City of Louisville
COLORADO • SINCE 1878

Planning Commission

Agenda

March 13, 2025
City Hall, Council Chambers
749 Main Street
6:30 PM for Regular Meeting

Members of the public are welcome to attend and give comments remotely.

1) ***You can call in to +1 719 359 4580 or 833 928 4610 (toll free) Webinar ID # 899 0108 8931 Passcode 650368***
2) ***You can log in via your computer. Please visit the City's website here to link to the meeting:*** www.louisvilleco.gov/planningcommission

The Commission will accommodate public comments during the regular meeting. Anyone may also email comments to the Commission prior to the meeting at: planning@louisvilleco.gov

1. Call to Order
2. Roll Call
3. Approval of Agenda
4. Approval of Minutes (none available)
5. Public Comment on Items Not on the Agenda
6. New Business
    a. **Planned Unit Development Amendment – King Soopers Marketplace:** Consideration of Resolution 3 to approve a Planned Unit Development Amendment to allow a grocery store and gasoline service station at 1171 W Dillon Road.
7. Planning Commission Comments
8. Staff Comments

Persons planning to attend the meeting who need sign language interpretation, translation services, assisted listening systems, Braille, taped material, or special transportation, should contact the City Clerk's Office at 303 335-4536 or MeredythM@LouisvilleCO.gov. A forty-eight-hour notice is requested.

Si requiere una copia en español de esta publicación o necesita un intérprete durante la reunión, por favor llame a la Ciudad al 303.335.4536 o 303.335.4574.

9. Select Items Tentatively Scheduled for Future Meetings
    a. Comprehensive Plan Discussion (April 10)
10. Adjourn

ITEM: Case No. PUD-000530-2024

PLANNER: Matt Post, Senior Planner

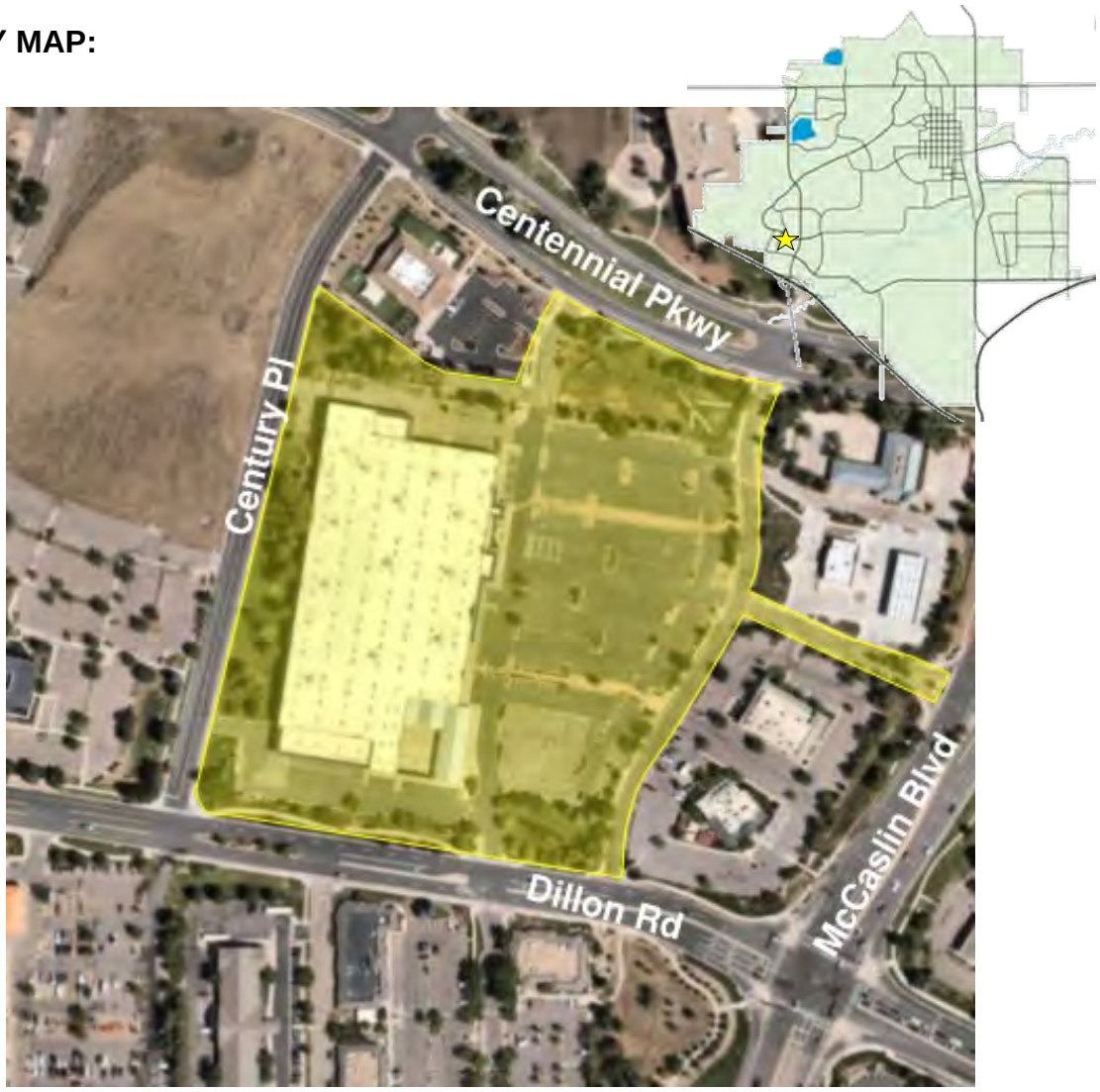
APPLICANT: Galloway and Company

OWNER: G&I XI 1171 W Dillon Rd JV, LLC

LOCATION: 1171 W Dillon Road

REQUEST: Approval of Resolution 3, Series 2025, recommending approval of a request for a Planned Unit Development (PUD) Amendment to allow a retail (grocery store) and gasoline service station use.

VICINITY MAP:

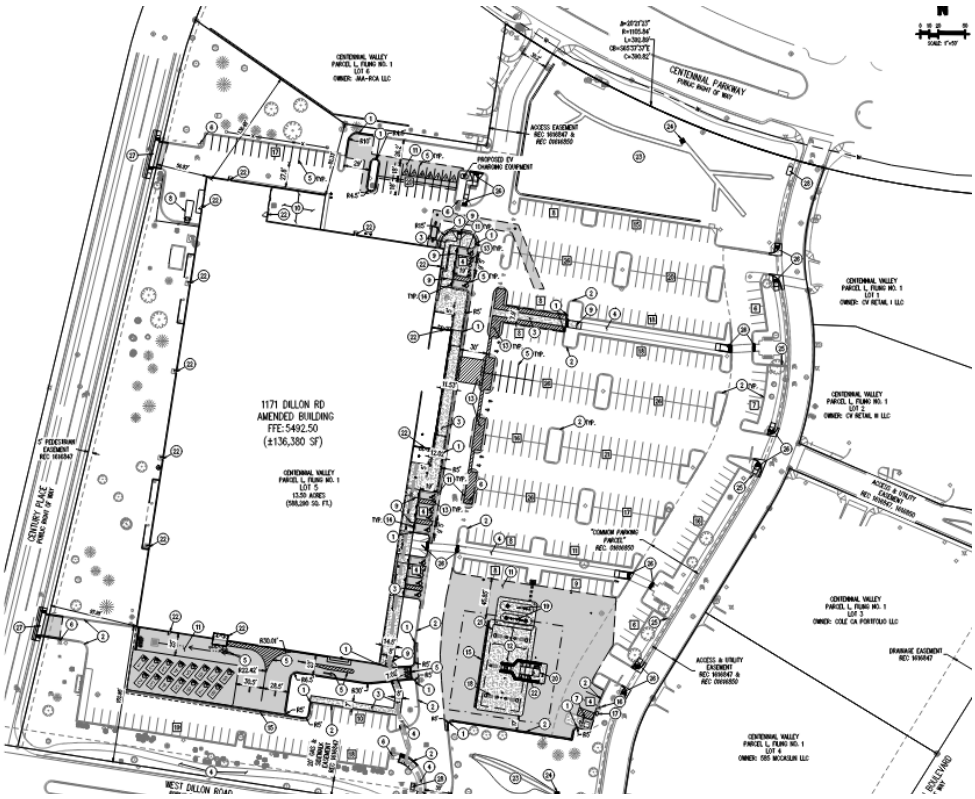


SUMMARY:
The applicant, Galloway and Company, is seeking approval of a Planned Unit Development (PUD) Amendment to allow a retail (grocery) and gasoline service station use at 1171 W Dillon Road.

BACKGROUND:
The existing building and site were formerly occupied by Lowe's HIW Inc. and were approved as part of the Centennial Valley, Parcel L, Lot 5 PUD, 1st Amendment, in March 2001. Lowe's ceased operations at this location in 2022, and the site has remained vacant since.

The subject property is located within the Planned Community Zone District – Commercial (PCZD-C) and falls under the regulations of the Centennial Valley General Development Plan (GDP). Originally approved in the early 1980s, the Centennial Valley GDP has undergone multiple amendments, the most recent in 2015, defining the land uses and densities within the area. Most of the remaining undeveloped land with the Centennial Valley GDP is designated for office, research, and corporate office development.

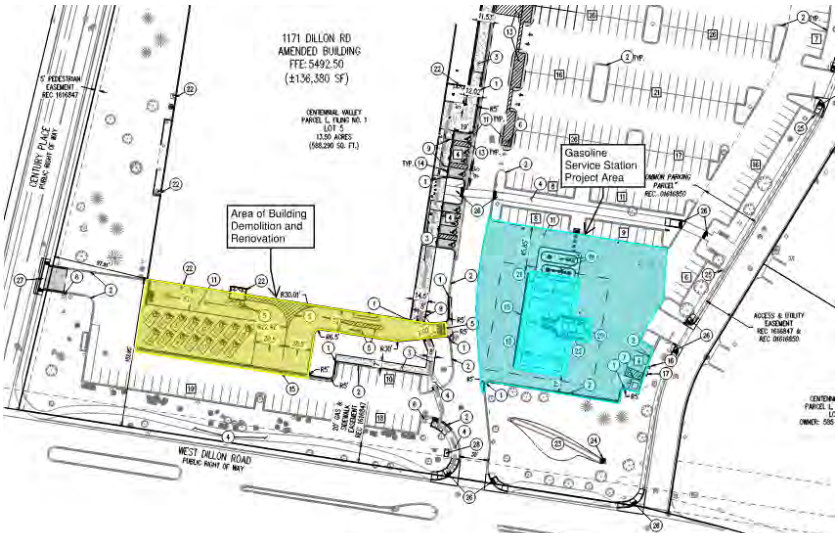
PROPOSAL:
The applicant is requesting approval of a PUD Amendment to allow the modification of the existing 151,867 square-foot commercial building to establish a grocery store and accessory gasoline service station use.



Site Plan

Occupying 13.5 acres, the site is bordered by Century Place to the west, Dillon Road to the south, and Centennial Parkway to the north. On the east side, four commercial pad sites are adjacent to the site, connected by a private access drive that leads to McCaslin Boulevard through a three-quarter movement, unsignalized intersection. Seven vehicle access points surround the site, three of which also provide access to the commercial pad sites to the east. In addition to the currently vacant commercial building, the site includes 514 parking spaces, pedestrian walkways, and two detention areas located on the north and south sides.

The PUD Amendment will include the demolition of portions of the south side of the building, reducing the total footprint by 15,127 square feet to a final total of 136,380 square feet. The building will be utilized as a grocery/retail store that will be occupied a King Soopers Marketplace. The demolition and subsequent reconstruction will support a customer pickup area and a pharmacy drive through, which will include parking spaces and a vehicle queuing lane with pedestrian and landscape improvements.



Areas of Proposed Improvements

As accessory to the primary retail use, a gasoline service station is proposed on the south side of the site in an existing parking area. Improvements related to the use will include a 5,400 square-foot canopy and service kiosk, and five pump islands with a total of ten gasoline service pumps. The addition of the gasoline service station will require the installation of level three direct current (DC) or better electric vehicle (EV) charging stations. Three EV charging stations are proposed with this application.

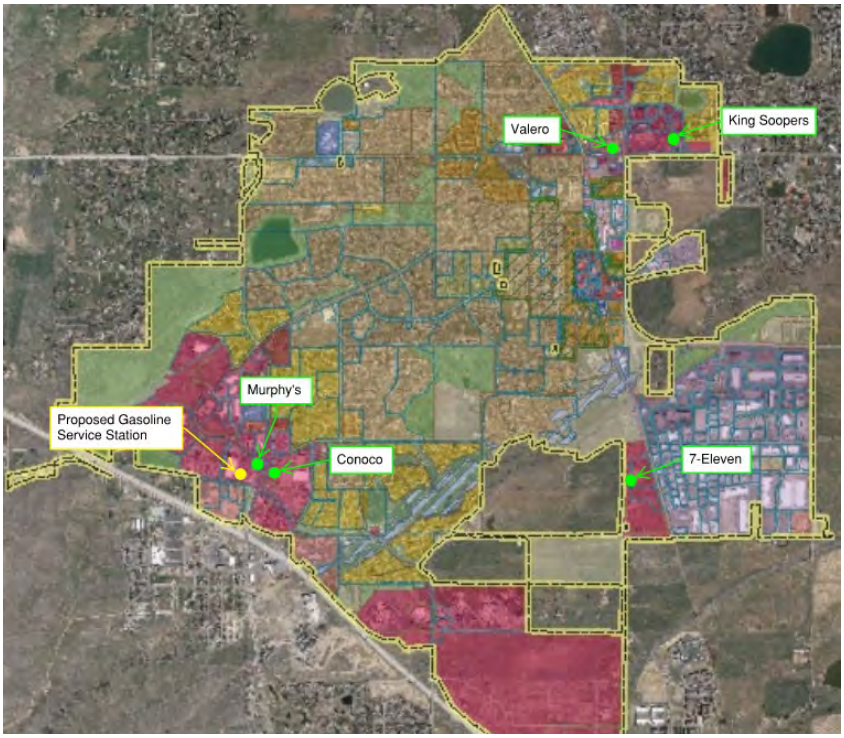
Other improvements proposed as part of this application include the addition of accessible parking spaces and associated striping, and new service and refuse areas on the west side of the building, which will include an architecturally compatible wall to screen the service use.

ANALYSIS:
Staff analysis includes a review of applicable Commercial Design Standards and Guidelines (CDDSG), Louisville Municipal Code (LMC) Title 17 policies, and review of the requested waivers against applicable criteria. The PUD review criteria are included as an appendix.

Land Use

Pursuant to LMC Sec. 17.72.090, the grocery store use is permitted as a retail business in the Planned Community Commercial zoning district. Under the same provision, a gasoline service station is permitted as an automobile service station, subject to prescribed performance standards, and may be established as a by-right use in the Planned Community Commercial zoning district.

Louisville Municipal Code (LMC) Sec. 17.16.340 limits the number of gasoline and automobile service stations in the City to six. However, this cap may be increased to seven if a station is proposed as accessory to a single-use retail center of at least 80,000 square feet. There are currently five gasoline service stations operating in the City of Louisville. The LMC requires a minimum spacing of 1,000 feet between stations, though this requirement can be waived if the station is accessory to a qualifying retail center. With this application, the total number of gasoline stations in the City would increase to six, and the large-scale retail component as a primary use would qualify the station for an exemption from the 1,000-foot spacing requirement.



Existing and Proposed Gasoline Service Stations within the City of Louisville

The establishment of a gasoline service station requires the installation of level three direct current (DC) or better electric vehicle (EV) charging stations in an amount equal to 20% of the total gasoline service pumps. With ten service pumps proposed, the applicant is required to provide two EV chargers. Three EV chargers are proposed with this application.

Parking

The existing site includes 514 vehicle parking spaces. With the addition of the gasoline service station and other improvements, the total number of parking spaces will be reduced to 448. According to Sec. 2.2.1.K of the CDDSG, a retail use requires 4.5 parking spaces per 1,000 square feet of gross floor area. Based on the proposed 136,380 square feet, this project would require 614 parking spaces. As part of this application, the applicant is requesting a parking reduction pursuant to LMC Sec.

17.20.080, considering the parking needs of non-dwelling users and expected variations in usage periods.

Architecture
The existing split-face CMU material will be painted a muted color in accordance with CDDSG standards, while modification to the building façade will include architecturally enhanced pilasters on the south and east elevations, and a new, prominent entry feature and storefront system concurrent with the existing building entrance that provides contrast with the surrounding wall plane.

Elevation Rendering

Landscape
Existing landscaping on the perimeter of the site will remain in place while the interior of the site, including the parking lot and walkways will come into compliance with current CDDSG landscape standards. Sixty six new trees will be planted to replace dead or dying trees, while 103 existing trees in healthy condition will remain. In addition to the existing, healthy shrubs on site, more than 1,000 Low-water shrubs and ornamental grasses will be planted in pedestrian areas, lot islands, and medians.

Lighting
The Lighting Plan proposed for this development provides adequate pole lighting in the parking lots and architecturally designed downcast lighting for the building facades. The wall lighting is situated above entry areas of the building. The proposed lighting is in compliance with the CDDSG.

Traffic
A traffic impact study was submitted and reviewed as part of this application. The study concluded that all signalized intersections in the study area will operate at acceptable overall Level of Service (LOS) "D" or better during peak hours, except Dillon Rd & McCaslin Blvd, which will reach LOS "E" during the long range (2045) weekday PM peak hour. Unsignalized intersection movements will maintain an acceptable LOS "D" or better.

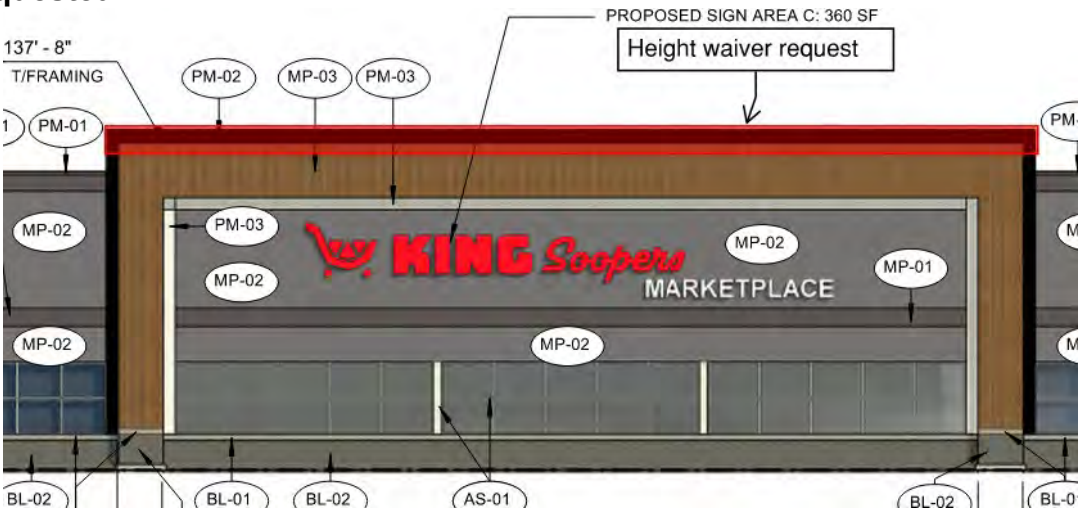
The study recommended that; 1): signal timings at Dillon Road and McCaslin Boulevard be optimized once the subject site is operational to improve overall operations at the intersection, and 2): that the eastbound left turn lane at Centennial Parkway and McCaslin Boulevard be extended to accommodate additional vehicle queuing. Public improvements to the median in Centennial Parkway are required to accommodate the increased length of the turn lane for additional queuing. Staff are working with the

applicant address this item, and will finalize a developer agreement to be approved by the City Council.

Waivers and Parking Reduction

The applicant has requested two waivers and a parking reduction to facilitate redevelopment of this site.

The first waiver request is for relief from the maximum height of 35 feet in commercial areas. As part of the redesign of the main entrance, the applicant has proposed a parapet feature at 38' 7" tall. The feature is just over 100 feet long on a building more than 500 feet in length. The requested waiver supports the adaptive reuse of the building and contributes to the enhanced architectural design of the structure, while minimizing impact on adjacent properties and public streets. **Staff support the waiver as requested.**



Height Waiver Exhibit

The second waiver request is for relief from the sign code for wall signs and electronic message signs for single-tenant commercial users. Proposed signage details are included in the attached PUD. In commercial areas, single-tenant users are limited to:

- A maximum of two wall signs per building, located on either the primary, secondary, or alternative frontage.
- A maximum wall sign area of 100 square feet on a primary frontage, and a maximum area of 100 square feet on a secondary or alternative frontage.
- A maximum wall sign height of three feet.
- Electronic message signs on freestanding signs only.

The applicant is requesting the following sign waivers:

- A total of five wall signs to be located on primary, secondary, and alternative frontages.

- Maximum wall sign areas as identified in the attached PUD.
- Electronic message sign on the gasoline service station canopy.

Sign waiver requests shall be reviewed against the criteria provided in Sec. 2.3 of Sign Code. Staff's analysis of the sign waiver request is provided below:

a. The proposed sign(s) shall encourage excellence in design, exhibit improved creativity, promote community aesthetics, and be appropriate with the character of the area.

   The proposed signs enhance the building's design with high-quality materials and a cohesive aesthetic that aligns with the commercial character of Centennial Valley. They balance visibility and architectural enhancement, ensuring clear messaging and wayfinding without visual clutter. The signage provides an updated and professional appearance. **Staff find the proposal meets this criterion.**

b. The proposed sign(s) shall be compatible with the color, materials, and design of the on-site building(s).

   The proposed signs use colors, materials, and design elements that complement the building's façade, while defining the users brand. They align with the existing architectural finishes, ensuring a cohesive and integrated appearance. The signage enhances the overall aesthetic without overpowering the structure's design. **Staff find the proposal meets this criterion.**

c. The proposed signs(s) shall be scaled and located in a manner that is compatible with the scale of the lot and the massing of the building(s), with consideration of legibility of copy area.

   The proposed signs are appropriately scaled to complement the building's massing and lot size - the building is 136,380 square feet and located on a 13.5 acre property, behind existing commercial pad sites. The sign placement ensures visibility without overwhelming the facade, maintaining a balanced proportion. The copy area is designed for clear legibility while preserving architectural integrity of the building. **Staff find the proposal meets this criterion.**

d. The proposed sign(s) are otherwise in conformance with the regulations of this chapter and applicable design guidelines respecting the size, height, location, design, and appearance of the sign(s) involved,

   The proposed signs align with the intent of the applicable design guidelines, maintaining appropriate size, height, and placement for the size of the building and site. While a waiver is requested, the signs maintain the intent of the sign code, ensuring a visually cohesive and appropriately scaled design. **Staff find the proposal meets this criterion.**

As part of this application, the applicant is requesting a parking reduction pursuant to LMC Sec. 17.20.080. The CDDSG require 4.5 spaces per 1,000 square feet of retail area, which would require 614 parking spaces on this site. The applicant is proposing 448 total parking spaces. The proposed spaces are sufficient to meet the grocery store's demand, given its hours of operation and customer flow. Additionally, evolving shopping habits, including curbside pickup and delivery services, reduce on-site parking demand. A reduction in required parking will support efficient land use, minimize unnecessary impervious surfaces, and align with sustainability goals while maintaining adequate access for patrons and employees. **Staff support the request for a parking reduction.**

PUBLIC COMMENTS:
No public comments have been received as of the date of this report.

STAFF RECOMMENDATION:
Staff recommend approval of Resolution 3, Series 2025, recommending approval of a Planned Unit Development (PUD) Amendment to allow a retail and gasoline service station with the following conditions:

- Applicant will provide public improvement plans and finalize a development agreement to complete the storage extension of eastbound turn lanes in Centennial Parkway.
- Applicant will apply "Parking Reduction Request" notes to the cover sheet of the PUD.
- Applicant will apply waiver language on the cover sheet of the PUD detailing the full scope and extent of requested sign waiver.
- Applicant will work with staff to finalize the location of electric vehicle charging stations as required with the establishment of a gasoline service station.

ATTACHMENTS:
A. Resolution 3, Series 2025
B. Application Materials
C. Traffic Impact Study

APPENDIX: PUD Criteria Analysis

Criteria 17.28.120 (A)	Finding	Narrative
1. An appropriate relationship to the surrounding area.	Compliant	The design is appropriate for the area and permitted in the PCZD-C zone district. The site and building design are compatible with the CDDSG
2. Circulation in terms of the internal street circulation system, designed for the type of traffic generated, safety, separation from living areas, convenience, access, and noise and exhaust control. Proper circulation in parking areas in terms of safety, convenience, separation and screening.	Compliant	The application provides for adequate and safe internal circulation. The City's engineering division and Fire District have reviewed the proposal and have no concerns.
3. Consideration and provision for low and moderate-income housing	Not Applicable	Commercial project
4. Functional open space in terms of optimum preservation of natural features, including trees and drainage areas, recreation, views, density relief and convenience of function	Compliant	The PUD complies with landscape requirements in the CDDSG and preserves existing, healthy trees.
5. Variety in terms of housing types, densities, facilities and open space	Not Applicable	Commercial project.
6. Privacy in terms of the needs of individuals, families and neighbors	Not Applicable	Commercial Project
7. Pedestrian and bicycle traffic in terms of safety, separation, convenience, access points of destination and attractiveness	Compliant	The PUD provides increased pedestrian walkways and paths.
8. Building types in terms of appropriateness to density, site relationship and bulk	Compliant	The application is compatible with surrounding development and compliant with the CDDSG, with waivers.
9. Building design in terms of orientation, spacing, materials, color, texture, storage, signs and lighting	Compliant	The PUD complies with the CDDSG
10. Landscaping of total site in terms of purpose, such as screening, ornamental types used, and materials used, if any; and	Compliant	The PUD complies with landscape requirements in the CDDSG

Criteria 17.28.120 (A)	Finding	Narrative
maintenance, suitability and effect on the neighborhood		
11. Compliance with all applicable development design standards and guidelines and all applicable regulations pertaining to matters of state interest, as specified in chapter 17.32	Compliant	The PUD complies with all applicable development design standards and guidelines with the proposed waivers.
12. None of the standards for annexation specified in chapter 16.32 have been violated	Not applicable	The property was previously annexed.
13. Services including utilities, fire and police protection, and other such services are available or can be made available to adequately serve the development specified in the final development plan	Compliant	The Public Works Department and Louisville Fire District reviewed the PUD and it meets their requirements.

Criteria 17.28.120 (B)	Finding	Narrative
1. Development shall be in accordance with the adopted elements of the comprehensive development plan of the city, and in accordance with any adopted development design standards and guidelines.	Compliant	The PUD complies with the adopted elements of the comprehensive plan, and the adopted development design standards and guidelines.
2. No structures in a planned unit development shall encroach upon the floodplain. Existing bodies of water and existing stream courses shall not be channelized or altered in a planned unit development plan.	Compliant	The property is not located in a floodplain, nor are there any existing bodies of water in the area.
3. No occupied structure shall be located on ground showing severe subsidence potential without adequate design and study approved specifically by the city.	Compliant	There is no known subsidence on the property.
4. The proposal should utilize and preserve existing vegetation, land forms, waterways, and historical or archeological sites in the best manner possible. Steep slopes	Compliant	The PUD is preserving all healthy trees and shrubs on the site while providing additional plantings.

Criteria 17.28.120 (B)	Finding	Narrative
and important natural drainage systems shall not be disrupted. How the proposal meets this provision, including an inventory of how existing vegetation is included in the proposal, shall be set forth on the landscape plan submitted to the city.		
5. Visual relief and variety of visual sitings shall be located within a development in the overall site plan. Such relief shall be accomplished by building placements, shortened or interrupted street vistas, visual access to open space and other methods of design.	Compliant	The PUD complies with site planning requirements of the CDDSG.
6. Open space within the project shall be located in such a manner as to facilitate pedestrian use and to create an area that is usable and accessible to residents of surrounding developments.	Compliant	The proposal includes pedestrian access to open space areas
7. Street design should minimize through traffic passing residential units. Suggested standards with respect to paving widths, housing setbacks and landscaping are set forth in public works standards of the city and applicable development design standards and guidelines. The system of streets, including parking lots, shall aid the order and aesthetic quality of the development.	Compliant	The PUD complies with requirements of the CDDSG
8. There shall exist an internal pedestrian circulation system separate from the vehicular system such that allows access to adjacent parcels as well as to parks, open space or recreation facilities within the development. Pedestrian links to trail systems of the city shall be provided.	Compliant	The PUD complies with bicycle and pedestrian requirements in the CDDSG
9. The project and development	Compliant	The PUD proposes retaining

Criteria 17.28.120 (B)	Finding	Narrative
should attempt to incorporate features which reduce the demand for water usage.		mature landscaping and planting new, low-water plants.
10. Landscape plans shall attempt to reduce heating and cooling demands of buildings through the selection and placement of landscape materials, paving, vegetation, earth forms, walls, fences, or other materials.	Compliant	The proposal includes 66 new trees in addition to over 100 existing trees.
11. Proposed developments shall be buffered from collector and arterial streets. Such buffering may be accomplished by earthen berms, landscaping, leafing patterns, and other materials. Entrance islands defining traffic patterns along with landscaping shall be incorporated into entrances to developments.	Not applicable	The PUD complies with the requirements of the CDDSG
12. There shall be encouraged the siting of lot arrangement, building orientation and roof orientation in developments so as to obtain the maximum use of solar energy for heating.	Compliant	The PUD provides unshaded roof structures so that solar energy may be utilized in the future.
13. The overall PUD shall provide a variety of housing types.	Not applicable	Commercial project
14. Neighborhoods within a PUD shall provide a range of housing size.	Not applicable	Commercial project
15. Architectural design of buildings shall be compatible in design with the contours of the site, compatible with surrounding designs and neighborhoods, shall promote harmonious transitions and scale in character in areas of different planned uses, and shall contribute to a mix of styles within the city.	Compliant	The PUD proposes architecture that is compatible in design with the surrounding area and meets the standards of the CDDSG.

RESOLUTION NO. 3
SERIES 2025

A RESOLUTION RECOMMENDING APPROVAL OF A PLANNED UNIT DEVELOPMENT AMENDMENT TO ALLOW A GROCERY STORE AND GASOLINE SERVICE STATION USE AT 1171 W DILLON ROAD.

WHEREAS, there has been submitted to the Louisville Planning Commission an application for a planned unit development amendment to allow the redevelopment of an existing commercial site to allow a grocery store and gasoline service station use located at 1171 W Dillon Rd; Lot 5, Centennial Valley Parcel L Filing No. 1; and

WHEREAS, City staff have reviewed the information submitted and found that, with the two requested waivers, a parking reduction, and applied conditions, the application complies with the Louisville zoning regulations and other applicable sections of the Louisville Municipal Code; and

WHEREAS, the Planning Commission have considered the application at a duly noticed public hearing on March 13, 2025 where evidence and testimony where entered into the record.

NOW THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Louisville, Colorado does hereby recommend approval of a planned unit development amendment to allow the redevelopment of an existing commercial site to allow a grocery store and gasoline service station use at 1171 W Dillon Road.

PASSED AND ADOPTED this 13th day of March, 2025.

By: _____
Steve Brauneis, Chair
Planning Commission

Attest: _____
Cullen Choi, Secretary
Planning Commission

City of Louisville
COLORADO • SINCE 1878

Community Development Department

749 Main Street • Louisville CO 80027 • 303.335.4592 • www.louisvilleco.gov

Development Review Application Form

Please complete this form and include it with the submittal documents for your development review application. Applications will not be processed until all required information is provided to the satisfaction of the City of Louisville Planning Department.

Property Information

Common Address(es): 1171 Dillon Rd, Louisville, CO 80027

Legal Description:

Lot Lot 5 Block _____ Subdivision Centennial Valley, Parcel L, Filing No 1

Lot Area: 588,290 Sq. Ft. or 13.5 Acres

LAND USE PROCESS (check all that apply)

- ☐ Annexation
- ☐ Concept Plan
- ☐ Easement Vacation
- ☐ Oil and Gas
- ☐ General Development Plan (GDP)
  - ☐ Amendment
  - ☐ New GDP
- ■ Planned Unit Development (PUD)
  - ■ Amendment
  - ☐ Preliminary
  - ☐ New PUD
- ☐ Rezoning
- ☐ Special Review Use (SRU)
  - ☐ Amendment
  - ☐ New SRU
- ☐ Subdivision
  - ☐ Final or Replat
  - ☐ Preliminary Plat
- ☐ Temporary Use Permit
- ☐ Variance
- ☐ Vested Property Right
- ☐ Wireless Facility
- ☐ Other: _____

PROJECT DESCRIPTION:

Tenant finish to convert the existing building into a grocery store with minor modifications to include a drive-thru pharmacy and an online order pickup. Proposing a new fuel station with seven multi-product dispensers, kiosk, and canopy.

Property Owner Information

Name: _____ Entity (if applicable) _____

Address: _____

Phone: _____ Email: _____

Application Representative Information

Name: Dan Kraus Entity (if applicable) Galloway and Company

Address: 5500 Greenwood Plaza Blvd, Suite 200, Greenwood Village, CO 80111

Phone: 303-962-8428 Email: dankraus@gallowayus.com

Certification/Signature

I certify that the information I have submitted is true and correct to the best of my knowledge and in filing the application and submittal documents, I am acting as and/or with the knowledge and consent of those persons who are owners of the subject property or are parties to this application.

_____ Dan Kraus _____

Signature* Print Name Date

***If acting as a representative/agent of the owner, include written authorization from the owner that certifies the agent's right to submit this application**

Galloway
5500 Greenwood Plaza Blvd, Suite 200
Greenwood Village, CO 80111
303.770.8884 • GallowayUS.com

January 29, 2025

PUD-000530-2024
PROJECT NARRATIVE
King Soopers 142
1171 W. Dillon Rd.
Louisville, CO 80027

EXISTING SITE:

The existing site is included within the Centennial Valley GDP and previously approved Centennial Valley Lowes' PUD Amendment, near the intersection of W. Dillon Road and McCaslin Boulevard at 1171 W. Dillon Road. This site is zoned Planned Community Commercial and the zoning will remain with this proposal. The existing property is a single platted parcel approximately 588,290 SQFT (13.5 acres) with an existing vacant commercial building approximately 151,867 SQFT. All pedestrian and vehicular access points to S Centennial Parkway, McCaslin Boulevard, W Dillon Road, and Century Place will remain. Existing water quality and detention will remain without change unless the PUD Amendment review process identifies necessary improvements to facilitate the proposed site design. Existing landscaping, irrigation, and lighting will be analyzed to identify what needs to be replaced to meet previously approved PUD Amendments. All utilities currently connected to the existing building are anticipated to remain.

PROPOSED PUD AMENDMENT PROCESS:

Louisville Community Development Staff determined the proposed tenant finish and new fuel station with kiosk will require a PUD Amendment application. The proposed grocery store and fuel service stations are both permitted uses in Planned Community Commercial Zoning, Centennial Valley GDP, and Centennial Valley Lowe's PUD Amendment, see Louisville Code Details section of Narrative. This PUD Amendment will follow the City of Louisville PUD Amendment application process. PUD Amendment documents are created in accordance with Transportation Master Plan; Comprehensive Master Plan; City of Louisville Sign Code, Sustainability Action Plan; CDDSG; Dark Sky Lighting Practices; Chapter 9 – Special Guidelines for Large Retail Establishments; and Park, Recreation, Open Space, and Trails Comprehensive Master Plan.

The first Building Permit submittal will be uploaded after the first PUD Amendment submittal. The Building Permit approval date is targeting the PUD Amendment City Council approval date to expedite the Building Permit review.

PUD AMENDMENT DETAILS:

This proposal is to amend the existing approved Centennial Valley Lowes' PUD Amendment at 1171 W Dillon Road with the following:

1. Exterior and interior tenant finish of existing building.

2. New fuel station with canopy, kiosk, seven (7) multi-product dispensers (MPD) that equal 14 pumps, three (3) Installed EV parking spaces, two (2) Ready EV parking spaces, and two (2) Capable EV parking spaces.

3. Replace missing, damaged, and dead elements approved in previous PUD Amendments which may include landscaping, site lighting, and parking lot striping.

4. Signage Waiver Request
    a. Proposed Waiver Request
        1. A waiver is requested to permit one (1) electronic message center sign for the display of variable pricing on the north elevation of the fuel station canopy, directed to Kings Soopers customers. Having electronic message center signs displaying variable fuel station pricing for King Soopers

customers is part of the prototypical King Soopers corporate architectural design and brand identity. The requested fuel canopy electronic message center sign is in addition to the electronic message centers already permitted to display fuel station variable pricing on freestanding signs.

b. Proposed Waiver Details:
    1. The proposed fuel canopy electronic message center sign can be proposed in addition to the electronic message centers and canopy signs already permitted for Commercial sites by the City of Louisville Sign Code Section 3 and Section 4.
    2. The proposed electronic message center sign shall meet the specific standards in the City of Louisville Sign Code Section 3.4.2.
    3. The proposed electronic message center sign shall not replace the fuel station freestanding signs with electronic message center signs as permitted in the City of Louisville Sign Code Section 3.4 Electronic Message Centers.
    4. The proposed electronic message center sign shall not replace the fuel station canopy signs as permitted in the City of Louisville Sign Code Section 4.3.a. Canopy Signs in Vehicular Areas.
b. Proposed Waiver Justification:
    1. Street frontage for this site is not directly on McCaslin Blvd, it is one (1) lot behind McCaslin Blvd.
    2. The two (2) freestanding monument signs permitted by the City of Louisville Sign Code are proposed along the Primary and Secondary Street Frontages. The Primary Frontage sign is proposed at the northeast corner of the existing detention pond, near the intersection of Centennial Parkway and the existing internal access drive. The Secondary Frontage sign is proposed along Dillon Road at the entrance between the existing building and proposed fuel station. Both freestanding signs will be visible from the Primary and Secondary Street frontages with permitted electronic message center signs displaying fuel station variable pricing.
    3. The requested electronic message center sign shall be proposed on the north elevation of the fuel station canopy for the greatest visibility to King Soopers customers, as required by King Soopers architectural design and brand identity.
    4. No change is requested for the two (2) signs permitted on the south and east canopy elevations.
    5. No change is requested for the freestanding monument signs permitted on the Primary and Secondary Street Frontages.

5. Architectural Design Waiver Request
    a. Proposed Waiver Request
        1. An increase in the approved maximum parapet height is being requested at the re-designed front entry elevation to a new height of 37’-8” above the grade plane. This increase in height is needed to aid in screening the new and existing roof top equipment for the proposed grocery store. Additionally, the parapet height at the entry of the building is part of the prototypical King Soopers corporate architectural design and is included to maintain brand identity.
    b. Proposed Waiver Details:
        1. The proposed building shall meet all Architectural Design Requirements as permitted by the City of Louisville Code.
    c. Proposed Waiver Justification:
        1. King Soopers intends to re-use as much of the existing building as possible. The previous tenants were a different use with different MEP and roof equipment demands.

2. To re-use the existing building, King Soopers needs to propose a taller parapet to meet the MEP and roof equipment screening intent as required by the City of Louisville Code.
3. The proposed front elevation height, as measured from the average grade plane, is greater than permitted when the parapet height is increased to screen the MEP and roof equipment as required by the City of Louisville Code.

SITE PLAN DETAILS:

Existing building and site are to remain with the proposed tenant revision to include:

1. East and South façade improvements to existing building
2. Interior improvements to existing building
3. Add trash compactor at northwest corner of existing building, adjacent to current loading docks and truck access
4. Add grease interceptor at northeast corner of existing building, tying into existing sewer
5. Add drive thru pharmacy window at southeast corner of existing building for greatest visibility
6. Add online order pickup area at southwest corner of existing building
7. Replace raised curb parking islands with striped parking islands adjacent to front entrance to accommodate more efficient parking and safer customer access
8. Replace existing parking lot island with proposed parking spaces along north property line
9. Add fuel service station including one (1) canopy, one (1) kiosk, and seven (7) MPD which equal 14 pumps.
10. Add three (3) Installed EV, two (2) Ready EV, and two (2) Capable EV parking spaces.

Grading and Drainage Plan, with an accompanying Drainage Report, are included with the first PUD Amendment submittal package due to the proposed revisions disturbing more than one acre. The Civil Team is currently investigating the existing water quality and detention facilities to determine if they can facilitate the proposed flows without redesign or reconstruction.

Existing utility connections are anticipated to remain without change or minor modifications to the existing building. One water, storm sewer, and gas connection are proposed from the existing building to the proposed fuel service station.

LOUISVILLE CODE DETAILS:

Comments provided by Matt Post after the Pre-Application meeting confirm the gas station offset requirement is waived for this proposal per Louisville Municipal Code:

- *Any new gasoline or automobile service station use shall be spaced a minimum of 1,000 feet, as measured from property boundaries, from the nearest existing gasoline or automobile service station. The spacing requirement may be waived if the proposed gasoline or automobile service station is proposed as an ancillary use to a single-use retailer of more than 80,000 square feet.*
- *Any new gasoline or automobile service station shall provide level three direct current (DC) or better electric vehicle charging stations in an amount equal to 20 percent of the number of gasoline pumps installed, rounded to the nearest whole number. These charging stations may be credited against, but not fully replace, the minimum total number of EV installed, ready, and capable stations required under LMC Sec. 17.20.170*

Comments provided by Matt Post after the Pre-Application meeting confirm grocery store and fuel service station are permitted uses per Louisville Municipal Code:

- *The grocery store is considered a retail use and is permitted in the underlying GDP and within the Planned Community Commercial zoning district pursuant to LMC Sec. 17.72.090.*
- *A gasoline service station may be permitted as an automobile service use in the Planned Community Commercial zoning district pursuant to LMC Sec. 17.72.090. In accordance with LMC Sec. 17.16.340, the number of gasoline or automobile service stations within city shall be*

> *limited to six. The limitation may be increased to seven if approved through a land use application for a single-use retailer greater than 80,000 square feet that includes a gasoline or automobile service station use as ancillary or accessory to the retail center. There are five currently operational gasoline service stations in the City of Louisville.*

Impact fees are not anticipated at this time per correspondence received from Matt Post on 11/13/2024. The Building Official will formally determine if impact fees need to be assessed. The design team anticipates receiving confirmation if impact fees are required with the first PUD Amendment application comments.

Sincerely,
GALLOWAY

Dan Kraus
Development Services Manager
(303) 962-8428
DanKraus@GallowayUS.com

CENTENNIAL VALLEY PARCEL L PUD, 5TH AMENDMENT

PARCEL L, LOT 5, FILING NO.1,
CASE #: PUPD-000530-2024

APPLICANT/DEVELOPER

KING SOOPERS, INC.
65 TEJON ST
DENVER, CO 80223
TEL: (303) 778-3120
CONTACT: REBECCA MULLENIX

ENGINEER

GALLOWAY & COMPANY, INC.
5500 GREENWOOD PLAZA BLVD SUITE 200
GREENWOOD VILLAGE, CO 80111
TEL: (303) 770-8884
CONTACT: JOE PARK, PE

ARCHITECT

NAOS
4949 S SYRACUSE STREET, SUITE 460
DENVER, CO 80237
TEL: (303) 759-5777
CONTACT: MARC BREETZ

LANDSCAPE ARCHITECT

GALLOWAY & COMPANY, INC.
5500 GREENWOOD PLAZA BLVD SUITE 200
GREENWOOD VILLAGE, CO 80111
TEL: (303) 770-8884
CONTACT: JON ROMERO, PLA

SURVEYOR

GALLOWAY & COMPANY, INC.
1155 KELLY JOHNSON BLVD., SUITE 305
COLORADO SPRINGS CO 80920
TEL: (719) 900-7220
CONTACT: BRIAN DENNIS, PLS

PHOTOMETRICS

GALLOWAY & COMPANY, INC.
5500 GREENWOOD PLAZA BLVD SUITE 200
GREENWOOD VILLAGE, CO 80111
TEL: (303) 770-8884
CONTACT: JIM GALLOWAY

SITE DATA TABLE

	REQUIRED	EXISTING[1]	PROPOSED
ZONING		PCZD/C	PCZD/C
TOTAL SITE AREA	588,290	588,290	588,290
SITE COVERAGE	70% MAX/SQFT MAX	74.3%	68.0%
PARKING		83,268	72,846
BUILDING		151,507	136,380
DRIVEWAY		202,515	190,690
TOTAL:	411,803	437,290	399,916
LANDSCAPE COVERAGE	30% MAX/SQFT MAX	25.7%	32.0%
LANDSCAPE AREA	176,487	150,992	163,127
HARDSCAPE AREA		INCLUDED IN THE DRIVEWAY EST.	25,251
TOTAL:		150,992	188,378
BUILDING HEIGHT	35' MAX.	33'-4"	33'-4"
SETBACKS			
NORTH	50' MIN.	82'	82'
WEST	40' MIN.	57'	57'
SOUTH	50' MIN.	108'	152'
EAST (MCCASLIN PKWY)	50' MIN.	718'	718'
EAST (INTERNAL DRIVE)	10' MIN.	293'	296'
PARKING SPACES			
STANDARD	4.5/1000 SQFT = 613	502	436
ACCESSIBLE		12	12
EV. INSTALLED (LEVEL 3 DC OR BETTER)	5%	N/A	3
EV. READY	10%	N/A	2
EV. CAPABLE	10%	N/A	2
BYCICLE	1/20 PARKING SPACES	26	23
PARKING SETBACKS			
NORTH	25' MIN.	34'	34'
WEST	15' MIN.	44'	44'
SOUTH	25' MIN.	40'	40'
EAST (MCCASLIN PKWY)	25' MIN.	363'	363'
EAST (INTERNAL DRIVE)	10' MIN.	24'	24'

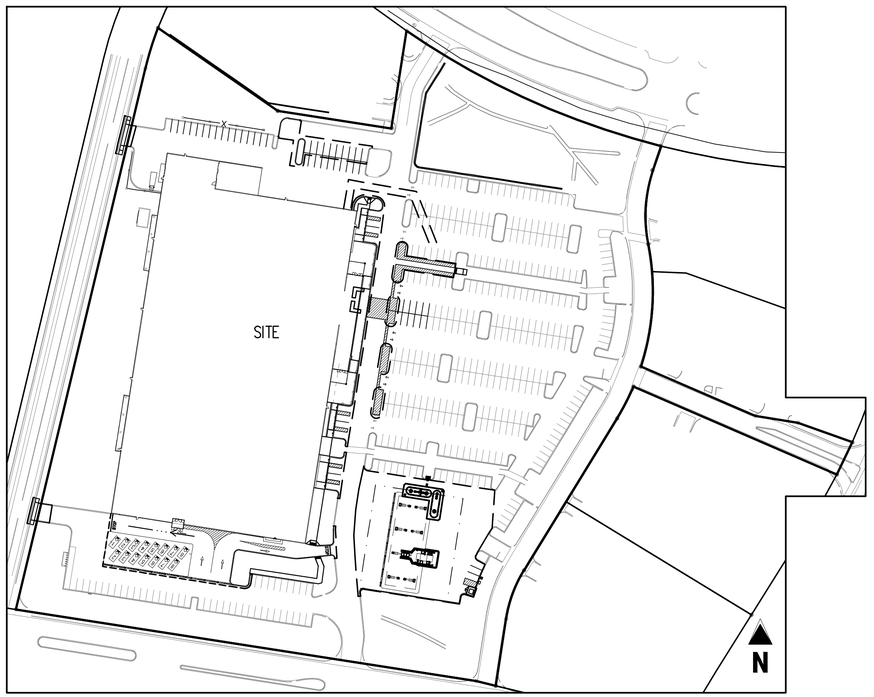
[1]VALUES ESTIMATED FROM PREVIOUS PUD AMENDMENTS AND SURVEY.

PUD AMENDMENT WAIVER REQUEST

1. ARCHITECTURAL WAIVER REQUEST – PARAPET HEIGHT
   AN INCREASE IN THE APPROVED MAXIMUM PARAPET HEIGHT IS BEING REQUESTED AT THE RE DESIGNED FRONT ENTRY ELEVATION TO A NEW HEIGHT OF 37'-8" ABOVE THE GRADE PLANE. THIS INCREASE IN HEIGHT IS NEEDED TO AID IN SCREENING OF THE NEW AND EXISTING ROOF TOP EQUIPMENT FOR THE PROPOSED GROCERY STORE. ADDITIONALLY, THE PARAPET HEIGHT AT THE ENTRY OF THE BUILDING IS PART OF THE PROTOTYPICAL KING SOOPERS CORPORATE ARCHITECTURAL DESIGN AND IS INCLUDED TO MAINTAIN BRAND IDENTITY.

2. SIGNAGE WAIVER REQUEST – ELECTRONIC MESSAGE CENTER SIGN ON FUEL CANOPY
   A WAIVER IS BEING REQUESTED TO PERMIT ONE (1) ELECTRONIC MESSAGE CENTER SIGN FOR THE DISPLAY OF VARIABLE PRICING ON THE NORTH ELEVATION OF THE FUEL STATION CANOPY. KING SOOPERS DELIBERATELY PLACES ELECTRONIC MESSAGE CENTER SIGNS TO DISPLAY VARIABLE FUEL PRICING TO THEIR CUSTOMERS AS PART OF THE PROTOTYPICAL KING SOOPERS CORPORATE ARCHITECTURAL DESIGN AND BRAND IDENTITY. THE REQUESTED FUEL CANOPY ELECTRONIC MESSAGE CENTER SIGN IS IN ADDITION TO THE FUEL CANOPY SIGNS PERMITTED ON EACH STREET FRONTAGE AND ELECTRONIC MESSAGE CENTER SIGNS PERMITTED TO DISPLAY FUEL STATION VARIABLE PRICING ON FREESTANDING SIGNS AS OUTLINED IN THE CITY OF LOUISVILLE SIGN CODE.

VICINITY MAP
0 100 300 600
SCALE: 1"=600'



VICINITY MAP
0 20 50 100
SCALE: 1"=100'

SHEET INDEX	
SHEET NO.	SHEET TITLE
1	COVER
2	SITE PLAN
3	BUILDING ELEVATIONS
4	BUILDING ELEVATIONS
5	RENDERED PERSPECTIVE
6	GRADING PLAN
7	UTILITY PLAN
8	PUD, 4TH AMENDMENT – OVERALL LANDSCAPE
9	PUD, 4TH AMENDMENT – LANDSCAPE PLAN
10	PUD, 4TH AMENDMENT – LANDSCAPE PLAN
11	PUD, 4TH AMENDMENT – LANDSCAPE PLAN
12	PUD, 4TH AMENDMENT – LANDSCAPE DETAILS
13	OVERALL LANDSCAPE PLAN
14	LANDSCAPE PLAN
15	LANDSCAPE PLAN
16	LANDSCAPE PLAN
17	LANDSCAPE NOTES
18	LANDSCAPE DETAILS
19	PHOTOMETRIC PLAN

BENCHMARK

NGS BENCHMARK P-453, LOCATED 3.06 KM NORTHWEST OF THE INTERCHANGE OF US 36 AND INTERLOCKEN LOOP/STORAGE TECH DRIVE, IN COLORADO DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY.

NAVD88 ELEVATION: 5508.96

LEGAL DESCRIPTION

LOT 5, CENTENNIAL VALLEY PARCEL L, FILING NO. 1, ACCORDING TO THE PLAT THEREOF RECORDED AT RECEPTION NUMBER 1616847, CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO.

PROJECT DESCRIPTION

TENANT FINISH TO CONVERT THE EXISTING BUILDING INTO A GROCERY STORE WITH MINOR MODIFICATIONS TO INCLUDE A DRIVE-THRU PHARMACY AND AN ONLINE ORDER PICKUP. PROPOSING A NEW FUEL STATION WITH SEVEN MULTI-PRODUCT DISPENSERS, KIOSK, AND CANOPY.

CITY OF LOUISVILLE GENERAL NOTE

THE CITY OF LOUISVILLE IS NOT RESPONSIBLE FOR DAMAGE TO, OR REPAIR OF, MONUMENT SIGNS, PAVEMENT SURFACES, OR LANDSCAPING CAUSED DURING REPAIR OR MAINTENANCE OF UTILITIES LOCATED WITHIN PUBLIC UTILITY EASEMENTS.

PREVIOUS PUD AMENDMENTS

1. EXISTING PUD DEVELOPMENT PLAN PREPARED BY LANCE, MUELLER & ASSOCIATES, INCLUDING "SITE PLAN" LAST REVISED ON 06/11/1996.
2. EXISTING PUD DEVELOPMENT PLANS PREPARED BY DHM, INCLUDING "LANDSCAPE PLANS" L1 AND L2, LAST REVISED ON 05/10/1996.
3. EXISTING PUD DEVELOPMENT PLANS PREPARED BY APD ENGINEERING, INCLUDING "OVERALL PUD PLAN" LAST REVISED ON 12/14/2005.
4. EXISTING PUD DEVELOPMENT PLANS PREPARED BY WARE MALCOMB, INCLUDING "OVERALL PUD PLAN" LAST REVISED ON 03/21/2024.

OWNERSHIP SIGNATURE BLOCK

THE UNDERSIGNED AS THE OWNER OF THE LANDS DESCRIBED HEREIN, HEREBY AGREES ON BEHALF OF ITSELF, AND ITS HEIRS, SUCCESSORS AND ASSIGNS TO DEVELOP AND MAINTAIN THE PROPERTY DESCRIBED HEREON IN ACCORDANCE AND COMPLIANCE WITH THIS APPROVED PLAN AND THE LOUISVILLE MUNICIPAL CODE.

(FULL NAME OF THE OWNING ENTITY OR CORPORATION IF THE SUBJECT SITE IS NOT OWNED BY ONE OR MORE INDIVIDUALS)

WITNESS MY/OUR HAND(S) AND SEAL(S) THIS _____ DAY OF _____, 20___.

BY: _____
(OWNER)

STATE OF _____

COUNTY OF _____

SIGNED BEFORE ME ON _____, 20___.

BY _____ (NAME(S) OF INDIVIDUAL(S) MAKING STATEMENT).

_____
(NOTARY'S OFFICIAL SIGNATURE)

_____
(TITLE OF OFFICE)

_____
(COMMISSION EXPIRATION)

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Greenwood Village, CO 80111
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KING SOOPERS STORE #142
5TH PUD AMENDMENT

1171 DILLION ROAD
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO

#	Date	Issue / Description	Init.
1	11/27/2024	1ST SUBMITTAL	JDP
2	01/29/2025	2ND SUBMITTAL	JDP

Project No:	KSS0000142.02
Drawn By:	SE
Checked By:	JDP
Date:	JANUARY 29, 2025

COVER SHEET

W:\Office Shared\+ City Share\DOCS Louisville #1500\142 - Hwy 36 & McCaslin\CAD\Plans\01142_COVER.dwg, Matthew Wilkinson, 1/30/2025

CENTENNIAL VALLEY PARCEL L PUD, 5TH AMENDMENT

PARCEL L, LOT 5, FILING NO.1,
CASE #: PUPD-000530-2024

N

0 10 20 50
SCALE: 1"=50'

SITE PLAN SCHEDULE

1. PROPOSED CURB AND GUTTER
2. EXISTING CURB AND GUTTER TO REMAIN
3. PROPOSED SIDEWALK (MIN. WIDTH 5')
4. EXISTING SIDEWALK TO REMAIN (MIN. WIDTH 5')
5. PROPOSED PAVEMENT MARKING
6. EXISTING FIRE HYDRANT TO REMAIN
7. PROPOSED TRASH ENCLOSURE
8. PROPOSED TRASH COMPACTOR
9. PROPOSED PEDESTRIAN RAMP (MIN. WIDTH 5')
10. EXISTING LOADING DOCK
11. PROPOSED STANDARD DUTY ASPHALT PAVEMENT
12. PROPOSED CONCRETE PAVEMENT
13. PROPOSED ADA STRIPING
14. PROPOSED ADA SIGN
15. PROPOSED 2' CONCRETE VALLEY PAN
16. PROPOSED AIR STAND
17. PROPOSED PROPANE CAGE
18. PROPOSED DISPENSER ISLAND (TYP. 7 LOCATIONS)
19. PROPOSED UNDERGROUND FUEL TANKS
20. PROPOSED 208 SF KIOSK
21. PROPOSED FUEL CANOPY
22. PROPOSED BUILDING INGRESS AND EGRESS LOCATION
23. EXISTING DETENTION POND TO REMAIN, MAINTENANCE AND CLEANING TO BE DETERMINED DURING CONSTRUCTION
24. EXISTING OUTLET STRUCTURE TO BE REPLACED WITH PROPOSED OUTLET STRUCTURE
25. EXISTING CHASE DRAIN
26. EXISTING PEDESTRIAN RAMP TO BE BROUGHT TO CURRENT ADA STANDARDS
27. EXISTING SIDEWALK TO BE BROUGHT TO CURRENT ADA STANDARDS
28. PROPOSED MONUMENT SIGN LOCATION

SITE LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPOSED SAWCUT LINE
- EXISTING FENCE TO REMAIN
- PROPOSED SWALE FLOWLINE
- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- PROPOSED ADA STRIPING
- PROPOSED STANDARD DUTY ASPHALT
- PROPOSED CONCRETE PAVEMENT
- ADA PATH OF TRAVEL
- EXISTING SIGN
- PROPOSED SIGN
- PROPOSED BOLLARD
- PROPOSED ADA PARKING SYMBOL
- PROPOSED DETECTABLE WARNING TRUNCATED DOMES
- EXISTING ELECTRICAL PULL BOX
- EXISTING LIGHT POLE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING TREE/BUSH TO REMAIN
- XX PARKING COUNT
- TR EXISTING PAD MOUNTED TRANSFORMER
- PROPOSED INSTALLED EV PARKING STALL
- PROPOSED EV CAPABLE PARKING STALL
- PROPOSED EV READY PARKING STALL

BENCHMARK

NGS BENCHMARK P-453, LOCATED 3.06 KM NORTHWEST OF THE INTERCHANGE OF US 36 AND INTERLOCKEN LOOP/STORAGE TECH DRIVE, IN COLORADO DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY.

NAVD88 ELEVATION: 5508.96

LEGAL DESCRIPTION

LOT 5, CENTENNIAL VALLEY PARCEL L, FILING NO. 1, ACCORDING TO THE PLAT THEREOF RECORDED AT RECEPTION NUMBER 1616847, CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO.

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KING SOOPERS STORE #142
5TH PUD AMENDMENT

1171 DILLION ROAD
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO

#	Date	Issue / Description	Init.
1	11/27/2024	1ST SUBMITTAL	JDP
2	01/29/2025	2ND SUBMITTAL	JDP

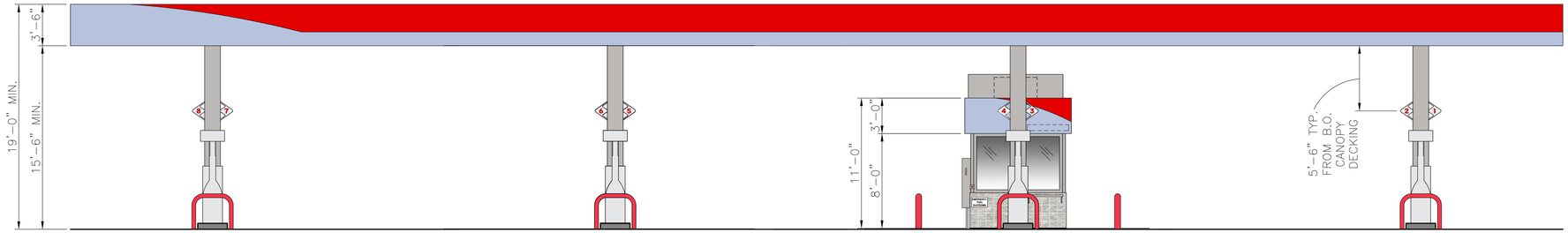
Project No:	KSS000142.02
Drawn By:	SE
Checked By:	JDP
Date:	JANUARY 29, 2025

SITE PLAN

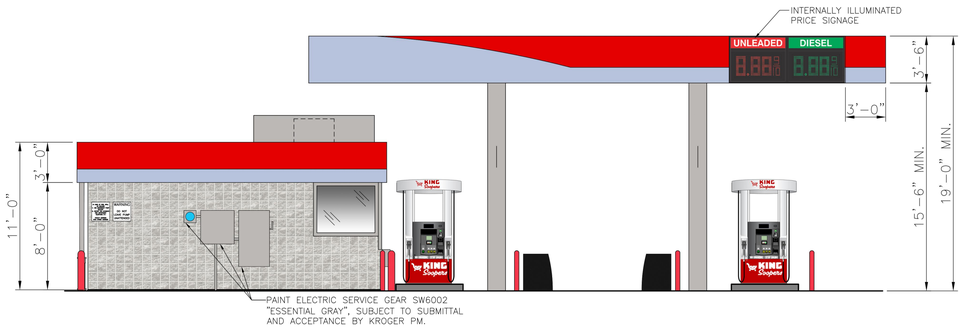
W:\King Soopers - City Maint\CO\...\Plan Set\KSS000142_SITE PLAN.dwg, Matthew Robinson, 1/30/2025

CENTENNIAL VALLEY PARCEL L PUD, 5TH AMENDMENT

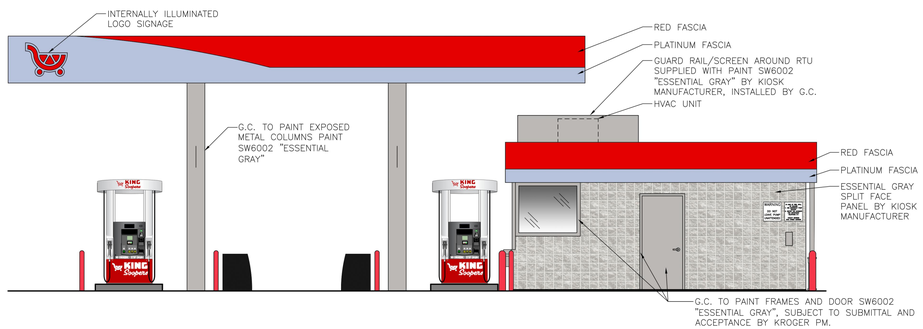
PARCEL L, LOT 5, FILING NO.1,
CASE #: PUPD-000530-2024



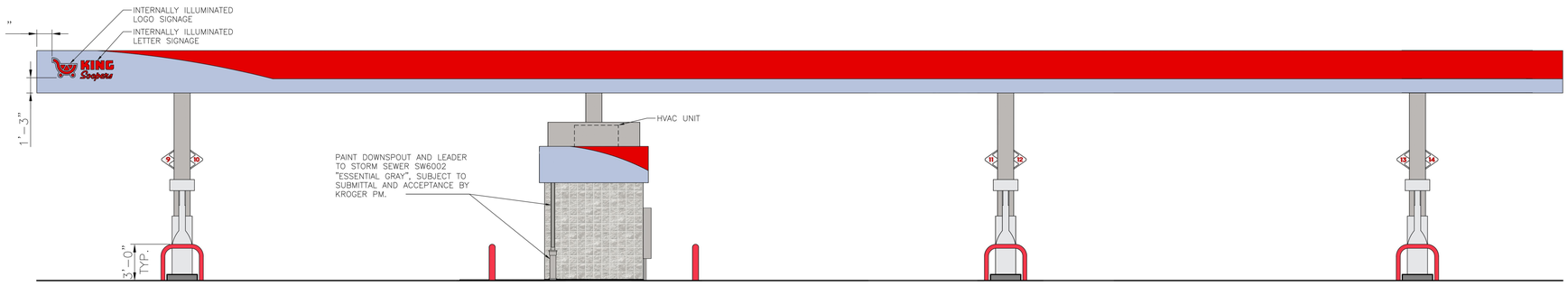
1 FRONT (WEST) ELEVATION
SCALE: 3/16"=1'-0"



2 LEFT (NORTH) ELEVATION
SCALE: 3/16"=1'-0"

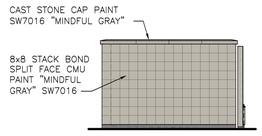


3 RIGHT (SOUTH) ELEVATION
SCALE: 3/16"=1'-0"

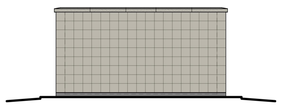


4 REAR (EAST) ELEVATION
SCALE: 3/16"=1'-0"

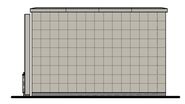
5 FRONT ELEVATION
SCALE: NTS



6 LEFT ELEVATION
SCALE: NTS



7 REAR ELEVATION
SCALE: NTS



8 RIGHT ELEVATION
SCALE: NTS

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KING SOOPERS STORE #142
5TH PUD AMENDMENT

1171 DILLION ROAD
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO

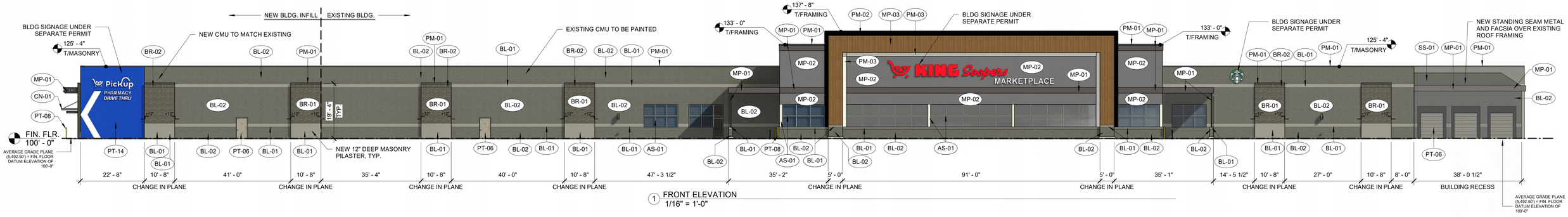
#	Date	Issue / Description	Init.
1	11/27/2024	1ST SUBMITTAL	JDP
2	01/29/2025	2ND SUBMITTAL	JDP

Project No:	KSS0000142.02
Drawn By:	CFS
Checked By:	DLJ
Date:	JANUARY 29, 2025

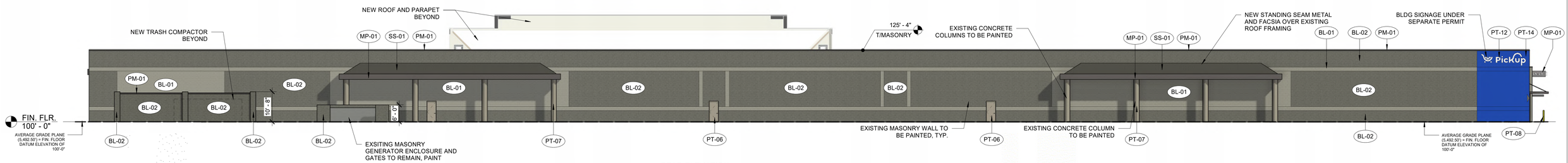
I:\KSKing Soopers - City Markets\CO, Louisville - KSS0000142 - Hwy 36 & McCaslin\Plotting\PDF\SE_ELEV.dwg, Chandler Saucedo, 1/29/2025

CENTENNIAL VALLEY PARCEL L PUD, 5TH AMMENDMENT

PARCEL L, LOT 5 FILING NO.1,
CASE#: PUD-000530-2024



1 FRONT ELEVATION
1/16" = 1'-0"



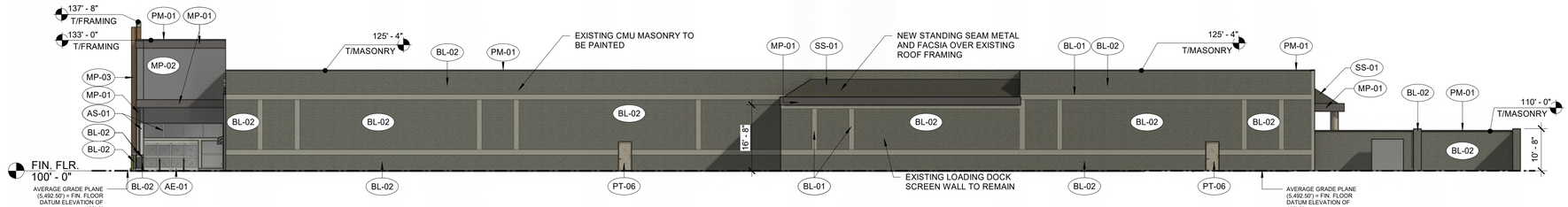
2 REAR ELEVATION
1/16" = 1'-0"

AVERAGE GRADE PLANE IS 5,492.5'
FINISH FLOOR IS 5'492.5' OR EQUAL TO DATUM FINISH FLOOR ELEVATION OF 100'-0"

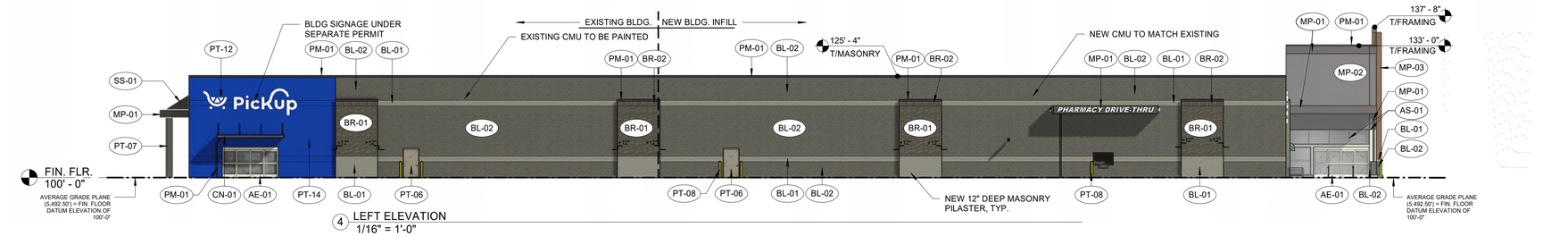
SIGNAGE SHOWN FOR REFERENCE ONLY. OWNER'S SIGN CONTRACTOR TO INSTALL NEW SIGNAGE. ALL SIGNS ARE UNDER SEPARATE PERMIT TO BE PULLED BY OWNER'S SIGNAGE CONTRACTOR.

EXTERIOR FINISHES

MATERIAL	DESCRIPTION	MANUFACTURER	FINISH
AE-01	PREFINISHED ALUMINUM STOREFRONT DOOR	STANLEY	CLEAR ANODIZED
AS-01	PREFINISHED ALUMINUM STOREFRONT		CLEAR ANODIZED
BL-01	EXISTING OR NEW TO MATCH EXISTING SMOOTH FACED CMU - PAINTED	SHERWIN WILLIAMS	MINDFUL GRAY, SW7016
BL-02	EXISTING OR NEW TO MATCH EXISTING SPLIT FACED CMU - PAINTED	SHERWIN WILLIAMS	GAUNTLET GRAY, SW7019
BR-01	THIN BRICK VENEER, RUNNING BOND	INTERSTATE BRICK	IRONSTONE
BR-02	THIN BRICK VENEER, SOILDER COURSE, 3/4" CORBEL OFFSET	INTERSTATE BRICK	IRONSTONE
CN-01	PREMANUFACTURED CANOPY	ARCHITECTURAL FABRICATIONS INC.	SLATE GRAY
MP-01	METAL PANEL - SMOOTH		SLATE GRAY
MP-02	METAL PANEL - CORRUGATED		SILVERSMITH
MP-03	CONCEALED FASTENER LAP-SEAM METAL WALL PANEL	LIGHT CHERRY	CEDAR
PM-01	PREFINISHED METAL		SLATE GRAY
PM-02	PREFINISHED METAL		MATTE BLACK
PM-03	PREFINISHED METAL		WHITE
PT-06	PAINTED METAL	SHERWIN WILLIAMS	MINDFUL GRAY SW7016
PT-07	PAINTED METAL	SHERWIN WILLIAMS	GAUNTLET GRAY SW7019
PT-08	PAINT	SHERWIN WILLIAMS	SW4084 SAFETY YELLOW
PT-12	PAINT	SHERWIN WILLIAMS	WHITE
PT-14	PAINT	SHERWIN WILLIAMS	KROGER BLUE PMS 2728C
SO-01	VINYL SOFFIT PANEL	CERTAINTEED	GRANITE GRAY
SS-01	STANDING SEAM / VERTICAL BATTEN METAL	WESTERN STATES METAL	BLACK ORE MATTE



3 RIGHT ELEVATION
1/16" = 1'-0"



4 LEFT ELEVATION
1/16" = 1'-0"

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www.naosdg.com

KING SOOPERS 142

WEST DILLON ROAD AND CENTURY PLACE
LOUISVILLE, CO

JOB #: 2024047 **DATE:** 01/29/2025

SCALE: 1/16" = 1'-0"

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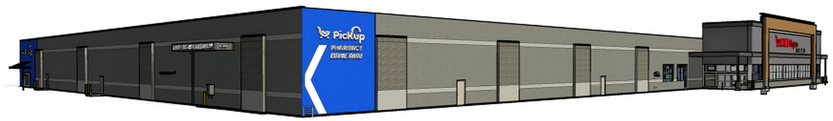
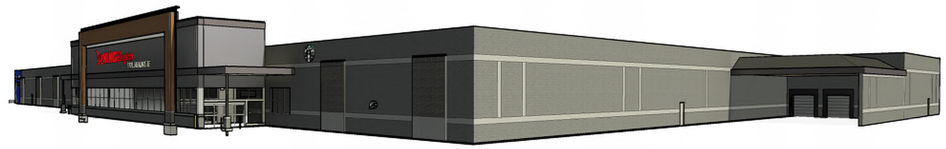
CENTENNIAL VALLEY PARCEL L PUD, 5TH AMMENDMENT

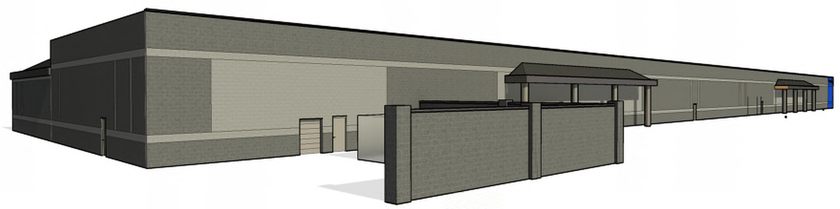
PARCEL L, LOT 5 FILING NO.1,
CASE#: PUD-000530-2024



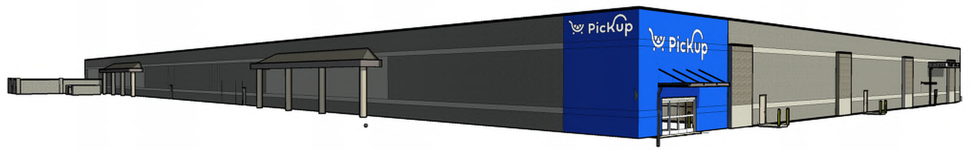
1 SOUTHEAST CORNER PERSPECTIVE



2 NORTHEAST CORNER PERSPECTIVE



3 NORTHWEST CORNER PERSPECTIVE



4 SOUTHWEST CORNER PERSPECTIVE

SIGNAGE SHOWN FOR REFERENCE ONLY. OWNER'S SIGN CONTRACTOR TO INSTALL NEW SIGNAGE. ALL SIGNS ARE UNDER SEPARATE PERMIT TO BE PULLED BY OWNER'S SIGNAGE CONTRACTOR.

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KING SOOPERS 142

WEST DILLON ROAD AND CENTURY PLACE
LOUISVILLE, CO

JOB #: 2024047 **DATE:** 01/29/2025

SCALE:

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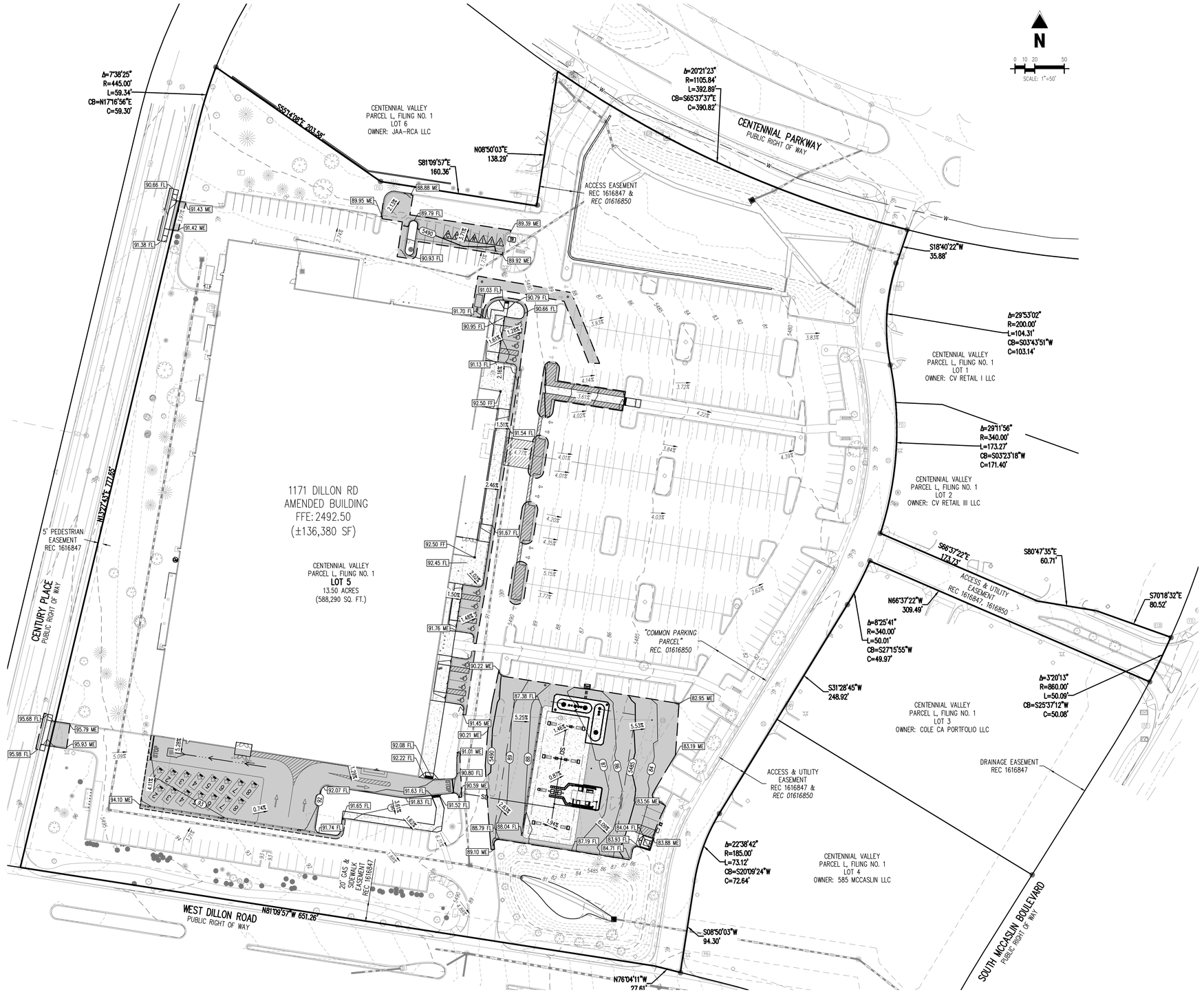
CENTENNIAL VALLEY PARCEL L PUD, 5TH AMENDMENT

PARCEL L, LOT 5, FILING NO.1,
CASE #: PUPD-000530-2024



GRADING LEGEND

- ZONE LOT LINE
- ADJACENT ZONE LOT LINE
- EXISTING EASEMENT LINE
- PROPOSED SAWCUT LINE
- PROPOSED SWALE FLOWLINE
- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- PROPOSED ADA STRIPING
- PROPOSED STANDARD DUTY ASPHALT
- PROPOSED CONCRETE PAVEMENT
- 5460 EXISTING MAJOR CONTOUR
- 52 EXISTING MINOR CONTOUR
- 5465 PROPOSED MAJOR CONTOUR
- 66 PROPOSED MINOR CONTOUR
- SD EXISTING STORM SEWER (LESS THAN 12")
- SD PROPOSED STORM SEWER (LESS THAN 12")
- 15.00 PROPOSED SPOT ELEVATION
- 15.00 FF FINISHED FLOOR
- 15.00 FG FINISHED GRADE
- 15.00 FL FLOWLINE
- 15.00 ME MATCH EXISTING
- 15.00 SW SIDEWALK
- 15.00 TC TOP OF CURB (BACK)
- XX.XX% EXISTING SLOPE
- XX.XX% PROPOSED SLOPE

BENCHMARK

NGS BENCHMARK P-453, LOCATED 3.06 KM NORTHWEST OF THE INTERCHANGE OF US 36 AND INTERLOCKEN LOOP/STORAGE TECH DRIVE, IN COLORADO DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY.

NAVD88 ELEVATION: 5508.96

LEGAL DESCRIPTION

LOT 5, CENTENNIAL VALLEY PARCEL L, FILING NO. 1, ACCORDING TO THE PLAT THEREOF RECORDED AT RECEPTION NUMBER 1616847, CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO.

Galloway
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Greenwood Village, CO 80111
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GallowayUS.com

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KING SOOPERS STORE #142
5TH PUD AMENDMENT

1171 DILLION ROAD
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO

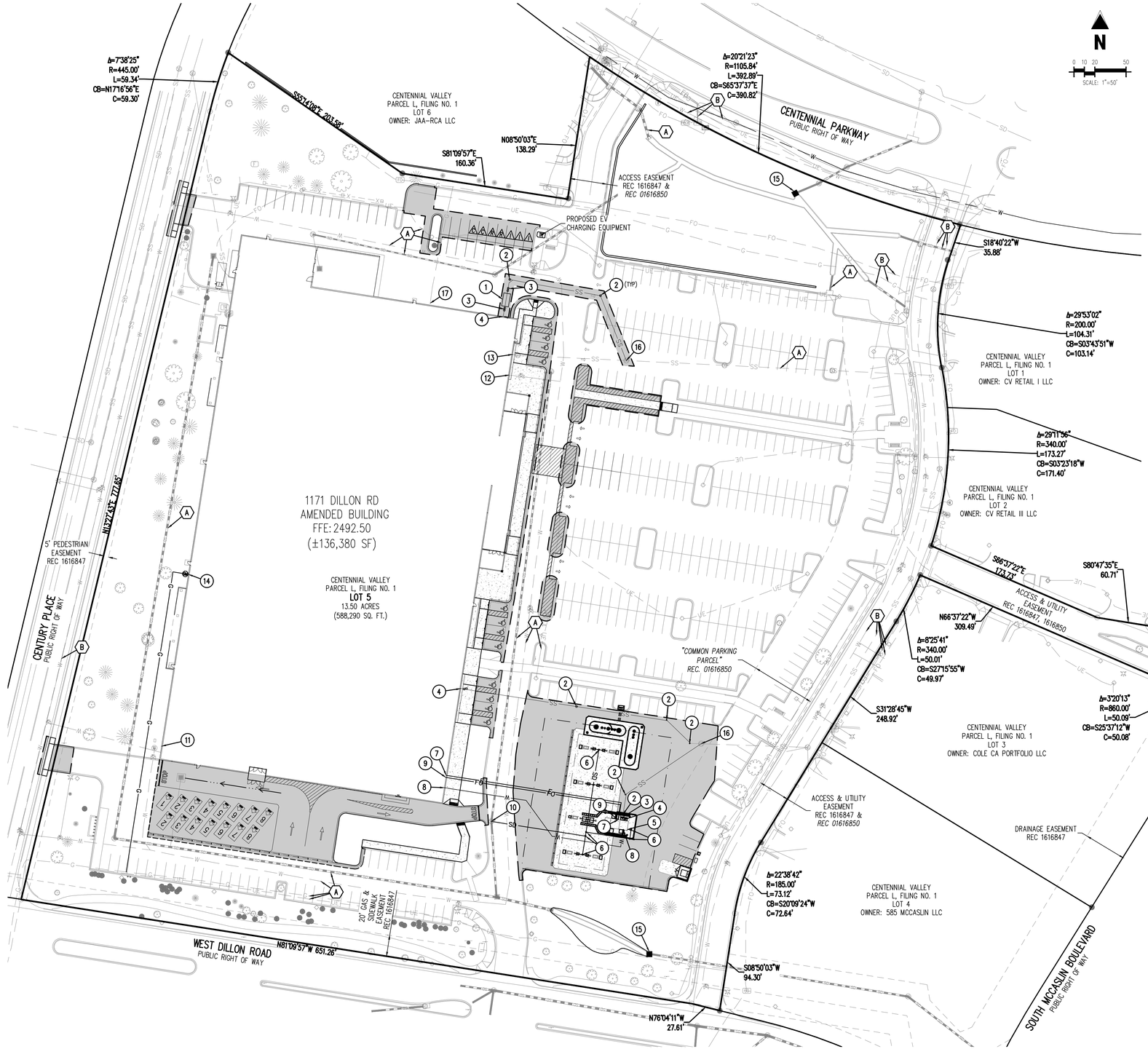
#	Date	Issue / Description	Init.
1	11/27/2024	1ST SUBMITTAL	JDP
2	01/29/2025	2ND SUBMITTAL	JDP

Project No:	KSS0000142.02
Drawn By:	SE
Checked By:	JDP
Date:	JANUARY 29, 2025

GRADING PLAN

CENTENNIAL VALLEY PARCEL L PUD, 5TH AMENDMENT

PARCEL L, LOT 5, FILING NO.1,
CASE #: PUPD-000530-2024



SCHEDULE

1. PROPOSED GREASE INTERCEPTOR
2. PROPOSED SANITARY CLEAN OUT
3. PROPOSED DOUBLE SANITARY CLEANOUT
4. PROPOSED SANITARY CONNECTION TO BUILDING
5. PROPOSED STORM CONNECTION TO BUILDING
6. PROPOSED STORM CLEANOUT
7. PROPOSED UNDERGROUND ELECTRIC CONNECTION TO BUILDING
8. PROPOSED WATER CONNECTION TO BUILDING
9. PROPOSED FIBER OPTIC CONNECTION TO BUILDING
10. CONNECT TO EXISTING MANHOLE
11. EXISTING FIRE WATER CONNECTION TO BUILDING TO REMAIN
12. EXISTING DOMESTIC WATER CONNECTION/BACKFLOW TO BUILDING TO REMAIN
13. EXISTING SANITARY SEWER CONNECTION TO BUILDING TO REMAIN
14. PROPOSED GAS CONNECTION TO BUILDING
15. EXISTING OUTLET STRUCTURE TO BE REPLACED (SEE SHEETS C5.2 & C5.3 FOR OUTLET STRUCTURE DETAILS)
16. CONNECT TO EXISTING SANITARY CLEANOUT
17. EXISTING GAS LINE TO BE CAPPED AND ABANDONED.

EXISTING UTILITY OWNERSHIP

- (A) PRIVATE UTILITY
- (B) PUBLIC UTILITY

UTILITY LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPOSED SAWCUT LINE
- PROPOSED SWALE FLOWLINE
- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- PROPOSED ADA STRIPING
- PROPOSED STANDARD DUTY ASPHALT
- PROPOSED CONCRETE PAVEMENT
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING STORM SEWER (12"ø AND LARGER)
- PROPOSED STORM SEWER (12"ø AND LARGER)
- EXISTING UNDERGROUND ELECTRICAL
- PROPOSED UNDERGROUND ELECTRICAL
- EXISTING FIBER OPTIC LINE
- PROPOSED FIBER OPTIC LINE
- EXISTING UNDERGROUND TELEPHONE
- PROPOSED UNDERGROUND TELEPHONE
- EXISTING GAS LINE
- PROPOSED GAS LINE
- EXISTING SIGN
- PROPOSED SIGN
- PROPOSED PIPE BOLLARD
- PROPOSED ADA PARKING SYMBOL
- PROPOSED WARNING TRUNCATED DOMES
- EXISTING ELECTRIC LIGHT POLE
- EXISTING ELECTRIC PULL BOX
- EXISTING ELECTRIC VAULT
- EXISTING ELECTRIC BOX
- EXISTING PAD MOUNTED TRANSFORMER
- EXISTING FIBER OPTIC PEDESTAL
- EXISTING FIBER OPTIC MANHOLE
- EXISTING FIBER OPTIC PULLBOX
- EXISTING TRAFFIC SIGNAL CABINET
- EXISTING TRAFFIC SIGNAL VAULT
- EXISTING TELEPHONE MANHOLE
- EXISTING TELEPHONE PEDESTAL
- EXISTING TELEPHONE VAULT
- PROPOSED GAS METER
- PROPOSED SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING SANITARY STORM MANHOLE
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WATER MANHOLE
- EXISTING TREE

BENCHMARK

NGS BENCHMARK P-453, LOCATED 3.06 KM NORTHWEST OF THE INTERCHANGE OF US 36 AND INTERLOCKEN LOOP/STORAGE TECH DRIVE, IN COLORADO DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY.

NAVD88 ELEVATION: 5508.96

LEGAL DESCRIPTION

LOT 5, CENTENNIAL VALLEY PARCEL L, FILING NO. 1, ACCORDING TO THE PLAT THEREOF RECORDED AT RECEPTION NUMBER 1616847, CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO.

FIRE SAFETY NOTES

1. ON-SITE EXISTING AND PROPOSED BUILDINGS SHALL BE SPRINKLED IN COMPLIANCE WITH LOUISVILLE FIRE PROTECTION DISTRICT STANDARDS

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KING SOOPERS STORE #142
5TH PUD AMENDMENT

1171 DILLION ROAD
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO

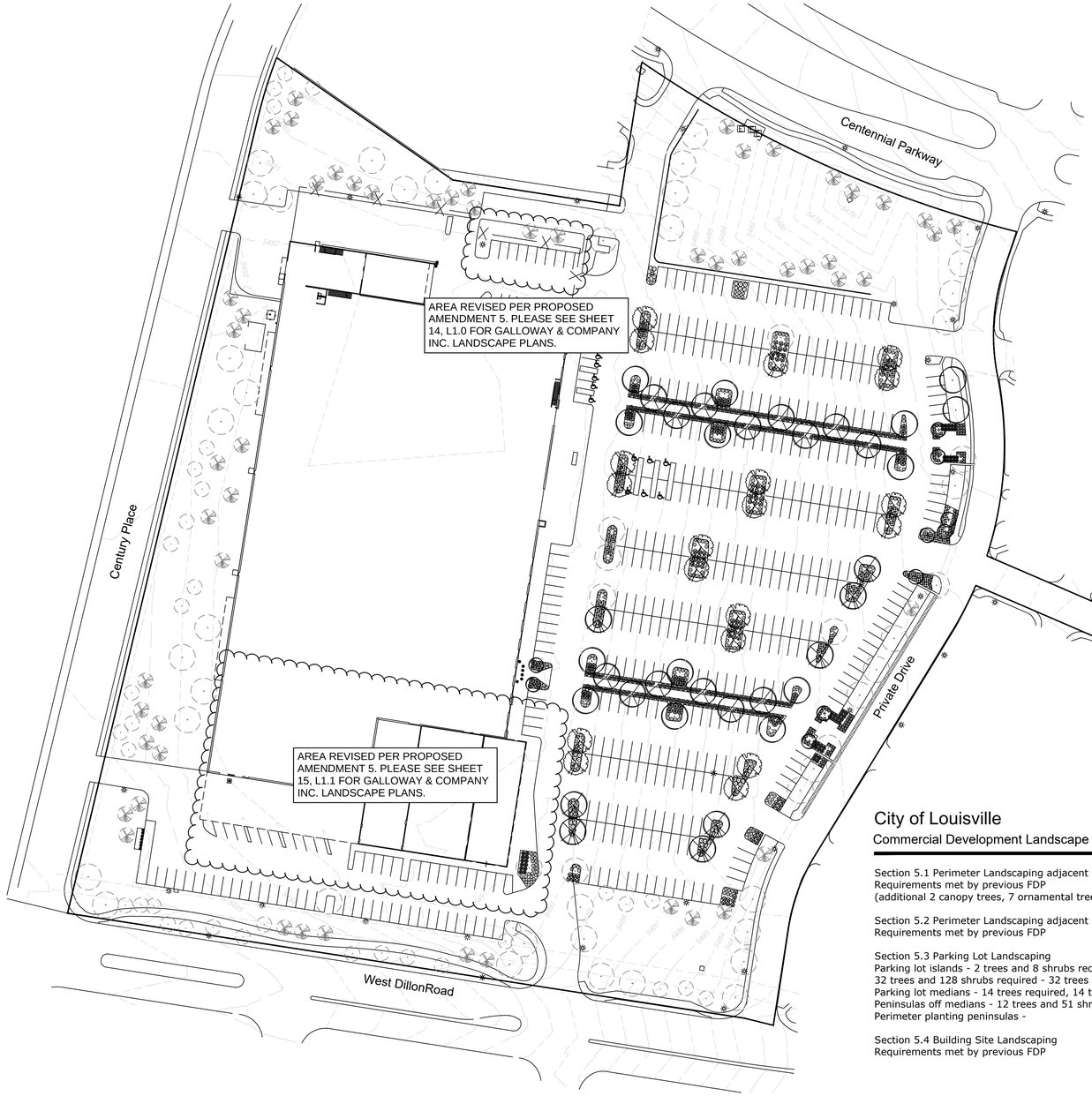
#	Date	Issue / Description	Init.
1	11/27/2024	1ST SUBMITTAL	JDP
2	01/29/2025	2ND SUBMITTAL	JDP

Project No:	KSS000142.02
Drawn By:	SE
Checked By:	JDP
Date:	JANUARY 29, 2025

UTILITY PLAN

H:\King Soopers - City Approval\CD\1 Louisville - KSS000142 - Hwy 36 & McCaslin\CAD\Civil\Sheets\KSS142_UTILITY PLAN.dwg - Matthew Wilkinson - 1/30/2025

CENTENNIAL VALLEY PARCEL L, LOT 5, FILING NO. 1
PLANNED UNIT DEVELOPMENT, 4TH AMENDMENT



0 60 120

North Scale 1"=60'

City of Louisville

Commercial Development Landscape Standards & Guidelines

Section 5.1 Perimeter Landscaping adjacent to public & private roads
Requirements met by previous FDP
(additional 2 canopy trees, 7 ornamental trees, shrubs & grasses added)

Section 5.2 Perimeter Landscaping adjacent to abutting property
Requirements met by previous FDP

Section 5.3 Parking Lot Landscaping
Parking lot islands - 2 trees and 8 shrubs required per island,
32 trees and 128 shrubs required - 32 trees and 149 shrubs provided
Parking lot medians - 14 trees required, 14 trees provided
Peninsulas off medians - 12 trees and 51 shrubs
Perimeter planting peninsulas -

Section 5.4 Building Site Landscaping
Requirements met by previous FDP

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LANDSCAPE ARCHITECTURE
tadunn1958@gmail.com
720.350.2411

TIM DUNN 400 — 10/26/2000 — Original Date of Licensure — STATE OF COLORADO — REGISTERED LANDSCAPE ARCHITECT
LANDSCAPE ARCHITECT: TIM DUNN
COLORADO LICENSE 400

1171 DILLON ROAD RENOVATION
Louisville, Colorado
Prepared for: Koebel

Overall Landscape Plan

DATE	REMARKS
2.14.24	CLIENT REVIEW
03.18.24	PUD 1ST AMENDMENT - City Comments

LA:	
DRAWN BY.:	
JOB NO.:	

SHEET
8
Sheet 8 of 19

CENTENNIAL VALLEY PARCEL L, LOT 5, FILING NO. 1
PLANNED UNIT DEVELOPMENT, 4TH AMENDMENT

0 30 60

North Scale 1"=30'

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TIM DUNN 400 — 02/20/2008 Original Date of Licensure — STATE OF COLORADO — REGISTERED LANDSCAPE ARCHITECT — LANDSCAPE ARCHITECT: TIM DUNN COLORADO LICENSE 400

1171 DILLON ROAD RENOVATION
Louisville, Colorado
Prepared for: Koebel

Landscape Plan South Half

DATE	REMARKS
2.14.24	CLIENT REVIEW
03.18.24	PUD 1ST AMENDMENT - City Comments

LA:	
DRAWN BY.:	
JOB NO.:	

SHEET
9

CENTENNIAL VALLEY PARCEL L, LOT 5, FILING NO. 1
PLANNED UNIT DEVELOPMENT, 4TH AMENDMENT

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02/20/2008
Original Date of Licensure
STATE OF COLORADO
REGISTERED LANDSCAPE ARCHITECT
LANDSCAPE ARCHITECT: TIM DUNN
COLORADO LICENSE 400

1171 DILLON ROAD RENOVATION

Louisville, Colorado

Prepared for: Koebel

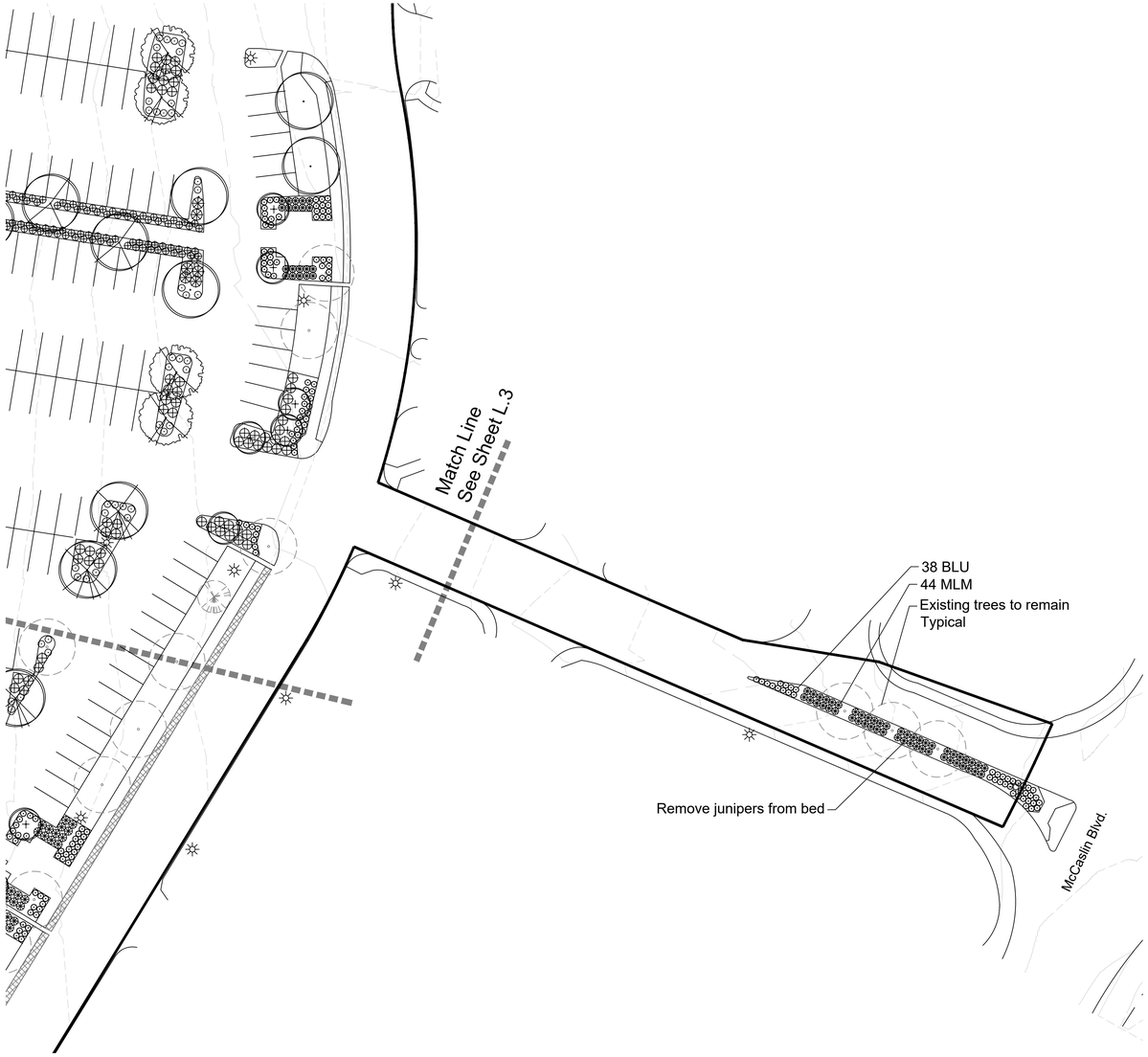
Landscape Plan North Half

DATE	REMARKS
2.14.24	CLIENT REVIEW
03.18.24	PUD 1ST AMENDMENT - City Comments

LA:	
DRAWN BY.:	
JOB NO.:	

SHEET
10

CENTENNIAL VALLEY PARCEL L, LOT 5, FILING NO. 1
PLANNED UNIT DEVELOPMENT, 4TH AMENDMENT



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400
02/26/2009
Original Date of Licensure
STATE OF COLORADO
REGISTERED LANDSCAPE ARCHITECT
LANDSCAPE ARCHITECT: TIM DUNN
COLORADO LICENSE 400

1171 DILLON ROAD RENOVATION
Louisville, Colorado

Prepared for: Koebel

LANDSCAPE PLAN McCaslin Entry

DATE	REMARKS
2.14.24	CLIENT REVIEW
03.18.24	PUD 1ST AMENDMENT - City Comments

LA:	
DRAWN BY.:	
JOB NO.:	

SHEET
11
Sheet 11 of 19

CENTENNIAL VALLEY PARCEL L, LOT 5, FILING NO. 1
PLANNED UNIT DEVELOPMENT, 4TH AMENDMENT

Plant Schedule and Legend

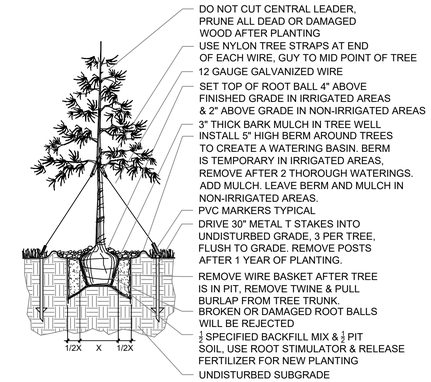
QUANTITY	KEY	COMMON NAME	BOTANICAL NAME	SIZE	CONDITION	HYDROZONE	MATURE SIZE
DECIDUOUS CANOPY TREES							
19	SHU	SHUMARD OAK	Quercus shummardi	2" CAL.	B&B	LOW	60'htx40'sp.
14	IHL	IMPERIAL HONEYLOCUST	Gledisia triacanthos inermis 'Imperial'	2" CAL.	B&B	LOW	30'htx30'sp.
9	SMH	SHADE MASTER HONEYLOCUST	Gledisia triacanthos inermis 'Shademaster'	2" CAL.	B&B	LOW	45'htx35'sp.
14	BTM	BIG TOOTH MAPLE	Gledisia triacanthos inermis 'Shademaster'	2" CAL.	B&B	LOW	30'htx30'sp.
ORNAMENTAL TREE							
10	CHP	CHANTICLEER PEAR	Pyrus calleryana 'Chanticleer'	1.5" CAL.	B&B	MEDIUM	25'htx15'sp.
DECIDUOUS SHRUBS							
61	GLS	GRO LOW SUMAC	Rhus aromatica 'Gro-Low'	5 GAL.	CONTAINER	LOW	3'htx5'sp
72	MKL	MISS KIM LILAC	Syringa patula 'Miss Kim'	5 GAL.	CONTAINER	LOW	3'htx3'sp
95	POT	CORNONATION TRIUMPH POTENTILLA	Potentilla fruticosa 'Cornonation Triumph'	5 GAL.	CONTAINER	LOW	3'htx3'sp
43	GFS	GOLD FLAME SPIREA	Spririea japonica 'Goldflame'	5 GAL.	CONTAINER	LOW	3'htx3ep'
CLUMP/ ORNAMENTAL GRASS							
224	OFG	ORIENTAL FOUNTAIN GRASS	Pennisetum orientale	1 GAL.	CONTAINER	LOW	3'ht.x2'sp.
405	FRG	FEATHER REED GRASS	Calamagrostis acutifolia ' Karl Forester'	1 GAL.	CONTAINER	LOW	4'htx2'sp.
100	MLM	MORNING LIGHT MAIDEN GRASS	Miscanthus sinensis 'Morning Light'	1 GAL.	CONTAINER	LOW	4'htx2'sp.
119	BLU	BLONDE AMBITION GRAMA	Bouteloua gracilis 'Blonde Ambition'	1 GAL.	CONTAINER	LOW	2'htx2'sp.

Gray river rock mulch, see image

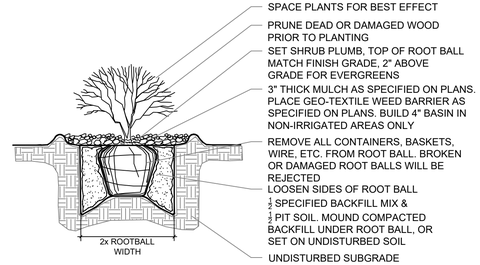
Existing deciduous tree

Existing evergreen tree

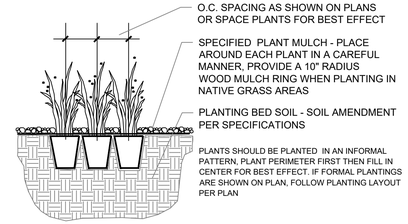
Existing ornamental tree



2 / 8 Evergreen Tree Planting Detail



3 / 8 Shrub Planting Detail



4 / 8 Perennial/Grass Planting Detail

General Landscape Notes

1. ALL WORK SHALL CONFORM TO LOCAL CITY AND COUNTY CODES. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS.

2. THE OWNER, SUCCESSORS, AND ASSIGNS SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, AND REPLACEMENT OF ALL LANDSCAPING MATERIALS SHOWN OR INDICATED ON THE APPROVED SITE PLAN OR LANDSCAPE PLANS ON FILE WITH THE CITY PLANNING DEPARTMENT. ALL LANDSCAPING SHALL BE INSTALLED AS SHOWN ON THE LANDSCAPE PLANS PRIOR TO THE ISSUANCE FOR THE CERTIFICATE OF OCCUPANCY,

3. ALL UTILITY EASEMENTS SHALL REMAIN UNOBSTRUCTED AND FULLY ACCESSIBLE ALONG THEIR ENTIRE LENGTH FOR USE OF MAINTENANCE EQUIPMENT ENTRY.

4. SEE CIVIL ENGINEER'S DRAWINGS FOR GRADING AND DRAINAGE, EROSION CONTROL, PAVING AND SLEEVES, UTILITIES, AND OTHER ENGINEERED DETAILS.

5. ALL LANDSCAPE AREAS SHALL RECEIVE SOIL PREPARATION AT A RATE OF (4) FOUR CUBIC YARDS PER 1,000 SQUARE FEET.

6. STEEL EDGER SHALL BE PROVIDED AROUND ALL PLANTING BEDS ADJACENT TURF AREAS. EDGER SHALL BE GALVANIZED STEEL, ROLLED TOP EDGE, AND INTERLOCKING. EDGER IS NOT NECESSARY ADJACENTLY-PARALLEL TO CURBS, WALLS, AND WALKS.

7. ALL PLANTING BEDS SHALL BE MULCHED WITH 3" THICK SHREDDED BARK MULCH. APPLY A PRE-EMERGENT HERBICIDE IN BED AREAS.

8. ALL PLANTS OF THE SAME SPECIES AND SIZE SHALL HAVE MATCHING HEIGHT AND FORM, UNLESS OTHERWISE NOTED. ALL PLANTS SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK."

10. A ONE YEAR WARRANTY SHALL BE PROVIDED FOR ALL PLANT MATERIAL FROM THE DATE OF FINAL INSPECTION, UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT, OWNER, OR CITY/ COUNTY.

11. FOR TREES NOT IN PLANTING BEDS, ALLOW A 4'-0" DIAMETER BED (TREE RING) WITHOUT SOD AROUND ROOT COLLAR. APPLY 3" DEPTH SHREDDED CEDAR MULCH AROUND COLLAR FOLLOWING SOD INSTALLATION. NO LANDSCAPE FABRIC OR EDGER IS NECESSARY FOR TREE RINGS.

12. ALL PLANTING BEDS AND TREES SHALL BE DRIP IRRIGATED. ALL IRRIGATION SHALL BE AN AUTOMATIC UNDERGROUND SYSTEM. REFER TO IRRIGATION PLANS

General Maintenance Notes

A. Turf Mowing:
Frequency of mowing shall be once every other week in April, then once per week during the months of May thru September and once every other week in thru October 31. Ground trash will be picked up and removed from at each mowing.
B. Native Area Mowing:
Permanently seeded areas shall be mowed once a year for the first 2 years from the time of initial seeding. Mowing shall occur between October 15th and November 15th of each year. Seed areas shall be evaluated after one growing season to determine whether additional maintenance, weed control or over seeding is needed.
C. Trimming and Edging:
All turf area is to be edged once a month from April 1st thru October 31st to ensure that no growth extends over curbs and gutters, sidewalks, median edging, or into onto other improved areas at any time.
D. Weed Control:
All turf areas within the specified maintenance areas shall be kept free of weeds. Weeding may be done manually or by the use of herbicides.
E. Aeration:
Common turf areas shall be aerated once in the spring (late March to early Apri) and once in the fall (late October to early November).
F. Fertilzing:
Fertilizer applications shall be performed once in the spring after the aeration has been performed and once in the fall after the aeration has been performed.

IRRIGATION
Conctractor will be expected to energize the system in the spring, winterize in the fall, adjust heads as needed, repair breaks in a timely manner and prevent any interruptions in the watering cycles for all landscaping.

TREE, SHRUB & PLANT CARE
A. Pruning:
All trees, shrubs and plant material shall be maintained by the contractor to ensure the health, vigor and aesthetic appearance according to accepted horticultural practices.
B. Weed Control:
All shrub beds, annual and perennial plant beds, tree bowls, rock beds and pattern concrete shall be kept free from weeds at all times. Weed control shall be done on a weekly basis.
C. Litter Removal:
All areas shall have trash and undesirable debris picked up once per week and prior to all mowing, trimming or edging operations.
D. Winter Snow Removal on Sidewalks:
Snow removal shall be performed on all sidewalks with any accumulation of snow. Snow removal will occur within 24 hours after the snow fall.

Landscape Renovation Notes

1. ALL EXISTING TREES ARE TO BE PRESERVED UNLESS OTHERWISE NOTED ON THE PLANS. CONTRACTOR TO PROVIDE PROTECTION OF EXISTING TREES AND LANDSCAPE DURING CONSTRUCTION PROCESS. PRUNE AND LIMB UP EXISTING TREES AS NEEDED.
2. IRRIGATION RETRO FIT BY CONTRACTOR, REPLACE OLD HEADS AND DRIP LINES AS NEEDED.
3. CONTRACTOR TO SAVE EXISTING ROCK MULCH AS POSSIBLE AND REPLACE MULCH AS NEEDED
BARK MULCH TO BE REMOVED FROM BEDS AND REPLACED WITH ROCK MULCH. ALL BEDS TO BE WEEDED AND CLEANED UP.

Rock mulch image

Gray river rock mulch 1.5" size rounded
Timber Rock Landscape Center
Windsor, Co. 970-686-0442
Or approved equal by Owner

TIM DUNN DESIGN
LANDSCAPE ARCHITECTURE
tadunn1958@gmail.com
720.350.2411

TIM DUNN 400 02/20/2008 Original Date of Licensure STATE OF COLORADO REGISTERED LANDSCAPE ARCHITECT
LANDSCAPE ARCHITECT: TIM DUNN
COLORADO LICENSE 400

1171 DILLON ROAD RENOVATION
Louisville, Colorado
Prepared for: Koebel

LANDSCAPE DETAILS

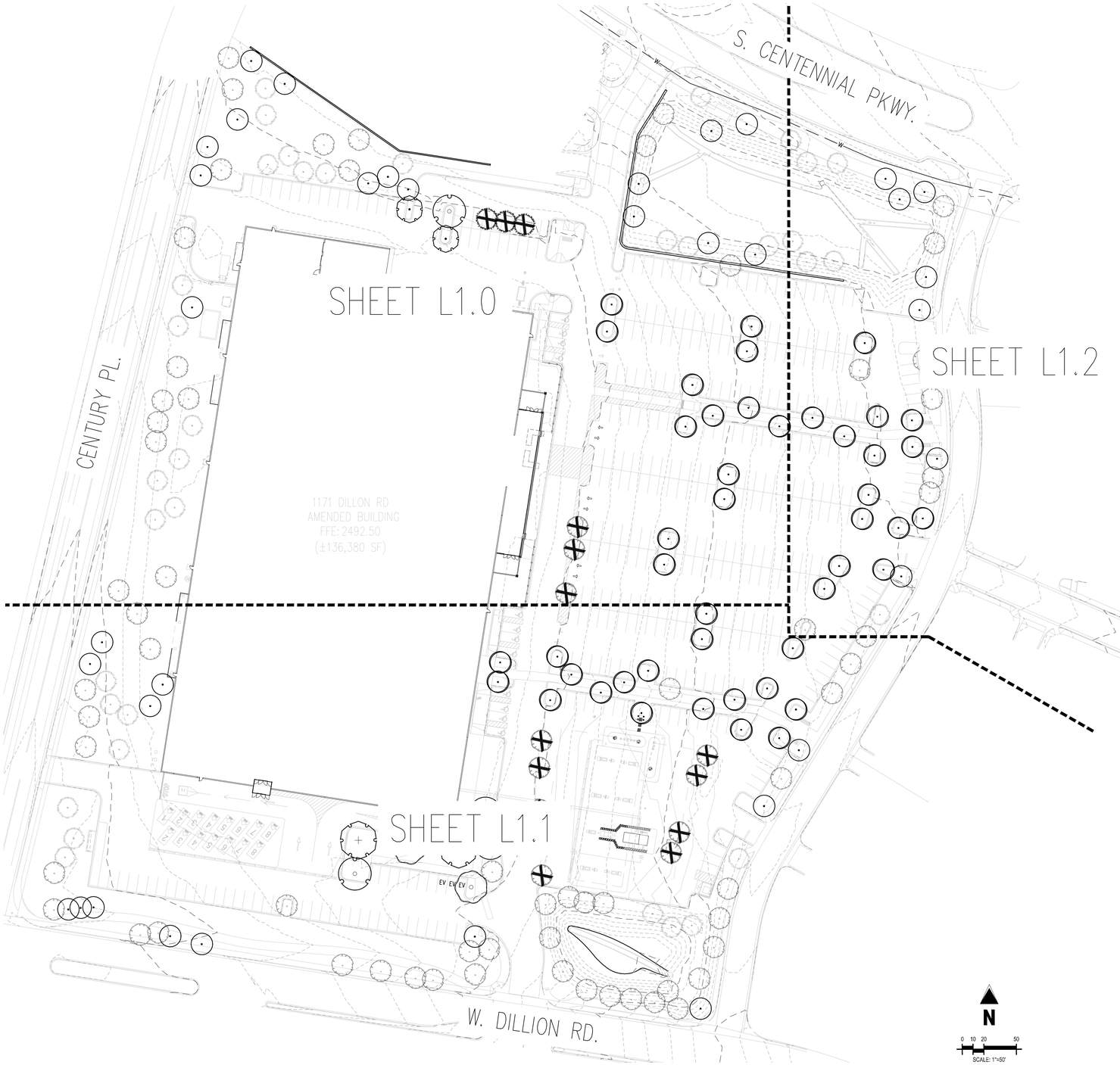
DATE	REMARKS
2.14.24	CLIENT REVIEW
03.18.24	PUD 1ST AMENDMENT - City Comments

LA:	
DRAWN BY.:	
JOB NO.:	

SHEET
12
Sheet 12 of 19

CENTENNIAL VALLEY PARCEL L PUD, 5TH AMENDMENT

PARCEL L, LOT 5, FILING NO.1,
CASE #: PUPD-000530-2024



N

0 10 20 50
SCALE: 1"=50'

CAUTION – NOTICE TO CONTRACTOR

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2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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KING SOOPERS STORE #142
5TH PUD AMENDMENT

1171 DILLION ROAD
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO

#	Date	Issue / Description	Init.
1	11/27/2024	1ST SUBMITTAL	JDP
2	01/29/2025	2ND SUBMITTAL	JDP

Project No:	KSS000142.02
Drawn By:	LJP
Checked By:	SRM
Date:	JANUARY 29, 2025

OVERALL LANDSCAPE PLAN

L0.0
Sheet 13 of 19

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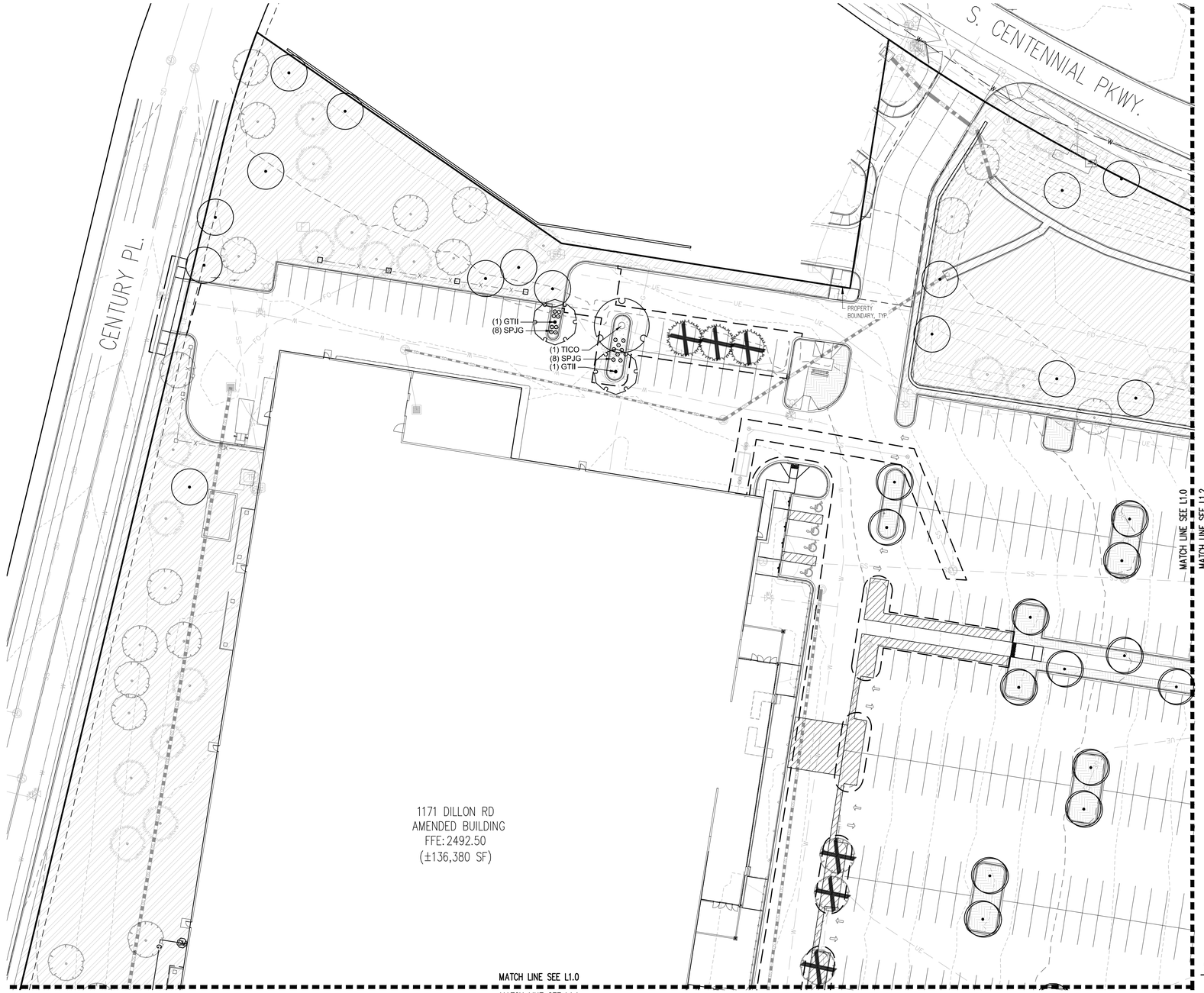
CENTENNIAL VALLEY PARCEL L PUD, 5TH AMENDMENT

PARCEL L, LOT 5, FILING NO.1,
CASE #: PUPD-000530-2024



PLANT LEGEND

SYMBOL	QTY	COMMON NAME
DECIDUOUS TREES		
	2	BIGTOOTH MAPLE
	2	FRONTIER ELM
	2	IMPERIAL HONEY LOCUST
	2	LITTLELEAF LINDEN
	2	SHUMARD OAK
EXISTING TREES		
	67	EXISTING DECIDUOUS TREE TO REMAIN
	12	EXISTING DECIDUOUS TREE TO BE REMOVED
	36	EXISTING EVERGREEN TREE TO REMAIN
	3	EXISTING EVERGREEN TREE TO BE REMOVED
	45	TREE TO BE REPLACED PER FILING NO. 1, AMENDMENT 4
	35	TREE TO BE REPLACED PER FILING NO. 1
DECIDUOUS SHRUBS		
	45	GOLDFLAME JAPANESE SPIREA
	18	GRO-LOW FRAGRANT SUMAC
	11	MISS KIM KOREAN LILAC
ORNAMENTAL GRASSES		
	16	BLONDE AMBITION BLUE GRAMA
GROUND COVERS		
	14,391 SF	EXISTING LANDSCAPE TO BE REPLACED PER FILING NO. 1, AMENDMENT 4 - REFER TO SHEETS 8 - 12
	142,496 SF	EXISTING LANDSCAPE TO REMAIN
MULCH		
	1,417 SF	0.5"-1" GRAY RIVER ROCK FROM TIMBER ROCK
	1,491 SF	1"-2" GRAY RIVER ROCK FROM TIMBER ROCK
	3,332 SF	DARK BROWN SHREDDED HARDWOOD MULCH

N

0 15 30
SCALE: 1"=30'

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KING SOOPERS STORE #142
5TH PUD AMENDMENT

1171 DILLION ROAD
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO

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Project No:	KSS0000142.02
Drawn By:	LJP
Checked By:	SRM
Date:	JANUARY 29, 2025

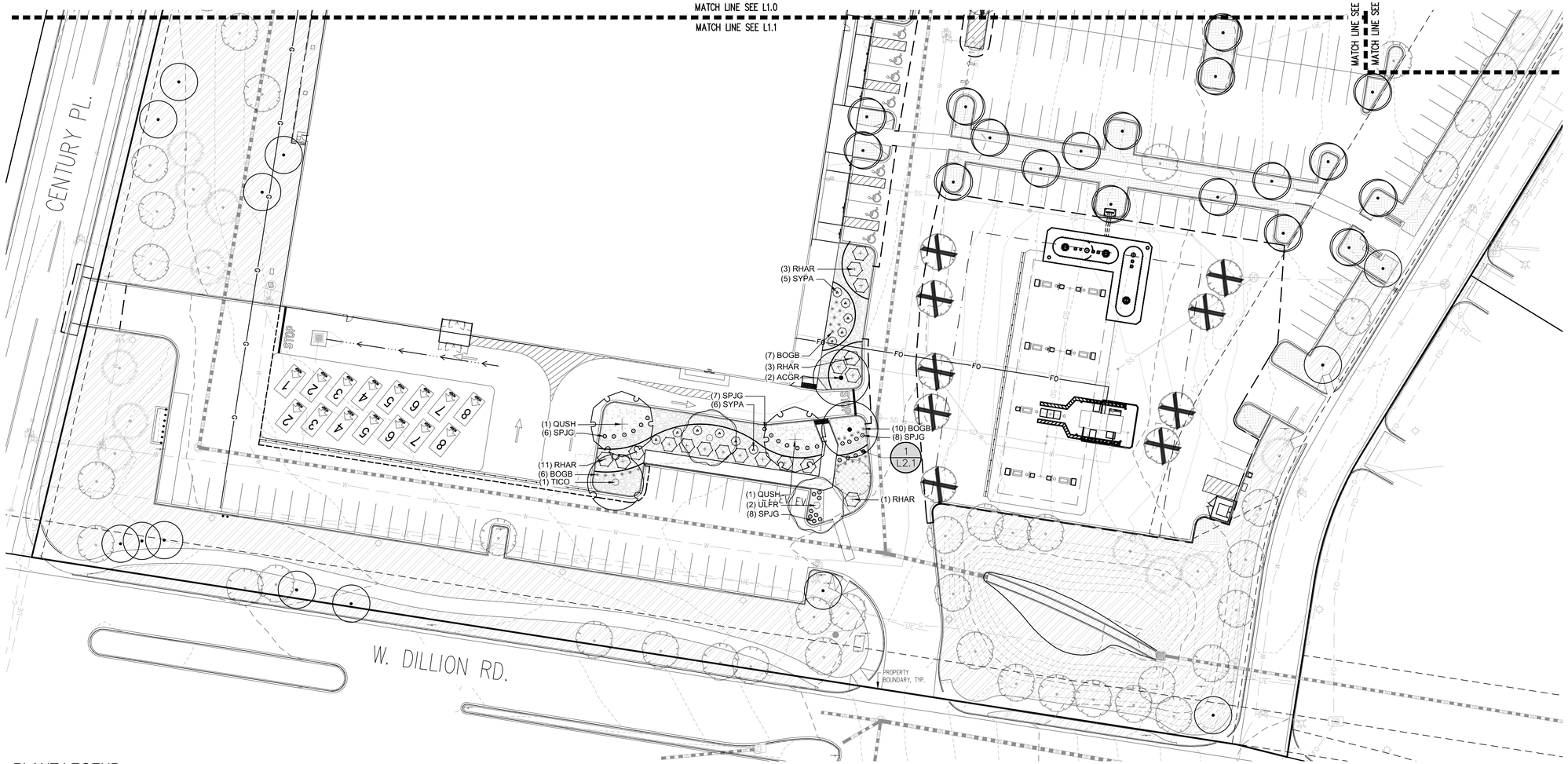
LANDSCAPE PLAN

L1.0
Sheet 14 of 19

N:\Projects\KSS0000142\Eng Docs\Civil\CAD\L1.0.dwg, 1/29/2025 11:44:49 AM, Lisa Bia, \\Galloway.local\Shared\Projects\KSS0000142\Eng Docs\Civil\CAD\L1.0.dwg, Layout: Layout1, Xrefs: 24 ACAD-M-PLAN-Sheet-Border.dwg, 24 ACAD-M-PLAN-Sheet-Title Block.dwg, 24 ACAD-M-PLAN-Sheet-Match Line.dwg, 24 ACAD-M-PLAN-Sheet-Legend.dwg, Xref Overlay: Model, Plotted: 1/29/2025

CENTENNIAL VALLEY PARCEL L PUD, 5TH AMENDMENT

PARCEL L, LOT 5, FILING NO.1,
CASE #: PUPD-000530-2024



PLANT LEGEND

SYMBOL	QTY	COMMON NAME
DECIDUOUS TREES		
	2	BIGTOOTH MAPLE
	2	FRONTIER ELM
	2	IMPERIAL HONEY LOCUST
	2	LITTLELEAF LINDEN
	2	SHUMARD OAK

EXISTING TREES		
	67	EXISTING DECIDUOUS TREE TO REMAIN
	12	EXISTING DECIDUOUS TREE TO BE REMOVED
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	45	TREE TO BE REPLACED PER FILING NO. 1, AMENDMENT 4
	35	TREE TO BE REPLACED PER FILING NO. 1

DECIDUOUS SHRUBS		
	45	GOLDFLAME JAPANESE SPIREA
	18	GRO-LOW FRAGRANT SUMAC
	11	MISS KIM KOREAN LILAC

ORNAMENTAL GRASSES		
	16	BLONDE AMBITION BLUE GRAMA

GROUND COVERS		
	14,391 SF	EXISTING LANDSCAPE TO BE REPLACED PER FILING NO. 1, AMENDMENT 4 - REFER TO SHEETS 8 - 12
	142,496 SF	EXISTING LANDSCAPE TO REMAIN

MULCH		
	1,417 SF	0.5"-1" GRAY RIVER ROCK FROM TIMBER ROCK
	1,491 SF	1"-2" GRAY RIVER ROCK FROM TIMBER ROCK
	3,332 SF	DARK BROWN SHREDDED HARDWOOD MULCH

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KING SOOPERS STORE #142
5TH PUD AMENDMENT

1171 DILLION ROAD
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO

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2	01/29/2025	2ND SUBMITTAL	JDP

Project No:	KSS0000142.02
Drawn By:	LJP
Checked By:	SRM
Date:	JANUARY 29, 2025

LANDSCAPE PLAN

L1.1
Sheet 15 of 19

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CENTENNIAL VALLEY PARCEL L PUD, 5TH AMENDMENT

PARCEL L, LOT 5, FILING NO.1,
CASE #: PUPD-000530-2024

PLANT LEGEND

SYMBOL	QTY	COMMON NAME
DECIDUOUS TREES		
	2	BIGTOOTH MAPLE
	2	FRONTIER ELM
	2	IMPERIAL HONEY LOCUST
	2	LITTLELEAF LINDEN
	2	SHUMARD OAK
EXISTING TREES		
	67	EXISTING DECIDUOUS TREE TO REMAIN
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	45	TREE TO BE REPLACED PER FILING NO. 1, AMENDMENT 4
	35	TREE TO BE REPLACED PER FILING NO. 1
DECIDUOUS SHRUBS		
	45	GOLDFLAME JAPANESE SPIREA
	18	GRO-LOW FRAGRANT SUMAC
	11	MISS KIM KOREAN LILAC
ORNAMENTAL GRASSES		
	16	BLONDE AMBITION BLUE GRAMA
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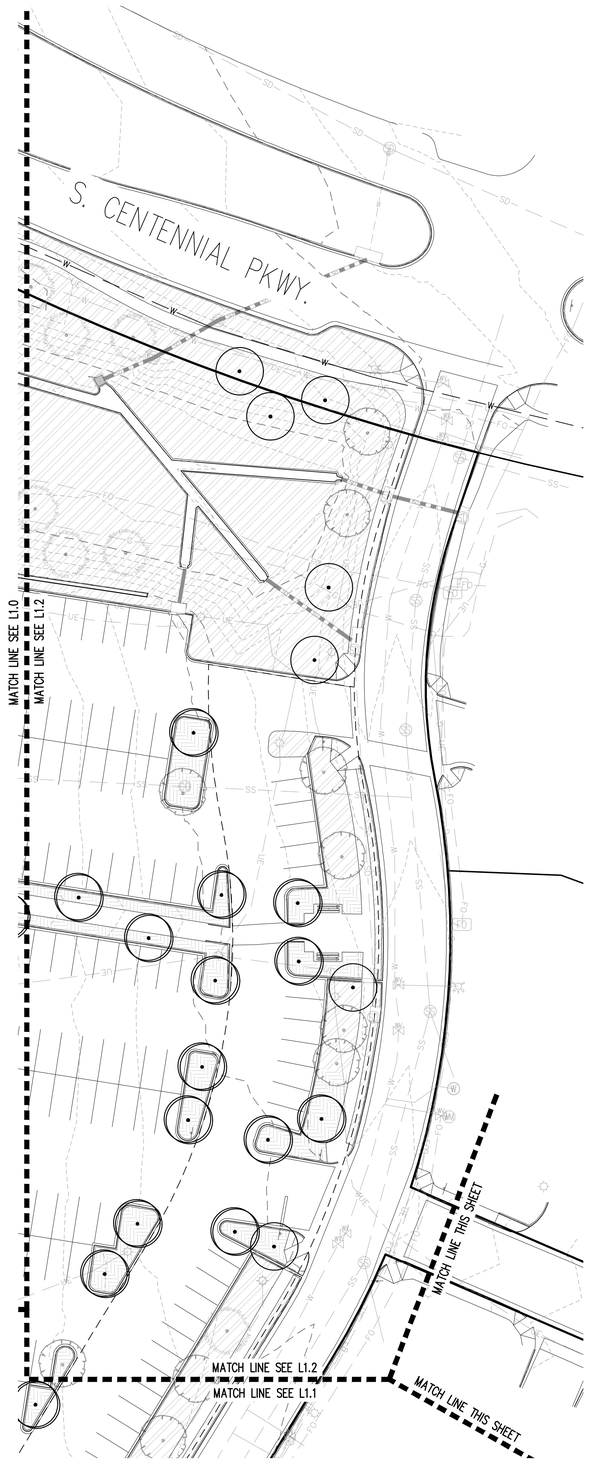

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KING SOOPERS STORE #142
5TH PUD AMENDMENT

1171 DILLION ROAD
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO

#	Date	Issue / Description	Init.
1	11/27/2024	1ST SUBMITTAL	JDP
2	01/29/2025	2ND SUBMITTAL	JDP

Project No:	KSS000142.02
Drawn By:	LJP
Checked By:	SRM
Date:	JANUARY 29, 2025

LANDSCAPE PLAN

L1.2
Sheet 16 of 19

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CENTENNIAL VALLEY PARCEL L PUD, 5TH AMENDMENT

PARCEL L, LOT 5, FILING NO.1,
CASE #: PUPD-000530-2024

IRRIGATION CONCEPT

1. AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED AND OPERATIONAL BY THE TIME OF FINAL INSPECTION. THE ENTIRE IRRIGATION SYSTEM SHALL BE INSTALLED BY A QUALIFIED IRRIGATION CONTRACTOR.
2. THE IRRIGATION SYSTEM WILL HAVE APPROPRIATE BACKFLOW PREVENTION DEVICES INSTALLED TO PREVENT CONTAMINATION OF THE WATER SOURCE IF APPLICABLE.
3. ALL NON-TURF/SEED PLANTED AREAS WILL BE DRIP IRRIGATED. TURF SOD/SEED SHALL RECEIVE POP-UP SPRAY IRRIGATION FOR HEAD TO HEAD COVERAGE.
4. ALL PLANTS SHARING SIMILAR HYDROZONE CHARACTERISTICS SHALL BE PLACED ON A VALVE DEDICATED TO PROVIDE THE NECESSARY WATER REQUIREMENTS SPECIFIC TO THAT HYDROZONE.
5. THE IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED, TO THE MAXIMUM EXTENT POSSIBLE, TO CONSERVE WATER BY USING THE FOLLOWING DEVICES AND SYSTEMS: MATCHED PRECIPITATION RATE TECHNOLOGY ON ROTOR AND SPRAY HEADS (WHEREVER POSSIBLE), RAIN SENSORS, AND SMART MULTI-PROGRAM COMPUTERIZED IRRIGATION CONTROLLERS FEATURING SENSORY INPUT CAPABILITIES.

LANDSCAPE GUARANTEE AND MAINTENANCE

1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS, PERENNIALS, SOD, SEEDED AREAS, AND IRRIGATION SYSTEMS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S ACCEPTANCE. THE CONTRACTOR SHALL REPLACE, AT HIS OWN EXPENSE, ANY PLANTS WHICH DIE IN THAT TIME, OR REPAIR ANY PORTIONS OF THE IRRIGATION SYSTEM WHICH OPERATE IMPROPERLY.
2. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE IN A NEAT, CLEAN, AND HEALTHY CONDITION FOR A PERIOD OF 90 DAYS. THIS SHALL INCLUDE PROPER PRUNING, MOWING AND AERATION OF LAWNS, WEEDING, REPLACEMENT OF MULCH, REMOVAL OF LITTER, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. IRRIGATION SHALL BE MAINTAINED IN PROPER WORKING ORDER, WITH SCHEDULING ADJUSTMENTS BY SEASON AND TO MAXIMIZE WATER CONSERVATION. IF SITE OPENS DURING WINTER, TO AVOID FREEZE DAMAGE ON PLANTINGS, THE 90 DAYS SHOULD BEGIN AFTER ACCEPTANCE OF THE WORK.
3. DURING THE LANDSCAPE MAINTENANCE PERIOD, THE LANDSCAPE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM STRUCTURES IN ALL LANDSCAPE AREAS AT THE MINIMUM SLOPE SPECIFIED IN THE GEOTECHNICAL REPORT. LANDSCAPE AREAS WHICH SETTLE AND CREATE THE POTENTIAL FOR PONDING SHALL BE REPAIRED TO ELIMINATE PONDING POTENTIAL AND BLEND IN WITH THE SURROUNDING GRADES. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GEOTECHNICAL REPORT, THE GRADING PLANS, THESE NOTES, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND OWNER.

UTILITY NOTES

1. THE LANDSCAPE CONTRACTOR IS REQUIRED TO CONTACT THE COUNTY PUBLIC WORKS DEPARTMENT, AND ANY OTHER PUBLIC OR PRIVATE AGENCY NECESSARY FOR UTILITY LOCATION PRIOR TO ANY CONSTRUCTION.
2. THIS DRAWING IS A PART OF A COMPLETE SET OF BID DOCUMENTS, SPECIFICATIONS, ADDITIONAL DRAWINGS, AND EXHIBITS. UNDER NO CIRCUMSTANCES SHOULD THESE PLANS BE USED FOR CONSTRUCTION PURPOSES WITHOUT EXAMINING ACTUAL LOCATIONS OF UTILITIES ON SITE, AND REVIEWING ALL RELATED DOCUMENTS.
3. THE LOCATION OF THE ALL UNDERGROUND UTILITIES ARE LOCATED ON THE ENGINEERING DRAWINGS FOR THIS PROJECT. THE MOST CURRENT REVISION IS HERE IN MADE PART OF THIS DOCUMENT. UNDERGROUND UTILITIES EXIST THROUGHOUT THIS SITE AND MUST BE LOCATED PRIOR TO ANY CONSTRUCTION ACTIVITY. WHERE UNDERGROUND UTILITIES EXIST, FIELD ADJUSTMENT MAY BE NECESSARY AND MUST BE APPROVED BY A REPRESENTATIVE OF THE OWNER. NEITHER THE OWNER NOR THE LANDSCAPE ARCHITECT ASSUMES ANY RESPONSIBILITY WHATSOEVER, IN RESPECT TO THE CONTRACTORS ACCURACY IN LOCATING THE INDICATED PLANT MATERIAL, AND UNDER NO CIRCUMSTANCES SHOULD THESE PLANS BE USED WITHOUT REFERENCING THE ABOVE MENTIONED DOCUMENTS.

IRRIGATION CONTRACTOR NOTE:

1. CONTRACTOR TO ENSURE IRRIGATION SYSTEM IS IN PLACE AND OPERATIONAL PRIOR TO INSTALLATION.
2. CONTRACTOR TO RETROFIT AND EXTEND THE EXISTING IRRIGATION SYSTEM TO NEWLY ADDED PLANT MATERIAL SHOWN ON THE LANDSCAPE PLAN.
3. ALL IRRIGATION EQUIPMENT AND COMPONENTS USED, SHALL MATCH THE EXISTING IRRIGATION SYSTEM.
4. CONTRACTOR TO ENSURE THE RETROFITTED IRRIGATION SYSTEM IS OPERATIONAL UPON COMPLETION.
5. CONTRACT THE LANDSCAPE ARCHITECT WITH ANY QUESTIONS REGARDING THIS RETROFIT.

PLANT SCHEDULE

SYMBOL	CODE	QTY	COMMON NAME	BOTANICAL NAME	CONT.	CAL / SIZE	HT. X SPD.	WATER USE
DECIDUOUS TREES								
	ACGR	2	BIGTOOTH MAPLE	ACER GRANDIDENTATUM	B&B	2" CAL	30'X30'	MODERATE
	GTII	2	IMPERIAL HONEY LOCUST	GLEDITSIA TRIACANTHOS INERMIS 'IMPCOLE' TM	B&B	2" CAL	35'X25'	LOW
	QUSH	2	SHUMARD OAK	QUERCUS SHUMARDII	B&B	2" CAL	50'X35'	LOW
	TICO	2	LITTLELEAF LINDEN	TILIA CORDATA	B&B	2" CAL	40'X30'	MODERATE
	ULFR	2	FRONTIER ELM	ULMUS X 'FRONTIER'	B&B	2" CAL	40'X30'	MODERATE
EXISTING TREES								
		45	TREE TO BE REPLACED	PER FILING NO. 1, 4TH AMENDMENT	B&B			
		35	TREE TO BE REPLACED	PER FILING NO.1	B&B			
		12	EXISTING DECIDUOUS TREE	TO BE REMOVED	EXISTING			
		3	EXISTING EVERGREEN TREE	TO BE REMOVED	EXISTING			
		67	EXISTING DECIDUOUS TREE	TO REMAIN	EXISTING			
		36	EXISTING EVERGREEN TREE	TO REMAIN	EXISTING			

SYMBOL	CODE	QTY	COMMON NAME	BOTANICAL NAME	CONT.	HT. X SPD.	WATER USE
DECIDUOUS SHRUBS							
	RHAR	18	GRO-LOW FRAGRANT SUMAC	RHUS AROMATICA 'GRO-LOW'	#5 CONT.	3'X8'	LOW
	SPJG	45	GOLDFLAME JAPANESE SPIREA	SPIRAEA JAPONICA 'GOLDFLAME'	#5 CONT.	3'X2'	LOW
	SYPA	11	MISS KIM KOREAN LILAC	SYRINGA PATULA 'MISS KIM'	#5 CONT.	5'X5'	VERY LOW
ORNAMENTAL GRASSES							
	BOGB	23	BLONDE AMBITION BLUE GRAMA	BOUTELOUA GRACILIS 'BLONDE AMBITION'	#1 CONT.	2'X2'	LOW

GROUND COVERS

14,391 SF	EXISTING LANDSCAPE TO BE REPLACED PER FILING NO. 1, AMENDMENT 4 - REFER TO SHEETS 8 - 12
142,496 SF	EXISTING LANDSCAPE TO REMAIN

MULCH

1,417 SF	0.5"-1" GRAY RIVER ROCK FROM TIMBER ROCK
1,491 SF	1"-2" GRAY RIVER ROCK FROM TIMBER ROCK
3,332 SF	DARK BROWN SHREDDED HARDWOOD MULCH

LANDSCAPE MATERIALS SCHEDULE

CODE	DESCRIPTION	QTY	DETAIL
Landscape			
	STEEL EDGER	295 LF	L2.1/DETAIL 1

PLANTING NOTES

GENERAL

1. ALL WORK SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL CODES, STANDARDS, AND SPECIFICATIONS.
2. LANDSCAPE DESIGN IS DIAGRAMMATIC IN NATURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN TAKEOFFS AND QUANTITY CALCULATIONS. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND THE LANDSCAPE LEGEND, THE PLANT QUANTITY AS SHOWN ON THE PLAN SHALL TAKE PRECEDENCE AND NOTIFY THE LANDSCAPE ARCHITECT OF THESE DISCREPANCIES. MINOR ADJUSTMENTS TO THE LANDSCAPE MATERIAL AND LOCATIONS MAY BE PROPOSED FOR CITY CONSIDERATION AT THE CONSTRUCTION DOCUMENT STAGE TO RESPOND TO MARKET AND FIELD CONDITIONS. HOWEVER, THERE SHALL BE NO REDUCTION IN THE NUMBER AND SIZE OF MATERIALS.
3. CONTRACTOR SHALL MAKE HIMSELF AWARE OF THE LOCATIONS OF EXISTING AND PROPOSED UTILITIES, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE UTILITIES AND/OR ANY INJURY TO ANY PERSON. THIS DRAWING IS PART OF A COMPLETE SET OF CONTRACT DOCUMENTS. UNDER NO CIRCUMSTANCES SHOULD THIS PLAN BE USED FOR CONSTRUCTION PURPOSES WITHOUT EXAMINING ACTUAL LOCATIONS OF UTILITIES ON SITE AND REVIEW ALL RELATED PLANS AND DOCUMENTS.
4. ALL UTILITY EASEMENTS SHALL REMAIN UNOBSTRUCTED AND FULLY ACCESSIBLE ALONG THEIR ENTIRE LENGTH FOR MAINTENANCE EQUIPMENT.
5. THE CONTRACTOR SHALL TAKE EXTREME CARE NOT TO DAMAGE ANY EXISTING PLANTS INDICATED AS "TO REMAIN". ANY SUCH PLANTS DAMAGED BY THE CONTRACTOR SHALL BE REPLACED WITH THE SAME SPECIES, SIZE, AND QUANTITY AT THE CONTRACTOR'S OWN EXPENSE, AND AS ACCEPTABLE TO THE OWNER. REFER TO THE TREE PROTECTION NOTES ON THE PLANS (AS APPLICABLE).
6. LANDSCAPE CONTRACTOR SHALL EXAMINE THE SITE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND NOTIFY THE GENERAL CONTRACTOR IN WRITING OF UNSATISFACTORY CONDITIONS. IF SITE CONDITIONS OR PLANT AVAILABILITY REQUIRE CHANGES TO THE PLAN, THEN AN APPROVAL WILL BE OBTAINED FROM THE CITY. DO NOT PROCEED UNTIL CONDITIONS HAVE BEEN CORRECTED.
7. ALL CONSTRUCTION DEBRIS AND MATERIAL SHALL BE REMOVED AND CLEANED OUT PRIOR TO INSTALLATION OF TOPSOIL, TREES, SHRUBS, AND TURF.
8. FOR ALL INFORMATION ON SURFACE MATERIAL OF WALKS, DRIVES, AND PARKING LOTS, SEE THE SITE PLAN. SEE PHOTOMETRIC PLAN FOR FREE STANDING LIGHTING INFORMATION.
9. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT ONE WEEK PRIOR TO BEGINNING CONSTRUCTION.
10. WINTER WATERING SHALL BE AT THE EXPENSE OF THE CONTRACTOR UNTIL SUCH TIME AS FINAL ACCEPTANCE IS RECEIVED.
11. ALL LANDSCAPE CONSTRUCTION PRACTICES, WORKMANSHIP, AND ETHICS SHALL, BE IN ACCORDANCE WITH INDUSTRY STANDARDS SET FORTH IN THE CONTRACTORS HANDBOOK PUBLISHED BY THE COLORADO LANDSCAPE CONTRACTORS ASSOCIATION.
12. LANDSCAPE AND IRRIGATION WORK SHALL BE COMPLETED PRIOR TO THE ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY.

FINISH GRADING AND SOIL PREPARATION

13. CONTRACTOR SHALL CONSTRUCT AND MAINTAIN FINISH GRADES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GEOTECHNICAL REPORT, THE GRADING PLANS, THESE NOTES, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND OWNER.
14. AFTER FINISH GRADES HAVE BEEN ESTABLISHED, IT IS RECOMMENDED THAT THE CONTRACTOR SHALL HAVE SOIL SAMPLES TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY FOR THE FOLLOWING: GENERAL SOIL FERTILITY, PH, ORGANIC MATTER CONTENT, SALT (CEC), LIME, SODIUM ABSORPTION RATIO (SAR) AND BORON CONTENT. EACH SAMPLE SUBMITTED SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL. CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWING (AS APPROPRIATE): GENERAL SOIL PREPARATION AND BACKFILL MIXES, PRE-PLANT FERTILIZER APPLICATIONS, AND ANY OTHER SOIL RELATED ISSUES. THE REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR LONG-TERM MAINTENANCE.
15. THE CONTRACTOR SHALL RECOMMEND INSTALLATION OF SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT FOR THE THE OWNER/OWNER'S REPRESENTATIVE CONSIDERATION.
16. AT A MINIMUM, ALL TOPSOIL SHALL BE AMENDED WITH NITROGEN STABILIZED ORGANIC AMENDMENT COMPOST AT A RATE OF 5.0 CUBIC YARDS AND AMMONIUM PHOSPHATE 16-20-0 AT A RATE OF 15 POUNDS PER THOUSAND SQUARE FEET OF LANDSCAPE AREA. COMPOST SHALL BE MECHANICALLY INTEGRATED INTO THE TOP 6" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING. GROUND COVER & PERENNIAL BED AREAS SHALL BE AMENDED AT A RATE OF 8 CUBIC FEET PER THOUSAND SQUARE FEET OF NITROGEN STABILIZED ORGANIC AMENDMENT AND 10 LBS. OF 12-12-12 FERTILIZER PER CU. YD., ROTOTILLED TO A DEPTH OF 8", NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE USED FOR ORGANIC AMENDMENTS.
17. ALL PARKING ISLAND SOIL TO BE TILLED OR AMENDED TO A MINIMUM DEPTH OF 30".

PLANTING

18. ALL DECIDUOUS TREES SHALL HAVE FULL, WELL-SHAPED HEADS/ALL EVERGREENS SHALL BE UNSHEARED AND FULL TO THE GROUND; UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING.
19. ALL PLANTS WITHIN A SPECIES SHALL HAVE SIMILAR SIZE, AND SHALL BE OF A FORM TYPICAL FOR THE SPECIES. ANY PLANT DEEMED UNACCEPTABLE BY THE LANDSCAPE ARCHITECT SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTABLE PLANT OF LIKE TYPE AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, EVEN IF DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE LANDSCAPE ARCHITECT SHALL BE THE SOLE JUDGE AS TO THE ACCEPTABILITY OF PLANT MATERIAL.
20. ALL TREES SHALL BE GUYED AND WOOD STAKED AS PER DETAILS, NO 'T-STAKES' SHALL BE USED FOR TREES.
21. ALL PLANT MATERIALS SHALL BE TRUE TO TYPE, SIZE, SPECIES, QUALITY, AND FREE OF INJURY, BROKEN ROOT BALLS, PESTS, AND DISEASES, AS WELL AS CONFORM TO THE MINIMUM REQUIREMENTS DESCRIBED IN THE "AMERICAN STANDARD FOR NURSERY STOCK". FOLLOW GREENCO TREE PLANTING RECOMMENDATIONS FOR MINIMUM QUALITY REQUIREMENTS FOR TREES.
22. ALL TREE AND SHRUB BED LOCATIONS ARE TO BE STAKED OUT ON SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
23. ALL TREES PLANTED ADJACENT TO PUBLIC AND/OR PEDESTRIAN WALKWAYS SHALL BE PRUNED CLEAR OF ALL BRANCHES BETWEEN GROUND AND A HEIGHT OF EIGHT (8) FEET FOR THAT PORTION OF THE PLAN LOCATED OVER THE SIDEWALK AND/OR ROAD.
24. ALL PLANT MATERIAL SHALL NOT BE PLANTED PRIOR TO INSTALLATION OF TOPSOIL.
25. ALL PLANT BEDS SHALL BE CONTAINED WITH STEEL EDGER. STEEL EDGER IS NOT REQUIRED ALONG CURBS, WALKS OR BUILDING FOUNDATIONS. ALL EDGING SHALL OVERLAP AT JOINTS A MINIMUM OF 6-INCHES, AND SHALL BE FASTENED WITH A MINIMUM OF 4 PINS PER EACH 10 FOOT SECTION. THE TOP OF ALL EDGING MATERIAL SHALL BE A ROLLED TOP AND 1/2 INCH ABOVE THE FINISHED GRADE OF ADJACENT LAWN OR MULCH AREAS. COLOR: GREEN.
26. THE DEVELOPER, HIS SUCCESSOR, OR ASSIGNEE SHALL BE RESPONSIBLE FOR ESTABLISHING AND CONTINUING A REGULAR PROGRAM OF MAINTENANCE FOR ALL LANDSCAPED AREAS. SEE LANDSCAPE GUARANTEE AND MAINTENANCE NOTE.
27. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF ALL FIRE HYDRANTS.
28. LANDSCAPE CONTRACTOR TO SUBMIT SAMPLES OF MISCELLANEOUS LANDSCAPING MATERIALS TO THE LANDSCAPE ARCHITECTS AND OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION, IE.; MULCH, EDGER, LANDSCAPE FABRIC, ETC.

MULCHING

29. AFTER ALL PLANTING IS COMPLETE, THE CONTRACTOR SHALL INSTALL A MINIMUM 4" THICK LAYER OF MULCH AS SPECIFIED IN THE PLANTING LEGEND. INSTALL A 4" THICK RING OF DOUBLE SHREDDED CEDAR BARK MULCH AROUND ALL PLANT MATERIAL IN ROCK MULCH BEDS WHERE LANDSCAPING IS SHOWN ON THE PLANS. WOOD MULCH RING SIZE SHALL BE THE CONTAINER SIZE OF THE SHRUBS, PERENNIALS, AND ORNAMENTAL GRASSES. TREE RING SIZE SHALL A MIN OF 3' DIA.
30. ALL MULCH SHALL BE HARVESTED IN A SUSTAINABLE MANNER FROM A LOCAL SOURCE.
31. INSTALL DEWITT PRO-5 WEED BARRIER FABRIC UNDER ALL ROCK MULCH SHRUB BEDS SPECIFIED ON THE PLANS ONLY. NO LANDSCAPE FABRIC SHALL BE USED IN WOOD MULCH AREAS. NO PLASTIC WEED BARRIERS SHALL BE SPECIFIED.
32. ABSOLUTELY NO EXPOSED GROUND SHALL BE LEFT SHOWING ANYWHERE ON THE PROJECT AFTER MULCH HAS BEEN INSTALLED.
33. ALL PLANTING AREAS WITH LESS THAN A 4:1 GRADIENT SHALL RECEIVE A LAYER OF MULCH, TYPE AND DEPTH PER PLANS. SUBMIT 1 CUBIC FOOT SAMPLE OF MULCH (ONE SAMPLE PER TYPE) TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. THE MULCH SHALL BE SPREAD EVENLY THROUGHOUT ALL PLANTING AREAS EXCEPT SLOPES 4:1 OR STEEPER, OR AS OTHERWISE DENOTED ON THE PLAN. ABSOLUTELY NO EXPOSED GROUND SHALL REMAIN IN AREAS TO RECEIVE MULCH AFTER MULCH HAS BEEN INSTALLED.
34. ALL PLANTING AREAS ON SLOPES OVER 4:1 SHALL RECEIVE COCONUT FIBER EROSION CONTROL NETTING FROM ROLLS. NETTING SHALL BE #CT-125, AS MANUFACTURED BY NORTH AMERICAN GREEN (OR EQUAL). INSTALL AND STAKE PER MANUFACTURER'S SPECIFICATIONS. SEE ALSO THE CIVIL ENGINEER'S EROSION CONTROL PLAN.

TREE PROTECTION NOTES:

1. USE TOWN OF LOUISVILLE TREE PROTECTION NOTES (IF AVAILABLE). TREE PROTECTION NOTES BELOW SHALL BE USED FOR FURTHER INTEGRATION.
2. "PROTECTED ZONE" FOR EXISTING TREES: BEFORE BEGINNING ANY DEMOTION OR CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL INSTALL TEMPORARY FENCING AROUND ALL EXISTING TREES WITHIN THE CONSTRUCTION ZONE THAT ARE TO BE SAVED. THE FENCE SHALL BE INSTALLED NO CLOSER TO THE TREE THAN THE EDGE OF THE TREE'S PROTECTED ZONE, GENERALLY DEFINED AS THE AREA BEGINNING FIVE FEET OUTSIDE OF THE TREE'S DRIPLINE AND EXTENDING TOWARDS THE TREE (OR AS FAR AWAY FROM THE TRUNK AS PRACTICABLE). THE FENCING SHALL BE OF A MATERIAL AND HEIGHT ACCEPTABLE TO THE LANDSCAPE ARCHITECT. ALL CONTRACTORS AND THEIR CREWS SHALL NOT BE ALLOWED INSIDE THIS "PROTECTED ZONE" NOR SHALL THEY BE ALLOWED TO STORE OR DUMP FOREIGN MATERIALS WITHIN THIS AREA. NO WORK OF ANY KIND, INCLUDING TRENCHING, SHALL BE ALLOWED WITHIN THE PROTECTED ZONE EXCEPT AS DESCRIBED BELOW. THE FENCING SHALL REMAIN AROUND EACH TREE TO BE SAVED UNTIL THE COMPLETION OF CONSTRUCTION OPERATIONS.
3. TEMPORARY MULCH: TO ALLEVIATE SOIL COMPACTION IN ANTICIPATED AREAS OF HIGH CONSTRUCTION TRAFFIC, AND ONLY WHERE FENCING CANNOT BE SET FIVE FEET OUTSIDE OF THE DRIPLINE, THE CONTRACTOR SHALL INSTALL A LAYER OF MULCH, 9"-12" THICK, OVER ALL EXPOSED EARTH FROM THE TREE TRUNK TO 5' OUTSIDE OF THE DRIPLINE. THIS LAYER SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. WHEN PLANTING OPERATIONS ARE COMPLETED, THE MULCH SHALL BE REDISTRIBUTED THROUGHOUT ALL PLANTING AREAS IN A 3" THICK "PERMANENT" MULCH LAYER.
4. NECESSARY WORK: WHEN IT BECOMES NECESSARY TO ENTER THE "PROTECTED ZONE", SUCH AS FOR FINE GRADING, IRRIGATION INSTALLATION, AND PLANTING OPERATIONS, THE CONTRACTOR SHALL STRICTLY ADHERE TO THE FOLLOWING RULES:
   A. EVERY EFFORT SHALL BE MADE TO PRESERVE THE EXISTING GRADE AROUND PROTECTED TREES IN AS WIDE AN AREA AS POSSIBLE.
   B. TRENCHING WITHIN THE PROTECTED ZONE OF EXISTING TREES SHALL BE PERFORMED BY HAND, AND WITH EXTREME CARE NOT TO SEVER ROOTS 1-1/2" IN DIAMETER AND LARGER. WHERE ROOTS 1-1/2" IN DIAMETER AND LARGER ARE ENCOUNTERED, THE CONTRACTOR SHALL TUNNEL UNDER SAID ROOTS. EXPOSED ROOTS THAT HAVE BEEN TUNNELED UNDER SHALL BE WRAPPED IN WET BURLAP AND KEPT MOIST WHILE THE TRENCH IS OPEN.
   C. WHERE ROOTS 1-1/2" IN DIAMETER OR LARGER MUST BE CUT DUE TO EXTENSIVE GRADE CHANGES, THOSE ROOTS MUST BE EXPOSED BY HAND DIGGING AND CUT CLEANLY. RAGGED CUTS GENERALLY DO NOT HEAL PROPERLY, AND MAY LEAVE THE TREE OPEN TO PESTS AND PATHOGENS.
   D. WHERE TRENCHING NEAR TREES HAS ALREADY OCCURRED FROM PREVIOUS CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL MAKE EVERY EFFORT TO CONFINE HIS TRENCHING OPERATIONS TO THE PREVIOUSLY-CREATED TRENCHES, WHILE ADHERING TO THE CONDITIONS SET FORTH IN 3B.
4. POTENTIAL CONFLICTS: THE CONTRACTOR SHALL NOTIFY THE OWNER AND ARBORIST SHOULD ANY POTENTIAL CONFLICTS ARISE BETWEEN THESE SPECIFICATIONS AND/OR LARGE ROOTS ENCOUNTERED IN THE FIELD, AND CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL NOT TAKE ANY ACTION IN SUCH CONFLICTS WITHOUT THE ARBORIST'S WRITTEN APPROVAL. THE ARBORIST SHALL HAVE FINAL AUTHORITY OVER ALL METHODS NECESSARY TO HELP ENSURE THE PROTECTION AND SURVIVAL OF EXISTING TREES.
5. PRUNING: PRUNE ONLY THE TREES THAT ARE INDICATED ON THE PLANS AS REQUIRING PRUNING. PRUNE TREES ACCORDING TO INTERNATIONAL SOCIETY OF ARBORICULTURE / ANSI A300 STANDARDS:
   A. REMOVE ALL DEAD WOOD.
   B. PRUNE LIVE WOOD FOR HEALTH OR STRUCTURAL REASONS ONLY, INCLUDING THE NEED TO ELIMINATE DISEASED OR DAMAGED GROWTH, ELIMINATE STRUCTURALLY UNSOUND GROWTH, REDUCE THE POTENTIAL FOR WIND TOPPLING OR WIND DAMAGE, OR TO MAINTAIN GROWTH WITHIN LIMITED SPACE. DO NOT REMOVE MORE THAN 25% OF ANY TREE'S LIVE FOLIAGE IN ANY ONE GROWING SEASON. PRUNE ONLY TO INTERNATIONAL SOCIETY OF ARBORICULTURE/ANSI A300 STANDARDS, AND ONLY UNDER THE DIRECT SUPERVISION OF A CERTIFIED ARBORIST.
   C. FINAL CUTS SHALL BE MADE JUST OUTSIDE THE SHOULDER RING AREA. EXTREMELY FLUSHED CUTS WHICH PRODUCE LARGE WOUNDS SHALL NOT BE MADE.
   D. ALL TRIMMING CUTS SHALL BE PERFORMED IN SUCH A MANNER AS TO PROMOTE THE NATURAL GROWTH AND SHAPE OF EACH TREE SPECIES.
   E. IMPROPER PRUNING METHODS INCLUDING, BUT NOT LIMITED TO, "TOPPING", "TIPPING", "HEADING BACK", "DEHORNING", AND "LIONTAILING" WILL NOT BE ALLOWED. THE CONTRACTOR SHALL PAY FOR ALL WORK NECESSARY TO CORRECT SUCH PRUNING WHEN PERFORMED BY HIS CREWS OR SUBCONTRACTORS.
   F. SHOULD THE CONTRACTOR REQUIRE MORE INFORMATION, THE CONTRACTOR SHALL CONTACT THE ISA AT (217) 355-9411 FOR A COPY OF THE ANSI A300 PRUNING STANDARDS. CONTRACTOR SHALL ADHERE TO THE METHODS AND PRACTICES SET FORTH IN THIS DOCUMENT.
6. LANDSCAPE AND IRRIGATION (NATIVE TREES ONLY): ANY FUTURE LANDSCAPE AND IRRIGATION SHOULD ADHERE TO THE FOLLOWING GUIDELINES:
   A. NO IRRIGATION OR PLANTING SHOULD OCCUR CLOSER THAN 8'-10' FROM THE TRUNK.
   B. WHERE IRRIGATION DOES OCCUR WITHIN THE PROTECTED ZONE, DRIP IRRIGATION SHOULD BE USED WHEREVER POSSIBLE. ADDITIONALLY, ONLY PLANTS WITH LOW WATER NEEDS SHOULD BE PLANTED WITHIN THE PROTECTED ZONE, SPACED FAR APART WHERE CLOSE TO THE TREE. PLANTS MAY BE SPACED CLOSER TOGETHER NEAR THE EDGE OF THE PROTECTED ZONE.

LANDSCAPE REQUIREMENTS					
CODE SECTION	CATEGORY	FORMULA	CALCULATION	REQUIRED	PROVIDED
CDDSG.1.4.B	SITE COVERAGE	30% MINIMUM OPEN SPACE	588,290 SF X 0.3	176,487 SF (30% MIN)	TOTAL: 188,378 SF LANDSCAPE: 163,127 SF (28%) HARDSCAPE: 25,251 SF (4%)
CDDSG.5.3.C	PARKING LOT LANDSCAPE	1 SHADE TREE PER 8 PARKING SPACES	35 SPACES / 8 X 1	5 TREES	5 TREES
CDDSG.5.3.H.2	PARKING LOT LANDSCAPE	2 SHADE TREES PER ISLAND	5 ISLANDS X 2	10 TREES	10 TREES
CDDSG.5.3.H.3	PARKING LOT LANDSCAPE	8 SHRUBS PER ISLAND	5 ISLANDS X 8	35 SHRUBS	35 SHRUBS
CDDSG.5.6.B.3	PLANT MATERIAL	MAXIMUM 20% SINGLE SPECIES	10 TREES X 0.2	2 TREES PER 1 SPECIES (20% MAX)	2 TREES PER 1 SPECIES (20%)
CDDSG.5.6.H.3	MULCH	MAXIMUM 50% DECORATIVE ROCK	6,240 SF X 0.5	3,120 SF (50% MAX)	3,059 SF (49%)

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KING SOOPERS STORE #142
5TH PUD AMENDMENT

1171 DILLION ROAD
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO

#	Date	Issue / Description	Init.
1	11/27/2024	1ST SUBMITTAL	JDP
2	01/29/2025	2ND SUBMITTAL	JDP

Project No:	KSS0000142.02
Drawn By:	LJP
Checked By:	SRM
Date:	JANUARY 29, 2025

LANDSCAPE NOTES

L2.0
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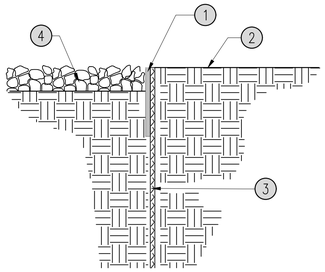
\\Galloway\Projects\KSS0000142.02 King Soopers - Cty Submittal\CAD Landscape - KSS0000142 - Main 24 & Mitchell\DWG\KSS0142_2_plant notes & details.dwg, L2.0 Plant Notes, 1/29/2025

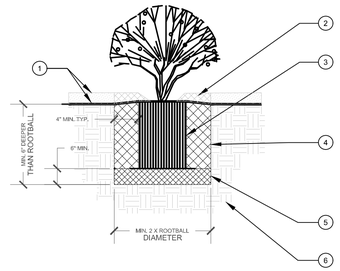
CENTENNIAL VALLEY PARCEL L PUD, 5TH AMENDMENT

PARCEL L, LOT 5, FILING NO.1,
CASE #: PUPD-000530-2024



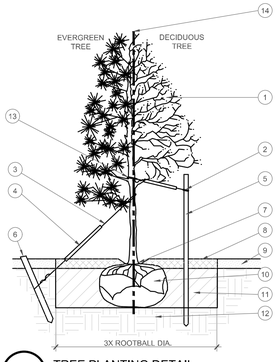
1. 3/16" x 4" RYERSON STEEL EDGING OR EQUAL
2. FINISH GRADE
3. 16" STAKES AT 30" O.C.
4. 4" DEPTH MULCH

1 STEEL EDGE
N.T.S.



1. FINISH GRADE. SEE PLANTING PLAN FOR GROUND COVER TREATMENT
2. SHREDDED BARK MULCH, 3" MIN. DEPTH, ROUGHLY THE EXTENTS OF ROOTBALL
3. PLANT ROOT BALL. SET TOP ROOTBALL 2" ABOVE ADJACENT GRADE. IN BERMED AREAS SET ROOTBALL 2" ABOVE LOWER ADJACENT GRADE - INSTALL WATER RING (2 - 3" HT.)
4. BACKFILL MIX (PER PLANTING SPECIFICATIONS). AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS. JET BACKFILL WITH WATER TO ELIMINATE VOIDS.
5. COMPACTED BACKFILL MIX (75%).
6. UNDISTURBED NATIVE SOIL.

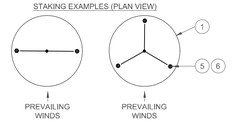
2 SHRUB AND PERENNIAL DETAIL
SCALE: NOT TO SCALE



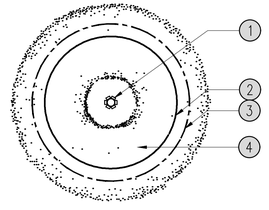
1. TREE CANOPY.
2. NYLON TREE STRAPS AT ENDS OF WIRES - SECURE TO STAKE OR DEADMEN WITH NAILS.
3. 12 GAUGE GALVANIZED WIRE. SECURE TO TRUNK JUST ABOVE LOWEST MAJOR BRANCHES.
4. 24" X 3/4" P.V.C. MARKERS OVER WIRES.
5. PRESSURE-TREATED WOOD STAKE, 2" DIA. EXTEND STAKES 12" MIN. INTO UNDISTURBED SOIL.
6. PRESSURE-TREATED WOOD DEADMEN, TWO PER TREE (MIN.). BURY OUTSIDE OF PLANTING PIT AND 18" MIN. INTO UNDISTURBED SOIL.
7. TRUNK FLARE.
8. WOOD MULCH TREE RING 3' DIA MIN. TYPE AND DEPTH PER PLANS. DO NOT PLACE MULCH WITHIN 3" OF TRUNK.
9. FINISH GRADE. SEE PLANTING PLAN FOR GROUND COVER TREATMENT
10. ROOT BALL-SEE NOTE 3, THIS DETAIL
11. BACKFILL. AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS.
12. UNDISTURBED NATIVE SOIL
13. SOFT VELCRO, OR OTHER FABRIC WRAP
14. CENTRAL LEADER, SEE PLANTING NOTES

NOTES:
1. SCARIFY SIDES OF PLANTING PIT PRIOR TO SETTING TREE.
2. REMOVE EXCESS SOIL APPLIED ON TOP OF THE ROOTBALL THAT COVERS THE ROOT FLARE. THE PLANTING HOLE DEPTH SHALL BE SUCH THAT THE ROOTBALL RESTS ON UNDISTURBED SOIL, AND THE ROOT FLARE IS 3"-5" ABOVE FINISH GRADE.
3. CUT OFF BOTTOM 1/3 OF WIRE BASKET BEFORE PLACING TREE IN HOLE. CUT OFF AND REMOVE REMAINDER OF BASKET AFTER TREE IS SET IN HOLE. REMOVE ALL NYLON TIES, TWINE, ROPE, AND OTHER PACKING MATERIAL. REMOVE ALL BURLAP FROM AROUND ROOTBALL.
4. TREE WRAP IS NOT TO BE USED ON ANY NEW PLANTINGS, EXCEPT IN LATE FALL PLANTING SITUATIONS, AND ONLY THEN AFTER CONSULTATION WITH THE LANDSCAPE ARCHITECT. WHEN WRAPPING TREE, WRAP FROM TRUNK FLARE TO LOWEST MAJOR BRANCH.
5. REMOVE ALL NURSERY STAKES AFTER PLANTING.
6. FOR TREES OVER 3" CALIPER, USE THREE STAKES OR DEADMEN (AS APPROPRIATE), SPACED EVENLY AROUND TREE.
7. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.

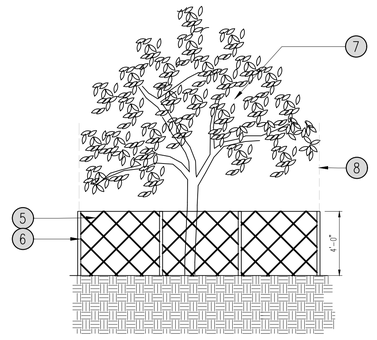
STAKING EXAMPLES (PLAN VIEW)



3 TREE PLANTING DETAIL
SCALE: NOT TO SCALE



1. TRUNK PROTECTION BOARDS MIN. 2" THICK. BENEATH BOARDS ARE 3-4 LAYERS OF BURLAP AROUND TRUNK. TIE BOARDS SECURELY AT TOP, BOTTOM & CENTER WITH HEAVY DUTY CORD, WIRE, OR CABEL CHOKERS.
2. OUTLINE OF TREE CROWN (EDGE OF DRIPLINE) CORRESPONDS WITH ROOT SPREAD.
3. CONSTRUCTION FENCING (MIN. 4' HEIGHT)
4. WOOD MULCH – SEE MULCH
5. PLASTIC ORANGE CONSTRUCTION FENCE TIED TO T-POST
6. T-POST AT 8'-0" O.C. (TYP.)
7. EXISTING TREE
8. DRIPLINE



4 TREE PROTECTION DETAIL
N.T.S.

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KING SOOPERS STORE #142
5TH PUD AMENDMENT

1171 DILLION ROAD
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO

#	Date	Issue / Description	Init.
1	11/27/2024	1ST SUBMITTAL	JDP
2	01/29/2025	2ND SUBMITTAL	JDP

Project No:	KSS000142.02
Drawn By:	LJP
Checked By:	SRM
Date:	JANUARY 29, 2025

LANDSCAPE DETAILS

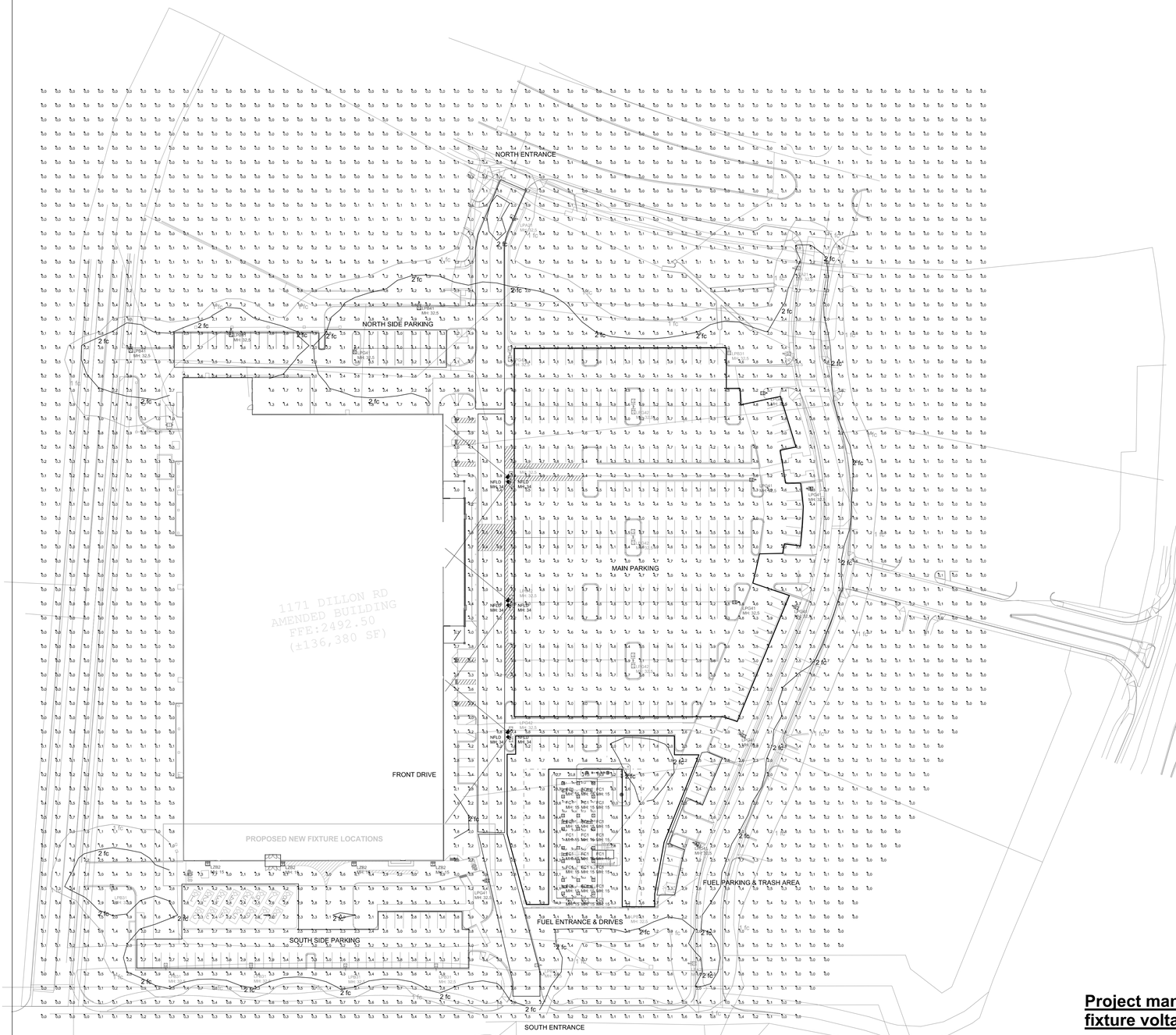
L2.1
Sheet 18 of 19

"C:\pw\eFolder\KSS\Engineering Services - City Submittal\CO_Louisville-435000\142 - Hwy 36 & McCaslin\05 Arch\Sheet\KSS142_2_Land.dwg" by Brian Pinson - 1/29/2025

Luminaire Schedule								
Symbol	Qty	Label	Arrangement	Lum. Watts	Total Watts	Lum. Lumens	LLF	Description
	24	FC1	SINGLE	103	2472	15410	1.000	SCV-LED-15L-SC-50
	4	LPA21	Single	100.9	403.6	15856	0.941	GALN-SB2C-740-VOLT-T3-BZ
	8	LPB31	Single	218.1	1744.8	31926	0.941	GALN-SB3D-740-VOLT-T4FT-XX
	3	LPB41	Single	293.6	880.8	42646	0.941	GALN-SB4D-740-VOLT-T4FT-XX
	9	LPG41	Single	293.6	2642.4	43644	0.941	GALN-SB4D-740-VOLT-5WQ-BZ
	7	LPG42	Back-Back	293.6	4110.4	43644	0.941	GALN-SB4D-740-VOLT-5WQ-BZ
	4	LZB2	Single	124.5	498	15670	0.941	GWS-SA2F-740-VOLT-T4FT-BZ
	6	NFLD	SINGLE	85	510	10530	0.884	NFFLD-C25-D-VOLT-66

Total Watts = 13262

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts@Grade	Illuminance	Fc	1.81	30.0	0.0	N.A.	N.A.
FUEL CANOPY	Illuminance	Fc	44.83	55.7	35.2	1.27	1.58
FRONT DRIVE	Illuminance	Fc	4.70	6.9	2.1	2.24	3.29
FUEL ENTRANCE & DRIVES	Illuminance	Fc	3.47	7.0	1.5	2.31	4.67
FUEL PARKING & TRASH AREA	Illuminance	Fc	2.83	3.3	2.4	1.18	1.38
MAIN PARKING	Illuminance	Fc	4.42	7.1	2.4	1.84	2.96
NORTH ENTRANCE	Illuminance	Fc	3.26	6.0	1.5	2.17	4.00
NORTH SIDE PARKING	Illuminance	Fc	3.45	5.4	2.0	1.73	2.70
SOUTH ENTRANCE	Illuminance	Fc	3.26	4.1	2.3	1.42	1.78
SOUTH SIDE PARKING	Illuminance	Fc	3.08	4.2	2.0	1.54	2.10



Project manager to specify fixture voltage for each fixture type

0 20 40 60 80 120

Luminaire Location Summary						
LumNo	Label	X	Y	Z	Orient	Tilt
1	LPA21	479.32	841.17	32.5	153.434	0
2	LPA21	769.91	789.41	32.5	0	0
3	LPB41	375.69	753.67	32.5	270	0
4	LPB41	177.56	725.34	32.5	270	0
5	LPB41	71.82	708.73	32.5	270	0
6	LPB31	702.52	705.8	32.5	270	0
7	LPG41	307.95	706.75	32.5	270	0
8	LPG42	471.56	699.22	32.5	90	0
9	LPA21	759.5	699.36	32.5	0	0
10	LPG41	743.35	657.9	32.5	180	0
11	LPG42	601.59	643.73	32.5	90	0
12	NFLD	472.67	567.24	34	233.578	73.569
13	NFLD	472.68	567.24	34	140.421	69.061
14	LPG42	472.71	567.2	32.5	90	0
15	LPG41	731.61	566.57	32.5	180	0
16	LPG41	783.18	557.19	32.5	0	0
17	LPG42	601.39	506.22	32.5	90	0
18	LPG41	713.79	437.57	32.5	180	0
19	NFLD	472.67	437.22	34	233.578	73.569
20	NFLD	472.68	437.22	34	140.421	69.061
21	LPG42	472.71	437.19	32.5	90	0
22	LPG41	768.43	434.15	32.5	336.083	0
23	LPG42	601.39	376.11	32.5	90	0
24	LPG41	712.87	298.75	32.5	337.109	0
25	NFLD	472.67	298.27	34	233.578	73.569
26	NFLD	472.68	298.27	34	140.421	69.061
27	LPG42	472.71	298.24	32.5	90	0
28	FC1	527.6	246.81	15	0	0
29	FC1	543.6	246.81	15	0	0
30	FC1	559.6	246.81	15	0	0
31	FC1	527.6	232.81	15	0	0
32	FC1	543.6	232.81	15	0	0
33	FC1	559.6	232.81	15	0	0
34	FC1	527.6	212.73	15	0	0
35	FC1	543.6	212.73	15	0	0
36	FC1	559.6	212.73	15	0	0
37	FC1	527.6	198.73	15	0	0
38	FC1	543.6	198.73	15	0	0
39	FC1	559.6	198.73	15	0	0
40	FC1	527.6	178.76	15	0	0
41	FC1	543.6	178.76	15	0	0
42	FC1	559.6	178.76	15	0	0
43	LPG41	663.48	184.46	32.5	342.73	0
44	LZB2	153.17	164.75	15	270	0
45	LZB2	232.02	164.44	15	270	0
46	FC1	527.6	164.76	15	0	0
47	FC1	543.6	164.76	15	0	0
48	LZB2	307.29	164.44	15	270	0
49	FC1	559.6	164.76	15	0	0
50	LZB2	390.48	164.44	15	270	0
51	FC1	527.6	144.78	15	0	0
52	FC1	543.6	144.78	15	0	0
53	FC1	559.6	144.78	15	0	0
54	LPG41	442.06	144.12	32.5	0	0
55	LPB31	51.97	132.51	32.5	90	0
56	FC1	527.6	130.78	15	0	0
57	FC1	543.6	130.78	15	0	0
58	FC1	559.6	130.78	15	0	0
59	LPB31	596.13	112.53	32.5	90	0
60	LPA21	659.76	56.82	32.5	0	0
61	LPB31	505.4	55.02	32.5	180	0
62	LPB31	198.79	49.74	32.5	90	0
63	LPB31	108.88	49.53	32.5	90	0
64	LPB31	298.23	49.01	32.5	90	0
65	LPB31	393.78	49.01	32.5	90	0

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We make no representation as to its completeness, currency or accuracy because of reasons inherent to CAD and the additional digital data used to produce a lighting application. All digital CAD data appear to be extremely accurate, however, this apparent accuracy is an artifact of the techniques used to generate it, and is in no way intended to imply actual accuracy. The user of this data takes full responsibility for the accuracy and correctness of all measurements, area, inventories or other data extracted from this, either manually or with the aid of computer software. Any reliance on specified light levels for exterior applications. Any variance from reflectance values, obstructions,light loss factors or dimensional data will affect the locations based on specified light levels for exterior applications. Any variance from reflectance values, obstructions,light loss factors or dimensional data will affect the actual light levels obtained. This analysis is a mathematical model and can be only as accurate as is permitted by the third party software and the IES standards used. In addition calculated values may vary from actual measurements in certain situations due to variances, such as but not limited to, lamp output, input voltage ballast variances,manufacturing tolerances, and field conditions. This lighting application is not to be used for construction purposes. Refer to architectural and electrical drawings for exact locations. Lighting application drawings are being provided to the recipient of this disclaimer.

Project Name: KROGER KS-142 Louisville, CO

Client: The Kroger Co. Tara Shadowen

Drawn By: EL

Date: 1/30/2025

Scale: 1" = 40'

Project No: 2401285B.AGI

TRAFFIC IMPACT STUDY

KING SOOPERS 142

Louisville, CO

PREPARED FOR:
King Soopers

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DATE:
February 7, 2025

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A. Full Sized Conceptual Site Plan
B. LOS Descriptions
C. Traffic Counts
D. Existing Synchro Outputs
E. Background (without site development) Synchro Outputs
F. Future (with site development) Synchro Outputs

Executive Summary

Site Location and Study Area

The property that comprises the application area for the proposed redevelopment is approximately 13.5 acres in size and is identified as Boulder County Parcel Numbers 157713016001 and 157713016002. It is located south of Centennial Pkwy, north of Dillon Rd, east of Century Pl, and west of McCaslin Blvd in Louisville, CO. It is zoned Planned Community Commercial (P-C) and is currently occupied by a vacant commercial building, previously serving as a home improvement superstore use.

The study area is generally bounded by Centennial Pkwy to the north, Century Pl to the west, McCaslin Blvd to the east, and Dillon Rd to the south. The study area for the project includes intersections that could be affected by the proposed development which were confirmed by review of City Staff:

- Centennial Pkwy & Century Pl
- Centennial Pkwy & N Site Access
- Centennial Pkwy & McCaslin Blvd
- E Site Access & McCaslin Blvd
- Dillon Rd & McCaslin Blvd
- Dillon Rd & S Site Access
- Dillon Rd & Century Pl

Description of Proposed Development

The Applicant, King Soopers, seeks to redevelop the property with commercial uses consisting of supermarket and gas station uses. No change to the site access is proposed.

Conclusions and Recommendations

Conclusions

Based on the results of this traffic impact study, the following may be concluded:

- Under existing traffic conditions, the signalized intersections in the study area currently operate at acceptable overall levels of service (LOS) “D” or better during the weekday peak hours. The unsignalized intersection movements in the study area currently operate at acceptable LOS “B” or better during the weekday peak hours. All queues are contained within their effective storage.

- Under background future 2026 and 2045 traffic conditions, without the development of the subject site, delays would increase slightly at study intersections due to regional traffic growth. The signalized intersections in the study area are forecasted to operate at acceptable overall LOS “D” or better during the weekday peak hours with the exception of the Dillon Rd & McCaslin Blvd intersection which is forecasted to operate at LOS “E” during the long range (2045) weekday PM peak hour. The unsignalized intersection movements in the study area would operate at acceptable LOS “C” or better during the weekday peak hours. All queues are expected to be contained within their effective storage with the exception of the eastbound left movement at the Centennial Pkwy & McCaslin Blvd intersection during the long range (2045) weekday AM peak hour.

- The proposed site redevelopment would generate, upon completion and full occupancy, 399 net new weekday AM and 755 net new weekday PM peak hour vehicle trips as well as 10,301 net new weekday daily trips.

- Under total future 2026 and 2045 traffic conditions with development of the site, the signalized intersections within the study area would continue to operate at acceptable overall LOS "D" or better during the weekday peak hours in all total future scenarios with the exception of the Dillon Rd & McCaslin Blvd intersection which would operate at LOS "E" during the weekday PM peak hour for total future 2026 and 2045 conditions. The unsignalized intersection movements in the study area would operate at acceptable LOS "D" or better during the weekday peak hours in all future scenarios.

- Under total future 2026 and 2045 traffic conditions with development of the site, all queues are expected to be contained within their effective storage with the exception of the eastbound left turn lane at the intersection of Centennial Pkwy & McCaslin Blvd which would exceed the available storage during all total future scenarios.

Recommendations

- It is recommended that the Applicant provide access consistent with the site plan contained herein.

- It is recommended that the signal timings at Dillon Rd & McCaslin Blvd be optimized once the subject site is operational to improve overall operations of the intersection including better LOS and accommodate anticipated queues.

- It is recommended that the eastbound left turn lane at Centennial Pkwy & McCaslin Blvd be extended to accommodate the queue.

I. Introduction

Overview

This report presents the results of a Traffic Impact Study (TIS) conducted in support of a site plan to redevelop a property with commercial uses consisting of supermarket and gas station uses in Louisville, CO. Currently the site is occupied by a vacant commercial building, previously serving as a home improvement superstore use.

Per the requirements of the City of Louisville, a Transportation Impact Study is required to support the proposed redevelopment.

Site Location and Study Area

The property that comprises the application area for the proposed redevelopment is approximately 13.5 acres in size and is identified as Boulder County Parcel Numbers 157713016001 and 157713016002. It is located south of Centennial Pkwy, north of Dillon Rd, east of Century Pl, and west of McCaslin Blvd in Louisville, CO, as shown in Figure 1-1. It is zoned Planned Community Commercial (P-C) and is occupied by a vacant commercial building, previously serving as a home improvement superstore use. Site access is proposed via the existing right-in/right-out (RIRO) access on Centennial Pkwy, full movement access on Centennial Pkwy, ¾ movement access on McCaslin Blvd, RIRO access on Dillon Rd, two full movement accesses on Dillon Rd, and two full movement accesses on Century Pl. No change in site access is proposed.

The Applicant, King Soopers Stores, seeks to redevelop the property with a supermarket and a gas station use. A reduction of the Applicant's proposed conceptual site plan is provided in Figure 1-2. A full-size copy of the plan is provided in Appendix A.

The study area is generally bounded by Centennial Pkwy to the north, Century Pl to the west, McCaslin Blvd to the east, and Dillon Rd to the south.

Tasks undertaken during this study included the following:

1. Reviewed the Applicant's proposed development plans and other background data.

2. Conducted a virtual field reconnaissance of existing roadway and intersection geometries, traffic controls, and speed limits.

3. Collected peak hour turning movement counts at the key intersections.

4. Analyzed existing levels of service at each of the key study intersections based on the methodologies set forth in the Highway Capacity Guidelines (HCM) 7th Edition and reports generated by Synchro as reported by Synchro version 12 software.

5. Forecasted background future traffic volumes based on baseline traffic counts, pipeline projects, and regional traffic growth for 2026 (build-out) and 2045 (long-range) conditions.

6. Calculated background levels of service at each of the key study intersections for the projected build-out years based on background future traffic forecasts, and the existing lane use and traffic controls.

7. Estimated the number of AM and PM peak hour trips that would be generated by the proposed uses based on the Institute of Transportation Engineers (ITE) Trip Generation 11th Edition rates/equations and methodologies.

8. Prepared AM and PM peak hour total future traffic forecasts based on background traffic forecasts plus site traffic assignments for the 2026 (build-out), as well as 2045 (long-range) conditions.

9. Calculated total future levels of service for each of the key study intersections based on projected total future traffic forecasts, and existing lane use and traffic controls.

10. Identified roadway improvements required to accommodate future traffic volumes, as necessary.

Sources of data for this analysis included the Institute of Transportation Engineers (ITE) Trip Generation, 11th edition, the Highway Capacity Guidelines HCM 7th, Synchro 12, King Soopers Stores, City of Louisville, Colorado, CDOT, and the files/library of Galloway.

Site Description and Access

Site Conditions
The terrain proximate to and surrounding the site is generally classified as "level".

Hazardous Conditions
Based on the field reconnaissance in the vicinity of the subject site, no hazardous features or constraints were identified.

Proposed Site Access
Access to the site is proposed via the existing right-in/right-out (RIRO) access on Centennial Pkwy, full movement access on Centennial Pkwy, ¾ movement access on McCaslin Blvd, RIRO access on Dillon Rd, two full movement accesses on Dillon Rd, and two full movement accesses on Century Pl.

Existing Zoning
The subject site is currently zoned Planned Community Commercial (P-C) and is currently occupied by a vacant commercial building, previously serving as a home improvement superstore use. Figure 1-3 depicts the existing zoning associated with the subject property, as well as neighboring properties as shown on the City of Louisville zoning map.

Nearby Uses
The properties surrounding the subject site are generally developed with commercial uses to the east and south, and office uses to the west and north.

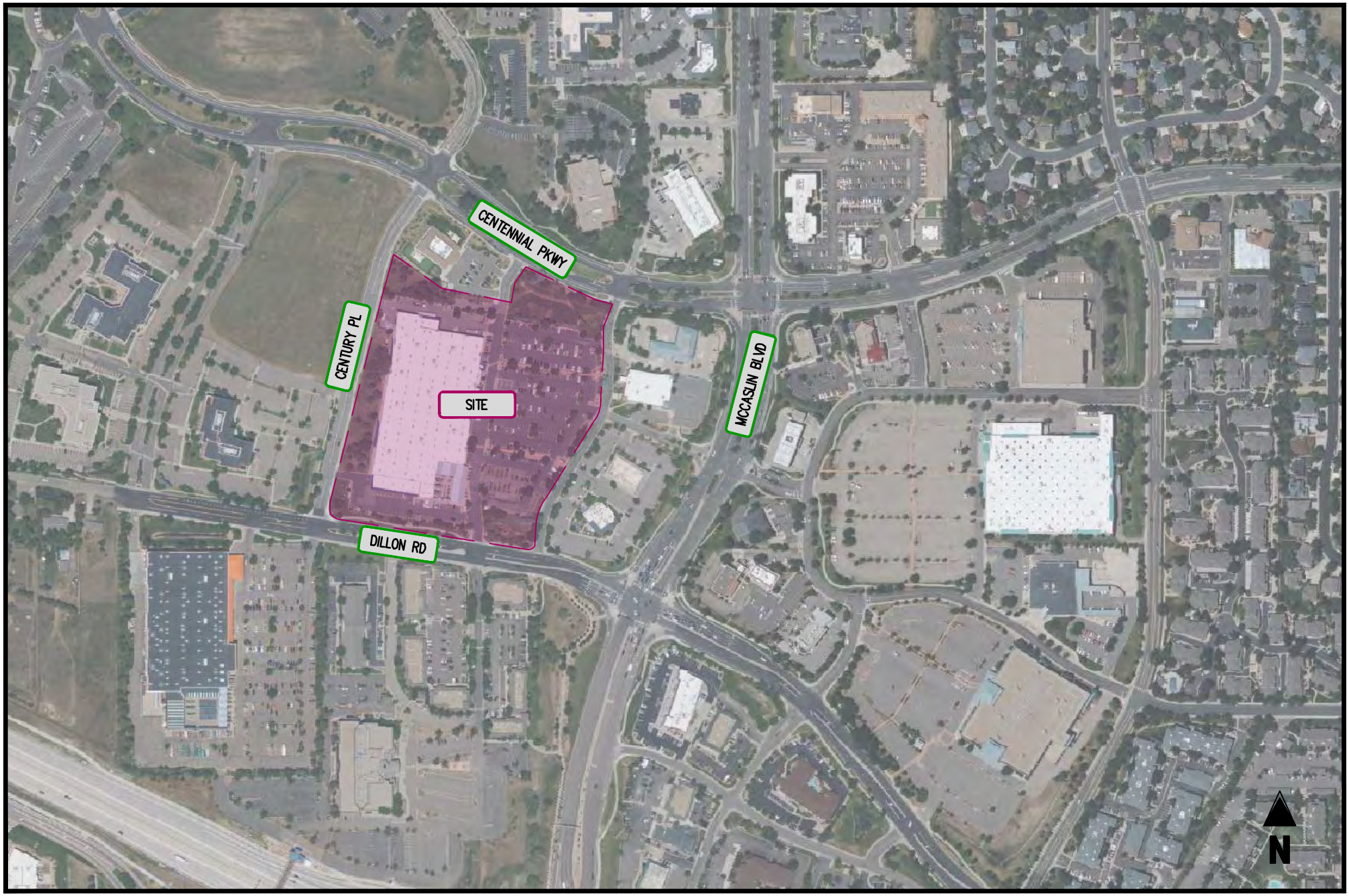


FIGURE 1-1
SITE LOCATION

KING SOOPERS
LOUISVILLE, CO

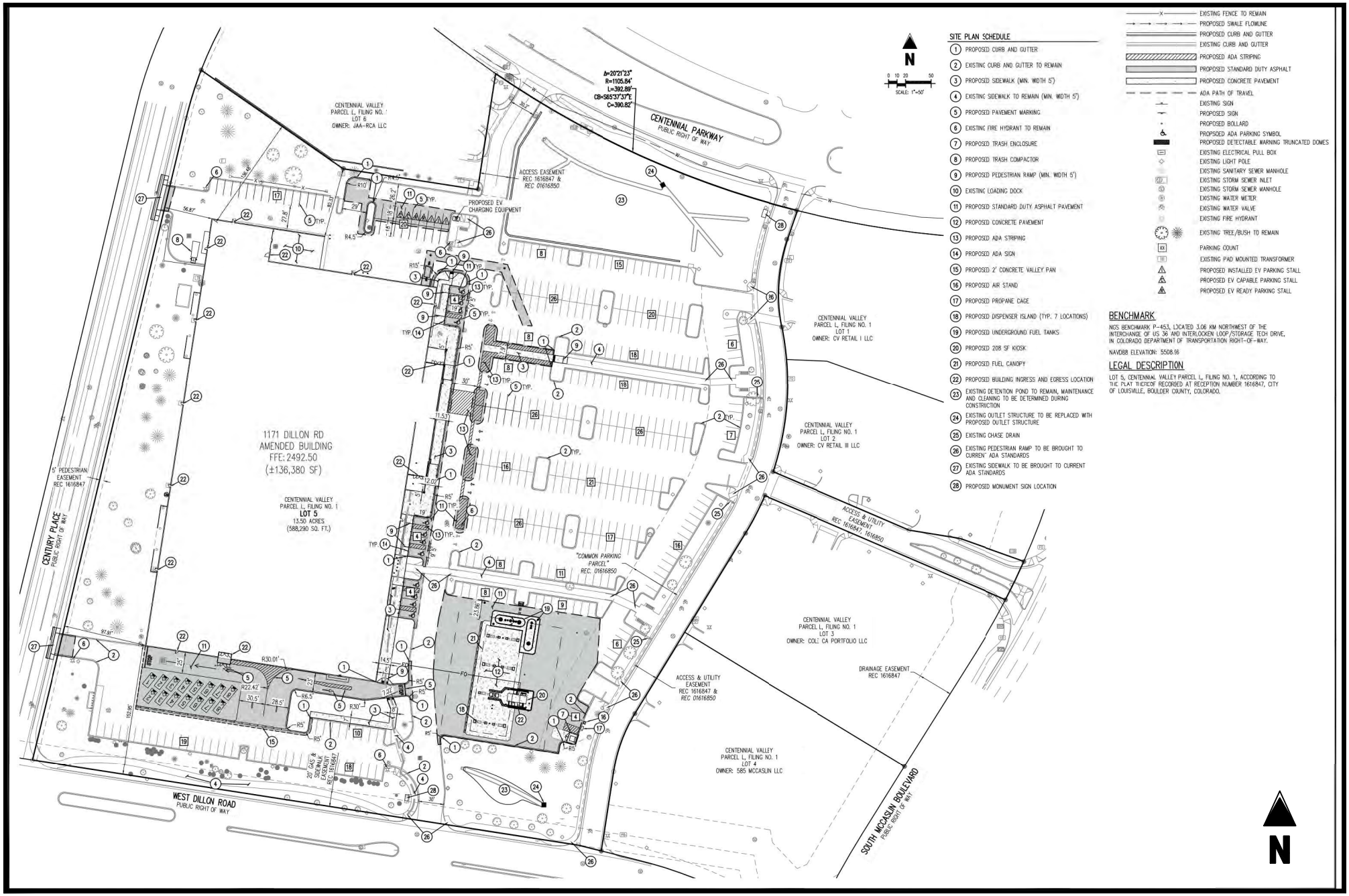


FIGURE 1-2
SITE PLAN

KING SOOPERS
LOUISVILLE, CO

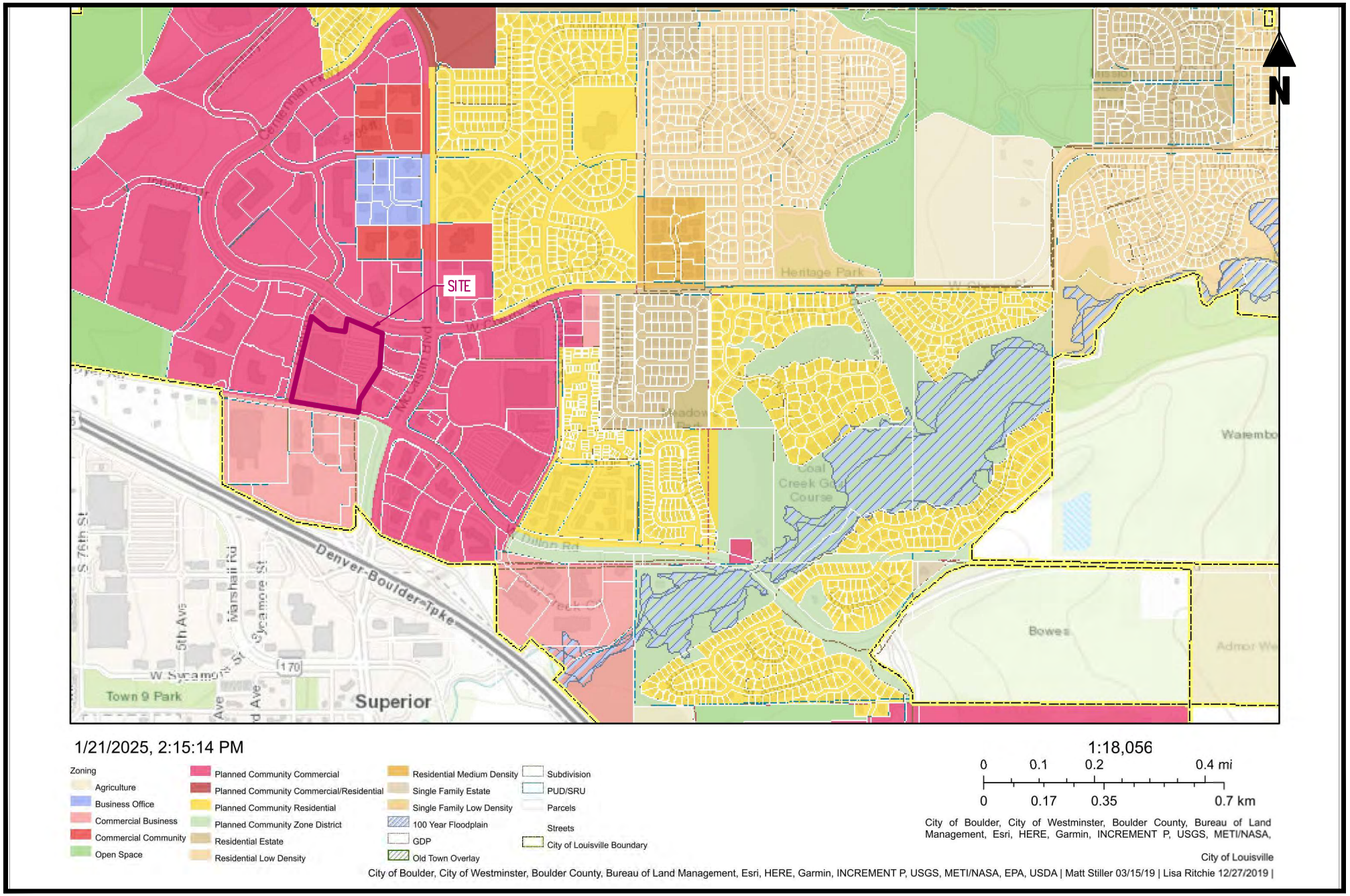


FIGURE 1-3
EXISTING ZONING

KING SOOPERS
LOUISVILLE, CO

II. Background Information

Study Area

The study area was determined by a review of intersections that would experience a significant portion of turning movement volumes generated by the site. As such, the traffic study focuses primarily on the following intersections:

Study Intersections

- Centennial Pkwy & Century Pl
- Centennial Pkwy & N Site Access
- Centennial Pkwy & McCaslin Blvd
- E Site Access & McCaslin Blvd
- Dillon Rd & McCaslin Blvd
- Dillon Rd & S Site Access
- Dillon Rd & Century Pl

Study Assumptions

For purposes of this analysis only, the proposed use was assumed to be built and occupied in one distinct phase. It was assumed that the use would be built and operational in study year 2026. A long-term analysis of 2045 is also provided.

Study Methodology

Synchro software version 12 was used to evaluate levels of service at each of the study intersections during the weekday AM and PM peak hours. Synchro is a macroscopic model used for optimizing traffic signal timing and performing capacity analyses. The software can model existing traffic signal timings or optimize splits, offsets, and cycle lengths for individual intersections, an arterial, or a complete network. Synchro allows the user to evaluate the effects of changing intersection geometrics, traffic demands, traffic control, and/or traffic signal settings as well as optimize traffic signal timings.

The levels of service reported for the signalized and unsignalized intersections analyzed herein were taken from the Highway Capacity Manual (HCM) 7th and reports generated by Synchro. Level of service descriptions are included in Appendix B.

A default percent heavy vehicle (%HV) factor of 2% was used for all movements in the study area.

Existing Roadway Network

Regional access to the subject site is provided by McCaslin Blvd, and local access is provided via Centennial Pkwy/Cherry St and Dillon Rd. Figure 2-1 depicts existing lane use and traffic controls in the vicinity of the subject site. The following provides a description of each of the roadways within the study network.

McCaslin Blvd

McCaslin Blvd is constructed as a six-lane median divided section with turn lanes at major intersections. The posted speed limit is 35 mph in the vicinity of the subject site. The roadway functions as an arterial and provides north-south connection through the County and connection to Hwy 36 to the south. The intersections with Centennial Pkwy and Dillon Rd operate under signalized control.

Centennial Pkwy
Centennial Pkwy is constructed as a two-lane median divided roadway with turn lanes at major intersections. The roadway functions as an arterial providing east-west connection for a number of commercial and residential areas. The intersections along its length operate under stop control with the exception of the intersection with McCaslin Blvd which operates under signalized control.

Dillon Rd
Dillon Rd is constructed as a four-lane median divided roadway in the vicinity of the subject site. The posted speed limit is 30-40 mph going westbound in the vicinity of the subject site. There was no posted speed limit going eastbound on the roadway, so 30 mph was used for the analysis to be consistent with westbound speed limits. The roadway functions as an arterial providing east-west connection for a number of commercial and residential areas. The intersections along its length operate under stop control with the exception of the intersection with McCaslin Blvd which operates under signalized control.

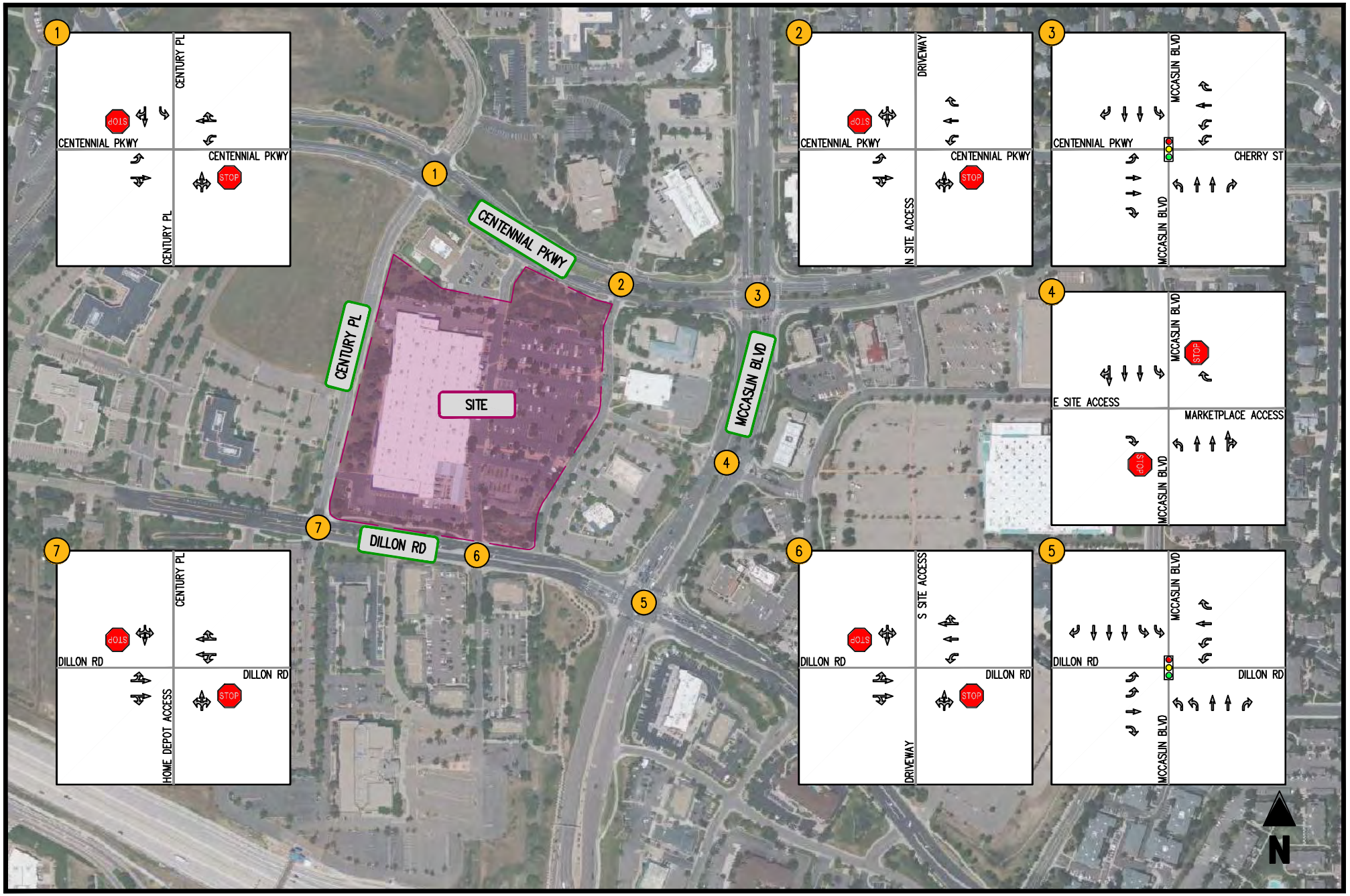


FIGURE 2-1
EXISTING LANE USE AND TRAFFIC CONTROL

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT
SIGNALIZED INTERSECTION
STOP SIGN
YIELD SIGN

III. Analysis of Existing Conditions

Traffic Volumes

Weekday AM and PM peak hour traffic volume counts were conducted on Tuesday January 14, 2025, from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM at the study intersections by IDAX Data Solutions.

The existing volumes are summarized in Figure 3-1. Copies of traffic counts are included in Appendix C. Existing peak hour factors (PHF) were also computed by approach from the traffic counts and applied to the analysis with a minimum of 0.85 and a maximum of 0.92.

Existing Levels of Service

Capacity/level of service (LOS) analyses were conducted at the study intersections based on the existing lane use and traffic controls shown in Figure 2-1 and existing baseline vehicular traffic volumes shown in Figure 3-1. The capacity analysis results are presented in Appendix D and summarized in Table 3-1 and in Figure 3-2.

As shown in Table 3-1 the signalized intersections in the study area currently operate at acceptable overall levels of service (LOS) “D” or better during the weekday peak hours. The unsignalized intersection movements in the study area currently operate at acceptable LOS “B” or better during the weekday peak hours.

Existing Intersection Queues

An analysis of intersection 95th-percentile queues was performed at key locations. The results of the queuing analysis, as reported by Synchro, are summarized in Table 3-2. As shown in the table, all queues are contained within their effective storage.

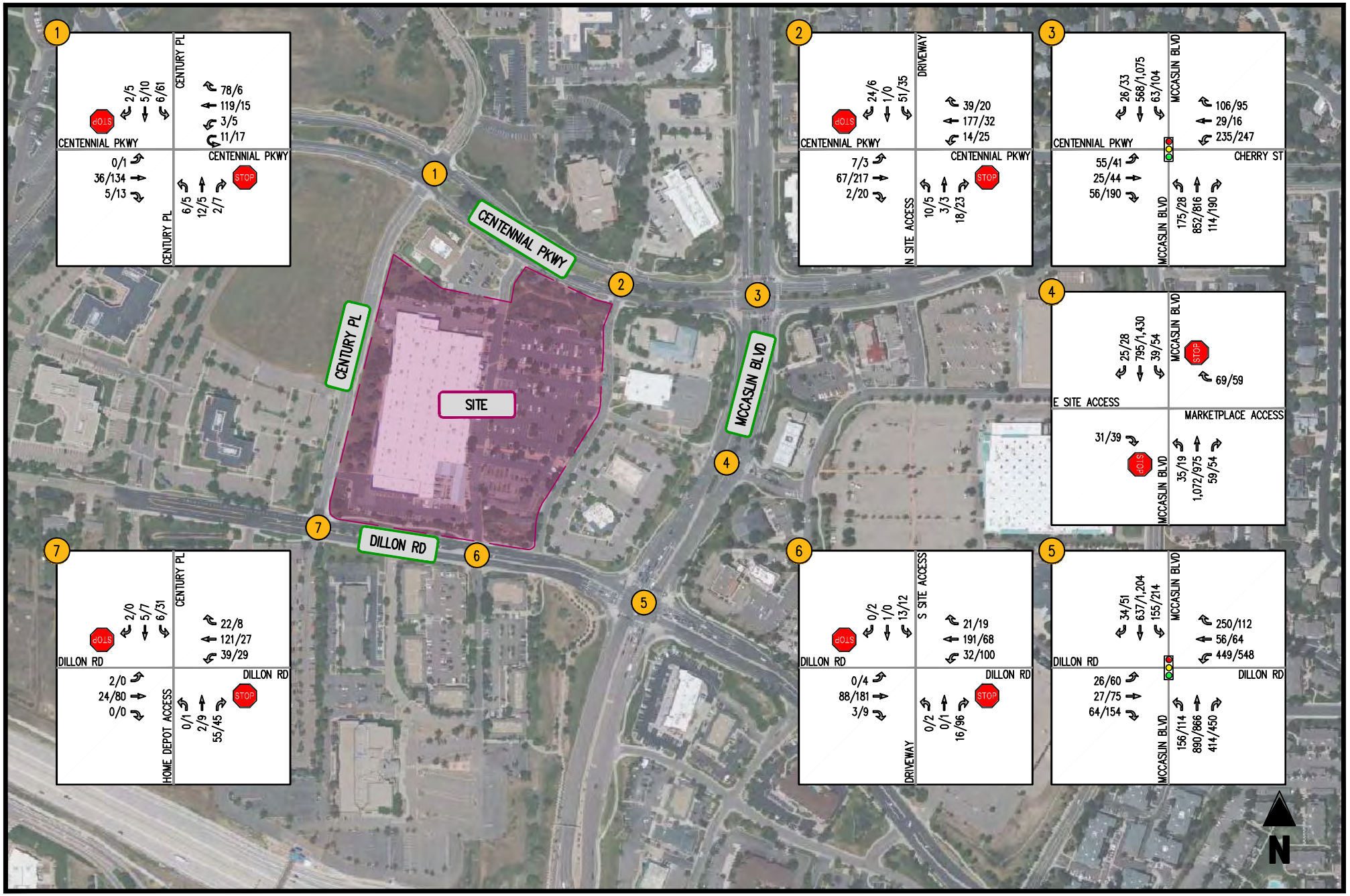


FIGURE 3-1
EXISTING VOLUMES

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP STOP SIGN

YIELD SIGN

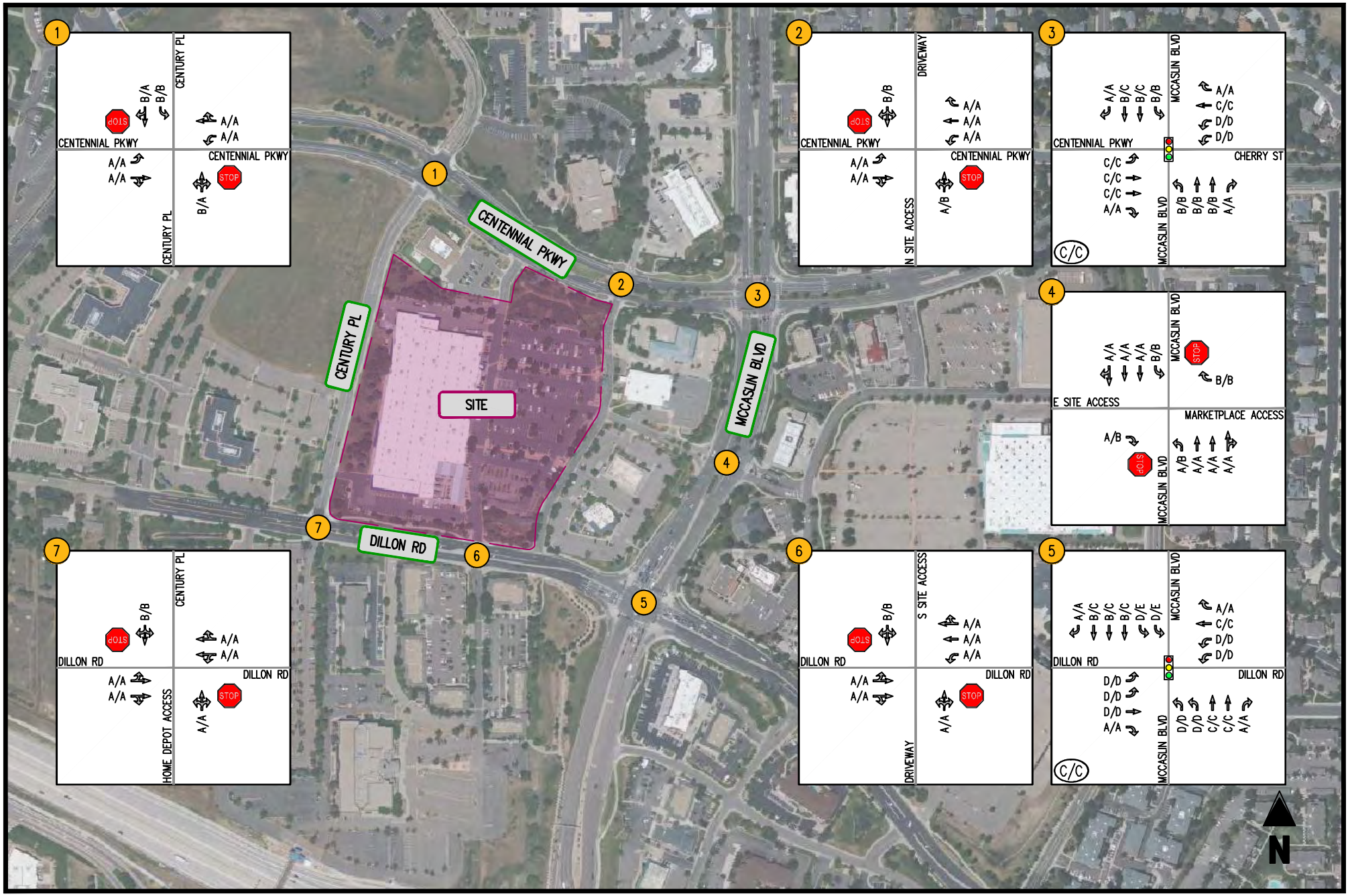


FIGURE 3-2
EXISTING LEVELS OF SERVICE

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

Table 3-1
King Soopers - Louisville, CO
Existing Intersection Level of Service Summary [1] [2]

Intersection	Operating Condition	Street Name	Approach/ Movement	Existing 2025 AM Peak Hour	Existing 2025 PM Peak Hour
1 Centennial Pkwy & Century Pl	STOP	Centennial Pkwy	EBL	A [0.0]	A [7.3]
			EBTR	A [0.0]	A [0.0]
		Centennial Pkwy	WBL	A [0.0]	A [0.0]
			WBTR	A [0.0]	A [0.0]
		Century Pl	NBLTR	B [10.5]	A [9.9]
		Century Pl	SBL	B [10.2]	B [10.3]
			SBTR	B [10.3]	A [9.9]
2 Centennial Pkwy & N Site Access	STOP	Centennial Pkwy	EBL	A [7.7]	A [7.3]
			EBTR	A [0.0]	A [0.0]
		Centennial Pkwy	WBL	A [7.4]	A [7.9]
			WBT	A [0.0]	A [0.0]
			WBR	A [0.0]	A [0.0]
		N Site Access	NBLTR	A [9.9]	B [10.4]
		Driveway	SBLTR	B [11.2]	B [11.6]
3 Centennial Pkwy & McCaslin Blvd	SIGNAL	Centennial Pkwy	EBL	E (55.5)	D (53.7)
			EBT	D (51.4)	D (51.9)
			EBR	A (0.0)	A (0.0)
		Centennial Pkwy	WBL	E (56.4)	E (56.8)
			WBT	D (49.5)	D (49.2)
			WBR	A (0.0)	A (0.0)
		McCaslin Blvd	NBL	B (10.1)	B (11.7)
			NBT	A (0.7)	A (7.8)
			NBR	A (0.0)	A (0.0)
		McCaslin Blvd	SBL	B (10.7)	A (10.0)
			SBT	B (15.3)	B (15.9)
			SBR	A (0.0)	A (0.0)
		Overall		**B (15.9)**	**B (18.6)**
4 E Site Access & McCaslin Blvd	STOP	E Site Access	EBR	A [9.7]	B [10.6]
		Centennial Marketplace Access	WBR	B [10.4]	B [10.2]
			NBL	B [10.7]	B [13.5]
		McCaslin Blvd	NBT	A [0.0]	A [0.0]
			NBTR	A [0.0]	A [0.0]
			SBL	B [12.2]	B [11.7]
		McCaslin Blvd	SBT	A [0.0]	A [0.0]
			SBTR	A [0.0]	A [0.0]
5 Dillon Rd & McCaslin Blvd	SIGNAL	Dillon Rd	EBL	E (58.9)	E (59.3)
			EBT	D (52.1)	E (56.1)
			EBR	A (0.0)	A (0.0)
		Dillon Rd	WBL	E (63.7)	E (65.7)
			WBT	D (38.5)	D (36.9)
			WBR	A (0.0)	A (0.0)
		McCaslin Blvd	NBL	E (67.8)	E (59.4)
			NBT	C (22.6)	C (25.0)
			NBR	A (0.0)	A (0.0)
		McCaslin Blvd	SBL	E (57.8)	F (119.6)
			SBT	A (0.6)	C (30.8)
			SBR	A (0.0)	A (0.0)
		Overall		**C (30.3)**	**D (43.7)**
6 Dillon Rd & S Site Access	STOP	Dillon Rd	EBLT	A [0.0]	A [7.4]
			EBTR	A [0.0]	A [0.0]
		Dillon Rd	WBL	A [7.5]	A [7.9]
			WBT	A [0.0]	A [0.0]
			WBTR	A [0.0]	A [0.0]
		Colony Square Access	NBLTR	A [8.7]	A [9.7]
		S Site Access	SBLTR	B [11.8]	B [13.6]
7 Dillon Rd & Century Pl	STOP	Dillon Rd	EBLT	A [7.6]	A [0.0]
			EBTR	A [0.0]	A [0.0]
		Dillon Rd	WBLT	A [7.3]	A [7.4]
			WBTR	A [0.1]	A [0.1]
		Home Depot Access	NBLTR	A [8.7]	A [9.1]
		Century Pl	SBLTR	B [10.8]	B [10.3]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.
(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

Table 3-2
King Soopers - Louisville, CO
Existing Intersection Queueing Summary [1]

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage	Existing 2025 AM Peak Hour	Existing 2025 PM Peak Hour
1 Centennial Pkwy & Century Pl	STOP	Centennial Pkwy	EBL	100	0	0
			EBTR	-	0	0
		Centennial Pkwy	WBL	100	0	0
			WBTR	-	0	0
		Century Pl	NBLTR	-	3	3
		Century Pl	SBL	100	0	8
			SBTR	-	0	3
2 Centennial Pkwy & N Site Access	STOP	Centennial Pkwy	EBL	80	0	0
			EBTR	-	0	0
		Centennial Pkwy	WBL	100	0	3
			WBT	-	0	0
			WBR	50	0	0
		N Site Access	NBLTR	-	3	5
		Driveway	SBLTR	-	13	8
3 Centennial Pkwy & McCaslin Blvd	SIGNAL	Centennial Pkwy	EBL	100	87	69
			EBT	-	24	37
			EBR	100	0	0
		Centennial Pkwy	WBL	300	135	142
			WBT	-	50	33
			WBR	-	0	0
		McCaslin Blvd	NBL	325	26	6
			NBT	-	377	70
			NBR	125	0	0
		McCaslin Blvd	SBL	315	45	63
			SBT	-	245	432
			SBR	50	0	0
4 E Site Access & McCaslin Blvd	STOP	E Site Access	EBR	-	3	5
		Centennial Marketplace Access	WBR	-	10	8
		McCaslin Blvd	NBL	150	5	3
			NBT	-	0	0
			NBTR	-	0	0
		McCaslin Blvd	SBL	250	8	8
			SBT	-	0	0
			SBTR	-	0	0
5 Dillon Rd & McCaslin Blvd	SIGNAL	Dillon Rd	EBL	130	26	49
			EBT	-	53	110
			EBR	150	0	0
		Dillon Rd	WBL	500	263	336
			WBT	-	79	82
			WBR	250	0	0
		McCaslin Blvd	NBL	450	119	79
			NBT	-	360	372
			NBR	150	0	0
		McCaslin Blvd	SBL	250	110	189
			SBT	-	176	319
			SBR	100	0	0
6 Dillon Rd & S Site Access	STOP	Dillon Rd	EBLT	-	0	0
			EBTR	-	0	0
		Dillon Rd	WBL	175	3	8
			WBT	-	0	0
			WBTR	-	0	0
		Colony Square Access	NBLTR	-	3	13
		S Site Access	SBLTR	-	3	3
7 Dillon Rd & Century Pl	STOP	Dillon Rd	EBLT	-	0	0
			EBTR	-	0	0
		Dillon Rd	WBLT	-	3	3
			WBTR	-	0	0
		Home Depot Access	NBLTR	-	5	5
		Century Pl	SBLTR	-	3	5

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro, Version 12.

IV. Analysis of Future Conditions without Site Development

Methodology

The future traffic forecasts, without the proposed new use, were developed for 2026 and 2045 conditions based on a composite of existing baseline traffic volumes, regional traffic growth, and pipeline developments. A 1.0% growth factor per year was applied to all movements of existing traffic on the study intersections.

Regional Growth

Increases in traffic associated with regional growth were estimated at 1.0 percent per year compounded for all movements on study intersections up to 2026 as well as to 2045. This growth was determined using CDOT'S Online Transportation Information System's (OTIS) count station #104952 on McCaslin Blvd south of Dillon Rd, and accounts for increases in traffic resulting from influences outside of the immediate study area. The resulting increases in volumes within the study area are reflected in Figure 4-1 for 2026 conditions and Figure 4-2 for 2045 conditions.

Pipeline Developments

One unbuilt/unoccupied (i.e., "pipeline") development was identified for consideration within the study. CU Boulder Faculty Housing is planned to be built at 1164 W Dillon Rd at the site of the vacant Cinebarre. No plans have been submitted to the City for this development, therefore the use for this site was assumed to be Multi-Family Housing (Low-Rise). The existing Cinebarre building is 45,000 square feet (SF), therefore it was assumed that the development could provide 50 dwelling units (DU). With this information, and the proximity to the park and ride, the following development program was included in the background and total future analysis for 2045 conditions:

CU Boulder Faculty Housing

50	DU	Multi-Family Housing (Low-Rise) - Close to Rail Transit

The location of the pipeline developments in relation to the Applicant's property is shown in Figure 4-3. The pipeline development site was assumed to have 80% of its trips going to and from the south on McCaslin Blvd, 10% going to and from the north on McCaslin Blvd, 5% going to and from the east on Centennial Pkwy/Cherry St, and 5% going to and from the east on Dillon Rd. The pipeline site trips are shown in Figure 4-4 for 2045 conditions.

Background Traffic Forecasts

The existing traffic forecasts depicted in Figure 3-1, the regional growth shown in Figure 4-1 (2026) and Figure 4-2 (2045), and the pipeline development site trips shown in Figure 4-4 (2045) were added together to yield the background future traffic forecasts shown in Figure 4-5 for 2026 conditions and Figure 4-6 for 2045 conditions.

Background Future Levels of Service

Capacity analyses of 2026 and 2045 future traffic conditions without the proposed development are provided in Appendix E and summarized in Table 4-1. The forecasted levels of service are also depicted graphically in Figure 4-7 for 2026 conditions and Figure 4-8 for 2045 conditions.

As shown on Table 4-1, under background future 2026 conditions the intersections in the study area are forecasted to operate consistent with existing conditions.

Under background future 2045 conditions the signalized intersections in the study area are forecasted to operate at acceptable overall LOS “D” or better during the weekday peak hours with the exception of the Dillon Rd & McCaslin Blvd intersection which is expected to operate at LOS “E” in the 2045 weekday PM peak hour. The unsignalized intersection movements in the study area are expected to operate at acceptable LOS “C” or better during the weekday peak hours.

Background Future Queueing

An analysis of intersection queues was performed at key locations under background future traffic conditions. The results of the queuing analysis are summarized in Table 4-2.

As shown in the table, queues within the study network will increase due to assumed regional traffic growth. All queues are expected to be contained in their effective storage during background conditions with the exception of the eastbound left movement at the Centennial Pkwy & McCaslin Blvd intersection during the background future long range (2045) weekday AM peak hour.

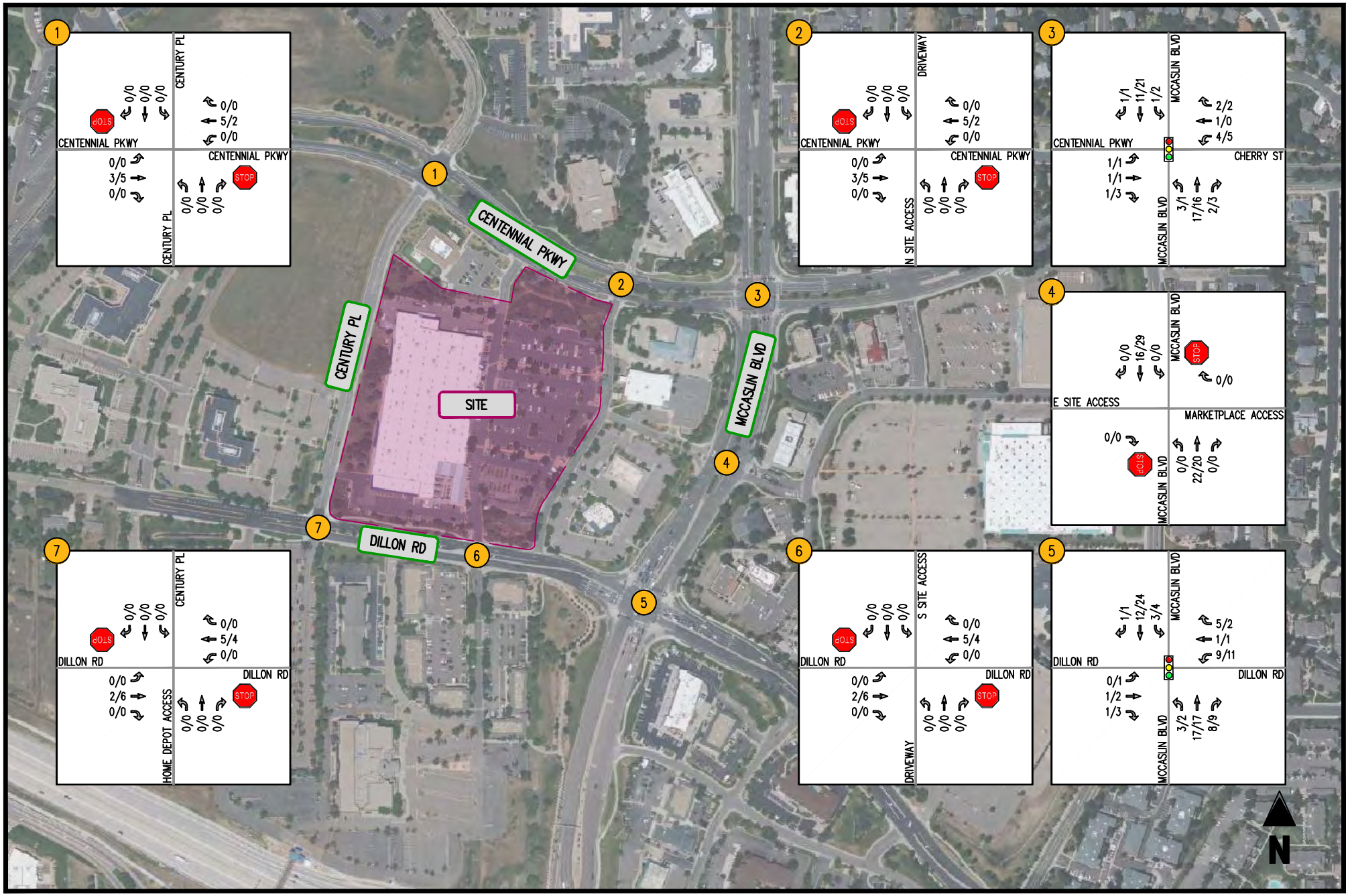


FIGURE 4-1
BACKGROUND GROWTH 2026

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

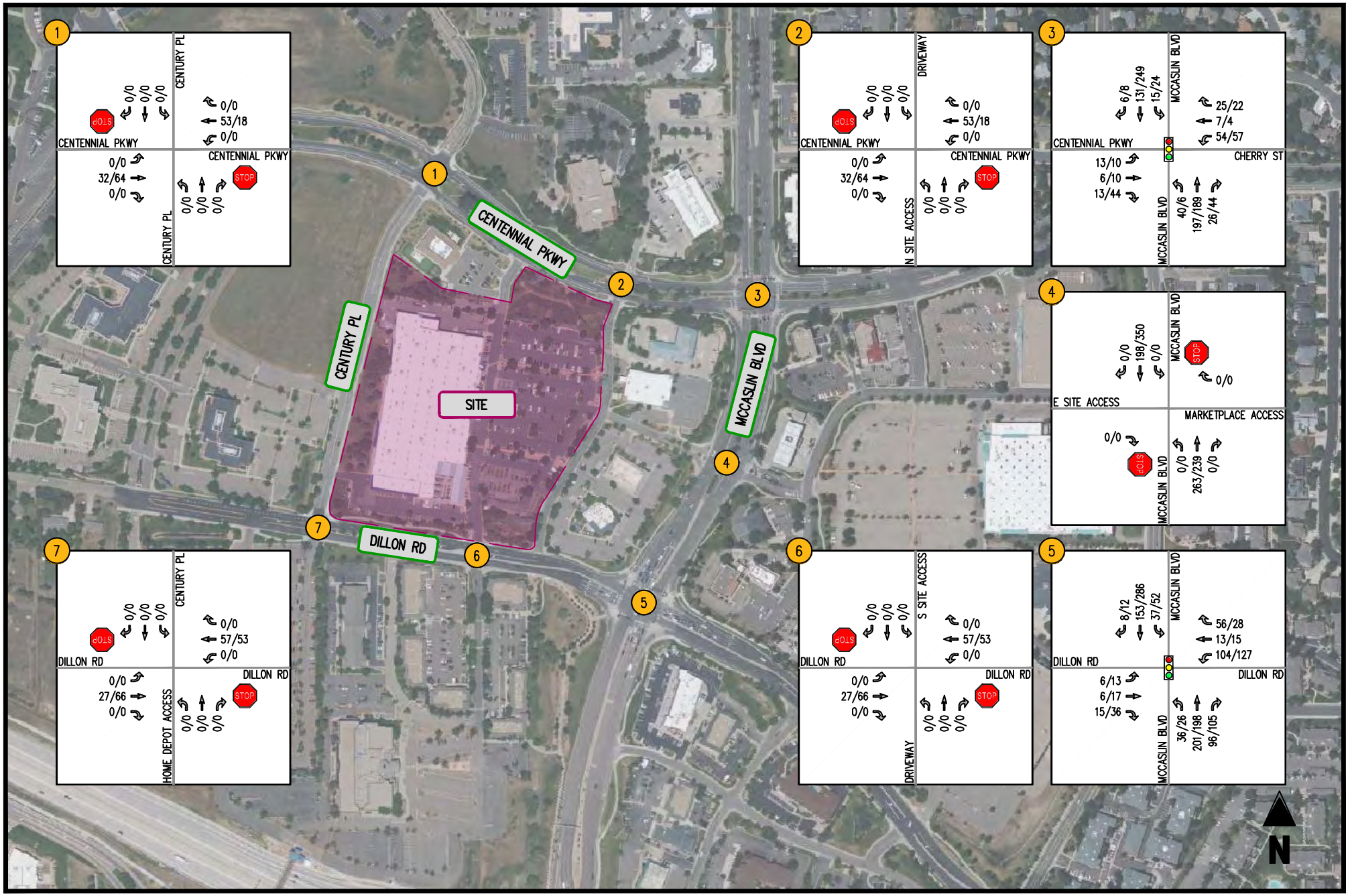


FIGURE 4-2
BACKGROUND GROWTH 2045

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT
SIGNALIZED INTERSECTION
STOP SIGN
YIELD SIGN

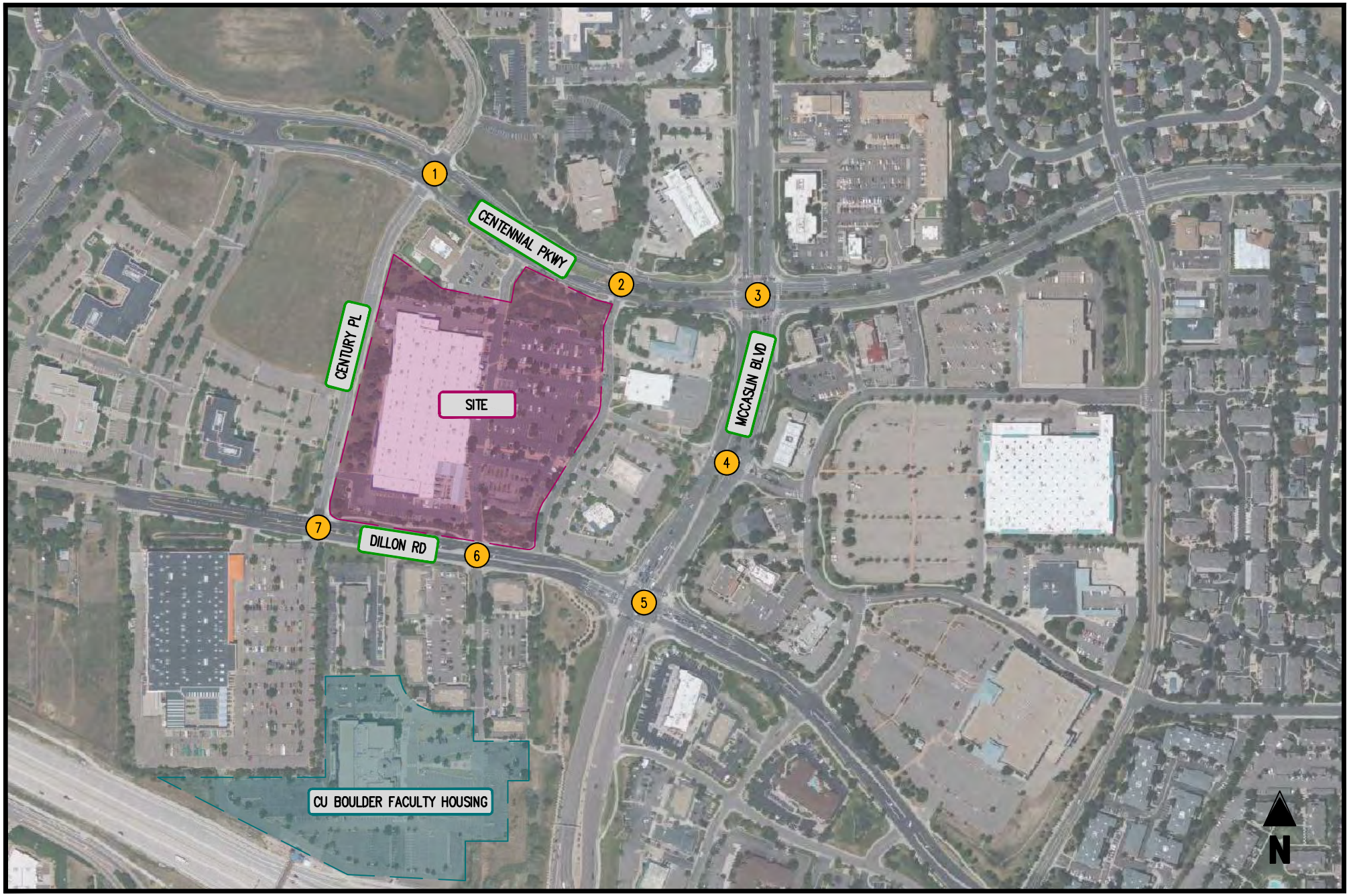


FIGURE 4-3
PIPELINE LOCATION

KING SOOPERS
LOUISVILLE, CO

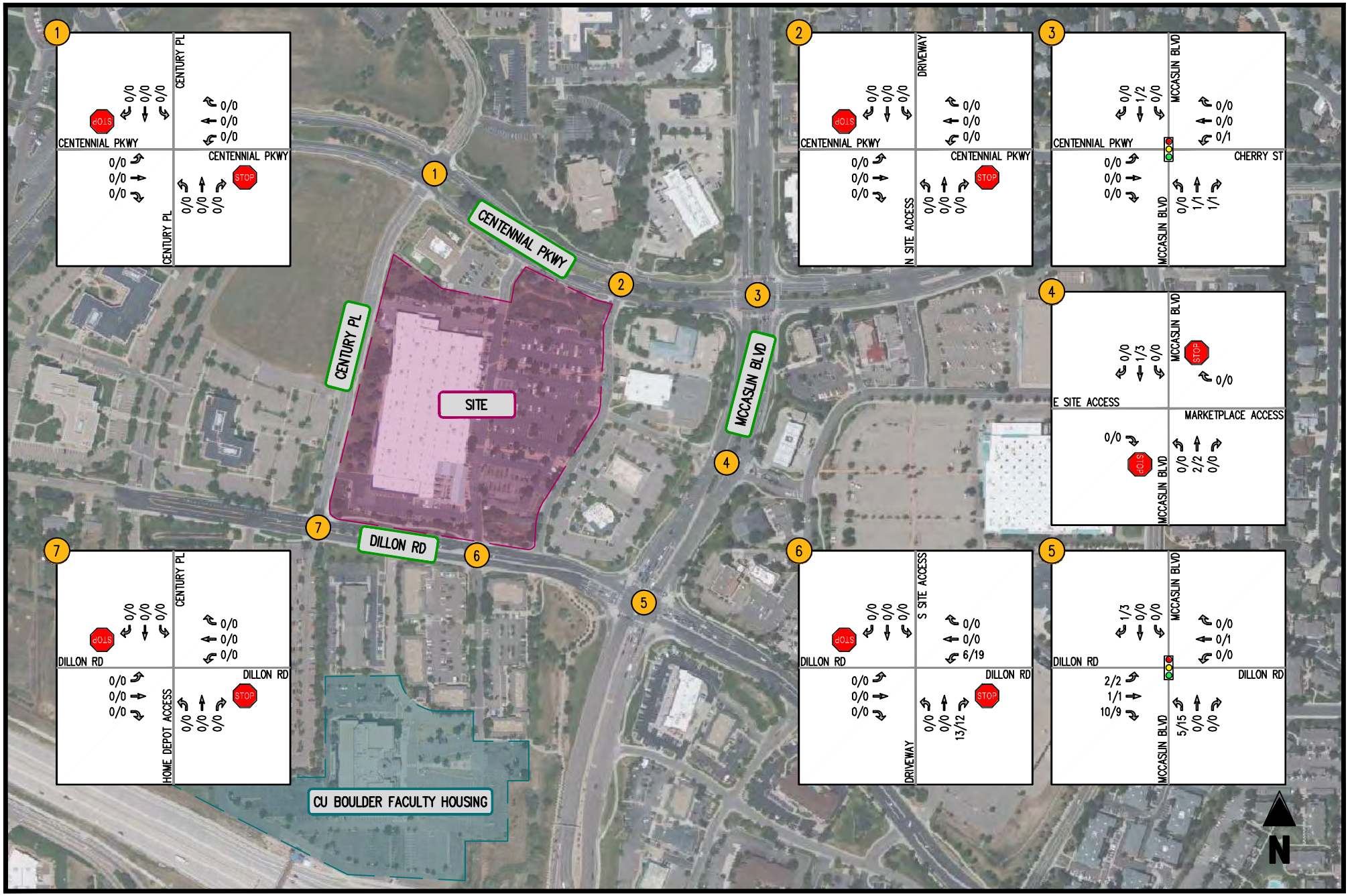


FIGURE 4-4
PIPELINE SITE TRIPS

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

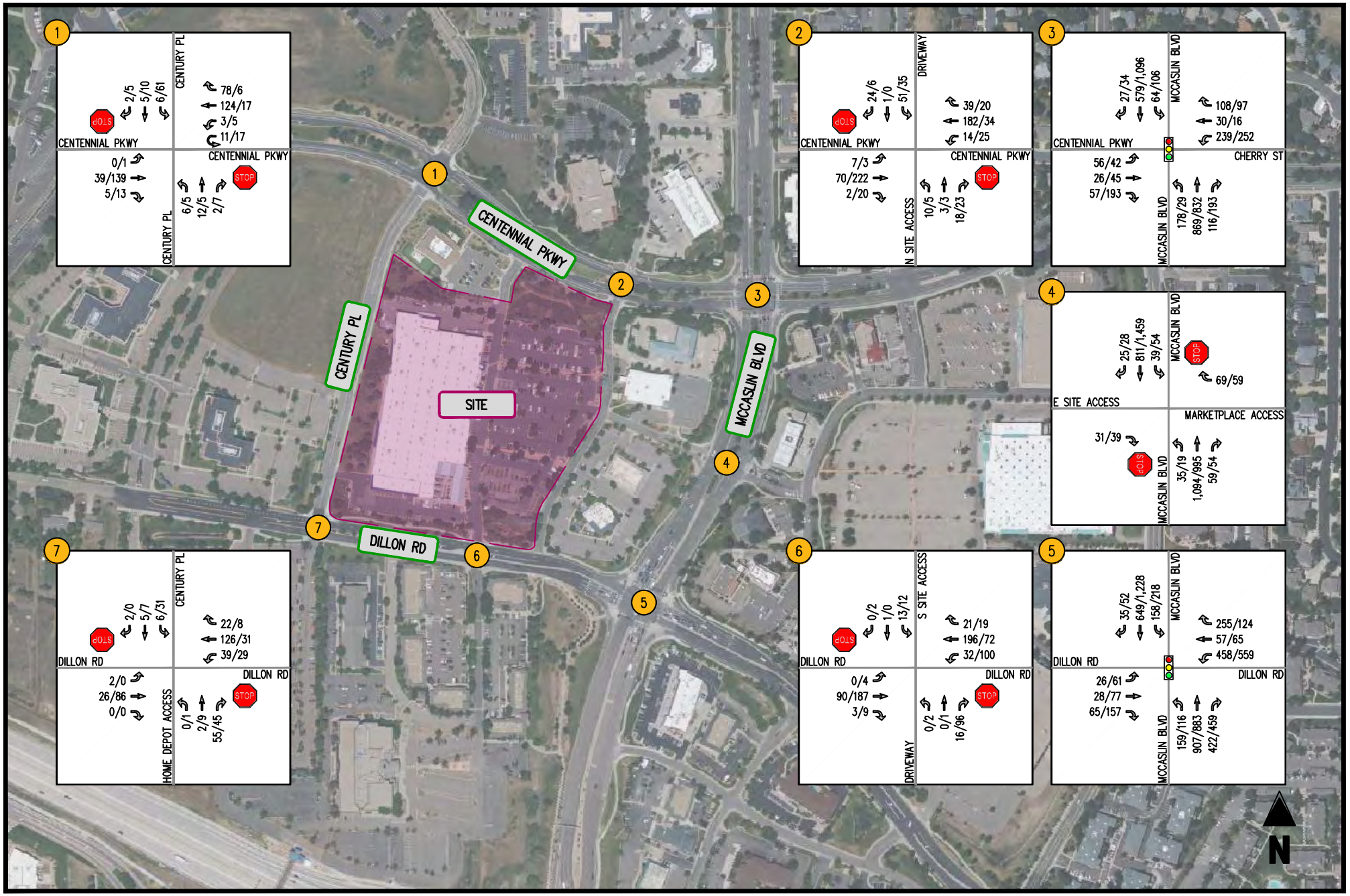


FIGURE 4-5
BACKGROUND FUTURE FORECASTS 2026

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

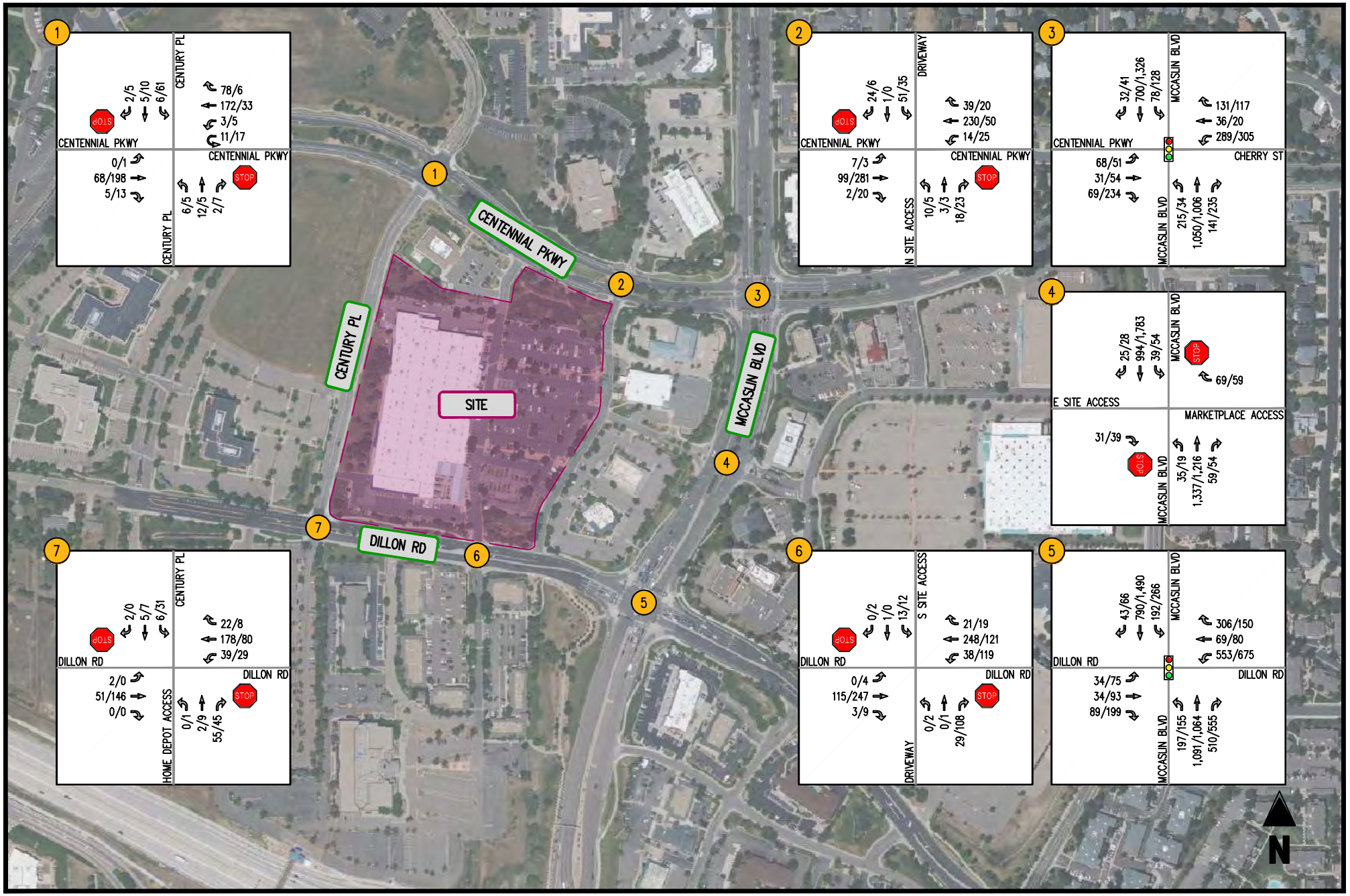


FIGURE 4-6
BACKGROUND FUTURE FORECASTS 2045

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)
MOVEMENT
SIGNALIZED INTERSECTION
STOP STOP SIGN
YIELD SIGN

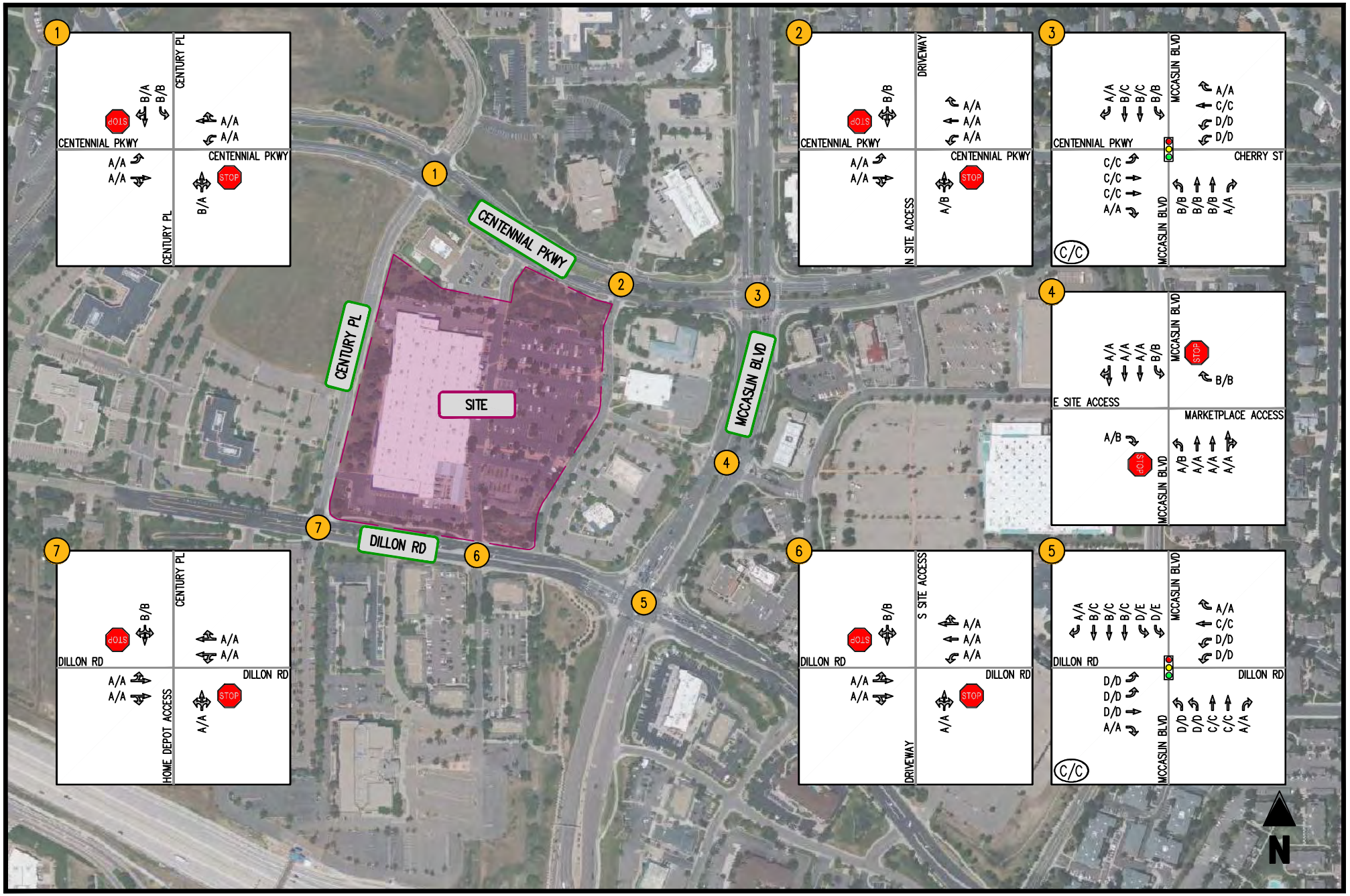


FIGURE 4-7
BACKGROUND FUTURE LEVELS OF SERVICE 2026

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

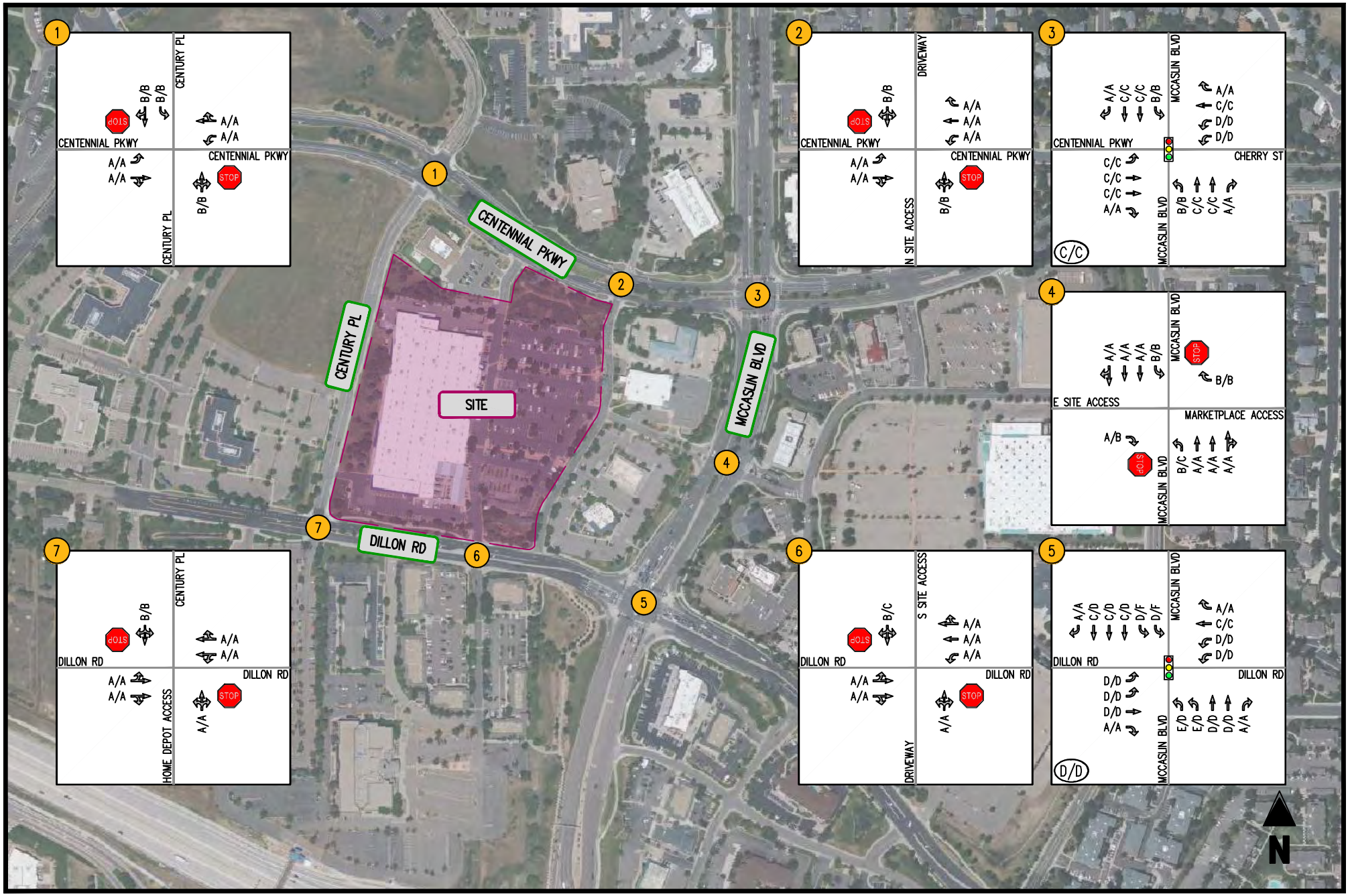


FIGURE 4-8
BACKGROUND FUTURE LEVELS OF SERVICE 2045

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)
MOVEMENT
SIGNALIZED INTERSECTION
STOP STOP SIGN
YIELD SIGN

Table 4-1
King Soopers - Louisville, CO
Background Future Intersection Level of Service Summary [1] [2]

Intersection	Operating Condition	Street Name	Approach/ Movement	Existing 2025 AM Peak Hour	Existing 2025 PM Peak Hour	Background 2026 AM Peak Hour	Background 2026 PM Peak Hour	Background 2045 AM Peak Hour	Background 2045 PM Peak Hour
1 Centennial Pkwy & Century Pl	STOP	Centennial Pkwy	EBL	A [0.0]	A [7.3]	A [0.0]	A [7.3]	A [0.0]	A [7.3]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Centennial Pkwy	WBL	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			WBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Century Pl	NBLTR	B [10.5]	A [9.9]	B [10.4]	A [9.8]	B [11.1]	B [10.3]
		Century Pl	SBL	B [10.2]	B [10.3]	B [10.2]	B [10.2]	B [10.9]	B [11.0]
			SBTR	B [10.3]	A [9.9]	B [10.2]	A [9.9]	B [10.8]	B [10.3]
2 Centennial Pkwy & N Site Access	STOP	Centennial Pkwy	EBL	A [7.7]	A [7.3]	A [7.7]	A [7.3]	A [7.9]	A [7.4]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			WBL	A [7.4]	A [7.9]	A [7.4]	A [7.8]	A [7.5]	A [8.0]
		Centennial Pkwy	WBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			WBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		N Site Access	NBLTR	A [9.9]	B [10.4]	A [9.9]	B [10.3]	B [10.4]	B [10.8]
		Driveway	SBLTR	B [11.2]	B [11.6]	B [11.2]	B [11.3]	B [12.0]	B [12.2]
3 Centennial Pkwy & McCaslin Blvd	SIGNAL		EBL	E (55.5)	D (53.7)	E (55.2)	D (53.7)	E (56.2)	D (54.2)
		Centennial Pkwy	EBT	D (51.4)	D (51.9)	D (51.5)	D (51.9)	D (51.4)	D (51.9)
			EBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			WBL	E (56.4)	E (56.8)	E (56.7)	E (56.7)	E (55.6)	E (55.5)
		Centennial Pkwy	WBT	D (49.5)	D (49.2)	D (50.1)	D (49.0)	D (48.3)	D (47.1)
			WBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			NBL	B (10.1)	B (11.7)	A (9.8)	B (12.0)	B (11.4)	B (15.6)
		McCaslin Blvd	NBT	A (0.7)	A (7.8)	A (0.7)	A (8.0)	A (1.2)	A (1.2)
			NBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			SBL	B (10.7)	A (10.0)	B (10.4)	B (10.1)	B (12.3)	B (10.7)
		McCaslin Blvd	SBT	B (15.3)	B (15.9)	B (14.9)	B (16.3)	B (18.2)	C (21.0)
			SBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
		Overall		**B (15.9)**	**B (18.6)**	**B (15.3)**	**B (18.9)**	**B (16.5)**	**B (18.6)**
4 E Site Access & McCaslin Blvd	STOP	E Site Access	EBR	A [9.7]	B [10.6]	A [9.7]	B [10.5]	A [9.9]	B [11.1]
		Centennial Marketplace Access	WBR	B [10.4]	B [10.2]	B [10.3]	B [10.1]	B [10.7]	B [10.5]
			NBL	B [10.7]	B [13.5]	B [10.6]	B [14.0]	B [11.3]	C [16.8]
		McCaslin Blvd	NBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			NBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			SBL	B [12.2]	B [11.7]	B [12.3]	B [11.9]	B [13.7]	B [12.9]
		McCaslin Blvd	SBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			SBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
5 Dillon Rd & McCaslin Blvd	SIGNAL		EBL	E (58.9)	E (59.3)	E (59.0)	E (59.1)	E (58.7)	E (60.0)
		Dillon Rd	EBT	D (52.1)	E (56.1)	D (52.0)	E (55.7)	D (52.3)	E (57.8)
			EBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			WBL	E (63.7)	E (65.7)	E (64.3)	E (66.6)	F (84.4)	F (117.0)
		Dillon Rd	WBT	D (38.5)	D (36.9)	D (38.2)	D (36.5)	D (37.4)	D (36.9)
			WBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			NBL	E (67.8)	E (59.4)	D (38.3)	E (59.4)	F (95.7)	E (59.9)
		McCaslin Blvd	NBT	C (22.6)	C (25.0)	C (22.8)	C (25.5)	C (28.3)	C (28.8)
			NBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			SBL	E (57.8)	F (119.6)	E (56.8)	F (124.3)	E (60.4)	F (203.6)
		McCaslin Blvd	SBT	A (0.6)	C (30.8)	A (0.8)	C (31.3)	A (2.0)	D (44.5)
			SBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
		Overall		**C (30.3)**	**D (43.7)**	**C (31.0)**	**D (44.4)**	**D (39.2)**	**E (64.7)**
6 Dillon Rd & S Site Access	STOP	Dillon Rd	EBLT	A [0.0]	A [7.4]	A [0.0]	A [7.4]	A [0.0]	A [7.5]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			WBL	A [7.5]	A [7.9]	A [7.5]	A [7.9]	A [7.5]	A [8.1]
		Dillon Rd	WBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			WBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Colony Square Access	NBLTR	A [8.7]	A [9.7]	A [8.6]	A [9.6]	A [8.8]	A [10.0]
		S Site Access	SBLTR	B [11.8]	B [13.6]	B [11.6]	B [13.1]	B [12.7]	C [15.4]
7 Dillon Rd & Century Pl	STOP	Dillon Rd	EBLT	A [7.6]	A [0.0]	A [7.5]	A [0.0]	A [7.7]	A [0.0]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			WBLT	A [7.3]	A [7.4]	A [7.3]	A [7.5]	A [7.4]	A [7.6]
		Dillon Rd	WBTR	A [0.1]	A [0.1]	A [0.1]	A [0.1]	A [0.2]	A [0.1]
		Home Depot Access	NBLTR	A [8.7]	A [9.1]	A [8.7]	A [9.1]	A [8.8]	A [9.5]
		Century Pl	SBLTR	B [10.8]	B [10.3]	B [10.6]	B [10.3]	B [11.3]	B [11.2]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.
(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

Table 4-2
King Soopers - Louisville, CO
Background Future Intersection Queueing Summary [1]

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage	Existing 2025 AM Peak Hour	Existing 2025 PM Peak Hour	Background 2026 AM Peak Hour	Background 2026 PM Peak Hour	Background 2045 AM Peak Hour	Background 2045 PM Peak Hour
1 Centennial Pkwy & Century Pl	STOP	Centennial Pkwy	EBL	100	0	0	0	0	0	0
			EBTR	-	0	0	0	0	0	0
		Centennial Pkwy	WBL	100	0	0	0	0	0	0
			WBTR	-	0	0	0	0	0	0
		Century Pl	NBLTR	-	3	3	3	3	3	3
		Century Pl	SBL	100	0	8	0	8	0	8
			SBTR	-	0	3	0	3	0	3
2 Centennial Pkwy & N Site Access	STOP	Centennial Pkwy	EBL	80	0	0	0	0	0	0
			EBTR	-	0	0	0	0	0	0
			WBL	100	0	3	0	3	0	3
		Centennial Pkwy	WBT	-	0	0	0	0	0	0
			WBR	50	0	0	0	0	0	0
		N Site Access	NBLTR	-	3	5	3	3	5	5
		Driveway	SBLTR	-	13	8	10	5	13	8
3 Centennial Pkwy & McCaslin Blvd	SIGNAL		EBL	100	87	69	88	72	103	82
		Centennial Pkwy	EBT	-	24	37	25	38	28	44
			EBR	100	0	0	0	0	0	0
			WBL	300	135	142	139	145	160	168
		Centennial Pkwy	WBT	-	50	33	53	33	58	38
			WBR	-	0	0	0	0	0	0
			NBL	325	26	6	24	6	36	6
		McCaslin Blvd	NBT	-	377	70	350	68	517	83
			NBR	125	0	0	0	0	0	0
			SBL	315	45	63	44	35	56	83
		McCaslin Blvd	SBT	-	245	432	238	447	333	670
			SBR	50	0	0	0	0	0	0
4 E Site Access & McCaslin Blvd	STOP	E Site Access	EBR	-	3	5	3	5	3	5
		Centennial Marketplace Access	WBR	-	10	8	8	8	10	8
			NBL	150	5	3	5	5	5	5
		McCaslin Blvd	NBT	-	0	0	0	0	0	0
			NBTR	-	0	0	0	0	0	0
			SBL	250	8	8	8	8	8	10
		McCaslin Blvd	SBT	-	0	0	0	0	0	0
			SBTR	-	0	0	0	0	0	0
5 Dillon Rd & McCaslin Blvd	SIGNAL		EBL	130	26	49	26	49	32	58
		Dillon Rd	EBT	-	53	110	53	112	63	129
			EBR	150	0	0	0	0	0	0
			WBL	500	263	336	273	347	365	457
		Dillon Rd	WBT	-	79	82	80	83	93	96
			WBR	250	0	0	0	0	0	0
			NBL	450	119	79	123	79	163	102
		McCaslin Blvd	NBT	-	360	372	370	380	481	501
			NBR	150	0	0	0	0	0	0
			SBL	250	110	189	111	191	130	244
		McCaslin Blvd	SBT	-	176	319	180	329	216	443
			SBR	100	0	0	0	0	0	0
6 Dillon Rd & S Site Access	STOP	Dillon Rd	EBLT	-	0	0	0	0	0	0
			EBTR	-	0	0	0	0	0	0
			WBL	175	3	8	3	8	3	8
		Dillon Rd	WBT	-	0	0	0	0	0	0
			WBTR	-	0	0	0	0	0	0
		Colony Square Access	NBLTR	-	3	13	3	10	3	13
		S Site Access	SBLTR	-	3	3	3	3	3	3
7 Dillon Rd & Century Pl	STOP	Dillon Rd	EBLT	-	0	0	0	0	0	0
			EBTR	-	0	0	0	0	0	0
			WBLT	-	3	3	3	3	3	3
		Dillon Rd	WBTR	-	0	0	0	0	0	0
		Home Depot Access	NBLTR	-	5	5	5	5	5	5
		Century Pl	SBLTR	-	3	5	3	5	3	5

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro, Version 12.

V. Site Analysis

Overview

The Applicant is proposing to redevelop the approximately 13.5-acre site with commercial uses consisting of a supermarket and gas station use. For purposes of this study, the site is assumed complete and occupied in 2026. The following use and development programs were analyzed:

Build-Out 2026:

136,380	SF	Supermarket
14	FP	Gas Station

Proposed Site Access

As shown on the Applicant's conceptual plan (Figure 1-2), access to the development is being proposed via the existing right-in/right-out (RIRO) access on Centennial Pkwy, full movement access on Centennial Pkwy, ¾ movement access on McCaslin Blvd, RIRO access on Dillon Rd, two full movement accesses on Dillon Rd, and two full movement accesses on Century Pl. No change to the lane use and traffic control is being proposed.

Trip Generation

Overview

Trip generation estimates for the weekday AM and PM peak hours, as well as the weekday average daily traffic (ADT), were derived from the standard Institute of Transportation Engineers (ITE) Trip Generation Manual rates/equations, as published in the 11th edition. The trip generation analysis is presented in Table 5-1.

Internal Capture

Due to the mixed-use nature of the proposed development, it is assumed that a number of trips would be shared between the uses. These are trips that are going from one use on site to another use on site and should not be counted as separate trips for each use. An internal capture reduction of 10% was applied to the trip generation analysis consistent with ITE methodologies:

- Internal Capture: 10%

Pass-by Trips

According to ITE, in some cases the driveway volumes at a particular land use are different from the amount of traffic added to the adjacent street system. Uses such as commercial establishments attract a portion of their trips from traffic that is already present on the road network. Pass-by trips are those trips which are made as intermediate stops on the way to a primary destination. An example of a pass-by trip would be one in which a driver stops at a grocery store or a gas station on his/her way from work.

The proposed use would experience pass-by trips consistent with the primary uses located on site. In recognition of this phenomenon and consistent with ITE published data, the following pass-by reductions were applied to the trip generation analysis:

- Supermarket: 0% AM / 24% PM
- Gas Station: 63% AM / 57% PM

As shown in Table 5-1, the site in total is anticipated to generate 82 weekday AM and 315 weekday PM peak hour pass-by trips. Therefore, these trips would be drawn from the existing road network and assigned to the future site entrances accordingly. Trip distributions for pass-by trips were considered only along northbound and southbound McCaslin Blvd. It was assumed that 40% of pass-by trips would come from the north and 60% would come from the south. Pass-by trip assignments at key study intersections are shown in Figure 5-1.

Net Site Trips

The vehicle trips that would be generated by the proposed development plan are summarized in Table 5-1. As shown in Table 5-1, the site would generate upon completion and full occupancy 399 net new weekday AM and 755 net new weekday PM peak hour vehicle trips, as well as 10,301 net new weekday daily trips.

Site Trip Distributions

The distribution of the anticipated trips generated by the completion of the proposed development was based on an examination of existing traffic counts and local knowledge. Existing travel patterns indicate the following distribution is appropriate in the forecasting of net new future site traffic:

- To/from the north on McCaslin Blvd: 25%
- To/from the south on McCaslin Blvd: 40%
- To/from the east on Centennial Pkwy/Cherry St: 10%
- To/from the west on Centennial Pkwy/Cherry St: 5%
- To/from the east on Dillon Rd: 20%

Site Trip Assignments

The assignment of the new vehicle trips generated upon the future build-out of the development project was based on the above distribution. The net new trips assignments are depicted in Figure 5-2.

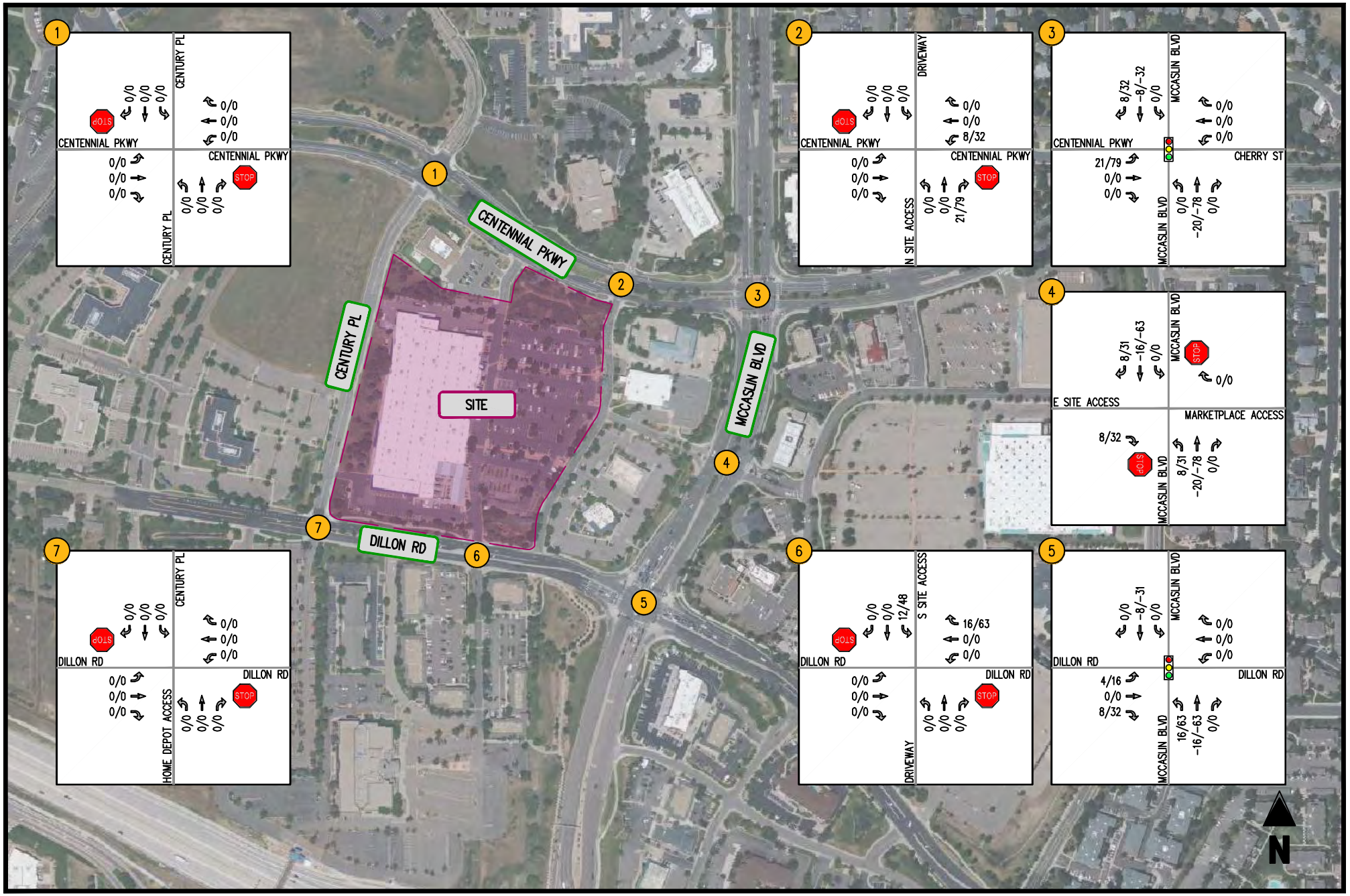


FIGURE 5-1
PASS-BY TRIPS

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP STOP SIGN

YIELD SIGN

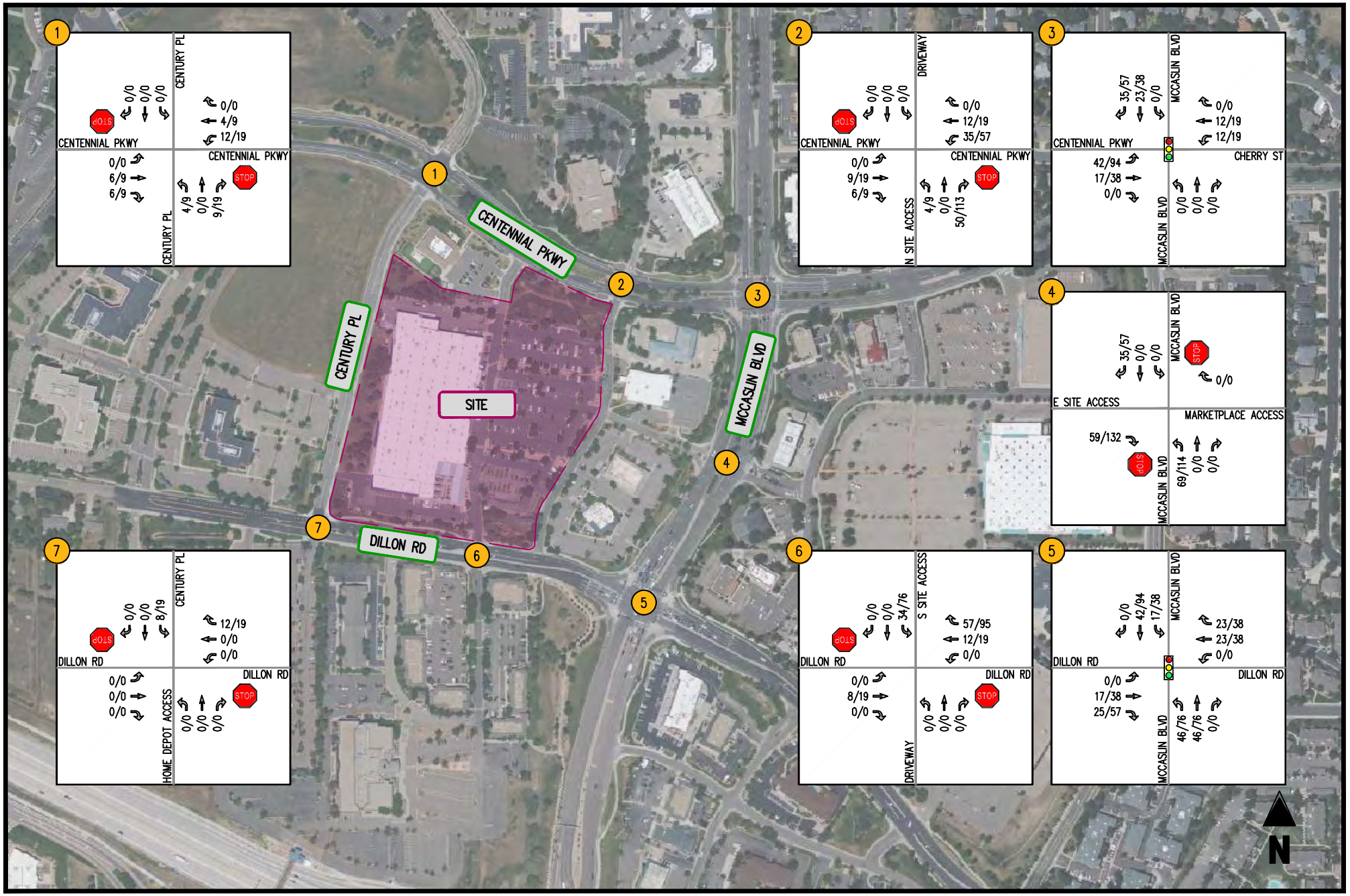


FIGURE 5-2
SITE TRIPS

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

Table 5-1

King Soopers - Louisville, CO

Site Trip Generation

Land Use	Land Use Code	Amount	Units	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Average Daily Trips
Proposed [1]										
Supermarket	850	136,380	SF	230	160	390	497	497	994	11,912
Internal Capture (10%)				*(23)*	*(16)*	*(39)*	*(50)*	*(49)*	*(99)*	*(1,191)*
External Trips				**207**	**144**	**351**	**447**	**448**	**895**	**10,721**
Pass-by's (0% AM / 24% PM)				*0*	*0*	*0*	*(107)*	*(108)*	*(215)*	*(1,287)*
Net New Trips				**207**	**144**	**351**	**340**	**340**	**680**	**9,434**
Gas Station	944	14	FP	72	72	144	98	97	195	2,408
Internal Capture (10%)				*(7)*	*(7)*	*(14)*	*(10)*	*(10)*	*(20)*	*(241)*
External Trips				**65**	**65**	**130**	**88**	**87**	**175**	**2,167**
Pass-by's (63% AM / 57% PM)				*(41)*	*(41)*	*(82)*	*(50)*	*(50)*	*(100)*	*(1,300)*
Net New Trips				**24**	**24**	**48**	**38**	**37**	**75**	**867**
Total Proposed Site Trips				302	232	534	595	594	1,189	14,320
Internal Capture (10%)				*(30)*	*(23)*	*(53)*	*(60)*	*(59)*	*(119)*	*(1,432)*
Total Proposed External Trips				**272**	**209**	**481**	**535**	**535**	**1,070**	**12,888**
Total Proposed Pass-by Trips				*(41)*	*(41)*	*(82)*	*(157)*	*(158)*	*(315)*	*(2,587)*
Proposed Net New Total				**231**	**168**	**399**	**378**	**377**	**755**	**10,301**

Note(s):

(1) Trip generation based on the Institute of Transportation Engineers' Trip Generation Manual, 11th Edition

VI. Analysis of Future Conditions with Site Development

Total Future Traffic Forecasts

The 2026 and 2045 total future traffic forecasts associated with the proposed development were developed by combining the background future forecasts shown in Figure 4-5 (2026) and Figure 4-6 (2045), the pass-by trips shown in Figure 5-1, and the site trip assignments shown in Figure 5-2. The resulting total future traffic forecasts are provided in Figure 6-1 for 2026 conditions and Figure 6-2 for 2045 conditions.

Total Future Levels of Service with Proposed Development

Future levels of service with the proposed development plan were estimated at key study intersections based on the future traffic volumes shown in Figures 6-1 and Figure 6-2, the existing lane use in Figure 2-1, and the HCM 7th methodologies for signalized and unsignalized intersections. The results of these analyses are provided in Appendix F and presented in Table 6-1. Total future levels of service are also presented graphically in Figure 6-3 (2026) and Figure 6-4 (2045).

As shown in Table 6-1, levels of service under future site development conditions would remain generally consistent with future background conditions (i.e., without site development). Overall delays would experience a minor increase due to site trips. The signalized intersections within the study area would continue to operate at acceptable overall LOS “D” or better during the weekday peak hours in all total future scenarios with the exception of the Dillon Rd & McCaslin Blvd intersection which would operate at LOS “E” during the total future 2026 and 2045 PM scenarios. The unsignalized intersection movements would operate at acceptable LOS “D” or better during the weekday peak hours in all future scenarios.

To mitigate the increased delay at the Dillon Rd & McCaslin Blvd intersection for total future conditions, it is recommended that the timings of the signal be optimized. As shown in Table 6-1, with signal timing adjustments, the intersection of Dillon Rd & McCaslin Blvd is expected to operate at overall acceptable LOS “D” for all total future scenarios.

Total Future Queuing

Total future queues were forecasted using Synchro software. The results of the queuing analysis are summarized in Table 6-2. All queues are expected to be contained in their effective storage with the exception of the eastbound left turn lane at the Centennial Pkwy & McCaslin Blvd intersection which would exceed its storage in all total future scenarios with existing signal timing. As shown in Table 6-2, with signal timing adjustments to the Dillon Rd & McCaslin Blvd intersection, all queues for that intersection are expected to continue to be contained within their effective storage for all total future scenarios.

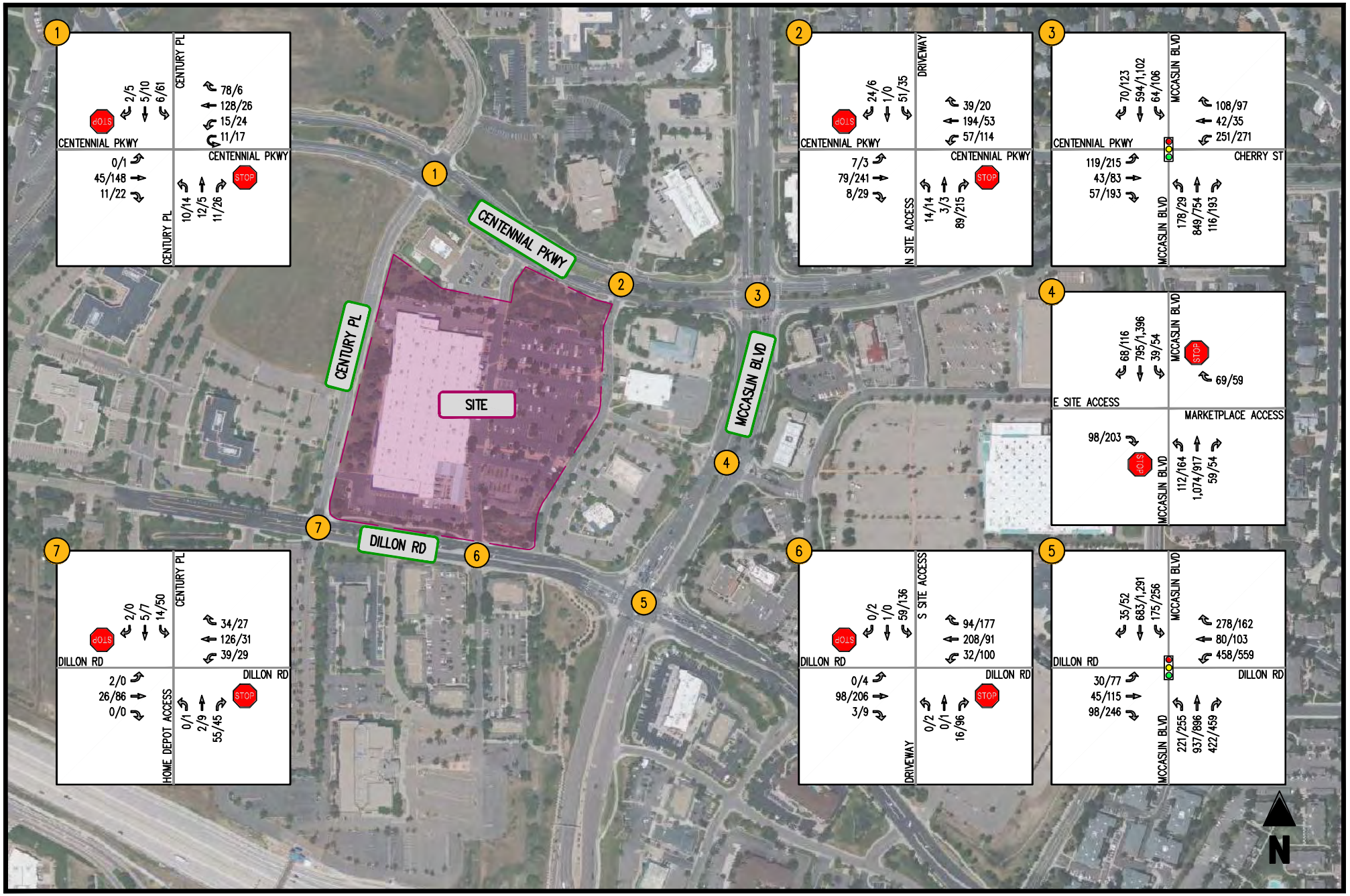


FIGURE 6-1
TOTAL FUTURE FORECASTS 2026

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

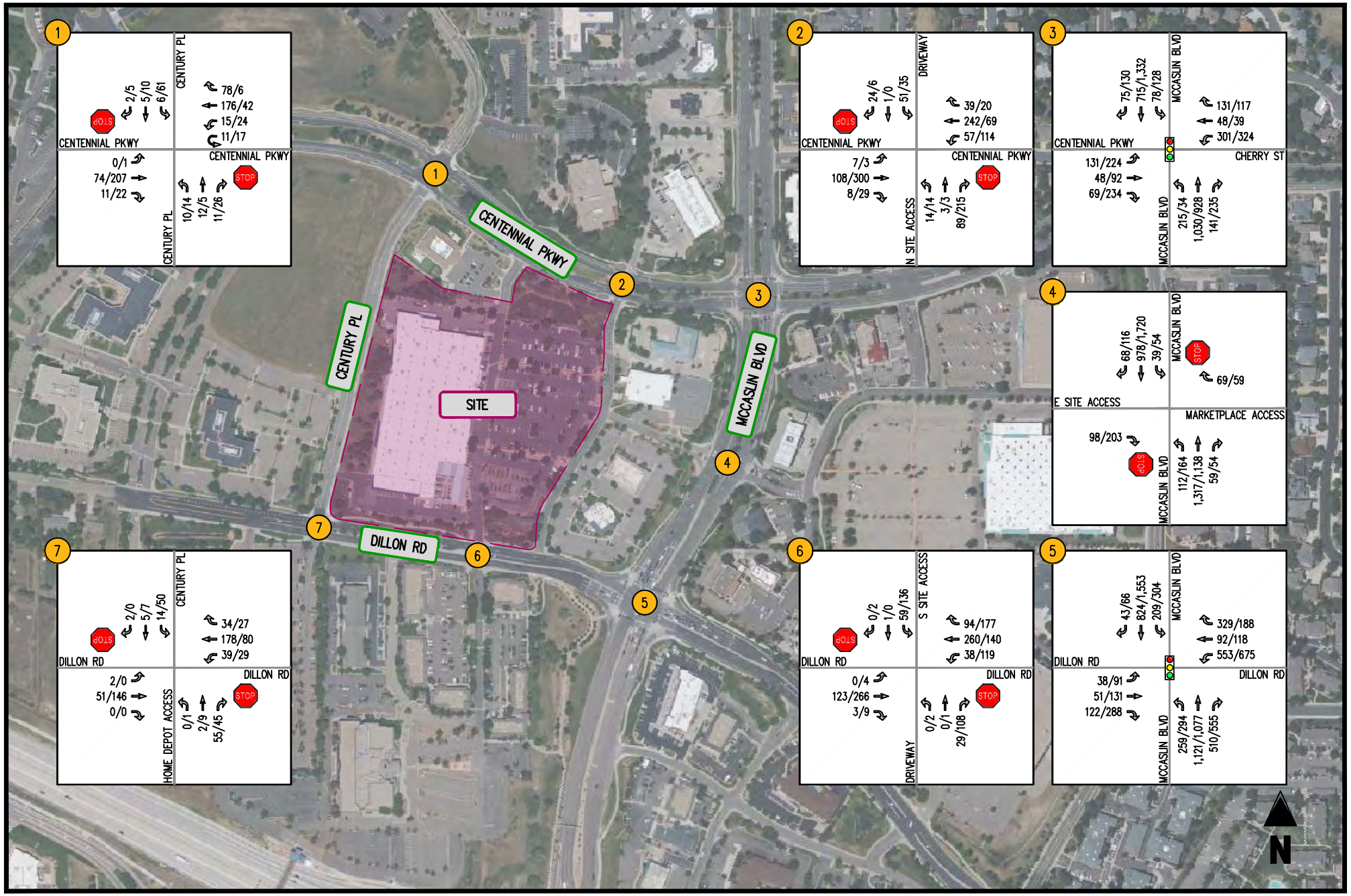


FIGURE 6-2
TOTAL FUTURE FORECASTS 2045

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

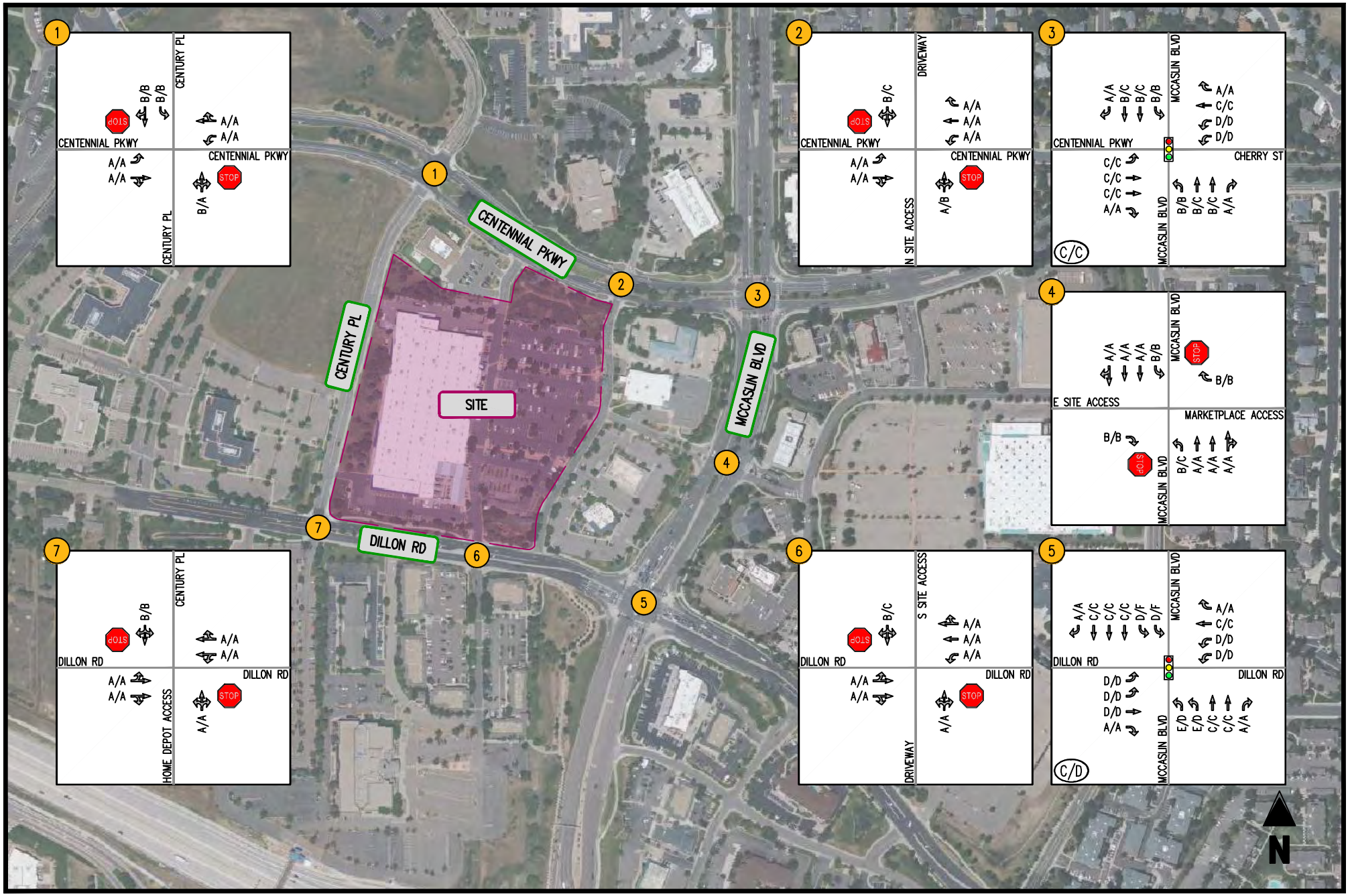


FIGURE 6-3
TOTAL FUTURE LEVELS OF SERVICE 2026

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)
MOVEMENT
SIGNALIZED INTERSECTION
STOP SIGN
YIELD SIGN

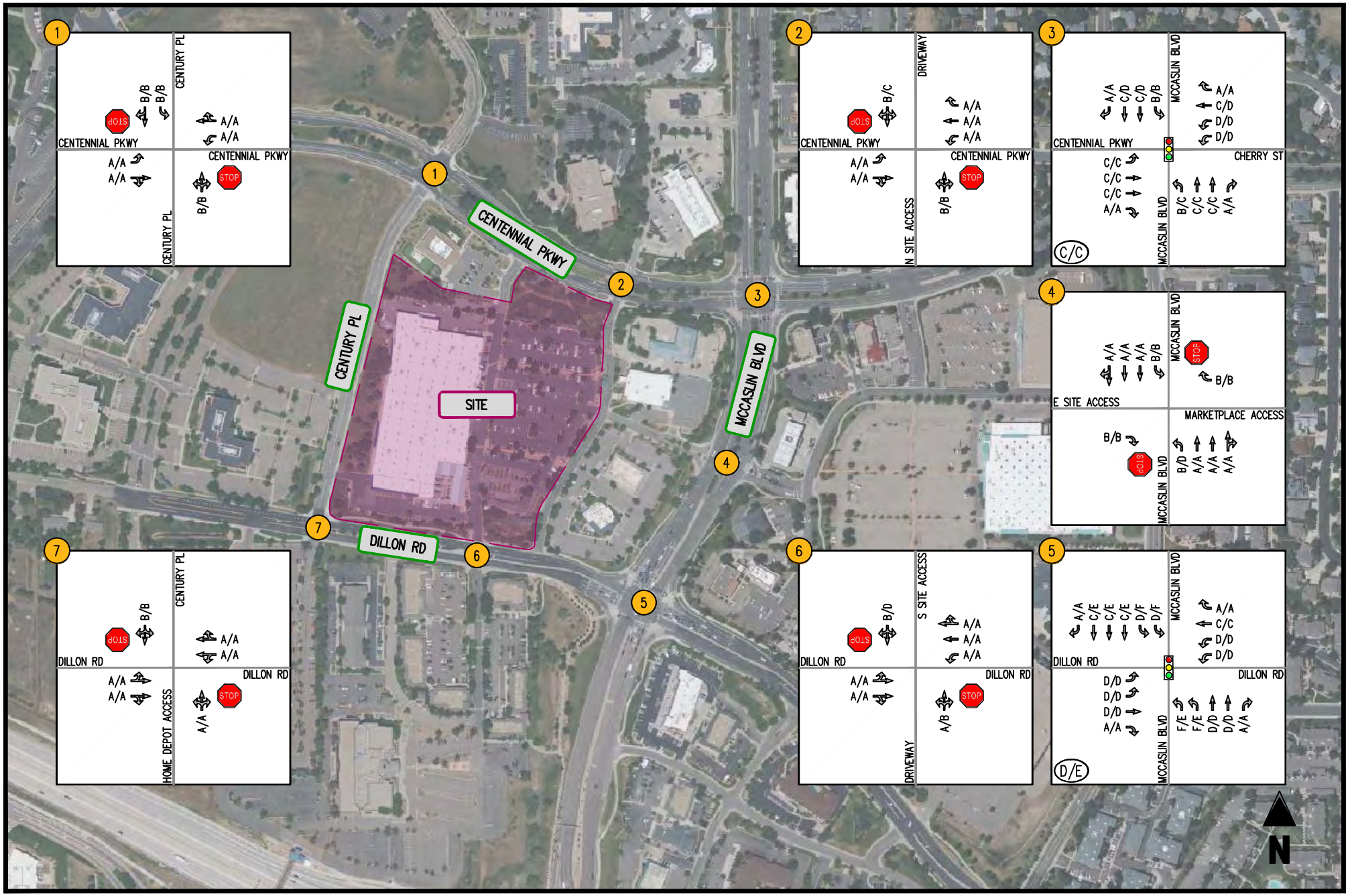


FIGURE 6-4
TOTAL FUTURE LEVELS OF SERVICE 2045

KING SOOPERS
LOUISVILLE, CO

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP STOP SIGN

YIELD SIGN

Table 6-1
King Soopers - Louisville, CO
Total Future Intersection Level of Service Summary [1] [2]

Intersection	Operating Condition	Street Name	Approach/ Movement	Background 2026 AM Peak Hour	Background 2026 PM Peak Hour	Background 2045 AM Peak Hour	Background 2045 PM Peak Hour	Total Future 2026 AM Peak Hour	Total Future 2026 PM Peak Hour	Total Future 2045 AM Peak Hour	Total Future 2045 PM Peak Hour
1 Centennial Pkwy & Century Pl	STOP	Centennial Pkwy	EBL	A [0.0]	A [7.3]	A [0.0]	A [7.3]	A [0.0]	A [7.3]	A [0.0]	A [0.0]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Centennial Pkwy	WBL	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			WBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Century Pl	NBLTR	B [10.4]	A [9.8]	B [11.1]	B [10.3]	B [10.2]	A [10.0]	B [10.8]	B [10.6]
		Century Pl	SBL	B [10.2]	B [10.2]	B [10.9]	B [11.0]	B [10.5]	B [10.9]	B [11.3]	B [11.8]
			SBTR	B [10.2]	A [9.9]	B [10.8]	B [10.3]	B [10.4]	B [10.2]	B [11.0]	B [10.7]
2 Centennial Pkwy & N Site Access	STOP	Centennial Pkwy	EBL	A [7.7]	A [7.3]	A [7.9]	A [7.4]	A [7.8]	A [7.4]	A [7.9]	A [7.4]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			WBL	A [7.4]	A [7.8]	A [7.5]	A [8.0]	A [7.5]	A [8.1]	A [7.6]	A [8.3]
		Centennial Pkwy	WBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			WBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		N Site Access	NBLTR	A [9.9]	B [10.3]	B [10.4]	B [10.8]	A [10.0]	B [12.9]	B [10.4]	B [14.1]
		Driveway	SBLTR	B [11.2]	B [11.3]	B [12.0]	B [12.2]	B [13.1]	C [19.2]	B [14.3]	C [22.3]
3 Centennial Pkwy & McCaslin Blvd	SIGNAL		EBL	E (55.2)	D (53.7)	E (56.2)	D (54.2)	E (62.7)	E (63.4)	E (62.1)	E (64.0)
		Centennial Pkwy	EBT	D (51.5)	D (51.9)	D (51.4)	D (51.9)	D (50.3)	D (44.4)	D (49.5)	D (44.0)
			EBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			WBL	E (56.7)	E (56.7)	E (55.6)	E (55.5)	E (56.3)	E (56.0)	E (55.2)	D (54.9)
		Centennial Pkwy	WBT	D (50.1)	D (49.0)	D (48.3)	D (47.1)	D (50.1)	D (49.0)	D (48.3)	D (47.1)
			WBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			NBL	A (9.8)	B (12.0)	B (11.4)	B (15.6)	B (10.8)	B (17.3)	B (12.7)	C (22.8)
		McCaslin Blvd	NBT	A (0.7)	A (8.0)	A (1.2)	A (1.2)	A (0.8)	A (1.6)	A (1.3)	A (4.9)
			NBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			SBL	B (10.4)	B (10.1)	B (12.3)	B (10.7)	B (11.5)	B (13.9)	B (13.8)	B (15.8)
		McCaslin Blvd	SBT	B (14.9)	B (16.3)	B (18.2)	C (21.0)	B (16.4)	C (23.7)	C (20.4)	C (32.0)
			SBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
		Overall		**B (15.3)**	**B (18.9)**	**B (16.5)**	**B (18.6)**	**B (18.2)**	**C (24.5)**	**B (19.2)**	**C (28.4)**
4 E Site Access & McCaslin Blvd	STOP	E Site Access	EBR	A [9.7]	B [10.5]	A [9.9]	B [11.1]	B [10.2]	B [12.6]	B [10.5]	B [13.4]
		Centennial Marketplace Access	WBR	B [10.3]	B [10.1]	B [10.7]	B [10.5]	B [10.3]	A [10.0]	B [10.7]	B [10.4]
			NBL	B [10.6]	B [14.0]	B [11.3]	C [16.8]	B [11.7]	C [20.6]	B [12.8]	D [34.9]
		McCaslin Blvd	NBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			NBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			SBL	B [12.3]	B [11.9]	B [13.7]	B [12.9]	B [12.1]	B [11.6]	B [13.4]	B [12.5]
		McCaslin Blvd	SBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			SBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
5 Dillon Rd & McCaslin Blvd	SIGNAL		EBL	E (59.0)	E (59.1)	E (58.7)	E (60.0)	E (58.8)	E (60.2)	E (58.7)	E (60.1)
		Dillon Rd	EBT	D (52.0)	E (55.7)	D (52.3)	E (57.8)	D (53.0)	E (61.1)	D (53.3)	E (60.5)
			EBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			WBL	E (64.3)	E (66.6)	F (84.4)	F (117.0)	E (64.3)	E (66.6)	F (84.4)	F (117.0)
		Dillon Rd	WBT	D (38.2)	D (36.5)	D (37.4)	D (36.9)	D (38.9)	D (37.4)	D (38.1)	D (37.1)
			WBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			NBL	D (38.3)	E (59.4)	F (95.7)	E (59.9)	F (126.6)	E (76.2)	F (189.1)	F (107.7)
		McCaslin Blvd	NBT	C (22.8)	C (25.5)	C (28.3)	C (28.8)	C (23.7)	C (26.1)	C (29.7)	C (30.7)
			NBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			SBL	E (56.8)	F (124.3)	E (60.4)	F (203.6)	E (58.5)	F (185.2)	E (64.8)	F (276.4)
		McCaslin Blvd	SBT	A (0.8)	C (31.3)	A (2.0)	D (44.5)	A (1.0)	D (44.0)	B (13.9)	D (49.5)
			SBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
		Overall		**C (31.0)**	**D (44.4)**	**D (39.2)**	**E (64.7)**	**D (37.2)**	**E (56.2)**	**D (51.6)**	**E (75.9)**
Optimized Signal Timings											
	SIGNAL		EBL	-	-	-	-	-	E (60.2)	-	E (60.1)
		Dillon Rd	EBT	-	-	-	-	-	E (61.1)	-	E (60.7)
			EBR	-	-	-	-	-	A (0.0)	-	A (0.0)
			WBL	-	-	-	-	-	E (74.5)	-	E (74.6)
		Dillon Rd	WBT	-	-	-	-	-	D (38.1)	-	C (34.7)
			WBR	-	-	-	-	-	A (0.0)	-	A (0.0)
			NBL	-	-	-	-	-	E (68.7)	-	E (55.4)
		McCaslin Blvd	NBT	-	-	-	-	-	C (28.6)	-	D (44.2)
			NBR	-	-	-	-	-	A (0.0)	-	A (0.0)
			SBL	-	-	-	-	-	E (71.9)	-	E (56.0)
		McCaslin Blvd	SBT	-	-	-	-	-	D (43.8)	-	D (41.3)
			SBR	-	-	-	-	-	A (0.0)	-	A (0.0)
		Overall		-	-	-	-	-	**D (49.3)**	-	**D (50.2)**
6 Dillon Rd & S Site Access	STOP	Dillon Rd	EBLT	A [0.0]	A [7.4]	A [0.0]	A [7.5]	A [0.0]	A [7.9]	A [0.0]	A [8.0]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			WBL	A [7.5]	A [7.9]	A [7.5]	A [8.1]	A [7.5]	A [7.9]	A [7.6]	A [8.2]
		Dillon Rd	WBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			WBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Colony Square Access	NBLTR	A [8.6]	A [9.6]	A [8.8]	A [10.0]	A [8.7]	A [9.7]	A [8.8]	B [10.1]
		S Site Access	SBLTR	B [11.6]	B [13.1]	B [12.7]	C [15.4]	B [13.0]	C [22.8]	B [14.6]	D [33.7]
7 Dillon Rd & Century Pl	STOP	Dillon Rd	EBLT	A [7.5]	A [0.0]	A [7.7]	A [0.0]	A [7.6]	A [0.0]	A [7.7]	A [0.0]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Dillon Rd	WBLT	A [7.3]	A [7.5]	A [7.4]	A [7.6]	A [7.3]	A [7.5]	A [7.4]	A [7.6]
			WBTR	A [0.1]	A [0.1]	A [0.2]	A [0.1]	A [0.1]	A [0.1]	A [0.2]	A [0.1]
		Home Depot Access	NBLTR	A [8.7]	A [9.1]	A [8.8]	A [9.5]	A [8.7]	A [9.2]	A [8.8]	A [9.5]
		Century Pl	SBLTR	B [10.6]	B [10.3]	B [11.3]	B [11.2]	B [10.9]	B [10.5]	B [11.6]	B [11.5]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.
(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

Table 6-2
King Soopers - Louisville, CO
Total Future Intersection Queueing Summary [1]

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage	Background 2026 AM Peak Hour	Background 2026 PM Peak Hour	Background 2045 AM Peak Hour	Background 2045 PM Peak Hour	Total Future 2026 AM Peak Hour	Total Future 2026 PM Peak Hour	Total Future 2045 AM Peak Hour	Total Future 2045 PM Peak Hour
1 Centennial Pkwy & Century Pl	STOP	Centennial Pkwy	EBL	100	0	0	0	0	0	0	0	0
			EBTR	-	0	0	0	0	0	0	0	0
		Centennial Pkwy	WBL	100	0	0	0	0	0	0	0	0
			WBTR	-	0	0	0	0	0	0	0	0
		Century Pl	NBLTR	-	3	3	3	3	5	5	5	5
		Century Pl	SBL	100	0	8	0	8	0	8	0	10
			SBTR	-	0	3	0	3	0	3	0	3
2 Centennial Pkwy & N Site Access	STOP	Centennial Pkwy	EBL	80	0	0	0	0	0	0	0	0
			EBTR	-	0	0	0	0	0	0	0	0
			WBL	100	0	3	0	3	3	8	3	8
		Centennial Pkwy	WBT	-	0	0	0	0	0	0	0	0
			WBR	50	0	0	0	0	0	0	0	0
		N Site Access	NBLTR	-	3	3	5	5	13	40	13	45
		Driveway	SBLTR	-	10	5	13	8	15	13	15	15
3 Centennial Pkwy & McCaslin Blvd	SIGNAL		EBL	100	88	72	103	82	154	253	166	262
		Centennial Pkwy	EBT	-	25	38	28	44	34	53	36	57
			EBR	100	0	0	0	0	0	0	0	0
			WBL	300	139	145	160	168	143	153	165	176
		Centennial Pkwy	WBT	-	53	33	58	38	66	58	71	60
			WBR	-	0	0	0	0	0	0	0	0
			NBL	325	24	6	36	6	29	8	65	8
		McCaslin Blvd	NBT	-	350	68	517	83	407	256	539	511
			NBR	125	0	0	0	0	0	0	0	0
			SBL	315	44	35	56	83	51	88	63	109
		McCaslin Blvd	SBT	-	238	447	333	670	278	627	371	871
			SBR	50	0	0	0	0	0	0	0	0
4 E Site Access & McCaslin Blvd	STOP	E Site Access	EBR	-	3	5	3	5	13	35	13	38
		Centennial Marketplace Access	WBR	-	8	8	10	8	8	8	10	8
			NBL	150	5	5	5	5	18	55	20	93
		McCaslin Blvd	NBT	-	0	0	0	0	0	0	0	0
			NBTR	-	0	0	0	0	0	0	0	0
			SBL	250	8	8	8	10	5	8	8	10
		McCaslin Blvd	SBT	-	0	0	0	0	0	0	0	0
			SBTR	-	0	0	0	0	0	0	0	0
5 Dillon Rd & McCaslin Blvd	SIGNAL		EBL	130	26	49	32	58	29	59	34	68
		Dillon Rd	EBT	-	53	112	63	129	76	151	83	167
			EBR	150	0	0	0	0	0	0	0	0
			WBL	500	273	347	365	457	273	347	365	457
		Dillon Rd	WBT	-	80	83	93	96	104	116	116	128
			WBR	250	0	0	0	0	0	0	0	0
			NBL	450	123	79	163	102	189	188	228	228
		McCaslin Blvd	NBT	-	370	380	481	501	396	408	513	536
			NBR	150	0	0	0	0	0	0	0	0
			SBL	250	111	191	130	244	120	230	144	241
		McCaslin Blvd	SBT	-	180	329	216	443	186	456	222	581
			SBR	100	0	0	0	0	0	0	0	0
Optimized Signal Timings												
	SIGNAL		EBL	130	-	-	-	-	-	60	-	68
		Dillon Rd	EBT	-	-	-	-	-	-	151	-	167
			EBR	150	-	-	-	-	-	0	-	0
			WBL	500	-	-	-	-	-	359	-	422
		Dillon Rd	WBT	-	-	-	-	-	-	114	-	123
			WBR	250	-	-	-	-	-	0	-	0
			NBL	450	-	-	-	-	-	176	-	165
		McCaslin Blvd	NBT	-	-	-	-	-	-	427	-	760
			NBR	150	-	-	-	-	-	0	-	0
			SBL	250	-	-	-	-	-	180	-	157
		McCaslin Blvd	SBT	-	-	-	-	-	-	456	-	740
			SBR	100	-	-	-	-	-	0	-	0
6 Dillon Rd & S Site Access	STOP	Dillon Rd	EBLT	-	0	0	0	0	0	0	0	0
			EBTR	-	0	0	0	0	0	0	0	0
			WBL	175	3	8	3	8	3	8	3	8
		Dillon Rd	WBT	-	0	0	0	0	0	0	0	0
			WBTR	-	0	0	0	0	0	0	0	0
		Colony Square Access	NBLTR	-	3	10	3	13	3	10	3	13
		S Site Access	SBLTR	-	3	3	3	3	10	53	13	78
7 Dillon Rd & Century Pl	STOP	Dillon Rd	EBLT	-	0	0	0	0	0	0	0	0
			EBTR	-	0	0	0	0	0	0	0	0
			WBLT	-	3	3	3	3	3	3	3	3
		Dillon Rd	WBTR	-	0	0	0	0	0	0	0	0
		Home Depot Access	NBLTR	-	5	5	5	5	5	5	5	5
		Century Pl	SBLTR	-	3	5	3	5	3	8	3	8

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro, Version 12.

VII. Conclusions and Recommendations

Conclusions

Based on the results of this traffic impact study, the following may be concluded:

- Under existing traffic conditions, the signalized intersections in the study area currently operate at acceptable overall levels of service (LOS) "D" or better during the weekday peak hours. The unsignalized intersection movements in the study area currently operate at acceptable LOS "B" or better during the weekday peak hours. All queues are contained within their effective storage.

- Under background future 2026 and 2045 traffic conditions, without the development of the subject site, delays would increase slightly at study intersections due to regional traffic growth. The signalized intersections in the study area are forecasted to operate at acceptable overall LOS "D" or better during the weekday peak hours with the exception of the Dillon Rd & McCaslin Blvd intersection which is forecasted to operate at LOS "E" during the long range (2045) weekday PM peak hour. The unsignalized intersection movements in the study area would operate at acceptable LOS "C" or better during the weekday peak hours. All queues are expected to be contained within their effective storage with the exception of the eastbound left movement at the Centennial Pkwy & McCaslin Blvd intersection during the long range (2045) weekday AM peak hour.

- The proposed site redevelopment would generate, upon completion and full occupancy, 399 net new weekday AM and 755 net new weekday PM peak hour vehicle trips as well as 10,301 net new weekday daily trips.

- Under total future 2026 and 2045 traffic conditions with development of the site, the signalized intersections within the study area would continue to operate at acceptable overall LOS "D" or better during the weekday peak hours in all total future scenarios with the exception of the Dillon Rd & McCaslin Blvd intersection which would operate at LOS "E" during the weekday PM peak hour for total future 2026 and 2045 conditions. The unsignalized intersection movements in the study area would operate at acceptable LOS "D" or better during the weekday peak hours in all future scenarios.

- Under total future 2026 and 2045 traffic conditions with development of the site, all queues are expected to be contained within their effective storage with the exception of the eastbound left turn lane at the intersection of Centennial Pkwy & McCaslin Blvd which would exceed the available storage during all total future scenarios.

Recommendations

- It is recommended that the Applicant provide access consistent with the site plan contained herein.

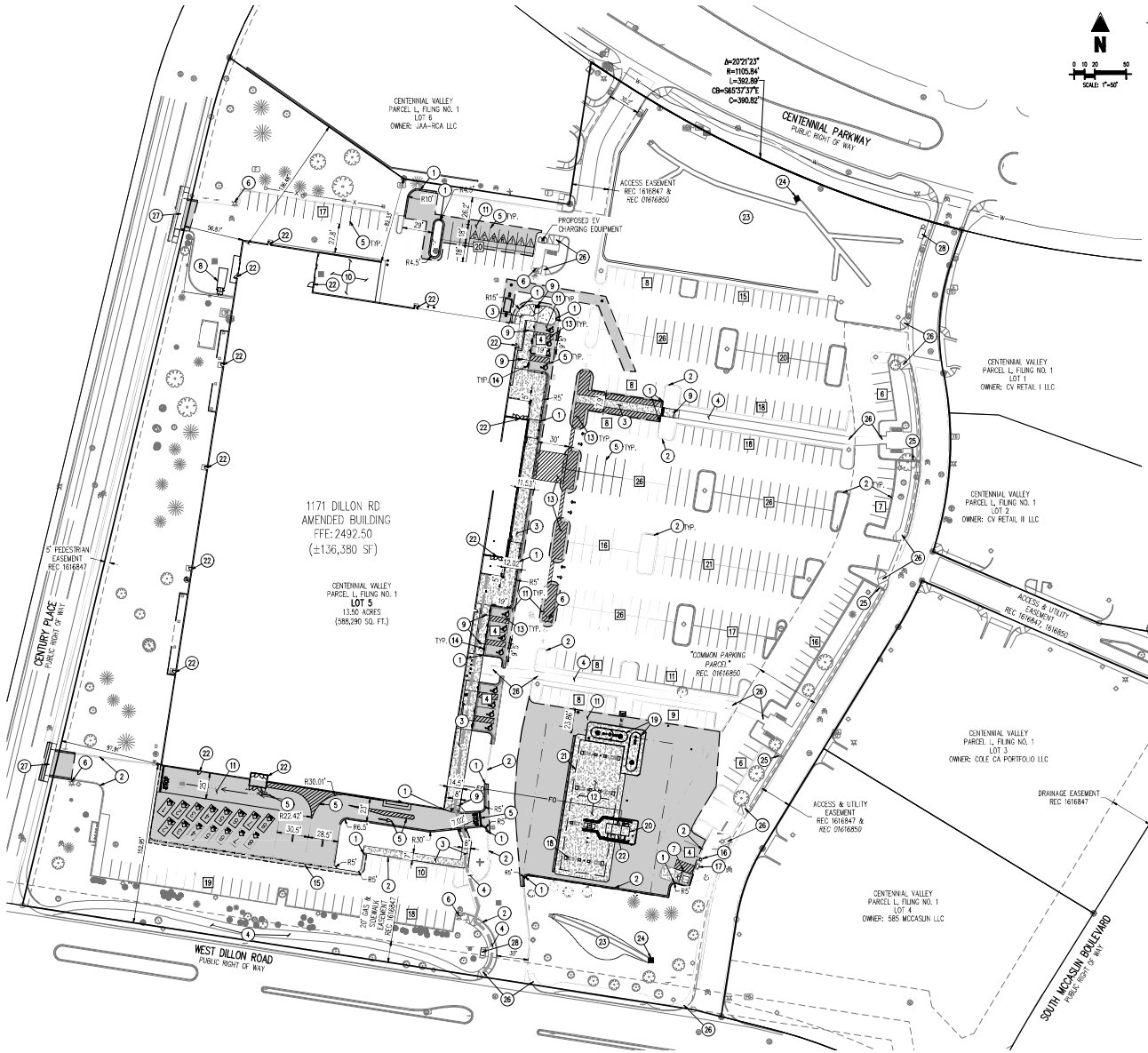
- It is recommended that the signal timings at Dillon Rd & McCaslin Blvd be optimized once the subject site is operational to improve overall operations of the intersection including better LOS and accommodate anticipated queues.

- It is recommended that the eastbound left turn lane at Centennial Pkwy & McCaslin Blvd be extended to accommodate the queue.

APPENDIX A – Full Sized Conceptual Plan

CENTENNIAL VALLEY PARCEL L PUD, 5TH AMENDMENT

PARCEL L, LOT 5, FILING NO.1,
CASE #: PUPD-000530-2024



SITE PLAN SCHEDULE

1. PROPOSED CURB AND GUTTER
2. EXISTING CURB AND GUTTER TO REMAIN
3. PROPOSED SIDEWALK (MIN. WIDTH 5')
4. EXISTING SIDEWALK TO REMAIN (MIN. WIDTH 5')
5. PROPOSED PAVEMENT MARKING
6. EXISTING FIRE HYDRANT TO REMAIN
7. PROPOSED TRASH ENCLOSURE
8. PROPOSED TRASH COMPACTOR
9. PROPOSED PEDESTRIAN RAMP (MIN. WIDTH 5')
10. EXISTING LOADING DOCK
11. PROPOSED STANDARD DUTY ASPHALT PAVEMENT
12. PROPOSED CONCRETE PAVEMENT
13. PROPOSED ADA STRIPING
14. PROPOSED ADA SIGN
15. PROPOSED 2' CONCRETE VALLEY PAN
16. PROPOSED AIR STAND
17. PROPOSED PROPANE CAGE
18. PROPOSED DISPENSER ISLAND (TYP. 7 LOCATIONS)
19. PROPOSED UNDERGROUND FUEL TANKS
20. PROPOSED 208 SF KIOSK
21. PROPOSED FUEL CANOPY
22. PROPOSED BUILDING INGRESS AND EGRESS LOCATION
23. EXISTING DETENTION POND TO REMAIN, MAINTENANCE AND CLEANING TO BE DETERMINED DURING CONSTRUCTION
24. EXISTING OUTLET STRUCTURE TO BE REPLACED WITH PROPOSED OUTLET STRUCTURE
25. EXISTING CHASE DRAIN
26. EXISTING PEDESTRIAN RAMP TO BE BROUGHT TO CURRENT ADA STANDARDS
27. EXISTING SIDEWALK TO BE BROUGHT TO CURRENT ADA STANDARDS
28. PROPOSED MONUMENT SIGN LOCATION

SITE LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPOSED SAWCUT LINE
- EXISTING FENCE TO REMAIN
- PROPOSED SWALE FLOWLINE
- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- PROPOSED ADA STRIPING
- PROPOSED STANDARD DUTY ASPHALT
- PROPOSED CONCRETE PAVEMENT
- ADA PATH OF TRAVEL
- EXISTING SIGN
- PROPOSED SIGN
- PROPOSED BOLLARD
- PROPOSED ADA PARKING SYMBOL
- PROPOSED DETECTABLE WARNING TRUNCATED DOMES
- EXISTING ELECTRICAL PULL BOX
- EXISTING LIGHT POLE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING TREE/BUSH TO REMAIN
- PARKING COUNT
- EXISTING PAD MOUNTED TRANSFORMER
- PROPOSED INSTALLED EV PARKING STALL
- PROPOSED EV CAPABLE PARKING STALL
- PROPOSED EV READY PARKING STALL

BENCHMARK

NGS BENCHMARK P-453, LOCATED 3.06 KM NORTHWEST OF THE INTERCHANGE OF US 36 AND INTERLOCKEN LOOP/STORAGE TECH DRIVE, IN COLORADO DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY.

NAVD88 ELEVATION: 5508.96

LEGAL DESCRIPTION

LOT 5, CENTENNIAL VALLEY PARCEL L, FILING NO. 1, ACCORDING TO THE PLAT THEREOF RECORDED AT RECEPTION NUMBER 1616847, CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO.

Galloway
5500 Greenwood Plaza Blvd., Suite 200
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

NOT FOR CONSTRUCTION

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KING SOOPERS STORE #142
5TH PUD AMENDMENT

1171 DILLION ROAD
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO

#	Date	Issue / Description	Init.
1	11/27/2024	1ST SUBMITTAL	JBP
2	01/29/2025	2ND SUBMITTAL	JBP

Project No:	KSS230014Z.02
Drawn By:	SE
Checked By:	JBP
Date:	JANUARY 29, 2025

SITE PLAN

APPENDIX B – LOS Descriptions

Level of Service for Signalized Intersections

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. Specifically, level-of-service (LOS) criteria are stated in terms of the average stopped delay per vehicle for a 15-min analysis period. The criteria are given in Exhibit 16-2. Delay may be measured in the field or estimated using procedures presented later in this chapter. Delay is a complex measure and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the *v/c* ratio for the lane group in question.

LOS A describes operations with very low delay, up to 10 sec per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

LOS B describes operations with delay greater than 10 and up to 20 sec per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.

Exhibit 16-2. Level-of-Service Criteria for Signalized Intersections

LEVEL OF SERVICE	STOPPED DELAY PER VEHICLE (SEC)
A	≤10.0
B	> 10.0 and ≤20.0
C	> 20.0 and ≤ 35.0
D	> 35.0 and ≤ 55.0
E	> 55.0 and ≤ 80.0
F	>80.0

LOS C describes operations with delay greater than 20 and up to 35 sec per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LOS D describes operations with delay greater than 35 and up to 55 sec per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high *v/c* ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LOS E describes operations with delay greater than 55 and up to 80 sec per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high *v/c* ratios. Individual cycle failures are frequent occurrences.

LOS F describes operations with delay in excess of 80 sec per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high *v/c* ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

Level of Service Criteria for Stop Sign Controlled Intersections

The level of service criteria are given in Table 17-2. As used here, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in queue.

The average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. . . .

Table 17-2. Level of Service Criteria for TWSC Intersections

LEVEL OF SERVICE	AVERAGE CONTROL DELAY (sec/veh)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Average total delay less than 10 sec/veh is defined as Level of Service (LOS) A. Follow-up times of less than 5 sec have been measured when there is no conflicting traffic for a minor street movement, so control delays of less than 10 sec/veh are appropriate for low flow conditions. To remain consistent with the AWSC intersection analysis procedure described later in this chapter, a total delay of 50 sec/veh is assumed as the break point between LOS E and F.

The proposed level of service criteria for TWSC intersections are somewhat different from the criteria used in Chapter 16 for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, several driver behavior considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, where drivers on the minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized than signalized intersections. For these reasons, it is considered that the total delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection. . . .

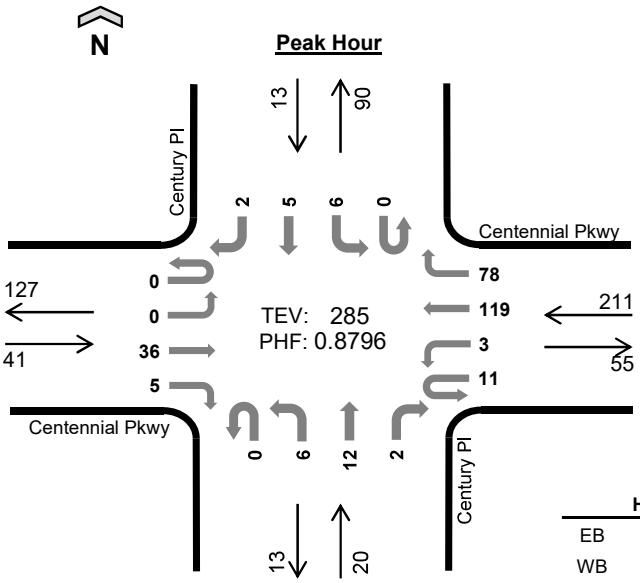
LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to cross safely through a major street traffic stream. This level of service is generally evident from extremely long total delays experienced by side street traffic and by queueing on the minor approaches. The method, however, is based on a constant critical gap size - that is, the critical gap remains constant, no matter how long the side street motorist waits. LOS F may also appear in the form of side street vehicles' selecting smaller-than-usual gaps. In such cases, safety may be a problem and some disruption to the major traffic stream may result. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal gap acceptance behavior. The latter is more difficult to observe on the field than queueing, which is more obvious.

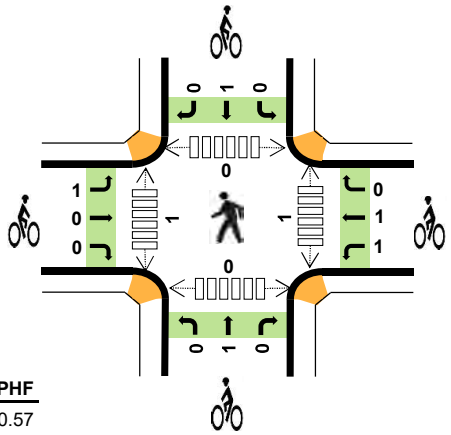
Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

APPENDIX C – Traffic Counts

Century Pl
Centennial Pkwy

Date: 1/14/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV%	PHF
EB	2%	0.57
WB	1%	0.81
NB	5%	0.63
SB	0%	0.65
TOTAL	2%	0.88

Peak Hour Count Summaries

Peak Hour Interval Start		Centennial Pkwy Eastbound				Centennial Pkwy Westbound				Century Pl Northbound				Century Pl Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:00 AM		0	0	6	0	3	0	27	18	0	1	7	0	0	3	1	1	67	0
8:15 AM		0	0	5	3	5	2	36	22	0	2	2	1	0	2	1	0	81	0
8:30 AM		0	0	17	1	2	1	30	17	0	0	1	1	0	0	1	0	71	0
8:45 AM		0	0	8	1	1	0	26	21	0	3	2	0	0	1	2	1	66	285
Pk Hr	All	0	0	36	5	11	3	119	78	0	6	12	2	0	6	5	2	285	
	HV	0	0	1	0	0	0	1	2	0	1	0	0	0	0	0	0	5	
	HV%	-	-	3%	0%	0%	0%	1%	3%	-	17%	0%	0%	-	0%	0%	0%	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:00 AM	0	2	0	0	*2*	0	1	1	0	*2*	0	1	0	0	*1*
8:15 AM	1	0	0	0	*1*	0	0	0	1	*1*	1	0	0	0	*1*
8:30 AM	0	0	0	0	*0*	1	1	0	0	*2*	0	0	0	0	*0*
8:45 AM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	1	3	1	0	*5*	1	2	1	1	*5*	1	1	0	0	*2*

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Count Summaries - All Vehicles

Interval Start	Centennial Pkwy Eastbound				Centennial Pkwy Westbound				Century Pl Northbound				Century Pl Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	14	3	0	0	1	0	0	1	0	0	20	0
7:15 AM	0	0	1	0	2	0	15	4	0	0	2	0	0	0	0	0	24	0
7:30 AM	0	0	5	0	6	0	10	2	0	0	0	0	0	5	0	0	28	0
7:45 AM	0	0	6	1	5	0	25	14	0	0	2	1	0	1	0	0	55	127
8:00 AM	**0**	**0**	**6**	**0**	**3**	**0**	**27**	**18**	**0**	**1**	**7**	**0**	**0**	**3**	**1**	**1**	**67**	**174**
8:15 AM	**0**	**0**	**5**	**3**	**5**	**2**	**36**	**22**	**0**	**2**	**2**	**1**	**0**	**2**	**1**	**0**	**81**	**231**
8:30 AM	**0**	**0**	**17**	**1**	**2**	**1**	**30**	**17**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**0**	**71**	**274**
8:45 AM	**0**	**0**	**8**	**1**	**1**	**0**	**26**	**21**	**0**	**3**	**2**	**0**	**0**	**1**	**2**	**1**	**66**	**285**
Count Total	0	0	49	6	24	3	183	101	0	6	17	3	0	13	5	2	412	
Pk Hr All	**0**	**0**	**36**	**5**	**11**	**3**	**119**	**78**	**0**	**6**	**12**	**2**	**0**	**6**	**5**	**2**	**285**	
Pk Hr HV	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	
Pk Hr HV%	**-**	**-**	**3%**	**0%**	**0%**	**0%**	**1%**	**3%**	**-**	**17%**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**2%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	1	1	0	0	*2*	0	0	0	0	*0*	1	0	0	0	*1*
7:30 AM	1	0	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	0	1	1	0	*2*	2	1	0	0	*3*	0	0	0	0	*0*
8:00 AM	**0**	**2**	**0**	**0**	**2**	**0**	**1**	**1**	**0**	**2**	**0**	**1**	**0**	**0**	**1**
8:15 AM	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**0**	**0**	**1**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**
8:45 AM	**0**	**1**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	3	5	2	2	*12*	3	3	1	1	*8*	2	1	0	0	*3*
Peak Hour	**1**	**3**	**1**	**0**	***5***	**1**	**2**	**1**	**1**	***5***	**1**	**1**	**0**	**0**	**2**

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Count Summaries - Heavy Vehicles

Interval Start	Centennial Pkwy				Centennial Pkwy				Century Pl				Century Pl				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	3	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	7
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**9**
8:15 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**8**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**5**
Count Total	0	0	3	0	0	0	3	2	0	1	1	0	0	2	0	0	12	
Pk Hr Heavy	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	

Count Summaries - Bikes

Interval Start	Centennial Pkwy				Centennial Pkwy				Century Pl				Century Pl				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	3	3
8:00 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**5**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**6**
8:30 AM	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**8**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**
Count Total	0	1	1	1	0	1	1	1	0	0	1	0	0	0	1	0	8	
Pk Hr Bike	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**5**	

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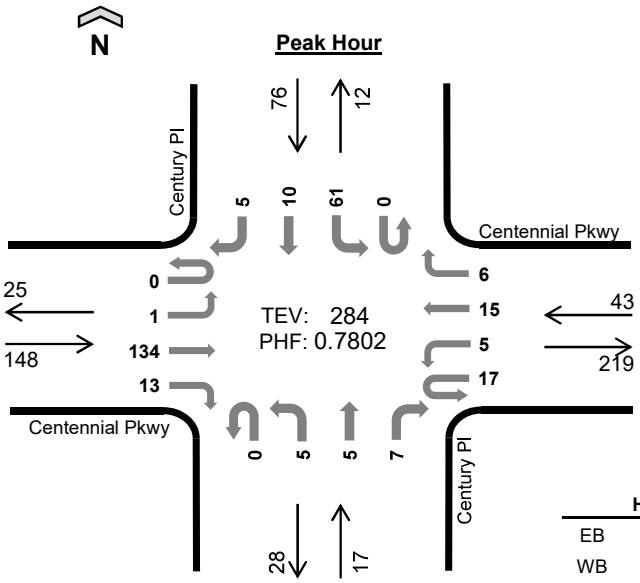
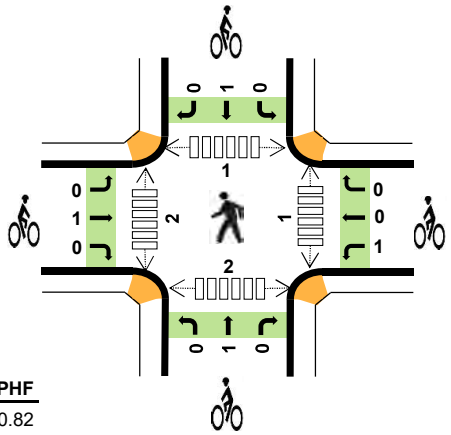
Century Pl
Centennial Pkwy

Date: 1/14/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM





	HV%	PHF
EB	1%	0.82
WB	2%	0.72
NB	0%	0.71
SB	1%	0.76
TOTAL	1%	0.78

Peak Hour Count Summaries

Peak Hour Interval Start		Centennial Pkwy Eastbound				Centennial Pkwy Westbound				Century Pl Northbound				Century Pl Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:30 PM		0	0	36	5	3	0	1	2	0	1	0	1	0	16	2	2	69	0
4:45 PM		0	0	36	4	3	2	5	2	0	2	1	1	0	16	3	0	75	0
5:00 PM		0	0	42	3	6	1	7	1	0	1	2	3	0	21	3	1	91	0
5:15 PM		0	1	20	1	5	2	2	1	0	1	2	2	0	8	2	2	49	284
Pk Hr	All	0	1	134	13	17	5	15	6	0	5	5	7	0	61	10	5	284	
	HV	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	3	
	HV%	-	0%	1%	0%	0%	0%	7%	0%	-	0%	0%	0%	-	0%	0%	20%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:30 PM	0	1	0	0	*1*	0	1	0	0	*1*	0	0	0	0	*0*
4:45 PM	1	0	0	0	*1*	1	0	0	1	*2*	0	0	1	0	*1*
5:00 PM	0	0	0	0	*0*	0	0	1	0	*1*	1	0	0	0	*1*
5:15 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	2	0	2	*4*
Peak Hour	1	1	0	1	*3*	1	1	1	1	*4*	1	2	1	2	*6*

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Count Summaries - All Vehicles

Interval Start	Centennial Pkwy Eastbound				Centennial Pkwy Westbound				Century Pl Northbound				Century Pl Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	25	2	0	3	7	3	0	0	1	2	0	8	0	0	52	0
4:15 PM	0	0	16	1	1	0	4	1	0	0	0	2	0	8	1	0	34	0
4:30 PM	**0**	**0**	**36**	**5**	**3**	**0**	**1**	**2**	**0**	**1**	**0**	**1**	**0**	**16**	**2**	**2**	**69**	**0**
4:45 PM	**0**	**0**	**36**	**4**	**3**	**2**	**5**	**2**	**0**	**2**	**1**	**1**	**0**	**16**	**3**	**0**	**75**	**230**
5:00 PM	**0**	**0**	**42**	**3**	**6**	**1**	**7**	**1**	**0**	**1**	**2**	**3**	**0**	**21**	**3**	**1**	**91**	**269**
5:15 PM	**0**	**1**	**20**	**1**	**5**	**2**	**2**	**1**	**0**	**1**	**2**	**2**	**0**	**8**	**2**	**2**	**49**	**284**
5:30 PM	0	0	15	1	0	4	2	1	0	2	2	3	0	10	2	0	42	257
5:45 PM	0	1	15	1	0	2	0	4	0	1	1	1	0	6	1	0	33	215
Count Total	0	3	205	18	18	14	28	15	0	8	9	15	0	93	14	5	445	
Pk Hr All	**0**	**1**	**134**	**13**	**17**	**5**	**15**	**6**	**0**	**5**	**5**	**7**	**0**	**61**	**10**	**5**	**284**	
Pk Hr HV	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	
Pk Hr HV%	**-**	**0%**	**1%**	**0%**	**0%**	**0%**	**7%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**20%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	2	0	*2*
4:30 PM	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**2**	**0**	**0**	**1**	**0**	**1**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**0**	**0**	**0**	**1**
5:15 PM	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**4**
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	0	0	*1*
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	2	1	0	1	*4*	1	1	1	1	*4*	2	2	3	2	*9*
Peak Hour	**1**	**1**	**0**	**1**	***3***	**1**	**1**	**1**	**1**	***4***	**1**	**2**	**1**	**2**	**6**

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Count Summaries - Heavy Vehicles

Interval Start	Centennial Pkwy				Centennial Pkwy				Century Pl				Century Pl				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
4:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**3**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**3**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	4	
Pk Hr Heavy	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	

Count Summaries - Bikes

Interval Start	Centennial Pkwy				Centennial Pkwy				Century Pl				Century Pl				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
4:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**3**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**4**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	1	0	0	1	0	0	0	0	1	0	0	0	1	0	4	
Pk Hr Bike	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**4**	

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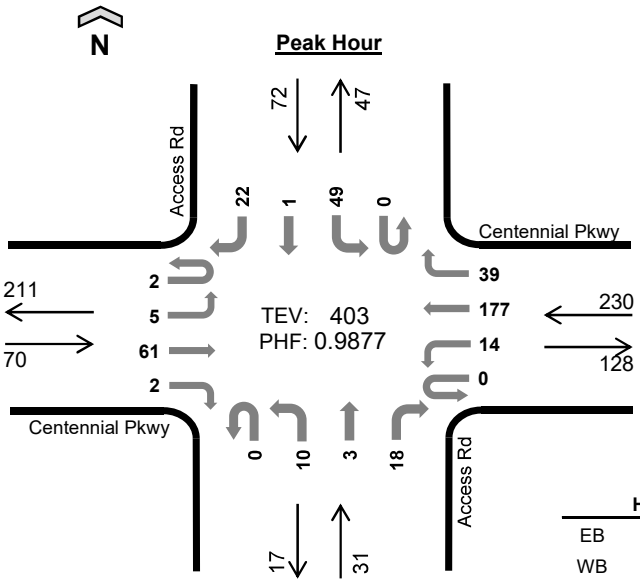
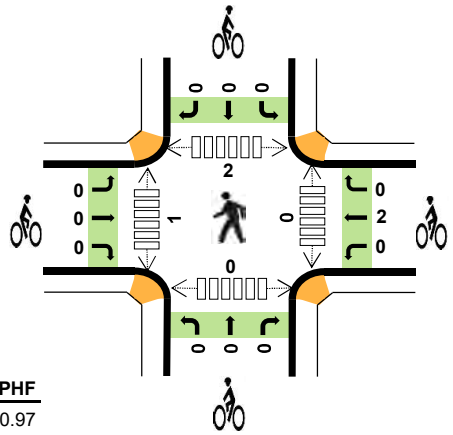
Access Rd
Centennial Pkwy

Date: 1/14/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV%	PHF
EB	1%	0.97
WB	1%	0.93
NB	0%	0.78
SB	1%	0.78
TOTAL	1%	0.99

Peak Hour Count Summaries

Peak Hour Interval Start		Centennial Pkwy Eastbound				Centennial Pkwy Westbound				Access Rd Northbound				Access Rd Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:00 AM		**1**	**1**	**14**	**0**	**0**	**6**	**42**	**10**	**0**	**2**	**0**	**3**	**0**	**19**	**0**	**4**	**102**	**0**
8:15 AM		**1**	**0**	**17**	**0**	**0**	**3**	**52**	**7**	**0**	**2**	**1**	**7**	**0**	**3**	**0**	**9**	**102**	**0**
8:30 AM		**0**	**3**	**14**	**1**	**0**	**3**	**43**	**13**	**0**	**5**	**0**	**4**	**0**	**13**	**0**	**3**	**102**	**0**
8:45 AM		**0**	**1**	**16**	**1**	**0**	**2**	**40**	**9**	**0**	**1**	**2**	**4**	**0**	**14**	**1**	**6**	**97**	**403**
Pk Hr	All	**2**	**5**	**61**	**2**	**0**	**14**	**177**	**39**	**0**	**10**	**3**	**18**	**0**	**49**	**1**	**22**	**403**	
	HV	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**5**	
	HV%	**0%**	**0%**	**2%**	**0%**	**-**	**0%**	**2%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**2%**	**0%**	**0%**	**1%**	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:00 AM	**0**	**2**	**0**	**0**	***2***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**1**	**0**	***1***
8:15 AM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***
8:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	***1***	**0**	**1**	**0**	**0**	***1***
8:45 AM	**0**	**1**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Peak Hour	**1**	**3**	**0**	**1**	***5***	**0**	**2**	**0**	**0**	***2***	**0**	**1**	**2**	**0**	***3***

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Count Summaries - All Vehicles

Interval Start	Centennial Pkwy Eastbound				Centennial Pkwy Westbound				Access Rd Northbound				Access Rd Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	1	0	0	15	3	0	4	0	0	0	7	0	1	32	0
7:15 AM	0	0	1	0	0	1	13	7	0	1	0	0	0	11	0	4	38	0
7:30 AM	0	1	10	0	0	1	14	8	0	3	2	7	0	12	1	1	60	0
7:45 AM	1	1	9	0	0	1	36	12	0	4	1	4	0	16	1	3	89	219
8:00 AM	**1**	**1**	**14**	**0**	**0**	**6**	**42**	**10**	**0**	**2**	**0**	**3**	**0**	**19**	**0**	**4**	**102**	**289**
8:15 AM	**1**	**0**	**17**	**0**	**0**	**3**	**52**	**7**	**0**	**2**	**1**	**7**	**0**	**3**	**0**	**9**	**102**	**353**
8:30 AM	**0**	**3**	**14**	**1**	**0**	**3**	**43**	**13**	**0**	**5**	**0**	**4**	**0**	**13**	**0**	**3**	**102**	**395**
8:45 AM	**0**	**1**	**16**	**1**	**0**	**2**	**40**	**9**	**0**	**1**	**2**	**4**	**0**	**14**	**1**	**6**	**97**	**403**
Count Total	3	7	82	3	0	17	255	69	0	22	6	29	0	95	3	31	622	
Pk Hr All	**2**	**5**	**61**	**2**	**0**	**14**	**177**	**39**	**0**	**10**	**3**	**18**	**0**	**49**	**1**	**22**	**403**	
Pk Hr HV	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**5**	
Pk Hr HV%	**0%**	**0%**	**2%**	**0%**	**-**	**0%**	**2%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**2%**	**0%**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	3	0	0	0	*3*	0	0	1	0	*1*	0	0	0	0	*0*
7:45 AM	1	1	1	0	*3*	1	0	0	1	*2*	0	0	0	0	*0*
8:00 AM	**0**	**2**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**
8:15 AM	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**1**
8:45 AM	**0**	**1**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	6	5	1	1	*13*	1	2	1	1	*5*	0	1	2	0	*3*
Peak Hour	**1**	**3**	**0**	**1**	***5***	**0**	**2**	**0**	**0**	***2***	**0**	**1**	**2**	**0**	**3**

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Count Summaries - Heavy Vehicles

Interval Start	Centennial Pkwy				Centennial Pkwy				Access Rd				Access Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
7:45 AM	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	3	8
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**9**
8:15 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**9**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**5**
Count Total	0	0	6	0	0	0	5	0	0	0	0	1	0	1	0	0	13	
Pk Hr Heavy	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**5**	

Count Summaries - Bikes

Interval Start	Centennial Pkwy				Centennial Pkwy				Access Rd				Access Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**4**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**4**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
Count Total	0	1	0	0	0	0	2	0	0	0	1	0	0	0	0	1	5	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	

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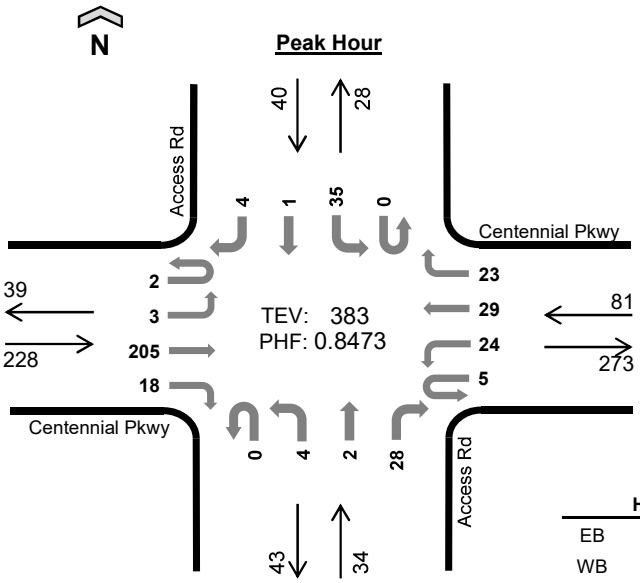
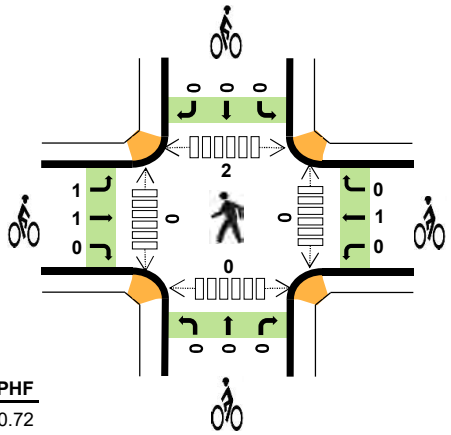
Access Rd
Centennial Pkwy

Date: 1/14/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM





	HV%	PHF
EB	0%	0.72
WB	2%	0.78
NB	0%	0.85
SB	3%	0.63
TOTAL	1%	0.85

Peak Hour Count Summaries

Peak Hour Interval Start		Centennial Pkwy Eastbound				Centennial Pkwy Westbound				Access Rd Northbound				Access Rd Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:15 PM		0	2	31	0	2	4	6	9	0	0	0	10	0	5	1	1	71	0
4:30 PM		0	0	48	7	1	8	6	11	0	2	1	4	0	16	0	0	104	0
4:45 PM		0	0	58	3	0	6	6	2	0	1	1	6	0	10	0	2	95	0
5:00 PM		2	1	68	8	2	6	11	1	0	1	0	8	0	4	0	1	113	383
Pk Hr	All	2	3	205	18	5	24	29	23	0	4	2	28	0	35	1	4	383	
	HV	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0	4	
	HV%	0%	0%	0%	0%	0%	0%	3%	4%	-	0%	0%	0%	-	3%	0%	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	2	0	*2*
4:30 PM	0	2	0	0	*2*	0	1	0	0	*1*	0	0	0	0	*0*
4:45 PM	1	0	0	1	*2*	2	0	0	0	*2*	0	0	0	0	*0*
5:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	1	2	0	1	*4*	2	1	0	0	*3*	0	0	2	0	*2*

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Count Summaries - All Vehicles

Interval Start	Centennial Pkwy Eastbound				Centennial Pkwy Westbound				Access Rd Northbound				Access Rd Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	33	2	0	2	8	7	0	2	0	7	0	5	1	3	70	0
4:15 PM	**0**	**2**	**31**	**0**	**2**	**4**	**6**	**9**	**0**	**0**	**0**	**10**	**0**	**5**	**1**	**1**	**71**	**0**
4:30 PM	**0**	**0**	**48**	**7**	**1**	**8**	**6**	**11**	**0**	**2**	**1**	**4**	**0**	**16**	**0**	**0**	**104**	**0**
4:45 PM	**0**	**0**	**58**	**3**	**0**	**6**	**6**	**2**	**0**	**1**	**1**	**6**	**0**	**10**	**0**	**2**	**95**	**340**
5:00 PM	**2**	**1**	**68**	**8**	**2**	**6**	**11**	**1**	**0**	**1**	**0**	**8**	**0**	**4**	**0**	**1**	**113**	**383**
5:15 PM	0	0	40	2	0	2	9	5	0	1	1	5	0	5	0	1	71	383
5:30 PM	1	0	35	1	0	5	3	6	0	1	1	8	0	4	1	1	67	346
5:45 PM	0	0	21	2	0	3	4	3	0	1	0	9	0	3	1	1	48	299
Count Total	3	3	334	25	5	36	53	44	0	9	4	57	0	52	4	10	639	
Pk Hr All	**2**	**3**	**205**	**18**	**5**	**24**	**29**	**23**	**0**	**4**	**2**	**28**	**0**	**35**	**1**	**4**	**383**	
Pk Hr HV	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**4**	
Pk Hr HV%	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**3%**	**4%**	**-**	**0%**	**0%**	**0%**	**-**	**3%**	**0%**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**
4:30 PM	**0**	**2**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**1**	**0**	**0**	**1**	**2**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	0	2	*3*
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	2	2	1	1	*6*	2	1	0	0	*3*	1	0	2	2	*5*
Peak Hour	**1**	**2**	**0**	**1**	***4***	**2**	**1**	**0**	**0**	***3***	**0**	**0**	**2**	**0**	**2**

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Count Summaries - Heavy Vehicles

Interval Start	Centennial Pkwy				Centennial Pkwy				Access Rd				Access Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**
4:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**5**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Count Total	0	0	2	0	0	0	1	1	0	0	0	1	0	1	0	0	6	
Pk Hr Heavy	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**4**	

Count Summaries - Bikes

Interval Start	Centennial Pkwy				Centennial Pkwy				Access Rd				Access Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
4:45 PM	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	3	
Pk Hr Bike	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	

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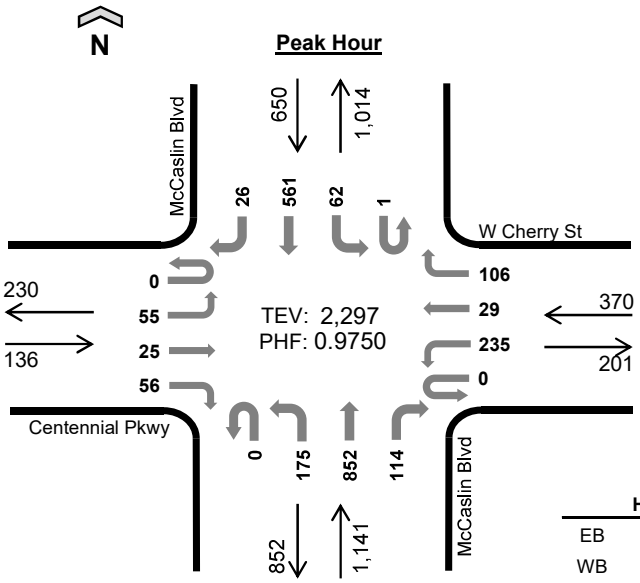
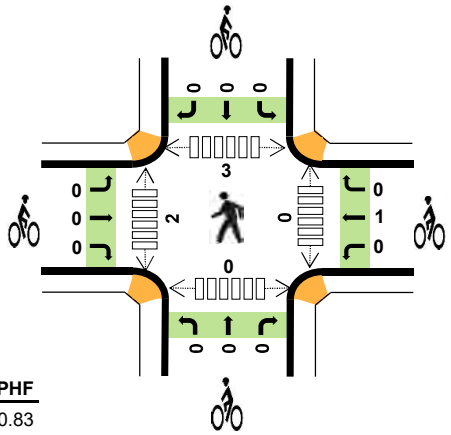
McCaslin Blvd
Centennial Pkwy

Date: 1/14/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV%	PHF
EB	2%	0.83
WB	2%	0.85
NB	4%	0.94
SB	3%	0.90
TOTAL	3%	0.97

Peak Hour Count Summaries

Peak Hour Interval Start		Centennial Pkwy Eastbound				W Cherry St Westbound				McCaslin Blvd Northbound				McCaslin Blvd Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:00 AM		0	17	9	15	0	75	10	24	0	39	195	18	0	14	144	7	567	0
8:15 AM		0	10	3	13	0	43	9	22	0	46	221	36	0	13	158	9	583	0
8:30 AM		0	12	6	14	0	52	5	39	0	48	207	27	0	15	127	6	558	0
8:45 AM		0	16	7	14	0	65	5	21	0	42	229	33	1	20	132	4	589	2,297
Pk Hr	All	0	55	25	56	0	235	29	106	0	175	852	114	1	62	561	26	2,297	
	HV	0	1	0	2	0	5	0	3	0	3	37	5	0	1	21	0	78	
	HV%	-	2%	0%	4%	-	2%	0%	3%	-	2%	4%	4%	0%	2%	4%	0%	3%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:00 AM	0	2	14	3	*19*	0	1	0	0	*1*	0	1	2	0	*3*
8:15 AM	1	3	9	7	*20*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	1	13	6	*20*	0	0	0	0	*0*	0	0	1	0	*1*
8:45 AM	2	2	9	6	*19*	0	0	0	0	*0*	0	1	0	0	*1*
Peak Hour	3	8	45	22	*78*	0	1	0	0	*1*	0	2	3	0	*5*

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Count Summaries - All Vehicles

Interval Start	Centennial Pkwy				W Cherry St				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	0	2	0	42	1	17	0	14	88	11	0	5	67	1	250	0
7:15 AM	0	3	1	5	0	50	5	21	0	14	129	25	0	6	91	4	354	0
7:30 AM	0	7	5	14	0	40	6	26	0	13	177	24	0	11	102	4	429	0
7:45 AM	0	10	3	16	0	49	12	25	0	31	211	23	0	3	145	6	534	1,567
8:00 AM	**0**	**17**	**9**	**15**	**0**	**75**	**10**	**24**	**0**	**39**	**195**	**18**	**0**	**14**	**144**	**7**	**567**	**1,884**
8:15 AM	**0**	**10**	**3**	**13**	**0**	**43**	**9**	**22**	**0**	**46**	**221**	**36**	**0**	**13**	**158**	**9**	**583**	**2,113**
8:30 AM	**0**	**12**	**6**	**14**	**0**	**52**	**5**	**39**	**0**	**48**	**207**	**27**	**0**	**15**	**127**	**6**	**558**	**2,242**
8:45 AM	**0**	**16**	**7**	**14**	**0**	**65**	**5**	**21**	**0**	**42**	**229**	**33**	**1**	**20**	**132**	**4**	**589**	**2,297**
Count Total	0	77	34	93	0	416	53	195	0	247	1,457	197	1	87	966	41	3,864	
Pk Hr All	**0**	**55**	**25**	**56**	**0**	**235**	**29**	**106**	**0**	**175**	**852**	**114**	**1**	**62**	**561**	**26**	**2,297**	
Pk Hr HV	**0**	**1**	**0**	**2**	**0**	**5**	**0**	**3**	**0**	**3**	**37**	**5**	**0**	**1**	**21**	**0**	**78**	
Pk Hr HV%	**-**	**2%**	**0%**	**4%**	**-**	**2%**	**0%**	**3%**	**-**	**2%**	**4%**	**4%**	**0%**	**2%**	**4%**	**0%**	**3%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	1	6	2	*9*	0	0	0	1	*1*	0	2	1	0	*3*
7:15 AM	0	2	4	2	*8*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	4	0	5	4	*13*	0	0	0	0	*0*	0	1	2	0	*3*
7:45 AM	1	1	13	4	*19*	0	0	0	0	*0*	2	0	2	0	*4*
8:00 AM	**0**	**2**	**14**	**3**	**19**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**2**	**0**	**3**
8:15 AM	**1**	**3**	**9**	**7**	**20**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	**0**	**1**	**13**	**6**	**20**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**
8:45 AM	**2**	**2**	**9**	**6**	**19**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
Count Total	8	12	73	34	*127*	0	1	0	1	*2*	2	5	8	0	*15*
Peak Hour	**3**	**8**	**45**	**22**	***78***	**0**	**1**	**0**	**0**	***1***	**0**	**2**	**3**	**0**	**5**

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Count Summaries - Heavy Vehicles

Interval Start	Centennial Pkwy				W Cherry St				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	1	0	0	0	0	6	0	0	1	1	0	9	0
7:15 AM	0	0	0	0	0	2	0	0	0	1	3	0	0	0	2	0	8	0
7:30 AM	0	0	1	3	0	0	0	0	0	0	5	0	0	0	4	0	13	0
7:45 AM	0	1	0	0	0	1	0	0	0	1	10	2	0	0	4	0	19	49
8:00 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**12**	**0**	**0**	**0**	**3**	**0**	**19**	**59**
8:15 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**0**	**7**	**2**	**0**	**0**	**7**	**0**	**20**	**71**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**11**	**2**	**0**	**0**	**6**	**0**	**20**	**78**
8:45 AM	**0**	**1**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**1**	**7**	**1**	**0**	**1**	**5**	**0**	**19**	**78**
Count Total	0	2	1	5	0	9	0	3	0	5	61	7	0	2	32	0	127	
Pk Hr Heavy	**0**	**1**	**0**	**2**	**0**	**5**	**0**	**3**	**0**	**3**	**37**	**5**	**0**	**1**	**21**	**0**	**78**	

Count Summaries - Bikes

Interval Start	Centennial Pkwy				W Cherry St				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
Count Total	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	

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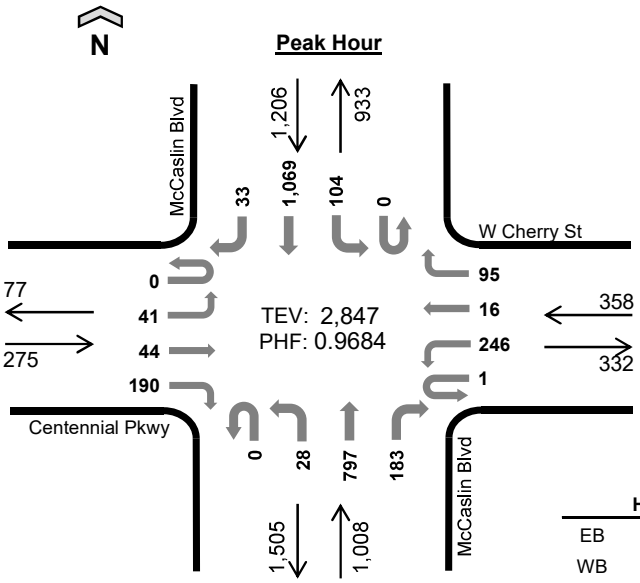
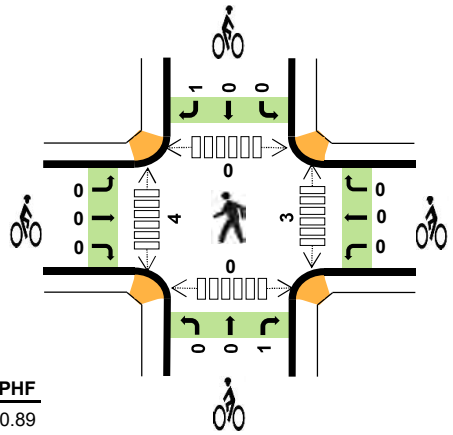
McCaslin Blvd
Centennial Pkwy

Date: 1/14/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM





	HV%	PHF
EB	1%	0.89
WB	0%	0.93
NB	1%	0.98
SB	1%	0.95
TOTAL	1%	0.97

Peak Hour Count Summaries

Peak Hour Interval Start	Centennial Pkwy				W Cherry St				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:30 PM	0	8	10	49	0	56	2	27	0	11	212	34	0	35	270	11	725	0
4:45 PM	0	16	14	44	0	65	4	27	0	6	198	51	0	25	277	8	735	0
5:00 PM	0	8	8	61	0	62	5	24	0	6	189	43	0	25	266	8	705	0
5:15 PM	0	9	12	36	1	63	5	17	0	5	198	55	0	19	256	6	682	2,847
Pk Hr All	0	41	44	190	1	246	16	95	0	28	797	183	0	104	1,069	33	2,847	
Pk Hr HV	0	0	0	2	0	0	0	0	0	2	7	1	0	0	9	0	21	
Pk Hr HV%	-	0%	0%	1%	0%	0%	0%	0%	-	7%	1%	1%	-	0%	1%	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:30 PM	0	0	5	5	*10*	0	0	0	1	*1*	1	0	0	0	*1*
4:45 PM	1	0	1	2	*4*	0	0	1	0	*1*	0	0	0	0	*0*
5:00 PM	1	0	3	2	*6*	0	0	0	0	*0*	1	2	0	0	*3*
5:15 PM	0	0	1	0	*1*	0	0	0	0	*0*	1	2	0	0	*3*
Peak Hour	2	0	10	9	*21*	0	0	1	1	*2*	3	4	0	0	*7*

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Count Summaries - All Vehicles

Interval Start	Centennial Pkwy				W Cherry St				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	2	6	32	0	47	4	18	0	8	208	49	0	17	240	5	636	0
4:15 PM	0	10	11	28	0	64	4	22	0	8	184	43	0	20	251	7	652	0
4:30 PM	**0**	**8**	**10**	**49**	**0**	**56**	**2**	**27**	**0**	**11**	**212**	**34**	**0**	**35**	**270**	**11**	**725**	**0**
4:45 PM	**0**	**16**	**14**	**44**	**0**	**65**	**4**	**27**	**0**	**6**	**198**	**51**	**0**	**25**	**277**	**8**	**735**	**2,748**
5:00 PM	**0**	**8**	**8**	**61**	**0**	**62**	**5**	**24**	**0**	**6**	**189**	**43**	**0**	**25**	**266**	**8**	**705**	**2,817**
5:15 PM	**0**	**9**	**12**	**36**	**1**	**63**	**5**	**17**	**0**	**5**	**198**	**55**	**0**	**19**	**256**	**6**	**682**	**2,847**
5:30 PM	0	10	10	28	0	39	2	24	0	3	190	59	0	29	254	10	658	2,780
5:45 PM	0	9	7	22	0	45	2	17	0	4	182	48	0	22	224	4	586	2,631
Count Total	0	72	78	300	1	441	28	176	0	51	1,561	382	0	192	2,038	59	5,379	
Pk Hr All	**0**	**41**	**44**	**190**	**1**	**246**	**16**	**95**	**0**	**28**	**797**	**183**	**0**	**104**	**1,069**	**33**	**2,847**	
Pk Hr HV	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**7**	**1**	**0**	**0**	**9**	**0**	**21**	
Pk Hr HV%	**-**	**0%**	**0%**	**1%**	**0%**	**0%**	**0%**	**0%**	**-**	**7%**	**1%**	**1%**	**-**	**0%**	**1%**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	1	0	2	5	*8*	0	0	0	0	*0*	0	1	0	0	*1*
4:15 PM	0	0	0	4	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**0**	**0**	**5**	**5**	**10**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**0**	**0**	**1**
4:45 PM	**1**	**0**	**1**	**2**	**4**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
5:00 PM	**1**	**0**	**3**	**2**	**6**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**3**
5:15 PM	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**3**
5:30 PM	0	0	1	3	*4*	1	0	0	0	*1*	1	1	0	0	*2*
5:45 PM	1	0	0	3	*4*	0	0	0	0	*0*	1	0	0	0	*1*
Count Total	4	0	13	24	*41*	1	0	1	1	*3*	5	6	0	0	*11*
Peak Hour	**2**	**0**	**10**	**9**	***21***	**0**	**0**	**1**	**1**	***2***	**3**	**4**	**0**	**0**	**7**

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Count Summaries - Heavy Vehicles

Interval Start	Centennial Pkwy				W Cherry St				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	5	0	8	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**	**0**	**0**	**0**	**5**	**0**	**10**	**0**
4:45 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**4**	**26**
5:00 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**2**	**0**	**6**	**24**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**21**
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	15
5:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	4	15
Count Total	0	0	0	4	0	0	0	0	0	2	10	1	0	0	24	0	41	
Pk Hr Heavy	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**7**	**1**	**0**	**0**	**9**	**0**	**21**	

Count Summaries - Bikes

Interval Start	Centennial Pkwy				W Cherry St				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**2**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**2**	

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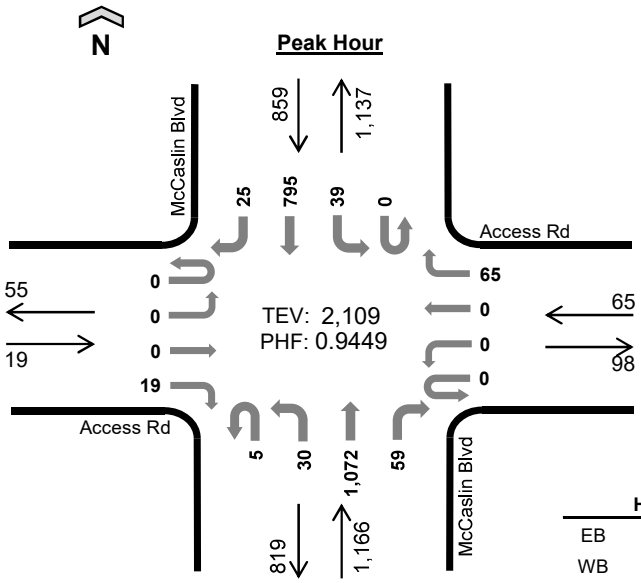
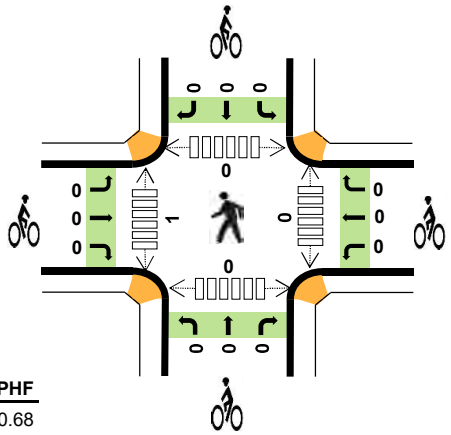
McCaslin Blvd
Access Rd

Date: 1/14/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV%	PHF
EB	0%	0.68
WB	0%	0.81
NB	4%	0.91
SB	3%	0.88
TOTAL	4%	0.94

Peak Hour Count Summaries

Peak Hour Interval Start		Access Rd Eastbound				Access Rd Westbound				McCaslin Blvd Northbound				McCaslin Blvd Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:00 AM		0	0	0	5	0	0	0	12	1	6	232	11	0	6	231	8	512	0
8:15 AM		0	0	0	2	0	0	0	17	2	14	289	17	0	9	205	3	558	0
8:30 AM		0	0	0	7	0	0	0	20	0	4	258	21	0	13	172	5	500	0
8:45 AM		0	0	0	5	0	0	0	16	2	6	293	10	0	11	187	9	539	2,109
Pk Hr	All	0	0	0	19	0	0	0	65	5	30	1,072	59	0	39	795	25	2,109	
	HV	0	0	0	0	0	0	0	0	1	0	44	2	0	0	29	0	76	
	HV%	-	-	-	0%	-	-	-	0%	20%	0%	4%	3%	-	0%	4%	0%	4%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:00 AM	0	0	11	7	*18*	0	0	0	0	*0*	0	1	0	0	*1*
8:15 AM	0	0	13	8	*21*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	0	12	8	*20*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	0	11	6	*17*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	0	47	29	*76*	0	0	0	0	*0*	0	1	0	0	*1*

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Count Summaries - All Vehicles

Interval Start	Access Rd Eastbound				Access Rd Westbound				McCaslin Blvd Northbound				McCaslin Blvd Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	1	0	0	0	13	1	7	103	5	0	2	103	1	236	0
7:15 AM	0	0	0	3	0	0	0	11	0	4	156	11	0	6	141	0	332	0
7:30 AM	0	0	0	2	0	0	0	8	2	5	206	5	0	1	151	3	383	0
7:45 AM	0	0	0	7	0	0	0	11	0	10	257	16	0	7	199	0	507	1,458
8:00 AM	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**12**	**1**	**6**	**232**	**11**	**0**	**6**	**231**	**8**	**512**	**1,734**
8:15 AM	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**17**	**2**	**14**	**289**	**17**	**0**	**9**	**205**	**3**	**558**	**1,960**
8:30 AM	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**20**	**0**	**4**	**258**	**21**	**0**	**13**	**172**	**5**	**500**	**2,077**
8:45 AM	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**16**	**2**	**6**	**293**	**10**	**0**	**11**	**187**	**9**	**539**	**2,109**
Count Total	0	0	0	32	0	0	0	108	8	56	1,794	96	0	55	1,389	29	3,567	
Pk Hr All	**0**	**0**	**0**	**19**	**0**	**0**	**0**	**65**	**5**	**30**	**1,072**	**59**	**0**	**39**	**795**	**25**	**2,109**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**44**	**2**	**0**	**0**	**29**	**0**	**76**	
Pk Hr HV%	**-**	**-**	**-**	**0%**	**-**	**-**	**-**	**0%**	**20%**	**0%**	**4%**	**3%**	**-**	**0%**	**4%**	**0%**	**4%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	1	7	2	*10*	0	0	0	0	*0*	0	1	0	2	*3*
7:15 AM	0	0	5	4	*9*	0	0	1	0	*1*	0	0	0	0	*0*
7:30 AM	0	0	7	7	*14*	0	0	0	0	*0*	0	1	0	0	*1*
7:45 AM	0	1	12	4	*17*	0	0	0	0	*0*	0	1	0	0	*1*
8:00 AM	**0**	**0**	**11**	**7**	**18**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
8:15 AM	**0**	**0**	**13**	**8**	**21**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	**0**	**0**	**12**	**8**	**20**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	**0**	**0**	**11**	**6**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	2	78	46	*126*	0	0	1	0	*1*	0	4	0	2	*6*
Peak Hour	**0**	**0**	**47**	**29**	***76***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	**1**

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Count Summaries - Heavy Vehicles

Interval Start	Access Rd				Access Rd				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	1	0	0	7	0	0	0	2	0	10	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	3	2	0	0	4	0	9	0
7:30 AM	0	0	0	0	0	0	0	0	1	1	5	0	0	1	6	0	14	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	12	0	0	0	4	0	17	50
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**7**	**0**	**18**	**58**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**1**	**0**	**0**	**8**	**0**	**21**	**70**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**1**	**0**	**0**	**8**	**0**	**20**	**76**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**10**	**0**	**0**	**0**	**6**	**0**	**17**	**76**
Count Total	0	0	0	0	0	0	0	2	2	1	71	4	0	1	45	0	126	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**44**	**2**	**0**	**0**	**29**	**0**	**76**	

Count Summaries - Bikes

Interval Start	Access Rd				Access Rd				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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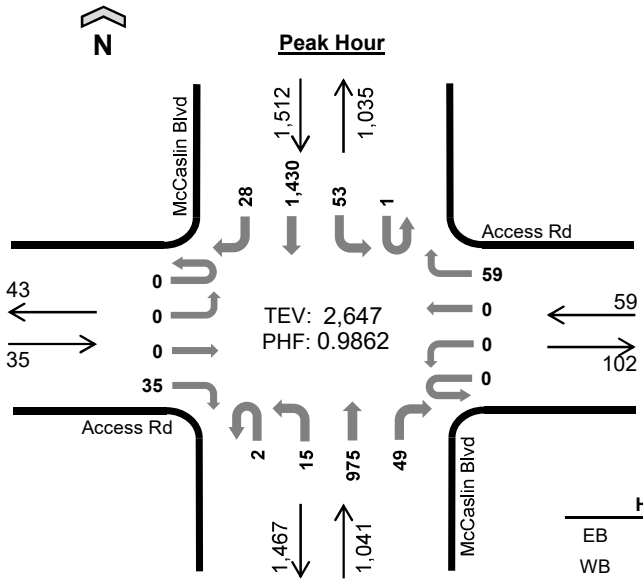
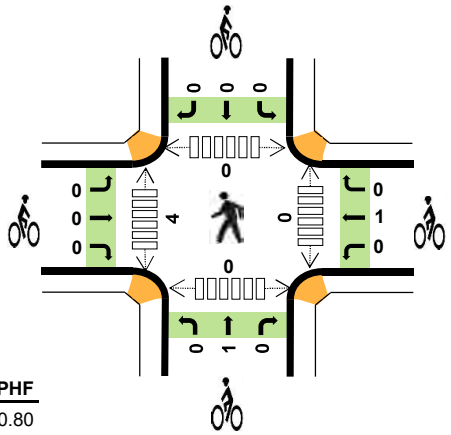
McCaslin Blvd
Access Rd

Date: 1/14/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM





	HV%	PHF
EB	0%	0.80
WB	0%	0.70
NB	1%	0.97
SB	1%	0.94
TOTAL	1%	0.99

Peak Hour Count Summaries

Peak Hour Interval Start	Access Rd Eastbound				Access Rd Westbound				McCaslin Blvd Northbound				McCaslin Blvd Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:30 PM	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**21**	**0**	**3**	**238**	**23**	**0**	**16**	**358**	**6**	**671**	**0**
4:45 PM	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**15**	**0**	**5**	**249**	**10**	**0**	**13**	**358**	**11**	**671**	**0**
5:00 PM	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**12**	**2**	**4**	**231**	**9**	**0**	**14**	**381**	**6**	**670**	**0**
5:15 PM	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**11**	**0**	**3**	**257**	**7**	**1**	**10**	**333**	**5**	**635**	**2,647**
Pk Hr All	**0**	**0**	**0**	**35**	**0**	**0**	**0**	**59**	**2**	**15**	**975**	**49**	**1**	**53**	**1,430**	**28**	**2,647**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**11**	**0**	**22**	
Pk Hr HV%	**-**	**-**	**-**	**0%**	**-**	**-**	**-**	**0%**	**0%**	**0%**	**1%**	**0%**	**0%**	**0%**	**1%**	**0%**	**1%**	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:30 PM	**0**	**0**	**6**	**5**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:45 PM	**0**	**0**	**1**	**3**	***4***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***
5:00 PM	**0**	**0**	**3**	**2**	***5***	**0**	**1**	**0**	**0**	***1***	**0**	**1**	**0**	**0**	***1***
5:15 PM	**0**	**0**	**1**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**3**	**0**	**0**	***3***
Peak Hour	**0**	**0**	**11**	**11**	***22***	**0**	**1**	**1**	**0**	***2***	**0**	**4**	**0**	**0**	***4***

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Count Summaries - All Vehicles

Interval Start	Access Rd Eastbound				Access Rd Westbound				McCaslin Blvd Northbound				McCaslin Blvd Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	13	0	0	0	27	1	2	232	24	0	7	296	12	614	0
4:15 PM	0	0	0	13	0	0	0	24	0	5	210	17	0	14	331	10	624	0
4:30 PM	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**21**	**0**	**3**	**238**	**23**	**0**	**16**	**358**	**6**	**671**	**0**
4:45 PM	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**15**	**0**	**5**	**249**	**10**	**0**	**13**	**358**	**11**	**671**	**2,580**
5:00 PM	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**12**	**2**	**4**	**231**	**9**	**0**	**14**	**381**	**6**	**670**	**2,636**
5:15 PM	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**11**	**0**	**3**	**257**	**7**	**1**	**10**	**333**	**5**	**635**	**2,647**
5:30 PM	0	0	0	10	0	0	0	21	1	2	222	19	0	16	288	9	588	2,564
5:45 PM	0	0	0	19	0	0	0	15	2	4	210	10	0	14	266	6	546	2,439
Count Total	0	0	0	90	0	0	0	146	6	28	1,849	119	1	104	2,611	65	5,019	
Pk Hr All	**0**	**0**	**0**	**35**	**0**	**0**	**0**	**59**	**2**	**15**	**975**	**49**	**1**	**53**	**1,430**	**28**	**2,647**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**11**	**0**	**22**	
Pk Hr HV%	**-**	**-**	**-**	**0%**	**-**	**-**	**-**	**0%**	**0%**	**0%**	**1%**	**0%**	**0%**	**0%**	**1%**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	0	0	1	6	*7*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	4	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**0**	**0**	**6**	**5**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**1**	**3**	**4**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
5:00 PM	**0**	**0**	**3**	**2**	**5**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**1**
5:15 PM	**0**	**0**	**1**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**3**
5:30 PM	0	0	1	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	0	4	*4*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	13	28	*41*	0	1	1	0	*2*	0	4	0	0	*4*
Peak Hour	**0**	**0**	**11**	**11**	***22***	**0**	**1**	**1**	**0**	**2**	**0**	**4**	**0**	**0**	**4**

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Count Summaries - Heavy Vehicles

Interval Start	Access Rd				Access Rd				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	0	7	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	4	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**5**	**0**	**11**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**4**	**26**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**2**	**0**	**5**	**24**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	**22**
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	15
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	15
Count Total	0	0	0	0	0	0	0	0	0	0	13	0	0	1	27	0	41	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**11**	**0**	**22**	

Count Summaries - Bikes

Interval Start	Access Rd				Access Rd				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	

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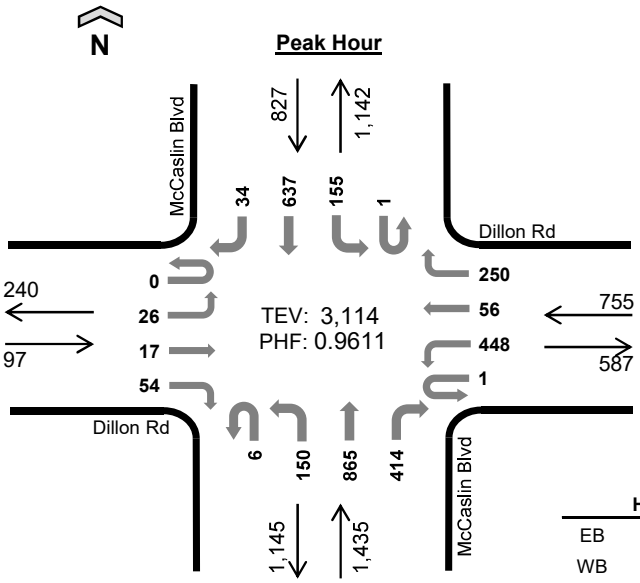
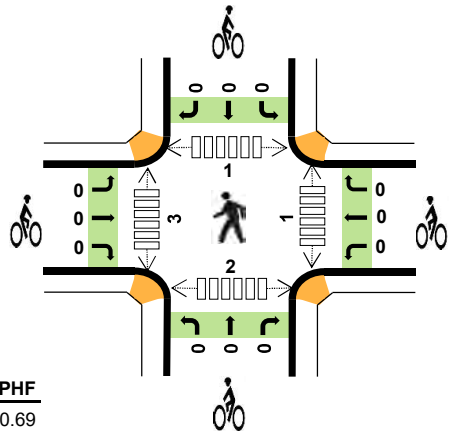
McCaslin Blvd
Dillon Rd

Date: 1/14/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV%	PHF
EB	8%	0.69
WB	4%	0.94
NB	3%	0.94
SB	4%	0.85
TOTAL	4%	0.96

Peak Hour Count Summaries

Peak Hour Interval Start		Dillon Rd Eastbound				Dillon Rd Westbound				McCaslin Blvd Northbound				McCaslin Blvd Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:45 AM		0	2	1	13	0	129	11	52	1	27	220	114	0	32	160	9	771	0
8:00 AM		0	3	6	6	0	104	17	47	0	43	219	121	0	52	185	7	810	0
8:15 AM		0	10	4	21	1	110	10	79	2	44	219	92	1	45	157	11	806	0
8:30 AM		0	11	6	14	0	105	18	72	3	36	207	87	0	26	135	7	727	3,114
Pk Hr	All	0	26	17	54	1	448	56	250	6	150	865	414	1	155	637	34	3,114	
	HV	0	1	2	5	0	15	3	11	0	5	37	8	0	3	24	2	116	
	HV%	-	4%	12%	9%	0%	3%	5%	4%	0%	3%	4%	2%	0%	2%	4%	6%	4%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:45 AM	1	10	15	6	*32*	0	0	0	0	*0*	1	0	1	1	*3*
8:00 AM	1	4	14	5	*24*	0	0	0	0	*0*	0	3	0	1	*4*
8:15 AM	3	6	10	12	*31*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	3	9	11	6	*29*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	8	29	50	29	*116*	0	0	0	0	*0*	1	3	1	2	*7*

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Count Summaries - All Vehicles

Interval Start	Dillon Rd Eastbound				Dillon Rd Westbound				McCaslin Blvd Northbound				McCaslin Blvd Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	3	5	0	43	3	21	0	8	106	64	0	10	105	7	377	0
7:15 AM	0	3	3	4	0	64	13	28	0	18	125	64	0	12	108	9	451	0
7:30 AM	0	4	2	15	0	91	12	37	0	22	188	79	0	22	137	6	615	0
7:45 AM	**0**	**2**	**1**	**13**	**0**	**129**	**11**	**52**	**1**	**27**	**220**	**114**	**0**	**32**	**160**	**9**	**771**	**2,214**
8:00 AM	**0**	**3**	**6**	**6**	**0**	**104**	**17**	**47**	**0**	**43**	**219**	**121**	**0**	**52**	**185**	**7**	**810**	**2,647**
8:15 AM	**0**	**10**	**4**	**21**	**1**	**110**	**10**	**79**	**2**	**44**	**219**	**92**	**1**	**45**	**157**	**11**	**806**	**3,002**
8:30 AM	**0**	**11**	**6**	**14**	**0**	**105**	**18**	**72**	**3**	**36**	**207**	**87**	**0**	**26**	**135**	**7**	**727**	**3,114**
8:45 AM	0	13	3	22	0	118	10	62	0	24	226	97	0	16	158	10	759	3,102
Count Total	0	48	28	100	1	764	94	398	6	222	1,510	718	1	215	1,145	66	5,316	
Pk Hr All	**0**	**26**	**17**	**54**	**1**	**448**	**56**	**250**	**6**	**150**	**865**	**414**	**1**	**155**	**637**	**34**	**3,114**	
Pk Hr HV	**0**	**1**	**2**	**5**	**0**	**15**	**3**	**11**	**0**	**5**	**37**	**8**	**0**	**3**	**24**	**2**	**116**	
Pk Hr HV%	**-**	**4%**	**12%**	**9%**	**0%**	**3%**	**5%**	**4%**	**0%**	**3%**	**4%**	**2%**	**0%**	**2%**	**4%**	**6%**	**4%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	1	8	1	*10*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	5	7	6	*18*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	2	6	6	*14*	0	0	0	0	*0*	1	1	0	0	*2*
7:45 AM	**1**	**10**	**15**	**6**	**32**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**3**
8:00 AM	**1**	**4**	**14**	**5**	**24**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**4**
8:15 AM	**3**	**6**	**10**	**12**	**31**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	**3**	**9**	**11**	**6**	**29**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	2	4	9	5	*20*	0	0	0	0	*0*	0	0	1	0	*1*
Count Total	10	41	80	47	*178*	0	0	0	0	*0*	2	4	2	2	*10*
Peak Hour	**8**	**29**	**50**	**29**	***116***	**0**	**0**	**0**	**0**	***0***	**1**	**3**	**1**	**2**	**7**

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Count Summaries - Heavy Vehicles

Interval Start	Dillon Rd				Dillon Rd				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	1	0	0	6	2	0	0	1	0	10	0
7:15 AM	0	0	0	0	0	3	1	1	0	1	4	2	0	1	5	0	18	0
7:30 AM	0	0	0	0	0	0	1	1	0	0	5	1	0	0	6	0	14	0
7:45 AM	**0**	**0**	**0**	**1**	**0**	**6**	**0**	**4**	**0**	**2**	**9**	**4**	**0**	**0**	**6**	**0**	**32**	**74**
8:00 AM	**0**	**0**	**1**	**0**	**0**	**2**	**1**	**1**	**0**	**1**	**10**	**3**	**0**	**2**	**3**	**0**	**24**	**88**
8:15 AM	**0**	**0**	**0**	**3**	**0**	**2**	**1**	**3**	**0**	**1**	**9**	**0**	**0**	**1**	**9**	**2**	**31**	**101**
8:30 AM	**0**	**1**	**1**	**1**	**0**	**5**	**1**	**3**	**0**	**1**	**9**	**1**	**0**	**0**	**6**	**0**	**29**	**116**
8:45 AM	0	1	0	1	0	3	0	1	0	0	8	1	0	2	3	0	20	104
Count Total	0	2	2	6	0	21	5	15	0	6	60	14	0	6	39	2	178	
Pk Hr Heavy	**0**	**1**	**2**	**5**	**0**	**15**	**3**	**11**	**0**	**5**	**37**	**8**	**0**	**3**	**24**	**2**	**116**	

Count Summaries - Bikes

Interval Start	Dillon Rd				Dillon Rd				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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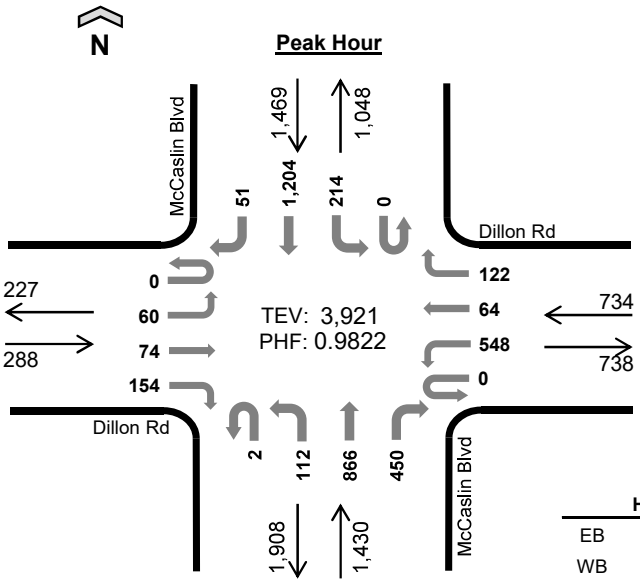
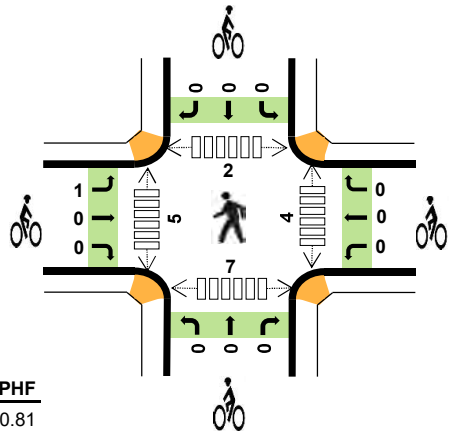
McCaslin Blvd
Dillon Rd

Date: 1/14/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM





	HV%	PHF
EB	1%	0.81
WB	1%	0.98
NB	1%	0.98
SB	1%	0.96
TOTAL	1%	0.98

Peak Hour Count Summaries

Peak Hour Interval Start	Dillon Rd Eastbound				Dillon Rd Westbound				McCaslin Blvd Northbound				McCaslin Blvd Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:30 PM	0	14	12	31	0	143	13	30	0	25	216	123	0	56	285	15	963	0
4:45 PM	0	9	24	38	0	124	17	34	0	23	232	106	0	50	329	5	991	0
5:00 PM	0	21	26	42	0	144	21	21	2	33	188	117	0	66	304	13	998	0
5:15 PM	0	16	12	43	0	137	13	37	0	31	230	104	0	42	286	18	969	3,921
Pk Hr All	0	60	74	154	0	548	64	122	2	112	866	450	0	214	1,204	51	3,921	
Pk Hr HV	0	0	2	0	0	4	0	4	0	0	5	4	0	0	9	1	29	
Pk Hr HV%	-	0%	3%	0%	-	1%	0%	3%	0%	0%	1%	1%	-	0%	1%	2%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:30 PM	0	4	5	5	*14*	0	0	0	0	*0*	1	0	0	2	*3*
4:45 PM	1	0	1	3	*5*	1	0	0	0	*1*	1	0	0	1	*2*
5:00 PM	1	3	3	2	*9*	0	0	0	0	*0*	0	1	1	1	*3*
5:15 PM	0	1	0	0	*1*	0	0	0	0	*0*	2	4	1	3	*10*
Peak Hour	2	8	9	10	*29*	1	0	0	0	*1*	4	5	2	7	*18*

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Count Summaries - All Vehicles

Interval Start	Dillon Rd Eastbound				Dillon Rd Westbound				McCaslin Blvd Northbound				McCaslin Blvd Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	18	24	38	1	145	16	53	2	25	172	128	0	63	237	10	932	0
4:15 PM	1	8	9	28	0	113	17	30	2	16	217	107	0	38	291	14	891	0
4:30 PM	**0**	**14**	**12**	**31**	**0**	**143**	**13**	**30**	**0**	**25**	**216**	**123**	**0**	**56**	**285**	**15**	**963**	**0**
4:45 PM	**0**	**9**	**24**	**38**	**0**	**124**	**17**	**34**	**0**	**23**	**232**	**106**	**0**	**50**	**329**	**5**	**991**	**3,777**
5:00 PM	**0**	**21**	**26**	**42**	**0**	**144**	**21**	**21**	**2**	**33**	**188**	**117**	**0**	**66**	**304**	**13**	**998**	**3,843**
5:15 PM	**0**	**16**	**12**	**43**	**0**	**137**	**13**	**37**	**0**	**31**	**230**	**104**	**0**	**42**	**286**	**18**	**969**	**3,921**
5:30 PM	0	15	18	30	0	128	9	31	1	24	183	127	0	54	226	11	857	3,815
5:45 PM	0	9	6	36	0	121	13	23	0	29	198	88	0	40	232	24	819	3,643
Count Total	1	110	131	286	1	1,055	119	259	7	206	1,636	900	0	409	2,190	110	7,420	
Pk Hr All	**0**	**60**	**74**	**154**	**0**	**548**	**64**	**122**	**2**	**112**	**866**	**450**	**0**	**214**	**1,204**	**51**	**3,921**	
Pk Hr HV	**0**	**0**	**2**	**0**	**0**	**4**	**0**	**4**	**0**	**0**	**5**	**4**	**0**	**0**	**9**	**1**	**29**	
Pk Hr HV%	**-**	**0%**	**3%**	**0%**	**-**	**1%**	**0%**	**3%**	**0%**	**0%**	**1%**	**1%**	**-**	**0%**	**1%**	**2%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	1	3	4	6	*14*	0	0	0	0	*0*	0	1	0	0	*1*
4:15 PM	0	2	2	3	*7*	0	0	0	0	*0*	2	0	1	2	*5*
4:30 PM	**0**	**4**	**5**	**5**	**14**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**3**
4:45 PM	**1**	**0**	**1**	**3**	**5**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**2**
5:00 PM	**1**	**3**	**3**	**2**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**3**
5:15 PM	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**4**	**1**	**3**	**10**
5:30 PM	0	1	3	2	*6*	0	0	0	1	*1*	0	1	3	1	*5*
5:45 PM	0	0	2	6	*8*	0	0	0	0	*0*	0	0	0	1	*1*
Count Total	3	14	20	27	*64*	1	0	0	1	*2*	6	7	6	11	*30*
Peak Hour	**2**	**8**	**9**	**10**	***29***	**1**	**0**	**0**	**0**	***1***	**4**	**5**	**2**	**7**	**18**

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Count Summaries - Heavy Vehicles

Interval Start	Dillon Rd				Dillon Rd				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	1	0	2	0	1	0	0	0	4	0	0	6	0	14	0
4:15 PM	0	0	0	0	0	2	0	0	0	0	1	1	0	0	3	0	7	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**2**	**3**	**0**	**0**	**4**	**1**	**14**	**0**
4:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**5**	**40**
5:00 PM	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**2**	**1**	**0**	**0**	**2**	**0**	**9**	**35**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**29**
5:30 PM	0	0	0	0	0	0	1	0	0	0	2	1	0	0	2	0	6	21
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	6	0	8	24
Count Total	0	0	2	1	0	8	1	5	0	0	8	12	0	0	26	1	64	
Pk Hr Heavy	**0**	**0**	**2**	**0**	**0**	**4**	**0**	**4**	**0**	**0**	**5**	**4**	**0**	**0**	**9**	**1**	**29**	

Count Summaries - Bikes

Interval Start	Dillon Rd				Dillon Rd				McCaslin Blvd				McCaslin Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	
Pk Hr Bike	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	

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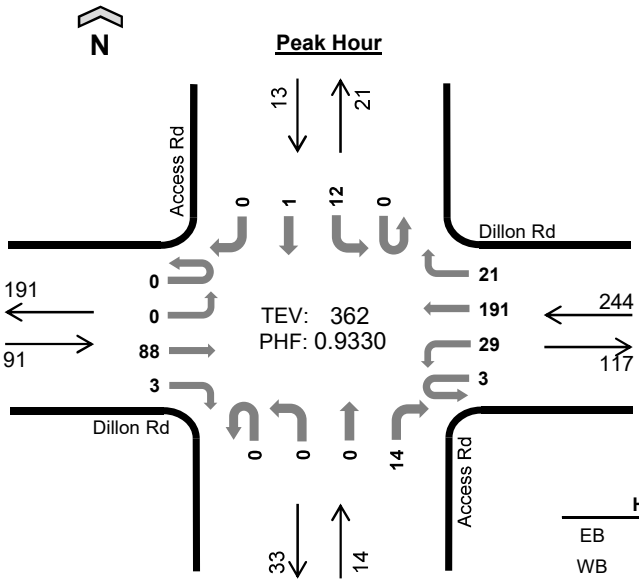
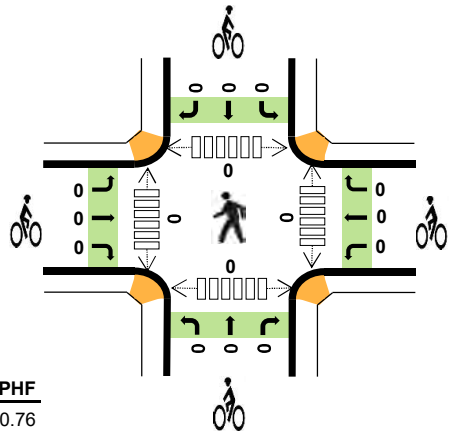
Access Rd
Dillon Rd

Date: 1/14/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV%	PHF
EB	7%	0.76
WB	4%	0.86
NB	14%	0.58
SB	0%	0.41
TOTAL	5%	0.93

Peak Hour Count Summaries

Peak Hour Interval Start		Dillon Rd Eastbound				Dillon Rd Westbound				Access Rd Northbound				Access Rd Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:00 AM		0	0	15	1	0	7	56	8	0	0	0	0	0	3	0	0	90	0
8:15 AM		0	0	18	1	2	7	48	7	0	0	0	6	0	7	1	0	97	0
8:30 AM		0	0	25	1	0	8	44	3	0	0	0	4	0	1	0	0	86	0
8:45 AM		0	0	30	0	1	7	43	3	0	0	0	4	0	1	0	0	89	362
Pk Hr	All	0	0	88	3	3	29	191	21	0	0	0	14	0	12	1	0	362	
	HV	0	0	6	0	1	2	6	0	0	0	0	2	0	0	0	0	17	
	HV%	-	-	7%	0%	33%	7%	3%	0%	-	-	-	14%	-	0%	0%	-	5%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:00 AM	1	3	0	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	1	4	1	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	2	2	1	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	2	0	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	6	9	2	0	*17*	0	0	0	0	*0*	0	0	0	0	*0*

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Count Summaries - All Vehicles

Interval Start	Dillon Rd Eastbound				Dillon Rd Westbound				Access Rd Northbound				Access Rd Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	9	0	0	1	18	2	0	0	0	1	0	0	0	0	31	0
7:15 AM	0	0	9	0	1	6	28	2	0	0	0	0	0	0	0	0	46	0
7:30 AM	0	0	15	0	1	1	27	2	0	0	0	1	0	5	0	0	52	0
7:45 AM	0	0	12	0	2	5	36	1	0	0	0	1	0	3	1	2	63	192
8:00 AM	**0**	**0**	**15**	**1**	**0**	**7**	**56**	**8**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**90**	**251**
8:15 AM	**0**	**0**	**18**	**1**	**2**	**7**	**48**	**7**	**0**	**0**	**0**	**6**	**0**	**7**	**1**	**0**	**97**	**302**
8:30 AM	**0**	**0**	**25**	**1**	**0**	**8**	**44**	**3**	**0**	**0**	**0**	**4**	**0**	**1**	**0**	**0**	**86**	**336**
8:45 AM	**0**	**0**	**30**	**0**	**1**	**7**	**43**	**3**	**0**	**0**	**0**	**4**	**0**	**1**	**0**	**0**	**89**	**362**
Count Total	0	0	133	3	7	42	300	28	0	0	0	17	0	20	2	2	554	
Pk Hr All	**0**	**0**	**88**	**3**	**3**	**29**	**191**	**21**	**0**	**0**	**0**	**14**	**0**	**12**	**1**	**0**	**362**	
Pk Hr HV	**0**	**0**	**6**	**0**	**1**	**2**	**6**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**17**	
Pk Hr HV%	**-**	**-**	**7%**	**0%**	**33%**	**7%**	**3%**	**0%**	**-**	**-**	**-**	**14%**	**-**	**0%**	**0%**	**-**	**5%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	0	0	*0*	0	1	0	0	*1*	0	0	0	0	*0*
7:15 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	2	0	0	*2*	0	0	1	0	*1*	0	0	0	0	*0*
7:45 AM	1	2	0	0	*3*	2	0	0	0	*2*	0	0	0	0	*0*
8:00 AM	**1**	**3**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	**1**	**4**	**1**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	**2**	**2**	**1**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	7	14	2	0	*23*	2	1	1	0	*4*	0	0	0	0	*0*
Peak Hour	**6**	**9**	**2**	**0**	***17***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	**0**

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Count Summaries - Heavy Vehicles

Interval Start	Dillon Rd Eastbound				Dillon Rd Westbound				Access Rd Northbound				Access Rd Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0
7:45 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	6
8:00 AM	**0**	**0**	**1**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**10**
8:15 AM	**0**	**0**	**1**	**0**	**1**	**1**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**6**	**15**
8:30 AM	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**5**	**18**
8:45 AM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**17**
Count Total	0	0	7	0	1	2	11	0	0	0	0	2	0	0	0	0	23	
Pk Hr Heavy	**0**	**0**	**6**	**0**	**1**	**2**	**6**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**17**	

Count Summaries - Bikes

Interval Start	Dillon Rd Eastbound				Dillon Rd Westbound				Access Rd Northbound				Access Rd Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	4
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	2	0	0	1	0	0	0	1	0	0	0	0	0	4	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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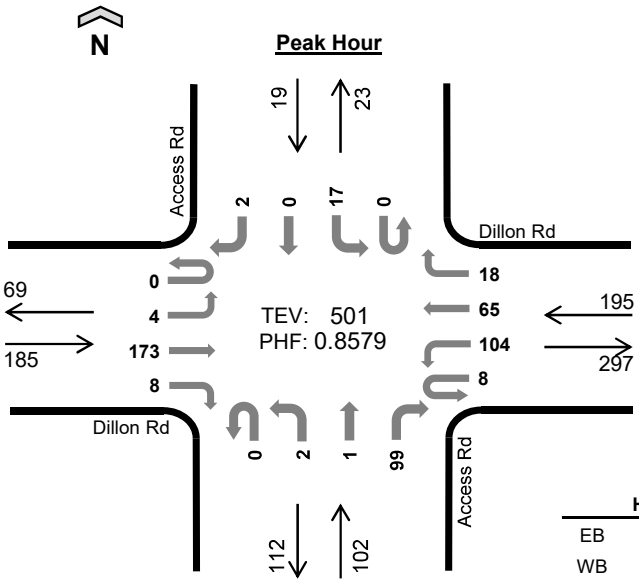
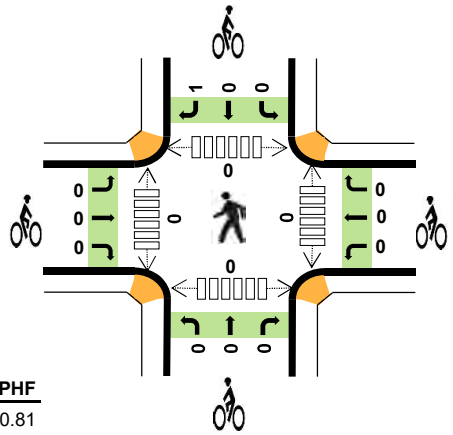
Access Rd
Dillon Rd

Date: 1/14/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV%	PHF
EB	1%	0.81
WB	1%	0.89
NB	1%	0.77
SB	0%	0.59
TOTAL	1%	0.86

Peak Hour Count Summaries

Peak Hour Interval Start		Dillon Rd Eastbound				Dillon Rd Westbound				Access Rd Northbound				Access Rd Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:45 PM		0	1	48	2	4	18	17	6	0	0	1	17	0	3	0	1	118	0
5:00 PM		0	2	54	1	1	26	20	5	0	1	0	32	0	4	0	0	146	0
5:15 PM		0	1	38	4	3	29	16	7	0	1	0	25	0	3	0	0	127	0
5:30 PM		0	0	33	1	0	31	12	0	0	0	0	25	0	7	0	1	110	501
Pk Hr	All	0	4	173	8	8	104	65	18	0	2	1	99	0	17	0	2	501	
	HV	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	3	
	HV%	-	0%	1%	0%	0%	0%	2%	0%	-	0%	0%	1%	-	0%	-	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:45 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	0	0	1	0	*1*	0	0	0	1	*1*	0	0	0	0	*0*
5:15 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	1	1	1	0	*3*	0	0	0	1	*1*	0	0	0	0	*0*

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Count Summaries - All Vehicles

Interval Start	Dillon Rd Eastbound				Dillon Rd Westbound				Access Rd Northbound				Access Rd Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	59	1	3	14	20	2	0	0	0	16	0	2	0	0	117	0
4:15 PM	0	0	26	3	3	23	25	1	0	1	3	14	0	2	0	0	101	0
4:30 PM	0	0	41	2	0	19	15	1	0	0	0	16	0	0	0	1	95	0
4:45 PM	**0**	**1**	**48**	**2**	**4**	**18**	**17**	**6**	**0**	**0**	**1**	**17**	**0**	**3**	**0**	**1**	**118**	**431**
5:00 PM	**0**	**2**	**54**	**1**	**1**	**26**	**20**	**5**	**0**	**1**	**0**	**32**	**0**	**4**	**0**	**0**	**146**	**460**
5:15 PM	**0**	**1**	**38**	**4**	**3**	**29**	**16**	**7**	**0**	**1**	**0**	**25**	**0**	**3**	**0**	**0**	**127**	**486**
5:30 PM	**0**	**0**	**33**	**1**	**0**	**31**	**12**	**0**	**0**	**0**	**0**	**25**	**0**	**7**	**0**	**1**	**110**	**501**
5:45 PM	0	0	34	2	0	31	17	6	0	1	0	12	0	1	0	0	104	487
Count Total	0	4	333	16	14	191	142	28	0	4	4	157	0	22	0	3	918	
Pk Hr All	**0**	**4**	**173**	**8**	**8**	**104**	**65**	**18**	**0**	**2**	**1**	**99**	**0**	**17**	**0**	**2**	**501**	
Pk Hr HV	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	
Pk Hr HV%	**-**	**0%**	**1%**	**0%**	**0%**	**0%**	**2%**	**0%**	**-**	**0%**	**0%**	**1%**	**-**	**0%**	**-**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	1	0	0	*1*	1	0	0	0	*1*	0	0	0	0	*0*
4:30 PM	0	1	0	0	*1*	0	0	1	0	*1*	0	0	0	0	*0*
4:45 PM	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**
5:15 PM	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	2	3	1	0	*6*	1	0	1	1	*3*	0	0	0	0	*0*
Peak Hour	**1**	**1**	**1**	**0**	***3***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	**0**

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Count Summaries - Heavy Vehicles

Interval Start	Dillon Rd				Dillon Rd				Access Rd				Access Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**4**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**4**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**4**
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	2	0	0	0	3	0	0	0	0	1	0	0	0	0	6	
Pk Hr Heavy	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	

Count Summaries - Bikes

Interval Start	Dillon Rd				Dillon Rd				Access Rd				Access Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**3**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	3	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	

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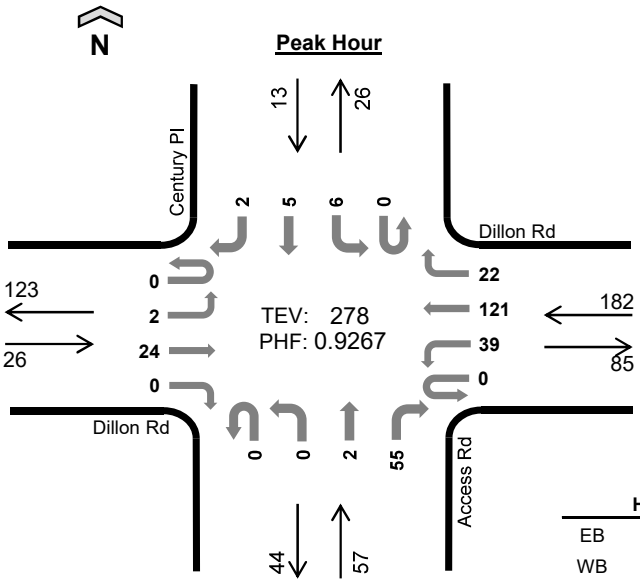
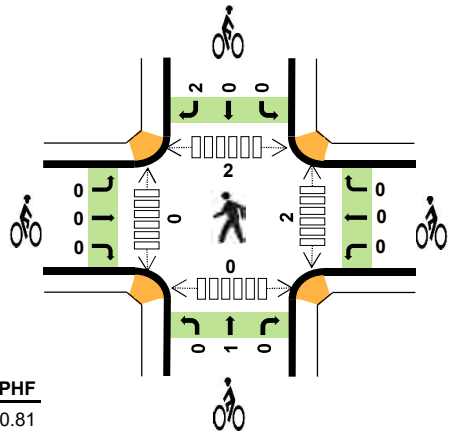
Century Pl
Dillon Rd

Date: 1/14/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV%	PHF
EB	4%	0.81
WB	3%	0.84
NB	7%	0.62
SB	0%	0.65
TOTAL	4%	0.93

Peak Hour Count Summaries

Peak Hour Interval Start	Dillon Rd Eastbound				Dillon Rd Westbound				Access Rd Northbound				Century Pl Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:00 AM	0	0	4	0	0	13	31	10	0	0	1	9	0	1	0	0	69	0
8:15 AM	0	2	5	0	0	8	36	5	0	0	0	12	0	2	2	1	73	0
8:30 AM	0	0	7	0	0	6	31	2	0	0	0	12	0	1	2	0	61	0
8:45 AM	0	0	8	0	0	12	23	5	0	0	1	22	0	2	1	1	75	278
Pk Hr All	0	2	24	0	0	39	121	22	0	0	2	55	0	6	5	2	278	
Pk Hr HV	0	0	1	0	0	0	5	0	0	0	1	3	0	0	0	0	10	
Pk Hr HV%	-	0%	4%	-	-	0%	4%	0%	-	-	50%	5%	-	0%	0%	0%	4%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:00 AM	1	1	0	0	*2*	0	0	1	1	*2*	0	0	1	0	*1*
8:15 AM	0	2	0	0	*2*	0	0	0	1	*1*	2	0	1	0	*3*
8:30 AM	0	2	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	0	3	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	1	5	4	0	*10*	0	0	1	2	*3*	2	0	2	0	*4*

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Count Summaries - All Vehicles

Interval Start	Dillon Rd Eastbound				Dillon Rd Westbound				Access Rd Northbound				Century Pl Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	4	0	0	4	11	1	0	0	0	3	0	0	0	0	23	0
7:15 AM	0	0	2	0	0	4	17	2	0	0	1	5	0	0	0	0	31	0
7:30 AM	0	0	4	0	0	8	18	1	0	0	0	9	0	0	1	0	41	0
7:45 AM	0	0	7	0	0	8	24	2	0	0	1	7	0	1	1	0	51	146
8:00 AM	**0**	**0**	**4**	**0**	**0**	**13**	**31**	**10**	**0**	**0**	**1**	**9**	**0**	**1**	**0**	**0**	**69**	**192**
8:15 AM	**0**	**2**	**5**	**0**	**0**	**8**	**36**	**5**	**0**	**0**	**0**	**12**	**0**	**2**	**2**	**1**	**73**	**234**
8:30 AM	**0**	**0**	**7**	**0**	**0**	**6**	**31**	**2**	**0**	**0**	**0**	**12**	**0**	**1**	**2**	**0**	**61**	**254**
8:45 AM	**0**	**0**	**8**	**0**	**0**	**12**	**23**	**5**	**0**	**0**	**1**	**22**	**0**	**2**	**1**	**1**	**75**	**278**
Count Total	0	2	41	0	0	63	191	28	0	0	4	79	0	7	7	2	424	
Pk Hr All	**0**	**2**	**24**	**0**	**0**	**39**	**121**	**22**	**0**	**0**	**2**	**55**	**0**	**6**	**5**	**2**	**278**	
Pk Hr HV	**0**	**0**	**1**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**0**	**10**	
Pk Hr HV%	**-**	**0%**	**4%**	**-**	**-**	**0%**	**4%**	**0%**	**-**	**-**	**50%**	**5%**	**-**	**0%**	**0%**	**0%**	**4%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	1	0	0	*1*	0	0	0	0	*0*	1	0	0	0	*1*
7:30 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	0	2	1	0	*3*	0	0	0	1	*1*	0	0	0	0	*0*
8:00 AM	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**1**	**1**	**2**	**0**	**0**	**1**	**0**	**1**
8:15 AM	**0**	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**1**	**2**	**0**	**1**	**0**	**3**
8:30 AM	**0**	**2**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	**0**	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	1	9	5	0	*15*	0	0	1	3	*4*	3	0	2	0	*5*
Peak Hour	**1**	**5**	**4**	**0**	***10***	**0**	**0**	**1**	**2**	***3***	**2**	**0**	**2**	**0**	**4**

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Count Summaries - Heavy Vehicles

Interval Start	Dillon Rd				Dillon Rd				Access Rd				Century Pl				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	3	5
8:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**7**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**8**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**10**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**3**	**10**
Count Total	0	0	1	0	0	1	8	0	0	0	1	4	0	0	0	0	15	
Pk Hr Heavy	**0**	**0**	**1**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**0**	**10**	

Count Summaries - Bikes

Interval Start	Dillon Rd				Dillon Rd				Access Rd				Century Pl				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**2**	**3**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**4**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	4	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**3**	

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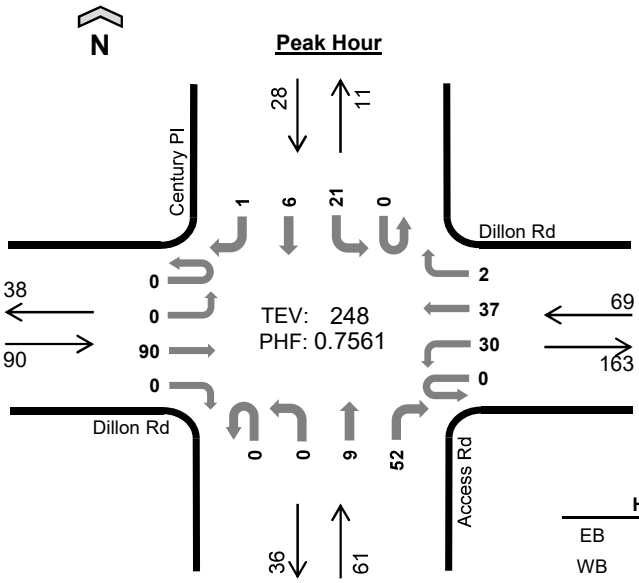
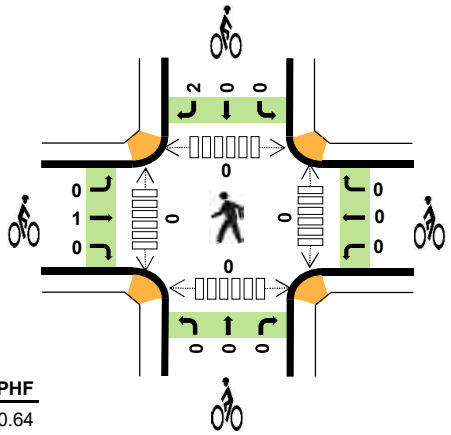
Century Pl
Dillon Rd

Date: 1/14/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV%	PHF
EB	1%	0.64
WB	0%	0.78
NB	0%	0.76
SB	0%	0.70
TOTAL	0%	0.76

Peak Hour Count Summaries

Peak Hour Interval Start		Dillon Rd Eastbound				Dillon Rd Westbound				Access Rd Northbound				Century Pl Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**0**	**35**	**0**	**0**	**7**	**12**	**0**	**0**	**0**	**3**	**17**	**0**	**5**	**2**	**1**	**82**	**0**
4:15 PM		0	0	14	0	0	9	13	0	0	0	2	10	0	2	1	0	51	0
4:30 PM		0	0	19	0	0	6	5	1	0	0	1	12	0	7	0	0	51	0
4:45 PM		0	0	22	0	0	8	7	1	0	0	3	13	0	7	3	0	64	248
Pk Hr	All	0	0	90	0	0	30	37	2	0	0	9	52	0	21	6	1	248	
	HV	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	HV%	-	-	1%	-	-	0%	0%	0%	-	-	0%	0%	-	0%	0%	0%	0%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	0	0	0	0	*0*	1	0	0	2	*3*	0	0	0	0	*0*
Peak Hour	1	0	0	0	*1*	1	0	0	2	*3*	0	0	0	0	*0*

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Count Summaries - All Vehicles

Interval Start	Dillon Rd Eastbound				Dillon Rd Westbound				Access Rd Northbound				Century Pl Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**35**	**0**	**0**	**7**	**12**	**0**	**0**	**0**	**3**	**17**	**0**	**5**	**2**	**1**	**82**	0
4:15 PM	**0**	**0**	**14**	**0**	**0**	**9**	**13**	**0**	**0**	**0**	**2**	**10**	**0**	**2**	**1**	**0**	**51**	**0**
4:30 PM	**0**	**0**	**19**	**0**	**0**	**6**	**5**	**1**	**0**	**0**	**1**	**12**	**0**	**7**	**0**	**0**	**51**	**0**
4:45 PM	**0**	**0**	**22**	**0**	**0**	**8**	**7**	**1**	**0**	**0**	**3**	**13**	**0**	**7**	**3**	**0**	**64**	**248**
5:00 PM	0	0	19	0	0	6	11	4	0	0	2	11	0	12	2	0	67	233
5:15 PM	0	0	20	0	0	9	4	2	0	1	3	9	0	5	2	0	55	237
5:30 PM	0	0	16	0	0	5	6	3	0	1	2	5	0	1	5	1	45	231
5:45 PM	0	0	7	0	0	9	5	0	0	0	3	16	0	4	1	0	45	212
Count Total	0	0	152	0	0	59	63	11	0	2	19	93	0	43	16	2	460	
Pk Hr All	**0**	**0**	**90**	**0**	**0**	**30**	**37**	**2**	**0**	**0**	**9**	**52**	**0**	**21**	**6**	**1**	**248**	
Pk Hr HV	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	
Pk Hr HV%	**-**	**-**	**1%**	**-**	**-**	**0%**	**0%**	**0%**	**-**	**-**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**0%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**3**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	*0*	0	2	1	0	*3*	0	0	0	0	*0*
5:15 PM	1	0	0	0	*1*	0	0	0	0	*0*	1	0	0	0	*1*
5:30 PM	0	0	0	0	*0*	1	0	0	0	*1*	3	0	0	0	*3*
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	2	0	0	0	*2*	2	2	1	2	*7*	4	0	0	0	*4*
Peak Hour	**1**	**0**	**0**	**0**	***1***	**1**	**0**	**0**	**2**	***3***	**0**	**0**	**0**	**0**	**0**

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Count Summaries - Heavy Vehicles

Interval Start	Dillon Rd Eastbound				Dillon Rd Westbound				Access Rd Northbound				Century Pl Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Pk Hr Heavy	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	

Count Summaries - Bikes

Interval Start	Dillon Rd Eastbound				Dillon Rd Westbound				Access Rd Northbound				Century Pl Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**	**3**
5:00 PM	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	3	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Count Total	0	1	1	0	0	1	0	1	0	0	1	0	0	0	0	2	7	
Pk Hr Bike	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**	

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APPENDIX D – Existing Synchro Outputs

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	36	5	11	3	119	78	6	12	2	6	5	2
Future Vol, veh/h	0	36	5	11	3	119	78	6	12	2	6	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	100	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	92	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	42	6	12	4	140	92	7	14	2	7	6	2

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	232	0	0	-	48	0	0	195	308	45	242	265	186
Stage 1	-	-	-	-	-	-	-	45	45	-	193	217	-
Stage 2	-	-	-	-	-	-	-	150	263	-	49	48	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1336	-	-	-	1559	-	-	764	606	1024	712	640	856
Stage 1	-	-	-	-	-	-	-	969	857	-	809	723	-
Stage 2	-	-	-	-	-	-	-	853	691	-	964	855	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1336	-	-	~ -1	~ -1	-	-	755	606	1024	693	640	856
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	755	606	-	693	640	-
Stage 1	-	-	-	-	-	-	-	969	857	-	809	723	-
Stage 2	-	-	-	-	-	-	-	843	691	-	946	855	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0		10.54	10.26
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	673	1336	-	-	-	-	-	693	690
HCM Lane V/C Ratio	0.035	-	-	-	-	-	-	0.01	0.012
HCM Control Delay (s/veh)	10.5	0	-	-	-	-	-	10.2	10.3
HCM Lane LOS	B	A	-	-	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	0	-	-	-	-	-	0	0

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

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	67	2	14	177	39	10	3	18	51	1	24
Future Vol, veh/h	7	67	2	14	177	39	10	3	18	51	1	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	-	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	73	2	15	192	42	12	4	21	60	1	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	235	0	0	75	0	0	313	354	74	313	313	192
Stage 1	-	-	-	-	-	-	89	89	-	223	223	-
Stage 2	-	-	-	-	-	-	223	265	-	90	90	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1333	-	-	1524	-	-	640	571	988	640	602	849
Stage 1	-	-	-	-	-	-	918	821	-	780	719	-
Stage 2	-	-	-	-	-	-	779	689	-	918	820	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1333	-	-	1524	-	-	608	562	988	613	593	849
Mov Cap-2 Maneuver	-	-	-	-	-	-	608	562	-	613	593	-
Stage 1	-	-	-	-	-	-	913	816	-	772	712	-
Stage 2	-	-	-	-	-	-	744	682	-	889	815	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.71	0.45	9.88	11.18
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	775	1333	-	-	1524	-	-	671
HCM Lane V/C Ratio	0.047	0.006	-	-	0.01	-	-	0.133
HCM Control Delay (s/veh)	9.9	7.7	-	-	7.4	-	-	11.2
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	65	29	66	276	34	125	190	926	124	70	631	29
v/c Ratio	0.39	0.09	0.04	0.62	0.14	0.08	0.38	0.46	0.08	0.20	0.34	0.02
Control Delay (s/veh)	57.7	49.4	0.1	55.3	46.0	0.1	4.9	8.8	0.1	11.8	20.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.7	49.4	0.1	55.3	46.0	0.1	4.9	8.8	0.1	11.8	20.1	0.0
Queue Length 50th (ft)	49	11	0	106	24	0	14	49	0	19	149	0
Queue Length 95th (ft)	87	24	0	135	50	0	26	377	0	45	245	0
Internal Link Dist (ft)		360			352			447			338	
Turn Bay Length (ft)	100		100	150			325		125	315		50
Base Capacity (vph)	383	766	1583	743	403	1583	600	2007	1583	384	1834	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.04	0.04	0.37	0.08	0.08	0.32	0.46	0.08	0.18	0.34	0.02

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	25	56	235	29	106	175	852	114	63	568	26
Future Volume (veh/h)	55	25	56	235	29	106	175	852	114	63	568	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	29	0	276	34	0	190	926	0	70	631	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.92	0.92	0.92	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	283		361	195		538	2055		459	1952	
Arrive On Green	0.08	0.08	0.00	0.10	0.10	0.00	0.13	1.00	0.00	0.04	0.55	0.00
Sat Flow, veh/h	1781	3554	1585	3456	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	65	29	0	276	34	0	190	926	0	70	631	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.2	0.9	0.0	9.3	2.0	0.0	5.8	0.0	0.0	2.0	11.7	0.0
Cycle Q Clear(g_c), s	4.2	0.9	0.0	9.3	2.0	0.0	5.8	0.0	0.0	2.0	11.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	283		361	195		538	2055		459	1952	
V/C Ratio(X)	0.46	0.10		0.77	0.17		0.35	0.45		0.15	0.32	
Avail Cap(c_a), veh/h	386	770		749	405		717	2055		525	1952	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.7	51.2	0.0	52.3	49.0	0.0	9.9	0.0	0.0	10.7	14.8	0.0
Incr Delay (d2), s/veh	2.8	0.2	0.0	4.1	0.5	0.0	0.1	0.7	0.0	0.1	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.4	0.0	4.2	1.0	0.0	1.9	0.2	0.0	0.8	4.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.5	51.4	0.0	56.4	49.5	0.0	10.1	0.7	0.0	10.7	15.3	0.0
LnGrp LOS	E	D		E	D		B	A		B	B	
Approach Vol, veh/h		94			310			1116			701	
Approach Delay, s/veh		54.2			55.6			2.3			14.8	
Approach LOS		D			E			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	75.4		15.6	14.0	71.9		18.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	35.0		26.0	20.0	24.0		26.0				
Max Q Clear Time (g_c+I1), s	4.0	2.0		6.2	7.8	13.7		11.3				
Green Ext Time (p_c), s	0.0	10.7		0.3	0.2	3.8		1.2				

Intersection Summary	
HCM 7th Control Delay, s/veh	15.9
HCM 7th LOS	B

Notes

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

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

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	31	0	0	69	35	1072	59	39	795	25
Future Vol, veh/h	0	0	31	0	0	69	35	1072	59	39	795	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	91	91	91	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	36	0	0	81	38	1178	65	44	903	28

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	466	-	-	621	932	0	0	1243	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	0	0	*796	0	0	*752	666	-	-	542	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	-	-	*796	-	-	*752	666	-	-	542	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.74	10.37	0.32	0.56
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	666	-	-	796	752	542	-	-
HCM Lane V/C Ratio	0.058	-	-	0.046	0.108	0.082	-	-
HCM Control Delay (s/veh)	10.7	-	-	9.7	10.4	12.2	-	-
HCM Lane LOS	B	-	-	A	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.4	0.3	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	31	32	75	488	61	272	170	967	450	182	749	40
v/c Ratio	0.18	0.21	0.05	0.86	0.18	0.17	0.75	0.53	0.28	0.63	0.27	0.03
Control Delay (s/veh)	56.5	54.9	0.1	64.0	41.8	0.2	75.2	22.2	0.5	63.4	20.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.5	54.9	0.1	64.0	41.8	0.2	75.2	22.2	0.5	63.4	20.7	0.0
Queue Length 50th (ft)	12	24	0	189	39	0	68	292	0	76	96	0
Queue Length 95th (ft)	26	53	0	#263	79	0	#119	360	0	110	176	0
Internal Link Dist (ft)		457			420			285			453	
Turn Bay Length (ft)	130		150	280		250	450		150	250		100
Base Capacity (vph)	314	465	1583	600	621	1583	228	1837	1583	314	2732	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.07	0.05	0.81	0.10	0.17	0.75	0.53	0.28	0.58	0.27	0.03

Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	27	64	449	56	250	156	890	414	155	637	34
Future Volume (veh/h)	26	27	64	449	56	250	156	890	414	155	637	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	32	0	488	61	0	170	967	0	182	749	0
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	153		547	399		224	1746		236	2527	
Arrive On Green	0.03	0.08	0.00	0.16	0.21	0.00	0.06	0.49	0.00	0.14	0.99	0.00
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	31	32	0	488	61	0	170	967	0	182	749	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	1.1	1.9	0.0	16.6	3.2	0.0	5.8	22.8	0.0	6.1	0.3	0.0
Cycle Q Clear(g_c), s	1.1	1.9	0.0	16.6	3.2	0.0	5.8	22.8	0.0	6.1	0.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	93	153		547	399		224	1746		236	2527	
V/C Ratio(X)	0.33	0.21		0.89	0.15		0.76	0.55		0.77	0.30	
Avail Cap(c_a), veh/h	317	468		605	623		230	1746		317	2527	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.3	51.4	0.0	49.5	38.4	0.0	55.2	21.3	0.0	50.9	0.3	0.0
Incr Delay (d2), s/veh	1.6	0.7	0.0	14.2	0.2	0.0	12.6	1.3	0.0	6.9	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.9	0.0	8.1	1.5	0.0	2.9	9.5	0.0	2.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.9	52.1	0.0	63.7	38.5	0.0	67.8	22.6	0.0	57.8	0.6	0.0
LnGrp LOS	E	D		E	D		E	C		E	A	
Approach Vol, veh/h		63			549			1137			931	
Approach Delay, s/veh		55.4			60.9			29.4			11.8	
Approach LOS		E			E			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	65.0	25.0	15.8	13.8	65.4	9.2	31.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	11.0	34.0	21.0	30.0	8.0	37.0	11.0	40.0
Max Q Clear Time (g_c+I1), s	8.1	24.8	18.6	3.9	7.8	2.3	3.1	5.2
Green Ext Time (p_c), s	0.1	6.2	0.4	0.1	0.0	10.9	0.0	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	30.3
HCM 7th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	88	3	32	191	21	0	0	16	13	1	0
Future Vol, veh/h	0	88	3	32	191	21	0	0	16	13	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	86	86	86	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	104	4	37	222	24	0	0	19	15	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	247	0	0	107	0	0	291	426	54	360	416	123
Stage 1	-	-	-	-	-	-	105	105	-	309	309	-
Stage 2	-	-	-	-	-	-	186	321	-	52	107	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1317	-	-	1482	-	-	638	519	1002	570	526	905
Stage 1	-	-	-	-	-	-	889	807	-	676	658	-
Stage 2	-	-	-	-	-	-	798	650	-	955	806	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1317	-	-	1482	-	-	621	506	1002	546	513	905
Mov Cap-2 Maneuver	-	-	-	-	-	-	621	506	-	546	513	-
Stage 1	-	-	-	-	-	-	889	807	-	659	642	-
Stage 2	-	-	-	-	-	-	776	634	-	937	806	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.98	8.66	11.84
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1002	1317	-	-	1482	-	-	543
HCM Lane V/C Ratio	0.019	-	-	-	0.025	-	-	0.03
HCM Control Delay (s/veh)	8.7	0	-	-	7.5	-	-	11.8
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	24	0	39	121	22	0	2	55	6	5	2
Future Vol, veh/h	2	24	0	39	121	22	0	2	55	6	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	28	0	46	142	26	0	2	65	7	6	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	168	0	0	28	0	0	199	293	14	267	280	84
Stage 1	-	-	-	-	-	-	33	33	-	247	247	-
Stage 2	-	-	-	-	-	-	166	260	-	20	33	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1407	-	-	1584	-	-	742	617	1062	664	627	958
Stage 1	-	-	-	-	-	-	979	867	-	735	701	-
Stage 2	-	-	-	-	-	-	820	692	-	996	867	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1407	-	-	1584	-	-	710	597	1062	601	607	958
Mov Cap-2 Maneuver	-	-	-	-	-	-	710	597	-	601	607	-
Stage 1	-	-	-	-	-	-	977	866	-	713	679	-
Stage 2	-	-	-	-	-	-	786	671	-	931	866	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.59	1.66	8.72	10.76
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1034	277	-	-	635	-	-	640
HCM Lane V/C Ratio	0.065	0.002	-	-	0.029	-	-	0.024
HCM Control Delay (s/veh)	8.7	7.6	0	-	7.3	0.1	-	10.8
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	1	134	13	17	5	15	6	5	5	7	61	10	5
Future Vol, veh/h	1	134	13	17	5	15	6	5	5	7	61	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	100	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	92	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	158	15	18	6	18	7	6	6	8	72	12	6

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	25	0	0	-	173	0	0	203	241	165	196	245	21
Stage 1	-	-	-	-	-	-	-	168	168	-	33	70	-
Stage 2	-	-	-	-	-	-	-	35	73	-	163	175	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1590	-	-	-	1404	-	-	755	660	879	763	657	1056
Stage 1	-	-	-	-	-	-	-	834	760	-	983	837	-
Stage 2	-	-	-	-	-	-	-	980	834	-	839	754	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1590	-	-	~ -1	~ -1	-	-	737	660	879	749	656	1056
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	737	660	-	749	656	-
Stage 1	-	-	-	-	-	-	-	834	759	-	983	837	-
Stage 2	-	-	-	-	-	-	-	961	834	-	824	753	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.05		9.85	10.24
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	762	1590	-	-	-	-	-	749	751
HCM Lane V/C Ratio	0.026	0.001	-	-	-	-	-	0.096	0.023
HCM Control Delay (s/veh)	9.9	7.3	-	-	-	-	-	10.3	9.9
HCM Lane LOS	A	A	-	-	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	0	-	-	-	-	-	0.3	0.1

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

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	217	20	25	32	20	5	3	23	35	0	6
Future Vol, veh/h	3	217	20	25	32	20	5	3	23	35	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	-	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	86	86	86	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	255	24	29	38	24	6	3	27	41	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	61	0	0	279	0	0	371	394	267	361	382	38
Stage 1	-	-	-	-	-	-	274	274	-	96	96	-
Stage 2	-	-	-	-	-	-	96	120	-	264	286	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1542	-	-	1284	-	-	586	542	772	595	551	1034
Stage 1	-	-	-	-	-	-	732	683	-	910	815	-
Stage 2	-	-	-	-	-	-	910	796	-	741	675	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1542	-	-	1284	-	-	567	529	772	556	537	1034
Mov Cap-2 Maneuver	-	-	-	-	-	-	567	529	-	556	537	-
Stage 1	-	-	-	-	-	-	730	682	-	889	796	-
Stage 2	-	-	-	-	-	-	883	778	-	710	674	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.09	2.56	10.42	11.56
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	700	1542	-	-	1284	-	-	597
HCM Lane V/C Ratio	0.052	0.002	-	-	0.023	-	-	0.081
HCM Control Delay (s/veh)	10.4	7.3	-	-	7.9	-	-	11.6
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	46	49	213	268	17	103	30	887	207	113	1168	36
v/c Ratio	0.30	0.16	0.13	0.62	0.07	0.07	0.11	0.46	0.13	0.30	0.55	0.02
Control Delay (s/veh)	56.7	51.9	0.2	55.9	45.3	0.1	4.9	6.4	0.2	11.1	17.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.7	51.9	0.2	55.9	45.3	0.1	4.9	6.4	0.2	11.1	17.9	0.0
Queue Length 50th (ft)	35	18	0	103	12	0	3	55	0	31	307	0
Queue Length 95th (ft)	69	37	0	142	33	0	m6	70	0	63	432	0
Internal Link Dist (ft)		360			352			447			338	
Turn Bay Length (ft)	100		100	150			325		125	315		50
Base Capacity (vph)	383	766	1583	743	403	1583	288	1938	1583	400	2138	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.06	0.13	0.36	0.04	0.07	0.10	0.46	0.13	0.28	0.55	0.02

Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	44	190	247	16	95	28	816	190	104	1075	33
Future Volume (veh/h)	41	44	190	247	16	95	28	816	190	104	1075	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	49	0	268	17	0	30	887	0	113	1168	0
Peak Hour Factor	0.89	0.89	0.89	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	284		350	189		296	2051		442	2106	
Arrive On Green	0.08	0.08	0.00	0.10	0.10	0.00	0.04	0.77	0.00	0.04	0.59	0.00
Sat Flow, veh/h	1781	3554	1585	3456	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	46	49	0	268	17	0	30	887	0	113	1168	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.9	1.5	0.0	9.1	1.0	0.0	0.8	10.4	0.0	3.1	23.9	0.0
Cycle Q Clear(g_c), s	2.9	1.5	0.0	9.1	1.0	0.0	0.8	10.4	0.0	3.1	23.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	284		350	189		296	2051		442	2106	
V/C Ratio(X)	0.32	0.17		0.77	0.09		0.10	0.43		0.26	0.55	
Avail Cap(c_a), veh/h	386	770		749	405		353	2051		516	2106	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.2	51.5	0.0	52.6	48.9	0.0	11.7	7.1	0.0	9.8	14.8	0.0
Incr Delay (d2), s/veh	1.6	0.3	0.0	4.2	0.2	0.0	0.1	0.7	0.0	0.1	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	1.4	0.7	0.0	4.1	0.5	0.0	0.3	3.3	0.0	1.1	9.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	53.7	51.9	0.0	56.8	49.2	0.0	11.7	7.8	0.0	10.0	15.9	0.0
LnGrp LOS	D	D		E	D		B	A		A	B	
Approach Vol, veh/h		95			285			917			1281	
Approach Delay, s/veh		52.8			56.3			7.9			15.4	
Approach LOS		D			E			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	75.3		15.6	9.2	77.1		18.1				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	10.0	34.0		26.0	7.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	5.1	12.4		4.9	2.8	25.9		11.1				
Green Ext Time (p_c), s	0.1	8.5		0.4	0.0	7.1		1.1				

Intersection Summary		
HCM 7th Control Delay, s/veh	18.6	
HCM 7th LOS	B	

Notes

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

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

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	39	0	0	59	19	975	54	54	1430	28
Future Vol, veh/h	0	0	39	0	0	59	19	975	54	54	1430	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	46	0	0	69	21	1060	59	59	1554	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	792	-	-	559	1585	0	0	1118	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	0	0	*692	0	0	*766	442	-	-	598	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	-	-	*692	-	-	*766	442	-	-	598	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.57	10.16	0.25	0.42
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	442	-	-	692	766	598	-	-
HCM Lane V/C Ratio	0.047	-	-	0.066	0.091	0.098	-	-
HCM Control Delay (s/veh)	13.5	-	-	10.6	10.2	11.7	-	-
HCM Lane LOS	B	-	-	B	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.3	0.3	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	71	88	181	596	70	133	124	941	489	233	1309	55
v/c Ratio	0.35	0.48	0.11	0.92	0.17	0.08	0.48	0.56	0.31	1.02	0.55	0.03
Control Delay (s/veh)	58.9	59.8	0.1	69.1	38.0	0.1	59.3	25.7	0.5	125.1	23.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.9	59.8	0.1	69.1	38.0	0.1	59.3	25.7	0.5	125.1	23.9	0.0
Queue Length 50th (ft)	27	66	0	235	44	0	48	281	0	~101	204	0
Queue Length 95th (ft)	49	110	0	#336	82	0	79	372	0	#189	319	m0
Internal Link Dist (ft)		457			420			285			453	
Turn Bay Length (ft)	130		150	280		250	450		150	250		100
Base Capacity (vph)	228	465	1583	657	698	1583	314	1675	1583	228	2364	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.19	0.11	0.91	0.10	0.08	0.39	0.56	0.31	1.02	0.55	0.03

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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	75	154	548	64	122	114	866	450	214	1204	51
Future Volume (veh/h)	60	75	154	548	64	122	114	866	450	214	1204	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	88	0	596	70	0	124	941	0	233	1309	0
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	156		647	436		180	1644		230	2438	
Arrive On Green	0.04	0.08	0.00	0.19	0.23	0.00	0.05	0.46	0.00	0.04	0.32	0.00
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	71	88	0	596	70	0	124	941	0	233	1309	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	2.4	5.4	0.0	20.3	3.6	0.0	4.2	23.2	0.0	8.0	25.3	0.0
Cycle Q Clear(g_c), s	2.4	5.4	0.0	20.3	3.6	0.0	4.2	23.2	0.0	8.0	25.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	156		647	436		180	1644		230	2438	
V/C Ratio(X)	0.54	0.56		0.92	0.16		0.69	0.57		1.01	0.54	
Avail Cap(c_a), veh/h	230	468		662	701		317	1644		230	2438	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.7	52.9	0.0	47.9	36.7	0.0	55.9	23.6	0.0	57.3	29.9	0.0
Incr Delay (d2), s/veh	2.6	3.2	0.0	17.9	0.2	0.0	3.5	1.5	0.0	62.2	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	1.1	2.7	0.0	10.2	1.6	0.0	1.9	9.8	0.0	5.5	11.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	59.3	56.1	0.0	65.7	36.9	0.0	59.4	25.0	0.0	119.6	30.8	0.0
LnGrp LOS	E	E		E	D		E	C		F	C	
Approach Vol, veh/h		159			666			1065			1542	
Approach Delay, s/veh		57.5			62.7			29.0			44.2	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	61.5	28.5	16.0	12.2	63.3	10.5	33.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	8.0	35.0	23.0	30.0	11.0	32.0	8.0	45.0
Max Q Clear Time (g_c+I1), s	10.0	25.2	22.3	7.4	6.2	27.3	4.4	5.6
Green Ext Time (p_c), s	0.0	6.4	0.2	0.4	0.1	4.0	0.0	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	43.7
HCM 7th LOS	D

Notes

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

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	181	9	100	68	19	2	1	96	12	0	2
Future Vol, veh/h	4	181	9	100	68	19	2	1	96	12	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	213	11	118	80	22	2	1	113	14	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	102	0	0	224	0	0	503	565	112	443	559	51
Stage 1	-	-	-	-	-	-	228	228	-	326	326	-
Stage 2	-	-	-	-	-	-	275	338	-	116	233	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1488	-	-	1342	-	-	452	432	920	498	436	1006
Stage 1	-	-	-	-	-	-	754	714	-	660	647	-
Stage 2	-	-	-	-	-	-	707	639	-	876	711	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1488	-	-	1342	-	-	410	393	920	396	396	1006
Mov Cap-2 Maneuver	-	-	-	-	-	-	410	393	-	396	396	-
Stage 1	-	-	-	-	-	-	752	712	-	602	590	-
Stage 2	-	-	-	-	-	-	644	583	-	764	708	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.18	4.25	9.68	13.62
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	886	70	-	-	1342	-	-	434
HCM Lane V/C Ratio	0.131	0.003	-	-	0.088	-	-	0.038
HCM Control Delay (s/veh)	9.7	7.4	0	-	7.9	-	-	13.6
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.3	-	-	0.1

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	80	0	29	27	8	1	9	45	31	7	0
Future Vol, veh/h	0	80	0	29	27	8	1	9	45	31	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	85	85	85	86	86	86	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	88	0	34	32	9	1	10	52	36	8	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	41	0	0	88	0	0	176	197	44	154	193	21
Stage 1	-	-	-	-	-	-	88	88	-	105	105	-
Stage 2	-	-	-	-	-	-	88	109	-	49	88	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1566	-	-	1506	-	-	770	697	1017	798	701	1052
Stage 1	-	-	-	-	-	-	910	821	-	890	808	-
Stage 2	-	-	-	-	-	-	909	804	-	958	821	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1566	-	-	1506	-	-	743	681	1017	729	685	1052
Mov Cap-2 Maneuver	-	-	-	-	-	-	743	681	-	729	685	-
Stage 1	-	-	-	-	-	-	910	821	-	869	789	-
Stage 2	-	-	-	-	-	-	879	785	-	897	821	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	3.4	9.13	10.33
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	935	1566	-	-	1236	-	-	720
HCM Lane V/C Ratio	0.068	-	-	-	0.023	-	-	0.062
HCM Control Delay (s/veh)	9.1	0	-	-	7.4	0.1	-	10.3
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.2

APPENDIX E – Background (without site development) Synchro Outputs

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	39	5	11	3	124	78	6	12	2	6	5	2
Future Vol, veh/h	0	39	5	11	3	124	78	6	12	2	6	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	100	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	42	5	12	3	135	85	7	13	2	7	5	2

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	220	0	0	-	48	0	0	189	295	45	233	255	177
Stage 1	-	-	-	-	-	-	-	45	45	-	184	208	-
Stage 2	-	-	-	-	-	-	-	144	250	-	49	48	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1350	-	-	-	1559	-	-	771	616	1025	722	648	866
Stage 1	-	-	-	-	-	-	-	969	857	-	818	730	-
Stage 2	-	-	-	-	-	-	-	859	700	-	964	855	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1350	-	-	~ -1	~ -1	-	-	763	616	1025	705	648	866
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	763	616	-	705	648	-
Stage 1	-	-	-	-	-	-	-	969	857	-	818	730	-
Stage 2	-	-	-	-	-	-	-	850	700	-	948	855	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0		10.45	10.18
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	683	1350	-	-	-	-	-	705	698
HCM Lane V/C Ratio	0.032	-	-	-	-	-	-	0.009	0.011
HCM Control Delay (s/veh)	10.4	0	-	-	-	-	-	10.2	10.2
HCM Lane LOS	B	A	-	-	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	0	-	-	-	-	-	0	0

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

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	70	2	14	182	39	10	3	18	51	1	24
Future Vol, veh/h	7	70	2	14	182	39	10	3	18	51	1	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	-	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	76	2	15	198	42	11	3	20	55	1	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	240	0	0	78	0	0	321	363	77	321	322	198
Stage 1	-	-	-	-	-	-	92	92	-	228	228	-
Stage 2	-	-	-	-	-	-	229	271	-	93	93	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1326	-	-	1520	-	-	632	565	984	632	595	843
Stage 1	-	-	-	-	-	-	915	818	-	774	715	-
Stage 2	-	-	-	-	-	-	774	685	-	914	818	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1326	-	-	1520	-	-	601	556	984	606	586	843
Mov Cap-2 Maneuver	-	-	-	-	-	-	601	556	-	606	586	-
Stage 1	-	-	-	-	-	-	909	814	-	767	708	-
Stage 2	-	-	-	-	-	-	741	679	-	887	813	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.68	0.44	9.9	11.18
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	769	1326	-	-	1520	-	-	665
HCM Lane V/C Ratio	0.044	0.006	-	-	0.01	-	-	0.124
HCM Control Delay (s/veh)	9.9	7.7	-	-	7.4	-	-	11.2
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	61	28	62	260	33	117	193	945	126	70	629	29
v/c Ratio	0.38	0.09	0.04	0.61	0.14	0.07	0.38	0.46	0.08	0.20	0.34	0.02
Control Delay (s/veh)	57.3	49.8	0.1	55.9	47.0	0.1	4.7	8.0	0.1	11.3	19.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.3	49.8	0.1	55.9	47.0	0.1	4.7	8.0	0.1	11.3	19.4	0.0
Queue Length 50th (ft)	45	10	0	100	23	0	13	47	0	19	146	0
Queue Length 95th (ft)	88	25	0	139	53	0	24	350	0	44	238	0
Internal Link Dist (ft)		360			352			447			338	
Turn Bay Length (ft)	100		100	150			325		125	315		50
Base Capacity (vph)	383	766	1583	743	403	1583	607	2034	1583	383	1860	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.04	0.04	0.35	0.08	0.07	0.32	0.46	0.08	0.18	0.34	0.02

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	26	57	239	30	108	178	869	116	64	579	27
Future Volume (veh/h)	56	26	57	239	30	108	178	869	116	64	579	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	28	0	260	33	0	193	945	0	70	629	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	281		343	186		545	2075		456	1971	
Arrive On Green	0.08	0.08	0.00	0.10	0.10	0.00	0.13	1.00	0.00	0.04	0.55	0.00
Sat Flow, veh/h	1781	3554	1585	3456	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	61	28	0	260	33	0	193	945	0	70	629	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.9	0.9	0.0	8.8	1.9	0.0	5.8	0.0	0.0	2.0	11.5	0.0
Cycle Q Clear(g_c), s	3.9	0.9	0.0	8.8	1.9	0.0	5.8	0.0	0.0	2.0	11.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	281		343	186		545	2075		456	1971	
V/C Ratio(X)	0.43	0.10		0.76	0.18		0.35	0.46		0.15	0.32	
Avail Cap(c_a), veh/h	386	770		749	405		723	2075		523	1971	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.7	51.3	0.0	52.6	49.5	0.0	9.7	0.0	0.0	10.4	14.5	0.0
Incr Delay (d2), s/veh	2.5	0.2	0.0	4.1	0.5	0.0	0.1	0.7	0.0	0.1	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.4	0.0	4.0	0.9	0.0	1.9	0.2	0.0	0.8	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.2	51.5	0.0	56.7	50.1	0.0	9.8	0.7	0.0	10.4	14.9	0.0
LnGrp LOS	E	D		E	D		A	A		B	B	
Approach Vol, veh/h		89			293			1138			699	
Approach Delay, s/veh		54.0			56.0			2.3			14.4	
Approach LOS		D			E			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	76.1		15.5	14.0	72.6		17.9				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	35.0		26.0	20.0	24.0		26.0				
Max Q Clear Time (g_c+I1), s	4.0	2.0		5.9	7.8	13.5		10.8				
Green Ext Time (p_c), s	0.0	11.0		0.3	0.2	3.8		1.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	15.3
HCM 7th LOS	B

Notes

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

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

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	31	0	0	69	35	1094	59	39	811	25
Future Vol, veh/h	0	0	31	0	0	69	35	1094	59	39	811	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	34	0	0	75	38	1189	64	42	882	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	454	-	-	627	909	0	0	1253	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	0	0	*796	0	0	*752	685	-	-	535	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	-	-	*796	-	-	*752	685	-	-	535	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.72	10.32	0.31	0.55
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	685	-	-	796	752	535	-	-
HCM Lane V/C Ratio	0.056	-	-	0.042	0.1	0.079	-	-
HCM Control Delay (s/veh)	10.6	-	-	9.7	10.3	12.3	-	-
HCM Lane LOS	B	-	-	A	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.3	0.3	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	28	30	71	498	62	277	173	986	459	172	705	38
v/c Ratio	0.16	0.19	0.04	0.87	0.18	0.17	0.76	0.54	0.29	0.60	0.26	0.02
Control Delay (s/veh)	56.4	54.5	0.0	64.9	41.6	0.2	76.2	22.4	0.5	62.6	20.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.4	54.5	0.0	64.9	41.6	0.2	76.2	22.4	0.5	62.6	20.7	0.0
Queue Length 50th (ft)	10	22	0	193	40	0	69	298	0	72	85	0
Queue Length 95th (ft)	26	53	0	#273	80	0	#123	370	0	111	180	0
Internal Link Dist (ft)		457			420			285			453	
Turn Bay Length (ft)	130		150	280		250	450		150	250		100
Base Capacity (vph)	314	465	1583	600	621	1583	228	1837	1583	314	2724	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.06	0.04	0.83	0.10	0.17	0.76	0.54	0.29	0.55	0.26	0.02

Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	28	65	458	57	255	159	907	422	158	649	35
Future Volume (veh/h)	26	28	65	458	57	255	159	907	422	158	649	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	30	0	498	62	0	173	986	0	172	705	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	153		556	407		227	1748		226	2510	
Arrive On Green	0.03	0.08	0.00	0.16	0.22	0.00	0.07	0.49	0.00	0.13	0.98	0.00
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	28	30	0	498	62	0	173	986	0	172	705	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	1.0	1.8	0.0	17.0	3.2	0.0	5.9	23.4	0.0	5.8	0.4	0.0
Cycle Q Clear(g_c), s	1.0	1.8	0.0	17.0	3.2	0.0	5.9	23.4	0.0	5.8	0.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	87	153		556	407		227	1748		226	2510	
V/C Ratio(X)	0.32	0.20		0.90	0.15		0.76	0.56		0.76	0.28	
Avail Cap(c_a), veh/h	317	468		605	623		230	1748		317	2510	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.5	51.4	0.0	49.4	38.0	0.0	55.1	21.4	0.0	51.2	0.5	0.0
Incr Delay (d2), s/veh	1.5	0.6	0.0	14.9	0.2	0.0	13.1	1.3	0.0	5.6	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.9	0.0	8.3	1.5	0.0	3.0	9.8	0.0	2.5	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	59.0	52.0	0.0	64.3	38.2	0.0	68.3	22.8	0.0	56.8	0.8	0.0
LnGrp LOS	E	D		E	D		E	C		E	A	
Approach Vol, veh/h		58			560			1159			877	
Approach Delay, s/veh		55.4			61.4			29.6			11.8	
Approach LOS		E			E			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	65.0	25.3	15.8	13.9	65.0	9.0	32.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	11.0	34.0	21.0	30.0	8.0	37.0	11.0	40.0
Max Q Clear Time (g_c+I1), s	7.8	25.4	19.0	3.8	7.9	2.4	3.0	5.2
Green Ext Time (p_c), s	0.1	5.9	0.3	0.1	0.0	10.1	0.0	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	31.0
HCM 7th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	90	3	32	196	21	0	0	16	13	1	0
Future Vol, veh/h	0	90	3	32	196	21	0	0	16	13	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	98	3	35	213	23	0	0	17	14	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	236	0	0	101	0	0	276	405	51	343	395	118
Stage 1	-	-	-	-	-	-	99	99	-	294	294	-
Stage 2	-	-	-	-	-	-	177	305	-	49	101	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1328	-	-	1489	-	-	655	533	1007	587	540	912
Stage 1	-	-	-	-	-	-	896	812	-	690	668	-
Stage 2	-	-	-	-	-	-	808	661	-	958	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1328	-	-	1489	-	-	638	521	1007	563	528	912
Mov Cap-2 Maneuver	-	-	-	-	-	-	638	521	-	563	528	-
Stage 1	-	-	-	-	-	-	896	812	-	674	653	-
Stage 2	-	-	-	-	-	-	788	645	-	942	811	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.96	8.64	11.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1007	1328	-	-	1489	-	-	561
HCM Lane V/C Ratio	0.017	-	-	-	0.023	-	-	0.027
HCM Control Delay (s/veh)	8.6	0	-	-	7.5	-	-	11.6
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	26	0	39	126	22	0	2	55	6	5	2
Future Vol, veh/h	2	26	0	39	126	22	0	2	55	6	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	28	0	42	137	24	0	2	60	7	5	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	161	0	0	28	0	0	189	278	14	253	266	80
Stage 1	-	-	-	-	-	-	33	33	-	234	234	-
Stage 2	-	-	-	-	-	-	156	246	-	20	33	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1416	-	-	1583	-	-	754	628	1062	679	638	963
Stage 1	-	-	-	-	-	-	979	867	-	748	710	-
Stage 2	-	-	-	-	-	-	831	702	-	996	867	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1416	-	-	1583	-	-	724	610	1062	620	619	963
Mov Cap-2 Maneuver	-	-	-	-	-	-	724	610	-	620	619	-
Stage 1	-	-	-	-	-	-	978	866	-	727	690	-
Stage 2	-	-	-	-	-	-	799	682	-	937	866	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.55	1.62	8.7	10.61
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1035	257	-	-	621	-	-	656
HCM Lane V/C Ratio	0.06	0.002	-	-	0.027	-	-	0.022
HCM Control Delay (s/veh)	8.7	7.5	0	-	7.3	0.1	-	10.6
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	1	139	13	17	5	17	6	5	5	7	61	10	5
Future Vol, veh/h	1	139	13	17	5	17	6	5	5	7	61	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	100	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	151	14	18	5	18	7	5	5	8	66	11	5

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	25	0	0	-	165	0	0	195	233	158	189	237	22
Stage 1	-	-	-	-	-	-	-	160	160	-	33	70	-
Stage 2	-	-	-	-	-	-	-	35	73	-	156	167	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1589	-	-	-	1413	-	-	764	667	887	772	664	1055
Stage 1	-	-	-	-	-	-	-	842	765	-	984	837	-
Stage 2	-	-	-	-	-	-	-	981	834	-	846	760	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1589	-	-	~ -1	~ -1	-	-	747	667	887	758	663	1055
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	747	667	-	758	663	-
Stage 1	-	-	-	-	-	-	-	841	765	-	984	837	-
Stage 2	-	-	-	-	-	-	-	963	834	-	833	759	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.05		9.79	10.13
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	770	1589	-	-	-	-	-	758	757
HCM Lane V/C Ratio	0.024	0.001	-	-	-	-	-	0.087	0.022
HCM Control Delay (s/veh)	9.8	7.3	-	-	-	-	-	10.2	9.9
HCM Lane LOS	A	A	-	-	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	0	-	-	-	-	-	0.3	0.1

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

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	222	20	25	34	20	5	3	23	35	0	6
Future Vol, veh/h	3	222	20	25	34	20	5	3	23	35	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	-	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	241	22	27	37	22	5	3	25	38	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	59	0	0	263	0	0	350	372	252	341	361	37
Stage 1	-	-	-	-	-	-	259	259	-	91	91	-
Stage 2	-	-	-	-	-	-	91	113	-	249	270	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1545	-	-	1301	-	-	605	558	786	613	566	1035
Stage 1	-	-	-	-	-	-	746	694	-	916	819	-
Stage 2	-	-	-	-	-	-	916	802	-	755	686	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1545	-	-	1301	-	-	587	546	786	577	553	1035
Mov Cap-2 Maneuver	-	-	-	-	-	-	587	546	-	577	553	-
Stage 1	-	-	-	-	-	-	744	692	-	897	802	-
Stage 2	-	-	-	-	-	-	891	785	-	726	685	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.09	2.48	10.27	11.29
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	717	1545	-	-	1301	-	-	617
HCM Lane V/C Ratio	0.047	0.002	-	-	0.021	-	-	0.072
HCM Control Delay (s/veh)	10.3	7.3	-	-	7.8	-	-	11.3
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	46	49	210	274	17	105	32	904	210	115	1191	37
v/c Ratio	0.30	0.16	0.13	0.63	0.07	0.07	0.12	0.47	0.13	0.31	0.56	0.02
Control Delay (s/veh)	56.5	51.8	0.2	55.8	45.1	0.1	4.8	6.2	0.2	11.3	18.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.5	51.8	0.2	55.8	45.1	0.1	4.8	6.2	0.2	11.3	18.3	0.0
Queue Length 50th (ft)	35	18	0	105	12	0	3	53	0	32	318	0
Queue Length 95th (ft)	72	38	0	145	33	0	m6	68	0	65	447	0
Internal Link Dist (ft)		360			352			447			338	
Turn Bay Length (ft)	100		100	150			325		125	315		50
Base Capacity (vph)	383	766	1583	743	403	1583	279	1931	1583	392	2132	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.06	0.13	0.37	0.04	0.07	0.11	0.47	0.13	0.29	0.56	0.02

Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	45	193	252	16	97	29	832	193	106	1096	34
Future Volume (veh/h)	42	45	193	252	16	97	29	832	193	106	1096	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	49	0	274	17	0	32	904	0	115	1191	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	284		356	193		289	2042		434	2096	
Arrive On Green	0.08	0.08	0.00	0.10	0.10	0.00	0.04	0.76	0.00	0.04	0.59	0.00
Sat Flow, veh/h	1781	3554	1585	3456	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	46	49	0	274	17	0	32	904	0	115	1191	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.9	1.5	0.0	9.3	1.0	0.0	0.9	10.9	0.0	3.2	24.8	0.0
Cycle Q Clear(g_c), s	2.9	1.5	0.0	9.3	1.0	0.0	0.9	10.9	0.0	3.2	24.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	284		356	193		289	2042		434	2096	
V/C Ratio(X)	0.32	0.17		0.77	0.09		0.11	0.44		0.26	0.57	
Avail Cap(c_a), veh/h	386	770		749	405		344	2042		507	2096	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.2	51.5	0.0	52.4	48.7	0.0	11.9	7.3	0.0	10.0	15.2	0.0
Incr Delay (d2), s/veh	1.6	0.3	0.0	4.2	0.2	0.0	0.1	0.7	0.0	0.1	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	1.4	0.7	0.0	4.2	0.5	0.0	0.3	3.4	0.0	1.2	9.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	53.7	51.9	0.0	56.7	49.0	0.0	12.0	8.0	0.0	10.1	16.3	0.0
LnGrp LOS	D	D		E	D		B	A		B	B	
Approach Vol, veh/h		95			291			936			1306	
Approach Delay, s/veh		52.8			56.2			8.1			15.8	
Approach LOS		D			E			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	75.0		15.6	9.3	76.8		18.4				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	10.0	34.0		26.0	7.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	5.2	12.9		4.9	2.9	26.8		11.3				
Green Ext Time (p_c), s	0.1	8.6		0.4	0.0	6.7		1.1				

Intersection Summary		
HCM 7th Control Delay, s/veh	18.9	
HCM 7th LOS	B	

Notes

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

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

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	39	0	0	59	19	995	54	54	1459	28
Future Vol, veh/h	0	0	39	0	0	59	19	995	54	54	1459	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	42	0	0	64	21	1082	59	59	1586	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	808	-	-	570	1616	0	0	1140	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	0	0	*692	0	0	*766	422	-	-	581	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	-	-	*692	-	-	*766	422	-	-	581	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.54	10.13	0.25	0.42
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	422	-	-	692	766	581	-	-
HCM Lane V/C Ratio	0.049	-	-	0.061	0.084	0.101	-	-
HCM Control Delay (s/veh)	14	-	-	10.5	10.1	11.9	-	-
HCM Lane LOS	B	-	-	B	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.2	0.3	0.3	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	66	84	171	608	71	135	126	960	499	237	1335	57
v/c Ratio	0.33	0.47	0.11	0.94	0.17	0.09	0.48	0.57	0.32	1.04	0.57	0.04
Control Delay (s/veh)	58.5	59.5	0.1	71.0	38.2	0.1	59.3	25.8	0.5	128.5	24.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.5	59.5	0.1	71.0	38.2	0.1	59.3	25.8	0.5	128.5	24.5	0.0
Queue Length 50th (ft)	25	63	0	240	45	0	48	287	0	~105	212	0
Queue Length 95th (ft)	49	112	0	#347	83	0	79	380	0	#191	329	m0
Internal Link Dist (ft)		457			420			285			453	
Turn Bay Length (ft)	130		150	280		250	450		150	250		100
Base Capacity (vph)	228	465	1583	657	698	1583	314	1677	1583	228	2362	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.18	0.11	0.93	0.10	0.09	0.40	0.57	0.32	1.04	0.57	0.04

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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	77	157	559	65	124	116	883	459	218	1228	52
Future Volume (veh/h)	61	77	157	559	65	124	116	883	459	218	1228	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	84	0	608	71	0	126	960	0	237	1335	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	156		657	442		182	1635		230	2421	
Arrive On Green	0.04	0.08	0.00	0.19	0.24	0.00	0.05	0.46	0.00	0.04	0.32	0.00
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	66	84	0	608	71	0	126	960	0	237	1335	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	2.2	5.2	0.0	20.8	3.6	0.0	4.3	24.0	0.0	8.0	26.0	0.0
Cycle Q Clear(g_c), s	2.2	5.2	0.0	20.8	3.6	0.0	4.3	24.0	0.0	8.0	26.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	156		657	442		182	1635		230	2421	
V/C Ratio(X)	0.52	0.54		0.93	0.16		0.69	0.59		1.03	0.55	
Avail Cap(c_a), veh/h	230	468		662	701		317	1635		230	2421	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.7	52.8	0.0	47.8	36.4	0.0	55.9	24.0	0.0	57.3	30.4	0.0
Incr Delay (d2), s/veh	2.4	2.9	0.0	18.8	0.2	0.0	3.5	1.6	0.0	67.0	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	1.0	2.6	0.0	10.4	1.7	0.0	1.9	10.2	0.0	5.7	11.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	59.1	55.7	0.0	66.6	36.5	0.0	59.4	25.5	0.0	124.3	31.3	0.0
LnGrp LOS	E	E		E	D		E	C		F	C	
Approach Vol, veh/h		150			679			1086			1572	
Approach Delay, s/veh		57.2			63.4			29.5			45.3	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	61.2	28.8	16.0	12.3	62.9	10.4	34.4
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	8.0	35.0	23.0	30.0	11.0	32.0	8.0	45.0
Max Q Clear Time (g_c+I1), s	10.0	26.0	22.8	7.2	6.3	28.0	4.2	5.6
Green Ext Time (p_c), s	0.0	6.0	0.1	0.4	0.1	3.5	0.0	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	44.4
HCM 7th LOS	D

Notes

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

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	187	9	100	72	19	2	1	96	12	0	2
Future Vol, veh/h	4	187	9	100	72	19	2	1	96	12	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	203	10	109	78	21	2	1	104	13	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	99	0	0	213	0	0	473	533	107	417	528	49
Stage 1	-	-	-	-	-	-	217	217	-	306	306	-
Stage 2	-	-	-	-	-	-	257	316	-	111	222	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1492	-	-	1354	-	-	474	451	927	520	454	1008
Stage 1	-	-	-	-	-	-	765	722	-	679	660	-
Stage 2	-	-	-	-	-	-	726	653	-	882	719	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1492	-	-	1354	-	-	434	414	927	422	417	1008
Mov Cap-2 Maneuver	-	-	-	-	-	-	434	414	-	422	417	-
Stage 1	-	-	-	-	-	-	763	720	-	624	607	-
Stage 2	-	-	-	-	-	-	666	601	-	779	716	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.17	4.13	9.57	13.09
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	895	68	-	-	1354	-	-	460
HCM Lane V/C Ratio	0.12	0.003	-	-	0.08	-	-	0.033
HCM Control Delay (s/veh)	9.6	7.4	0	-	7.9	-	-	13.1
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.3	-	-	0.1

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	86	0	29	31	8	1	9	45	31	7	0
Future Vol, veh/h	0	86	0	29	31	8	1	9	45	31	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	93	0	32	34	9	1	10	49	34	8	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	42	0	0	93	0	0	177	199	47	153	195	21
Stage 1	-	-	-	-	-	-	93	93	-	101	101	-
Stage 2	-	-	-	-	-	-	84	105	-	52	93	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1565	-	-	1499	-	-	769	696	1012	800	700	1051
Stage 1	-	-	-	-	-	-	903	817	-	894	811	-
Stage 2	-	-	-	-	-	-	915	807	-	955	817	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1565	-	-	1499	-	-	744	681	1012	734	685	1051
Mov Cap-2 Maneuver	-	-	-	-	-	-	744	681	-	734	685	-
Stage 1	-	-	-	-	-	-	903	817	-	875	793	-
Stage 2	-	-	-	-	-	-	887	790	-	898	817	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	3.2	9.13	10.27
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	932	1565	-	-	1193	-	-	725
HCM Lane V/C Ratio	0.064	-	-	-	0.021	-	-	0.057
HCM Control Delay (s/veh)	9.1	0	-	-	7.5	0.1	-	10.3
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.2

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	68	5	11	3	172	78	6	12	2	6	5	2
Future Vol, veh/h	0	68	5	11	3	172	78	6	12	2	6	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	100	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	74	5	12	3	187	85	7	13	2	7	5	2

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	272	0	0	-	79	0	0	273	379	77	316	339	229
Stage 1	-	-	-	-	-	-	-	77	77	-	236	260	-
Stage 2	-	-	-	-	-	-	-	196	302	-	80	79	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1292	-	-	-	1519	-	-	680	553	984	636	582	810
Stage 1	-	-	-	-	-	-	-	932	831	-	767	693	-
Stage 2	-	-	-	-	-	-	-	806	664	-	928	829	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1292	-	-	~ -1	~ -1	-	-	671	553	984	620	582	810
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	671	553	-	620	582	-
Stage 1	-	-	-	-	-	-	-	932	831	-	767	693	-
Stage 2	-	-	-	-	-	-	-	797	664	-	911	829	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0		11.09	10.81
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	612	1292	-	-	-	-	-	620	633
HCM Lane V/C Ratio	0.035	-	-	-	-	-	-	0.011	0.012
HCM Control Delay (s/veh)	11.1	0	-	-	-	-	-	10.9	10.8
HCM Lane LOS	B	A	-	-	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	0	-	-	-	-	-	0	0

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

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	99	2	14	230	39	10	3	18	51	1	24
Future Vol, veh/h	7	99	2	14	230	39	10	3	18	51	1	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	-	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	108	2	15	250	42	11	3	20	55	1	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	292	0	0	110	0	0	405	447	109	405	405	250
Stage 1	-	-	-	-	-	-	124	124	-	280	280	-
Stage 2	-	-	-	-	-	-	281	323	-	124	125	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1269	-	-	1480	-	-	556	507	945	556	535	789
Stage 1	-	-	-	-	-	-	880	793	-	726	679	-
Stage 2	-	-	-	-	-	-	726	650	-	880	792	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1269	-	-	1480	-	-	528	498	945	533	526	789
Mov Cap-2 Maneuver	-	-	-	-	-	-	528	498	-	533	526	-
Stage 1	-	-	-	-	-	-	875	789	-	719	672	-
Stage 2	-	-	-	-	-	-	693	644	-	853	788	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.51	0.37	10.37	12.05
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	705	1269	-	-	1480	-	-	593
HCM Lane V/C Ratio	0.048	0.006	-	-	0.01	-	-	0.139
HCM Control Delay (s/veh)	10.4	7.9	-	-	7.5	-	-	12
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	74	34	75	314	39	142	234	1141	153	85	761	35
v/c Ratio	0.43	0.10	0.05	0.65	0.15	0.09	0.53	0.59	0.10	0.32	0.44	0.02
Control Delay (s/veh)	58.6	49.3	0.1	55.0	45.0	0.1	9.6	10.9	0.1	15.1	24.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.6	49.3	0.1	55.0	45.0	0.1	9.6	10.9	0.1	15.1	24.3	0.0
Queue Length 50th (ft)	55	13	0	120	27	0	21	110	0	24	201	0
Queue Length 95th (ft)	103	m28	0	160	58	0	36	517	m0	56	333	0
Internal Link Dist (ft)		360			352			447			338	
Turn Bay Length (ft)	100		100	150			325		125	315		50
Base Capacity (vph)	383	766	1583	743	403	1583	522	1946	1583	295	1719	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.04	0.05	0.42	0.10	0.09	0.45	0.59	0.10	0.29	0.44	0.02

Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	31	69	289	36	131	215	1050	141	78	700	32
Future Volume (veh/h)	68	31	69	289	36	131	215	1050	141	78	700	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	34	0	314	39	0	234	1141	0	85	761	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	288		401	217		481	2003		387	1852	
Arrive On Green	0.08	0.08	0.00	0.12	0.12	0.00	0.16	1.00	0.00	0.04	0.52	0.00
Sat Flow, veh/h	1781	3554	1585	3456	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	74	34	0	314	39	0	234	1141	0	85	761	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.8	1.1	0.0	10.6	2.3	0.0	7.6	0.0	0.0	2.6	15.7	0.0
Cycle Q Clear(g_c), s	4.8	1.1	0.0	10.6	2.3	0.0	7.6	0.0	0.0	2.6	15.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	144	288		401	217		481	2003		387	1852	
V/C Ratio(X)	0.51	0.12		0.78	0.18		0.49	0.57		0.22	0.41	
Avail Cap(c_a), veh/h	386	770		749	405		632	2003		451	1852	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.9	51.2	0.0	51.6	47.9	0.0	11.1	0.0	0.0	12.2	17.5	0.0
Incr Delay (d2), s/veh	3.4	0.2	0.0	4.0	0.5	0.0	0.3	1.2	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	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.5	0.0	4.8	1.1	0.0	2.4	0.3	0.0	1.0	6.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	56.2	51.4	0.0	55.6	48.3	0.0	11.4	1.2	0.0	12.3	18.2	0.0
LnGrp LOS	E	D		E	D		B	A		B	B	
Approach Vol, veh/h		108			353			1375			846	
Approach Delay, s/veh		54.7			54.8			2.9			17.6	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	73.6		15.7	15.8	68.5		19.9				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	35.0		26.0	20.0	24.0		26.0				
Max Q Clear Time (g_c+I1), s	4.6	2.0		6.8	9.6	17.7		12.6				
Green Ext Time (p_c), s	0.0	14.0		0.4	0.2	3.2		1.3				

Intersection Summary	
HCM 7th Control Delay, s/veh	16.5
HCM 7th LOS	B

Notes

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

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

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	31	0	0	69	35	1337	59	39	994	25
Future Vol, veh/h	0	0	31	0	0	69	35	1337	59	39	994	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	34	0	0	75	38	1453	64	42	1080	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	554	-	-	759	1108	0	0	1517	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	0	0	*766	0	0	*707	606	-	-	455	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	-	-	*766	-	-	*707	606	-	-	455	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.91	10.69	0.28	0.51
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	606	-	-	766	707	455	-	-
HCM Lane V/C Ratio	0.063	-	-	0.044	0.106	0.093	-	-
HCM Control Delay (s/veh)	11.3	-	-	9.9	10.7	13.7	-	-
HCM Lane LOS	B	-	-	A	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.4	0.3	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	37	37	97	601	75	333	214	1186	554	209	859	47
v/c Ratio	0.21	0.24	0.06	1.00	0.21	0.21	0.94	0.66	0.35	0.70	0.32	0.03
Control Delay (s/veh)	56.8	55.4	0.1	86.8	42.2	0.3	101.6	25.8	0.6	62.8	24.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.8	55.4	0.1	86.8	42.2	0.3	101.6	25.8	0.6	62.8	24.6	0.0
Queue Length 50th (ft)	14	27	0	~242	48	0	86	391	0	88	147	0
Queue Length 95th (ft)	32	63	0	#365	93	0	#163	481	0	130	216	0
Internal Link Dist (ft)		457			420			285			453	
Turn Bay Length (ft)	130		150	280		250	450		150	250		100
Base Capacity (vph)	314	465	1583	600	621	1583	228	1794	1583	314	2682	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.08	0.06	1.00	0.12	0.21	0.94	0.66	0.35	0.67	0.32	0.03

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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	34	89	553	69	306	197	1091	510	192	790	43
Future Volume (veh/h)	34	34	89	553	69	306	197	1091	510	192	790	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	37	0	601	75	0	214	1186	0	209	859	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	155		605	427		230	1658		262	2428	
Arrive On Green	0.03	0.08	0.00	0.17	0.23	0.00	0.07	0.47	0.00	0.15	0.95	0.00
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	37	37	0	601	75	0	214	1186	0	209	859	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	1.3	2.2	0.0	20.8	3.9	0.0	7.4	32.1	0.0	7.0	1.5	0.0
Cycle Q Clear(g_c), s	1.3	2.2	0.0	20.8	3.9	0.0	7.4	32.1	0.0	7.0	1.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	155		605	427		230	1658		262	2428	
V/C Ratio(X)	0.36	0.24		0.99	0.18		0.93	0.72		0.80	0.35	
Avail Cap(c_a), veh/h	317	468		605	623		230	1658		317	2428	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.1	51.5	0.0	49.4	37.2	0.0	55.7	25.6	0.0	50.0	1.6	0.0
Incr Delay (d2), s/veh	1.6	0.8	0.0	34.9	0.2	0.0	40.0	2.7	0.0	10.4	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.1	0.0	11.7	1.8	0.0	4.5	13.7	0.0	3.2	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.7	52.3	0.0	84.4	37.4	0.0	95.7	28.3	0.0	60.4	2.0	0.0
LnGrp LOS	E	D		F	D		F	C		E	A	
Approach Vol, veh/h		74			676			1400			1068	
Approach Delay, s/veh		55.5			79.2			38.6			13.4	
Approach LOS		E			E			D			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	62.0	27.0	15.9	14.0	63.1	9.5	33.4
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	11.0	34.0	21.0	30.0	8.0	37.0	11.0	40.0
Max Q Clear Time (g_c+I1), s	9.0	34.1	22.8	4.2	9.4	3.5	3.3	5.9
Green Ext Time (p_c), s	0.1	0.0	0.0	0.1	0.0	12.6	0.0	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	39.2
HCM 7th LOS	D

Notes

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

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	115	3	38	248	21	0	0	29	13	1	0
Future Vol, veh/h	0	115	3	38	248	21	0	0	29	13	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	125	3	41	270	23	0	0	32	14	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	292	0	0	128	0	0	345	502	64	426	492	146
Stage 1	-	-	-	-	-	-	127	127	-	364	364	-
Stage 2	-	-	-	-	-	-	218	375	-	63	128	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1266	-	-	1455	-	-	585	470	987	512	476	874
Stage 1	-	-	-	-	-	-	864	790	-	628	623	-
Stage 2	-	-	-	-	-	-	764	615	-	941	789	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1266	-	-	1455	-	-	567	457	987	482	463	874
Mov Cap-2 Maneuver	-	-	-	-	-	-	567	457	-	482	463	-
Stage 1	-	-	-	-	-	-	864	790	-	610	605	-
Stage 2	-	-	-	-	-	-	741	598	-	911	789	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.93	8.77	12.74
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	987	1266	-	-	1455	-	-	480
HCM Lane V/C Ratio	0.032	-	-	-	0.028	-	-	0.032
HCM Control Delay (s/veh)	8.8	0	-	-	7.5	-	-	12.7
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	51	0	39	178	22	0	2	55	6	5	2
Future Vol, veh/h	2	51	0	39	178	22	0	2	55	6	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	55	0	42	193	24	0	2	60	7	5	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	217	0	0	55	0	0	244	362	28	323	350	109
Stage 1	-	-	-	-	-	-	60	60	-	290	290	-
Stage 2	-	-	-	-	-	-	184	302	-	33	60	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1349	-	-	1548	-	-	690	564	1041	606	573	924
Stage 1	-	-	-	-	-	-	945	844	-	693	671	-
Stage 2	-	-	-	-	-	-	800	663	-	979	844	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1349	-	-	1548	-	-	660	547	1041	551	555	924
Mov Cap-2 Maneuver	-	-	-	-	-	-	660	547	-	551	555	-
Stage 1	-	-	-	-	-	-	943	843	-	673	651	-
Stage 2	-	-	-	-	-	-	768	643	-	919	843	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.3	1.32	8.8	11.26
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1009	136	-	-	509	-	-	590
HCM Lane V/C Ratio	0.061	0.002	-	-	0.027	-	-	0.024
HCM Control Delay (s/veh)	8.8	7.7	0	-	7.4	0.2	-	11.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	1	198	13	17	5	33	6	5	5	7	61	10	5
Future Vol, veh/h	1	198	13	17	5	33	6	5	5	7	61	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	100	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	215	14	18	5	36	7	5	5	8	66	11	5

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	42	0	0	-	229	0	0	277	315	222	270	318	39
Stage 1	-	-	-	-	-	-	-	224	224	-	50	87	-
Stage 2	-	-	-	-	-	-	-	52	90	-	220	232	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1567	-	-	-	1339	-	-	676	601	817	682	598	1032
Stage 1	-	-	-	-	-	-	-	778	718	-	963	823	-
Stage 2	-	-	-	-	-	-	-	961	820	-	782	713	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1567	-	-	~ -1	~ -1	-	-	660	601	817	669	598	1032
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	660	601	-	669	598	-
Stage 1	-	-	-	-	-	-	-	778	717	-	963	823	-
Stage 2	-	-	-	-	-	-	-	943	820	-	769	712	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03		10.32	10.84
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	695	1567	-	-	-	-	-	669	695
HCM Lane V/C Ratio	0.027	0.001	-	-	-	-	-	0.099	0.023
HCM Control Delay (s/veh)	10.3	7.3	-	-	-	-	-	11	10.3
HCM Lane LOS	B	A	-	-	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	0	-	-	-	-	-	0.3	0.1

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

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	281	20	25	50	20	5	3	23	35	0	6
Future Vol, veh/h	3	281	20	25	50	20	5	3	23	35	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	-	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	305	22	27	54	22	5	3	25	38	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	76	0	0	327	0	0	432	453	316	422	442	54
Stage 1	-	-	-	-	-	-	323	323	-	109	109	-
Stage 2	-	-	-	-	-	-	109	130	-	314	334	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1523	-	-	1232	-	-	534	502	724	542	509	1013
Stage 1	-	-	-	-	-	-	689	650	-	897	805	-
Stage 2	-	-	-	-	-	-	897	788	-	697	643	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1523	-	-	1232	-	-	518	490	724	507	497	1013
Mov Cap-2 Maneuver	-	-	-	-	-	-	518	490	-	507	497	-
Stage 1	-	-	-	-	-	-	688	649	-	877	788	-
Stage 2	-	-	-	-	-	-	871	771	-	668	642	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.07	2.1	10.82	12.16
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	652	1523	-	-	1232	-	-	547
HCM Lane V/C Ratio	0.052	0.002	-	-	0.022	-	-	0.081
HCM Control Delay (s/veh)	10.8	7.4	-	-	8	-	-	12.2
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	55	59	254	332	22	127	37	1093	255	139	1441	45
v/c Ratio	0.35	0.19	0.16	0.67	0.08	0.08	0.21	0.59	0.16	0.48	0.70	0.03
Control Delay (s/veh)	57.6	51.8	0.2	54.9	43.1	0.1	6.3	7.2	0.2	16.1	23.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.6	51.8	0.2	54.9	43.1	0.1	6.3	7.2	0.2	16.1	23.6	0.0
Queue Length 50th (ft)	41	22	0	127	15	0	4	66	0	41	450	0
Queue Length 95th (ft)	82	44	0	168	38	0	m6	83	m0	83	#670	0
Internal Link Dist (ft)		360			352			447			338	
Turn Bay Length (ft)	100		100	150			325		125	315		50
Base Capacity (vph)	383	766	1583	743	403	1583	198	1840	1583	307	2054	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.08	0.16	0.45	0.05	0.08	0.19	0.59	0.16	0.45	0.70	0.03

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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	54	234	305	20	117	34	1006	235	128	1326	41
Future Volume (veh/h)	51	54	234	305	20	117	34	1006	235	128	1326	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	59	0	332	22	0	37	1093	0	139	1441	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	290		418	226		214	1944		433	2019	
Arrive On Green	0.08	0.08	0.00	0.12	0.12	0.00	0.06	1.00	0.00	0.05	0.57	0.00
Sat Flow, veh/h	1781	3554	1585	3456	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	55	59	0	332	22	0	37	1093	0	139	1441	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.5	1.9	0.0	11.2	1.3	0.0	1.1	0.0	0.0	4.1	35.3	0.0
Cycle Q Clear(g_c), s	3.5	1.9	0.0	11.2	1.3	0.0	1.1	0.0	0.0	4.1	35.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	290		418	226		214	1944		433	2019	
V/C Ratio(X)	0.38	0.20		0.79	0.10		0.17	0.56		0.32	0.71	
Avail Cap(c_a), veh/h	386	770		749	405		265	1944		491	2019	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.2	51.5	0.0	51.3	46.9	0.0	15.5	0.0	0.0	10.5	18.8	0.0
Incr Delay (d2), s/veh	2.0	0.4	0.0	4.2	0.2	0.0	0.1	1.2	0.0	0.2	2.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.8	0.0	5.1	0.6	0.0	0.4	0.3	0.0	1.5	14.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.2	51.9	0.0	55.5	47.1	0.0	15.6	1.2	0.0	10.7	21.0	0.0
LnGrp LOS	D	D		E	D		B	A		B	C	
Approach Vol, veh/h		114			354			1130			1580	
Approach Delay, s/veh		53.0			54.9			1.7			20.1	
Approach LOS		D			D			A			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.1	71.6		15.8	9.5	74.2		20.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	10.0	34.0		26.0	7.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	6.1	2.0		5.5	3.1	37.3		13.2				
Green Ext Time (p_c), s	0.1	13.1		0.5	0.0	0.0		1.3				

Intersection Summary	
HCM 7th Control Delay, s/veh	18.6
HCM 7th LOS	B

Notes

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

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

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	39	0	0	59	19	1216	54	54	1783	28
Future Vol, veh/h	0	0	39	0	0	59	19	1216	54	54	1783	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	42	0	0	64	21	1322	59	59	1938	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	984	-	-	690	1968	0	0	1380	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	0	0	*633	0	0	*722	327	-	-	514	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	-	-	*633	-	-	*722	327	-	-	514	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	11.1	10.47	0.25	0.37
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	327	-	-	633	722	514	-	-
HCM Lane V/C Ratio	0.063	-	-	0.067	0.089	0.114	-	-
HCM Control Delay (s/veh)	16.8	-	-	11.1	10.5	12.9	-	-
HCM Lane LOS	C	-	-	B	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.2	0.3	0.4	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	82	101	216	734	87	163	168	1157	603	289	1620	72
v/c Ratio	0.40	0.53	0.14	1.12	0.18	0.10	0.59	0.75	0.38	1.27	0.75	0.05
Control Delay (s/veh)	59.8	60.5	0.2	116.4	37.2	0.1	61.8	32.3	0.7	194.1	34.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.8	60.5	0.2	116.4	37.2	0.1	61.8	32.3	0.7	194.1	34.1	0.0
Queue Length 50th (ft)	31	76	0	~336	55	0	65	382	0	~148	316	0
Queue Length 95th (ft)	58	129	0	#457	96	0	102	501	0	#244	443	m0
Internal Link Dist (ft)		457			420			285			453	
Turn Bay Length (ft)	130		150	280		250	450		150	250		100
Base Capacity (vph)	228	465	1583	657	698	1583	314	1551	1583	228	2146	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.22	0.14	1.12	0.12	0.10	0.54	0.75	0.38	1.27	0.75	0.05

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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	93	199	675	80	150	155	1064	555	266	1490	66
Future Volume (veh/h)	75	93	199	675	80	150	155	1064	555	266	1490	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	101	0	734	87	0	168	1157	0	289	1620	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	156		662	441		225	1629		230	2348	
Arrive On Green	0.04	0.08	0.00	0.19	0.24	0.00	0.07	0.46	0.00	0.02	0.15	0.00
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	82	101	0	734	87	0	168	1157	0	289	1620	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	2.8	6.3	0.0	23.0	4.5	0.0	5.7	31.4	0.0	8.0	36.1	0.0
Cycle Q Clear(g_c), s	2.8	6.3	0.0	23.0	4.5	0.0	5.7	31.4	0.0	8.0	36.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	135	156		662	441		225	1629		230	2348	
V/C Ratio(X)	0.61	0.65		1.11	0.20		0.75	0.71		1.25	0.69	
Avail Cap(c_a), veh/h	230	468		662	701		317	1629		230	2348	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	53.3	0.0	48.5	36.7	0.0	55.1	26.1	0.0	58.7	42.8	0.0
Incr Delay (d2), s/veh	3.3	4.5	0.0	68.5	0.2	0.0	4.8	2.7	0.0	144.9	1.7	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	1.3	3.1	0.0	16.0	2.0	0.0	2.6	13.4	0.0	8.3	16.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.0	57.8	0.0	117.0	36.9	0.0	59.9	28.8	0.0	203.6	44.5	0.0
LnGrp LOS	E	E		F	D		E	C		F	D	
Approach Vol, veh/h		183			821			1325			1909	
Approach Delay, s/veh		58.8			108.5			32.7			68.6	
Approach LOS		E			F			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	61.0	29.0	16.0	13.8	61.2	10.7	34.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	8.0	35.0	23.0	30.0	11.0	32.0	8.0	45.0
Max Q Clear Time (g_c+I1), s	10.0	33.4	25.0	8.3	7.7	38.1	4.8	6.5
Green Ext Time (p_c), s	0.0	1.4	0.0	0.4	0.1	0.0	0.0	0.4

Intersection Summary	
HCM 7th Control Delay, s/veh	64.7
HCM 7th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	247	9	119	121	19	2	1	108	12	0	2
Future Vol, veh/h	4	247	9	119	121	19	2	1	108	12	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	268	10	129	132	21	2	1	117	13	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	152	0	0	278	0	0	607	693	139	544	688	76
Stage 1	-	-	-	-	-	-	282	282	-	401	401	-
Stage 2	-	-	-	-	-	-	324	411	-	143	287	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1426	-	-	1281	-	-	381	365	884	422	368	970
Stage 1	-	-	-	-	-	-	701	676	-	597	600	-
Stage 2	-	-	-	-	-	-	662	593	-	845	673	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1426	-	-	1281	-	-	340	327	884	327	330	970
Mov Cap-2 Maneuver	-	-	-	-	-	-	340	327	-	327	330	-
Stage 1	-	-	-	-	-	-	699	674	-	537	539	-
Stage 2	-	-	-	-	-	-	594	533	-	729	671	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.14	3.73	9.96	15.41
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	846	53	-	-	1281	-	-	361
HCM Lane V/C Ratio	0.143	0.003	-	-	0.101	-	-	0.042
HCM Control Delay (s/veh)	10	7.5	0	-	8.1	-	-	15.4
HCM Lane LOS	A	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0.3	-	-	0.1

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	146	0	29	80	8	1	9	45	31	7	0
Future Vol, veh/h	0	146	0	29	80	8	1	9	45	31	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	159	0	32	87	9	1	10	49	34	8	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	96	0	0	159	0	0	269	317	79	239	313	48
Stage 1	-	-	-	-	-	-	159	159	-	154	154	-
Stage 2	-	-	-	-	-	-	110	159	-	84	159	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1496	-	-	1418	-	-	662	598	965	696	601	1011
Stage 1	-	-	-	-	-	-	828	765	-	832	769	-
Stage 2	-	-	-	-	-	-	883	765	-	914	765	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1496	-	-	1418	-	-	639	584	965	635	587	1011
Mov Cap-2 Maneuver	-	-	-	-	-	-	639	584	-	635	587	-
Stage 1	-	-	-	-	-	-	828	765	-	813	751	-
Stage 2	-	-	-	-	-	-	854	748	-	857	765	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	1.95	9.47	11.16
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	865	1496	-	-	792	-	-	625
HCM Lane V/C Ratio	0.069	-	-	-	0.022	-	-	0.066
HCM Control Delay (s/veh)	9.5	0	-	-	7.6	0.1	-	11.2
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.2

APPENDIX F – Future (with site development) Synchro Outputs

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	45	11	11	15	128	78	10	12	11	6	5	2
Future Vol, veh/h	0	45	11	11	15	128	78	10	12	11	6	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	100	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	49	12	12	16	139	85	11	13	12	7	5	2

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	224	0	0	-	61	0	0	229	335	55	270	299	182
Stage 1	-	-	-	-	-	-	-	55	55	-	214	238	-
Stage 2	-	-	-	-	-	-	-	174	280	-	55	61	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1345	-	-	-	1542	-	-	726	585	1012	683	613	861
Stage 1	-	-	-	-	-	-	-	957	849	-	788	708	-
Stage 2	-	-	-	-	-	-	-	827	679	-	957	844	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1345	-	-	~ -2	~ -2	-	-	717	585	1012	660	613	861
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	717	585	-	660	613	-
Stage 1	-	-	-	-	-	-	-	957	849	-	788	708	-
Stage 2	-	-	-	-	-	-	-	819	679	-	931	844	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0		10.2	10.48
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	728	1345	-	-	~	-	-	660	668
HCM Lane V/C Ratio	0.049	-	-	-	-	-	-	0.01	0.011
HCM Control Delay (s/veh)	10.2	0	-	-	-	-	-	10.5	10.4
HCM Lane LOS	B	A	-	-	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	0	-	-	-	-	-	0	0

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

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	79	8	57	194	39	14	3	89	51	1	24
Future Vol, veh/h	7	79	8	57	194	39	14	3	89	51	1	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	-	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	86	9	62	211	42	15	3	97	55	1	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	253	0	0	95	0	0	441	483	90	437	445	211
Stage 1	-	-	-	-	-	-	105	105	-	335	335	-
Stage 2	-	-	-	-	-	-	335	377	-	103	110	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1312	-	-	1499	-	-	527	484	968	529	508	829
Stage 1	-	-	-	-	-	-	900	808	-	679	643	-
Stage 2	-	-	-	-	-	-	679	616	-	903	804	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1312	-	-	1499	-	-	485	461	968	451	484	829
Mov Cap-2 Maneuver	-	-	-	-	-	-	485	461	-	451	484	-
Stage 1	-	-	-	-	-	-	895	803	-	651	616	-
Stage 2	-	-	-	-	-	-	629	590	-	805	800	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.58	1.47	10.02	13.09
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	832	1312	-	-	1499	-	-	527
HCM Lane V/C Ratio	0.138	0.006	-	-	0.041	-	-	0.157
HCM Control Delay (s/veh)	10	7.8	-	-	7.5	-	-	13.1
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	129	47	62	273	46	117	193	923	126	70	646	76
v/c Ratio	0.60	0.11	0.04	0.62	0.19	0.07	0.43	0.51	0.08	0.23	0.40	0.05
Control Delay (s/veh)	60.5	45.5	0.1	55.4	47.2	0.1	6.4	10.6	0.1	14.4	24.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.5	45.5	0.1	55.4	47.2	0.1	6.4	10.6	0.1	14.4	24.6	0.1
Queue Length 50th (ft)	96	17	0	104	32	0	16	131	0	21	167	0
Queue Length 95th (ft)	154	34	0	143	66	0	29	407	0	51	278	0
Internal Link Dist (ft)		360			352			447			338	
Turn Bay Length (ft)	100		100	150			325		125	315		50
Base Capacity (vph)	383	766	1583	743	403	1583	543	1811	1583	343	1617	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.06	0.04	0.37	0.11	0.07	0.36	0.51	0.08	0.20	0.40	0.05

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	43	57	251	42	108	178	849	116	64	594	70
Future Volume (veh/h)	119	43	57	251	42	108	178	849	116	64	594	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	47	0	273	46	0	193	923	0	70	646	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	328		359	194		521	2011		451	1900	
Arrive On Green	0.09	0.09	0.00	0.10	0.10	0.00	0.14	1.00	0.00	0.04	0.53	0.00
Sat Flow, veh/h	1781	3554	1585	3456	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	129	47	0	273	46	0	193	923	0	70	646	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.5	1.5	0.0	9.2	2.7	0.0	6.1	0.0	0.0	2.1	12.4	0.0
Cycle Q Clear(g_c), s	8.5	1.5	0.0	9.2	2.7	0.0	6.1	0.0	0.0	2.1	12.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	328		359	194		521	2011		451	1900	
V/C Ratio(X)	0.78	0.14		0.76	0.24		0.37	0.46		0.16	0.34	
Avail Cap(c_a), veh/h	386	770		749	405		695	2011		517	1900	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.3	50.1	0.0	52.3	49.4	0.0	10.6	0.0	0.0	11.4	15.9	0.0
Incr Delay (d2), s/veh	9.4	0.2	0.0	4.0	0.7	0.0	0.2	0.8	0.0	0.1	0.5	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	4.2	0.7	0.0	4.2	1.3	0.0	2.0	0.2	0.0	0.8	4.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	62.7	50.3	0.0	56.3	50.1	0.0	10.8	0.8	0.0	11.5	16.4	0.0
LnGrp LOS	E	D		E	D		B	A		B	B	
Approach Vol, veh/h		176			319			1116			716	
Approach Delay, s/veh		59.4			55.4			2.5			15.9	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	73.9		17.1	14.3	70.2		18.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	35.0		26.0	20.0	24.0		26.0				
Max Q Clear Time (g_c+I1), s	4.1	2.0		10.5	8.1	14.4		11.2				
Green Ext Time (p_c), s	0.0	10.6		0.6	0.2	3.7		1.3				

Intersection Summary	
HCM 7th Control Delay, s/veh	18.2
HCM 7th LOS	B

Notes

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

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

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	98	0	0	69	112	1074	59	39	795	68
Future Vol, veh/h	0	0	98	0	0	69	112	1074	59	39	795	68
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	107	0	0	75	122	1167	64	42	864	74

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	469	-	-	616	938	0	0	1232	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	0	0	*796	0	0	*752	660	-	-	551	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	-	-	*796	-	-	*752	660	-	-	551	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.22	10.32	1.05	0.52
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	660	-	-	796	752	551	-	-
HCM Lane V/C Ratio	0.184	-	-	0.134	0.1	0.077	-	-
HCM Control Delay (s/veh)	11.7	-	-	10.2	10.3	12.1	-	-
HCM Lane LOS	B	-	-	B	B	B	-	-
HCM 95th %tile Q(veh)	0.7	-	-	0.5	0.3	0.2	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	33	49	107	498	87	302	240	1018	459	190	742	38
v/c Ratio	0.19	0.31	0.07	0.87	0.22	0.19	1.05	0.59	0.29	0.65	0.29	0.02
Control Delay (s/veh)	56.6	56.7	0.1	64.9	40.5	0.3	127.6	25.4	0.5	61.6	24.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.6	56.7	0.1	64.9	40.5	0.3	127.6	25.4	0.5	61.6	24.6	0.0
Queue Length 50th (ft)	12	36	0	193	56	0	~104	313	0	79	128	0
Queue Length 95th (ft)	29	76	0	#273	104	0	#189	396	0	120	186	0
Internal Link Dist (ft)		457			420			285			453	
Turn Bay Length (ft)	130		150	280		250	450		150	250		100
Base Capacity (vph)	314	465	1583	600	621	1583	228	1725	1583	314	2574	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.11	0.07	0.83	0.14	0.19	1.05	0.59	0.29	0.61	0.29	0.02

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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	45	98	458	80	278	221	937	422	175	683	35
Future Volume (veh/h)	30	45	98	458	80	278	221	937	422	175	683	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	49	0	498	87	0	240	1018	0	190	742	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	155		556	404		230	1726		244	2499	
Arrive On Green	0.03	0.08	0.00	0.16	0.22	0.00	0.07	0.49	0.00	0.14	0.98	0.00
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	33	49	0	498	87	0	240	1018	0	190	742	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	1.1	3.0	0.0	17.0	4.6	0.0	8.0	24.8	0.0	6.4	0.5	0.0
Cycle Q Clear(g_c), s	1.1	3.0	0.0	17.0	4.6	0.0	8.0	24.8	0.0	6.4	0.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	96	155		556	404		230	1726		244	2499	
V/C Ratio(X)	0.34	0.32		0.90	0.22		1.04	0.59		0.78	0.30	
Avail Cap(c_a), veh/h	317	468		605	623		230	1726		317	2499	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.3	51.8	0.0	49.4	38.7	0.0	56.0	22.3	0.0	50.6	0.7	0.0
Incr Delay (d2), s/veh	1.6	1.1	0.0	14.9	0.3	0.0	70.6	1.5	0.0	7.9	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.4	0.0	8.3	2.1	0.0	5.7	10.4	0.0	2.8	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.8	53.0	0.0	64.3	38.9	0.0	126.6	23.7	0.0	58.5	1.0	0.0
LnGrp LOS	E	D		E	D		F	C		E	A	
Approach Vol, veh/h		82			585			1258			932	
Approach Delay, s/veh		55.3			60.5			43.4			12.7	
Approach LOS		E			E			D			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	64.3	25.3	16.0	14.0	64.7	9.3	31.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	11.0	34.0	21.0	30.0	8.0	37.0	11.0	40.0
Max Q Clear Time (g_c+I1), s	8.4	26.8	19.0	5.0	10.0	2.5	3.1	6.6
Green Ext Time (p_c), s	0.1	5.2	0.3	0.2	0.0	10.7	0.0	0.4

Intersection Summary	
HCM 7th Control Delay, s/veh	37.2
HCM 7th LOS	D

Notes

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

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	98	3	32	208	94	0	0	16	59	1	0
Future Vol, veh/h	0	98	3	32	208	94	0	0	16	59	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	107	3	35	226	102	0	0	17	64	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	328	0	0	110	0	0	291	506	55	400	457	164
Stage 1	-	-	-	-	-	-	108	108	-	347	347	-
Stage 2	-	-	-	-	-	-	183	398	-	53	110	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1228	-	-	1478	-	-	639	468	1000	535	499	852
Stage 1	-	-	-	-	-	-	886	805	-	642	633	-
Stage 2	-	-	-	-	-	-	801	601	-	953	804	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1228	-	-	1478	-	-	622	457	1000	513	487	852
Mov Cap-2 Maneuver	-	-	-	-	-	-	622	457	-	513	487	-
Stage 1	-	-	-	-	-	-	886	805	-	627	619	-
Stage 2	-	-	-	-	-	-	781	587	-	936	804	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.72	8.66	13.05
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1000	1228	-	-	1478	-	-	513
HCM Lane V/C Ratio	0.017	-	-	-	0.024	-	-	0.127
HCM Control Delay (s/veh)	8.7	0	-	-	7.5	-	-	13
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.4

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	26	0	39	126	34	0	2	55	14	5	2
Future Vol, veh/h	2	26	0	39	126	34	0	2	55	14	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	28	0	42	137	37	0	2	60	15	5	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	174	0	0	28	0	0	189	291	14	260	273	87
Stage 1	-	-	-	-	-	-	33	33	-	240	240	-
Stage 2	-	-	-	-	-	-	156	259	-	20	33	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1400	-	-	1583	-	-	754	618	1062	672	633	954
Stage 1	-	-	-	-	-	-	979	867	-	742	705	-
Stage 2	-	-	-	-	-	-	831	692	-	996	867	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1400	-	-	1583	-	-	724	600	1062	613	614	954
Mov Cap-2 Maneuver	-	-	-	-	-	-	724	600	-	613	614	-
Stage 1	-	-	-	-	-	-	978	866	-	721	686	-
Stage 2	-	-	-	-	-	-	799	673	-	937	866	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.55	1.52	8.7	10.88
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1034	257	-	-	544	-	-	635
HCM Lane V/C Ratio	0.06	0.002	-	-	0.027	-	-	0.036
HCM Control Delay (s/veh)	8.7	7.6	0	-	7.3	0.1	-	10.9
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	1	148	22	17	24	26	6	14	5	26	61	10	5
Future Vol, veh/h	1	148	22	17	24	26	6	14	5	26	61	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	100	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	161	24	18	26	28	7	15	5	28	66	11	5

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	35	0	0	-	185	0	0	261	299	173	249	308	32
Stage 1	-	-	-	-	-	-	-	175	175	-	84	121	-
Stage 2	-	-	-	-	-	-	-	86	124	-	166	187	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1577	-	-	-	1390	-	-	692	613	871	704	606	1042
Stage 1	-	-	-	-	-	-	-	827	754	-	924	796	-
Stage 2	-	-	-	-	-	-	-	922	793	-	836	745	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1577	-	-	~ -2	~ -2	-	-	676	613	871	675	606	1042
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	676	613	-	675	606	-
Stage 1	-	-	-	-	-	-	-	826	754	-	924	796	-
Stage 2	-	-	-	-	-	-	-	905	793	-	803	745	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.04		10.02	10.78
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	766	1577	-	-	~	-	-	675	704
HCM Lane V/C Ratio	0.064	0.001	-	-	-	-	-	0.098	0.023
HCM Control Delay (s/veh)	10	7.3	-	-	-	-	-	10.9	10.2
HCM Lane LOS	B	A	-	-	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	0	-	-	-	-	-	0.3	0.1

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

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	241	29	114	53	20	14	3	215	35	0	6
Future Vol, veh/h	3	241	29	114	53	20	14	3	215	35	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	-	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	262	32	124	58	22	15	3	234	38	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	79	0	0	293	0	0	590	611	278	576	605	58
Stage 1	-	-	-	-	-	-	284	284	-	305	305	-
Stage 2	-	-	-	-	-	-	305	327	-	270	300	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1519	-	-	1268	-	-	419	408	761	429	412	1009
Stage 1	-	-	-	-	-	-	723	676	-	704	662	-
Stage 2	-	-	-	-	-	-	704	648	-	736	666	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1519	-	-	1268	-	-	375	368	761	265	371	1009
Mov Cap-2 Maneuver	-	-	-	-	-	-	375	368	-	265	371	-
Stage 1	-	-	-	-	-	-	721	675	-	635	597	-
Stage 2	-	-	-	-	-	-	631	584	-	506	664	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.08	4.97	12.88	19.23
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	707	1519	-	-	1268	-	-	297
HCM Lane V/C Ratio	0.356	0.002	-	-	0.098	-	-	0.15
HCM Control Delay (s/veh)	12.9	7.4	-	-	8.1	-	-	19.2
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.6	0	-	-	0.3	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	234	90	210	295	38	105	32	820	210	115	1198	134
v/c Ratio	0.76	0.15	0.13	0.64	0.15	0.07	0.18	0.55	0.13	0.38	0.71	0.08
Control Delay (s/veh)	62.5	41.0	0.2	55.2	45.7	0.1	9.7	12.7	0.2	19.2	30.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	62.5	41.0	0.2	55.2	45.7	0.1	9.7	12.7	0.2	19.2	30.3	0.1
Queue Length 50th (ft)	173	31	0	112	26	0	4	65	0	42	404	0
Queue Length 95th (ft)	253	53	0	153	58	0	m8	256	0	88	#627	0
Internal Link Dist (ft)		360			352			447			338	
Turn Bay Length (ft)	100		100	150			325		125	315		50
Base Capacity (vph)	383	766	1583	743	403	1583	198	1495	1583	327	1695	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.12	0.13	0.40	0.09	0.07	0.16	0.55	0.13	0.35	0.71	0.08

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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	83	193	271	35	97	29	754	193	106	1102	123
Future Volume (veh/h)	215	83	193	271	35	97	29	754	193	106	1102	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	234	90	0	295	38	0	32	820	0	115	1198	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	543		381	206		230	1737		465	1811	
Arrive On Green	0.15	0.15	0.00	0.11	0.11	0.00	0.05	0.98	0.00	0.05	0.51	0.00
Sat Flow, veh/h	1781	3554	1585	3456	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	234	90	0	295	38	0	32	820	0	115	1198	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	15.4	2.6	0.0	10.0	2.2	0.0	1.1	1.1	0.0	3.8	29.9	0.0
Cycle Q Clear(g_c), s	15.4	2.6	0.0	10.0	2.2	0.0	1.1	1.1	0.0	3.8	29.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	543		381	206		230	1737		465	1811	
V/C Ratio(X)	0.86	0.17		0.77	0.18		0.14	0.47		0.25	0.66	
Avail Cap(c_a), veh/h	386	770		749	405		285	1737		528	1811	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.6	44.2	0.0	51.9	48.5	0.0	17.2	0.7	0.0	13.8	21.8	0.0
Incr Delay (d2), s/veh	13.9	0.2	0.0	4.0	0.5	0.0	0.1	0.9	0.0	0.1	1.9	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	7.8	1.2	0.0	4.5	1.1	0.0	0.4	0.5	0.0	1.5	12.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	63.4	44.4	0.0	56.0	49.0	0.0	17.3	1.6	0.0	13.9	23.7	0.0
LnGrp LOS	E	D		E	D		B	A		B	C	
Approach Vol, veh/h		324			333			852			1313	
Approach Delay, s/veh		58.1			55.2			2.2			22.8	
Approach LOS		E			E			A			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	64.7		24.3	9.3	67.1		19.2				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	10.0	34.0		26.0	7.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	5.8	3.1		17.4	3.1	31.9		12.0				
Green Ext Time (p_c), s	0.0	9.0		1.0	0.0	3.7		1.3				

Intersection Summary	
HCM 7th Control Delay, s/veh	24.5
HCM 7th LOS	C

Notes

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

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

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	203	0	0	59	164	917	54	54	1396	116
Future Vol, veh/h	0	0	203	0	0	59	164	917	54	54	1396	116
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	221	0	0	64	178	997	59	59	1517	126

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	822	-	-	528	1643	0	0	1055	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	0	0	*692	0	0	*781	406	-	-	608	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	-	-	*692	-	-	*781	406	-	-	608	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	12.61	10.02	2.98	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	406	-	-	692	781	608	-	-
HCM Lane V/C Ratio	0.439	-	-	0.319	0.082	0.097	-	-
HCM Control Delay (s/veh)	20.6	-	-	12.6	10	11.6	-	-
HCM Lane LOS	C	-	-	B	B	B	-	-
HCM 95th %tile Q(veh)	2.2	-	-	1.4	0.3	0.3	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	84	125	267	608	112	176	277	974	499	278	1403	57
v/c Ratio	0.41	0.59	0.17	0.94	0.23	0.11	0.88	0.64	0.32	1.22	0.68	0.04
Control Delay (s/veh)	60.0	61.3	0.2	71.0	36.6	0.1	82.2	29.9	0.5	177.2	37.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.0	61.3	0.2	71.0	36.6	0.1	82.2	29.9	0.5	177.2	37.6	0.0
Queue Length 50th (ft)	32	94	0	240	71	0	111	306	0	~139	324	0
Queue Length 95th (ft)	59	151	0	#347	116	0	#188	408	0	#230	456	m0
Internal Link Dist (ft)		457			420			285			453	
Turn Bay Length (ft)	130		150	280		250	450		150	250		100
Base Capacity (vph)	228	465	1583	657	698	1583	314	1521	1583	228	2058	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.27	0.17	0.93	0.16	0.11	0.88	0.64	0.32	1.22	0.68	0.04

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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	115	246	559	103	162	255	896	459	256	1291	52
Future Volume (veh/h)	77	115	246	559	103	162	255	896	459	256	1291	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	125	0	608	112	0	277	974	0	278	1403	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	162		657	445		317	1622		230	2203	
Arrive On Green	0.04	0.09	0.00	0.19	0.24	0.00	0.09	0.46	0.00	0.02	0.14	0.00
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	84	125	0	608	112	0	277	974	0	278	1403	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	2.9	7.8	0.0	20.8	5.8	0.0	9.5	24.6	0.0	8.0	31.1	0.0
Cycle Q Clear(g_c), s	2.9	7.8	0.0	20.8	5.8	0.0	9.5	24.6	0.0	8.0	31.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	135	162		657	445		317	1622		230	2203	
V/C Ratio(X)	0.62	0.77		0.93	0.25		0.87	0.60		1.21	0.64	
Avail Cap(c_a), veh/h	230	468		662	701		317	1622		230	2203	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	53.6	0.0	47.8	37.1	0.0	53.8	24.4	0.0	58.7	42.6	0.0
Incr Delay (d2), s/veh	3.4	7.5	0.0	18.8	0.3	0.0	22.4	1.7	0.0	126.5	1.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.0	0.0	10.4	2.7	0.0	5.1	10.5	0.0	7.7	14.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.2	61.1	0.0	66.6	37.4	0.0	76.2	26.1	0.0	185.2	44.0	0.0
LnGrp LOS	E	E		E	D		E	C		F	D	
Approach Vol, veh/h		209			720			1251			1681	
Approach Delay, s/veh		60.7			62.0			37.2			67.4	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	60.8	28.8	16.4	17.0	57.8	10.7	34.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	8.0	35.0	23.0	30.0	11.0	32.0	8.0	45.0
Max Q Clear Time (g_c+I1), s	10.0	26.6	22.8	9.8	11.5	33.1	4.9	7.8
Green Ext Time (p_c), s	0.0	5.7	0.1	0.6	0.0	0.0	0.0	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	56.2
HCM 7th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	206	9	100	91	177	2	1	96	136	0	2
Future Vol, veh/h	4	206	9	100	91	177	2	1	96	136	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	224	10	109	99	192	2	1	104	148	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	291	0	0	234	0	0	504	746	117	534	655	146
Stage 1	-	-	-	-	-	-	237	237	-	413	413	-
Stage 2	-	-	-	-	-	-	267	509	-	121	242	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1267	-	-	1331	-	-	450	340	913	429	384	875
Stage 1	-	-	-	-	-	-	744	707	-	587	592	-
Stage 2	-	-	-	-	-	-	716	537	-	870	704	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1267	-	-	1331	-	-	411	311	913	347	352	875
Mov Cap-2 Maneuver	-	-	-	-	-	-	411	311	-	347	352	-
Stage 1	-	-	-	-	-	-	742	705	-	539	544	-
Stage 2	-	-	-	-	-	-	655	493	-	767	701	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.17	2.16	9.69	22.8
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	874	62	-	-	1331	-	-	350
HCM Lane V/C Ratio	0.123	0.003	-	-	0.082	-	-	0.429
HCM Control Delay (s/veh)	9.7	7.9	0	-	7.9	-	-	22.8
HCM Lane LOS	A	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0.3	-	-	2.1

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	86	0	29	31	27	1	9	45	50	7	0
Future Vol, veh/h	0	86	0	29	31	27	1	9	45	50	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	93	0	32	34	29	1	10	49	54	8	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	63	0	0	93	0	0	177	220	47	163	205	32
Stage 1	-	-	-	-	-	-	93	93	-	111	111	-
Stage 2	-	-	-	-	-	-	84	126	-	52	93	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1538	-	-	1499	-	-	769	678	1012	786	690	1035
Stage 1	-	-	-	-	-	-	903	817	-	882	802	-
Stage 2	-	-	-	-	-	-	915	791	-	955	817	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1538	-	-	1499	-	-	744	663	1012	722	676	1035
Mov Cap-2 Maneuver	-	-	-	-	-	-	744	663	-	722	676	-
Stage 1	-	-	-	-	-	-	903	817	-	863	785	-
Stage 2	-	-	-	-	-	-	887	774	-	898	817	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	2.5	9.15	10.51
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	926	1538	-	-	727	-	-	716
HCM Lane V/C Ratio	0.065	-	-	-	0.021	-	-	0.087
HCM Control Delay (s/veh)	9.2	0	-	-	7.5	0.1	-	10.5
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	74	11	11	15	176	78	10	12	11	6	5	2
Future Vol, veh/h	0	74	11	11	15	176	78	10	12	11	6	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	100	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	80	12	12	16	191	85	11	13	12	7	5	2

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	276	0	0	-	92	0	0	313	419	86	353	383	234
Stage 1	-	-	-	-	-	-	-	86	86	-	266	290	-
Stage 2	-	-	-	-	-	-	-	227	333	-	87	92	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1287	-	-	-	1502	-	-	640	525	972	602	551	805
Stage 1	-	-	-	-	-	-	-	921	823	-	739	672	-
Stage 2	-	-	-	-	-	-	-	776	644	-	921	818	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1287	-	-	~ -2	~ -2	-	-	632	525	972	580	551	805
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	632	525	-	580	551	-
Stage 1	-	-	-	-	-	-	-	921	823	-	739	672	-
Stage 2	-	-	-	-	-	-	-	768	644	-	895	818	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0		10.77	11.14
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	660	1287	-	-	~	-	-	580	605
HCM Lane V/C Ratio	0.054	-	-	-	-	-	-	0.011	0.013
HCM Control Delay (s/veh)	10.8	0	-	-	-	-	-	11.3	11
HCM Lane LOS	B	A	-	-	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	0	-	-	-	-	-	0	0

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

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	108	8	57	242	39	14	3	89	51	1	24
Future Vol, veh/h	7	108	8	57	242	39	14	3	89	51	1	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	-	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	117	9	62	263	42	15	3	97	55	1	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	305	0	0	126	0	0	524	566	122	521	528	263
Stage 1	-	-	-	-	-	-	137	137	-	387	387	-
Stage 2	-	-	-	-	-	-	388	429	-	134	141	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1255	-	-	1460	-	-	464	433	929	466	456	776
Stage 1	-	-	-	-	-	-	866	783	-	637	610	-
Stage 2	-	-	-	-	-	-	636	584	-	869	780	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1255	-	-	1460	-	-	425	413	929	394	434	776
Mov Cap-2 Maneuver	-	-	-	-	-	-	425	413	-	394	434	-
Stage 1	-	-	-	-	-	-	861	778	-	610	584	-
Stage 2	-	-	-	-	-	-	588	559	-	771	775	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.45	1.28	10.42	14.35
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	780	1255	-	-	1460	-	-	467
HCM Lane V/C Ratio	0.148	0.006	-	-	0.042	-	-	0.177
HCM Control Delay (s/veh)	10.4	7.9	-	-	7.6	-	-	14.3
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.6

Queues
3: McCaslin Blvd & Centennial Pkwy

02/05/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	142	52	75	327	52	142	234	1120	153	85	777	82
v/c Ratio	0.63	0.11	0.05	0.66	0.19	0.09	0.60	0.65	0.10	0.37	0.53	0.05
Control Delay (s/veh)	61.0	44.8	0.1	54.9	45.5	0.1	13.8	13.9	0.1	19.1	30.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.0	44.8	0.1	54.9	45.5	0.1	13.8	13.9	0.1	19.1	30.2	0.1
Queue Length 50th (ft)	106	18	0	125	36	0	23	299	0	28	228	0
Queue Length 95th (ft)	166	m36	0	165	71	0	m65	539	m0	63	371	0
Internal Link Dist (ft)		360			352			447			338	
Turn Bay Length (ft)	100		100	150			325		125	315		50
Base Capacity (vph)	383	766	1583	743	403	1583	468	1723	1583	261	1480	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.07	0.05	0.44	0.13	0.09	0.50	0.65	0.10	0.33	0.53	0.05

Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	48	69	301	48	131	215	1030	141	78	715	75
Future Volume (veh/h)	131	48	69	301	48	131	215	1030	141	78	715	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	142	52	0	327	52	0	234	1120	0	85	777	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	178	356		417	226		456	1919		379	1758	
Arrive On Green	0.10	0.10	0.00	0.12	0.12	0.00	0.17	1.00	0.00	0.04	0.49	0.00
Sat Flow, veh/h	1781	3554	1585	3456	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	142	52	0	327	52	0	234	1120	0	85	777	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.4	1.6	0.0	11.0	3.0	0.0	7.9	0.0	0.0	2.8	17.0	0.0
Cycle Q Clear(g_c), s	9.4	1.6	0.0	11.0	3.0	0.0	7.9	0.0	0.0	2.8	17.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	178	356		417	226		456	1919		379	1758	
V/C Ratio(X)	0.80	0.15		0.78	0.23		0.51	0.58		0.22	0.44	
Avail Cap(c_a), veh/h	386	770		749	405		602	1919		442	1758	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.8	49.3	0.0	51.2	47.7	0.0	12.4	0.0	0.0	13.7	19.6	0.0
Incr Delay (d2), s/veh	9.3	0.2	0.0	3.9	0.6	0.0	0.3	1.3	0.0	0.1	0.8	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	4.6	0.7	0.0	5.0	1.4	0.0	2.6	0.3	0.0	1.1	6.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	62.1	49.5	0.0	55.2	48.3	0.0	12.7	1.3	0.0	13.8	20.4	0.0
LnGrp LOS	E	D		E	D		B	A		B	C	
Approach Vol, veh/h		194			379			1354			862	
Approach Delay, s/veh		58.8			54.2			3.3			19.8	
Approach LOS		E			D			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	70.8		18.0	16.2	65.4		20.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	9.0	35.0		26.0	20.0	24.0		26.0				
Max Q Clear Time (g_c+I1), s	4.8	2.0		11.4	9.9	19.0		13.0				
Green Ext Time (p_c), s	0.0	13.7		0.7	0.2	2.7		1.4				

Intersection Summary		
HCM 7th Control Delay, s/veh	19.2	
HCM 7th LOS	B	

Notes

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

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

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	98	0	0	69	112	1317	59	39	978	68
Future Vol, veh/h	0	0	98	0	0	69	112	1317	59	39	978	68
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	107	0	0	75	122	1432	64	42	1063	74

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	568	-	-	748	1137	0	0	1496	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	0	0	*766	0	0	*707	584	-	-	469	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	-	-	*766	-	-	*707	584	-	-	469	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.45	10.69	0.96	0.48
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	584	-	-	766	707	469	-	-
HCM Lane V/C Ratio	0.209	-	-	0.139	0.106	0.09	-	-
HCM Control Delay (s/veh)	12.8	-	-	10.5	10.7	13.4	-	-
HCM Lane LOS	B	-	-	B	B	B	-	-
HCM 95th %tile Q(veh)	0.8	-	-	0.5	0.4	0.3	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	41	55	133	601	100	358	282	1218	554	227	896	47
v/c Ratio	0.22	0.34	0.08	1.00	0.27	0.23	1.24	0.72	0.35	0.75	0.35	0.03
Control Delay (s/veh)	56.9	57.3	0.1	86.8	42.3	0.3	184.3	29.5	0.6	62.9	26.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.9	57.3	0.1	86.8	42.3	0.3	184.3	29.5	0.6	62.9	26.8	0.0
Queue Length 50th (ft)	15	41	0	~242	66	0	~139	407	0	95	188	0
Queue Length 95th (ft)	34	83	0	#365	116	0	#228	513	0	#144	222	m0
Internal Link Dist (ft)		457			420			285			453	
Turn Bay Length (ft)	130		150	280		250	450		150	250		100
Base Capacity (vph)	314	465	1583	600	621	1583	228	1682	1583	314	2530	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.12	0.08	1.00	0.16	0.23	1.24	0.72	0.35	0.72	0.35	0.03

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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	51	122	553	92	329	259	1121	510	209	824	43
Future Volume (veh/h)	38	51	122	553	92	329	259	1121	510	209	824	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	55	0	601	100	0	282	1218	0	227	896	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	156		605	425		230	1636		282	2426	
Arrive On Green	0.03	0.08	0.00	0.17	0.23	0.00	0.07	0.46	0.00	0.11	0.63	0.00
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	41	55	0	601	100	0	282	1218	0	227	896	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	1.4	3.3	0.0	20.8	5.2	0.0	8.0	33.8	0.0	7.7	10.1	0.0
Cycle Q Clear(g_c), s	1.4	3.3	0.0	20.8	5.2	0.0	8.0	33.8	0.0	7.7	10.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	107	156		605	425		230	1636		282	2426	
V/C Ratio(X)	0.38	0.35		0.99	0.24		1.22	0.74		0.81	0.37	
Avail Cap(c_a), veh/h	317	468		605	623		230	1636		317	2426	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.0	52.0	0.0	49.4	37.9	0.0	56.0	26.6	0.0	52.6	13.5	0.0
Incr Delay (d2), s/veh	1.7	1.4	0.0	34.9	0.3	0.0	133.1	3.1	0.0	12.2	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.6	0.0	11.7	2.4	0.0	7.7	14.5	0.0	3.7	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.7	53.3	0.0	84.4	38.1	0.0	189.1	29.7	0.0	64.8	13.9	0.0
LnGrp LOS	E	D		F	D		F	C		E	B	
Approach Vol, veh/h		96			701			1500			1123	
Approach Delay, s/veh		55.6			77.8			59.7			24.2	
Approach LOS		E			E			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	61.2	27.0	16.0	14.0	63.0	9.7	33.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	11.0	34.0	21.0	30.0	8.0	37.0	11.0	40.0
Max Q Clear Time (g_c+I1), s	9.7	35.8	22.8	5.3	10.0	12.1	3.4	7.2
Green Ext Time (p_c), s	0.1	0.0	0.0	0.2	0.0	11.4	0.0	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	51.6
HCM 7th LOS	D

Notes

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

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	123	3	38	260	94	0	0	29	59	1	0
Future Vol, veh/h	0	123	3	38	260	94	0	0	29	59	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	134	3	41	283	102	0	0	32	64	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	385	0	0	137	0	0	360	603	68	483	553	192
Stage 1	-	-	-	-	-	-	135	135	-	416	416	-
Stage 2	-	-	-	-	-	-	224	467	-	67	137	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1170	-	-	1445	-	-	571	412	981	466	439	817
Stage 1	-	-	-	-	-	-	854	783	-	584	590	-
Stage 2	-	-	-	-	-	-	758	560	-	936	782	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1170	-	-	1445	-	-	553	400	981	439	427	817
Mov Cap-2 Maneuver	-	-	-	-	-	-	553	400	-	439	427	-
Stage 1	-	-	-	-	-	-	854	783	-	568	573	-
Stage 2	-	-	-	-	-	-	735	544	-	906	782	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.73	8.79	14.64
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	981	1170	-	-	1445	-	-	438
HCM Lane V/C Ratio	0.032	-	-	-	0.029	-	-	0.149
HCM Control Delay (s/veh)	8.8	0	-	-	7.6	-	-	14.6
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	51	0	39	178	34	0	2	55	14	5	2
Future Vol, veh/h	2	51	0	39	178	34	0	2	55	14	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	55	0	42	193	37	0	2	60	15	5	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	230	0	0	55	0	0	244	375	28	330	357	115
Stage 1	-	-	-	-	-	-	60	60	-	297	297	-
Stage 2	-	-	-	-	-	-	184	315	-	33	60	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1335	-	-	1548	-	-	690	555	1041	600	568	915
Stage 1	-	-	-	-	-	-	945	844	-	687	666	-
Stage 2	-	-	-	-	-	-	800	654	-	979	844	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1335	-	-	1548	-	-	660	537	1041	546	550	915
Mov Cap-2 Maneuver	-	-	-	-	-	-	660	537	-	546	550	-
Stage 1	-	-	-	-	-	-	943	843	-	667	647	-
Stage 2	-	-	-	-	-	-	768	635	-	919	843	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.3	1.26	8.81	11.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1008	136	-	-	457	-	-	569
HCM Lane V/C Ratio	0.061	0.002	-	-	0.027	-	-	0.04
HCM Control Delay (s/veh)	8.8	7.7	0	-	7.4	0.2	-	11.6
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	1	207	22	17	24	42	6	14	5	26	61	10	5
Future Vol, veh/h	1	207	22	17	24	42	6	14	5	26	61	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	100	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	225	24	18	26	46	7	15	5	28	66	11	5

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	52	0	0	-	249	0	0	342	380	237	331	389	49
Stage 1	-	-	-	-	-	-	-	239	239	-	101	138	-
Stage 2	-	-	-	-	-	-	-	103	141	-	230	251	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1554	-	-	-	1317	-	-	612	552	802	622	546	1020
Stage 1	-	-	-	-	-	-	-	764	707	-	905	782	-
Stage 2	-	-	-	-	-	-	-	903	780	-	773	699	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1554	-	-	~ -2	~ -2	-	-	596	552	802	594	546	1020
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	596	552	-	594	546	-
Stage 1	-	-	-	-	-	-	-	764	707	-	905	782	-
Stage 2	-	-	-	-	-	-	-	885	780	-	739	699	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.03		10.59	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	693	1554	-	-	~	-	-	594	646
HCM Lane V/C Ratio	0.071	0.001	-	-	-	-	-	0.112	0.025
HCM Control Delay (s/veh)	10.6	7.3	-	-	-	-	-	11.8	10.7
HCM Lane LOS	B	A	-	-	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	0	-	-	-	-	-	0.4	0.1

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

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	300	29	114	69	20	14	3	215	35	0	6
Future Vol, veh/h	3	300	29	114	69	20	14	3	215	35	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	80	-	-	100	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	326	32	124	75	22	15	3	234	38	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	97	0	0	358	0	0	671	693	342	657	687	75
Stage 1	-	-	-	-	-	-	348	348	-	323	323	-
Stage 2	-	-	-	-	-	-	323	345	-	334	364	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1497	-	-	1201	-	-	370	367	701	378	370	986
Stage 1	-	-	-	-	-	-	668	634	-	689	650	-
Stage 2	-	-	-	-	-	-	689	636	-	680	624	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1497	-	-	1201	-	-	329	328	701	224	331	986
Mov Cap-2 Maneuver	-	-	-	-	-	-	329	328	-	224	331	-
Stage 1	-	-	-	-	-	-	666	632	-	618	583	-
Stage 2	-	-	-	-	-	-	614	571	-	450	622	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.07	4.68	14.07	22.33
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	647	1497	-	-	1201	-	-	252
HCM Lane V/C Ratio	0.39	0.002	-	-	0.103	-	-	0.177
HCM Control Delay (s/veh)	14.1	7.4	-	-	8.3	-	-	22.3
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.8	0	-	-	0.3	-	-	0.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	243	100	254	352	42	127	37	1009	255	139	1448	141
v/c Ratio	0.77	0.16	0.16	0.67	0.15	0.08	0.25	0.72	0.16	0.60	0.90	0.09
Control Delay (s/veh)	63.1	40.9	0.2	54.2	43.6	0.1	20.5	16.7	0.2	29.0	40.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.1	40.9	0.2	54.2	43.6	0.1	20.5	16.7	0.2	29.0	40.7	0.1
Queue Length 50th (ft)	180	34	0	134	29	0	5	187	0	55	572	0
Queue Length 95th (ft)	262	57	0	176	60	0	m8	#511	m0	109	#871	0
Internal Link Dist (ft)		360			352			447			338	
Turn Bay Length (ft)	100		100	150			325		125	315		50
Base Capacity (vph)	383	766	1583	743	403	1583	164	1400	1583	246	1616	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.13	0.16	0.47	0.10	0.08	0.23	0.72	0.16	0.57	0.90	0.09

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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	92	234	324	39	117	34	928	235	128	1332	130
Future Volume (veh/h)	224	92	234	324	39	117	34	928	235	128	1332	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	243	100	0	352	42	0	37	1009	0	139	1448	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	561		441	239		161	1623		386	1723	
Arrive On Green	0.16	0.16	0.00	0.13	0.13	0.00	0.06	0.91	0.00	0.06	0.48	0.00
Sat Flow, veh/h	1781	3554	1585	3456	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	243	100	0	352	42	0	37	1009	0	139	1448	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	16.0	2.9	0.0	11.9	2.4	0.0	1.3	6.8	0.0	4.9	42.5	0.0
Cycle Q Clear(g_c), s	16.0	2.9	0.0	11.9	2.4	0.0	1.3	6.8	0.0	4.9	42.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	281	561		441	239		161	1623		386	1723	
V/C Ratio(X)	0.86	0.18		0.80	0.18		0.23	0.62		0.36	0.84	
Avail Cap(c_a), veh/h	386	770		749	405		212	1623		432	1723	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.3	43.8	0.0	50.8	46.7	0.0	22.5	3.1	0.0	15.6	26.9	0.0
Incr Delay (d2), s/veh	14.8	0.2	0.0	4.0	0.4	0.0	0.3	1.8	0.0	0.2	5.1	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	8.2	1.3	0.0	5.3	1.1	0.0	0.5	1.7	0.0	2.0	18.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	64.0	44.0	0.0	54.9	47.1	0.0	22.8	4.9	0.0	15.8	32.0	0.0
LnGrp LOS	E	D		D	D		C	A		B	C	
Approach Vol, veh/h		343			394			1046			1587	
Approach Delay, s/veh		58.2			54.0			5.6			30.6	
Approach LOS		E			D			A			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.9	60.8		25.0	9.5	64.2		21.3				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	10.0	34.0		26.0	7.0	37.0		26.0				
Max Q Clear Time (g_c+I1), s	6.9	8.8		18.0	3.3	44.5		13.9				
Green Ext Time (p_c), s	0.0	10.6		1.0	0.0	0.0		1.5				

Intersection Summary		
HCM 7th Control Delay, s/veh	28.4	
HCM 7th LOS	C	

Notes

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

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

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	203	0	0	59	164	1138	54	54	1720	116
Future Vol, veh/h	0	0	203	0	0	59	164	1138	54	54	1720	116
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	221	0	0	64	178	1237	59	59	1870	126

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	998	-	-	648	1996	0	0	1296	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	0	0	*648	0	0	*737	292	-	-	540	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	-	-	*648	-	-	*737	292	-	-	540	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	13.4	10.35	4.22	0.36
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	292	-	-	648	737	540	-	-
HCM Lane V/C Ratio	0.611	-	-	0.341	0.087	0.109	-	-
HCM Control Delay (s/veh)	34.9	-	-	13.4	10.4	12.5	-	-
HCM Lane LOS	D	-	-	B	B	B	-	-
HCM 95th %tile Q(veh)	3.7	-	-	1.5	0.3	0.4	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	99	142	313	734	128	204	320	1171	603	330	1688	72
v/c Ratio	0.47	0.63	0.20	1.12	0.27	0.13	1.02	0.79	0.38	1.45	0.84	0.05
Control Delay (s/veh)	61.6	61.7	0.3	116.4	37.0	0.2	109.5	35.6	0.7	259.8	44.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.6	61.7	0.3	116.4	37.0	0.2	109.5	35.6	0.7	259.8	44.8	0.0
Queue Length 50th (ft)	38	106	0	~336	81	0	~132	406	0	~184	434	0
Queue Length 95th (ft)	68	167	0	#457	128	0	#228	536	0	m#241	#581	m0
Internal Link Dist (ft)		457			420			285			453	
Turn Bay Length (ft)	130		150	280		250	450		150	250		100
Base Capacity (vph)	228	465	1583	657	698	1583	314	1484	1583	228	2006	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.31	0.20	1.12	0.18	0.13	1.02	0.79	0.38	1.45	0.84	0.05

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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	131	288	675	118	188	294	1077	555	304	1553	66
Future Volume (veh/h)	91	131	288	675	118	188	294	1077	555	304	1553	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	142	0	734	128	0	320	1171	0	330	1688	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	180		662	457		317	1583		230	2146	
Arrive On Green	0.04	0.10	0.00	0.19	0.24	0.00	0.09	0.45	0.00	0.02	0.14	0.00
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	99	142	0	734	128	0	320	1171	0	330	1688	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	3.4	8.9	0.0	23.0	6.7	0.0	11.0	32.7	0.0	8.0	38.4	0.0
Cycle Q Clear(g_c), s	3.4	8.9	0.0	23.0	6.7	0.0	11.0	32.7	0.0	8.0	38.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	151	180		662	457		317	1583		230	2146	
V/C Ratio(X)	0.66	0.79		1.11	0.28		1.01	0.74		1.43	0.79	
Avail Cap(c_a), veh/h	230	468		662	701		317	1583		230	2146	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.5	53.0	0.0	48.5	36.8	0.0	54.5	27.5	0.0	58.7	46.5	0.0
Incr Delay (d2), s/veh	3.6	7.4	0.0	68.5	0.3	0.0	53.2	3.2	0.0	217.7	3.0	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	1.6	4.6	0.0	16.0	3.0	0.0	7.1	14.1	0.0	10.6	18.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.1	60.5	0.0	117.0	37.1	0.0	107.7	30.7	0.0	276.4	49.5	0.0
LnGrp LOS	E	E		F	D		F	C		F	D	
Approach Vol, veh/h		241			862			1491			2018	
Approach Delay, s/veh		60.3			105.1			47.2			86.6	
Approach LOS		E			F			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	59.4	29.0	17.6	17.0	56.4	11.2	35.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	8.0	35.0	23.0	30.0	11.0	32.0	8.0	45.0
Max Q Clear Time (g_c+I1), s	10.0	34.7	25.0	10.9	13.0	40.4	5.4	8.7
Green Ext Time (p_c), s	0.0	0.2	0.0	0.7	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 7th Control Delay, s/veh	75.9
HCM 7th LOS	E

Notes

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

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

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	266	9	119	140	177	2	1	108	136	0	2
Future Vol, veh/h	4	266	9	119	140	177	2	1	108	136	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	289	10	129	152	192	2	1	117	148	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	345	0	0	299	0	0	638	906	149	661	815	172
Stage 1	-	-	-	-	-	-	303	303	-	507	507	-
Stage 2	-	-	-	-	-	-	335	603	-	154	308	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1211	-	-	1259	-	-	362	275	870	348	310	841
Stage 1	-	-	-	-	-	-	682	662	-	516	537	-
Stage 2	-	-	-	-	-	-	653	486	-	833	659	-
Platoon blocked, %	0	-	-		-	-	0	0		0	0	0
Mov Cap-1 Maneuver	1211	-	-	1259	-	-	322	245	870	268	277	841
Mov Cap-2 Maneuver	-	-	-	-	-	-	322	245	-	268	277	-
Stage 1	-	-	-	-	-	-	679	660	-	463	482	-
Stage 2	-	-	-	-	-	-	584	436	-	717	657	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.14	2.23	10.1	33.68
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	826	49	-	-	1259	-	-	271
HCM Lane V/C Ratio	0.146	0.004	-	-	0.103	-	-	0.554
HCM Control Delay (s/veh)	10.1	8	0	-	8.2	-	-	33.7
HCM Lane LOS	B	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	0.5	0	-	-	0.3	-	-	3.1

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	146	0	29	80	27	1	9	45	50	7	0
Future Vol, veh/h	0	146	0	29	80	27	1	9	45	50	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	159	0	32	87	29	1	10	49	54	8	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	116	0	0	159	0	0	269	338	79	249	323	58
Stage 1	-	-	-	-	-	-	159	159	-	165	165	-
Stage 2	-	-	-	-	-	-	110	179	-	84	159	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1470	-	-	1418	-	-	662	582	965	684	593	996
Stage 1	-	-	-	-	-	-	828	765	-	821	761	-
Stage 2	-	-	-	-	-	-	883	750	-	914	765	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1470	-	-	1418	-	-	639	568	965	624	579	996
Mov Cap-2 Maneuver	-	-	-	-	-	-	639	568	-	624	579	-
Stage 1	-	-	-	-	-	-	828	765	-	802	743	-
Stage 2	-	-	-	-	-	-	854	733	-	857	765	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	1.68	9.5	11.47
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	859	1470	-	-	567	-	-	618
HCM Lane V/C Ratio	0.07	-	-	-	0.022	-	-	0.1
HCM Control Delay (s/veh)	9.5	0	-	-	7.6	0.1	-	11.5
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.3

Queues
5: McCaslin Blvd & Dillon Rd -Optimized Signal Timings

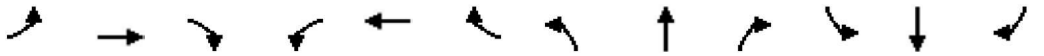
02/07/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	84	125	267	608	112	176	277	974	499	278	1403	57
v/c Ratio	0.50	0.59	0.17	0.97	0.22	0.11	0.82	0.68	0.32	0.82	0.68	0.04
Control Delay (s/veh)	66.0	61.3	0.2	77.5	36.0	0.1	73.2	33.0	0.5	76.6	37.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.0	61.3	0.2	77.5	36.0	0.1	73.2	33.0	0.5	76.6	37.7	0.0
Queue Length 50th (ft)	33	94	0	243	70	0	109	321	0	117	324	0
Queue Length 95th (ft)	60	151	0	#359	114	0	#176	427	0	#180	456	m0
Internal Link Dist (ft)		457			420			285			453	
Turn Bay Length (ft)	130		150	280		250	450		150	250		100
Base Capacity (vph)	171	465	1583	629	714	1583	343	1431	1583	343	2056	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.27	0.17	0.97	0.16	0.11	0.81	0.68	0.32	0.81	0.68	0.04

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	115	246	559	103	162	255	896	459	256	1291	52
Future Volume (veh/h)	77	115	246	559	103	162	255	896	459	256	1291	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	125	0	608	112	0	277	974	0	278	1403	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	162		634	432		331	1538		335	2216	
Arrive On Green	0.04	0.09	0.00	0.18	0.23	0.00	0.10	0.43	0.00	0.03	0.14	0.00
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	84	125	0	608	112	0	277	974	0	278	1403	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	2.9	7.8	0.0	20.9	5.9	0.0	9.5	25.7	0.0	9.6	31.1	0.0
Cycle Q Clear(g_c), s	2.9	7.8	0.0	20.9	5.9	0.0	9.5	25.7	0.0	9.6	31.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	135	162		634	432		331	1538		335	2216	
V/C Ratio(X)	0.62	0.77		0.96	0.26		0.84	0.63		0.83	0.63	
Avail Cap(c_a), veh/h	173	468		634	717		346	1538		346	2216	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	53.6	0.0	48.6	37.7	0.0	53.3	26.6	0.0	57.1	42.4	0.0
Incr Delay (d2), s/veh	3.4	7.5	0.0	25.9	0.3	0.0	15.3	2.0	0.0	14.8	1.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.0	0.0	11.1	2.7	0.0	4.8	11.0	0.0	5.1	14.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.2	61.1	0.0	74.5	38.1	0.0	68.7	28.6	0.0	71.9	43.8	0.0
LnGrp LOS	E	E		E	D		E	C		E	D	
Approach Vol, veh/h		209			720			1251			1681	
Approach Delay, s/veh		60.7			68.8			37.5			48.4	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.6	57.9	28.0	16.4	17.5	58.1	10.7	33.7
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	32.0	22.0	30.0	12.0	32.0	6.0	46.0
Max Q Clear Time (g_c+I1), s	11.6	27.7	22.9	9.8	11.5	33.1	4.9	7.9
Green Ext Time (p_c), s	0.0	3.2	0.0	0.6	0.0	0.0	0.0	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	49.3
HCM 7th LOS	D

Notes

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

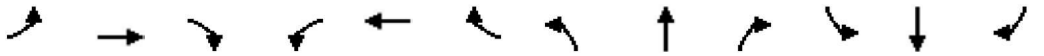
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	99	142	313	734	128	204	320	1171	603	330	1688	72
v/c Ratio	0.47	0.63	0.20	0.99	0.25	0.13	0.70	1.02	0.38	0.71	1.01	0.05
Control Delay (s/veh)	61.6	61.8	0.3	77.3	34.4	0.2	58.0	71.4	0.7	64.9	67.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.6	61.8	0.3	77.3	34.4	0.2	58.0	71.4	0.7	64.9	67.6	0.0
Queue Length 50th (ft)	38	106	0	294	78	0	123	~487	0	139	~447	0
Queue Length 95th (ft)	68	167	0	#422	123	0	165	#760	0	m157	#740	m0
Internal Link Dist (ft)		457			420			285			453	
Turn Bay Length (ft)	130		150	280		250	450		150	250		100
Base Capacity (vph)	228	419	1583	743	698	1583	686	1152	1583	629	1669	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.34	0.20	0.99	0.18	0.13	0.47	1.02	0.38	0.52	1.01	0.05

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	131	288	675	118	188	294	1077	555	304	1553	66
Future Volume (veh/h)	91	131	288	675	118	188	294	1077	555	304	1553	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	142	0	734	128	0	320	1171	0	330	1688	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	179		749	503		389	1323		398	1914	
Arrive On Green	0.04	0.10	0.00	0.22	0.27	0.00	0.11	0.37	0.00	0.12	0.37	0.00
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	99	142	0	734	128	0	320	1171	0	330	1688	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	3.4	8.9	0.0	25.4	6.4	0.0	10.9	37.0	0.0	11.2	37.0	0.0
Cycle Q Clear(g_c), s	3.4	8.9	0.0	25.4	6.4	0.0	10.9	37.0	0.0	11.2	37.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	151	179		749	503		389	1323		398	1914	
V/C Ratio(X)	0.66	0.79		0.98	0.25		0.82	0.88		0.83	0.88	
Avail Cap(c_a), veh/h	230	421		749	701		691	1323		634	1914	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.5	53.1	0.0	46.7	34.4	0.0	52.1	35.3	0.0	51.9	35.0	0.0
Incr Delay (d2), s/veh	3.6	7.6	0.0	27.9	0.3	0.0	3.3	8.9	0.0	4.1	6.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	4.6	0.0	13.5	2.9	0.0	4.8	17.2	0.0	5.0	16.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.1	60.7	0.0	74.6	34.7	0.0	55.4	44.2	0.0	56.0	41.3	0.0
LnGrp LOS	E	E		E	C		E	D		E	D	
Approach Vol, veh/h		241			862			1491			2018	
Approach Delay, s/veh		60.4			68.7			46.6			43.7	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	50.7	32.0	17.5	19.5	51.0	11.2	38.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	22.0	21.0	26.0	27.0	24.0	19.0	8.0	45.0
Max Q Clear Time (g_c+I1), s	13.2	39.0	27.4	10.9	12.9	39.0	5.4	8.4
Green Ext Time (p_c), s	0.6	0.0	0.0	0.6	0.6	0.0	0.0	0.7

Intersection Summary	
HCM 7th Control Delay, s/veh	50.2
HCM 7th LOS	D

Notes

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

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