0.5	13.2	15.5	56.5	26.0	60.6	60.5	1.2
Queue Length 50th (ft)	204	0	7	388	46	16	198	200	0
Queue Length 95th (ft)	440	m0	m17	444	62	47	276	277	0
Internal Link Dist (ft)	362			410				605	
Turn Bay Length (ft)		100	110		100	100			60
Base Capacity (vph)	2504	1068	153	2504	505	287	446	448	1694
Starvation Cap Reductn	0	0	0	371	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.02	0.12	0.61	0.24	0.32	0.57	0.57	0.52
Intersection Summary									
m Volume for 95th percentile queue is metered by upstream signal.									

HCM Signalized Intersection Capacity Analysis

01/13/2021

2041 Bkgrd + Project - PM Peak Hour

6: RTD/Foothills SB Off-Ramp & Table Mesa Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↗↖		↗	↖	↗↖	↗
Traffic Volume (vph)	0	1293	20	15	1067	0	90	0	70	470	10	833
Future Volume (vph)	0	1293	20	15	1067	0	90	0	70	470	10	833
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0		4.0	4.0	4.0	3.0
Lane Util. Factor		0.95	1.00	1.00	0.95		0.97		1.00	0.95	0.95	1.00
Frpb, ped/bikes		1.00	0.93	1.00	1.00		1.00		0.96	1.00	1.00	0.97
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	0.99	0.99	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	0.95	1.00
Satd. Flow (prot)		3912	1636	1956	3912		3794		1672	1846	1855	1694
Flt Permitted		1.00	1.00	0.12	1.00		0.95		1.00	0.95	0.95	1.00
Satd. Flow (perm)		3912	1636	238	3912		3794		1672	1846	1855	1694
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.75	0.75	0.75	0.94	0.94	0.94
Adj. Flow (vph)	0	1453	22	18	1301	0	120	0	93	500	11	886
RTOR Reduction (vph)	0	0	8	0	0	0	0	0	65	0	0	0
Lane Group Flow (vph)	0	1453	14	18	1301	0	120	0	28	255	256	886
Confl. Peds. (#/hr)	20		15	15		20	65		5	5		65
Confl. Bikes (#/hr)			15			5			5			5
Turn Type	NA	Perm	Perm	NA	Prot	Perm	Perm	NA	Free	Free	Free	Free
Protected Phases	6			2	7			8				
Permitted Phases		6	2			7	8					
Actuated Green, G (s)	75.0	75.0	75.0	75.0	8.3	8.3	20.9	20.9	120.0			
Effective Green, g (s)	76.8	76.8	76.8	76.8	9.3	9.3	21.9	21.9	120.0			
Actuated g/C Ratio	0.64	0.64	0.64	0.64	0.08	0.08	0.18	0.18	1.00			
Clearance Time (s)	5.8	5.8	5.8	5.8	5.0	5.0	5.0	5.0				
Vehicle Extension (s)	0.2	0.2	0.2	0.2	2.0	2.0	2.0	2.0				
Lane Grp Cap (vph)	2503	1047	152	2503	294	129	336	338	1694			
v/s Ratio Prot	c0.37			0.33	0.03							
v/s Ratio Perm		0.01	0.08			0.02	c0.14	0.14	c0.52			
v/c Ratio	0.58	0.01	0.12	0.52	0.41	0.21	0.76	0.76	0.52			
Uniform Delay, d1	12.4	7.8	8.4	11.7	52.7	51.9	46.5	46.5	0.0			
Progression Factor	0.93	1.00	0.99	1.15	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.7	0.0	1.5	0.8	0.3	0.3	8.4	8.3	1.2			
Delay (s)	12.2	7.9	9.9	14.1	53.1	52.2	55.0	54.9	1.2			
Level of Service	B	A	A	B	D	D	D	D	A			
Approach Delay (s)	12.1			14.0	52.7			20.8				
Approach LOS	B			B	D			C				
Intersection Summary												
HCM 2000 Control Delay		17.4			HCM 2000 Level of Service		B					
HCM 2000 Volume to Capacity ratio		0.63										
Actuated Cycle Length (s)		120.0			Sum of lost time (s)		12.0					
Intersection Capacity Utilization		68.8%			ICU Level of Service		C					
Analysis Period (min)		15										
c Critical Lane Group												

Timings
01/13/2021

2041 Bkgrd + Project - PM Peak Hour
8: US 36 NB Off-Ramp (E) & Table Mesa Dr.

	→	←	↶	↷
Lane Group	EBT	WBT	NBL	NBR
Lane Configurations	↑↑	↑↑↑	↶↷	↷
Traffic Volume (vph)	1305	864	438	90
Future Volume (vph)	1305	864	438	90
Turn Type	NA	NA	Prot	Perm
Protected Phases	6	2	4	
Permitted Phases				4
Detector Phase	6	2	4	4
Switch Phase				
Minimum Initial (s)	10.0	10.0	4.0	4.0
Minimum Split (s)	19.0	19.0	34.0	34.0
Total Split (s)	86.0	86.0	34.0	34.0
Total Split (%)	71.7%	71.7%	28.3%	28.3%
Yellow Time (s)	3.6	3.6	3.0	3.0
All-Red Time (s)	1.7	1.7	2.0	2.0
Lost Time Adjust (s)	-1.3	-1.3	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Min	Min
Act Effect Green (s)	90.7	90.7	21.3	21.3
Actuated g/C Ratio	0.76	0.76	0.18	0.18
v/c Ratio	0.51	0.22	0.74	0.30

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 15 (13%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 13.1
 Intersection Capacity Utilization 54.3%
 Analysis Period (min) 15

Splits and Phases: 8: US 36 NB Off-Ramp (E) & Table Mesa Dr.

← Ø2 (R)	↶ Ø4
86 s	34 s
→ Ø6 (R)	
86 s	

	→	←	↖	↗
Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1500	939	498	102
v/c Ratio	0.51	0.22	0.74	0.30
Control Delay	4.1	4.7	53.5	23.7
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	4.2	4.7	53.5	23.7
Queue Length 50th (ft)	160	66	190	33
Queue Length 95th (ft)	166	99	229	77
Internal Link Dist (ft)	184	628	402	
Turn Bay Length (ft)			115	125
Base Capacity (vph)	2957	4249	948	464
Starvation Cap Reductn	366	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.58	0.22	0.53	0.22
Intersection Summary				

HCM 6th Signalized Intersection Summary

01/13/2021

2041 Bkgrd + Project - PM Peak Hour
8: US 36 NB Off-Ramp (E) & Table Mesa Dr.

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑↑	↘↙	↗
Traffic Volume (veh/h)	1305	0	0	864	438	90
Future Volume (veh/h)	1305	0	0	864	438	90
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	2067	0	0	2067	2067	2067
Adj Flow Rate, veh/h	1500	0	0	939	498	0
Peak Hour Factor	0.87	0.87	0.92	0.92	0.88	0.88
Percent Heavy Veh, %	2	0	0	2	2	2
Cap, veh/h	3034	0	0	4360	614	
Arrive On Green	1.00	0.00	0.00	0.77	0.16	0.00
Sat Flow, veh/h	4134	0	0	6016	3819	1752
Grp Volume(v), veh/h	1500	0	0	939	498	0
Grp Sat Flow(s),veh/h/ln	1964	0	0	1881	1910	1752
Q Serve(g_s), s	0.0	0.0	0.0	5.4	15.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	5.4	15.1	0.0
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	3034	0	0	4360	614	
V/C Ratio(X)	0.49	0.00	0.00	0.22	0.81	
Avail Cap(c_a), veh/h	3034	0	0	4360	955	
HCM Platoon Ratio	2.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	3.7	48.6	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.1	1.5	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	0.2	0.0	0.0	1.7	7.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.6	0.0	0.0	3.8	50.1	0.0
LnGrp LOS	A	A	A	A	D	
Approach Vol, veh/h	1500			939	498	A
Approach Delay, s/veh	0.6			3.8	50.1	
Approach LOS	A			A	D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		96.7		23.3		96.7
Change Period (Y+Rc), s		* 5.3		5.0		* 5.3
Max Green Setting (Gmax), s		* 81		29.0		* 81
Max Q Clear Time (g_c+I1), s		7.4		17.1		2.0
Green Ext Time (p_c), s		5.2		1.2		11.0
Intersection Summary						
HCM 6th Ctrl Delay			10.0			
HCM 6th LOS			B			

Notes

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

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

Intersection

Int Delay, s/veh 0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	68	950	6	63	1710
Future Vol, veh/h	7	68	950	6	63	1710
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	74	1033	7	68	1859

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2103	520	0 0 1040 0
Stage 1	1037	-	- - - -
Stage 2	1066	-	- - - -
Critical Hdwy	6.84	6.94	- - 4.14 -
Critical Hdwy Stg 1	5.84	-	- - - -
Critical Hdwy Stg 2	5.84	-	- - - -
Follow-up Hdwy	3.52	3.32	- - 2.22 -
Pot Cap-1 Maneuver	44	501	- - 664 -
Stage 1	303	-	- - - -
Stage 2	292	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	40	501	- - 664 -
Mov Cap-2 Maneuver	40	-	- - - -
Stage 1	303	-	- - - -
Stage 2	262	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	22.9	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 40 501	664	-
HCM Lane V/C Ratio	-	- 0.19 0.148	0.103	-
HCM Control Delay (s)	-	- 115 13.4	11	-
HCM Lane LOS	-	- F B	B	-
HCM 95th %tile Q(veh)	-	- 0.6 0.5	0.3	-

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	365	565	535	485	55	813	370	386	1558	520
Future Volume (vph)	365	565	535	485	55	813	370	386	1558	520
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	pm+pt	NA	Free
Protected Phases	3	8	7	4	1	6	7	5	2	
Permitted Phases							6	2		Free
Detector Phase	3	8	7	4	1	6	7	5	2	
Switch Phase										
Minimum Initial (s)	4.0	8.0	4.0	8.0	4.0	10.0	4.0	4.0	10.0	
Minimum Split (s)	9.2	34.0	9.2	31.0	9.0	33.0	9.2	9.0	33.0	
Total Split (s)	20.0	34.0	24.0	38.0	12.0	34.0	24.0	28.0	50.0	
Total Split (%)	16.7%	28.3%	20.0%	31.7%	10.0%	28.3%	20.0%	23.3%	41.7%	
Yellow Time (s)	3.2	3.7	3.2	3.7	3.0	3.9	3.2	3.0	3.9	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.2	-1.7	-1.2	-1.7	-1.0	-1.9	-1.2	-1.0	-1.9	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	
Act Effect Green (s)	15.6	27.2	20.7	32.3	7.2	33.0	53.6	60.1	50.8	120.0
Actuated g/C Ratio	0.13	0.23	0.17	0.27	0.06	0.28	0.45	0.50	0.42	1.00
v/c Ratio	0.86	0.81	0.85	0.72	0.53	0.84	0.50	0.96	1.05	0.35

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 93 (78%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.05
 Intersection Signal Delay: 51.3
 Intersection Capacity Utilization 90.8%
 Analysis Period (min) 15

Splits and Phases: 43: Broadway & Table Mesa Dr.

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	50 s	20 s	38 s
 Ø5	 Ø6 (R)	 Ø8	 Ø7
28 s	34 s	34 s	24 s

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	420	706	557	733	61	903	411	429	1731	578
v/c Ratio	0.86	0.81	0.85	0.72	0.53	0.84	0.50	0.96	1.05	0.35
Control Delay	68.4	51.9	62.7	42.0	70.7	50.3	9.5	66.5	70.2	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	51.9	62.7	42.0	70.7	50.3	9.5	66.5	70.2	0.6
Queue Length 50th (ft)	165	272	225	278	46	360	60	274	~832	0
Queue Length 95th (ft)	#226	321	#319	352	92	#482	110	#474	#971	0
Internal Link Dist (ft)		438		2843		1401			2060	
Turn Bay Length (ft)	155		90		375		400	160		
Base Capacity (vph)	505	961	661	1069	130	1074	827	464	1655	1665
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	0.83	0.73	0.84	0.69	0.47	0.84	0.50	0.92	1.05	0.35
Intersection Summary										
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.										
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.										

HCM 6th Signalized Intersection Summary

01/13/2021

2041 Bkgrd + Project - PM Peak Hour

43: Broadway & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	565	50	535	485	219	55	813	370	386	1558	520
Future Volume (veh/h)	365	565	50	535	485	219	55	813	370	386	1558	520
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		1.00	1.00		0.84	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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	420	649	57	557	505	0	61	903	411	429	1731	0
Peak Hour Factor	0.87	0.87	0.87	0.96	0.96	0.96	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	509	865	76	637	1084		97	1011	661	466	1603	
Arrive On Green	0.13	0.24	0.22	0.06	0.09	0.00	0.05	0.26	0.25	0.20	0.41	0.00
Sat Flow, veh/h	3819	3625	318	3819	4031	0	1969	3928	1469	1969	3928	1752
Grp Volume(v), veh/h	420	351	355	557	505	0	61	903	411	429	1731	0
Grp Sat Flow(s),veh/h/ln	1910	1964	1979	1910	1964	0	1969	1964	1469	1969	1964	1752
Q Serve(g_s), s	12.8	19.9	20.0	17.4	14.6	0.0	3.6	26.6	10.4	21.2	49.0	0.0
Cycle Q Clear(g_c), s	12.8	19.9	20.0	17.4	14.6	0.0	3.6	26.6	10.4	21.2	49.0	0.0
Prop In Lane	1.00		0.16	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	509	468	472	637	1084		97	1011	661	466	1603	
V/C Ratio(X)	0.82	0.75	0.75	0.87	0.47		0.63	0.89	0.62	0.92	1.08	
Avail Cap(c_a), veh/h	509	491	495	637	1113		131	1011	661	466	1603	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.00	0.74	0.74	0.74	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.6	42.4	42.5	55.5	46.1	0.0	56.0	43.0	9.5	34.3	35.5	0.0
Incr Delay (d2), s/veh	10.0	5.2	5.3	11.3	0.1	0.0	1.8	9.3	3.2	23.4	47.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	10.2	10.3	9.9	7.7	0.0	1.8	13.9	3.6	15.2	32.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	47.6	47.8	66.8	46.2	0.0	57.8	52.2	12.8	57.7	83.0	0.0
LnGrp LOS	E	D	D	E	D		E	D	B	E	F	
Approach Vol, veh/h	1126			1062			1375			2160		
Approach Delay, s/veh	52.5			57.0			40.7			78.0		
Approach LOS	D			E			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	53.0	20.0	37.1	28.0	34.9	24.5	32.6				
Change Period (Y+Rc), s	5.0	5.9	* 5.2	* 5.7	5.0	5.9	* 5.7	* 5.7				
Max Green Setting (Gmax), s	7.0	44.1	* 15	* 32	23.0	28.1	* 19	* 28				
Max Q Clear Time (g_c+I1), s	5.6	51.0	14.8	16.6	23.2	28.6	19.4	22.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.0				

Intersection Summary

HCM 6th Ctrl Delay 60.1

HCM 6th LOS E

Notes

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

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

***Intersection Capacity Worksheets:
2041 Background + Project
With Improvements***

DRAFT

Timings
01/14/2021

2041 Bkgrd + Project (with Improvements) - AM Peak Hour

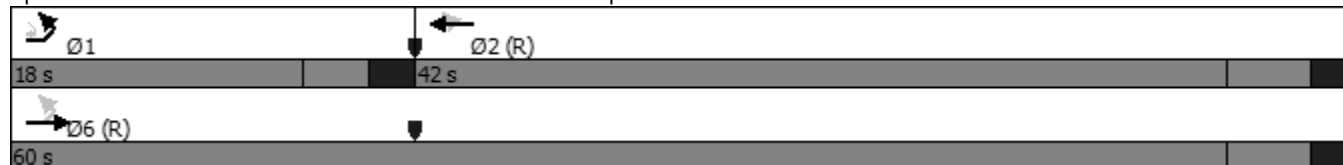
5: Table Mesa Dr. & US 36 NB On-Ramp

				
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations		 	 	
Traffic Volume (vph)	285	955	1392	345
Future Volume (vph)	285	955	1392	345
Turn Type	pm+pt	NA	NA	Perm
Protected Phases	1	6	2	
Permitted Phases	6			2
Detector Phase	1	6	2	2
Switch Phase				
Minimum Initial (s)	4.0	10.0	10.0	10.0
Minimum Split (s)	9.0	15.7	24.7	24.7
Total Split (s)	18.0	60.0	42.0	42.0
Total Split (%)	30.0%	100.0%	70.0%	70.0%
Yellow Time (s)	3.0	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.7
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	None	C-Max	C-Max	C-Max
Act Effect Green (s)	55.0	60.0	39.6	39.6
Actuated g/C Ratio	0.92	1.00	0.66	0.66
v/c Ratio	0.74	0.29	0.63	0.33

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Green
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 6.3
 Intersection Capacity Utilization 58.0%
 Analysis Period (min) 15

Splits and Phases: 5: Table Mesa Dr. & US 36 NB On-Ramp





Lane Group	EBL	EBT	WBT	WBR
Lane Group Flow (vph)	339	1137	1619	401
v/c Ratio	0.74	0.29	0.63	0.33
Control Delay	20.8	0.2	7.9	3.0
Queue Delay	0.0	0.0	0.4	0.0
Total Delay	20.8	0.2	8.3	3.0
Queue Length 50th (ft)	53	0	148	19
Queue Length 95th (ft)	108	0	223	51
Internal Link Dist (ft)		308	362	
Turn Bay Length (ft)	255			
Base Capacity (vph)	557	3912	2583	1198
Starvation Cap Reductn	0	0	454	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.61	0.29	0.76	0.33
Intersection Summary				

HCM Signalized Intersection Capacity Analysis + Project (with Improvements) - AM Peak Hour

01/14/2021

5: Table Mesa Dr. & US 36 NB On-Ramp



Movement	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	285	955	1392	345
Future Volume (vph)	285	955	1392	345
Ideal Flow (vphpl)	2100	2100	2100	2100
Total Lost time (s)	5.0	5.7	5.7	5.7
Lane Util. Factor	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1956	3912	3912	1697
Flt Permitted	0.09	1.00	1.00	1.00
Satd. Flow (perm)	191	3912	3912	1697
Peak-hour factor, PHF	0.84	0.84	0.86	0.86
Adj. Flow (vph)	339	1137	1619	401
RTOR Reduction (vph)	0	0	0	79
Lane Group Flow (vph)	339	1137	1619	322
Confl. Peds. (#/hr)	5			5
Confl. Bikes (#/hr)				5
Turn Type	pm+pt	NA	NA	Perm
Protected Phases	1	6	2	
Permitted Phases	6			2
Actuated Green, G (s)	54.3	60.0	39.6	39.6
Effective Green, g (s)	54.3	60.0	39.6	39.6
Actuated g/C Ratio	0.90	1.00	0.66	0.66
Clearance Time (s)	5.0	5.7	5.7	5.7
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	458	3912	2581	1120
v/s Ratio Prot	c0.12	0.29	0.41	
v/s Ratio Perm	c0.55			0.19
v/c Ratio	0.74	0.29	0.63	0.29
Uniform Delay, d1	14.1	0.0	5.9	4.3
Progression Factor	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.3	0.2	1.2	0.6
Delay (s)	20.5	0.2	7.1	4.9
Level of Service	C	A	A	A
Approach Delay (s)		4.8	6.7	
Approach LOS		A	A	
Intersection Summary				
HCM 2000 Control Delay		5.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio		0.78		
Actuated Cycle Length (s)		60.0	Sum of lost time (s)	10.7
Intersection Capacity Utilization		58.0%	ICU Level of Service	B
Analysis Period (min)		15		
c Critical Lane Group				

Timings
01/14/2021

2041 Bkgrd + Project (with Improvements) - AM Peak Hour

43: Broadway & Table Mesa Dr.

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	505	605	480	455	40	1368	385	161	658	250
Future Volume (vph)	505	605	480	455	40	1368	385	161	658	250
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	pm+pt	NA	Free
Protected Phases	3	8	7	4	1	6	7	5	2	
Permitted Phases							6	2		Free
Detector Phase	3	8	7	4	1	6	7	5	2	
Switch Phase										
Minimum Initial (s)	4.0	8.0	4.0	8.0	4.0	10.0	4.0	4.0	10.0	
Minimum Split (s)	9.2	34.0	9.2	31.0	9.0	33.0	9.2	9.0	33.0	
Total Split (s)	23.0	34.0	20.0	31.0	12.0	48.0	20.0	13.0	49.0	
Total Split (%)	20.0%	29.6%	17.4%	27.0%	10.4%	41.7%	17.4%	11.3%	42.6%	
Yellow Time (s)	3.2	3.7	3.2	3.7	3.0	3.9	3.2	3.0	3.9	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.2	-1.7	-1.2	-1.7	-1.0	-1.9	-1.2	-1.0	-1.9	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	
Act Effect Green (s)	18.9	27.1	18.8	27.0	6.8	44.0	62.8	55.3	48.1	115.0
Actuated g/C Ratio	0.16	0.24	0.16	0.23	0.06	0.38	0.55	0.48	0.42	1.00
v/c Ratio	0.93	0.81	0.82	0.95	0.38	1.02	0.46	0.91	0.52	0.19

Intersection Summary

Cycle Length: 115
 Actuated Cycle Length: 115
 Offset: 92 (80%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.02
 Intersection Signal Delay: 48.8
 Intersection Capacity Utilization 91.8%
 Analysis Period (min) 15

Splits and Phases: 43: Broadway & Table Mesa Dr.

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	49 s	23 s	31 s
 Ø5	 Ø6 (R)	 Ø8	 Ø7
13 s	48 s	34 s	20 s

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	580	735	511	887	44	1520	428	206	844	321
v/c Ratio	0.93	0.81	0.82	0.95	0.38	1.02	0.46	0.91	0.52	0.19
Control Delay	70.4	48.9	59.4	57.8	61.3	63.0	8.0	66.8	26.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.4	48.9	59.4	57.8	61.3	63.0	8.0	66.8	26.9	0.2
Queue Length 50th (ft)	220	269	191	303	32	~605	77	96	247	0
Queue Length 95th (ft)	#305	317	#304	#433	70	#765	134	#180	260	0
Internal Link Dist (ft)		438		2843		1401			2060	
Turn Bay Length (ft)	300		400		400		425	160		
Base Capacity (vph)	626	1008	620	932	136	1496	938	226	1636	1704
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	0.93	0.73	0.82	0.95	0.32	1.02	0.46	0.91	0.52	0.19
Intersection Summary										
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.										
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.										

HCM 6th Signalized Intersection Summary - Bkgrd + Project (with Improvements) - AM Peak Hour 01/14/2021

43: Broadway & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	605	35	480	455	379	40	1368	385	161	658	250
Future Volume (veh/h)	505	605	35	480	455	379	40	1368	385	161	658	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		1.00	1.00		0.93	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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	580	695	40	511	484	0	44	1520	428	206	844	0
Peak Hour Factor	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	631	926	53	531	882		76	1543	873	217	1699	
Arrive On Green	0.17	0.25	0.23	0.14	0.22	0.00	0.04	0.39	0.39	0.08	0.43	0.00
Sat Flow, veh/h	3819	3758	216	3819	4031	0	1969	3928	1627	1969	3928	1752
Grp Volume(v), veh/h	580	363	372	511	484	0	44	1520	428	206	844	0
Grp Sat Flow(s),veh/h/ln	1910	1964	2011	1910	1964	0	1969	1964	1627	1969	1964	1752
Q Serve(g_s), s	17.2	19.6	19.7	15.3	12.5	0.0	2.5	44.1	4.2	8.3	17.9	0.0
Cycle Q Clear(g_c), s	17.2	19.6	19.7	15.3	12.5	0.0	2.5	44.1	4.2	8.3	17.9	0.0
Prop In Lane	1.00		0.11	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	631	484	495	531	882		76	1543	873	217	1699	
V/C Ratio(X)	0.92	0.75	0.75	0.96	0.55		0.58	0.99	0.49	0.95	0.50	
Avail Cap(c_a), veh/h	631	512	525	531	922		137	1543	873	217	1699	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.00	0.74	0.74	0.74	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.2	40.1	40.2	49.2	39.4	0.0	54.4	34.6	6.4	33.1	23.6	0.0
Incr Delay (d2), s/veh	18.3	5.0	4.9	27.2	0.3	0.0	1.9	16.5	1.5	46.3	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	10.0	10.3	9.2	6.0	0.0	1.3	23.4	3.5	6.5	8.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.6	45.0	45.1	76.4	39.7	0.0	56.3	51.1	7.9	79.5	24.6	0.0
LnGrp LOS	E	D	D	E	D		E	D	A	E	C	
Approach Vol, veh/h	1315			995			1992			1050		
Approach Delay, s/veh	54.1			58.6			41.9			35.4		
Approach LOS	D			E			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	53.8	23.0	29.8	13.0	49.2	20.5	32.3				
Change Period (Y+Rc), s	5.0	5.9	* 5.2	* 5.7	5.0	5.9	* 5.7	* 5.7				
Max Green Setting (Gmax), s	7.0	43.1	* 18	* 25	8.0	42.1	* 15	* 28				
Max Q Clear Time (g_c+I1), s	4.5	19.9	19.2	14.5	10.3	46.1	17.3	21.7				
Green Ext Time (p_c), s	0.0	4.0	0.0	1.0	0.0	0.0	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay	46.7											
HCM 6th LOS	D											
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
01/14/2021

2041 Bkgrd + Project (with Improvements) - PM Peak Hour

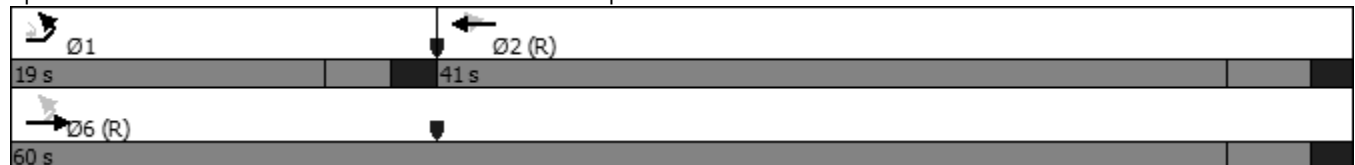
5: Table Mesa Dr. & US 36 NB On-Ramp

				
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations		 	 	
Traffic Volume (vph)	385	1313	1595	395
Future Volume (vph)	385	1313	1595	395
Turn Type	pm+pt	NA	NA	Perm
Protected Phases	1	6	2	
Permitted Phases	6			2
Detector Phase	1	6	2	2
Switch Phase				
Minimum Initial (s)	4.0	10.0	10.0	10.0
Minimum Split (s)	9.0	15.7	24.7	24.7
Total Split (s)	19.0	60.0	41.0	41.0
Total Split (%)	31.7%	100.0%	68.3%	68.3%
Yellow Time (s)	3.0	3.7	3.7	3.7
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.7
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	None	C-Max	C-Max	C-Max
Act Effect Green (s)	55.0	60.0	37.6	37.6
Actuated g/C Ratio	0.92	1.00	0.63	0.63
v/c Ratio	0.83	0.38	0.73	0.40

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 9.5
 Intersection Capacity Utilization 68.1%
 Analysis Period (min) 15

Splits and Phases: 5: Table Mesa Dr. & US 36 NB On-Ramp





Lane Group	EBL	EBT	WBT	WBR
Lane Group Flow (vph)	433	1475	1792	444
v/c Ratio	0.83	0.38	0.73	0.40
Control Delay	24.0	0.2	14.3	7.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	24.0	0.2	14.3	7.1
Queue Length 50th (ft)	132	0	331	92
Queue Length 95th (ft)	m160	0	585	233
Internal Link Dist (ft)		308	362	
Turn Bay Length (ft)	255			
Base Capacity (vph)	588	3912	2451	1107
Starvation Cap Reductn	0	0	35	0
Spillback Cap Reductn	0	135	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.74	0.39	0.74	0.40

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis + Project (with Improvements) - PM Peak Hour

01/14/2021

5: Table Mesa Dr. & US 36 NB On-Ramp



Movement	EBL	EBT	WBT	WBR
Lane Configurations	←	↑↑	↑↑	↑
Traffic Volume (vph)	385	1313	1595	395
Future Volume (vph)	385	1313	1595	395
Ideal Flow (vphpl)	2100	2100	2100	2100
Total Lost time (s)	5.0	5.7	5.7	5.7
Lane Util. Factor	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1956	3912	3912	1669
Flt Permitted	0.09	1.00	1.00	1.00
Satd. Flow (perm)	193	3912	3912	1669
Peak-hour factor, PHF	0.89	0.89	0.89	0.89
Adj. Flow (vph)	433	1475	1792	444
RTOR Reduction (vph)	0	0	0	62
Lane Group Flow (vph)	433	1475	1792	382
Confl. Peds. (#/hr)	15			15
Confl. Bikes (#/hr)				5
Turn Type	pm+pt	NA	NA	Perm
Protected Phases	1	6	2	
Permitted Phases	6			2
Actuated Green, G (s)	54.3	60.0	37.6	37.6
Effective Green, g (s)	54.3	60.0	37.6	37.6
Actuated g/C Ratio	0.90	1.00	0.63	0.63
Clearance Time (s)	5.0	5.7	5.7	5.7
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	518	3912	2451	1045
v/s Ratio Prot	c0.16	0.38	0.46	
v/s Ratio Perm	c0.59			0.23
v/c Ratio	0.84	0.38	0.73	0.37
Uniform Delay, d1	16.7	0.0	7.7	5.4
Progression Factor	1.06	1.00	1.51	1.66
Incremental Delay, d2	8.2	0.2	1.7	0.9
Delay (s)	26.0	0.2	13.3	9.9
Level of Service	C	A	B	A
Approach Delay (s)		6.0	12.7	
Approach LOS		A	B	
Intersection Summary				
HCM 2000 Control Delay		9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio		0.88		
Actuated Cycle Length (s)		60.0	Sum of lost time (s)	10.7
Intersection Capacity Utilization		68.1%	ICU Level of Service	C
Analysis Period (min)		15		
c Critical Lane Group				

Timings
01/14/2021

2041 Bkgrd + Project (with Improvements) - PM Peak Hour

3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑	↘	↖	↑
Traffic Volume (vph)	1500	52	165	1255	44	250	400	88	155
Future Volume (vph)	1500	52	165	1255	44	250	400	88	155
Turn Type	NA	Free	pm+pt	NA	Perm	Perm	Perm	NA	Perm
Protected Phases	6		5	2				8	
Permitted Phases		Free	2		4	4	8		8
Detector Phase	6		5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	10.0		12.0	10.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	17.4		17.0	17.4	28.0	28.0	28.0	28.0	28.0
Total Split (s)	65.0		18.0	83.0	37.0	37.0	37.0	37.0	37.0
Total Split (%)	54.2%		15.0%	69.2%	30.8%	30.8%	30.8%	30.8%	30.8%
Yellow Time (s)	3.7		3.0	3.7	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.7		2.0	1.7	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.4		-1.4	-1.4	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0		3.6	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead						
Lead-Lag Optimize?	Yes		Yes						
Recall Mode	C-Max		None	C-Max	None	None	Min	Min	Min
Act Effect Green (s)	69.9	120.0	87.7	87.3	24.7	24.7	24.7	24.7	24.7
Actuated g/C Ratio	0.58	1.00	0.73	0.73	0.21	0.21	0.21	0.21	0.21
v/c Ratio	0.71	0.03	0.60	0.48	0.60	0.61	0.77	0.75	0.45

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 45.0
 Intersection Capacity Utilization 76.4%
 Analysis Period (min) 15

Splits and Phases: 3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

↖ Ø2 (R)	↓	↘ Ø4
83 s		37 s
↘ Ø5	→ Ø6 (R)	↓ Ø8
18 s	65 s	37 s

Queues
01/14/2021

2041 Bkgrd + Project (with Improvements) - PM Peak Hour

3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

	→	↘	↙	←	↖	↗	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1613	56	181	1379	55	313	287	288	182
v/c Ratio	0.71	0.03	0.60	0.48	0.60	0.61	0.77	0.75	0.45
Control Delay	31.9	0.0	28.0	9.5	67.9	19.4	58.5	56.7	28.2
Queue Delay	48.2	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0
Total Delay	80.1	0.0	28.0	9.7	68.1	19.4	58.5	56.7	28.2
Queue Length 50th (ft)	531	0	79	314	39	73	223	223	77
Queue Length 95th (ft)	763	m0	m157	349	71	115	280	278	124
Internal Link Dist (ft)	356			214				350	
Turn Bay Length (ft)		160	90		10	10	125		80
Base Capacity (vph)	2279	1664	311	2847	123	615	498	513	520
Starvation Cap Reductn	838	0	0	649	0	0	0	0	0
Spillback Cap Reductn	0	0	0	179	2	0	0	0	14
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.03	0.58	0.63	0.45	0.51	0.58	0.56	0.36
Intersection Summary									
m Volume for 95th percentile queue is metered by upstream signal.									

HCM Signalized Intersection Capacity Analysis + Project (with Improvements) - PM Peak Hour

01/14/2021

3: Loop Dr./US 36 SB Off-Ramp (W) & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖		↗	↖	↗	↖
Traffic Volume (vph)	0	1500	52	165	1255	0	44	0	250	400	88	155
Future Volume (vph)	0	1500	52	165	1255	0	44	0	250	400	88	155
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Total Lost time (s)		4.0	2.6	3.6	4.0		4.0		4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	0.95		1.00		1.00	0.95	0.95	1.00
Frpb, ped/bikes		1.00	0.95	1.00	1.00		1.00		0.97	1.00	1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	0.98	0.98	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	0.97	1.00
Satd. Flow (prot)		3912	1664	1956	3912		1949		1692	1814	1867	1716
Flt Permitted		1.00	1.00	0.06	1.00		0.22		1.00	0.95	0.97	1.00
Satd. Flow (perm)		3912	1664	126	3912		449		1692	1814	1867	1716
Peak-hour factor, PHF	0.93	0.93	0.93	0.91	0.91	0.91	0.80	0.80	0.80	0.85	0.85	0.85
Adj. Flow (vph)	0	1613	56	181	1379	0	55	0	312	471	104	182
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	162	0	0	53
Lane Group Flow (vph)	0	1613	56	181	1379	0	55	0	151	287	288	129
Confl. Peds. (#/hr)	10		45	45		10	5		15	15		5
Confl. Bikes (#/hr)			20			5						
Turn Type		NA	Free	pm+pt	NA		Perm		Perm	Perm	NA	Perm
Protected Phases		6		5	2						8	
Permitted Phases			Free	2			4		4	8		8
Actuated Green, G (s)		68.5	120.0	85.9	85.9		23.7		23.7	23.7	23.7	23.7
Effective Green, g (s)		69.9	120.0	87.3	87.3		24.7		24.7	24.7	24.7	24.7
Actuated g/C Ratio		0.58	1.00	0.73	0.73		0.21		0.21	0.21	0.21	0.21
Clearance Time (s)		5.4		5.0	5.4		5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)		3.0		3.0	3.0		3.0		3.0	2.0	2.0	2.0
Lane Grp Cap (vph)		2278	1664	302	2845		92		348	373	384	353
v/s Ratio Prot		c0.41		c0.07	0.35							
v/s Ratio Perm			0.03	0.37			0.12		0.09	c0.16	0.15	0.08
v/c Ratio		0.71	0.03	0.60	0.48		0.60		0.43	0.77	0.75	0.36
Uniform Delay, d1		17.8	0.0	28.1	6.9		43.2		41.6	45.0	44.8	40.9
Progression Factor		1.58	1.00	0.99	1.18		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		1.6	0.0	2.5	0.5		10.0		0.9	8.3	7.1	0.2
Delay (s)		29.7	0.0	30.5	8.6		53.2		42.4	53.3	51.9	41.1
Level of Service		C	A	C	A		D		D	D	D	D
Approach Delay (s)		28.7			11.1			44.0			49.8	
Approach LOS		C			B			D			D	
Intersection Summary												
HCM 2000 Control Delay	27.4			HCM 2000 Level of Service					C			
HCM 2000 Volume to Capacity ratio	0.71											
Actuated Cycle Length (s)	120.0			Sum of lost time (s)					12.6			
Intersection Capacity Utilization	76.4%			ICU Level of Service					D			
Analysis Period (min)	15											
c Critical Lane Group												

Timings
01/14/2021

2041 Bkgrd + Project (with Improvements) - PM Peak Hour

43: Broadway & Table Mesa Dr.

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	365	565	535	485	55	813	370	386	1558	520
Future Volume (vph)	365	565	535	485	55	813	370	386	1558	520
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	pm+pt	NA	Free
Protected Phases	3	8	7	4	1	6	7	5	2	
Permitted Phases							6	2		Free
Detector Phase	3	8	7	4	1	6	7	5	2	
Switch Phase										
Minimum Initial (s)	4.0	8.0	4.0	8.0	4.0	10.0	4.0	4.0	10.0	
Minimum Split (s)	9.2	34.0	9.2	31.0	9.0	33.0	9.2	9.0	33.0	
Total Split (s)	23.0	35.0	22.0	34.0	12.0	43.0	22.0	25.0	56.0	
Total Split (%)	18.4%	28.0%	17.6%	27.2%	9.6%	34.4%	17.6%	20.0%	44.8%	
Yellow Time (s)	3.2	3.7	3.2	3.7	3.0	3.9	3.2	3.0	3.9	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.2	-1.7	-1.2	-1.7	-1.0	-1.9	-1.2	-1.0	-1.9	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	None	None	C-Max	
Act Effect Green (s)	17.3	28.1	20.7	31.5	7.2	39.0	59.7	64.2	54.8	125.0
Actuated g/C Ratio	0.14	0.22	0.17	0.25	0.06	0.31	0.48	0.51	0.44	1.00
v/c Ratio	0.80	0.82	0.89	0.77	0.54	0.74	0.48	1.08	1.01	0.35

Intersection Summary

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 93 (74%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 50.9

Intersection Capacity Utilization 90.8%

Analysis Period (min) 15

Splits and Phases: 43: Broadway & Table Mesa Dr.

			
12 s	56 s	23 s	34 s
			
25 s	43 s	35 s	22 s

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	420	706	557	733	61	903	411	429	1731	578
v/c Ratio	0.80	0.82	0.89	0.77	0.54	0.74	0.48	1.08	1.01	0.35
Control Delay	64.1	54.3	68.2	46.6	75.1	42.9	8.8	102.4	59.8	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.1	54.3	68.2	46.6	75.1	42.9	8.8	102.4	59.8	0.6
Queue Length 50th (ft)	170	285	231	273	49	343	64	~331	~811	0
Queue Length 95th (ft)	217	334	#360	350	96	420	114	#539	#950	0
Internal Link Dist (ft)		438		2843		1401			2060	
Turn Bay Length (ft)	300		400		400		425	160		
Base Capacity (vph)	576	953	629	953	125	1220	862	398	1714	1665
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	0.73	0.74	0.89	0.77	0.49	0.74	0.48	1.08	1.01	0.35
Intersection Summary										
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.										
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.										

HCM 6th Signalized Intersection Summary - Bkgrd + Project (with Improvements) - PM Peak Hour 01/14/2021

43: Broadway & Table Mesa Dr.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	565	50	535	485	219	55	813	370	386	1558	520
Future Volume (veh/h)	365	565	50	535	485	219	55	813	370	386	1558	520
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		1.00	1.00		0.87	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	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
Adj Flow Rate, veh/h	420	649	57	557	505	0	61	903	411	429	1731	0
Peak Hour Factor	0.87	0.87	0.87	0.96	0.96	0.96	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	512	838	73	550	963		96	1276	739	437	1744	
Arrive On Green	0.13	0.23	0.22	0.14	0.25	0.00	0.05	0.32	0.32	0.17	0.44	0.00
Sat Flow, veh/h	3819	3625	318	3819	4031	0	1969	3928	1524	1969	3928	1752
Grp Volume(v), veh/h	420	351	355	557	505	0	61	903	411	429	1731	0
Grp Sat Flow(s),veh/h/ln	1910	1964	1979	1910	1964	0	1969	1964	1524	1969	1964	1752
Q Serve(g_s), s	13.4	20.9	21.0	18.0	13.9	0.0	3.8	25.2	8.8	20.4	54.8	0.0
Cycle Q Clear(g_c), s	13.4	20.9	21.0	18.0	13.9	0.0	3.8	25.2	8.8	20.4	54.8	0.0
Prop In Lane	1.00		0.16	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	512	454	457	550	963		96	1276	739	437	1744	
V/C Ratio(X)	0.82	0.77	0.78	1.01	0.52		0.63	0.71	0.56	0.98	0.99	
Avail Cap(c_a), veh/h	581	487	491	550	963		126	1276	739	437	1744	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.00	0.74	0.74	0.74	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.7	45.0	45.2	53.5	40.9	0.0	58.4	37.0	8.4	33.0	34.5	0.0
Incr Delay (d2), s/veh	7.2	6.2	6.3	39.4	0.2	0.0	1.9	2.5	2.2	38.1	19.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	10.9	11.0	11.6	6.7	0.0	1.9	12.2	3.7	13.9	29.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	51.2	51.4	92.9	41.1	0.0	60.2	39.5	10.6	71.1	54.4	0.0
LnGrp LOS	E	D	D	F	D		E	D	B	E	D	
Approach Vol, veh/h	1126			1062			1375			2160		
Approach Delay, s/veh	54.5			68.3			31.8			57.7		
Approach LOS	D			E			C			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	59.5	20.8	34.6	25.0	44.6	22.5	32.9				
Change Period (Y+Rc), s	5.0	5.9	* 5.2	* 5.7	5.0	5.9	* 5.7	* 5.7				
Max Green Setting (Gmax), s	7.0	50.1	* 18	* 28	20.0	37.1	* 17	* 29				
Max Q Clear Time (g_c+I1), s	5.8	56.8	15.4	15.9	22.4	27.2	20.0	23.0				
Green Ext Time (p_c), s	0.0	0.0	0.2	1.1	0.0	0.6	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay	52.8											
HCM 6th LOS	D											
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

*Signal Progression
Time-Space Diagrams*

DRAFT

